Hommel Hercules
Werkzeughandel

www.hhw.de

- Measuring / Inspection Technology
- Abrasive Tools / Separating Tools
- Hand Tools
- Special Tools / PPE
- Workshop Supplies
- Facility Equipment
- Power Tools
- Machines

Tools ■ Machines

2020/21

Customer Service

Telephone: +49 (0) 6204 739-0

Online shop:
www.hhw.de/en/Shop

Email:
sales-international@hhw.com

Fax hotline: 0800 0 915910

Hommel Hercules
Werkzeughandel GmbH & Co. KG
Heidelberger Straße 52
68519 Viernheim, Germany

Your customer number: **449 __ __ __ __ __ __ __**

Your contact in field sales

Your contact in the office

Order faster with Quickorder in the HHW ONLINE SHOP: WWW.HHW.DE/EN/SHOP

■ DELIVERY SERVICE

- We ship ex works, express or overnight services are available upon request
- Minimum order value of 150 € applies.
- Additional charges for sea worthy packaging.

Special delivery options, such as express or overnight delivery, are available separately.

Measuring and marking tools, testers

- ***CALIBRATION SERVICE***
- *Vernier callipers*
- *Micrometers*
- *Dial gauges*
- *Measuring instruments*
- *Rulers*

Sawing, filing, grinding and brush tools

- *Saws, saw blades*
- *Files*
- *Grinding/milling bits*
- *Roughing/cutting discs*
- *Abrasives*
- *Drahtbürsten*

Hand tools

- *Wrenches, Screwdrivers*
- *Reversible ratchets, Socket wrench sets*
- *Vices*
- *Torque wrenches*
- *Pliers*
- *Tool assortments*

Special tools/personal protective equipment (PPE)

- *Pipe machining*
- *Installation tools*
- *Electricians' tools*
- *Blades*
- *PPE, skin protection*
- *Technical sprays*

Workshop equipment

- *Soldering, Welding*
- *Pressing, Bending*
- *Deburring tools*
- *Hole punchers*
- *Pullers*
- *Magnets*

Factory equipment

- *Hoists*
- *Pallet trucks, Trolleys*
- *Tool trolleys/tool bags*
- *Chairs, Tabinets*
- *Shelves, Ladders,*
- *Crash protection*

Lamps, cable drums

Electric/pneumatic tools

- *Drills*
- *Cordless tools*
- *Angle grinders*
- *Saws*
- *Compressors*
- *High-pressure cleaners*
- *Pneumatic tools*

Machines

- *Pillar drills*
- *Lathes*
- *Milling machines*
- *Bandsaws*
- *Sheet metal processing machines*

Information

- *Technical tables*
- *Pictograph overview*
- *Index A . . . Z*
- *Index 0 . . . 10*
- *Forms*

PERFORMANCE REQUIRES QUALITY.

ATORN tools.
The brand with quality, innovation and emotion.

ATORN - the Hommel Hercules tool program with more than 24.000 quality products for machining, grinding and cutting, for clamping and measuring or for setting up your workshop.

In order for an ATORN product to prove itself under the high demands of your daily work, it must undergo numerous quality tests.

And only if it really meets ALL quality requirements is it awarded the ATORN distinction.

ATORN means tested quality. We guarantee this on all our tools.
Hommel Hercules offers you with its top brand ATORN in the professional toolsector a continuously growing and high-quality tool program.

You can find further information on our homepage www.hhw.de

ATORN® Performance requires quality.

WELCOME

Dear valued customer,

of the Hommel Hercules Group,

With an updated and expanded Edition 2020/2021 Hommel Hercules continues to offer a comprehensive and carefully selected range of pre-selected quality tools such as ATORN, online shop equipment and personal protective equipment.

You will find what you are looking for in the new **Hommel Hercules catalog** and receive everything **from a single source.**

Best to browse the catalog right away…

… and get your personal access to our updated webshop if you haven't done so yet.

Please contact the Sales International Department for any further questions.

We look forward to working with you!

Kind regards,

Your Sales International Team

EVERYTHING ONLINE IN THE HHW ONLINE SHOP

Order tools 24/7 via our mobile online platform.

Straight to the point: Detailed descriptions, technological data, high-resolution images and product-specific information will tell you everything you need to know at a glance. Pictograms and additional text will give you a quick overview of the key properties of each product. Our adaptive intelligent search function takes you to the right products even faster!

Orders are easily placed via HHW.DE/EN! Your order will be taken care of immediately.

Our shop can be accessed using any mobile device. No matter which device you are using.

The HHW ONLINE SHOP also offers a variety of functional B2B applications: budgets, user administration, multi-level authorisation procedures, blacklists, individual conditions, offers, multiple shopping baskets...

We are continually improving our ONLINE SHOP to optimise our range of products and functionalities, so that we can provide you with the best possible service at all times.

- **Cost centres**
- **Authorisation systems**
- **Budget function**
- **Multiple shopping baskets**
- **Quick order**
- **Blacklists**
- **Shipment tracking**
- **Returns processing**
- **Offer creation**
- **Newsletter**

THE HOMMEL HERCULES TOOL CATALOG

Over 9.000 new products!

Everything you need for your C-Part Managment

CATALOG VOLUME [1]
Specialist catalogue for machining and clamping technology.

CATALOG VOLUME [2]
Large universal catalogue for tools and machines.

PPE BOX VOLUME [3]
Our PPE box with four topic-based occupational safety catalog and important specialist information is also available
Safety footwear, workwear, gloves, head protection

Hommel Hercules is your competent partner in any process to increase productivity and your success!

Simple ordering process

Each item in the HHW catalogues has an eight-digit article identification number. Example:

55646 = ***five-digit main number***
... 104 = ***three-digit end number***

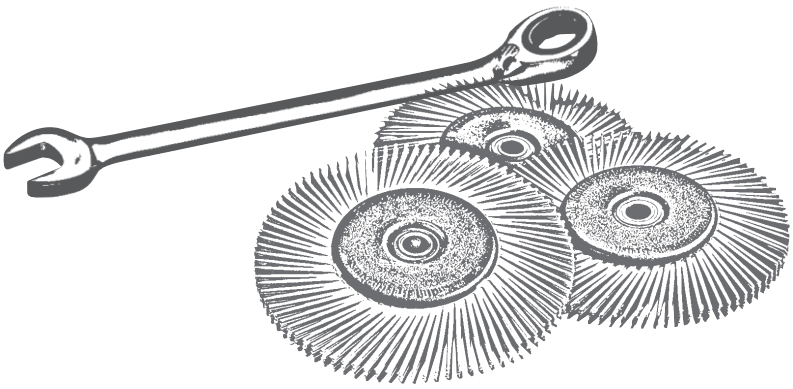
You can easily and accurately place an order with this number.

HHW C-PARTS MANAGEMENT

The requirements of a **tool supplier** today go far beyond what's been necessary in the past. Particularly in the industrial sector, our customers are increasingly looking for a partner that enables them to concentrate on the key aspects to reduce process costs and increase **productivity** in the production process.

Reliable and innovative solutions are essential to implement and achieve your business goals. These requirements, we have developed the innovative ComBee delivery concept. **Constant availability of your C-parts** and an automated ordering process guarantee a seamless and steady supply.

WE KNOW HOW TO HANDLE TOOLS



PPE – PERSONAL PROTECTIVE EQUIPMENT

HHW... the safety expert for you and your employees.

Get your PPE box now! (Volume 3)

Being a system supplier for C-Parts occupational safety and personal protective equpiment is also available.

- Extensive specialised catalogues with over 20,000 selected products
- Providing complete PPE concepts with individual occupational safety plans and/or customized catalogs
- Trained occupational safety application consultants are available for on-site support
- Project planning and revision by certified **experts from our company**
- In-house specialist department for high-quality textile finishing and patch service

PREMIUM PARTNERS AND SERVICES

In addition to the quality of the ATORN brand with around 24,000 tools for all application areas in the industrial, manufacturing and maintenance sectors, Hommel Hercules relies on close cooperation with its trusted sales partners to provide the best possible support for your company.

Benefit from our partnerships with esteemed companies such as MAHR and NACHI.

Experienced workers provide individual advice to and share their expertise with our customers daily.

We offer you a calibration service along with our independent partner. This service can be used when purchasing new measuring and test equipment and for the recalibration of all of your measuring and test equipment.

Manufacturer-independent calibration and measurement technology services are documented using a works or DAkkS calibration certificate (as specified by the customer).

We would be happy to undertake your regrinding service or repair your cutting tools. By repairing indexable insert carrier tools, you can save 60% or more in tool costs.

ATORN® NACHI NACHI Europe GmbH Mahr

MORE THAN JUST THE STANDARD QUALITY AND SAFETY

Simply being up-to-date with

the latest technology isn‘t enough for us.

We use ISO 9001 as the basis for our sustainable quality management process. We have introduced an integrated management system for all areas of the company so that we can continually optimise processes relating to quality by conducting regular analyses.
An interactive **process landscape** has been created and implemented along with a necessary adjustment to the standards (revision).

Hommel Hercules Werkzeughandel GmbH & Co. KG is certified by TUV SÜD Management Service GmbH, which ensures that the requirements of **ISO 9001:2015** are fulfilled.
Our goal is to ensure your satisfaction as our customer and to improve your company‘s productivity.
We are available to you as an **innovative and professional partner** to help firmly anchor certified safety standards within your delivery processes.

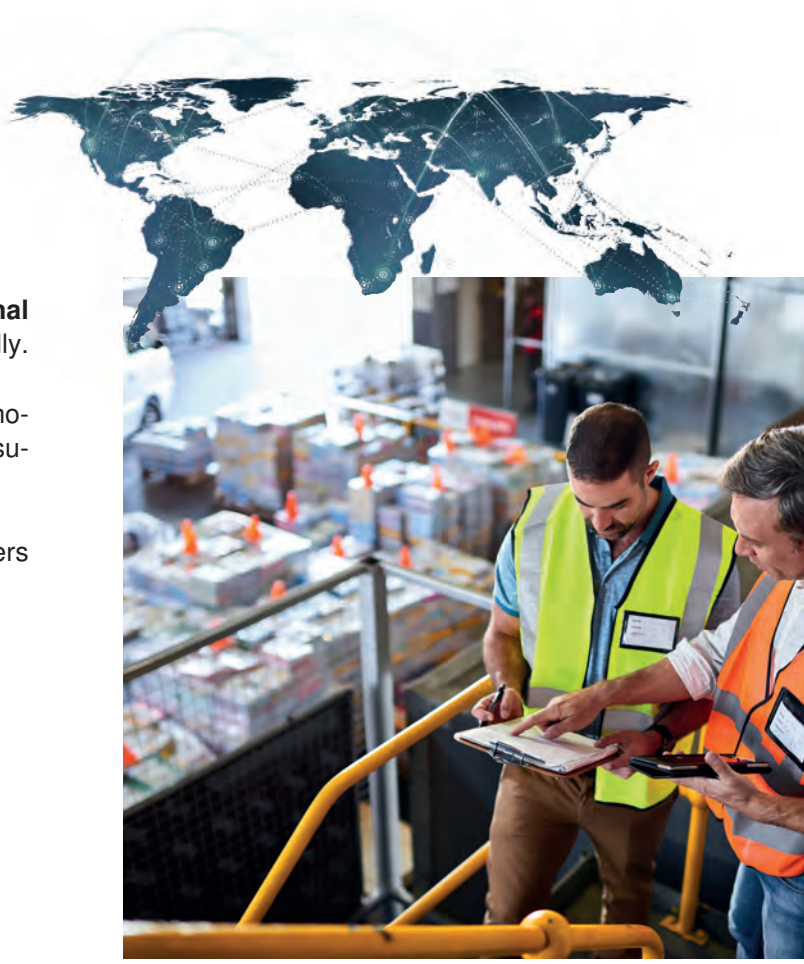
Authorised Economic Operator (AEO)
An authorised economic operator is an important role. It refers to a particularly reliable and trustworthy entity that can make use of special advantages within the framework of customs clearance.
Hommel Hercules Werkzeughandel GmbH & Co. KG meets the AEO requirements for „**customs simplification and security“.**

Known consignor
A „known consignor“ is a company with air cargo shipment procedures that comply with special **safety regulations and standards.**
The Viernheim site of Hommel Hercules Werkzeughandel GmbH & Co. KG is listed in the EC database (RAKCD) with an approval number.

ISO 9001 Certified quality management system	TÜV SÜD ISO 9001
Authorised Economic Operator (AEO)	AEO
Known consignor	LBA

GLOBAL BUSINESS
... AVAILABLE TO YOU ON SITE

We stock locally but operate globally.



With **own subsidiaries, external partners and a national branch** network Hommel Hercules operates internationally.

More than 50.000 items are stored on 7000 m² in our modern central warehouse in Viernheim/Germany. This ensures a reliable supply chain.

With **a service level of over 98%** we offer our customers the highest possible delivery capacity.

OUR LOCATIONS

■ **Viernheim (headquarters)**
Heidelberger Straße 52
68519 Viernheim, Germany
Phone: +49 (0) 6204 739-0
Email: info@hhw.de

■ **Chemnitz**
Röhrsdorfer Allee 14
09247 Chemnitz, Germany
Phone: +49 (0) 3722 5993-250
Email: hhwchemnitz@hhw.de

■ **Köln**
Mathias-Brüggen-Str. 162
50829 Köln (Ossendorf),
Germany
Phone: +49 (0) 221 59769-220
Email: hhwkoeln@hhw.de

■ **Austria**
Hommel & Seitz Ges. m.b.H.
Eduard-Kittenberger-Gasse 56
Obj. 8
AT-1230 Vienna, Austria
Phone: +43 1 86548280
Website: www.hommel-seitz.at

■ **Poland**
Hommel Hercules
PL Sp. z o.o.
ul. Działkowa 8
41-506 Chorzów, Poland
Phone: +48 32 20 54110
Website: www.hhw.pl

■ **Czech Republic / Slovakia**
HHW-Hommel Hercules
Werkzeughandel CZ/SK s.r.o.
Novodvorská 803/82
142 00 Prague 4, Czech Republic
Phone: +420 261 711 011
Website: www.hhw.cz

WE DELIVER WORLDWIDE

SUPPLIER OVERVIEW

ATORN
HHW
3M
ABUS
AEG POWERTOOLS
ALARM
ALBRECHT
ALZMETALL
AMF
ANKE
apfel
AQURADO
ASW
ata
BAHCO
BÄKA
BALLISTOL
bedrunka+hirth
BENNING
BERG & SCHMID SÄGETECHNIK
BERNSTEIN Electronic-Tools
BESSEY
BILZ
H.BILZ
bimos
Blickle
BMI
BOSCH
brennenstuhl
BROCKHAUS][HEUER
carolus
CEKABA
Centrecator
CERATIZIT
cleancraft
Möbel für Menschen
CRC
DAREX
DIACATOR
DEUMO
DIATEST
DICK
diebold
dribox
DURABLE
Dümmel
DYMO
Elma
ELTEN
EMUGE
ENERPAC
Erdi
ergo.
ewe
ESCHENBACH
FACOM
FAHRION
fein
felo
fetra
FISSO
FLEX
FLOTT
FLUKE
LUX
GEDORE
GESIPA
GKS
GREVEN
GUNZBURGER STEIGTECHNIK
HÄBERLE
HAIMER
HALDER
hanhart
HARTNER
Hartig
HASE
HAWERA
HAZET
HELICOIL plus
HELIOS·PREISSER
HellermannTyton
HOFMANN
Honeywell
HOWARD LEIGHT
IDEAL
INFIELD
JAS
JENOPTIK
JOKARI
KANDY
KAPPES
KÄRCHER
KCL
KERN
kesel
KLAEGER
KlauKe
KLINGSPOR
KNIPEX
KOMET
Kroeplin Längenmesstechnik
KUKKO
kurtz ersa
LENOX
LEATHERMAN
LED LENSER
Leica DISTO™
LINDESA
LINDSTROM
LOC-LINE FLEXI
LÖWE
LUKAS
MAGLITE
Magnescale
Mahr
makita
martor
MELLERT
META
metallkraft
METRINCH
microjet
MICROTEST
Milwaukee
mimatic
MOLDEX
NACHI
Nilfisk ALTO
NOGA
NTRAX
OERLIKON
OLFA
orbitalum
osborn
OTEC
PANDUIT
PARAT
mob
PELTOR
PFERD
Pica
PLANOLITH
plum
qnix
raaco
URSULA RATH
reilang
REINOL
RENISHAW
RENNSTEIG
RHODIUS
RIDGID
RIDGID Peddinghaus
RÖCKLE
ROEMHELD
RÖHM
Rugotest
SAUTER
schneider airsystems
schröder
SCHUNK
Schwenk
schweißkraft
SKYLOTEC
SOHNGEN
Speedglas
Sortimo
SPREITZER
STABILA
STAHLWILLE
STANLEY
STEINEL
STEINWALD
STOKO
sylvac
TAPMATIC
TESA
testo
TICOM
TORK
TOWA
TRESTON
uvex
VBW
VICTORINOX
AVSM
Waldmann
walter
WALTHER PILOT
WD-40
WEBER-HYDRAULIK
Weidmüller
Weller
Wera
wiha
wikus
Yale
ZARGES
zeus
zeus eco
OZMG

Measuring/testing technology

- Vernier calipers
- Micrometers
- Thread measuring wires
- Setting gauges
- Universal measuring instruments

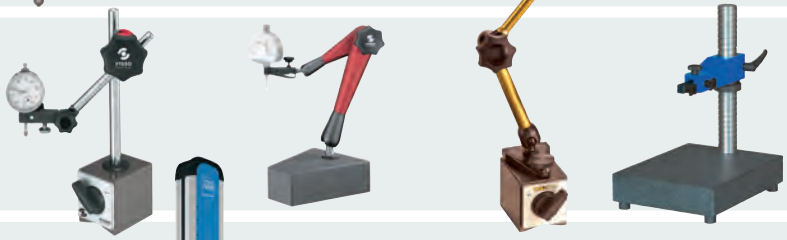
31
31.3 – 31.40

- Gauge blocks
- Gauges
- Measuring ball sets
- Optical flats
- Measuring and test pins
- Keyway gauge bodies

32
32.1 – 32.14

- Dial gauges and measuring probes • Sensors and display units • Depth measuring instruments • External and internal measuring instruments
- Roughness measuring devices
- Physical measuring instruments

33
33.1 – 33.48

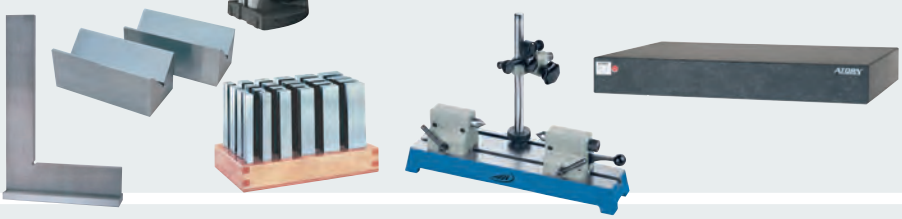


- Gauge stands
- Magnetic holders
- Measuring stands
- Feet for measuring stands
- Measuring tables
- Measuring and control plates

34
34.1 – 34.12

- Height measuring and marking devices
- Multi-coordinate measuring instruments
- Measurement data recording systems • Connection cables
- Marking tools

35
35.1 – 35.18



- Rulers and squares • Clamping elements • V-block pairs and clamping V-blocks • Parallel rests
- Measuring, control, marking-off and surface plates • Marking paint and surface contact paste
- Concentricity test devices

36
36.1 – 36.14

- Goniometers
- Film strips
- Feeler gauge strips
- Gauges and templates
- Thread indicators
- ISO tolerance keys

37
37.1 – 37.8

- Inclinometers
- Levels and spirit levels
- Laser systems
- Rangefinders • Scales
- Tensile and compressive force measuring units
- Pressure load cells

38
38.1 – 38.18

- Stopwatches
- Tachometers/stroboscopes
- Thickness measuring devices
- Hardness testers
- Magnification and viewing devices
- Scales/tape measures • Batteries

39
39.1 – 39.40

Test equipment monitoring service

- Test equipment monitoring service and calibration service

30
30.1 – 30.16

Our suppliers
for MEASURING/TESTING TECHNOLOGY:

ATORN®

HHW

amf

BAHCO

BMI®

BOSCH

Deumo

DIATEST

ESCHENBACH

FISSO
Swiss Made

GEDORE
WERKZEUGE FÜRS LEBEN

hanhart
CHRONOGRAPHEN 1882

Hartig

HAZET®

HELIOS · PREISSER

JENOPTIK

KERN®

Kroeplin
Längenmesstechnik

Leica DISTO™
The original laser distance meter

Magnescale
SPEED X PRECISION

Mahr

MICROTEST
Swiss Made

NOGA
SIMPLY SOPHISTICATED

Pica
Tools for Professionals

PLANOLITH®

QNIX®
QUALITY BY EXCELLENCE

RIDGID

ROECKLE®
Neigungsmesstechnik e.K.

RUGOTEST

SAUTER

Schwenk

STABILA®

STANLEY®

STEINWALD
datentechnik

sylvac

TESA

testo

TICOM

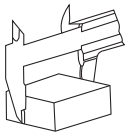
Waldmann
ENGINEER OF LIGHT.

wiha
Tools that work for you

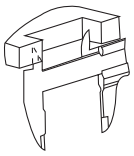
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Uses for pocket vernier calipers

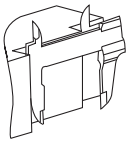
External measurement



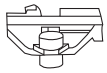
Internal measurement



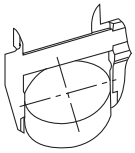
Contact or collar measurement



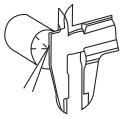
Recess measurement



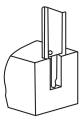
Diameter measurement



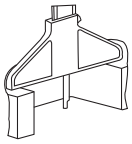
Centre marking



Depth measurement



Depth measurement with depth measuring bridge



31007 - 31009 Precision pocket vernier calipers

HHW

Design
- Measuring surfaces ground and finely lapped
- With depth measuring rod
- **Brushed chromium-plated scale**
- **Accuracy in accordance with DIN 862**
- **Lowered mm and inch graduations**
- **Reading 0.05 mm and 1/128 inch**
- Thread table on the reverse
- Supplied in a case

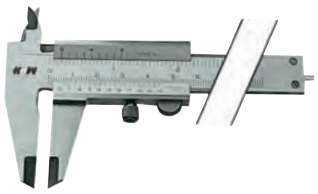
Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, rail and slide hardened.

31007

31008

31009



Measuring range mm	Jaw length mm	Reading mm	Locking screw, top 31007 ...	Torque clamp 31008 ...	Locking screw, bottom 31009 ...
100	27	0.05	101		
150	40	0.05	102	101	101
200	50	0.05	104	102	
300	60	0.05	103		

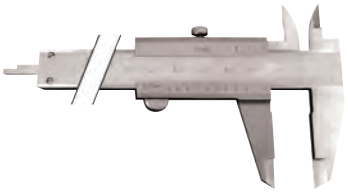
31010 Precision pocket vernier calipers for left-handed users

HHW

Design
- Pocket vernier calipers for left-handed users
- With locking screw
- 4 measurements
- **Reading 0.05 mm and 1/128 inch**

Quality
Stainless steel, hardened.

31010



Measuring range mm	Jaw length mm	Reading mm	Locking screw 31010 ...
150	40	0.05	101

31011 - 31012 Precision pocket vernier calipers

ATORN®

Design
- Measuring surfaces ground and finely lapped
- **Brushed chromium-plated scale**
- **Accuracy in accordance with DIN 862**
- **Reading 0.05 mm and 1/128 inch**
- Supplied in a case

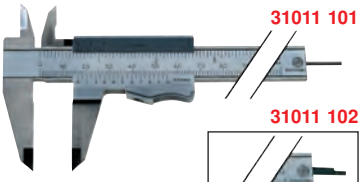
Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, rail and slide hardened.

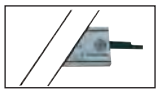
31011 101 + 31012 101
Design
- Depth measuring rod round

31011 102 + 31012 102
Design
- Depth measuring rod flat

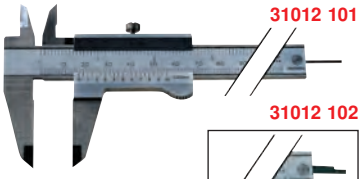
31011 101



31011 102



31012 101



31012 102

Measuring range mm	Jaw length mm	Reading mm	Depth measuring rod	Torque clamp 31011 ...	Locking screw 31012 ...
150	40	0.05	Round Ø 1.8	101	101
150	40	0.05	Flat	102	102

Pocket vernier calipers | Depth gauge stops | Vernier caliper case

31013 Precision pocket vernier calipers, MarCal 16 FN

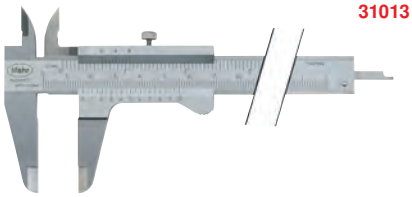
Mahr

Design
- Vernier scale and rail graduations brushed chromium-plated for glare-free reading
- Measuring surface hardened
- Stepped measuring device
- Raised guideways to protect the scale
- **Accuracy in accordance with DIN 862**
- Thread table
- In case

Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, rail and slide hardened.

31013



Measuring range mm	Jaw length mm	Reading mm	Reading inch	Depth gauge	Locking screw, top 31013	...
150	40	0.05	1/128	Angular		**101**
200	50	0.05	1/128	Angular		**102**
300	64	0.05	1/128	Angular		**103**

31017 Depth gauge stops

Quality
Stainless steel, hardened and ground.

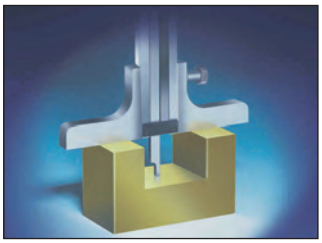
31017 201
TESA

Applications
For TESA **digital pocket vernier calipers** (measuring range 150 mm) and **dial vernier calipers** (measuring range 150 mm)**.**

31017 102
HHW

Applications
For ATORN, HHW and TESA **vernier scale pocket vernier calipers** (measuring range 150 mm)**, digital pocket vernier calipers** (measuring range 150, 200 and 300 mm) and **dial vernier calipers** (measuring range 150 mm).

31017 102



Contact surface mm	31017 ...
75 x 6	**201**
75 x 6	**102**

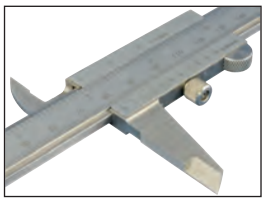
31026 - 31027 Precision pocket vernier calipers

HHW

Design
-**With parallax-free reading**
- Ground measuring surfaces
- With depth measuring rod
- **Brushed chromium-plated scale**
- **Accuracy in accordance with DIN 862**
- **Reading 0.05 mm and 1/128 inch**
- Thread table on the reverse
- Supplied in a case

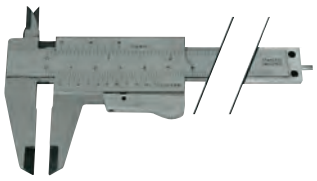
Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, hardened.

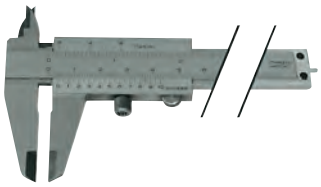


Flat vernier scale enables **parallax-free reading**

31026



31027



Measuring range mm	Jaw length mm	Reading mm	Torque clamp 31026	...	Locking screw 31027	...
150	40	0.05		**101**		**101**

31030 Precision pocket vernier calipers

HHW

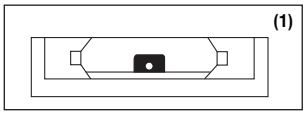
Design
- **With parallax-free reading and double V-guide (1)**
- Measuring surfaces ground and lapped
- With depth measuring rod
- **Brushed chromium-plated scale**
- **Accuracy in accordance with DIN 862**
- **Reading 0.05 mm and 1/128 inch**
- Thread table on the reverse
- Supplied in a case

Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, hardened.

Flat vernier scale enables **parallax-free reading**

31030



Measuring range mm	Jaw length mm	Reading mm	Locking screw 31030	...
150	40	0.05		**101**

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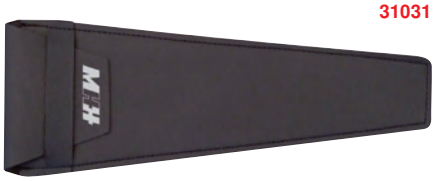
31031 Vernier caliper case

Design
- Vernier caliper case made of synthetic leather
- Black



For vernier caliper measuring range mm	31031 ...
150	102

31033 Digital pocket vernier calipers

IP 67 · Typ J · Typ K · Typ L · swiss made

Design
- **With data output via proximity RS-232/USB**
- Measuring system insensitive to dirt, water and coolant
- **Degree of protection IP 67**
- Additional mm graduation on the rail
- LC display (digit height 6 mm)
- **Accuracy in accordance with DIN 862**
- **One-time adjustment of the zero position and the unit of measurement until the next battery change**
- **Includes battery,** 3 V (type CR 2032), designed for long-term operation

Functions:
- Transmission of measured values
- mm/inch switching
- HOLD function (measured value storage)
- Automatic/manual switch-off

Applications
For external, internal, depth **and contact or collar measurements.**
Also suitable for use in workshops (IP 67).

Quality
Stainless steel, hardened and ground.

Note:
For test gauge, see art. no. 32060 201.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

Measuring range mm	Jaw length mm	Reading mm	Repeat accuracy mm	Rail cross section mm	Depth measuring rod mm	Data output proximity/USB	31033 ...
150	40/20	0.01	0.01	16 x 3	4 x 1.4	x	201
200	40/20	0.01	0.01	16 x 3	4 x 1.4	x	202
300	65/24	0.01	0.01	16 x 3	-	x	203

31034 Digital pocket vernier calipers

IP 67

Design
- **Accuracy in accordance with DIN 862**
- **Degree of protection IP 67**
- **With locking screw**
- With KEEPTRONIC (blocking of the set reference value)
- Supplied in a case **including battery**, 3 V (type CR 2032)

Functions:
- Zero setting at any position
- mm/inch switching
- Switch-on/switch-off
- Energy-saving function (auto-OFF after approx. 10 minutes)

Applications
For external, internal, depth **and contact or collar measurements.**

Note:
For test gauge, see art. no. 32060 201.
Replacement batteries, see art. no. 39900 102.

Measuring range mm	Jaw length mm	Length of cross jaws mm	Reading mm	Depth measuring rod mm	31034 ...
150	40	16	0.01	Ø 1.5	301
150	40	16	0.01	Flat	302

31035 Digital pocket vernier calipers

IP 40 · Typ M · Typ N · Typ O

Design
- **Accuracy in accordance with DIN 862**
- Protection class IP 40
- With locking screw
- **With KEEPTRONIC** (blocking of the set reference value)
- Supplied in a case **including battery,** 3 V (type CR 2032)

Functions:
- Zero setting at any position
- Switching between mm/inch
- Switch-on/switch-off
- Energy-saving function (auto-OFF after approx. 10 minutes)

Applications
For external, internal, depth **and contact or collar measurements.**

Note:
For test gauge, see art. no. 32060 201.
For connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31035 301-302
- **Without data output**

31035 303-305
- **With data output via multiCOM (either RS-232, USB or Digimatic)**

31035 303+305
- **Also with PRESET function (measurement pre-setting)**

Measuring range mm	Jaw length mm	Length of cross jaws mm	Reading mm	Depth measuring rod mm	Data output multiCOM	31035 ...
150	40	16	0.01	Ø 1.5	-	301
150	40	16	0.01	Flat	-	302
150	40	16	0.01	Ø 1.5	x	303
150	40	16	0.01	Flat	x	304
300	64	18	0.01	-	x	305

Pocket vernier callipers

31036 Digital pocket vernier calipers

wiha Tools that work for you

digiMax®

Design
- **Made of non-metallic high-tech material with 50% fibre-glass content,** therefore non-corrosive, non-magnetic, electrically insulating and with minimal thermal conductivity
- Chemical-resistant
- With depth measuring rod
- Measuring faces protect sensitive surfaces against damage
- 5-digit LC display (digit height 7.5 mm)
- CE-compliant
- Supplied in a case

Functions:
- mm/inch switching
- Automatic switch-on/switch-off

Applications
For external, internal, depth **and contact or collar measurements.**

Note:
For test gauge, see art. no. 32060 201.
Replacement batteries, see art. no. 39900 101.
Cannot be calibrated!

31036

Measuring range mm	Jaw length mm	Reading mm	31036	...
150	40	0.01		101

31038 Digital pocket vernier calipers, MarCal 16 ER/EWRi

Mahr

Design
- ON/OFF function
- Auto ON/OFF function
- mm/inch switching
- Reference lock/unlock function (keyboard lock)
- High-contrast LCD display (digit height 11 mm)
- Locking screw on top
- Lapped guideways
- Stepped measuring device
- Ready for immediate measurements with **reference system**
- Raised guideways to protect the scale
- Dirt scraper in the slide

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case

Applications
For external, internal, depth and contact or collar measurements.

Quality
Stainless steel, rail and slide hardened.

Note:
Replacement batteries, see art. no. 39900 102.

31038 105-106
Type ER
Design
- RESET function (resetting the display)
- Power supply: Battery, service life approx. 3 years

31038 101-104
Type EWRi
Design
- Counting direction reversal
- HOLD function (measured value storage)
- PRESET function (measurement presetting)
- DATA function (data transfer)
- Excellent resistance against dust, coolants and lubricants
- **Data interface: Integrated wireless**
- Power supply: Battery, service life approx. 3 years (approx. 0.5 years with wireless enabled)

Note:
- Wireless receiver, see art. no. 35200 410.

31038

Lapped guide surfaces

31038 101-104

IP 67

Wireless connection, integrated wireless + IP67

Measuring range mm	Type	Jaw length mm	Length of cross jaws mm	Reading mm	Depth gauge	Degree of protection	Standard	31038	...
150	ER	40	16	0.01	Round	-	DIN 862		105
150	ER	40	16	0.01	Angular	-	DIN 862		106
150	EWRi	40	16	0.01	Round	IP 67	DIN 862		101
150	EWRi	40	16	0.01	Angular	IP 67	DIN 862		102
200	EWRi	50	19	0.01	Angular	IP 67	DIN 862		103
300	EWRi	64	19	0.01	-	IP 67	Factory standard		104

Info MarCal - the innovative Reference system

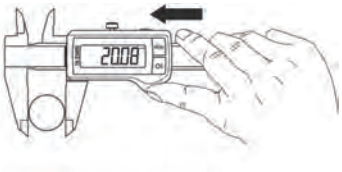
Mahr

All Mahr vernier calipers with the Reference logo are equipped with the innovative **Reference system**. Once the zero position has been set, it remains stored for all further measurements. This means that the instrument is ready to measure immediately after pressing the ON button or simply moving the slide. There is now no need to reset the device to zero after switching on, as with conventional vernier calipers.

1. Switch on

Press ON button **or** **Move slide**

2. Measurement result



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31039 Digital pocket vernier calipers, MarCal 16 ER/EWR

Typ V | Typ W | Typ X

Mahr

Design
- ON/OFF function
- Auto ON/OFF function
- RESET function (resetting the display)
- mm/inch switching
- Reference lock/unlock function (keypad lock)
- DATA function (in conjunction with data connection cable)
- High-contrast LCD display (digit height 8.5 mm)
- Locking screw on top
- Lapped guideways
- Stepped measuring device
- Ready for immediate measurements with **reference system**
- Raised guideways to protect the scale
- Dirt scraper in the slide
- **Data interface: USB, Opto RS-232C, Digimatic**
- Power supply: Battery, service life approx. 3 years

Scope of delivery:
- Operating instructions
- 3 V battery (type CR 2032)
- In case

Applications
For external, internal, depth **and contact or collar measurements.**
Quality
Stainless steel, slide and rail hardened.

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

31039 105–106+201–204
Design
- Excellent resistance against dust, coolants and lubricants

31039 105
Applications
Outer measuring surfaces made of ceramic, for measuring hard materials.

31039 106
Applications
Outer measuring surfaces made of cemented carbide, for measuring hard materials.

31039

Measuring range mm	Type	Jaw length mm	Length of cross jaws mm	Reading mm	Depth gauge	Degree of protection	Standard	31039	...
150	ER	40	16	0.01	Round	-	DIN 862		**101**
150	ER	40	16	0.01	Angular	-	DIN 862		**102**
200	ER	50	19	0.01	Angular	-	DIN 862		**103**
300	ER	64	19	0.01	-	-	Factory standard		**104**
150	EWR	40	16	0.01	Round	IP 67	DIN 862		**201**
150	EWR	40	16	0.01	Angular	IP 67	DIN 862		**202**
200	EWR	50	19	0.01	Angular	IP 67	DIN 862		**203**
300	EWR	64	19	0.01	-	IP 67	Factory standard		**204**
150	EWR-C	40	16	0.01	Round	IP 67	DIN 862		**105**
150	EWR-H	40	16	0.01	Round	IP 67	DIN 862		**106**

31050 - 31051 Digital pocket vernier calipers, TWIN-CAL

Typ T | Typ U

TESA

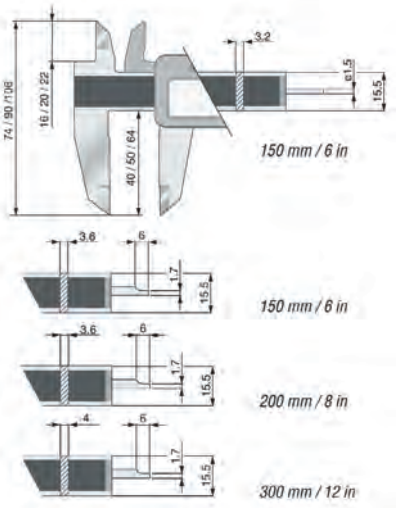
Design
- Inductive measuring system
- LCD display (digit height 11 mm)
- **With integrated output channel**
- Service life of more than 12,000 hours
- Cover with PVD coating for best possible protection
- 3 V battery (type CR 2032)
- Supplied in a case

Functions:
- DIFF/ABS measuring mode
- Zero setting at any position
- mm/inch switching
- Device switch-off after 2 hours and standby after 10 minutes

Note:
For test gauge, see art. no. 32060 201.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31051
- **Degree of protection IP 40**

31050
- **Degree of protection IP 67**
- **Soft-touch equipment** for comfortable handling



IP 40

31051

IP 67

31050

Soft-touch equipment (art. no. 31050)

Measuring range mm	Jaw length mm	Length of cross jaws mm	Reading mm	Drive	Depth measuring rod mm	Data output TLC	IP 40 31051	...	IP 67 31050	...
150	40	16	0.01	-	6 x 1.7	x				**101**
150	40	16	0.01	-	Ø 1.5	x				**102**
150	40	16	0.01	-	6 x 1.7	x		**101**		
150	40	16	0.01	x	Ø 1.5	x		**102**		**103**
200	50	20	0.01	x	6 x 1.7	x		**103**		**104**
300	64	22	0.01	x	6 x 1.7	x		**104**		**105**

31053 Digital pocket vernier calipers

IP 54 | Typ B | Typ C | Typ D | swiss made

sylvac

Design
- **With data output via Opto RS-232/USB**
- Repeat accuracy 0.01 mm
- **Accuracy in accordance with DIN 862**
- LC display (digit height 6 mm)
- **Degree of protection IP 54**
- Includes battery, 3 V (type CR 2032), designed for long-term operation
- Supplied in a case

Functions:
- Switch-on/switch-off
- Zero setting at any position
- Transmission of measured values
- HOLD function (measured value storage)
- Single-handed switching between mm/inch

Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, hardened and ground.

Note:
For test gauge, see art. no. 32060 201.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31053

Measuring range mm	Jaw length mm	Reading mm	Depth measuring rod mm	Data output Opto RS-232/USB	31053	...
150	40	0.01	4 x 1.4	x		**201**
150	40	0.01	Ø 1.5	x		**204**
200	40	0.01	4 x 1.4	x		**202**
300	65	0.01	-	x		**203**

31229 Accessory set for digital vernier calipers

HHW

Design
- Accessory set suitable for all digital vernier calipers with a jaw thickness of up to 3.5 mm
- Two pairs of probe holders are available in different lengths for mounting different probes (thread M 2.5)
- Six different pairs of probes are available for a wide range of applications for which standard vernier calipers are unsuitable
- The accessory set includes a spring system for constant measuring force
- This simplifies the inspection of serial parts; the parts are always measured with the same contact force
- The distance between the vertical bores on the underside of the probe holder is 10 mm

31229

	Set contents
1	pair of probe holders, short
1	pair of probe holders, long
1	pair of disc probes, Ø 6 mm
1	pair of disc probes, Ø 10 mm
1	pair of disc probes, Ø 12.5 mm
1	pair of taper probes, 9 mm, 60°
1	pair of taper probes, 12 mm, 60°
1	pair of cylinder probes, Ø 1.5 x 9 mm
1	spring system for constant measuring force
1	hexagon key
1	robust plastic box

Content	31229	...
19 pieces		**101**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31075 - 31078 Precision workshop vernier calipers

HELIOS·PREISSER

Design
- **Measuring surfaces and guideways finely ground**
- **Vernier scale brushed chromium-plated and with high-precision laser-engraved graduations**
- Offset jaw ends for measuring internal dimensions
- Bevelled blade tips for measuring narrow points
- With secure locking screw at the top and an adjustable bronze sliding spring
- **Accuracy in accordance with DIN 862**
- Main graduation lowered slightly to prevent damage and wear
- **Reading 0.05 mm at bottom, 1/128 inch at top (measuring range 500 mm without inch indication)**

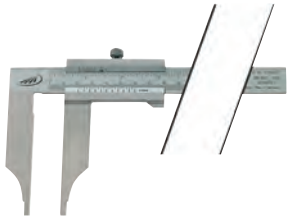
Quality
Stainless steel.

31075
Design
- Without blade tips
- Without fine adjustment

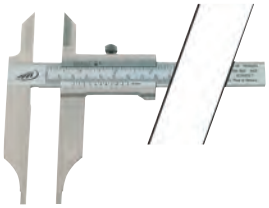
31076
Design
- With blade tips
- Without fine adjustment

31078
Design
- With blade tips
- With fine adjustment

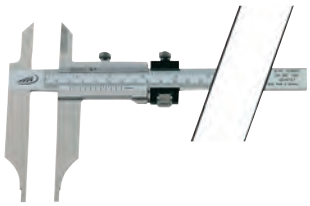
31075



31076



31078



Measuring range mm	Jaw length mm	Reading mm	31075	...	31076	...	31078	...
250	80	0.05		202		202		202
300	90	0.05		203		203		203
500	150	0.05		204		204		204

31080 - 31081 Precision workshop vernier calipers

HHW

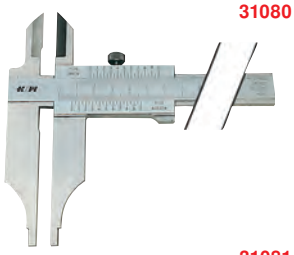
Design
-**With parallax-free reading**
- Measuring surfaces finely ground
- Offset jaw ends for internal measurements
- **With locking screw** and adjustable sliding spring
- **Accuracy in accordance with DIN 862**
- Graduations: mm at top and bottom, for direct reading of the external and internal measured values
- **Reading: 0.05 mm at top and bottom (vernier scale extended to 39 mm)**
- **High-precision laser-engraved vernier scale and graduations, brushed chromium-plated**

Quality
Stainless steel, hardened and ground.

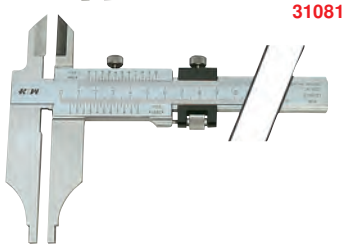
31080
Design
- With blade tips
- Without fine adjustment

31081
Design
- With blade tips
- With fine adjustment

31080



31081



Measuring range mm	Jaw length mm	Reading mm	31080	...	31081	...
300	90	0.05		103		103

Workshop vernier callipers

31115 - 31118 Precision digital workshop vernier calipers

IP 40 | Typ M | Typ N | Typ O

ATORN®

Design
- Wear-resistant, inductive measuring system, without mechanical transmission elements
- **Data output via multiCOM (either RS-232, USB or Digimatic)**
- 6-digit LCD display (digit height 10 mm for 300 mm and 12.5 mm for 500 mm and above)
- **With KEEPTRONIC (blocking of the set reference value)**
- Repeat accuracy 0.01 mm
- **Accuracy in accordance with DIN 862**
- Battery, 3 V (type CR 2032), designed for long-term operation, can be switched off
- Supplied in a wooden case

Functions:
- mm/inch switching
- Zero setting at any position
- Switch-on/switch-off
- PRESET function (measurement pre-setting)

Applications
For differential, comparison and tolerance measurements, with no additional complex arithmetic operations.

Quality
Stainless steel, guide surfaces hardened and ground, measuring surfaces inductively hardened and ground.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31115
Design
- Without blade tips
- With fine adjustment

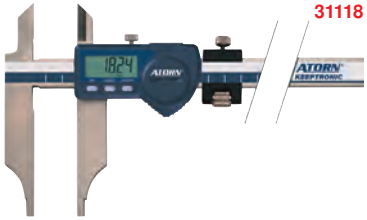
31115

31116
Design
- With blade tips
- Without fine adjustment

31116

31118
Design
- With blade tips
- With fine adjustment

31118



Measuring range mm	Jaw length mm	Hole measuring attachment mm	Reading mm	Data output multiCOM	31115	...	31116	...	31118	...
300	90	10	0.01	x		301		301		301
500	125	20	0.01	x		302		302		302
800	150	20	0.01	x		303		303		303
1000	150	20	0.01	x		304		304		304

31120 Precision digital workshop vernier calipers, TWIN-CAL

IP 67 | Typ T | Typ U

TESA

Design
- With rounded measuring surfaces for internal dimensions and blade tips
- **Degree of protection IP 67**
- **Integrated output channel**
- 6-digit LC display (digit height 11 mm)
- **Accuracy in accordance with DIN 862**
- Operating temperature 10°C…40°C
- Battery, 3 V (type CR 2032), designed for long-term operation
- Supplied in a case with test report and declaration of conformity

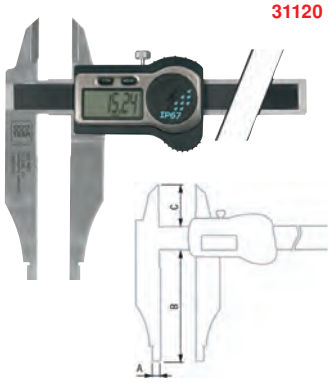
Functions:
- mm/inch switching
- Zero setting at any position
- Switch-on/switch-off
- HOLD function (measured value storage)
- Automatic energy-saving mode after 10 minutes, switch-off after 2 hours

Applications
For absolute, differential, comparison and tolerance measurements, with no additional complex arithmetic operations.

Quality
Stainless steel, hardened.

Note:
Other designs available on request.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31120

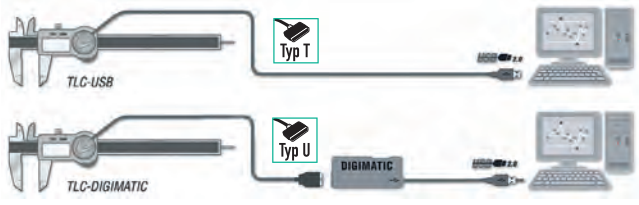


Measuring range mm	Dimensions A x B x C mm	Data output TLC	31120	...
300	5 x 90 x 37	x		201
500	10 x 150 x 60	x		202
800	10 x 150 x 56	x		203

Info Twin & Link connectivity solution

TESA

All TWIN-CAL vernier calipers are equipped with an integrated output channel. Simply connect the plug-and-play TESA link connection (TLC) to the TWIN-CAL and the other end to a computer to retrieve all your data for optimum SPC monitoring. If SPC is not yet required, the upgradeable TWIN-CAL allows you to set up the option later. The unique TLC connector also guarantees the IP 67 degree of protection of the TWIN-CAL IP 67 vernier calipers.



= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31121 Digital workshop vernier calipers, MarCal 18 EWR

IP 65 | Typ V | Typ W | Typ X

Mahr

Design
- ON/OFF function
- Auto ON/OFF function
- PRESET function (measurement presetting)
- RESET function (resetting the display)
- mm/inch switching
- Reference lock/unlock function (keypad lock)
- DATA function (in conjunction with data connection cable)
- High-contrast LCD display
- Locking screw on top
- Ready for immediate measurements with **reference system**
- Raised guideways to protect the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt scraper in the slide
- Company standard
- **Data interface: USB, Opto RS-232C, Digimatic**
- Power supply: Battery, service life approx. 3 years

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case

Applications
For differential, comparison and tolerance measurements, with no additional complex arithmetic operations.

Quality
Stainless steel, slide and rail hardened.

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

31121

Measuring range mm	Jaw length mm	Hole measuring attachment mm	Length of cross jaws mm	Reading mm	LCD display mm	31121	...
300	90	10	40	0.01	10.0		101
500	150	20	55	0.01	12.5		102
750	150	20	55	0.01	12.5		103
1000	150	20	60	0.01	12.5		104

31122 Digital workshop vernier calipers, MarCal 18 ESA

Typ B | Typ C | Typ D

Mahr

Design
- ON/OFF function
- HOLD function (measured value storage)
- PRESET (measurement pre-setting) for measuring range of 500 mm and above
- RESET function (resetting the display)
- mm/inch switching
- **Weight-saving slide and rail made of aluminium, hard anodised (1100 HV)**
- **Measuring surfaces made of stainless steel, hardened**
- High-contrast LCD display
- Locking screw on top
- V-guide for light, smooth running
- Dirt scraper in the slide
- Company standard
- **Data interface: Opto RS-232C (300 mm version only)**
- Power supply: Battery, service life approx. 2 years

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case

Applications
For differential, comparison and tolerance measurements, with no additional complex arithmetic operations.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31122

Measuring range mm	Jaw length mm	Hole measuring attachment mm	Length of cross jaws mm	Reading mm	LCD display mm	31122	...
300	90	10	33	0.01	6.0		101
500	150	15	42	0.01	10.5		102
800	150	15	42	0.01	10.5		103
1000	150	15	42	0.01	10.5		104

Workshop vernier calipers | Vernier calipers with round scale

Info — IP ratings

In accordance with EN 60529, protection against the ingress of foreign bodies and moisture is indicated according to a defined key. This key consists of the letters IP followed by two digits. The **first digit** indicates the protection against dust and the **second digit** indicates the protection against water. The degree of protection can be read using these digits and the table below.

Example: A device with a rating of **IP54** is protected against dust to level **(5)** and against splashing water to level **(4)**.
The higher the number, the better the protection.

In the catalogue, the protection classes are identified by pictograms.

First digit

Protection against Foreign bodies and dust	Foreign bodies > 50.0 mm	**IP 1.**
	Foreign bodies > 12.0 mm	**IP 2.**
	Foreign bodies > 2.5 mm	**IP 3.**
	Foreign bodies > 1.0 mm	**IP 4.**
	Dust protected	**IP 5.**
	Dustproof	**IP 6.**

Second digit

Protection against Wet conditions	No protection	**IP .0**
	Dripping water, vertical	**IP .1**
	Dripping water, slanted	**IP .2**
	Water spray	**IP .3**
	Splashing water	**IP .4**
	Water jets	**IP .5**
	Strong water jets	**IP .6**
	Temporary immersion	**IP .7**

31127 Digital workshop vernier calipers (ultra-light)

sylvac

Design
- **With data output via PROXIMITY**
- Repeat accuracy 0.02 mm
- External measuring jaws 175 mm long, 8 mm thick, made of hardened steel, titanium-coated
- Cylindrical probe tips for internal measurement made of cemented carbide, Ø 8 mm, 30 mm long
- With sliding and lockable left-hand measuring jaw
- Constant measuring force for external and internal measurement (5–10 N)
- The measuring rail is a hollow aluminium profile reinforced by four steel rods, hardened and ground. This ensures perfect guidance of the slide and protection of the rail against impacts
- Scale made of steel, coolant-resistant
- LCD display (digit height 20 mm)
- Low weight for easier handling and increased measurement reliability
- Battery, 3 V (type CR 2032), **with adapter,** designed for long-term operation

Functions:
- Internal and external measurement with PRESET function for both types of measurement
- Min./max. function
- Tolerance limit display

Note:
For test gauge, see art. no. 32060 201.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.
Accessories deliverable on request.

31127

Measuring range external mm	Measuring range internal mm	Total length mm	Error limit mm	Data output PROXIMITY	Weight kg	31127	...
0–620	26–646	1001	0.04	x	1.6		**301**
0–1030	26–1056	1411	0.05	x	1.9		**302**
0–1545	26–1571	1926	0.09	x	2.3		**303**

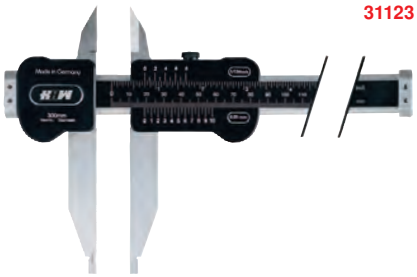
31123 Workshop vernier calipers (lightweight)

HHW

Design
- With parallax-free reading and interchangeable measuring jaws
- Internal dual V-guide for optimum sliding properties
- High contrast due to white graduations on black surface
- Flat vernier scale
- **Accuracy in accordance with DIN 862**
- Reading 0.05 mm and 1/128 inch
- Supplied in plastic box

Quality
Measuring jaws made of hardened stainless steel, precision ground.

31123



Measuring range mm	Jaw length mm	Reading mm	Total length mm	Weight approx. g	31123	...
200	90	0.05	350	1000		**101**
300	90	0.05	450	1500		**102**
500	90	0.05	650	2000		**103**
700	90	0.05	850	2200		**104**
900	90	0.05	1050	2500		**105**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31191 - 31194 Workshop vernier callipers

ATORN®

Design
- Vernier scale and scale, brushed chromium-plated
- With locking screw
- **Accuracy in accordance with DIN 862**
- Main graduation lowered
- High-precision laser-engraved graduations for external and internal measurements

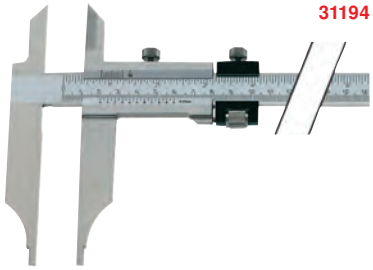
Quality
Stainless steel.

31191
- Without blade tips, without fine adjustment

31192
- Without blade tips, with fine adjustment

31193
- With blade tips, without fine adjustment

31194
- With blade tips, with fine adjustment


31194

Measuring range mm	Jaw length mm	Internal measurement attachments mm	Reading mm	Reading inch	31191	...	31192	...	31193	...	31194	...
300	90	10	0.05	1/128		**101**				**101**		**101**
500	150	20	0.05	-		**102**				**102**		**102**
800	150	20	0.05	-		**103**				**103**		**103**
1000	150	20	0.05	-						**104**		**104**
1500	200	30	0.05	-				**105**				**105**
2000	200	30	0.05	-				**106**				**106**

31200 Vernier calipers with round scale (dial vernier calipers)

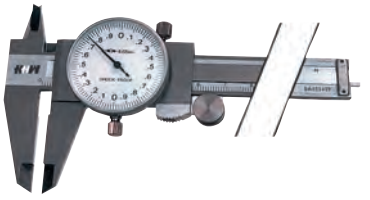
H&W

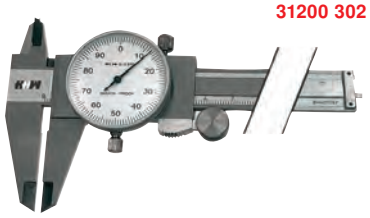
Design
- With cross jaws
- Bevelled jaw ends for thread core measurements
- Depth measuring rod, fine adjustment roller and **locking screw**
- Dial with clear graduations and scaling
- Brushed chromium-plated adjusting ring
- Zero point adjustable and lockable
- **Graduations laser engraved and brushed chromium-plated**
- Impact-resistant
- **Accuracy in accordance with DIN 862**
- Supplied in a case

Applications
For external, internal, depth **and contact or collar measurements.**

Quality
Stainless steel, hardened.

Note:
Art. no. 31200 302: one pointer revolution = 1 mm to avoid false readings.
For test gauge, see art. no. 32060 201.


31200 301


31200 302

Measuring range mm	Jaw length mm	Reading mm	1 pointer revolution mm	31200	...
150	40	0.02	2		**301**
150	40	0.01	1		**302**
200	50	0.02	2		**303**
300	60	0.02	2		**304**

31224 - 31228 Vernier calipers with round scale (dial vernier calipers)

TESA

Design
- Rotatable dial **with locking screw**
- Patented impact protection
- High precision due to hardened and ground measuring rack
- **Accuracy in accordance with DIN 862**
- Supplied in a case **with test report and declaration of conformity**

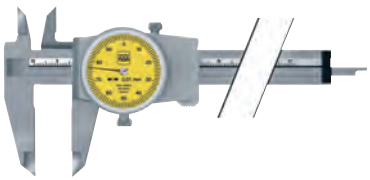
Applications
For external, internal, depth **and contact or collar measurements.**

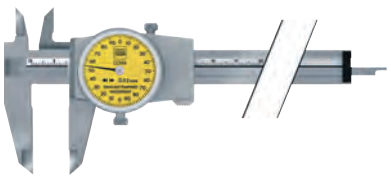
Quality
Stainless steel, hardened.

Note:
For test gauge, see art. no. 32060 201.

31224
Design
One pointer revolution = 1 mm to avoid false readings.

31228
Design
One pointer revolution = 2 mm.


31224 101


31228 201

31228 202

Measuring range mm	Jaw length mm	Reading mm	1 pointer revolution mm	31224	...	31228	...
150	40	0.01	1		**101**		
150	40	0.02	2				**201**
200	50	0.02	2				**202**
300	64	0.02	2				**203**

Groove vernier calipers | Universal vernier calipers

31235 Precision internal safety groove vernier calipers

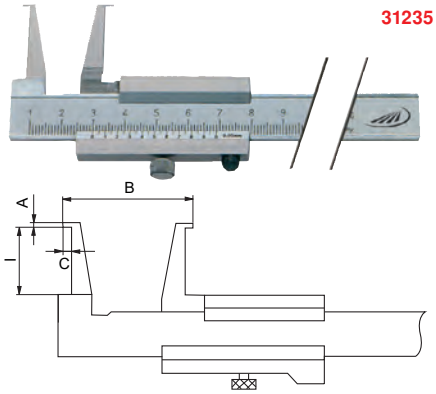
HELIOS·PREISSER

Design
- With offset cross internal measuring jaws
- Measuring surfaces hardened and precision ground
- **Brushed chromium-plated scale**
- Lowered graduations on the measuring rail
- Main graduation and vernier scale laser engraved for high precision
- Slide with locking screw and adjustable phosphor bronze sliding spring
- Accuracy according to factory standard

Applications
For measuring internal safety grooves in bores.

Quality
Stainless steel.

31235



Measuring range B mm	Jaw length l mm	Reading mm	Offset C x A mm	Rod T mm	Total length mm	31235	...
10–160	25	0.05	3 x 0.9	16 x 3.5	250		101
20–160	40	0.05	5 x 2.0	16 x 3.5	250		102
26–200	60	0.05	7 x 3.0	20 x 5.0	284		103
35–300	100	0.05	10 x 5.0	20 x 5.0	386		104

31241 Digital internal groove vernier calipers

IP 40 | Typ M | Typ N | Typ O

ATORN®

Design
- With locking screw
- Offset cross internal measuring jaws
- **Data output via multiCOM (either RS-232, USB or Digimatic)**
- **With KEEPTRONIC (blocking of the set reference value)**
- Battery, 3 V lithium (type CR 2032), designed for long-term operation
- Supplied in a case

Functions:
- Zero setting at any position
- mm/inch switching
- PRESET function (measurement pre-setting)
- Energy-saving function (auto-off after approx. 10 minutes)

Applications
For measuring internal safety grooves in bores.

Quality
Stainless steel.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31241

Measuring range mm	Jaw length mm	Reading mm	Offset mm	Data output multiCOM	31241	...
10–160	25	0.01	3.0 x 0.9	x		301
20–160	40	0.01	5.0 x 2.0	x		302

31242 Digital universal pocket vernier caliper set

IP 67 | Typ M | Typ N | Typ O

ATORN®

Design
- Specially designed vernier calipers for measuring a wide variety of workpiece shapes
- **With KEEPTRONIC (blocking of the set reference value)**
- Can be individually adapted using interchangeable measuring inserts and extension pieces for dial gauges
- Suitable for internal and external measurements
- With locking screw
- For measuring insert thread M 2.5
- **Data output via multiCOM (either RS-232, USB or Digimatic)**

Functions:
- Zero setting at any position
- mm/inch switching
- PRESET function (measurement pre-setting)

Scope of delivery:
- Vernier calipers
- Measuring inserts (ball inserts Ø 5.0 mm, face inserts Ø 4.8 mm)
- Setting gauge, 50 mm
- Battery, 3 V lithium (type CR 2032)
- In case

Quality
Stainless steel.

Note:
For measuring inserts, see art. no. 33114.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31242

Measuring range mm	Jaw length mm	Reading mm	Data output multiCOM	31242	...
150	40	0.01	x		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31255 - 31256 Digital universal vernier calipers, Multimar 25 EWR

IP 65 | Typ V | Typ W | Typ X

Mahr

31255

Design
- Interchangeable measuring arms
- The patented option for mounting the measuring elements on the upper and lower longitudinal sides of the measuring arm supports means the digital display can always be read from the operator's side
- The application range can be extended by turning the measuring arms
- Both measuring arm supports can be moved on the rail, resulting in uniform weight distribution with small dimensions
- Ready for immediate measurements with **reference system**
- **Data interface: USB, Opto RS-232C, Digimatic, wireless**
- Power supply: Battery, service life approx. 3 years

Functions:
- ON/OFF
- Auto-ON/OFF
- DATA (in conjunction with data connection cable)
- PRESET (measurement presetting)
- RESET (setting the display to zero)
- Lock/unlock
- mm/inch switching

Scope of delivery:
- 3 V battery (type CR 2032)
- Mounting and storage blocks
- Operating instructions
- In a wooden box
- **Without** measuring arms/mounting attachments and measuring inserts

31255

Applications
For measuring external and internal diameters, centring edges, narrow shoulders, external and internal cones, dovetails, recesses and hole spacings.

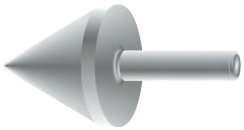
Quality
Stainless steel, rail and slide hardened.

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

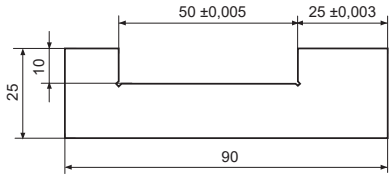
31256
Accessories for digital universal vernier calipers art. no. 31255 101-104.

Note:
Further accessories deliverable on request.

31256 101-102



31256 103



Measuring range mm	Reading mm	31255 ...
300	0.01	101
600	0.01	102
1000	0.01	103
1250	0.01	104

Accessories	31256 ...
Measuring tips for hole spacings 25 Eba Ø 2–20 mm	101
Measuring tips for hole spacings 25 Eba Ø 10–40 mm	102
Setting gauge 25 Eel, internal 50 mm/external 25 mm	103

31243 Universal vernier caliper set, digital

IP 65 | Typ M | Typ N | Typ O

ATORN®

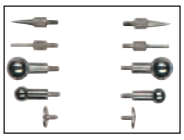
Design
- Specially designed vernier calipers for measuring a wide variety of workpiece shapes
- **With KEEPTRONIC (blocking of the set reference value)**
- Can be individually adapted using interchangeable measuring inserts and extension pieces for dial gauges
- Suitable for internal and external measurements
- With locking screw
- For measuring insert thread M 2.5
- **Data output via multiCOM (either RS-232, USB or Digimatic)**
- 10 mm LCD display for 300 mm
- 12.5 mm LCD display for 500 mm

Functions:
- Zero setting at any position
- mm/inch switching
- PRESET function (measurement pre-setting)
- Memory for 2 reference values
- Energy-saving function (auto-off after approx. 10 minutes)

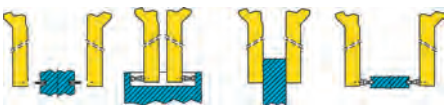
Scope of delivery:
- Vernier calipers
- Measuring inserts
- Battery, 3 V lithium (type CR 2032)
- In case

Note:
For measuring inserts, see art. no. 33114.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31243



Measuring range mm	Reading mm	Measuring arm length mm	Data output multiCOM	31243 ...
300	0.01	90	x	301
500	0.01	100	x	302



Universal vernier calipers | Marking calipers | 3- and 5-point vernier calipers | Depth callipers

31244 Digital universal vernier calipers, MarCal 16 EWR-V

IP 67 | Typ V | Typ W | Typ X

Mahr

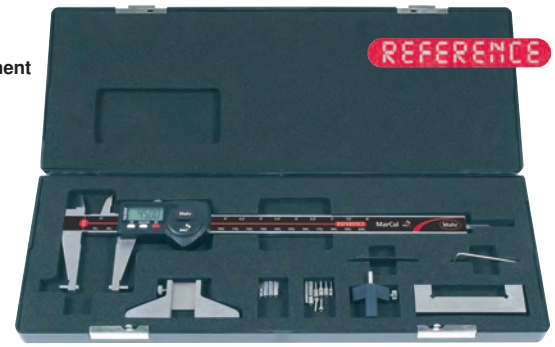
Design
- ON/OFF function
- Auto ON/OFF function
- HOLD function (measured value storage)
- PRESET function (measurement presetting)
- RESET function (resetting the display)
- mm/inch switching
- Reference lock/unlock function (keypad lock)
- DATA function (in conjunction with data connection cable)
- High-contrast LCD display (digit height 8.5 mm)
- Locking screw on top
- Lapped guideways
- Measuring edges for internal measurements
- Stepped measuring device
- Ready for immediate measurements with **reference system**
- Raised guideways to protect the scale
- **Data interface: USB, Opto RS232C, Digimatic**
- Excellent resistance against dust, coolants and lubricants
- Dirt scraper in the slide
- **Accuracy in accordance with DIN 862**

Applications
Can be used as standard vernier calipers (quadruple measuring device), with standard accessories for measuring recesses, grooves etc. and with special accessories for measuring threads, bores, gearing.

Quality
Stainless steel, slide and rail hardened.

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

31244 101-102



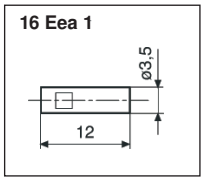
31244 101
Scope of delivery:
- **Setting gauge for internal measurement** 16 Eel (art. no. 31244 208)
- **Measuring force adjustment device** 16 Ec (art. no. 31244 209)
- Depth measuring bridge 16 Em3
- **Measuring inserts for external measurement** 16 Eea 1–3 (art. no. 31244 201-203)
- **Measuring inserts for internal measurement** 16 Eei 1–3 (art. no. 31244 204–206)
- **Measuring bridge** 16 Em 75 x 7 mm
- Operating instructions
- 3 V battery (type CR 2032)
- In case

31244 102
Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case

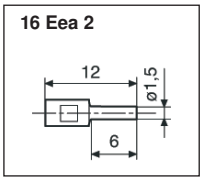
Measuring range mm	Jaw length mm	Length of cross jaws mm	Reading mm	Depth gauge	31244 ...
200	48	16.5	0.01	Angular	101
200	48	16.5	0.01	Angular	102

31244 201-211
Accessories for digital universal vernier calipers
Art. no. 31244 101–102

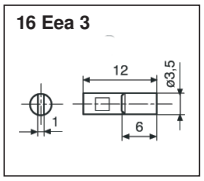
31244 201



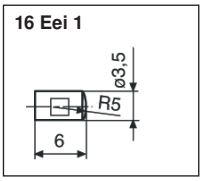
31244 202



31244 203



31244 204



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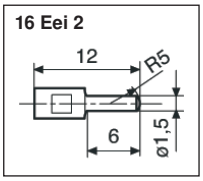

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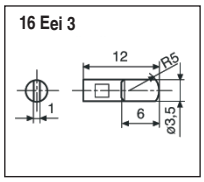

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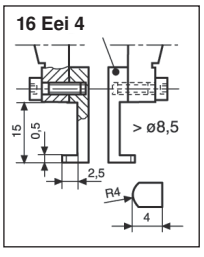

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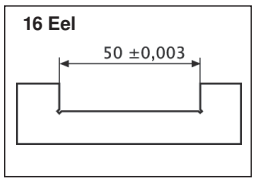

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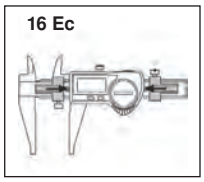

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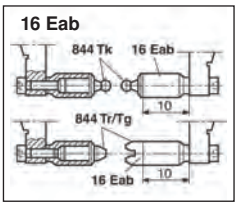

Accessories	31244 ...
Measuring insert for external measurement, 16 Eea 1	201
Measuring insert for external measurement, 16 Eea 2	202
Measuring insert for external measurement, 16 Eea 3	203
Measuring insert for internal measurement, 16 Eei 1	204
Measuring insert for internal measurement, 16 Eei 2	205
Measuring insert for internal measurement, 16 Eei 3	206

Accessories	31244 ...
Measuring insert for internal measurement, 16 Eei 4	207
Setting gauge for internal measurement, 16 Eel	208
Measuring force adjustment device, 16 Ec	209
Mounting bush for thread and ball measuring inserts, 16 Eab	210
Cheese head, rust-proof M 2 x 8	211

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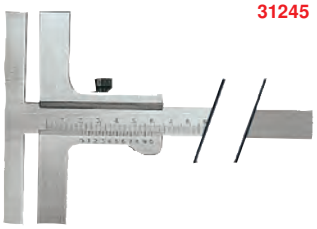
31245 Marking calipers

Design
- **With locking screw**
- Graduations: mm, on rod and rail
- **Reading 0.05 mm** (vernier scale extended to 39 mm)

Quality
Special steel, hardened marking rail.

31245



Measuring range mm	Reading mm	Marking rail mm	31245	...
160	0.05	100		**101**
250	0.05	120		**102**
300	0.05	160		**103**
500	0.05	160		**105**

31247 Precision 3- and 5-point vernier calipers

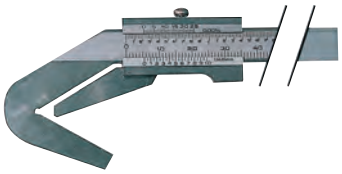
Design
- **Parallax-free reading** with mm/inch graduations, brushed chromium-plated
- **Reading 0.05 mm** (vernier scale extended to 39 mm)

Applications
For measuring the diameter of cutters, reamers, screw taps, splined shafts, gear wheels etc.
Quality
Stainless steel.

31247 101
For **3-edged** tools.

31247 102
For **5-edged** tools.

31247 101



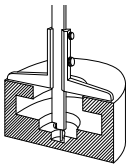
For measuring range Ø mm	31247	...
5 - 40		**101**
5 - 40		**102**

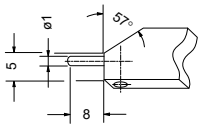
31305 Precision depth calipers

Design
- **Brushed chromium-plated scale**
- Graduations in mm
- Measuring bar fully hardened
- With interchangeable hardened measuring pin and graduations on one side
- **Ø of the measuring pin: 1.0 mm**
- Measuring surfaces hardened
- **Accuracy in accordance with DIN 862**
- Supplied in a case

Applications
For measuring small and offset bores.
Quality
Stainless steel.

31305





Measuring range mm	Bridge length mm	Measuring rod T mm	Reading mm	31305	...
80	50	8 x 3	0.05		**101**

Depth calipers | Measuring bridges

31306 - 31327 Precision depth calipers

Design
- Graduations in mm
- Measuring surfaces inductively hardened
- **With locking screw**
- **Brushed chromium-plated scale**

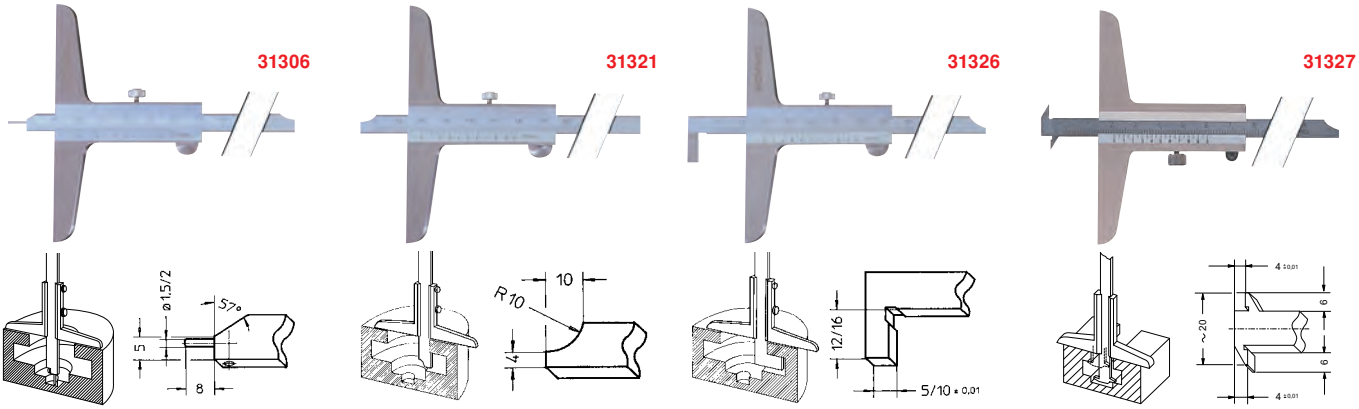
Quality
Stainless steel.

31306
Design
- **Accuracy in accordance with DIN 862**
- Graduations on two sides for repositioning the scale
- Measuring bar fully hardened
- With interchangeable hardened measuring pin
- **Ø of the measuring pin: 1.5 mm** (for a measuring bar 8 x 3 mm)
  Ø of the measuring pin: 2.0 mm (for a measuring bar 12 x 4 mm)

31321
Design
- **Accuracy in accordance with DIN 862**
- With straight, bevelled measuring rod

31326
Design
- **Accuracy in accordance with DIN 862**
- Graduations on two sides for repositioning the scale
- **Length x width of the angle offset: 12.5 x 5 mm for bores from Ø 22 mm** (for a measuring bar 8 x 3 mm) **or 16 x 10 mm for bores from Ø 28 mm** (for a measuring bar 12 x 4 mm)

31327
Design
- **Accuracy in accordance with DIN 862**
- Graduations on two sides for repositioning the scale
- Measuring rod with double offset at a right angle, for width and distance measurements in bores or grooves from Ø 20 mm



Measuring range mm	Bridge length mm	Measuring rod T mm	Reading mm	31306 ...	31321 ...	31326 ...	31327 ...
150	100	8 x 3	0.05	101	101	101	
200	100	8 x 3	0.05	102	102	102	102
300	100	12 x 4	0.05				104
300	150	12 x 4	0.05	104	104	104	
500	150	12 x 4	0.05		106	106	
1000	250	20 x 5	0.05		107		

31303 - 31304 Digital depth calipers, MarCal 30 EWRi

IP 67 | Typ Y

Mahr

Design
- ON/OFF function
- Auto ON/OFF function
- HOLD function (measured value storage)
- PRESET function (measurement presetting)
- RESET function (resetting the display)
- mm/inch switching
- Counting direction reversal
- Reference lock/unlock function (keypad lock)
- DATA function (data transfer)
- High-contrast LCD display (digit height 11 mm)
- Locking screw on top
- Lapped guideways
- Measuring surfaces hardened
- Ready for immediate measurements with **reference system**
- Raised guideways to protect the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt scraper in the slide
- Company standard
- **Data interface: Integrated wireless**
- Power supply: Battery, service life approx. 3 years (approx. 0.5 years with wireless enabled)

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case

Applications
For universal depth, width, step and distance measurements.

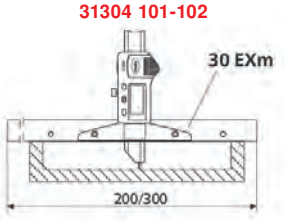
Quality
Stainless steel, slide and rail hardened.

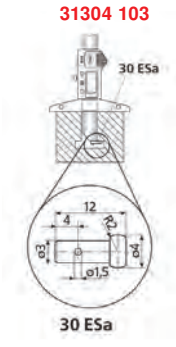
Note:
Wireless receiver, see art. no. 35200 410.
Replacement batteries, see art. no. 39900 102.

Measuring range mm	Bridge length mm	Reading mm	31303 ...
150	100	0.01	101
200	100	0.01	104 NEW
300	150	0.01	102
500	150	0.01	103

Accessories

	Length mm	31304 ...
Extended measuring bridge, 30 EXm	200	101
Extended measuring bridge, 30 EXm	300	102
Measuring insert, 30 ESa	-	103





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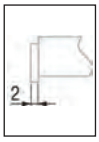
31301 Digital depth calipers, TWIN-CAL

IP 67 | Typ T | Typ U

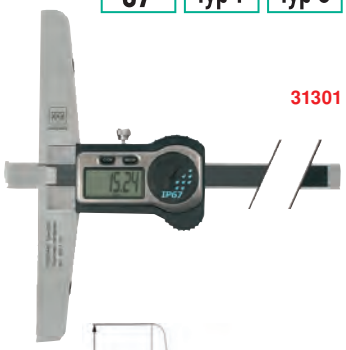
Design
- **With rotating stop plate**
- **Degree of protection IP 67**
- **Integrated output channel**
- 6-digit LC display (digit height 11 mm)
- **Accuracy in accordance with DIN 862**
- Operating temperature 10 °C…40 °C
- Battery, 3 V (type CR 2032), designed for long-term operation
- Supplied in a case with test report and declaration of conformity

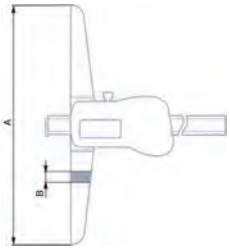
Functions:
- Zero setting at any position
- mm/inch switching
- HOLD function (measured value storage)
- Switch-on/switch-off
- Automatic energy-saving mode after 10 minutes, switch-off after 2 hours

Note:
Other designs deliverable on request.
For measuring bridges, see art. no. 31302.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.



31301





Measuring range mm	A mm	B mm	Data output TLC	31301	...
250	150	8.5	x		**201**
350	150	8.5	x		**202**
500	150	8.5	x		**203**

31302 Attachable measuring bridge

Design
- Manufactured to factory standard
- With declaration of conformity
- Supplied with fastening material

Applications
For depth calipers art. no. 31301.

31302

A mm	B mm	C mm	Max. error µm	31302	...
300	8	16	5		**102**

31350 Digital depth calipers

IP 67 | Typ M | Typ N | Typ O

Design
- With 3 interchangeable measuring inserts
- High-contrast LCD display (digit height 7.5 mm)
- **Data output via multiCOM (either RS-232, USB or Digimatic)**
- Disc measuring insert particularly suitable for measuring groove spacing and groove widths
- **With KEEPTRONIC (blocking of the set reference value)**
- Battery, 3 V lithium (type CR 2032), designed for long-term operation
- Supplied in a case

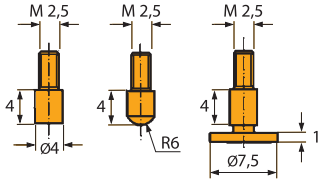
Functions:
- Zero setting at any position
- mm/inch switching
- Switch-on/switch-off
- PRESET function (measurement pre-setting)
- Energy-saving function (auto-off after approx. 10 minutes)

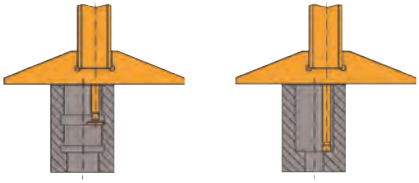
Applications
For universal depth, width, step and distance measurements.

Quality
Stainless steel.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31350





Measuring range mm	Reading mm	Bridge length mm	Depth measuring rod Ø mm	Data output multiCOM	31350	...
100	0.01	85	4	x		**301**

31340 - 31344 Digital depth calipers

IP 67 | Typ M | Typ N | Typ O

ATORN®

Design
- Wear-resistant, inductive measuring system, without mechanical transmission elements
- **Data output via multiCOM (either RS-232, USB or Digimatic)**
- LCD display 7.5 mm to 500 mm
- LCD display 12.5 mm at 1000 mm
- With KEEPTRONIC (blocking of the set reference value)
- Repeat accuracy 0.01 mm
- With locking screw
- Battery, 3 V (type CR 2032), designed for long-term operation, can be switched off
- Supplied in a wooden case

Functions:
- Zero setting at any position
- mm/inch switching
- Switch-on/switch-off
- PRESET function (measurement pre-setting)

Applications
For absolute, differential, comparison and tolerance measurements, with no additional complex arithmetic operations.

Quality
Stainless steel.
Guide surfaces hardened and ground, measuring surfaces inductively hardened and ground.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31340
Design
- With measuring rod offset at a right angle
- **Accuracy in accordance with DIN 862**

Applications
For measuring recesses, e.g. in bores (from Ø 28 mm) and shoulders.

31341
Design
- With straight, bevelled measuring rod
- **Accuracy in accordance with DIN 862**

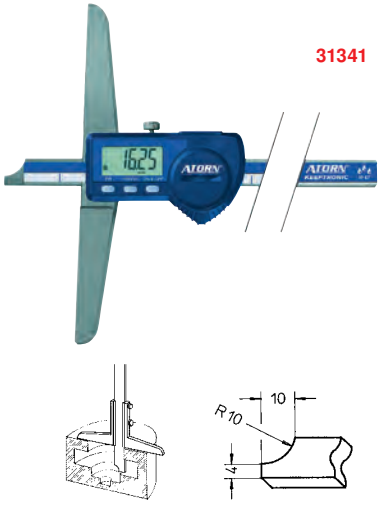
Applications
For measuring depths and distances.

31344
Design
- With measuring rod offset on both sides
- **Accuracy according to factory standard**

Applications
For measuring widths and distances, grooves and recesses in bores from Ø 24 mm.

31340

31341



31344

Measuring range mm	Bridge length mm	Reading mm	Data output multiCOM	31340	...	31341	...	31344	...
200	100	0.01	x				300		
300	150	0.01	x		301		301		301
500	150	0.01	x		302		302		
1000	250	0.01	x				303		

31353 Digital small depth calipers

IP 67 | Typ M | Typ N | Typ O

ATORN®

Design
- Stainless steel
- Round measuring pin, Ø 2 mm
- LCD display (digit height 7.5 mm)
- **KEEPTRONIC (blocking of the set reference value)**
- **Data output via multiCOM (either RS-232, USB or Digimatic)**
- Company standard
- Battery, 3 V lithium (type CR 2032)
- Supplied in a case

Functions:
- Zero setting at any position
- mm/inch switching
- Switch-on/switch-off
- PRESET function (measurement pre-setting)

31353

Measuring range mm	Bridge length mm	Reading mm	Data output multiCOM	31353	...
25	48	0.01	x		101

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31355 - 31357 Measuring instrument sets

Design
In wooden box.

31355 301
Standard measuring instrument set
2 pieces, set contents:
1 x pocket vernier calipers, 150 mm (art. no. 31008 101),
1 x micrometer, 0–25 mm (art. no. 31502 101).

31355 501
Wooden case, empty, for art. no. 31355 301.

31357 301
Large measuring instrument set
6 pieces, set contents:
1 x pocket vernier calipers, 150 mm (art. no. 31008 101),
1 x micrometer, 0–25 mm (art. no. 31502 101),
1 x scale, 200 mm (art. no. 39800 102),
1 x flat square, 100 x 70 mm (art. no. 36115 102),
1 x straight edge, 100 mm (art. no. 36060 102),
1 x spring dividers, 125 mm (art. no. 35630 102).

31357 501
Wooden case, empty, for art. no. 31357 301.

31355

31357

	2 pieces		6 pieces	
	31355	...	31357	...
Measuring instrument set		301		301
Wooden case		501		501

31500 - 31502 Precision micrometers

Design
- Measuring surfaces carbide-tipped and lapped
- Brushed chromium-plated scale
- Spindle fully hardened and ground
- With locking lever, adjusting nut and ratchet tool
- **Accuracy in accordance with DIN 863**
- Insulation to protect against heat from the hands
- **Reading 0.01 mm**
- Spindle pitch 0.5 mm
- Measuring spindle Ø 6.5 mm
- Measuring drum Ø 18 mm
- Sets and individual micrometers include keys and setting gauges; supplied in a storage box

Applications
For external measurements.

31500 101

31500 102

Measuring range mm	1 micrometer each mm	Set 31500	...
0–100	0–25 / 25–50 / 50–75 / 75–100		101
0–150	0–25 / 25–50 / 50–75 / 75–100 / 100–125 / 125–150		102

31502

Measuring range mm	Individual 31502	...
0 - 25		101
25 - 50		102
50 - 75		103

Measuring range mm	Individual 31502	...
75 - 100		104
100 - 125		105
125 - 150		106

Micrometers

31505 Precision micrometers

Hartig

Design
- **50 mm measuring range**
- **Carbide-tipped measuring surfaces,** plane-parallel lapped
- Spindle thread hardened and ground
- **Accuracy exceeds DIN 863**
- Zero setting and spindle nut adjustable
- Clamping ring for locking the spindle
- Coupling (ratchet tool) enables constant measuring pressure
- **Anti-glare, brushed chromium-plated scale**
- Reading without addition due to **1 mm thread pitch and 100 mm graduations** (thereby excluding false measurements by 0.5 mm)
- Reading drum Ø 24 mm
- Scale spacing 0.65 mm
- **Reading per scale mark 0.01 mm**
- Supplied with certificate of conformity, in a wooden case

Applications
Particularly suitable for precise measurement on machine tools and for general use in workshops.

On grinding machines, for cast iron machining and continuous use.

Note:
For setting gauges, see art. no. 31579.

31505 098-103
Design
- With sturdy semi-circular **frame made of high-quality spheroidal graphite iron**
- With insulation against heat from the hands, with effect coating
- **Spindle and measuring surfaces Ø 8 mm**

31505 104-107
Design
- With semi-circular **frame made of light metal,** with effect coating
- **Spindle and measuring surfaces Ø 10 mm**

Note:
Insulation against heat from the hands deliverable on request.

31505 098

31505 104

Measuring range mm	Max. error µm	31505 ...
0 - 50	3	098
50 - 100	4	099
100 - 150	4	100
150 - 200	5	101
200 - 250	5	102

Measuring range mm	Max. error µm	31505 ...
250 - 300	5	103
300 - 350	6	104
350 - 400	6	105
400 - 450	7	106
450 - 500	7	107

31510 Precision micrometers

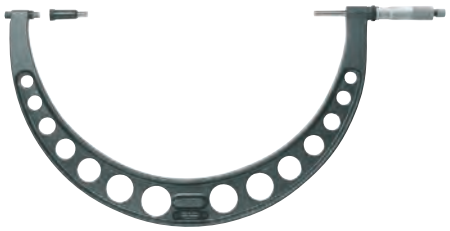
Hartig

Design
- **Includes 50 mm screw-on extension, carbide-tipped and lapped along the length of the gauge block**
- **The extension doubles the measuring range of the 50 mm adjustable spindle**
- Reading without addition due to **1 mm thread pitch and 100 mm graduations**, ideal for large measuring ranges
- **Reading per scale mark 0.01 mm**
- **Spindle Ø 10 mm**
- **Carbide measuring surfaces**
- Thimble Ø 24 mm
- **Accuracy exceeds DIN 863**
- Sturdy light metal frame
- With clamping device and friction coupling
- Supplied without wooden case

Applications
Extension screws on and off easily. Much **easier handling with greater measurement reliability** compared to micrometers with interchangeable anvil inserts.

Note:
For setting gauges, see art. no. 31579.
100 mm and 150 mm extensions for increasing the measuring range deliverable on request.
Larger measuring ranges available on request.

31510



Measuring range mm	Max. error µm	31510 ...
200 - 300	6	097
300 - 400	7	098
400 - 500	8	099

31513 Precision micrometers

ATORN®

Design
- Measuring surfaces carbide-tipped and lapped
- **Brushed chromium-plated scale,** spindle fully hardened and ground
- With locking lever, adjusting nut and ratchet tool
- **Accuracy in accordance with DIN 863-1**
- Insulation to protect against heat from the hands
- **Reading 0.01 mm**
- Spindle pitch 0.5 mm
- Measuring spindle Ø 6.5 mm
- Measuring drum Ø 18 mm
- Sets and individual micrometers **include keys and setting gauges**
- In a storage box

31513 101-104
Micrometers, individual.

31513 301
Set consisting of:
1 x precision micrometer each: measuring range
0 - 25 mm,
25 - 50 mm,
50 - 75 mm,
75 - 100 mm.
Includes setting gauges, 25, 50 and 75 mm.

31513 301

Set		
Measuring range mm	31513 ...	
0 - 100		301

Individual		
Measuring range mm	31513 ...	
0 - 25		101
25 - 50		102

Individual		
Measuring range mm	31513 ...	
50 - 75		103
75 - 100		104

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31514 Precision micrometers, Micromar 40 A/SA

Mahr

Design
- Brushed chromium-plated control and display elements
- Hard-lacquered steel frame
- Measuring spindle and anvil made of hardened steel, carbide-tipped
- Thermal insulation panels
- Quick drive with integrated coupling
- Locking device
- **Accuracy in accordance with DIN 863-1**
- Operating instructions
- In case

31514 101-108
Micrometers, individual
- Setting gauge (measuring range 25–50 mm and above)

31514 101-108

Measuring range mm	Reading mm	Error limit µm	Spindle pitch mm	Frame depth mm	Frame width mm	Standard	Individual 31514	...
0–25	0.01	4	0.5	25.5	31	DIN 863-1		101
25–50	0.01	4	0.5	34.5	56	DIN 863-1		102
50–75	0.01	5	0.5	47.5	81	DIN 863-1		103
75–100	0.01	5	0.5	58.5	106	DIN 863-1		104
100–125	0.01	6	0.5	71.5	131	DIN 863-1		105
125–150	0.01	6	0.5	83.5	156	DIN 863-1		106
150–175	0.01	7	0.5	95.5	182	DIN 863-1		107
175–200	0.01	7	0.5	108.5	207	DIN 863-1		108

31514 201
Set consisting of:
1 x precision micrometer each: measuring range
0 - 25 mm
25 - 50 mm
50 - 75 mm
75 - 100 mm
Setting gauges, 25 mm/75 mm

31514 202
Set consisting of:
1 x precision micrometer each: measuring range
100 - 125 mm
125 - 150 mm
150 - 175 mm
175 - 200 mm
Setting gauges, 125 mm/175 mm

31514 201-202

Measuring range mm	Reading mm	No. of micrometers	Set 31514	...
0–100	0.01	4		201
100–200	0.01	4		202

31515 - 31516 Precision micrometers

TESA

ISOMASTER
Design
Full and half millimetres displayed via graduation marks on the scale sleeve; hundredths displayed on the thimble, which has 50 graduation lines. The friction effect can be cancelled by repositioning the measuring force limiter built into the thimble.
Carbide-tipped measuring surfaces. Accuracy in accordance with DIN 863 Part 1. Reading 0.01 mm, spindle pitch 0.5 mm, **measuring spindle Ø 6.5 mm** (measuring range 0–100 mm) **or 8.0 mm** (measuring range 100–300 mm). **Test report with declaration of conformity.**
Labelled with individual production number.
Supplied in a case.
Applications
For external measurements.

Note:
The spindle is clamped using a clamping ring to guarantee high precision. For setting gauges, see art. no. 31579.

31515
Design
Set consisting of:
1 x precision micrometer each: measuring range
0 – 25 mm,
25 – 50 mm,
50 – 75 mm,
75 – 100 mm.

31516
Micrometers, individual.

31515

31516

Measuring range mm	Set 31515	...
0 - 100		201

Measuring range mm	Individual 31516	...
0–25		201
25–50		202
50–75		203
75 - 100		204
100 - 125		205
125 - 150		206

Measuring range mm	Individual 31516	...
150 - 175		207
175 - 200		208
200 - 225		209
225 - 250		210
250 - 275		211
275 - 300		212

Micrometers | Precision pointer micrometers

31517 Precision micrometers

Hartig

Design
- Direct reading 5 µm
- Maximum precision — exceeds DIN 863
- Thread pitch 0.5 mm
- Measuring spindle Ø 8 mm, carbide measuring surfaces
- Friction coupling Ø 25 mm pulled forward onto the thimble
- With clamping device

Applications
The direct reading of 5 µm makes this micrometer suitable for the most precise measurements, e.g. in quality control.

Note:
For setting gauges, see art. no. 31579.

NEW

31517

Measuring range mm	Max. error µm	31517	...
0 - 25	1.5		101
25 - 50	1.5		102
50 - 75	2.0		103
75 - 100	2.0		104

31525 Precision micrometers

TESA

TESAMASTER
Design
- With extremely small measurement deviations
- Counter for tenths of a millimetre; **reading errors of half a millimetre are therefore excluded**
- Thousandths of a millimetre are indicated parallax-free by a vernier scale on a ball bearing-mounted sleeve
- Friction coupling on the end of the measuring spindle
- Knurled ring on the thimble enables one-handed measurements without a measuring force limiter
- Measuring force max. 10 N
- **Reading 0.001 mm via vernier scale, parallax-free**
- Measuring thread pitch 0.5 mm
- Measuring surface Ø: 6.5 mm
- **Accuracy approx. 50% better than required by standards**

- Supplied in a case, including 2 adjusting keys and **test report with declaration of conformity**
- Labelled with individual production number
- **Accuracy in accordance with DIN 863/1**

Applications
For external measurement.

Quality
Carbide-tipped measuring surfaces.

Note:
Other sizes deliverable up to 250 mm.
For setting gauges, see art. no. 31579.

31525

Measuring range mm	Max. deviation span f_{max} µm	Max. parallel deviation µm	31525	...
0–25	2	1.0		201
25–50	2	1.5		202
50–75	3	1.5		203
75–100	3	1.5		204

31529 Precision pointer micrometers

ATORN®

Design
- Measuring surfaces carbide-tipped and finely lapped
- Measuring drum and measuring sleeve brushed chromium-plated, frame fully brushed chromium-plated
- Thermal insulation via plastic insulation plates
- **Accuracy in accordance with DIN 863-3**
- Spindle pitch 0.5 mm
- **Measuring spindle Ø 7.5 mm**

- Measuring drum Ø 17.5 mm
- Supplied in a case

Applications
For direct measurement or differential measurement. Ideal for series testing of small precision parts.

Note:
Larger measuring ranges and version with display value +/- 140 µm and scale value 2 µm deliverable on request.
For setting gauges, see art. no. 31579.

31529

Measuring range mm	Error limit, micrometer mm	Error limit, precision pointer mm	Display area, precision pointer mm	Scale value, precision pointer mm	31529	...
0–25	0.002	0.001	+/- 0.065	0.001		301
25–50	0.002	0.001	+/- 0.065	0.001		302

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31558 - 31559 Digital micrometers, Micromar 40 EWR / EWRi

IP 65

Mahr

Design
- RESET function (resetting the display)
- ABS (display can be set to zero without losing the reference to the ORIGIN)
- mm/inch switching
- ORIGIN (measurement pre-setting)
- LOCK function (keypad lock)
- TOL (input of tolerance and warning limits)
- DATA (in conjunction with data connection cable)
- HOLD (measured value storage)
- High-contrast LCD display (digit height 10 mm)
- Measuring spindle, rust-proof, fully hardened and ground
- Measuring spindle and anvil carbide-reinforced
- Quick drive
- Ratchet tool at the front
- Painted steel frame, thermally insulated
- Power supply: Battery, service life up to 2 years (reduced when the integrated wireless interface is used, art. no. 31559 101–108 + 301)

Note:
For radio receiver i-Stick see art. no. 35200 410.
For connection cable see art. no. 35200 415–416.
Replacement batteries, see art. no. 39900 102.

Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS-232 interface).

31558 101-108
Micromar 40 EWR, individual
Design
- Data interface: Digimatic, USB

31559 101-108
Micromar 40 EWRi, individual
Design
- Data interface: Integrated wireless
- Additionally with TOL (tolerance and warning limit input)

Typ P Typ Q

31558 101-108

31559 101-108

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case
- Setting gauge (measuring range 25–50 mm and above)

Measuring range mm	Reading mm	Error limit µm	Spindle pitch mm	Measuring force N	Frame depth mm	Frame width mm	Type 40 EWR 31558	...	Type 40 EWRi 31559	...
0–25	0.001	+/- 2	0.5	5–10	24	32		101		101
25–50	0.001	+/- 2	0.5	5–10	36	57		102		102
50–75	0.001	+/- 3	0.5	5–10	45	82		103		103
75–100	0.001	+/- 3	0.5	5–10	57	107		104		104
100–125	0.001	6	0.5	5–10	73	132		105 NEW		105 NEW
125–150	0.001	6	0.5	5–10	82	157		106 NEW		106 NEW
150–175	0.001	7	0.5	5–10	95	182		107 NEW		107 NEW
175–200	0.001	7	0.5	5–10	106	207		108 NEW		108 NEW

31558 301
Micromar 40 EWR, set
Comprising:
1 x digital micrometer each: measuring range 0–25 mm, 25–50 mm, 50–75 mm, 75–100 mm and setting gauges

31559 301
Micromar 40 EWRi, set
Comprising:
1 x digital micrometer each: measuring range 0–25 mm, 25–50 mm, 50–75 mm, 75–100 mm and setting gauges

REFERENCE

31558 301 + 31559 301

Measuring range mm	Reading mm	No. of micrometers	Type 40 EWR 31558	...	Type 40 EWRi 31559	...
0–100	0.001	4		301		301

Micrometers

31560 Digital micrometers, Micromar 40 EWR-L/EWRi-L

IP 65

Mahr

Design
- High-contrast LCD display (digit height 10 mm)
- Measuring spindle, rust-proof, fully hardened and ground
- Measuring spindle and anvil carbide-reinforced
- QUICK DRIVE quick adjustment
- Non-rotating spindle
- Ratchet tool at the front
- Painted steel frame, thermally insulated
- Power supply: Battery, service life up to 2 years (reduced when the integrated wireless interface is used, art. no. 31560 501–504)

Functions:
- RESET (setting the display to zero)
- ABS (display can be set to zero without losing the reference to the ORIGIN)
- mm/inch switching
- ORIGIN (measurement pre-setting)
- LOCK function (keypad lock)
- TOL (input of tolerance and warning limits)
- DATA (in conjunction with data connection cable)
- HOLD (measured value storage)

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions
- In case
- Setting gauge (measuring range 25–50 mm and above)

Applications
- Avoidance of workpiece damage: The non-rotating spindle has a touching contact which can prevent scratch marks, e.g. due to grinding dust residues on sensitive and finely machined surfaces
- Ideal for measuring thin metal foils without twisting and bending them
- Thread flank measurement using thread measuring wires: Both measuring wire holders always remain in the engaged position with each other due to the non-rotating spindle

Note:
For radio receiver i-Stick see art. no. 35200 410.
For connection cable see art. no. 35200 415–416.
Replacement batteries, see art. no. 39900 102.

Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and radio systems with USB and RS-232 interface).

31560 401-404
Micromar 40 EWR-L
Design
- Data interface: Digimatic, USB

31560 501-504
Micromar 40 EWRi-L
Design
- Data interface: Integrated wireless

NEW

31560 401-404

Typ P Typ Q

31560 501-504

							Type 40 EWR-L		Type 40 EWRi-L	
Measuring range mm	Reading mm	Error limit µm	Spindle pitch mm	Measuring force N	Frame depth mm	Frame width mm	31560	...	31560	...
0–25	0.001	2	5	5–10	24	32		**401**		**501**
25–50	0.001	2	5	5–10	36	57		**402**		**502**
50–75	0.001	3	5	5–10	45	82		**403**		**503**
75–100	0.001	3	5	5–10	57	107		**404**		**504**

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31561 Digital micrometers, Micromar 40 EWV

IP 52 | Typ V | Typ W | Typ X

Mahr

Design
- Reference lock/unlock function (keypad lock)
- High-contrast LCD display (digit height 8.5 mm)
- Measuring spindle, rust-proof, fully hardened and ground
- Measuring spindle and anvil carbide-reinforced
- Quick drive
- Chrome-plated steel frame, thermally insulated
- Non-rotating spindle
- With drive arbor for measuring inserts D = 3.5 mm
- **Accuracy in accordance with DIN 863-3**
- **Data interface: USB, Opto RS-232C, Digimatic**
- Power supply: Battery, service life approx. 2 years

Scope of delivery:
- Battery (3 V, type CR 2032)
- Operating instructions
- In case

31561 101
Supplied without measuring inserts

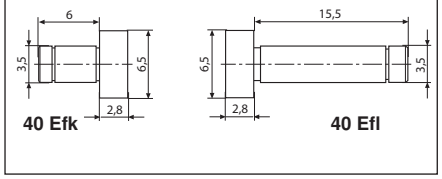
31561 102
Supplied with measuring inserts
- **Measuring inserts, 40 Eak and 40 Eal** (art. no. 31561 207 and 31561 206)
- **Measuring inserts, 40 Efk and 40 Efl** (art. no. 31561 202 and 31561 201)
- **Measuring inserts, 40 Etk and 40 Etl** (art. no. 31561 204 and 203)
- **Measuring insert, 40 Epk** (art. no. 31561 208)
- **Measuring insert, 40 Esk** (art. no. 31561 205)

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

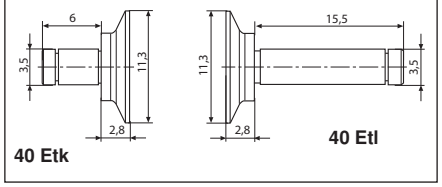
31561 102

Measuring range mm	Reading mm	Error limit µm	Spindle pitch mm	Measuring force N	Frame depth mm	Frame width mm	Without measuring inserts 31561 €	...	With measuring inserts 31561 €	...
25	0.001	4	0.635	5–10	23.0	31.5	**(414.00)**	101	**(830.00)**	102

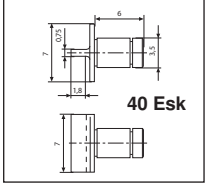
31561 202 | 31561 201



31561 204 | 31561 203

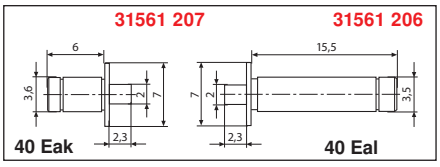


31561 205

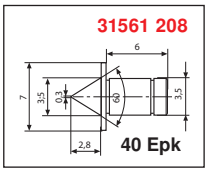


Accessories	31561 ...
Flat measuring insert, 40 Efl	201
Flat measuring insert, 40 Efk	202
Measuring insert, plate, 40 Etl	203
Measuring insert, plate, 40 Etk	204
Measuring insert with blade, 40 Esk	205
Measuring insert with reduced measuring surface, 40 Eal	206
Measuring insert with reduced measuring surface, 40 Eak	207
Measuring insert with tip (60°), 40 Epk	208
Measuring insert with convex measuring surface, 40 Erk	209

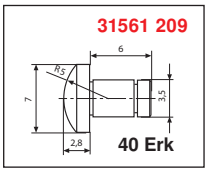
31561 207 | 31561 206



31561 208



31561 209



Micrometers | Setting gauges | Thread measuring inserts

31555 - 31557 Precision digital micrometers, capa µ system

Typ B Typ C Typ D

MICROMASTER

Design
- Ergonomic shape for ease of use
- Complete control of the measuring force via **friction coupling**
- **Patented capa µ system**
- Large LC display (digit height 7 mm)
- Measuring range 0–30 mm has **20% more range**
- Convenient one-handed operation
- Digit increment 0.001 mm/0.0005 inch
- Measuring spindle Ø 6.5 mm
- Cemented carbide measuring surfaces
- Measuring force max. 10 N
- **Accuracy in accordance with DIN 863/1**
- Battery, 3 V (type CR 2032), designed for long-term operation

Functions:
- PRESET (measurement pre-setting)
- Differential measurement
- HOLD function (measured value storage)
- mm/inch switching
- Zero setting at any position
- Automatic shut-off

Scope of delivery:
- 3 V battery (type CR 2032)
- Instructions for use and **test report with declaration of conformity**
- **Up to measuring range of 100 mm with SCS certificate**
- In case

Applications
For external measurements.

Note:
For setting gauges, see art. no. 31579.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31555
Design
- **Degree of protection IP 40**

31556
Design
- Moisture-resistant in accordance with **degree of protection IP 54**

31557
Design
- Moisture-resistant in accordance with **degree of protection IP 54**
- **With data output via Opto RS-232**
- If it is connected to an evaluation unit, the degree of protection is IP 40

31556

	Standard		IP 54		Opto RS-232	
Measuring range mm	31555	...	31556	...	31557	...
0–30	201		201		201	
25–50			202		202	
50–75			203		203	
75–100			204		204	
100–125					205	
125–150					206	

	Standard		IP 54		Opto RS-232	
Measuring range mm	31555	...	31556	...	31557	...
150–175					207	
175–200					208	
200–225					209	
225–250					210	
250–275					211	
275–300					212	

31579 Metric setting gauges

Design
- Measuring surfaces plane-parallel lapped
- Parallelism less than or equal to 1 µ
- Accuracy in accordance with DIN 863 (js2) up to 175 mm; exceeds DIN 863 from 200 mm
- With insulated grip to protect against heat from the hands, and serial identification number

Applications
For micrometers with 2 flat and parallel measuring surfaces.

Quality
Measuring surfaces made of steel, hardened and aged.

Note:
Other lengths in 25 mm increments up to 1500 mm deliverable at short notice.
Set combinations in a case, as well as special lengths, deliverable on request.

31579

Length mm	Max. error +/- µm	Measuring surface Ø mm	31579	...
25	1.25	6.5	101	
50	1.25	6.5	102	
75	1.50	6.5	103	
100	2.00	6.5	104	
125	2.50	6.5	105	
150	2.50	6.5	106	
175	2.50	6.5	107	
225	3.00	6.5	109	
275	3.00	6.5	111	
350	3.50	10.0	114	
450	3.50	10.0	118	

Length mm	Max. error +/- µm	Measuring surface Ø mm	31579	...
550	3.50	10.0	122	
650	4.00	10.0	126	
750	4.00	10.0	130	
850	4.00	10.0	134	
950	5.00	10.0	138	
1050	5.00	10.0	142	
1150	6.00	10.0	146	
1250	7.00	10.0	150	
1350	7.00	10.0	154	
1450	7.00	10.0	158	

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31585 Precision micrometers

ATORN®

Design
- Frame made of high-quality malleable iron, painted, with insulation against heat from the hands
- Spindle thread hardened and ground
- Adjustable spindle nut
- With clamping ring and friction coupling (ratchet tool)
- **Anti-glare, brushed chromium-plated scale**
- **Reading 0.01 mm,** spindle pitch 0.5 mm
- Thimble Ø 20 mm
- **Accuracy in accordance with DIN 863, Part 3**
- Supplied in a case with adjusting key and certificate of conformity

Applications
For measuring the flank diameter of male threads using interchangeable thread measuring inserts, art. no. 31592 and 31593.

Note:
Precision micrometers for female thread measurements deliverable on request.

31585

Measuring range mm	Max. error µm	31585 ...
0 - 25	3	101
25 - 50	3	102
50 - 75	4	103
75 - 100	4	104

Measuring range mm	Max. error µm	31585 ...
100 - 125	4	105
125 - 150	4	106
150 - 200	5	107

31592 - 31593 Thread measuring inserts

ATORN®

Design
- Drive arbor Ø 3.5 mm, **length 13.5 mm**
- Supplied in pairs (notch and anvil)

Applications
For measuring the flank diameter of male threads (not to be used for female thread measurements). For precision micrometers art. no. 31585.

Quality
Hardened steel, ground.

31592
Applications
For 60° male thread (metric ISO thread).
Adjustment with setting gauges art. no. 31595.

31593
Applications
For 55° male thread (Whitworth thread).
Adjustment with setting gauges art. no. 31596.

Note:
Thread measuring inserts for 30° trapezoidal thread deliverable on request.

31592 - 31593

Metric 60°

Pitch mm	31592 ...
0.35 - 0.5	101
0.6 - 0.8	102
0.9 - 1.25	103
1.5 - 2.0	104
2.5 - 3.5	105
4.0 - 6.0	106

Whitworth 55°

Threads per inch	31593 ...
60 - 48	101
40 - 32	102
28 - 22	103
20 - 16	104
14 - 11	105
10 - 7	106
6 - 4	107

31595 - 31596 Setting gauges for thread measuring inserts

ATORN®

Design
- Finely ground and lapped
- With thermal insulation
- **Accuracy in accordance with DIN 863, Part 3**
- Rounded, lapped bore on one side, to place on the tip for easier adjustment.

Applications
For precision micrometers art. no. 31585.

Quality
Hardened steel.

31595
Applications
For 60° male thread (metric ISO thread).

31596
Applications
For 55° male thread (Whitworth thread).

Note:
Setting gauges for 30° trapezoidal thread deliverable on request.

31595

31596

Metric 60°

Length mm	31595 ...
25	101
50	102
75	103
100	104
125	105
175	106

Whitworth 55°

Length mm	31596 ...
25	101
50	102
75	103

31599 Micrometer base stand

Design
- Sturdy cast-iron base plate
- Clamping jaws with adjustable angle of inclination

Applications
Provides a secure stand for a clamped micrometer with a measuring length of up to 100 mm.
For holding micrometers for external measurements.

31599

	31599	...
		101

31614 Precision micrometers

Design
With non-rotating spindle. **Anti-glare, brushed chromium-plated scale.** The friction coupling enables a constant measuring pressure. Frame made of high-quality malleable cast iron or spheroidal graphite iron, with effect coating, with insulation against heat from the hands. **Reading 0.01 mm,** measuring surface Ø 8 mm, spindle pitch 0.5 mm, thimble Ø 20 mm, **accuracy exceeds DIN 863.** Supplied in a case with adjusting key.

Applications
For measuring narrow recesses, e.g. for circlips. For checking the wire diameter on wire coils or springs.

Note:
For setting gauges, see art. no. 31579.

31614

Measuring range mm	Measuring surface W x D mm	Max. error µm	31614	...
0–25	0.75 x 6.5	3		101
25–50	0.75 x 6.5	3		102

31620 Precision micrometers

Design
2 plane-parallel lapped gauge discs, continuous plane without recesses, scale sleeve and thimble brushed chromium-plated, friction coupling, spindle clamp with clamping ring. **Accuracy exceeds DIN 863,** spindle pitch 0.5 mm, **reading 0.01 mm,** thimble Ø 20 mm, in a case with adjusting key.

Applications
For tooth width measurements on module 0.8 and above, and for measuring recess distances and centring edges.

Note:
For setting gauges, see art. no. 31579.

31620

Measuring range mm	Gauge disc Ø mm	Max. error µm	31620	...
0 - 25	20	4		201
25 - 50	20	4		202
50 - 75	20	5		203
75–100	20	5		204
100 - 125	30	6		205
125–150	30	6		206

31661 Precision micrometer

Design
Measuring spindle with hardened measuring surface Ø 6.5 mm, gauge stop made of hardened steel Ø 6.5 mm, measuring force max. 10 N, but higher surface pressure than for micrometers in standard design with the same measuring force, **reading 0.01 mm, accuracy in accordance with DIN 863,** Part 3. Supplied in a case with adjusting key.

Applications
Spherical measuring anvil for measuring wall thicknesses on pipes and other curved parts.

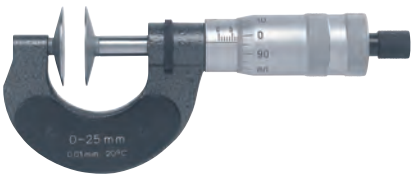
31661

Measuring range mm	31661	...
0 - 25		401

Info Precision tooth width micrometer

- For measuring tooth widths Wk, recess distances and centring wheels
- Large discs - ideal for reliable measurement of rollers
- Gauge disc Ø either 25, 35 or 50 mm, hardened steel, continuous plane without recesses
- Reading 0.01 mm without addition due to 1 mm thread pitch and 100 mm graduations

Deliverable on request. Please contact us!



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31672 3- and 5-point micrometers

Design
With prismatically arranged measuring surfaces, carbide-tipped. **Reading 0.01 mm. Accuracy in accordance with DIN 863.** Painted frame, brushed chromium-plated thimble/scale sleeve. With sensing ratchet. Supplied in a case **with setting gauge.**
Applications
For test specimens such as unevenly grooved cutters, reamers and screw taps, as well as splined shafts and uneven polygons. Detection of roundness deviations on cylindrical surfaces.

31672 101-107
Design
3 measuring points, opening angle of the prism 60°.
Applications
For 3-part test specimens.

31672 108-112
Design
5 measuring points, opening angle of the prism 108°.
Applications
For 5-part test specimens.

31672 101-107

3-point/60°

Measuring range mm	31672 ...
1 - 15	101
5 - 20	102
20 - 35	103
35 - 50	104
50 - 65	105
65 - 80	106
80 - 95	107

5-point/108°

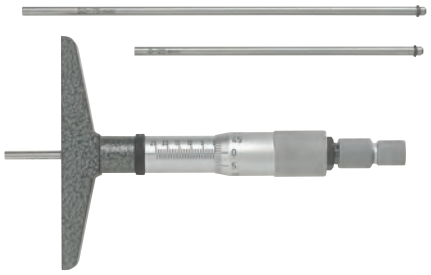
Measuring range mm	31672 ...
5 - 25	108
25 - 45	109
45 - 65	110
65 - 85	111
85 - 105	112

31690 Precision depth micrometers

Design
With friction coupling, scale sleeve and thimble, brushed chromium-plated, with clamping ring, **interchangeable measuring needles with 25 mm increments.** Measuring bridge and measuring needle ends (Ø 4 mm) hardened and lapped.

Accuracy exceeds DIN 863, reading 0.01 mm, measuring range 25 mm.
Spindle pitch 0.5 mm, in a case, with adjusting key and certificate of conformity.

31690



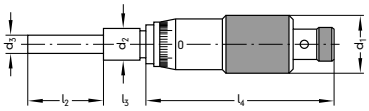
Measuring range mm	Bridge length x width mm	Number of measuring needles	Max. error µm	31690 ...
0–75	50 x 17	3	5	301
0–150	50 x 17	6	6	302
0–150	100 x 17	6	6	304
0–300	100 x 17	12	9	305

31721 Precision micrometer head

Design
Measuring spindle fully hardened, thread ground, measuring drum and measuring sleeve brushed chromium-plated. With ratchet tool and rotating spindle; **accuracy exceeds DIN 863.**

Measuring drum Ø 20 mm, measuring surface carbide-tipped Ø 6.5 mm, spindle pitch 0.5 mm, **reading 0.01 mm.** Supplied with certificate of conformity.

31721



Measuring range mm	d_1 mm	d_2 h6 mm	d_3 mm	l_2 mm	l_3 mm	l_4 mm	31721 ...
0–25	20	12	6.5	27.5 (at 0)	16	73.5 (at 0)	301

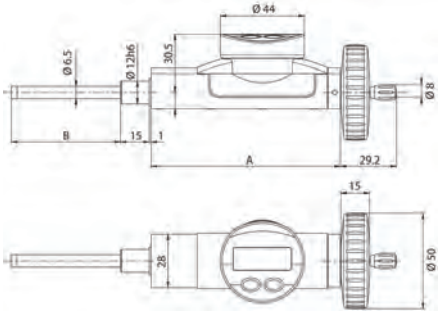
Typ C Typ G Typ H Typ I swiss made

31725 Precision digital micrometer head

sylvac

- **With data output via RS-232/USB,** combined with external feed
- Patented SYLVAC measuring system
- LC display (digit height 6 mm)
- **Dial Ø 44 mm, rotatable over 270°**
- Simplex transmission, non-rotating spindle, cemented carbide measuring surface
- Clamping shaft 12 h6 15 mm long
- Spindle Ø 6.5 mm

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.



31725

Measuring range mm	Measuring range inch	Error limit mm	Repeatability mm	Data output RS-232/US	31725 ...
0–25	0–1	0.005	0.002	x	201

Internal micrometers | Comparison measuring instrument

31749 - 31750 Precision 2-point internal micrometers

Design
Reading 0.01 mm, spindle pitch 0.5 mm. Thimble Ø: Measuring range 35–50 mm = 15 mm, measuring range 50–75 mm = 16 mm, measuring range 75–100 mm = 17 mm, measuring range 100–300 mm = 20 mm. Body made of steel, fully brushed chromium-plated for **glare-free reading.** Spindle thread hardened and ground. **Accuracy exceeds DIN 863.** With adjusting key and certificate of conformity.
Applications
For measuring internal dimensions in the form of cylindrical bores, diameters of turned grooves, the distance between two plane-parallel surfaces etc.

Quality
Measuring surfaces carbide-tipped and spherically lapped.

Note:
Other set combinations, extensions and holders deliverable on request.

31749
Sets consisting of: 1 internal micrometer 50–75 mm with end piece and **extensions** (see table): Steel, hardened and lapped, with insulated grips to protect against heat from the hands. Connecting thread M7. Supplied in a case.

31750 201-203
Individual internal micrometers, measuring range 35–100 mm: Without clamping ring. Stiff spindle thread to prevent unwanted movement of the thimble during measurement. Measuring surface Ø 6 mm.

31750 204-211
Individual internal micrometers, measuring range 100–300 mm: With clamping ring and insulation against heat from the hands. Smooth-running spindle thread for fast adjustment to the desired dimension. Clamping ring for locking the reading drum during measurement. Measuring surface Ø 6 mm.

Measuring range mm	Max. error µm	Gauge block extension lengths mm	Set 31749	...
50–300	9	25/50/50/100		201
50–450	10	25/50/100/200		202
50–850	12	25/50/100/200/400		203
50–1450	15	25/50/100/200/400/600		204

Individual			
Measuring range mm	Max. error µm	31750	...
35 - 50	3		201
50 - 75	3		202
75 - 100	3		203
100 - 125	3		204
125 - 150	3		205
150 - 175	4		206

Individual			
Measuring range mm	Max. error µm	31750	...
175 - 200	4		207
200 - 225	4		208
225 - 250	4		209
250 - 275	4		210
275 - 300	4		211

31749

31750 202

31750 205

31754 Internal micrometers

Design
- **With measuring jaws on one side,** measurement depth 5 mm
- Measuring sleeve, measuring drum and measuring jaws brushed chromium-plated
- Convex cemented carbide measuring surfaces
- Sensing ratchet
- Locking screw

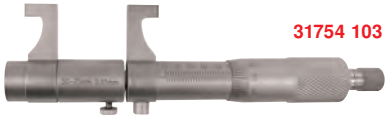
- **Reading 0.01 mm**
- **Accuracy in accordance with DIN 863**
- Spindle pitch 0.5 mm, measuring drum Ø 17 mm
- Supplied in a case

Applications
For internal measurements.

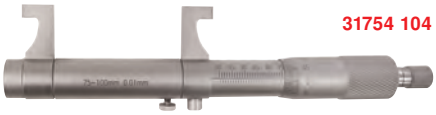
Measuring range mm	Max. error µm	Setting ring mm	31754	...
5 - 30	5	5		101
25 - 50	6	25		102
50–75	7	-		103
75–100	8	-		104

31754 101

31754 102



31754 103



31754 104

31770 Precision internal micrometers

Design
- Measuring surfaces cylindrical, **carbide-tipped**
- Small jaws made of sturdy semi-circular cemented carbide to ensure minimal bending
- Easy operation due to ball bearing-mounted spindle
- **Reading 0.01 mm,** thread pitch 0.5 mm, repeat accuracy less than or equal to 2 µm
- Friction coupling Ø 21 mm pulled forward onto the thimble for sensitive measuring
- **Accuracy exceeds DIN 863**
- Supplied in a case

Applications
Ideal for measuring bores during turning, milling and grinding tasks. Precise measurements due to easy handling. Cost-effective alternative to 3-point internal measuring instruments with the same measuring accuracy.

Note:
Also deliverable with measuring range of up to 600 mm on request.

31770 201
Design
With jaws on both sides with 2 separate inner scale sleeves for easy reading (5–55 mm measuring range).

31770 202-203
Design
With measuring jaws on one side.

Measuring range mm	Max. error µm	31770	...
5 - 55	2.5		201
50 - 75	3.0		202
75 - 100	3.0		203

31770 201

31770 203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31780 - 31781 Universal comparison measuring instrument, UNICHECK

ATORN®

31780 101
Basic unit
Design
- **Measuring range of basic unit 5–220 mm (external)/15–230 mm (internal); can be extended up to 2000 mm via extensions, see art. no. 31781 101–103**
- Measurement display via dial gauge (preferably 25 mm measuring range), precision pointer or electronic measuring probe (not included in scope of delivery, see art. no. 33001 ff.)
- Sturdy, torsion-resistant tube construction
- 1 adjustable fixed measuring arm
- 1 movable measuring arm for internal and external measurement, measuring direction reversible, measurement path 18 mm
- Universally applicable and adaptable system due to a wide range of measuring arms, measuring contacts and stop elements, see art. no. 31781 104–115)
- Adjustment via setting device, master gauge, gauge block combination, ring gauge or micrometer (**not** included in scope of delivery)

Scope of delivery:
- Basic unit in wooden case
- **Without dial gauge and stop elements**

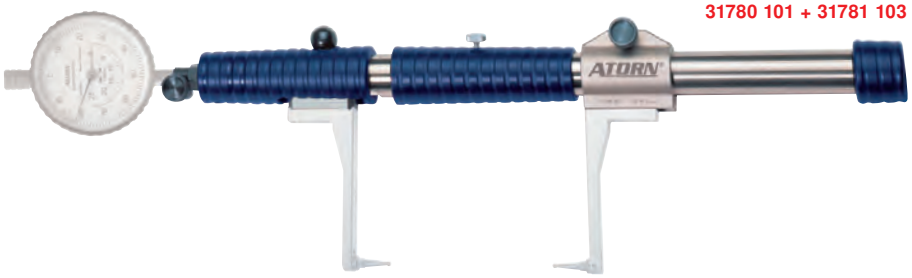
Applications
This measuring instrument is a universal solution for a wide range of precise measuring tasks.
Examples: External and internal measurements of bores and parallel surfaces, threads, gearing, recesses, grooves etc.

Note:
Further comparison measuring instruments from other manufacturers are deliverable on request.

31781 101-115
Accessories
Applications
For universal comparison measuring instrument UNICHECK, see art. no. 31780 101.

UNICHECK in use

31780 101 + 31781 103



31781 101-103

31781 104

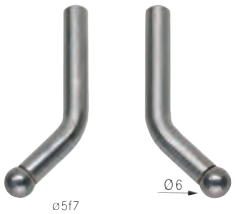
31781 105

31781 106

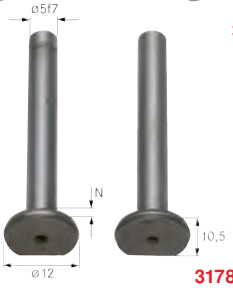
31781 107-108

31781 109

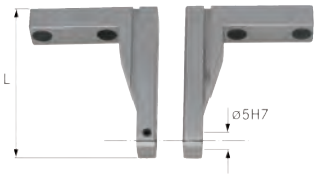
31781 110



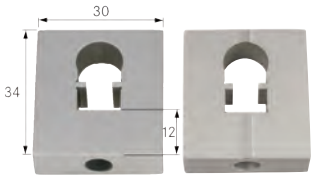
31781 111



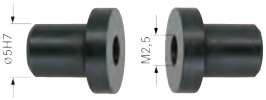
31781 112-113



31781 114



31781 115



Designation	Design/applications	31780 ...	31781 ...
Basic unit	Measuring range 5–220 mm (external)/15–230 mm (internal)	101	
Extension	Length 100 mm		101
Extension	Length 200 mm		102
Extension	Length 500 mm		103
Mounting attachment (pair)	For measuring probe		104
Shoulder measuring inserts (pair)	For external measurements		105
Shoulder measuring inserts (pair)	For internal measurements		106
Measuring inserts (pair)	With spherical contact surfaces, length 23 mm, Ø 6 mm		107
Measuring inserts (pair)	With spherical contact surfaces, length 53 mm, Ø 6 mm		108
Measuring inserts (pair)	Cylindrical, length 52 mm		109
Measuring inserts (pair)	Depressed centre, with spherical contact surfaces, length 41 mm, Ø 6 mm		110
Measuring inserts (pair)	With gauge disc, length 42 mm, Ø 12 mm		111
Measuring arms (pair)	Length 40 mm		112
Measuring arms (pair)	Length 80 mm		113
Depth stops (pair)	For measuring arms		114
Adapter (pair)	5 mm for special probes, M 2.5 (see art. no. 33114)		115

3-point internal micrometers

31899 3-point internal micrometers

ATORN®

Design
- Measuring surfaces with measuring range 12 mm and above carbide-tipped
- With measuring pins at the front for measurements to the base of the hole (Ø 12 mm and above)
- Measuring head from Ø 40 mm in lightweight construction made of anodised aluminium
- **Anti-glare, brushed chromium-plated scale**
- Friction coupling for consistently repeatable measuring force
- Pitch 0.5 mm
- **Accuracy in accordance with DIN 863-4**

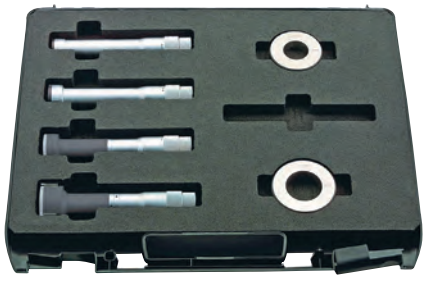
Applications
For through-bores and blind holes (Ø 12 mm and above), and for short centring shoulders. Larger measurement depths are achieved via standard extensions, art. no. 31899 122–125.

31899 101-117
Internal micrometers, individual
Scope of delivery:
- In case

31899 118-121
Internal micrometer sets
Scope of delivery:
- Individual devices with setting rings in a case

31899 101-117

31899 118-121



Application range mm	Scale interval mm	Measurement depth mm	Error limit µm	Individual 31899	...
* 6–8	0.001	58	4		101
* 8–10	0.001	58	4		102
* 10–12	0.001	58	4		103
12 - 16	0.001	64	4		104
16–20	0.001	64	4		105
20–25	0.005	68	4		106
25–30	0.005	68	4		107
30–40	0.005	76	4		108
40–50	0.005	76	4		109
50–60	0.005	79	5		110
60–70	0.005	79	5		111
70–85	0.005	97	5		112
85–100	0.005	97	5		113
100 - 125	0.005	132	6		114
125–150	0.005	132	6		115
150–175	0.005	132	7		116
175–200	0.005	132	7		117

* Not suitable for borehole base measurements.

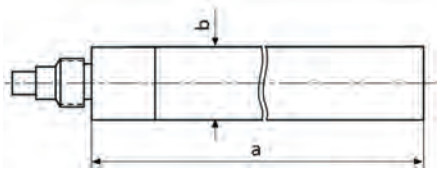
Application range mm	Scale interval mm	Application ranges of individual devices mm	Setting rings mm	Sets 31899	...
* 6–12	0.001	6-8/8-10/10-12	8/10		118
12–20	0.001	12-16/16-20	16		119
20–50	0.005	20-25/25-30/30-40/40-50	25/40		120
50–100	0.005	50-60/60-70/70-85/85-100	60/85		121

* Not suitable for borehole base measurements.

31899 122-125
Measurement depth extensions
Design
- To achieve larger measurement depths

Applications
For 3-point internal micrometers art. no. 31899 101-121.

31899 122-125



For application ranges mm	Length a mm	Ø b mm	Measurement depth extensions 31899	...
6 - 12	75	5.8		122
12 - 20	75	11.6		123
20 - 30	150	18.5		124
30 - 200	150	21.4		125

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31900 - 31902 Precision 3-point internal micrometers, XT

Design
- Measuring range 2–6 mm with 2-point measuring head
- Measuring jaws up to measuring range 12.5 mm made of cemented carbide, from measuring range 12.5 mm with cemented carbide inserts
- Sensing ratchet for constant measuring force
- High-precision hardened and ground measuring spindle
- Vernier scale value 0.005 mm
- Brushed chromium-plated scale display
- **Accuracy in accordance with DIN 863**
- **Includes UKAS calibration certificate**

Applications

Measuring range 2 to 6 mm:
For through-bores and blind holes.
Measurements can extend to the base of the hole.

From measuring range 6 mm to 12.5 mm:
For through-bores and blind holes.
Measurements can extend to 1.9 mm above the base of the hole.

Measuring range 12.5 mm and above:
For through-bores and blind holes.
Measurements can extend to the base of the hole.

31900
Sets
- Supplied in a case **with setting rings** and adjusting key

31902
Individual internal micrometers
- Supplied in a case with adjusting key, **without setting ring**

31900 204

31902

Measuring range mm	Internal micrometer measuring range mm	Sets 31900 ...
6–10	6-8/8-10	202
10–20	10-12.5/12.5-16/16-20	203
20–50	20-25/25-35/35-50	204
50–100	50-65/65-80/80-100	205

Individual			Individual			Individual			Individual		
Measuring range mm	31902	...	Measuring range mm	31902	...	Measuring range mm	31902	...	Measuring range mm	31902	...
2 - 2.5		201	6 - 8		206	20 - 25		211	80 - 100		216
2.5 - 3		202	8 - 10		207	25 - 35		212	100 - 125		217
3 - 4		203	10 - 12.5		208	35 - 50		213	125 - 150		218
4 - 5		204	12.5 - 16		209	50 - 65		214	150 - 175		219
5 - 6		205	16 - 20		210	65 - 80		215	175 - 200		220

31923 3-point internal micrometers

Design
- DIN 863/4
- Extension provides large measurement depth
- Brushed chromium-plated scale and control elements
- Measuring spindle fully hardened and ground
- Ratchet coupling for repeatable measuring force
- Self-centring measuring head with three measuring probes on the side
- Measuring range 12 mm and above carbide-tipped
- Clearance a for 6–12 mm = 1.4 mm, for 12–100 mm = 0.5 mm
- Scale graduation up to measuring range 12 mm = 0.001 mm, from measuring range 16 mm = 0.005 mm
- Supplied in a sturdy transport case, including setting ring and extension

Applications
For measuring through-bores and blind holes.

31923 101-113

31923 201-204

Measuring range mm	Error limit µm	Setting ring mm	Measurement depth without (with) extension mm	Individual 31923 ...
6–8	4	6	55 (155)	101
8–10	4	8	55 (155)	102
10–12	4	10	55 (155)	103
12–16	4	16	81 (231)	104
16–20	4	16	81 (231)	105
20–25	4	25	91 (241)	106
25–30	4	25	91 (241)	107
30–40	4	40	101 (251)	108
40–50	5	40	101 (251)	109
50–63	5	62	101 (251)	110
62–75	5	62	115 (265)	111
75–88	5	87	115 (265)	112
87–100	5	87	115 (265)	113

Measuring range mm	Internal micrometer measuring range mm	Setting rings mm	Extensions mm	Sets 31923 ...
6–12	6-8/8-10/10-12	6/8/10	100	201
12–20	12-16/16-20	16	150	202
20–50	20-25/25-30/30-40/40-50	25/40	2 x 150	203
50–100	50-63/62-75/75-88/87-100	62/87	150	204

3-point internal micrometers | 3-point internal measuring pistols

31935 - 31936 Digital 3-point internal micrometers, XT3D

IP 67 | Typ J | Typ K | Typ L

sylvac

Design
- **With data output via PROXIMITY**
- Measuring jaws up to measuring range 12.5 mm made of cemented carbide, from measuring range 12.5 mm with cemented carbide inserts
- Interchangeable measuring heads
- Sensing ratchet for constant measuring force
- High-precision hardened and ground measuring spindle
- LC display (digit height 6 mm) for error-free reading
- Battery, 3 V (type CR 2032), designed for long-term operation
- mm/inch switching
- Input of 2 preset values
- **Reading can be switched from 0.01 mm to 0.001 mm**
- Hold value function for the last value measured
- Tolerance input
- Max./min. function
- Zero value setting and preset setting
- Supplied in a case with adjusting key

Applications
Up to measuring range 12.5 mm:
For through-bores.
Measurements can extend to 1.9 mm above the base of the hole.

Measuring range 12.5 mm and above:
For through-bores and blind holes.
Measurements can extend to the base of the hole.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

31935
Sets consisting of:
- Digital display unit
- Measuring heads
- **Setting rings, including UKAS calibration certificate**

31936
Individual internal micrometers
- Includes digital display unit, **without setting rings**

31936

Measuring range mm	Data output PROXIMITY	Sets 31935	...	Individual 31936	...
6–10	6-8/8-10	8	x	301	
10–20	10-12.5/12.5-16/16-20	12.5/20	x	302	
20–50	20-25/25-35/35-50	20/35	x	303	
50–100	50-65/65-80/80-100	65/80	x	304	
6–8	x			301	
8–10	x			302	
10–12.5	x			303	
12.5–16	x			304	
16–20	x			305	
20–25	x			306	
25–35	x			307	
35–50	x			308	
50–65	x			309	
65–80	x			310	
80–100	x			311	
100–125	x			312	
125–150	x			313	
150–175	x			314	
175–200	x			315	

31906 Digital 3-point internal measuring pistol sets, Micromar 844 AS

Typ V | Typ W | Typ X

Mahr

Design
- Connecting thread for changing the measuring heads
- **Self-centring measuring head** with three measuring probes on the side, offset by 120°
- Measuring probe from 12 mm carbide-tipped
- From 12 mm: measuring probe for measurement to the base of the hole
- From 40 mm: weight-saving aluminium measuring head
- Company standard

Scope of delivery:
- Display unit MarCator 1086 R
- Setting rings
- Key for changing the measuring heads
- Operating instructions
- In case

Applications
Measurement of through-bores, blind holes and centring edges.

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 202.
For display units, see art. no. 33086.

31906

Measuring range mm	Number of heads	Setting rings mm	Reading mm	Display unit	31906	...
6–12	3	8/10	0.001	MarCator 1086 R	101	
12–20	2	16	0.001	MarCator 1086 R	102	
20–50	4	25/40	0.001	MarCator 1086 R	103	
50–100	4	60/85	0.001	MarCator 1086 R	104	

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31925 Digital 3-point internal micrometers, Micromar 44 EWR

IP 52 | Typ V | Typ W | Typ X

Mahr

Design
- Connecting thread for changing the measuring heads
- Self-centring measuring head with three measuring probes on the side, offset by 120°
- Ready for immediate measurements with **reference system**
- Measuring probe from 12 mm carbide-reinforced
- Measuring head from 40 mm made of weight-saving aluminium
- LCD display (digit height 8.5 mm)
- **Data interface: Digimatic, Opto RS-232C, USB**
- Power supply: Battery, service life approx. 2 years
- Accuracy in accordance with DIN 863-4

Functions:
- RESET (setting the display to zero)
- ABS (display can be set to zero without losing the reference to the preset)
- mm/inch switching
- PRESET (measurement presetting)
- DATA (in conjunction with data connection cable)
- LOCK function (keypad lock)

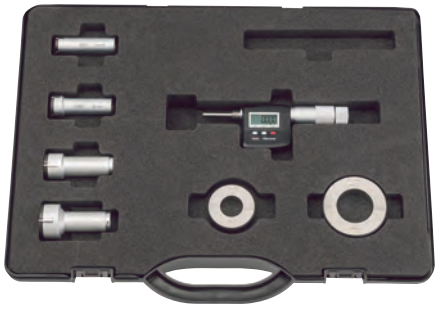
Applications
Measurement of through-bores, blind holes and centring edges.

31925 101-117
Internal micrometers, individual
Scope of delivery:
- Basic unit, 44 EWg
- Measuring head, 44 Ak
- 3 V battery (type CR 2032)
- Operating instructions
- In case

31925 201-204
Internal micrometer sets
Scope of delivery:
- Basic unit, 44 EWg
- Measuring heads, 44 Ak
- Setting rings
- 3 V battery (type CR 2032)
- Operating instructions
- In case

REFERENCE 31925 101-117

REFERENCE 31925 203



Measuring range mm	Reading mm	Error limit µm	Measurement depth mm	Individual 31925	...
6–8	0.01	4	58		101
8–10	0.01	4	58		102
10–12	0.01	4	58		103
12–16	0.01	4	64		104
16–20	0.01	4	64		105
20–25	0.01	4	68		106
25–30	0.01	4	68		107
30–40	0.01	4	76		108
40–50	0.01	4	76		109
50–60	0.01	5	79		110
60–70	0.01	5	79		111
70–85	0.01	5	97		112
85–100	0.01	5	97		113
100–125	0.01	6	132		114
125–150	0.01	6	132		115
150–175	0.01	7	132		116
175–200	0.01	7	132		117

Measuring range mm	Internal micrometer measuring range mm	Setting rings mm	Sets 31925	...
6–12	6-8/8-10/10-12	8/10		201
12–20	12-16/16-20	16		202
20–50	20-25/25-30/30-40/40-50	25/40		203
50–100	50-60/60-70/70-85/85-100	60/85		204

3-point internal micrometers

31907 - 31909 Precision 3-point internal micrometers

MICROTEST

31907
Internal micrometers, individual
Design
- **Oversized measuring range Ø 30–1150 mm with only 9 internal micrometers**
- Maintenance-free thanks to Microtest system, brushed hard chromium-plated housing, clearly engraved scale graduations
- Automatic self-centring
- 1 µm parallax-free direct full reading (1 mm, 1/10 mm, 1/100 mm, 1/1000 mm)
- One pointer revolution = 1 mm, so no reading errors and no calculation
- **Accuracy: Factory standard exceeds DIN 863**
- Minimised bevel gear play
- Optimised forced retraction of the probes
- Insulation protection against contamination and thermal expansion
- Equipped for digital technology
- Supplied in a case
- Made in Switzerland

Applications
Blind holes can be measured to the base of the hole. **High-precision measurement even in a large measuring range.** Optimised extensions for large measurement depths.

31908
Extensions
- Can be extended up to **10 metres** without loss of accuracy (up to 15 metres possible)

31909
Control gauge
Design
- Ø 40–240 mm, measuring surfaces hard-chromium plated
- In case

Applications
For adjusting 6 internal micrometers, 30–400 mm. Replaces numerous setting rings.

Note:
Further control gauges up to max. Ø 1100 mm deliverable on request, saving on calibration and certification costs.

31907

31908

31909

					Internal micrometer		Extension		Control gauge	
Measuring range mm	Measurement depth mm	Length mm	Linear precision +/- µm	Repeat accuracy +/- µm	31907	...	31908	...	31909	...
30–40	110	-	2	1.5		101				
40–60	110	-	2	1.5		102				
60–90	110	-	2	1.5		103				
90–140	140	-	2	1.5		104				
140–240	210	-	3	1.5		105				
240–400	300	-	3	1.5		106				
400–650	520	-	5	2.5		107				
650–900	520	-	7	3.5		108				
900–1150	520	-	8	4.5		109				
30–400	-	200	-	-				101		
30–400	-	500	-	-				102		
30–400	-	1000	-	-				103		
30–400	-	-	-	-						101

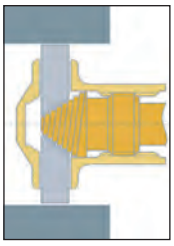
31916 Precision 3-point internal micrometers

TESA

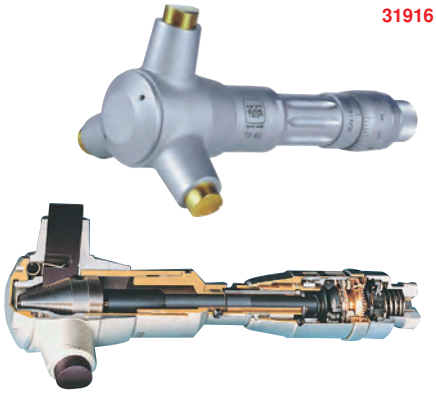
IMICRO
Design
- **Self-centring and self-aligning micrometers** with high measurement reliability
- Measuring pins coated all over with diamond-like carbon (ADLC, hardness HV 0.05 4000 to 6000 = measuring range 11–100 mm), or carbide-tipped (hardness HV 1300 = measuring range 100–300 mm)
- **Accuracy in accordance with DIN 863/4**
- Includes ratchet tool
- Supplied with installation key and test report with declaration of conformity

Applications
For measuring cylindrical bores, for large measuring ranges and measurement depths.

Note:
For extensions, see art. no. 31948.



31916



Measuring range mm	Reading mm	Measurement depth mm	31916	...
3.5–4	0.001	20		101
4 - 4.5	0.001	20		102
4.5 - 5.5	0.001	25		103
5.5 - 6.5	0.001	25		104
6 - 8	0.001	52		105
8 - 10	0.001	52		106
10 - 12	0.001	52		107
11 - 14	0.005	77		108
14 - 17	0.005	77		109
17 - 20	0.005	77		110
20 - 25	0.005	78		111
25 - 30	0.005	78		112
30 - 35	0.005	78		113
35 - 40	0.005	78		114

Measuring range mm	Reading mm	Measurement depth mm	31916	...
40 - 50	0.005	84		115
50 - 60	0.005	84		116
60 - 70	0.005	84		117
70 - 80	0.005	84		118
80 - 90	0.005	84		119
90 - 100	0.005	84		120
100 - 125	0.01	100		121
125 - 150	0.01	100		122
150 - 175	0.01	100		123
175 - 200	0.01	100		124
200 - 225	0.01	100		125
225 - 250	0.01	100		126
250 - 275	0.01	100		127
275 - 300	0.01	100		128

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

31948 Extensions

Applications
For digital 3-point internal micrometers:
- **TESA IMICRO** (art. no. 31916)
- Supplied **without** micrometer and centring device

Note:
Lengths up to 1000 mm and centring devices deliverable on request.

31948

For measuring range mm	Length mm	31948	...
6 - 12	100		**101**
11 - 20	150		**102**
20 - 40	150		**103**
40 - 100	150		**104**

Info — Gauge blocks – the reference for precision –

Parallel gauge blocks are supplied in accordance with **DIN EN ISO 3650** in the following calibration/tolerance classes:

1. **Calibration class -K-** for primary standard sets and test sets for determining the sizes of gauge blocks from low tolerance classes and of gauges, and for setting measuring instruments.
2. **Tolerance class -0-** for primarystandard sets or benchmark sets for checking test sets.
3. **Tolerance class -1-** for test sets and working dimensions subject to particularly high demands (test department).
4. **Tolerance class -2-** for working dimensions.

The permissible deviations and tolerances are in accordance with DIN EN ISO 3650.
The reference temperature at which the gauge blocks represent the exact dimension within the permissible limits is 20 °C/68 °F.
Cemented carbide gauge blocks are primarily supplied in tolerance classes 0, 1 and 2.

The choice of the smallest sub-grade in a set depends on the set's intended use. If, for example, the set is to be used to check gauges, it is advisable to select a set which permits increments of a thousandth of a millimetre.

Please make use of our gauge block service.
We will check your gauge block sets in the shortest possible time. After the test you will receive a test report with a cost estimate for the gauge blocks to be replaced.

32001 - 32002 Metric parallel gauge block sets, steel and cemented carbide

ATORN®

Design
- The tolerance class of the parallel gauge blocks meets the requirements of **DIN EN ISO 3650**
- Delivery in a wooden case, **with traceable factory calibration certificate**

Note:
Gauge blocks made of special steel in calibration class -K-, solid carbide in other tolerance classes and set configurations, supplementary sets of metric parallel gauge blocks and DAkkS reports deliverable on request.

32001 303

		Tolerance class 0		Tolerance class 1	
Set contents	Material	32001	...	32002	...
47 pieces	Steel		303		303
87 pieces	Steel		304		304
103 pieces	Steel		305		305
47 pieces	Cemented carbide		402		402
87 pieces	Carbide		403		403

Set contents	Individual blocks mm	Number of pieces	Increments mm
47pcs	1.005	1	-
	1.01–1.20	20	0.01
	1.3–1.9	7	0.1
	1–9	9	1.0
	10–100	10	10
87pcs	1.001–1.009	9	0.001
	1.01–1.49	49	0.01
	0.5–9.5	19	0.5
	10–100	10	10.0
103pcs	1.005	1	-
	1.01–1.49	49	0.01
	0.5–24.5	49	0.5
	25–100	4	25.0

32004 - 32006 Metric parallel gauge block sets, special steel

Design
- Carefully selected, high-quality, alloyed **special steel,** aged, hardened and hand-lapped
- The **tolerance class** of the parallel gauge blocks meets the requirements of **DIN EN ISO 3650**
- In a storage box with fixed gauge block holder
- Supplied **with factory calibration certificate**

32004 - 32006

	Tolerance class 0		Tolerance class 1		Tolerance class 2	
Set contents	32004	...	32005	...	32006	...
32 pieces		101		101		101
47 pieces		102		102		102
87 pieces		103		103		103
103 pieces		104		104		104

Set contents	Individual blocks mm	Number of pieces	Increments mm
32pcs	1.005	1	-
	1.01–1.09	9	0.01
	1.1–1.9	9	0.1
	1–9	9	1.0
	10, 20, 30, 50	4	-
47pcs	1.005	1	-
	1.01–1.20	20	0.01
	1.3–1.9	7	0.1
	1–9	9	1.0
	10–100	10	10.0
87pcs	1.001–1.009	9	0.001
	1.01–1.49	49	0.01
	0.5–9.5	19	0.5
	10–100	10	10.0
103pcs	1.005	1	-
	1.01–1.49	49	0.01
	0.5–24.5	49	0.5
	25–100	4	25.0

Gauge blocks | Angle gauges

32007 - 32008 Parallel gauge block sets, ceramic

ATORN®

Design
- The tolerance class of the parallel gauge blocks meets the requirements of **DIN EN ISO 3650**
- Delivery in a wooden case, **with traceable factory calibration certificate**

Note:
Sets in other tolerance classes deliverable on request.

Set contents	Individual blocks mm	Number of pieces	Increments mm
47pcs	1.005	1	-
	1.01–1.20	20	0.01
	1.3–1.9	7	0.1
	1–9	9	1.0
	10–100	10	10.0
87pcs	1.001–1.009	9	0.001
	1.01–1.49	49	0.01
	0.5–9.5	19	0.5
	10–100	10	10

32007 202

Set contents	Tolerance class 0 32007	...	Tolerance class 1 32008	...
47 pieces		202		202
87 pieces		205		205

32026 - 32028 Parallel individual gauge blocks, special steel

Design
Cross-section dimensions:
Nominal dimension range under 0.3 mm = 20 x 9 mm, up to 10.1 mm = 30 x 9 mm, above 10.1 mm = 35 x 9 mm.

Applications
To supplement and replace damaged or worn gauge blocks.

Quality
Special steel.

Note:
Nominal dimension of 125 mm and above supplied in a storage box. Metric individual gauge blocks in calibration/tolerance class DIN EN ISO 3650 K and ***DKD test reports are*** *deliverable on request.*

Additional parallel individual gauge blocks made of cemented carbide and ceramic are deliverable on request.

32026 - 32028

Tolerance class	0		1		2	
Nominal dimension mm	32026	...	32027	...	32028	...
0.5		200		200		200
0.6		201		195		195
0.7		202		196		196
0.8		203		197		197
0.9		204		198		198
1		205		201		201
1.0005		206		199		199
1.001		207		203		203
1.002		208		204		204
1.003		209		205		205
1.004		210		206		206
1.005		211		207		207
1.006		212		208		208
1.007		213		209		209
1.008		214		210		210
1.009		215		211		211
1.01		216		212		212
1.02		217		213		213
1.03		218		214		214
1.04		219		215		215
1.05		220		216		216
1.06		221		217		217
1.07		222		218		218
1.08		223		219		219
1.09		224		220		220
1.1		225		221		221
1.11		226		222		222
1.12		227		223		223
1.13		228		224		224
1.14		229		225		225

Tolerance class	0		1		2	
Nominal dimension mm	32026	...	32027	...	32028	...
1.15		230		226		226
1.16		231		227		227
1.17		232		228		228
1.18		233		229		229
1.19		234		230		230
1.2		235		231		231
1.21		236		232		232
1.22		237		233		233
1.23		238		234		234
1.24		239		235		235
1.25		240		236		236
1.26		241		237		237
1.27		242		238		238
1.28		243		239		239
1.29		244		240		240
1.3		245		241		241
1.31		246		242		242
1.32		247		243		243
1.33		248		244		244
1.34		249		245		245
1.35		250		246		246
1.36		251		247		247
1.37		252		248		248
1.38		253		249		249
1.39		254		250		250
1.4		255		251		251
1.41		256		252		252
1.42		257		253		253
1.43		258		254		254
1.44		259		255		255

Continued

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32026 - 32028 Parallel individual gauge blocks, special steel

Continued

Tolerance class	0		1		2	
Nominal dimension mm	32026	...	32027	...	32028	...
1.45		260		256		256
1.46		261		257		257
1.47		262		258		258
1.48		263		259		259
1.49		264		260		260
1.5		265		261		261
1.6		266		262		262
1.7		267		263		263
1.8		268		264		264
1.9		269		265		265
2		270		266		266
2.5		271		267		267
3		272		268		268
3.5		273		269		269
4		274		270		270
4.5		275		271		271
5		276		272		272
5.5		277		273		273
6		278		274		274
6.5		279		275		275
7		280		276		276
7.5		281		277		277
8		282		278		278
8.5		283		279		279
9		284		280		280
9.5		285		281		281
10		286		282		282
10.5		287		283		283
11		288		284		284
11.5		289		285		285
12		290		286		286
12.5		291		287		287
13		292		288		288
13.5		293		289		289
14		294		290		290
14.5		295		291		291
15		296		292		292
15.5		297		293		293
16		298		294		294
16.5		299		295		295

Tolerance class	0		1		2	
Nominal dimension mm	32026	...	32027	...	32028	...
17		300		296		296
17.5		301		297		297
18		302		298		298
18.5		303		299		299
19		304		300		300
19.5		305		301		301
20		306		302		302
20.5		307		303		303
21		308		304		304
21.5		309		305		305
22		310		306		306
22.5		311		307		307
23		312		308		308
23.5		313		309		309
24		314		310		310
24.5		315		311		311
25		316		312		312
30		317		313		313
40		318		314		314
50		319		315		315
60		320		316		316
70		321		317		317
75		322		318		318
80		323		319		319
90		324		320		320
100		325		321		321
125		326		322		322
150		327		323		323
175		328		324		324
200		329		325		325
250		330		326		326
300		331		327		327
400		332		329		329
500		333		331		331
600		334		332		332
700		335		333		333
800		336		334		334
900		337		335		335
1000		338		336		336

32035 Precision angle gauge set

Design
- **12 pieces**
- Consisting of gauges with the following angles: 0.25° (15´), 0.5° (30´), 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°
- Tolerance +/- 30 arc seconds
- Supplied in a case

Applications
For fast generation of an angle.

Quality
Steel, hardened and ground.

32035

Set contents	32035	...
12 pieces		201

32036 Precision calibration ball set

Design
2 pieces each per nominal dimension, in a case.

Quality
Hardened special steel.

32036

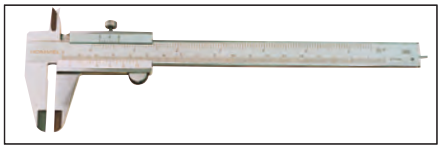
Set contents	Measuring range mm	Increments mm	Error limit µm	32036	...
50 pieces	1–25	1	3		101

32040 Metric parallel gauge block sets (for vernier calipers)

Design
Calibration set for vernier calipers. Tolerance class 1. Selected, highly wear-resistant **special steel** which guarantees the best possible wear resistance and exceptionally long-term dimensional stability through special hardening processes. High measuring surface hardness of 820 HV 1. Expansion coefficient: 11.5 x 10-6 K-1. **Supplied without vernier calipers and without a calibration certificate.** For calibration costs, see art. no. 30105 (individual gauge blocks).
Applications
For calibrating vernier calipers in accordance with VDI/VDE/DGQ 2618, sheet 8.

Note:
Other sizes for vernier calipers or increments deliverable on request. The gauges included in the sets are also deliverable separately. For test gauge, see art. no. 32060 201.

32040



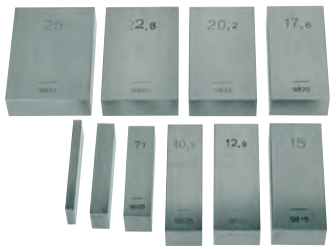
Set contents	Nominal dimensions mm	For measuring range mm	32040	...
3 pieces	30/41.3/131.4	0–200		200
5 pieces	30/41.3/131.4/243.5/281.2	0–300		199
8 pieces	30/41.3/131.4/243.5/281.2/481.1/550/700	0–800		203

32050 Metric parallel gauge block sets (for micrometers)

Design
Calibration set for micrometers. Tolerance class 1. Selected, highly wear-resistant **special steel** which guarantees the best possible wear resistance and exceptionally long-term dimensional stability through special hardening processes. High measuring surface hardness of 820 HV 1. Expansion coefficient: 11.5 x 10-6 K-1. **Supplied without a micrometer and without a calibration certificate.** For calibration costs, see cat. no. 30105 (individual gauge blocks).

Applications
For calibrating micrometers in accordance with VDI/VDE/DGQ 2618, sheet 5.

32050



Set contents	Nominal dimensions mm	For measuring range mm	32050	...
5 pieces	5.1/10.3/15/20.2/25	0–25		200
10 pieces	2.5/5.1/7.7/10.3/12.9/15/17.6/20.2/22.8/25	0–25		201
11 pieces	25/27.5/30.1/32.7/35.3/37.9/40/42.6/45.2/47.8/50	25–50		202
11 pieces	50/52.5/55.1/57.7/60.3/62.9/65/67.6/70.2/72.8/75	50–75		203
11 pieces	75/77.5/80.1/82.7/85.3/87.9/90/92.6/95.2/97.8/100	75–100		204
8 pieces	5.1/10.3/15/20.2/25/50/75/100	0–100		205

32055 Measuring force test device for micrometers

Design
Set consisting of:
Force measuring cell for micrometers from measuring range 0–25 mm, 3 screw-on extensions (25/50/75 mm) for micrometers up to measuring range 100 mm.
Supplied in a case.

Applications
For simple testing of the measuring force between the measuring surfaces (up to Ø 8 mm) of micrometers. The measuring force must be between 5 and 10 N in accordance with DIN 863 Part 1.

Note:
Calibration on request.

32055

	32055	...
		101

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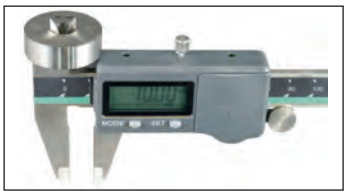
32060 Test gauge

Design
- Hardened, ground and lapped
- Production accuracy:
  Outer Ø +/- 2 µm,
  Inner Ø +/- 2 µm,
  Height +/- 10 µm
- Supplied **without** a calibration certificate

Applications
For checking indicating vernier calipers (digital or dial display). The dimensional accuracy of the vernier calipers can be checked by means of the tips, the measuring jaws and the depth gauge. If deviations are detected, the zero point can be redefined by correcting the display.

32060



Outer Ø mm	Inner Ø mm	Height mm	32060 ...
30	10	10	**201**

32068 Gauge block accessory set

Design
Set consisting of:
3 x adjustable gauge block holder
Size 0–50/0–100/0–200 mm,
1 x gauge block holder base,
3 x pair of measuring jaws with cylindrical attachment, 2/5/10 mm,
1 x marking point,
1 x centring point.
Supplied in a solid wooden box.

Applications
The gauge block accessory set can be used to assemble high-precision control devices and gauges. It also protects the gauge blocks so that their accuracy is maintained.

32068

Set contents	32068 ...
12 pieces	**101**

32097 Optical flats

Design
- Made of special glass
- Max. flatness deviation 0.125 µm

Applications
For testing the flatness of gauge blocks, measured objects, gauges, micrometers and all lapped and polished workpiece surfaces. Interference fringes show the deviations on the test piece. White or monochromatic light is required for observation.

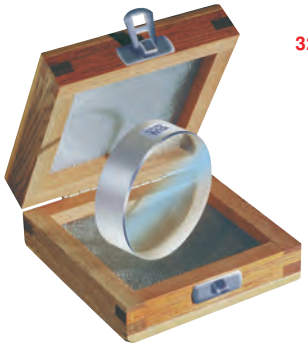
Note:
Light box with monochromatic light deliverable on request.

32097 101
Design
- Supplied in a wooden case

32097 202
Design
- 15 mm thick
- Supplied in a wooden case, including declaration of conformity

32097 101

32097 202



Diameter mm	32097 ...
45	**101**
50	**202**

Limit plug gauges | Taper gauges | Snap gauges

32100 Limit plug gauges, DIN 2245 (bore gauges)

Design
- Hardened, annealed, ground and lapped
- Go and no-go plug gauge, fully cylindrical, on a handle

Tolerance range:
- ISO fit H7

Applications
For checking holes.

Quality
Gauge steel, hardened, 62 +/-2 HRC.

Note:
Other dimensions, tolerance ranges, qualities and designs (e.g. hard chromium plating, cemented carbide, coatings, extended gauging members or handles, vent holes, pilot attachments and as flat limit or check gauges) on request.

32100

Nominal dimension Ø mm	32100 ...	Nominal dimension Ø mm	32100 ...	Nominal dimension Ø mm	32100 ...	Nominal dimension Ø mm	32100 ...
1	106	12	125	27	140	48	156
1.5	108	13	126	28	141	50	157
2	110	14	127	30	142	52	158
2.5	112	15	128	32	143	55	159
3	114	16	129	33	144	60	161
3.5	115	17	130	34	145	62	162
4	116	18	131	35	146	65	163
4.5	117	19	132	36	147	68	164
5	118	20	133	38	149	70	165
6	119	21	134	40	150	75	167
7	120	22	135	42	151	80	169
8	121	23	136	44	152	85	171
9	122	24	137	45	153	90	173
10	123	25	138	46	154	100	177
11	124	26	139	47	155		

32150 - 32155 Taper gauges (morse tapers), DIN 229

Design
- Maximum precision
- Without lugs

Applications
For testing internal and external tapers.

32150

32155

Morse taper	Tapered plug gauges 32150 ...	Taper ring gauges 32155 ...
1	102	102
2	103	103
3	104	104
4	105	105

32201 Limited snap gauges, DIN 2230

Design
- Double-ended, forged
- Measuring surface hardened, annealed, ground and lapped
- **Tolerance class: h 6**

Applications
For testing shafts for various fits.

Quality
Die-forged.

Note:
Other dimensions and tolerances, one-sided limited snap gauges in forged version up to 214 mm, 214 mm and above in sheet steel, and gauges with hard chromium-plated or carbide-tipped measuring surfaces deliverable on request.

32201

Nominal dimension Ø mm	32201 ...	Nominal dimension Ø mm	32201 ...	Nominal dimension Ø mm	32201 ...	Nominal dimension Ø mm	32201 ...
3	111	16	126	32	140	70	162
4	113	18	128	35	143	75	164
5	115	19	129	40	147	80	166
6	116	20	130	45	150	85	168
7	117	22	132	46	151	90	170
8	118	24	134	50	154	95	172
10	120	25	135	55	156	100	174
12	122	26	136	60	158		
14	124	28	138	65	160		
15	125	30	139	68	161		

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32340 Precision pointer snap gauges

ATORN®

Design
- **Carbide-tipped measuring surfaces**
- Flatness and parallelism deviations in accordance with DIN 863
- Anti-glare, brushed chromium-plated thimble and scale sleeve
- Spindle clamp
- Spring-mounted anvil
- Consistently repeatable measuring force
- Anvil raised via actuation lever
- Clamping shaft Ø 8 mm for precision pointers and dial gauges, and for electronic length measuring probes
- Supplied in a case, **without precision pointer**

Applications
Particularly suitable for efficient comparative measurement of serial parts.

Note:
Problem-free adjustment using parallel gauge blocks.
For precision pointer, see art. no. 33071–33074.

32340

Measuring range mm	Measuring surface Ø mm	Measurement path, movable anvil mm	32340 ...
0 - 25	8	3	**201**
25 - 50	8	3	**202**
50 - 100	8	3	**203**

32341 Precision pointer snap gauge, MaraMeter 840 F

Mahr

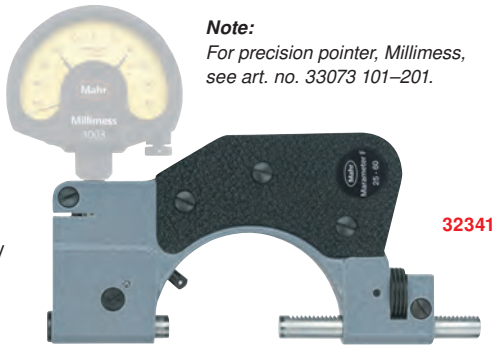
Design
- Strong, forged steel handle with heat-insulating grips
- Long-guided measuring probe retractable via lift-off lever
- Measuring and counter probe made from stainless, hardened steel; carbide-tipped measuring surfaces
- Adjustable centring stop for adjustment to centre of measuring surface
- Precise adjustment of counter probe
- Built-in measuring force spring for a constant measuring force, so the measuring results do not depend on the user's sense of touch during the measurement
- Low wear due to contact-free insertion combined with carbide-tipped measuring surfaces

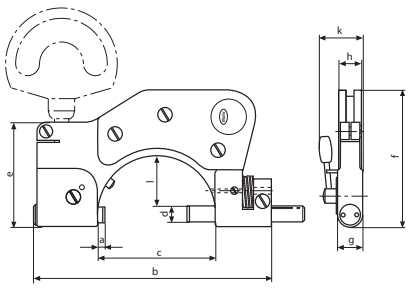
Scope of delivery:
- Face insert made of steel 903
- Operating instructions
- In a wooden box
- **Without** display unit

Applications
For cylindrical parts such as shafts, pins and shanks, for thickness and length measurements. Suitable for universal use. Each device covers a large range. Any dimension and fit can be quickly set within this range.

Note:
For precision pointer, Millimess, see art. no. 33073 101–201.

32341





Technical data:	32341 101	32341 102	32341 103	32341 104	32341 105
Measuring probe path mm:	2.0	2.0	2.5	2.5	2.5
Measuring force N:	7.5	7.5	7.5	9.0	9.0
Parallelism deviation µm:	1	2	2	2	2
Flatness deviation µm:	0.2	0.2	0.2	0.2	0.2
Repeatability fw µm:	0.5	0.5	1.0	1.0	1.0
Frame size:	1	2	3	4	5

Measuring range mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	k mm	l mm	32341 ...
0–25	5.0	97	34	8	54	65	12	13	23	14	**101**
25–60	5.0	140	68	9	60	77	13	13	25	30	**102**
50–100	6.5	193	110	10	60	103	14	13	28	54	**103**
100–150	6.5	258	162	12	70	141	16	12	31	81	**104**
150–200	6.5	316	212	12	75	171	16	12	31	106	**105**

Thread gauges | Thread limit plug gauges

32410 - 32411 Thread gauge sets, HSS-E/TiN-coated

ATORN®

Design
7 pieces, in a wooden case.
Advantages of TiN coating:
- Improved corrosion resistance
- Surface hardness approx. 2500 Vickers
- Approx. 10 times the wear resistance of normal gauge steel
- Extremely well proven for gauging aggressive materials such as non-ferrous metals, high-pressure die casting alloys and stainless steels
- Longer calibration intervals
- Cost reduction

Applications
- For standard metric ISO thread in accordance with DIN 13.

Quality
HSS-E. Go side TiN-coated.

Note:
TiN-coated gauges, individual or in a set, in other dimensions, in all thread types, deliverable on request.

32410 101
Thread limit plug gauge set

32410

32411 101
Thread go ring gauge set

32411

		Limit plug gauges		Go ring gauges	
	Set contents Size M	32410	...	32411	...
7 pieces	3/4/5/6/8/10/12		101		101

32413 Thread limit plug gauges, standard ISO thread, DIN 2280

Design
- Hardened and finely ground
- Right-hand thread
- In accordance with **DIN 2280** for good and scrap
- **Tolerance 6 H** (M 1–M 1.4 tolerance 5 H)
- Go side with full thread profile (must screw into the test piece without the use of force)
- Scrap side with shortened thread flanks and only a few turns (must not screw in)

Applications
For standard metric **ISO thread in accordance with DIN 13.**

Quality
Best gauge steel.

Note:
Special gauges *in all dimensions, tolerances and set combinations* ***deliverable on request.***

32413

Nominal Ø mm	32413 ...
M 1	201
M 1.2	202
M 1.4	203
M 1.6	204
M 2	206
M 2.5	208
M 3	209
M 3.5	210
M 4	211
M 5	213
M 6	214
M 7	215
M 8	216

Nominal Ø mm	32413 ...
M 9	217
M 10	218
M 12	220
M 14	221
M 16	222
M 18	223
M 20	224
M 22	225
M 24	226
M 27	227
M 30	228
M 33	229
M 36	230

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32414 - 32415 Thread gauges, metric ISO thread, DIN 13

Design
- Measuring depth to 4 x D
- Right-hand thread
- Tolerance 6 H
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
- Testing of cylindrical female threads for compliance with the flank diameter and for form, pitch and angle deviations
- Measurement of thread depth using scale or vernier scale
- It must be possible to screw on the thread go plug gauge by hand without applying special force
- It must not be possible to screw on the thread no-go plug gauge by more than 2 turns by hand without applying special force

Note:
Thread gauge accuracy and thread depth can be checked with a single measuring device. Duration of the thread inspection cycle is reduced by 50%. Further nominal diameters, pitches, tolerance classes, left-hand threads or other thread types, thread limit gauges and thread limiting roller gauges for standard metric ISO threads are deliverable on request.

NEW

32414

32415

32414
Thread limit plug gauge with depth measurement (scale)
Design
- Scale reading accuracy 0.5 mm

32415
Thread limit plug gauge with depth measurement (vernier scale)
Design
- Vernier scale reading accuracy 0.1 mm

	With scale		With vernier scale	
Nominal Ø mm	32414	...	32415	...
M 3		101		101
M 4		102		102
M 5		103		103
M 6		104		104
M 8		105		105
M 10		106		106
M 12		107		107

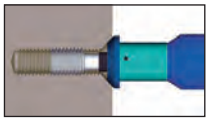
Info Digital thread limit plug gauge, MultiCheck

Advantages of using a MultiCheck thread limit plug gauge

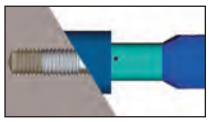
- Thread gauge accuracy and thread depth can be checked with a single tool
- Duration of a thread inspection cycle is reduced by 50%
- Thread depth is readable up to 4 x D
- Use of standard threaded plug gauges
- Plug gauges that are no longer dimensionally accurate are easy to replace
- Reliable reading of thread depth on measuring sleeve or digital display

Deliverable on request.
Please contact us!

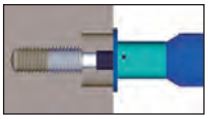
Additional adaptations for testing with MultiCheck.



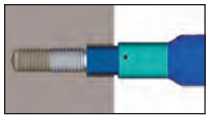
Conical contact surface for special bore shoulders.



Angled contact surface sleeve for slanted bores.



Increased diameter for larger contact surfaces.



Diameter reduction for recessed bores.

Thread pin extensions for very deep bores.

Threaded ring gauges | Threaded plug gauges

32426 - 32428 Thread go and no-go ring gauges, metric ISO thread, DIN 13

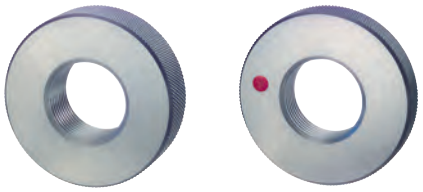
32426
Thread go ring gauges
Design
- Right-hand thread
- Tolerance 6g (M 1–M 1.4 tolerance 6h)
- Construction dimensions in accordance with DIN 2285-1
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical male threads for compliance with the flank diameter and for form, pitch and angle deviations.
It must be possible to screw on the thread go ring gauge by hand without applying special force.

32428
Thread no-go ring gauges
Design
- Right-hand thread
- Tolerance 6g (M 1–M 1.4 tolerance 6h)
- Construction dimensions in accordance with DIN 2299-1
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical male threads for compliance with the flank diameter.
It must not be possible to screw on the thread no-go ring gauge by more than 2 turns by hand without applying special force.

32426 32428



Note:
Further nominal diameters, pitches, tolerance classes, left-hand threads or other thread types and thread limit gauges for standard metric ISO threads, fine metric ISO threads and thread limiting roller gauges deliverable on request.

	Go ring gauges		No-go ring gauges	
Nominal Ø mm	32426	...	32428	...
M 1		201		201
M 1.2		202		202
M 1.4		203		203
M 1.6		204		204
M 2		206		206
M 2.5		208		208
M 3		209		209
M 3.5		210		210
M 4		211		211
M 4.5		212		212
M 5		213		213
M 6		214		214
M 7		215		215

	Go ring gauges		No-go ring gauges	
Nominal Ø mm	32426	...	32428	...
M 8		216		216
M 9		217		217
M 10		218		218
M 12		220		220
M 14		221		221
M 16		222		222
M 18		223		223
M 20		224		224
M 22		225		225
M 24		226		226
M 27		227		227
M 30		228		228

32429 Thread limit plug gauges, fine metric ISO thread, DIN 13

Design
- Right-hand thread
- Tolerance 6H
- Construction dimensions in accordance with DIN 2280
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical female threads for compliance with the flank diameter and for form, pitch and angle deviations.
It must be possible to screw on the thread go plug gauge by hand without applying special force.
It must not be possible to screw on the thread no-go plug gauge by more than 2 turns by hand without applying special force.

32429

Note:
Further nominal diameters, pitches, tolerance classes, left-hand threads or other thread types, thread limit gauges and thread limiting roller gauges for fine metric ISO threads are deliverable on request.

Nominal Ø mm	32429	...
M 5 x 0.50		101
M 6 x 0.50		102
M 6 x 0.75		103
M 8 x 0.50		104
M 8 x 0.75		105
M 8 x 1.00		106
M 10 x 0.50		107
M 10 x 0.75		108
M 10 x 1.00		109
M 12 x 0.50		110
M 12 x 1.00		111
M 12 x 1.50		112
M 14 x 1.00		113
M 14 x 1.50		114
M 16 x 1.00		116
M 16 x 1.50		117

Nominal Ø mm	32429	...
M 18 x 1.00		118
M 18 x 1.50		119
M 20 x 1.00		121
M 20 x 1.50		122
M 22 x 1.00		124
M 22 x 1.50		125
M 24 x 1.00		127
M 24 x 1.50		128
M 24 x 2.00		129
M 25 x 1.50		130
M 26 x 1.50		131
M 27 x 1.50		132
M 28 x 1.50		133
M 30 x 1.50		134
M 30 x 2.00		135

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

32430 Thread go plug gauges, fine metric ISO thread, DIN 13

Design
- Right-hand thread
- Tolerance 6H
- Construction dimensions in accordance with DIN 2281-1
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical female threads for compliance with the flank diameter and for form, pitch and angle deviations.
It must be possible to screw on the thread go plug gauge by hand without applying special force.

32430

Note:
Further nominal diameters, pitches, tolerance classes, left-hand threads or other thread types, thread limit gauges and thread limiting roller gauges for fine metric ISO threads are deliverable on request.

Nominal Ø mm	32430 ...
M 12 x 1.50	112
M 14 x 1.00	113
M 14 x 1.50	114
M 16 x 1.00	116
M 16 x 1.50	117
M 18 x 1.00	118
M 18 x 1.50	119
M 20 x 1.00	121
M 20 x 1.50	122
M 22 x 1.00	124
M 22 x 1.50	125
M 24 x 1.00	127
M 24 x 1.50	128
M 24 x 2.00	129
M 25 x 1.50	130
M 26 x 1.50	131
M 27 x 1.50	132
M 28 x 1.50	133
M 30 x 1.50	134
M 30 x 2.00	135
M 32 x 1.50	136
M 33 x 1.50	138
M 33 x 2.00	139
M 35 x 1.50	140
M 36 x 1.00	141
M 36 x 1.50	142
M 36 x 2.00	143
M 39 x 1.50	144
M 40 x 1.50	146
M 42 x 1.50	149

Nominal Ø mm	32430 ...
M 42 x 2.00	150
M 42 x 3.00	151
M 45 x 1.50	152
M 45 x 2.00	153
M 48 x 1.50	154
M 48 x 2.00	155
M 50 x 1.50	157
M 50 x 2.00	158
M 52 x 1.50	159
M 52 x 2.00	160
M 55 x 2.00	162
M 56 x 1.50	163
M 56 x 2.00	164
M 56 x 4.00	165
M 58 x 2.00	167
M 60 x 1.50	168
M 60 x 2.00	169
M 64 x 1.50	171
M 64 x 2.00	172
M 65 x 1.50	173
M 65 x 2.00	174
M 68 x 2.00	176
M 70 x 1.50	177
M 70 x 2.00	178
M 76 x 2.00	182
M 80 x 1.50	183
M 80 x 2.00	184
M 85 x 2.00	186
M 90 x 2.00	189
M 90 x 3.00	190

Ring gauges | Thread gauges | Setting rings

32433 - 32434 Thread go and no-go ring gauges, fine metric ISO thread, DIN 13

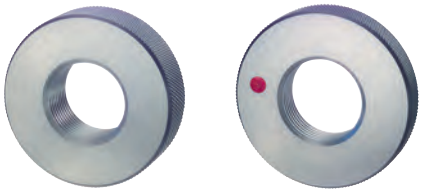
32433
Thread go ring gauges
Design
- Right-hand thread
- Construction dimensions in accordance with DIN 2285-1
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical male threads for compliance with the flank diameter and for form, pitch and angle deviations.
It must be possible to screw on the thread go ring gauge by hand without applying special force.

32434
Thread no-go ring gauges
Design
- Right-hand thread
- Construction dimensions in accordance with DIN 2299-1
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical male threads for compliance with the flank diameter.
It must not be possible to screw on the thread no-go ring gauge by more than 2 turns by hand without applying special force.

32433 32434



Note:
Further nominal diameters, pitches, tolerance classes, left-hand threads or other thread types, thread limit gauges and thread limiting roller gauges for fine metric ISO threads are deliverable on request, as well as the corresponding thread counter-plug gauges (minimum and wear test mandrels) for testing the threaded ring gauges.

Thread	Go ring gauges		No-go ring gauges	
Nominal Ø mm	32433	...	32434	...
M 5 x 0.50		101		101
M 6 x 0.50		102		102
M 6 x 0.75		103		103
M 8 x 0.50		104		104
M 8 x 0.75		105		105
M 8 x 1.00		106		106
M 10 x 0.50		107		107
M 10 x 0.75		108		108
M 10 x 1.00		109		109
M 12 x 0.50		110		110
M 12 x 1.00		111		111
M 12 x 1.50		112		112
M 14 x 1.00		113		113
M 14 x 1.50		114		114
M 16 x 1.00		116		116
M 16 x 1.50		117		117
M 18 x 1.00		118		118
M 18 x 1.50		119		119
M 20 x 1.00		121		121
M 20 x 1.50		122		122
M 22 x 1.00		124		124
M 22 x 1.50		125		125
M 24 x 1.00		127		127
M 24 x 1.50		128		128
M 24 x 2.00		129		129
M 25 x 1.50		130		130
M 26 x 1.50		131		131
M 27 x 1.50		132		132
M 28 x 1.50		133		133
M 30 x 1.50		134		134
M 30 x 2.00		135		135
M 32 x 1.50		136		136
M 33 x 1.50		138		138
M 33 x 2.00		139		139
M 35 x 1.50		140		140
M 36 x 1.00		141		141

Thread	Go ring gauges		No-go ring gauges	
Nominal Ø mm	32433	...	32434	...
M 36 x 1.50		142		142
M 36 x 2.00		143		143
M 39 x 1.50		144		144
M 40 x 1.50		146		146
M 42 x 1.50		149		149
M 42 x 2.00		150		150
M 42 x 3.00		151		151
M 45 x 1.50		152		152
M 45 x 2.00		153		153
M 48 x 1.50		154		154
M 48 x 2.00		155		155
M 50 x 1.50		157		157
M 50 x 2.00		158		158
M 52 x 1.50		159		159
M 52 x 2.00		160		160
M 55 x 2.00		162		162
M 56 x 1.50		163		163
M 56 x 2.00		164		164
M 56 x 4.00		165		165
M 58 x 2.00		167		167
M 60 x 1.50		168		168
M 60 x 2.00		169		169
M 64 x 1.50		171		171
M 64 x 2.00		172		172
M 65 x 1.50		173		173
M 65 x 2.00		174		174
M 68 x 2.00		176		176
M 70 x 1.50		177		177
M 70 x 2.00		178		178
M 76 x 2.00		182		182
M 80 x 1.50		183		183
M 80 x 2.00		184		184
M 85 x 2.00		186		186
M 90 x 2.00		189		189
M 90 x 3.00		190		190

Info

Special gauges in all dimensions, tolerances and set combinations **deliverable on request.**

Please contact us!

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32442 - 32448 Thread gauges, Whitworth pipe thread, DIN EN ISO 228

32442 - 32444
Threaded plug gauges
Design
- Right-hand thread
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical female threads for compliance with the flank diameter and for form, pitch and angle deviations. It must be possible to screw on the thread go plug gauge by hand without applying special force. It must not be possible to screw on the thread no-go plug gauge by more than 2 turns by hand without applying special force.

32442
Thread limit plug gauges
- Construction dimensions in accordance with DIN 2280

32443
Thread go plug gauges
- Construction dimensions in accordance with DIN 2281-1

32444
Thread no-go plug gauges
- Construction dimensions in accordance with DIN 2283-2

32447 - 32448
Threaded ring gauges
Design
- Right-hand thread
- Tolerance class A
- Optimum surface quality and high hardness due to fine grinding and use of gauge steel

Applications
Testing of cylindrical male threads for compliance with the flank diameter and for form, pitch and angle deviations.
It must be possible to screw on the thread go ring gauge by hand without applying special force.
It must not be possible to screw on the thread no-go ring gauge by more than 2 turns by hand without applying special force.

32447
Thread go ring gauges
- Construction dimensions in accordance with DIN 2285-1

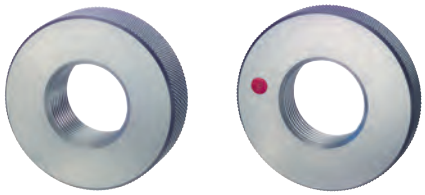
32448
Thread no-go ring gauges
- Construction dimensions in accordance with DIN 2299-1

32442

32443

32444

32447 32448



Thread	Limit plug gauges	Go plug gauges		No-go plug gauges	Go ring gauges	No-go ring gauges	
Nominal Ø inch	32442 ...	32443	...	32444 ...	32447 ...	32448	...
G 1/8		101				101	101
G 1/4		102				102	102
G 3/8		103				103	103
G 1/2		104				104	104
G 5/8		105				105	105
G 3/4		106				106	106
G 1			108	108	108	108	108
G 1.1/4			110	110	110	110	110
G 1.1/2			111	111	111	111	111
G 2			112	112	112	112	112

32492 Setting rings, DIN 2250

Design
- In accordance with **DIN 2250 -C-**
- General use
- Hardened, annealed, ground and lapped

Applications
For testing thin-walled shafts and as setting gauges for measuring instruments.

Note:
For ease of handling, the large rings with a nominal dimension of 70 mm and above are supplied profiled. All nominal sizes not listed in the table, gauges with a numerical tolerance specification and go ring gauges are deliverable on request.

32492

Nominal Ø mm	32492 ...	Nominal Ø mm	32492 ...	Nominal Ø mm	32492 ...	Nominal Ø mm	32492 ...
2	105	18	128	40	147	80	166
2.5	107	19	129	42	148	87.5	168
3	109	20	130	42.5	149	90	170
4	111	22	132	45	150	100	172
5	113	23	133	47	152	112.5	173
6	114	24	134	48	153	125	174
7	115	25	135	50	154	137.5	175
8	116	26	136	55	156	162.5	199
10	118	28	138	60	158	175	176
12	120	30	139	62	159	187.5	177
13	122	32	140	62.5	160	225	178
14	123	33	141	70	162	275	180
15	124	35	143	72	163		
16	125	36	144	75	164		
17	126	38	146	78	165		

Measuring and test pins | Dial gauges

32643 - 32644 Measuring and test pin sets

ATORN®

Design
Hardened and tempered, ground and lapped.

Length:
- Up to 0.99 mm Ø = 40 mm
- From 1.00 mm Ø = 70 mm
- Based on DIN 2269

Labelling with Ø indication:
- From 1.5 mm Ø on the shank
- From 3 mm Ø on the front surface

Edge machining:
- Up to 0.99 mm Ø: both ends flat
- Up to 20.00 mm Ø: ends bevelled

The chamfer facilitates insertion into the hole and prevents damage to the edges.
Supplied in a storage box with Ø indication in white for each test pin.

Applications
For a wide variety of inspection and measuring tasks in control rooms, tool manufacture and mould making or in forming. For work on jig boring machines or coordinate milling machines.
For measuring small and very small bores for both dimensional accuracy and straightness, and for measuring angularity, hole spacings, V-guides, profile depths, angles, guide surfaces and groove dimensions. For setting measuring instruments, e.g. micrometers or pointer gauges.

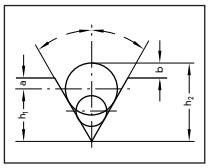
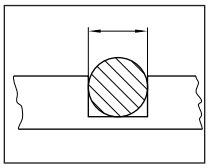
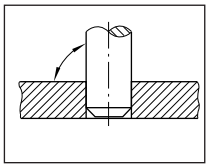
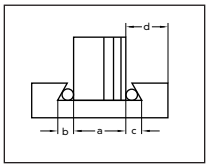
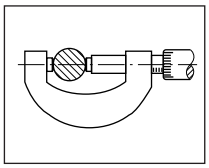
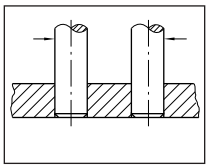
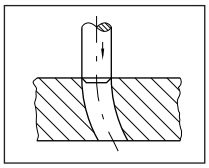
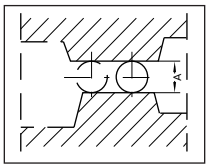
Quality
Gauge steel, aged, hardened (HRC 58–62).

Note:
Other set combinations, as well as individual dimensions, are deliverable on request.

32643
Degree of accuracy 1, tolerance +/- 0.001 mm, roundness 0.5 µm.

32644
Degree of accuracy 2, tolerance +/- 0.002 mm, roundness 1.0 µm.

32643 - 32644

Ø range mm	Increments mm	Number of test pins	Degree of accuracy 1 32643	...	Degree of accuracy 2 32644	...
1.00–5.00	0.10	41		101		101
5.10–10.00	0.10	50		102		102
1.00–10.00	0.10	91		103		103
1.00–5.00	0.05	81		104		104
5.05–10.00	0.05	100		105		105
1.00–2.00	0.01	101		106		106
2.01–3.00	0.01	100		107		107
3.01–4.00	0.01	100		108		108
4.01–5.00	0.01	100		109		109
5.01–6.00	0.01	100		110		110
6.01–7.00	0.01	100		111		111
7.01–8.00	0.01	100		112		112
8.01–9.00	0.01	100		113		113
9.01–10.00	0.01	100		114		114
1.00–10.00	0.01	901		115		115

32649 Measuring and test pin holders

Applications
For easy production of individual go/no-go gauges by mounting two test pins in the holder for the upper and lower limit dimensions of a tolerance range.

Quality
Mounts made of die-cast zinc, brushed chromium-plated clamping screw.

32649

Holder size	Clamping range Ø mm	Holder length approx. mm	Clamping length approx. mm	32649	...
1	1.00 - 1.99	60	26		101
2	2.00 - 4.50	68	30		102
3	4.51 - 6.99	76	33		103
4	7.00 - 9.50	84	35		104
5	9.51 - 12.00	92	37		105

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33001 Dial gauges (reading 0.1 mm)

Design
- Accuracy according to factory standard
- Metal housing, nickel-plated
- Line scales with knurled outer ring, rotatable by 360° to the point zero position
- 2 adjustable tolerance marks
- Clamping shank Ø 8 mm h 6 hardened and ground
- Interchangeable gauge slides
- Dimensions in accordance with DIN EN ISO 463, June 2006 edition

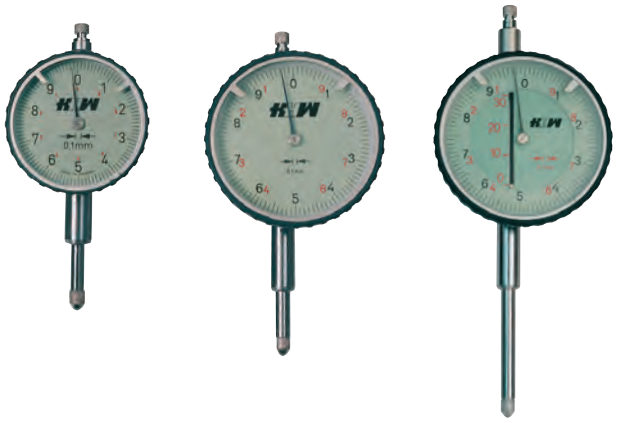
Note:
For special probe see art. no. 33114.

33001 101
Small dial gauge

33001 102
Normal dial gauge

33001 103
Normal dial gauge
- Also with linear, absolute mm display.

33001 101 33001 102 33001 103



Reading mm	Housing Ø mm	Measuring range mm	1 pointer revolution mm	Dial graduation	33001 ...
0.1	40	10	10	0–10	101
0.1	58	10	10	0–10	102
0.1	58	30	10	0–10	103

33003 - 33007 Small dial gauges (reading 0.01 mm)

Design
- Line scales with knurled outer ring, rotatable by 360° to the point zero position
- 2 adjustable tolerance marks
- Dial with black advancing and red returning numbers
- 2 pointers (small pointers for absolute mm display)
- Clamping shank Ø 8 mm h 6 hardened and ground
- Interchangeable gauge slides
- Dimensions in accordance with DIN EN ISO 463, June 2006 edition

Note:
For special probe see art. no. 33114.

33003
- **Accuracy in accordance with DIN 878,** June 2006 edition
- Metal housing, nickel-plated
- Measuring pin lapped and made of stainless steel

33004
- **Accuracy in accordance with DIN 878,** June 2006 edition
- Housing made of pressed brass, matt nickel-plated
- Measuring pin made of stainless steel

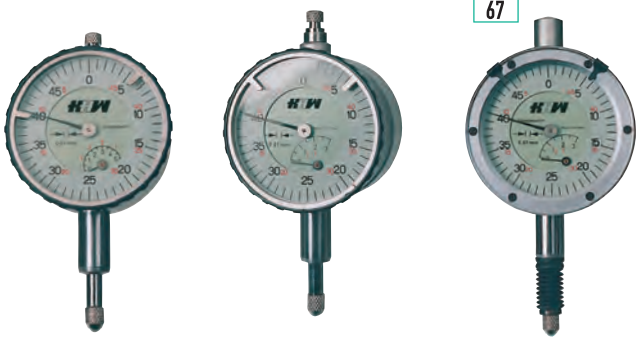
33005
- **Accuracy in accordance with DIN 878,** June 2006 edition
- **With shock protection,** measuring gear protected against hard impacts, display precision is maintained virtually unlimited
- Housing made of pressed brass
- Measuring pin and clamping shank made of stainless steel

33006
- **Accuracy in accordance with DIN 878,** June 2006 edition
- **Back wall designed as an adhesive magnet**
- Round magnet (adhesion 120 N) affects neither the mechanism nor accuracy
- Can be used without a holder or base
- Metal housing, nickel-plated

33007
- Accuracy according to factory standard
- **Water-tight and oil-tight, in accordance with IP 67**
- Measuring gear protected against liquids, contamination and hard impacts, display accuracy is maintained with practically no limitations
- Metal housing, nickel-plated

33003 33004

33005 33006 IP 67 33007



Reading mm	Housing Ø mm	Measuring range mm	1 pointer rotation mm	Dial graduation	33003 ...	33004 ...	33005 ...	33006 ...	33007 ...
0.01	32	3	0.5	0–50	101				
0.01	40	5	0.5	0–50		101		101	
0.01	40	3	0.5	0–50					101
0.01	44	3	0.5	0–50					101

Dial gauges

33009 - 33017 Dial gauges (reading 0.01 mm)

Design
- Line scales with knurled outer ring, rotatable by 360° to the point zero position
- 2 adjustable tolerance marks
- 2 pointers (small pointers for absolute mm display)
- Clamping shank Ø 8 mm h 6 hardened and ground
- Interchangeable gauge slides
- Dimensions in accordance with DIN EN ISO 463, June 2006 edition

Note:
For special probe see art. no. 33114.

33009
- **Accuracy in accordance with DIN 878,** June 2006 edition
- Stable metal housing
- Clamping shank made of stainless steel

33010
- **Accuracy in accordance with DIN 878,** June 2006 edition
- Metal housing, nickel-plated
- Clamping shank and lapped measuring pin made of stainless steel
- Dial with black advancing and red returning numbers

33011
- **Accuracy in accordance with DIN 878,** June 2006 edition
- **With shock protection,** measuring gear protected against hard impacts, display precision is maintained virtually unlimited
- Metal housing, nickel-plated
- Clamping shank and lapped measuring pin made of stainless steel
- Dial with black advancing and red returning numbers

33015
- **Accuracy DIN 878,** June 2006 edition
- **Waterproof**
- **Shadow-free reading**
- Cover plate made of clear, impact-resistant plastic, rotatable by 360° to the pointer zero setting
- Dial with black advancing and red returning numbers

33017
- **Accuracy analogous to DIN 878**
- **Water-tight and oil-tight IP 67**
- **With impact protection**
- Measuring gear protected against liquids, contamination and hard impacts, display accuracy is maintained with practically no limitations
- Metal housing, nickel-plated
- Dial with black advancing and red returning numbers

33009

33010

33011

33015

IP 67

33017

Reading mm	Housing Ø mm	Measuring range mm	1 pointer rotation mm	Dial graduation	33009	...	33010	...	33011	...	33015	...	33017	...
0.01	58.0	10	1	0–100		101		101		101		101		
0.01	61.5	10	1	0–100										101

33024 Dial gauges (reading 0.01 mm)

Design
- Practical, large lifting sleeve with additional dust-protection function
- Ceramic-tipped gauge slide (minimal wear, electrically non-conductive)
- Coloured tolerance marks for optimal identification
- **Accuracy according to factory standard**
- Dimensions in accordance with DIN EN ISO 463, June 2006 edition

Note:
For special probe see art. no. 33114.

33024 099-101
Design
- With **concentric mm display** for large and clear reading

33024 101
Design
- Just as compact housing as with a 10 mm dial gauge

33024 097

33024 098

33024 099

33024 100

33024 101

Reading mm	Housing Ø mm	Measuring range mm	1 pointer rotation mm	Dial graduation	Impact protected	33024	...
0.01	40	5	0.5	0–50	x		097
0.01	58	10	1.0	0–100	x		098
0.01	40	10	1.0	0–100	-		099
0.01	58	10	1.0	0–100	x		100
0.01	58	25	1.0	0–100	x		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33025 Dial gauges – large measuring ranges – (reading 0.01 mm)

Design
- **With large measuring range**
- Accuracy according to factory standard
- Metal housing, nickel-plated
- Line scales with knurled outer ring, rotatable by 360° to the point zero position
- 2 adjustable tolerance marks
- 2 pointers (small pointer is arranged concentrically as an absolute mm display for clear reading)
- **Essential points of the measuring element are embedded in sapphire, ruby or ceramic jewel bearings**
- Hardened and ground clamping shank and measuring pin made of stainless steel, interchangeable gauge slides

Note:
For special probe see art. no. 33114.

33025 104
Applications
The dial gauge with a 100 mm measuring range is designed for use in a vertical position. When used in other positions, the measuring force must be increased due to the high weight of the measuring pin. Please enquire separately.

33025 105
Design
Also water-tight and oil-tight, with impact protection. Measuring gear protected against liquids, contamination and hard impacts.

33025 101

33025 105

Reading mm	Housing Ø mm	Measuring range mm	1 pointer revolution mm	Dial graduation	Clamping shank Ø mm	33025	...
0.01	58.0	30	1	0–100	8 h 6		**101**
0.01	58.0	50	1	0–100	8 h 6		**102**
0.01	58.0	80	1	0–100	8 h 6		**103**
0.01	58.0	100	1	0–100	**10 h 6**		**104**
0.01	61.5	30	1	0–100	8 h 6		**105**

33035 - 33055 Dial gauges -special designs- (reading 0.01 mm)

Design
- Line scales with knurled outer ring, rotatable by 360° **(art. no. 33035 only by 36°)** to the pointer zero setting
- 2 adjustable tolerance marks
- Clamping shank Ø 8 mm h 6 hardened and ground
- Interchangeable gauge slides
- Dimensions in accordance with DIN EN ISO 463, June 2006 edition

Note:
For special probe see art. no. 33114.

33035
Safety dial gauges
Design
- **Accuracy in accordance with DIN 878,** June 2006 edition
- **With large free stroke and impact protection device**
- **Display range limited to less than 1 pointer revolution to prevent incorrect readings**
- Metal housing nickel-plated, clamping shank and measuring pin made of stainless steel
- With metal lifting sleeve

Applications
The free stroke makes it easier to insert the specimens in the measuring device because the measuring pin can be lifted far beyond the measuring range.

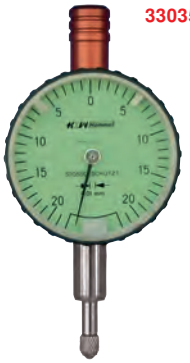
33040
Large dial gauges
Design
- Accuracy according to factory standard
- Housing made of pressed brass, brushed chromium-plated
- 2 pointers (small pointer functions as a mm display for clear reading)
- Clamping and measuring pin lapped, made of hardened stainless steel

33050
Design
- Accuracy according to factory standard
- **With a rear probe**
- Metal housing, nickel-plated, dial with black advancing and red returning numbers
- 2 pointers (small pointers for absolute mm display
- Mounting on the clamping shank or on the chamfer Ø 28 mm h 6

Applications
Particularly suitable in connection with gauges or for installation in devices, tools and machines when good readability from above is required.

33055
Magnetic dial gauge
Design
- **Accuracy in accordance with DIN 878,** June 2006 edition
- **Back wall designed as an adhesive** magnet, round magnet (adhesion 220 N) does not affect either the mechanism or accuracy, can be used without a holder or base
- Metal housing, nickel-plated
- Dial with black advancing and red returning numbers
- 2 pointers (small pointers for absolute mm display)

33035



33040

33050

33055

Reading mm	Housing Ø mm	Measuring range mm	1 pointer revolution mm	Dial graduation	Free stroke mm	33035	...	33040	...	33050	...	33055	...
0.01	40	0.4	0.5	20–0–20	4.5		**101**						
0.01	58	0.8	1.0	40–0–40	9.0		**102**						
0.01	80	10.0	1.0	0–100	-				**101**				
0.01	100	10.0	1.0	0–100	-				**102**				
0.01	40	5.0	0.5	0–50	-						**101**		
0.01	58	10.0	1.0	0–100	-								**102**

Dial gauges | Precision pointers

33060 - 33064 Fine dial gauges (reading 0.001 mm)

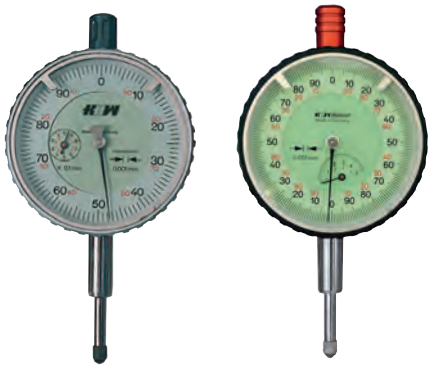
Design
- Line scales with knurled outer ring, rotatable by 360° to the point zero position
- 2 adjustable tolerance marks
- 2 pointers (small pointers for absolute mm display)
- Clamping shank Ø 8 mm h 6 hardened and ground
- Interchangeable gauge slides

Note:
For special probe see art. no. 33114.

33060
Design
- Accuracy according to factory standard
- **Design principle of the measuring element similar to that of precision pointers**
- Measuring pin path is increased via a lever and transferred to a pointer
- Due to its overrun, the measuring element offers **effective impact protection**
- Metal housing, nickel-plated
- Dial with black advancing and red returning numbers
- With lifting sleeve

33064
Design
- Accuracy according to factory standard
- **Essential points of the gear measuring element are embedded in sapphire, ruby or ceramic jewel bearings**
- Metal housing, nickel-plated
- Dial with black advancing and red returning numbers
- With metal lifting sleeve

33060 33064



Reading mm	Housing Ø mm	Measuring range mm	1 pointer revolution mm	Dial graduation	33060 ...	33064 ...
0.001	58	1	0.1	0–100	101	
0.001	40	1	0.1	0–100	102	
0.001	58	2	0.2	0–100/0–100		101
0.001	58	5	0.2	0–100/0–100		102

33068 - 33070 Lifting lever, wire lifter and spare glasses

33068
Lifting lever
For lifting the probe bolt.
Applications
For dial gauges with 58 mm Ø and maximum measuring range of 10 mm.

33069
Wire lifter
Design
Length 10 mm, overall length incl. pressure piece 160 mm.
Applications
For lifting the probe rod.
For precision pointer art. no. 33074.

33070
Spare glasses for dial gauges
Applications
For dial gauges art. no. 33001–33064.

33068

33069

33070

For housing Ø mm	33068 ...	33069 ...	33070 ...
-	101	101	
57/58			103

33071 Precision pointers

Design
- **Impact-protected** thanks to mechanically decoupled measuring mechanism
- Compact dimensions, only 18.6 mm high
- 7 bearing jewels for the highest accuracy
- **Ball-guided probe rode with bellows** for protection against oil and other contaminants
- Clamping shank Ø 8 mm (h6)
- Adjustable tolerance marks
- Fine adjustment screw accessible from above, lockable

Note:
For special probe see art. no. 33114.

33071 101
Mytast
Accuracy in accordance with DIN 879-1

33071 102
Centitast
Accuracy according to factory standard

33071 101 33071 102

Type	Reading mm	Measuring range mm	Free stroke mm	Display accuracy mm	Measuring force N	33071 ...
Mytast	0.001	0.1	3.0	0.001	1	101
Centitast	0.01	0.5	2.5	0.005	1	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33073 Precision pointer Millimess

IP 54

Mahr

Design
- Large high-contrast dial
- Adjustable tolerance marks
- Lockable fine adjustment
- Shock-resistant measuring mechanism
- Clamping shank and measuring pin made of stainless, hardened steel
- Insensitive to forces acting laterally on the measuring pin
- High touch sensitivity and accuracy thanks to mounting of the measuring mechanism axes in stones and precision-toothed wheels and pinions
- Self-contained measuring mechanism can be easily replaced as a unit
- Box-shaped protective housing
- Constant measuring force
- Measuring pin lifting by screwable wire lifter or lifter button
- In case

Note:
For precision pointer snap gauge MaraMeter 840 F art. no. 32341.

33073 101-103
Design
- Precision ball guide of the measuring pin for low reversal error

33073 101

33073 102

33073 103

33073 201

Measuring range mm	Type	Scale interval mm	Scale numbering	Repeatability mm	Reversal error mm	Free stroke mm	Measuring force N	Standard	33073	...
0.50	1002	0.0005	25–0–25	0.0003	0.0003	2.8	1	factory standard		**101**
0.10	1003	0.001	50–0–50	0.0005	0.0005	2.8	1	DIN 879-1		**102**
0.26	1004	0.005	130–0–130	0.001	0.001	2.5	1	factory standard		**103**
0.50	1010	0.01	25–0–25	0.002	0.002	2.5	1	factory standard		**201**

33074 Precision pointers

ATORN®

Design
- Measuring mechanism supported on rubies
- Precision-guided measuring pin
- Highly robust and wear resistant
- With pointer fine adjustment (a protective cap prevents unintentional adjustment)
- Shadow-free reading
- Clearly visible red tolerance marks
- Impact-protected, free stroke
- With threaded hole for wire lifting
- In case

Note:
For special probe see art. no. 33114.
For wire lifter see art. no. 33069 101.

33074 102+104
Design
Protection class IP 53

33074

Measuring range mm	Scale interval mm	Scale numbering	Free stroke mm	Error limit mm	Repeatability limit mm	Reversal error mm	Degree of protection	Clamp shank Ø mm	33074	...
0.1	0.001	50–0–50	3	0.0012	0.0005	0.0005	None	8		**101**
0.1	0.001	50–0–50	3	0.0012	0.0005	0.0005	IP 53	8		**102**
0,5	0.01	25–0–25	2.5	0.012	0.003	0.003	None	8		**103**
0.5	0.01	25–0–25	2.5	0.012	0.003	0.003	IP 53	8		**104**

Digital dial gauges

33077 Digital small dial gauges

IP 65 | Typ G | Typ H | Typ I

ATORN®

Design
- Sealed according to **degree of protection IP 65** against dust, metal particles, spraying water and oil
- ABS plastic housing Ø 44 mm
- Dovetail mount, shaft mount 8 mm (h6)
- Inductive measuring system
- **With data output RS 232/USB, combined with external feed**
- mm/inch switching
- Zero setting at any position (RESET)
- Auto-off
- Multi-functional LC display (digit height 6 mm)
- Supplied **with 3 V battery**, (type CR 2032), in case

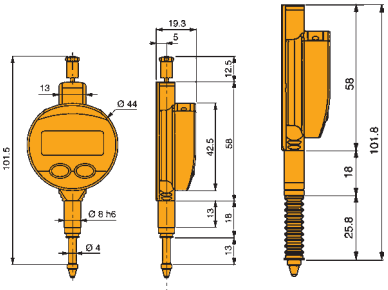
Note:
For special probe see art. no. 33114.
Clamping accessories for dovetail mount, see art. no. 33255.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

33077 201

Combined scale/ digital display (only for art. no. 33077 202)

Technical data:	33077 200	33077 201	33077 202
mm/inch switching:	x	x	x
Zero setting at any position (RESET):	x	x	x
Reading reversible (0.001/0.01 mm):	-	x	x
Preset function:	x	x	-
HOLD function:	x	x	-
ABS (comparative measurement):	x	x	-
Measuring mode: MIN/MAX/MAX-MIN:	-	-	x
Auto-off:	x	x	x
Data output RS 232/USB:	x	x	x
Measuring spindle with bellows:	-	-	x

Measuring range mm	Reading mm	Repeatability mm	Error limit mm	Measuring force N	33077	...
12.5	0.01	0.005	0.02	0.5–0.9		**200**
12.5	0.001	0.002	0.005	0.5–0.9		**201**
5.0	0.001	0.002	0.004	0.6–0.65		**202**



33082 Digital dial gauges

IP 51 | Typ J | Typ K | Typ L

ATORN®

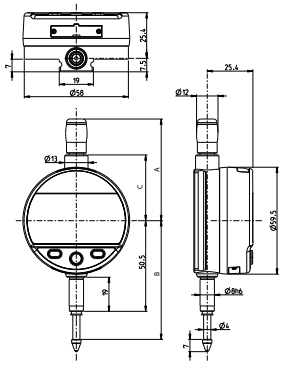
Design
- Aluminium housing
- Front panel made of polyamide, rotatable through 270°
- Inductive measuring system
- Data output proximity, RS/USB
- LC digital display, 11 mm digit height protection class IP 51
- Repeatability 0.002 mm (+/- 2 s) (for cat. no. 33082 301–304)
- Measuring spindle made of stainless steel, hardened and ground
- Supplied **with 3 V battery** (type CR 2032)
- Dial gauges with 0.001 mm resolution with calibration certificate

Functions:
- ABS/Set (switch between absolute and comparative measurement)
- Switch the counting direction
- Min./max./delta storage
- Choice of tolerance limits, colour display when exceeding tolerance limits, read-out of display values and read-in of preset and tolerance values
- Zero setting
- mm/inch switching
- Hold (HOLD)
- Data transfer
- Ref I/Ref II
- Preset value

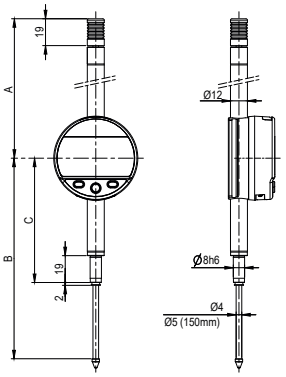
Note:
For special probe see art. no. 33114.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.
Lifting lever available on request.

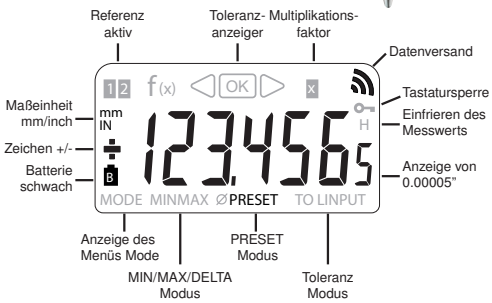
33082

Measuring range 12.5 and 25 mm



Measuring range 50 and 100 mm





Measuring range mm	Reading mm	Error limit mm	A mm	B mm	C mm	Measuring force N	Proximity	33082	...
12.5	0.01	0.01 +/- 1 digit	56.6	66.1	36.6	0.65–0.9	x		**297**
25.0	0.01	0.01 +/- 1 digit	69.3	79.0	49.4	0.65–1.15	x		**298**
50.0	0.01	0.02 +/- 1 digit	121.0	142.0	88.0	1.0–2.6	x		**299**
100.0	0.01	0.02 +/- 1 digit	172.0	244.0	139.0	1.8–3.0	x		**300**
12.5	0.001	0.003	56.6	66.1	36.6	0.65–0.9	x		**301**
25.0	0.001	0.004	69.3	79.0	49.4	0.65–1.15	x		**302**
50.0	0.001	0.005	121.0	142.0	88.0	1.0–2.6	x		**303**
100.0	0.001	0.006	172.0	244.0	139.0	1.8–3.0	x		**304**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33085 Digital dial gauges

IP 52 | Typ M | Typ N | Typ O

ATORN®

Design
- Capacitive measuring system
- **KEEPTRONIC (blocking of the set reference value)**
- High-contrast 12 mm high LC digital display
- **multiCOM data output (optionally RS 232, USB or Digimatic)**
- Traverse rate 1.5 m/s
- Operating temperature 10–40 °C
- **Degree of protection IP 52** in accordance with IEC 60529
- Supplied **with 3 V battery** (type CR 2032) and operating instructions

Functions:
- **ON/OFF**
- **RESET** (resetting the display)
- mm/inch switching
- Counting direction reversal
- **PRESET** (measurement presetting)
- **DATA** (in conjunction with data connection cable)
- **LOCK function:** Keys are locked
- **Auto-OFF** (selectable)

Note:
For special probe see art. no. 33114.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

33085

Measuring range mm	Reading mm	Error limit mm	Measuring force N	Data output multiCOM	33085	...
12.5	0.01	0.02	0.5–1	x		**201**
12.5	0.001	0.005	0.5–1	x		**202**

Info KEEPTRONIC system

ATORN®

Switching on the measuring system:
Pressing the ON button or simply pushing the display causes it to switch on immediately. The electronics have a memory function for the last displayed value, ensuring the **last saved zero position is always guaranteed.**

Locking:
To prevent accidental adjustment of the zero position or measurement unit (mm/inch), the operating keys can also be locked. This means that the measuring instrument **cannot be changed, just like an analogue measuring instrument.**

33090 Digital dial gauge TESA DIGICO

Typ B | Typ C | Typ D

TESA

Design
- Dimensions in accordance with DIN 878
- Housing diameter 57 mm
- LC display, digit height 10 mm
- Zero setting of the display in any position within the entire measuring range
- Measuring force less than 2 N
- Data output Opto RS 232
- ON/OFF
- Switch the counting direction
- Scale display
- Tolerance marks
- Preset function
- Keypad locking
- mm/inch conversion
- Rotating display
- Numerical tolerances
- Measuring mode for testing holes
- Measuring mode ABS/REL
- Full reset to default setting
- Dynamic measurements (Min/Max/Max-Min)
- Measurement of internal dimensions (Min/Max)
- 3 V battery (type CR 2032)
- Supplied with test report in storage box

Note:
For special probe see art. no. 33114.
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

Metric-only versions and versions with standard inch display are also available.

33090

Type	Measuring range mm	Reading mm	Error limit mm	Data output Opto RS 232	33090	...
DIGICO 705 MI	12.5	0.001	0.004	x		**601**

Digital dial gauges | Special probes for dial gauges and precision pointers

33086 Digital dial gauges MarCator

Typ V Typ W Typ X

Mahr

33086 097-099
MarCator 1075 R
Design
- ON/OFF function
- RESET function (resetting the display)
- mm/inch switching
- Counting direction reversal
- PRESET function (measurement presetting)
- DATA function (in conjunction with data connection cable)
- LOCK function (keypad lock)
- Auto ON/OFF function
- High-contrast LCD display (digit height 12 mm)
- Protective cap on the end of the measuring pin
- Clamping shank and measuring pin made of stainless, hardened steel
- **Data interface: USB, Opto RS232C, Digimatic**
- Power supply: Battery, service life approx. 2 years
- Company standard

Scope of delivery:
- 3 V battery (type CR 2032)
- Operating instructions

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

33086 097-099

IP 52

1075 R

Measuring range mm	Reading mm	Error limit mm	Measuring force N	1075 R 33086	...
12.5	0.01	0.02	0.5–1.0		097
12.5	0.005	0.015	0.5–1.0		098
12.5	0.001	0.005	0.5–1.0		099

33086 101-201 + 301-302
MarCator 1086 Ri
Design
- ON/OFF function
- RESET function (resetting the display)
- mm/inch switching
- Counting direction reversal
- PRESET function (measurement presetting)
- TOL function (tolerance input)
- ABS function (display can be set to zero without losing the reference to the preset)
- <0> function (tolerance display mode)
- DATA function (in conjunction with data connection cable)
- Factor (adjustable)
- LOCK function (keypad lock)
- **Integrated wireless transmitter**
- High-contrast LCD display (digit height 11 mm)
- **Control and display unit can be rotated by 280°**
- Lifting cap on the end of the measuring pin
- Clamping shank and measuring pin made of stainless, hardened steel
- Ready for immediate measurements with **reference system**
- **Data interface: USB, Opto RS232C, Digimatic, Integrated Wireless**
- Company standard

Scope of delivery:
- 3 V battery (type CR 2450)
- Operating instructions

Note:
Wireless receiver, see art. no. 35200 410.
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 202.
Other sizes deliverable on request.

33086 101-202 + 301-302

IP 42 Typ Y

1086 Ri

Clear display
Tolerance representation with measurement display. Display of the current value and tolerance position.

Tolerance representation without measurement display
Tolerance overshooting or undershooting is indicated exclusively by symbols.

Measuring range mm	Reading mm	Repeatability mm	Error limit mm	Measuring force N	1086 Ri 33086	...
50.0	0.0005	0.001	0.007	1.25–2.7		101
100.0	0.0005	0.001	0.008	1.8–3.5		102
12.5	0.0005	0.001	0.004	0.65–0.9		201
25.0	0.0005	0.001	0.004	0.65–1.15		202
12.5	0.01	0.01	0.02	0.65–0.9		301
25.0	0.01	0.01	0.02	0.65–1.15		302

33086 203
MarCator 1087 Ri
Design
- With dynamic measurement functions MAX/MIN/MAX-MIN
- 0 function (set analogue display to zero)
- ABS function (display can be set to zero without losing the reference to the preset)
- Auto ON/OFF function
- DATA function (in connection with data connection cable)
- Factor (adjustable)
- LOCK function (keypad lock)
- Max./Min. memory for reversal point search
- ON/OFF function
- PRESET function (measurement presetting)
- RANGE function (switching the measuring range and the scale interval)
- RESET function (resetting the display)
- TIR (max.-min.) for concentricity and evenness test
- TOL function (tolerance input)
- Counting direction reversal
- mm/inch switching
- **Integrated wireless transmitter**
- High-contrast LCD display (digit height 8.5 mm)
- **Control and display unit can be rotated by 280°**
- Lifting cap on the end of the measuring pin
- Clamping shank and measuring pin made of stainless, hardened steel
- Ready for immediate measurements with **reference system**
- **Data interface: USB, Opto RS232C, Digimatic, Integrated Wireless**
- Power supply: battery operation
- Company standard

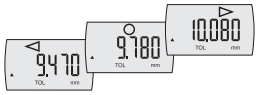
Scope of delivery:
- 3 V battery (type CR 2450)
- Operating instructions

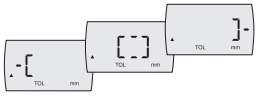
Note:
Wireless receiver, see art. no. 35200 410.
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 202.

33086 203

IP 42 Typ Y

1087 Ri





Measuring range mm	Reading mm	Repeatability mm	Error limit mm	Measuring force N	1087 Ri 33086	...
12.5	0.0005	0.001	0.005	0.65–0.85		203

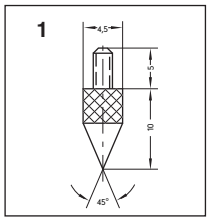
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

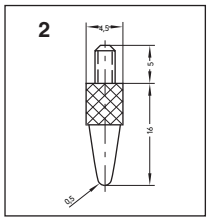
33114 Special probes for dial gauges, precision pointers

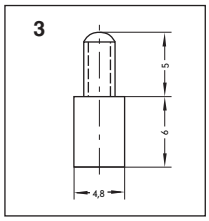
Design
Connecting thread **M 2.5.**

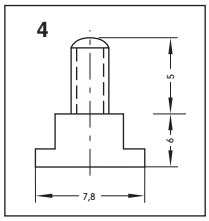
Applications
For special measuring tasks, can be replaced with normal probe bolt.

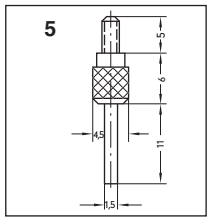
33114

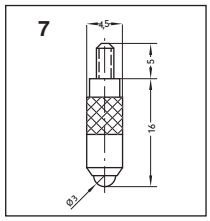


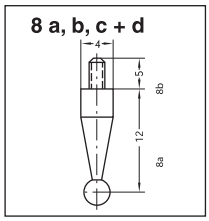


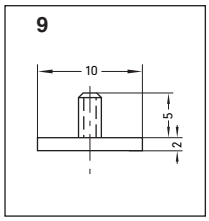


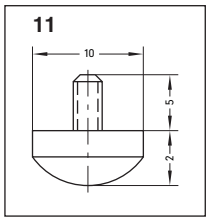


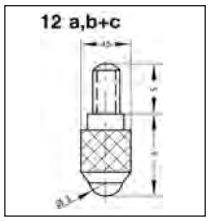


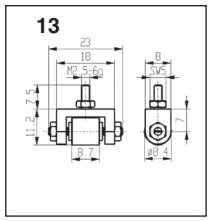


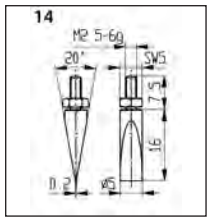


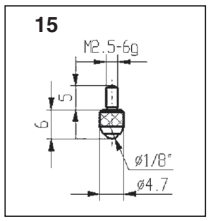


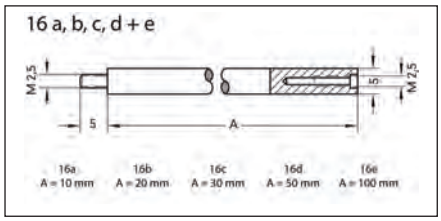


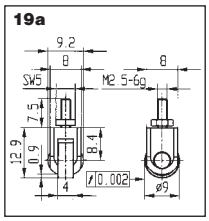


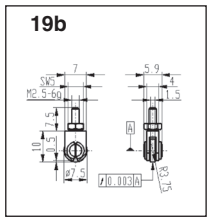


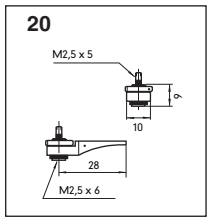


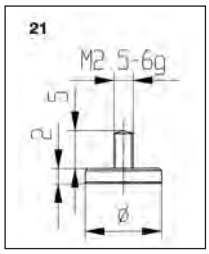


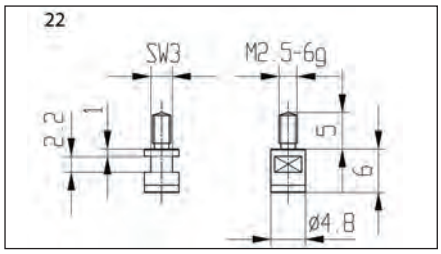


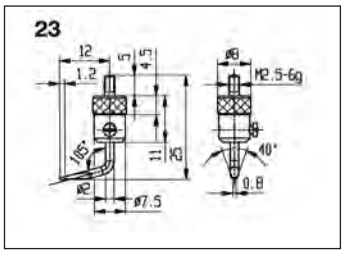


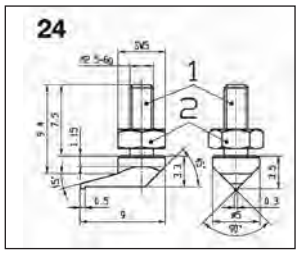


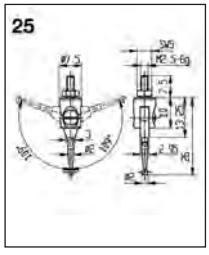


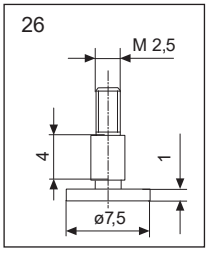


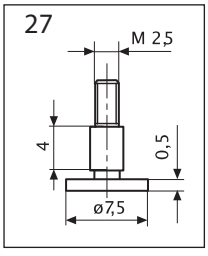












Probe			33114 ...
1	Sharp probe	45°	101
2	Sharp probe	0.5 radius	102
3	Flat probe	4.8 mm Ø	103
4	Flat probe	7.8 mm Ø	104
5	Stylus	1.5 mm Ø	105
7	Ball probe	3 mm Ø	107
8a	Ball probe	2 mm Ø	108
8b	Ball probe	4 mm Ø	109
8c	Ball probe	cemented carbide insert 2 mm Ø	110
8d	Ball probe	cemented carbide insert 4 mm Ø	111
9	Flat probe	10 mm Ø	112
11	Measuring cone	-	114
12a	Ball probe	cemented carbide insert 3 mm Ø	115
12b	Ball probe	ceramic insert 3 mm Ø	127
12c	Ball probe	plastic insert 3 mm Ø	128
13	Roller probe	concentricity deviation 0.007 mm	116
14	Sharp probe	-	117

Probe			33114 ...
15	Normal probe	-	118
16a	Extension	10 mm long	119
16b	Extension	20 mm long	120
16c	Extension	30 mm long	121
16d	Extension	50 mm long	122
16e	Extension	100 mm long	123
19a	Roller sensor	concentricity deviation 0.002 mm	124
19b	Roller sensor	concentricity deviation 0.005 mm	125
20	Lifting lever	-	126
21	Flat probe	flat 20 mm Ø	129
22	Flat probe	cemented carbide insert 4.8 mm Ø	130
23	Gauge slide	cropped needle	131
24	Gauge slide	laterally offset	132
25	Gauge slide	swivels through 210°	133
26	Flat probe	Ø 7.5 x 1.0 mm	134
27	Disc measuring insert	Ø 7.5 x 0.5 mm	135

Digital display unit | Inductive measuring probes

33100 Digital display unit Millimar C1200

IP 42 | Typ V | Typ W | Typ X

Mahr

Design
- Compact housing
- High-resolution, high-contrast colour display
- Display has infinite tilting options to allow the best possible viewing angle
- Very simple to operate
- Mains or battery operation possible
- Also suitable for mobile use thanks to battery operation
- Wall mounting possible

Functions:
- ON/OFF
- mm/inch switching
- Counting direction reversal
- Measuring range switching
- TOL (tolerance input)
- PRESET (measurement presetting)
- Factor (adjustable)
- DATA (data transfer)
- Dynamic measurement functions MIN/MAX/ MAX-MIN

Scope of delivery:
- Plug-in power supply unit
- Operating instructions

Note:
Connection cable, see art. no. 35200.

33100

Technical data:	
Display:	TFT colour display 11 cm (4.3 inches), 480x272 pixels
Display range of digital display:	+/- 5000 µm
Display range of scale display:	+/- 5000 µm, +/- 2000 µm, +/- 1000 µm, +/- 300 µm, +/- 100 µm, +/- 30 µm, +/- 10 µm, +/- 3 µm
Digit increment:	0.1 µm
Scale interval:	200 µm, 100 µm, 20 µm, 10 µm, 2 µm, 0.2 µm
Probe inputs:	1
Compatibility:	Mahr
Error limit of digital display:	0.3% (min. 0.2 µm)
Error limit of scale display:	0.25% of the final scale value/0.3% of the displayed value
Data interface:	Opto RS232C, USB, Digimatic, Wireless
Power supply:	Plug-in power supply unit, 230 V/115 V, 50/60 Hz, battery operation
Protection rating:	IP 42

Dimensions W x H x D mm	33100	...
130 x 170 x 150		101

33105 Inductive measuring probe Millimar P2004

IP 64

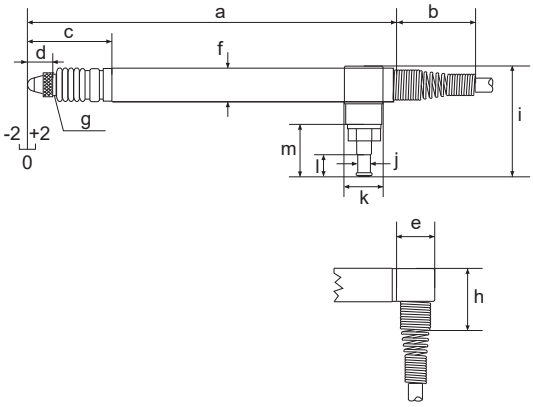
Mahr

Design
- Measuring pin supported in ball-bearing guide
- Excellent linearity over entire measuring range
- Excellent electromagnetic shielding (EMC)
- Can be converted from axial to radial cable output using the supplied cap

Scope of delivery:
- Measuring probe
- Cap for lateral cable output
- Key for pre-stroke adjustment
- Operating instructions

33105

Technical data:	
Upper stop distance:	+2.2 to 4.4 mm
Lower stop distance:	-2.2 to 0 mm
Measuring force:	0.75 N +/- 0.15 N
Measuring force increase:	0.2 N/mm
Sensitivity deviation:	0.3 %
Repeatability fw:	0.1 µm
Measured value reversal error fu:	0.5 µm
Linearity deviation in the range +/- 0.5 mm:	0.4 µm
Linearity deviation in the range +/- 1.0 mm:	1.5 µm
Linearity deviation in the range +/- 2.0 mm:	3.0 µm
Protection rating:	IP 64
Cable length:	2.5 m
Temperature coefficient:	0.15 µm/°C
Compatibility:	Mahr-VLDT



Measuring range mm	a mm	b mm	c mm	d mm	e mm	f mm	h mm	g	33105	...
+/- 2	88.7	28	21.3	6	9.2	8	14	M 2.5		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33106 Inductive measuring probe Millimar 1318

IP 50

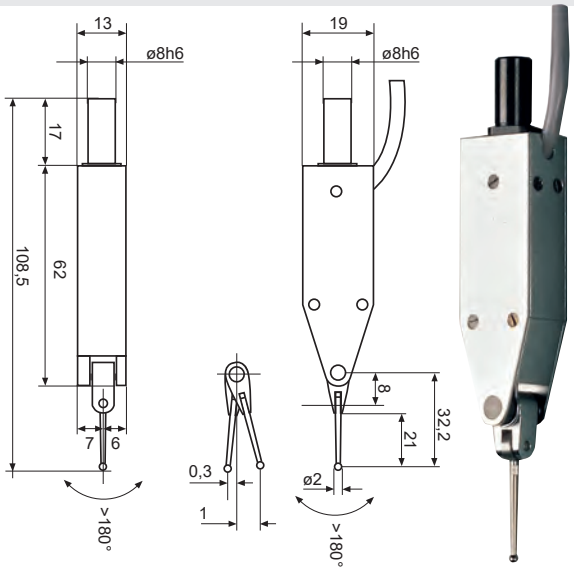
33106

Mahr

Design

- Lever gauge inductive probe
- Angle of probe can be flexibly adapted to the measuring object surface
- High operational robustness as the measuring system is separate from the guide and clamping shank
- Excellent clamping properties
- Information on chemical resistance: resistant to oil, petrol, water and aliphates. Moderately resistant to acids, bases, solvents and ozone

NEW



Technical data:	
Upper stop distance:	+1.6 mm
Lower stop distance:	-0.37 mm
Measuring force:	0.25 N +/- 0.05 N
Measuring force increase:	0.04 N/mm
Sensitivity deviation:	0.5
Repeatability fw:	0.03 µm
Measured value reversal error fu:	0.5 µm
Linearity deviation in the range +/- 0.3 mm:	0.9 µm
Protection rating:	IP 50
Cable length:	1.5 m
Temperature coefficient:	0.15 µm/°C
Compatibility:	Mahr-VLDT

Measuring range mm	33106 ...
-0.3 to 1	101

Measuring computers | Digital display units | Measuring probes

33107 Measuring computer Millimar C 1700 PC

Mahr

33107 101-102
Design
- Interactive, touch-capable software
- Very easy and intuitive operation
- User-friendly setup of measuring tasks
- Simple operation by accessing predefined formula templates
- Management of measuring tasks (memory and charging function)
- Linking the measuring task with pictures or drawings
- Static and dynamic logging of measurements
- Support by means of graphical operating controls
- Live visualisation of measured values
- Digital and scale displays of up to 128 characteristics simultaneously
- Connection of Millimar N 1700 modules in conjunction with inductive measuring probe and Mahr measuring instruments with data interface
- Connection of Mahr measuring instruments with integrated wireless
- Data export in MS-Excel or in qs-Stat format (dfq or dfx or dfd format)
- Password-protected user levels (3-stage)
- Online help (operating instructions) can be called up directly from the software

33107 101
Millimar Cockpit software
Scope of delivery:
- Mahr license key
- Installation memory stick
- 16 GB recovery stick
- Operating instructions (online help)

NEW

33107 101

33107 102
Millimar C 1700 measuring computer incl. Millimar Cockpit software
Scope of delivery:
- Millimar Cockpit software incl. 10.1 inch touch PC with preinstalled Windows 10 IoT Enterprise
- Mahr license key
- Installation memory stick
- 16 GB recovery stick
- Operating instructions (online help)
- Plug-in power supply unit
- VESA 100 standard bracket

33107 102

Millimar N 1700 modules

33107 103-106
Design
- Bus modules that can be combined flexibly
- Powerful connection modules for evaluating measuring sensors
- Synchronous data query of several connected measuring probes
- Connection of the N 1700 modules via USB interface to the smart, universal evaluation and configuration software Millimar Cockpit
- Connection of all compatible measuring probe types via one and the same module
- Flexible and modular combination of products for solving specific measuring tasks
- Maximum theoretical bus data rate of 4149 values/s (depending on the number of connected channels)

Scope of delivery:
- Operating instructions

33107 103

33107 104

33107 105

33107 106

Technical data:	33107 103 (N 1702 M)	33107 104 (N 1701 USB)	33107 105 (N 1701 PS)	33107 106 (N 1704 I/O)
Digit increment:	0.1 µm	-	-	-
Measuring range of inductive probe:	+/- 2000 µm, +/- 5000 µm	-	-	-
Probe inputs:	Mahr, Mahr 1340, Mahr half-bridge, Mahr LVDT, Mahr VLDT	-	-	-
Data transfer rate values/sec.:	4189	-	-	-
Error limit:	0.3% (min. 0.2 µm)	-	-	-
Data interface:	RS485	RS485	RS485	RS485
Power supply:	-	-	230 V/115 V, 50/60 Hz	-
Power supply:	-	430 mA	2000 mA	-
Power consumption:	110 mA	-	-	70
Control inputs:	-	-	-	4 inputs, 10–30 V
Control outputs:	-	-	-	4 outputs

Type	33107 ...
Millimar Cockpit software	101
Measuring computer Millimar C 1700 incl. Millimar Cockpit software	102
Millimar N 1702 M (module for 2 inductive probes)	103
Millimar N 1701 USB (USB connection module)	104
Millimar N 1701 PS (power supply module)	105
Millimar N 1704 I/O (input/ output module)	106

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33115 Digital display unit TWIN-T10

IP 63

Design
- Large, high-contrast display (66 x 57 mm)
- Combined scale and digital display
- One measuring probe input for single measurement function
- Clear and error-free reading
- Functions MAX, MIN, MAX-MIN and TOL
- Auto-calibration
- Exceptionally long operating time
- Battery level indicator

Scope of delivery:
- Display unit TWIN-T10
- 4 batteries (type AA)
- Operating instructions

Applications
For intensive use in workshops.
Ideally suited for measuring straightness, run-out errors or geometric shapes during adjustment, alignment or configuration of mechanical components.

Note:
Replacement batteries, see art. no. 39900 303.

NEW

33115

Technical data:	
Measuring range:	+/- 5 µm–+/- 5000 µm
Display range of scale display:	+/- 5000 µm, +/- 2000 µm, +/- 500 µm, +/- 200 µm, +/- 50 µm, +/- 20 µm, +/- 5 µm
Digit increment:	0.1 µm
Scale interval:	0.1 µm, 1 µm
Probe inputs:	1
Compatibility:	TESA
Data interface:	RS232 via TLC connection
Operating time:	340–400 hours
Power supply:	4 batteries (type AA)
Protection rating:	IP 63

Dimensions W x H x D mm	33115 ...
100 x 170 x 38	101

33116 Electronic measuring probes

IP 65

Design
- Half-bridge measuring probe with 2 induction coils
- Robust design, **degree of protection IP 65**
- Resistant to temperature fluctuations and disruptive electromagnetic influences
- Ball-guided measuring pins
- Replaceable gauge slide with cemented carbide ball Ø 3 mm
- Ground and chrome-plated cylindrical shaft Ø 8 mm (h 6)
- **Supplied in case incl. installation key and test report with declaration of conformity**

Note:
Type GT 21 HP and type GT 22 HP in high-precision design or with other measuring force and measuring probe with 3 induction coils available on request. Universal measuring probes for multi-point measuring equipment, machine tools and other equipment are available on request as in-process test instruments.
Display units and other probes available on request.

33116

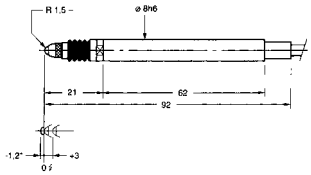
33116 101
GT 21
- Cable output, axial

33116 102
GT 22
- Cable output angled 90°
- Measuring pin lifting by vacuum

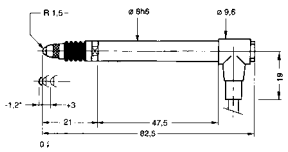
33116 103
GT 27
- Cable output, axial
- With large return stroke

33116 104
GT 28
- Cable output angled 90°
- Measuring pin lifting by vacuum
- With large return stroke

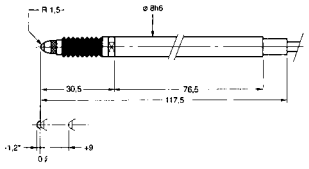
33116 101



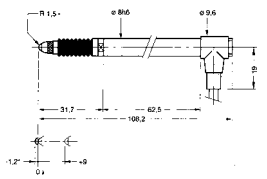
33116 102



33116 103



33116 104



Type	Measuring range mm	Measuring force max. N	33116 ...
GT 21	4	0.63	101
GT 22	4	0.63	102
GT 27	4	0.63	103
GT 28	4	0.63	104

USB measuring probes | Depth gauges | Depth measuring bridges

33110 - 33112 USB measuring probes and software

33110
USB measuring probe
Design
- High accuracy over entire measuring range
- Easy to use
- Broad range of applications
- Direct connection via the USB interface
- Increased compatibility
- RS 232 protocol without adjustment
- The simple communication protocol is compatible with the DATA-DIRECT (art. no. 33112 101) and STAT-EXPRESS (art. no. 33112 102) software and also offers a high level of user-friendliness

Applications
For highly accurate classical or multi-point measurements.

33110 101
GTL 21 USB
- Cable output, axial

33110 102
GTL 22 USB
- Cable output angled 90°

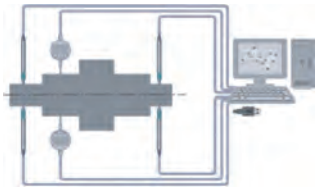
33112 101
DATA-DIRECT Advanced software
Applications
Software for data transfer. In combination with USB measuring probes art. no. 33110.

33112 102
STAT-EXPRESS software
Applications
Software for data collection and statistical data processing. In combination with USB measuring probes art. no. 33110.

33110 101

33112 101

33112 102



Examples when using 1 TESA USB measuring probe and multi-point measurements with multiple TESA USB measuring probes in conjunction with dial gauges.

Type	Measuring range mm	Error limit* µm	Error limit MPE µm	Repeatability (2s) µm	33110 ...	33112 ...
GTL 21 USB	+/- 2	0.2 + 0.2 · L	1.2	0.10	101	
GTL 22 USB	+/- 2	0.2 + 0.2 · L	1.2	0.10	102	
DATA-DIRECT software	-	-	-	-		101
STAT-EXPRESS software	-	-	-	-		102

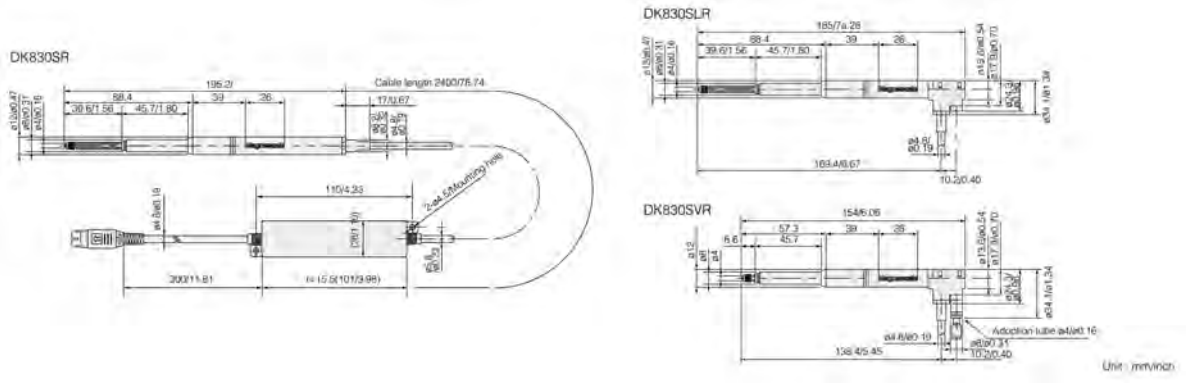
*** L: Measurement path in mm**

Info — Measuring probe DK series

Magnescale
SPEED X PRECISION

- Highly accurate, compact and slim measuring probe
- Suitable for installation in machines
- Magnetic principle
- Excellent resistance under workshop conditions
- Resistant to dust, liquids **(IP 67)** and vibrations
- **Accuracy:** from +/- 0.6 µm to +/- 3 µm
- **Resolution:** from 0.1 µm to 10 µm
- **Measuring range:** 2 mm to 205 mm
- Up to 30 mm measuring range, compact and slim
- 8 mm clamping diameter
- Low measuring force
- Spindle with push type can be extended with compressed air
- Dust- and watertight bellows
- Easy installation
- Measuring probe also available with flange.

Dimensions DK 830



33230 Depth gauge with dial gauge

Design
Complete with special dial gauge and depth measuringbridge. Location hole for dial gauge Ø 8 mm H7. Measuring bridge bronzed, surface hardened, ground and finely lapped. Evenness in accordance with DIN 874/0. Supplied in a case.

Applications
For checking the depths of blind holes, recesses and grooves of all kinds,
e.g. measuring engravings with sharp probe (art. no. 33114 101).

Measuring range mm	Reading mm	Measuring force N	Contact surface mm	33230	...
10	0.01	1.2	80 x 16		101

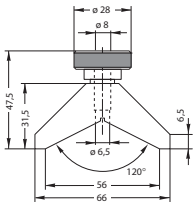
33230

33236 Depth measuring bridges, individual

33236 201
Design
With prismatically arranged measuring surfaces. Opening angle of the measuring faces 120°, hardened steel, brushed chromium-plated measuring bridge, measuring surface finely lapped, 16 mm wide, mount with clamping equipment for **Ø 8 mm H7.**
Applications
For measuring the depth of keyways in cylindrical shafts of 10 to 100 mm Ø, roundness deviations etc.

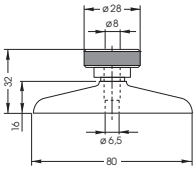
33236 202-203
Design
With level measuring surface. Location hole for dial gauge **Ø 8 mm H7**. Measuring bridge bronzed, surface hardened, ground and finely lapped. Evenness in accordance with DIN 874/0.

33236 201

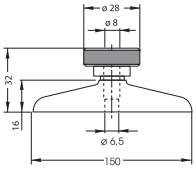


33236 201

33236 202



33236 203



33236 202-203

Measuring surfaces	33236	...
Prismatic		201
Level		202
Level		203

Lever gauge probes and accessories

33245 Lever gauge probes with µm reading or 10 µm reading

ATORN®

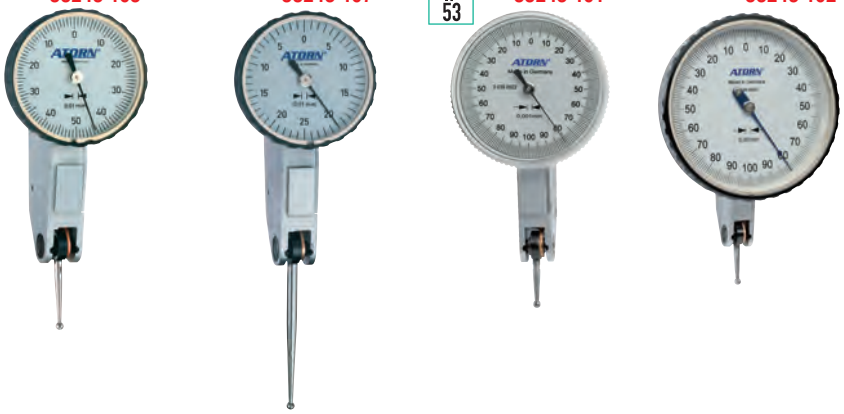
Design
Maximum precision in new XXL format: The first ever gauge probes with reading accurate to the nearest µm-!
- Anti-magnetic display (common magnetic fields have no effect)
- Chrome-plated housing with 3 milled dovetail guides for holding the clamping shank and/or directly on the measuring stand with corresponding dial gauge holder
- Automatic switching of the measuring direction
- Essential points of the measuring element are embedded in ruby, sapphire or ceramic jewel bearings
- Swivel range of the measuring probe 240°
- **Accuracy in accordance with DIN 2270**

Scope of delivery:
- Lever gauge probe
- Measuring probe with carbide ball Ø 2 mm
- Clamping shank Ø 8 mm for mounting on measuring stands
- Measuring probe key
- In case

33245 101
Design
With large dust and water-protected protective glass (IP 53). Scale ring made of plastic.

33245 102
Design
With extra large dial and extra large digits for optimal reading. Scale ring made of metal.

33245 105 | 33245 107 | IP 53 33245 101 | 33245 102



Measuring range mm	Reading mm	Scale graduation	Housing Ø mm	Measuring probe length mm	33245 ...
1.0	0.01	0–50–0	32	16.6	**105**
1.0	0.01	0–50–0	40	16.6	**106**
0.5	0.01	0–25–0	32	35.7	**107**
0.5	0.01	0–25–0	40	35.7	**108**
0.2	0.002	0–100–0	32	12.8	**103**
0.2	0.002	0–100–0	40	12.8	**104**
0.2	0.001	0–100–0	40	12.8	**101**
0.2	0.001	0–100–0	58	12.8	**102**

33240 Lever gauge probes MarTest 800

Mahr

Design
- High-contrast dial, sealed by O-ring
- Brushed chromium-plated protective housing with 3 integrated dovetail strips
- Shock-resistant measuring mechanism
- Anti-magnetic design
- Automatic adaptation to the sensing direction, resulting in error-free reading
- Double lever supported by ball bearings, overload protection through friction clutch
- Gauge slide with cemented carbide ball

Scope of delivery:
- Gauge slide Ø 2 mm
- Clamping shank 800a8
- Key for changing the gauge slides
- Operating instructions
- In case

Applications
Measuring deviations in concentricity, axial run-out, parallelism and flatness. Centring of shafts or holes and parallel or perpendicular alignment of workpieces.

Note:
Measuring probe, see art. no. 33243.

33240 101-105
Design
- Standard design

33240 201-203
Design
- **With long probe insert**
- 6 and 8 mm clamping shank

33240 301-303
Design
- With a high level of accuracy

33240 101-105 | 33240 201-203 | 33240 301-303

Measuring range mm	Version	Type	Reading mm	Scale Ø mm	Scale graduation	Measuring force N	Cemented carbide ball Ø mm	Measuring probe length mm	Standard	33240 ...
0.80	standard	800 SR	0.01	38	40–0–40	0.15	2	14.5	factory standard	**103**
0.40	standard	800 S	0.01	28	40–0–40	0.15	2	14.5	DIN 2270	**101**
0.40	standard	800 SG	0.01	38	40–0–40	0.15	2	14.5	DIN 2270	**102**
0.25	standard	800 SA	0.01	28	25–0–25	0.1	2	14.5	factory standard	**104**
0.25	standard	800 SGA	0.01	38	25–0–25	0.1	2	14.5	factory standard	**105**
0.50	long probe insert	800 SGB	0.01	38	50–0–50	0.07	2	32.3	factory standard	**201**
0.25	long probe insert	800 SL	0.01	28	25–0–25	0.07	2	41.24	factory standard	**202**
0.25	long probe insert	800 SGL	0.01	38	25–0–25	0.07	2	41.24	factory standard	**203**
0.20	high precision	800 SRM	0.002	38	10–0–10	0.15	2	14.5	factory standard	**303**
0.10	high precision	800 SM	0.002	28	100–0–100	0.15	2	14.5	DIN 2270	**301**
0.10	high precision	800 SGM	0.002	38	100–0–100	0.15	2	14.5	DIN 2270	**302**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33241 Lever gauge probes MarTest 800

Mahr

Design
- High-contrast dial, sealed by O-ring
- Brushed chromium-plated protective housing with 3 integrated dovetail strips
- Shock-resistant measuring mechanism
- Anti-magnetic design
- Automatic adaptation to the sensing direction, resulting in error-free reading
- Double lever supported by ball bearings, overload protection through friction clutch
- Gauge slide with cemented carbide ball

Scope of delivery:
- Gauge slide Ø 2 mm
- Clamping shank 800a8
- Key for changing the gauge slides
- Operating instructions
- In case

Applications
Measuring deviations in concentricity, axial run-out, parallelism and flatness. Centring of shafts or holes and parallel or perpendicular alignment of workpieces.

Note:
Measuring probe, see art. no. 33243.

33241 101
Design
- With large measuring range

33241 102
Design
- Vertical design

33241 101 33241 102

33241 103
Design
- Vertical design with high accuracy

33241 104
Design
- Horizontal design

33241 103 33241 104

Measuring range mm	Version	Type	Reading mm	Scale Ø mm	Scale graduation	Measuring force N	Cemented carbide ball Ø mm	Measuring probe length mm	Standard	33241 ...
0.07	larger measuring range	800 SGE	0.001	38	70–0–70	0.2	2	9.1	factory standard	**101**
0.4	vertical	800 V	0.01	28	40–0–40	0.2	2	14.5	DIN 2270	**102**
0.1	vertical, high prec.	800 VGM	0.002	38	100–0–100	0.25	2	14.5	DIN 2270	**103**
0.4	horizontal	800 H	0.01	28	40–0–40	0.25	2	14.5	DIN 2270	**104**

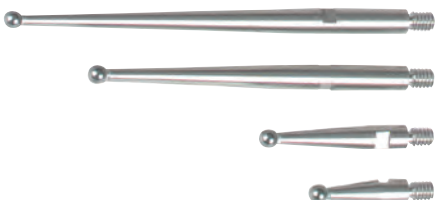
33243 Measuring probes for lever gauge probes MarTest

Mahr

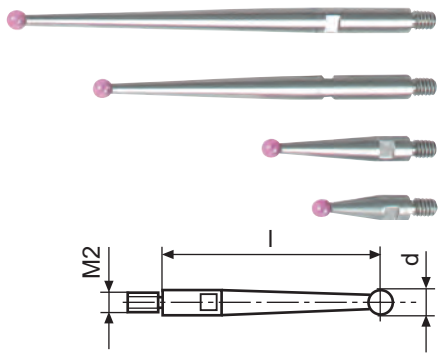
Design
- M2 thread

Applications
For lever gauge probes art. no. 33240–33241.

Cemented carbide



Ruby



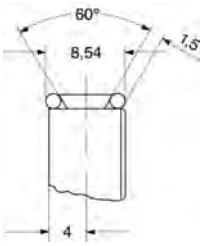
Type	Probe ball Ø mm	Gauge slide Length mm	Probe ball made of	33243 ...
800 ts	1	14.50	cemented carbide	**101**
800 ts	2	14.50	cemented carbide	**102**
800 ts	3	14.50	cemented carbide	**103**
800 tsr	2	14.50	ruby	**104**
800 tb	1	32.30	cemented carbide	**105**
800 tb	2	32.30	cemented carbide	**106**
800 tb	3	32.30	cemented carbide	**107**
800 tbr	2	32.30	ruby	**108**
800 tl	1	41.24	cemented carbide	**109**
800 tl	2	41.24	cemented carbide	**110**
800 tl	3	41.24	cemented carbide	**111**
800 tlr	2	41.24	ruby	**112**
800 te	1	9.10	cemented carbide	**113**
800 te	2	9.10	cemented carbide	**114**
800 te	3	9.10	cemented carbide	**115**
800 ter	2	9.10	ruby	**116**
Key	-	-	-	**117**

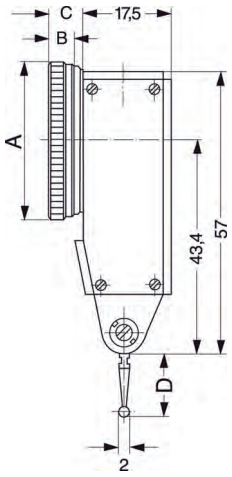
33243 117

Lever gauge probes and accessories

33246 For lever gauge probes with replaceable cemented carbide measuring probe

Standard model
Design
- **Measuring accuracy in accordance with DIN 2270**
- Clockwise pointer direction of rotation with automatic switching of the measuring direction
- Housing with three milled dovetail guides for secure clamping
- Chrome-plated to protect against damage
- Essential points of the measuring element are embedded in ruby, sapphire or ceramic jewel bearings
- Insensitive to shocks
- Line scale on profiled outer ring rotatable
- **With replaceable measuring probe Ø 2 mm made of cemented carbide**
- Delivered in a case with clamping shaft Ø 8 mm h 6 and key for replacing the measuring probe.



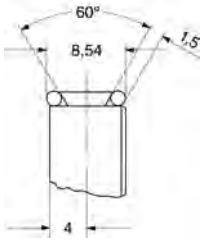


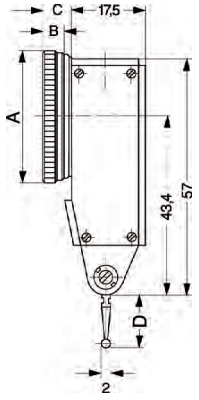
33246

Measuring range mm	Reading mm	Scale graduation	A mm	B mm	C mm	D mm	33246	...
0.8	0.01	0–40–0	32	5.6	7.1	12.8		101
0.8	0.01	0–40–0	40	6.0	7.5	12.8		102
0.5	0.01	0–25–0	32	5.6	7.1	35.7		103
0.5	0.01	0–25–0	40	6.0	7.5	35.7		104
0.2	0.002	0–100–0	32	5.6	7.1	12.8		105
0.2	0.002	0–100–0	40	6.0	7.5	12.8		106

33247 Lever gauge probes with replaceable ruby measuring probe

Standard model
Design
See art. no. 33246, however **with replaceable ruby measuring probe Ø 2 mm.**



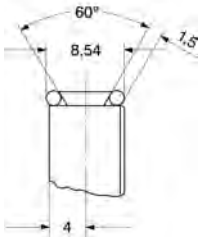


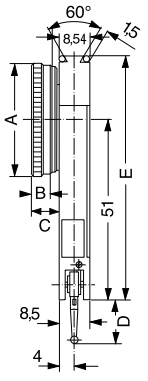
33247

Measuring range mm	Reading mm	Scale graduation	A mm	B mm	C mm	D mm	33247	...
0.8	0.01	0–40–0	32	5.6	7.1	12.8		101
0.2	0.002	0–100–0	40	6.0	7.5	12.8		102

33248 For lever gauge probes with replaceable cemented carbide measuring probe

Parallel model
Design
See art. no. 33246, however the **dial is** arranged laterally on the housing.



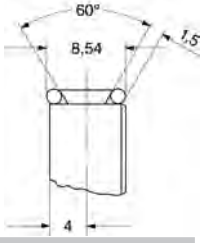


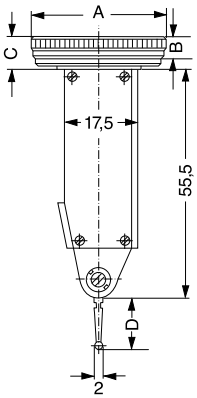
33248

Measuring range mm	Reading mm	Scale graduation	A mm	B mm	C mm	D mm	E mm	33248	...
0.8	0.01	0–40–0	32	5.6	7.7	12.8	69.5		101
0.8	0.02	0–100–0	40	6.0	8.1	35.7	73.5		102
0.2	0.002	0–100–0	32	5.6	7.7	12.8	69.5		103

33249 For lever gauge probes with replaceable cemented carbide measuring probe

Vertical model
Design
See art. no. 33246, however the **dial is** arranged perpendicularly on the housing axis.





33249

Measuring range mm	Reading mm	Scale graduation	A mm	B mm	C mm	D mm	33249	...
0.8	0.01	0–40–0	32	5.6	7.5	12.8		101
0.5	0.01	0–25–0	32	5.6	7.5	35.7		102
0.2	0.002	0–100–0	40	6.0	7.9	12.8		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33253 Measuring probes for lever gauge probes

Design
- **Thread M 1.6**

Applications
For lever gauge probes
Art. no. 33245–33249.

Note:
If the length is incorrect, the angular movement can result in measurement errors.

Probe ball Ø mm	Gauge slide length mm	Probe ball made of	For lever gauge measuring instruments art. no.	ATORN 33253 ...	HHW 33253 ...
1	12.3	cemented carbide	33246–33249 (without measuring range 0.5 mm)		201
1	35.2	cemented carbide	33246–33249 (only measuring range 0.5 mm)		204
2	12.8	cemented carbide	33245 (measuring range 0.2 mm)	202	
2	12.8	ruby	33245 (measuring range 0.2 mm)	207	
2	16.6	cemented carbide	33245 (measuring range 1.0 mm)	208	
2	16.6	ruby	33245 (measuring range 1.0 mm)	209	
2	35.7	cemented carbide	33245 (measuring range 0.5 mm)	205	
2	35.7	ruby	33245 (measuring range 0.5 mm)	210	
3	13.3	cemented carbide	33246–33249 (without measuring range 0.5 mm)		203
3	36.2	cemented carbide	33246–33249 (only measuring range 0.5 mm)		206

33255 Accessories for lever gauge probes

HHW

33255 101-102
Clamping shanks
With dovetail clamping.

33255 103
Clamping shank
Cylindrical, with clamping spigot Ø 6 mm.

33255 105
Holder
Short, can be swivelled, with cylindrical shaft and dovetail clamping.

33255 106
Holder
Long, can be swivelled, with cylindrical shaft and dovetail clamping.

33255 107
Angle bracket
Cylindrical shank, location hole Ø 8 mm.

33255 108
Centring clip
Cylindrical shank, with clamping point for clamping shank Ø 4 mm and dovetail.

33255 109
Double clamp
With clamping point and dovetail.

33255 110
Key
For gauge slides.

33255 111
Reducing sleeve
For art. no. 33260, from Ø 4 mm to Ø 8 mm clamping shank.

	Ø mm	Length mm	33255 ...
Clamping shank	4.0	-	101
Clamping shank	8.0	-	102
Clamping shank	8.0	80	103
Holder	8.0	25	105
Holder	8.0	90	106
Angle bracket	8.0	25	107
Centring clip	8.0	25	108
Double clamp	6.0	-	109
Key	-	-	110
Reducing sleeve	4/8	-	111

33255 101-102

33255 103

33255 106

33255 105

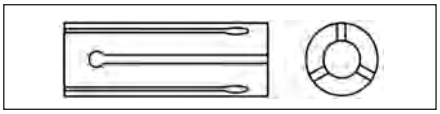
33255 108

33255 107

33255 109

33255 110

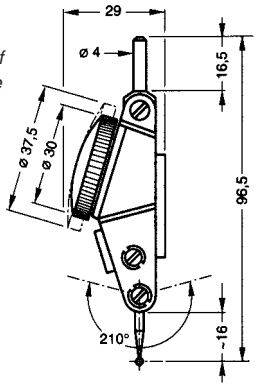
33255 111



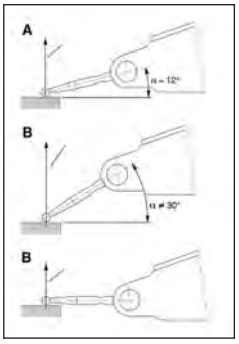
33260 Lever gauge probes with large measuring range

Design
Measure in 2 directions thanks to automatic switching in measuring mechanism. Reliable reading due to constant running direction of the pointer and an additional second pointer. Rotating scale dial. Robust monobloc metal housing with 3 milled dovetail strips and an additional permanently mounted, swivelling clamping shank with Ø 4 mm. Insensitive to magnetic fields. Precision measuring mechanism with 7 ruby bearings. Ball-bearing lever system with 210° swivel range of the replaceable gauge slide. Friction coupling for protection against overload. **Measuring force 0.12 N (0.01 mm) or 0.25 N (0.002 mm).** Supplied with 1 cemented carbide gauge slide Ø 2 mm **(connecting thread M 1.7), 1 key and declaration of conformity.**

Note:
Reducing sleeve, see art. no. 33255 111.
Measured value correction zero at 12° pitch angle of the gauge slide: At a pitch angle of 12° of the gauge slide to the workpiece surface, the measured value is accurate without correction (Figure A). At any other angle of the gauge slide to the workpiece surface (Figure B), including the parallel position, the measured values that are read must be corrected (see instruction manual).
Perpendicular version is available upon request.



33260



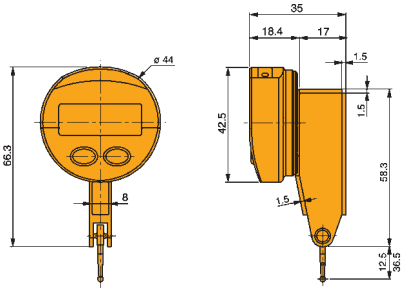
Measuring range mm	Housing Ø mm	Reading mm	Scale graduation	Gauge slide length mm	33260	...
1.6	30.0	0.01	0–40–0	16.5		**201**
1.6	37.5	0.01	0–40–0	16.5		**202**
0.4	30.0	0.002	0–10–0	15.2		**203**
0.4	37.5	0.002	0–10–0	15.2		**204**

33265 Digital lever gauge probes

IP 65 | Typ G | Typ H | Typ I

Design
Sealed according to **degree of protection IP 65** against dust, metal particles, splashing water and oil. Rotating display unit. Probe with carbide ball Ø 2 mm, can be swivelled 270°. Digit increment reversible (0.001/0.01 mm). **Data output RS 232/USB combined with external feed.** 3 dovetail mounting surfaces, clamping shank Ø 8 mm. mm/inch switching. Combined scale and digital display. Zero setting at any point, factor preselection of the scale interval: 1/2/5/10/20/50 µm. **Measuring mode:** Normal, MIN, MAX, MAX-MIN. Automatic power off, 3 V battery, type CR 2032.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.
Compatible with all TESATAST accessories.



33265 301

Combined scale-/ digital display

Measuring range mm	Measuring probe length mm	Cemented carbide ball Ø mm	Digit increment mm	Display unit Ø mm	Measuring force N	33265	...
0.8	12.5	2.0	0.001	44	0.13 (+/- 15%)		**301**
0.5	36.5	2.0	0.001	44	0.07 (+/- 15%)		**302**

33300 Thickness measuring device

Design
- With lifting device, therefore with a pressure independent of the user
- Handy low-weight bow
- Gauge slides can be replaced with special gauge slides with other diameters
- Together with the adjustable bow that is available on request, the hand tool can be turned into a standing tool quickly and easily

Note:
Replacement dial gauges available on request.

33300

Reading mm	Measuring range mm	Bow depth mm	Gauge slide Ø mm	Contact force N	33300	...
0.01	10	50	10 flat	0.8		**101**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33413 External quick callipers, digital

IP 67 | Typ R | Typ S

Kroeplin
Längenmesstechnik

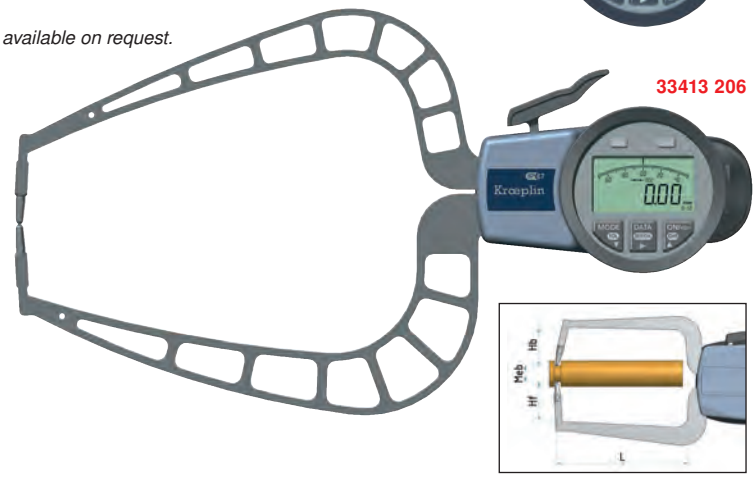
Design
- External quick callipers with **digital display**
- **Dust and splash-proof in accordance with I 67,** suitable for workshops
- Application-specific measurement programmes and measuring contacts
- Absolute and relative measurement programme
- Red/green display for tolerance measurements
- Switching from mm to inches
- Independent battery operation
- Switching of the digital increments
- Supplied **with factory calibration certificate,** battery and operating instructions

Applications
For thickness and outer grooves measurements.

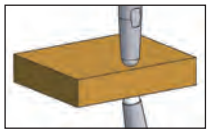
Note:
Connection cable, see art. no. 35200 307-308.
Replacement batteries, see art. no. 39900 303.
Devices **with long probe arms** *available on request.*
Wireless interface available on request.

33413 201-204

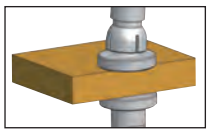
33413 206



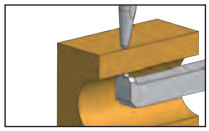
C110/C220/C450



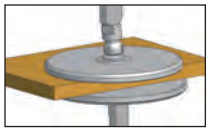
C110T



C2R20/C4R50



C450T



Type	Measuring range mm	Scale graduation value mm	Measuring (L) depth max. mm	Measuring contact length Hb/Hf mm	Error limit mm	Repeatability mm	Measuring force incl. tolerance N	Measuring contact shape	33413	...
C110	0–10	0.005	35	19.1/18.6	0.015	0.005	0.8–1.2	ball Ø 1.5		**201**
C110T	0–10	0.005	35	21.7/14.8	0.02	0.005	0.8–1.2	plate Ø 6		**202**
C220	0–20	0.01	85	24.6/24.6	0.03	0.01	1.1–1.6	ball Ø 1.5		**203**
C2R20	0–20	0.01	85	24.6/2.5	0.03	0.01	1.1–1.6	ball Ø 1.5		**204**
C450	0–50	0.02	167	30.0/30.0	0.06	0.04	0.8–1.7	ball Ø 3		**206**
C4R50	0–50	0.02	169	30.0/4.3	0.06	0.04	0.8–1.7	ball Ø 3		**207**
C450T	0–50	0.02	167	36.0/24.0	0.08	0.04	0.8–1.7	plate Ø 50		**208**

33416 External quick callipers, analogue

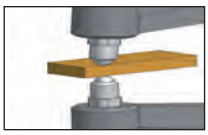
Kroeplin
Längenmesstechnik

POCO 2 K

Design
- Handy absolute measuring instrument with steel cord transmission for greater precision and longer service life
- Clear, easy-to-read scales, protected against dirt and dripping water
- Supplied in sturdy cardboard with operating instructions

Applications
Universal
pocket device.

33416



Type	Measuring range mm	Scale graduation value mm	Measuring contact length mm	Error limit mm	Repeatability mm	Measuring depth mm	Measuring force incl. tolerance N	Measuring contact shape	33416	...
POCO 2K	0–10	0.1	5	0.1	0.05	36	0.3–1.3	ball Ø 2		**402**

33430 External quick callipers, analogue

IP 65

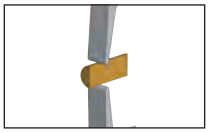
Kroeplin
Längenmesstechnik

D220S

Design
- Handy absolute measuring instrument
- **50% higher display resolution** compared to earlier generations
- Reliable reproducibility of the display
- Clear, easy-to-read scales and tolerance marks
- Protected against dirt and dripping water
- **Degree of protection IP 65**
- Supplied in sturdy cardboard **including factory test certificate** and operating instructions

Applications
For thickness and outer grooves measurements.

33430



Type	Measuring range mm	Scale graduation value mm	Measuring contact length mm	Error limit mm	Repeatability mm	Measuring depth mm	Measuring force incl. tolerance N	Measuring contact shape	33430	...
D220S	0–20	0.01	24.6	0.03	0.01	85	1.1–1.6	cutting edge R 0.4		**201**

External quick callipers | Internal quick callipers

33435 External quick callipers, analogue

IP 65

Kroeplin
Längenmesstechnik

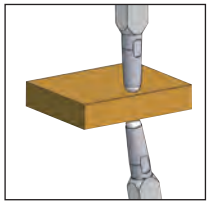
Design
- Absolute measuring instrument with damped drive and steel cord transmission for greater precision and longer service life
- Clear, easy-to-read scales
- Two easy adjustable tolerance marks
- Protected against dirt and dripping water
- Supplied in sturdy cardboard **including factory test certificate** and operating instructions

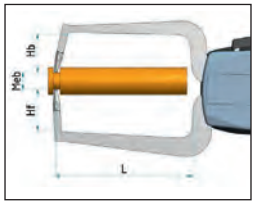
Applications
For rugged use in workshops for thickness measurement and external measurement.

33435 201-202

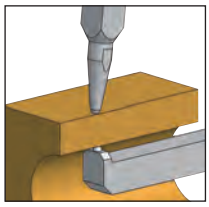
33435 203-204

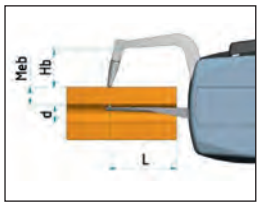
D220/D450





D2R20/D4R50





Type	Measuring range mm	Scale graduation value mm	Measuring L depth max. mm	Measuring contact length Hb/Hf mm	Error limit mm	Repeatability limit mm	Measuring force incl. tolerance N	Measuring contact shape	33435	...
D220	0–20	0.01	85	24.7/24.6	0.03	0.01	1.1–1.6	ball Ø 1.5		201
D2R20	0–20	0.01	85	24.7/2.5	0.03	0.01	1.1–1.6	ball Ø 1.5		202
D450	0–50	0.05	167	30.0/30.0	0.05	0.025	0.8–1.7	ball Ø 3.0		203
D4R50	0–50	0.05	169	30.0/4.3	0.05	0.025	0.8–1.7	ball Ø 3.0		204

33438 3-point internal quick callipers, digital

IP 67

Kroeplin
Längenmesstechnik

Design
- Large digital display with analogue scale
- Better centring thanks to 3-point probing, resulting in fast measured value determination, reliable measurement, accurate measurement results
- Application-specific measurement programmes and measuring contacts
- **Degree of protection IP 67**, suitable for workshop use
- mm/inch switching
- Red/green display for tolerance measurements
- Absolute and relative measurement programme

Applications
For direct measurement of drill holes, recesses and inside slots on difficult-to-access positions.

33438 101

33438 103

33438 106

Ball Ø 0.6 mm

Ball Ø 1.0 mm

Type	Measuring range mm	Scale interval mm	Measuring max. mm	Groove depth/width mm	Error limit mm	Repeatability mm	Measuring force incl. tolerance N	Measuring contact length mm	Measuring contact shape	33438	...
G107P3	7–14	0.002	34	2.2/0.8	0.01	0.004	1.0–1.4	2.5	ball Ø 0.6		101
G210P3	10–20	0.005	75	3.5/1.6	0.02	0.01	1.1–1.6	4.6	ball Ø 1.0		102
G215P3	15–30	0.005	77	5.0/1.6	0.02	0.01	1.1–1.6	5.8	ball Ø 1.0		103
G225P3	25–45	0.005	84	7.0/1.6	0.02	0.01	1.1–1.6	7.3	ball Ø 1.0		104
G240P3	40–60	0.005	84	8.0/1.6	0.02	0.01	1.1–1.6	12.2	ball Ø 1.0		105
G255P3	55–75	0.005	84	8.0/1.6	0.02	0.01	1.1–1.6	12.2	ball Ø 1.0		106
G270P3	70–90	0.005	84	8.5/1.6	0.02	0.01	1.1–1.6	12.2	ball Ø 1.0		107
G285P3	85–105	0.005	84	9.0/1.6	0.02	0.01	1.1–1.6	12.2	ball Ø 1.0		108

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33439 Internal quick callipers, digital

IP 67 | Typ R | Typ S

Kroeplin
Längenmesstechnik

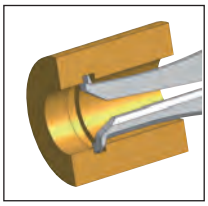
Design
- Internal quick callipers with **analogue and digital display**
- **Dust and splash-proof in accordance with IP 67,** suitable for use in workshops
- Application-specific measurement programmes and measuring contacts
- Absolute and relative measurement programme
- Red/green display for tolerance measurements
- Switching from mm to inches
- Independent battery operation
- Switching of the digital increments
- **Supplied with factory calibration certificate,** battery and operating instructions

Applications
For holes and internal groove measurements.

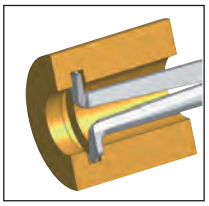
Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900.
Devices with long probe arms available on request.
Wireless interface available on request.

33439

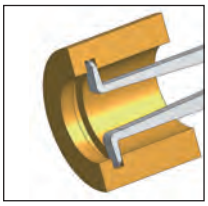
Cutting edge R 0.1 mm



Ball Ø 0.6 mm



Ball Ø 1.0 mm



Type	Measuring range mm	Scale interval mm	Measuring depth max. mm	Groove depth/width mm	Error limit mm	Repeatability mm	Measuring contact length mm	Measuring force incl. tolerance N	Measuring contact shape	33439	...
G102	2.5–12.5	0.005	12	0.7/0.4	0.015	0.005	0.9	0.8–1.2	cutting edge R 0.1		**201**
G105	5.0–15.0	0.005	35	2.3/0.8	0.015	0.005	2.5	0.8–1.2	ball Ø 0.6		**202**
G210	10.0–30.0	0.01	85	5.2/1.2	0.03	0.01	5.3	1.1–1.6	ball Ø 1.0		**203**
G220	20.0–40.0	0.01	85	7.0/1.2	0.03	0.01	7.3	1.1–1.6	ball Ø 1.0		**204**
G230	30.0–50.0	0.01	85	7.0/1.2	0.03	0.01	7.3	1.1–1.6	ball Ø 1.0		**205**
G240	40.0–60.0	0.01	85	8.3/1.2	0.03	0.01	8.5	1.1–1.6	ball Ø 1.0		**206**
G250	50.0–70.0	0.01	85	8.3/1.2	0.03	0.01	8.5	1.1–1.6	ball Ø 1.0		**207**
G260	60.0–80.0	0.01	85	8.3/1.2	0.03	0.01	8.5	1.1–1.6	ball Ø 1.0		**208**
G270	70.0–90.0	0.01	85	8.3/1.2	0.03	0.01	8.5	1.1–1.6	ball Ø 1.0		**209**

33449 Internal quick callipers, analogue

IP 65

Kroeplin
Längenmesstechnik

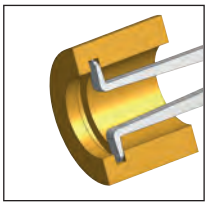
Design
- Handy absolute measuring instrument
- **50% higher display resolution** compared to earlier generations
- Reliable reproducibility of the display
- Clear, easy-to-read scales and tolerance marks
- Protected against dirt and dripping water
- **Degree of protection IP 65**
- Supplied in sturdy cardboard **including factory test certificate** and operating instructions

Applications
For groove and hole measurements.

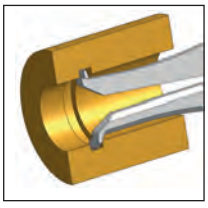
33449 201

33449 203

Ball Ø 0.6 mm
Ball Ø 1.0 mm



Cutting edge R 0.1 mm



Type	Measuring range mm	Scale interval mm	Measuring depth max. mm	Groove depth/width mm	Error limit mm	Repeatability mm	Measuring contact length mm	Measuring force incl. tolerance N	Measuring contact shape	33449	...
H102	2.5–12.5	0.005	12	0.7/0.5	0.015	0.005	0.9	0.8–1.2	cutting edge R 0.1		**201**
H105	5.0–15.0	0.005	35	2.3/0.8	0.015	0.005	2.5	0.8–1.2	ball Ø 0.6		**202**
H210	10.0–30.0	0.01	85	5.2/1.2	0.03	0.01	5.3	1.1–1.6	ball Ø 1		**203**
H220	20.0–40.0	0.01	85	7.0/1.2	0.03	0.01	7.3	1.1–1.6	ball Ø 1		**204**
H230	30.0–50.0	0.01	85	7.0/1.2	0.03	0.01	7.3	1.1–1.6	ball Ø 1		**205**
H240	40.0–60.0	0.01	85	8.3/1.2	0.03	0.01	8.5	1.1–1.6	ball Ø 1		**206**

Internal quick callipers | Internal comparison measuring instruments | Internal precision measuring instruments

33454 Internal quick callipers, analogue

IP 65

Kroeplin
Längenmesstechnik

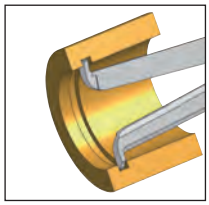
Design
- Absolute measuring instrument with steel cord transmission for greater precision and a longer service life
- Clear, easy-to-read scales
- Two easy adjustable tolerance marks
- Protected against dirt and dripping water Supplied in sturdy cardboard **including factory test certificate** and operating instructions

Applications
For rugged use in workshops for groove and hole measurement.

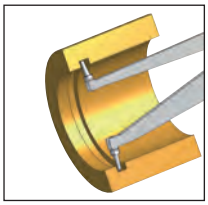
33454 201

33454 202-203

H415



H440/H470



Type	Measuring range mm	Scale interval mm	Measuring depth max. mm	Groove depth/ width mm	Error limit mm	Repeatability mm	Measuring contact length mm	Measuring force incl. tolerance N	Measuring contact shape	33454 ...
H415	15–65	0.05	188	5.5/1.9	0.05	0.025	6.0	0.9–1.9	ball Ø 1.5	201
H440	40–90	0.05	192	8.3/2.4	0.05	0.025	8.5	0.9–1.9	ball Ø 2.0	202
H470	70–120	0.05	192	8.3/2.4	0.05	0.025	8.5	0.9–1.9	ball Ø 2.0	203

33455 Digital internal/external quick callipers with Li-ion battery charging pad

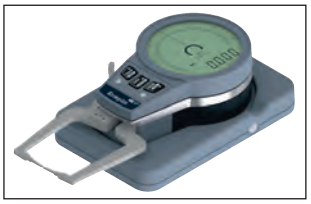
IP 67 | Typ R1 | Typ S1

Kroeplin
Längenmesstechnik

Design
- Quick probe in the smallest design
- **Li-ion battery** with inductive charging concept
- Improved display for optimum readability:
- New display with 250° analogue display area
- Longer analogue pointer
- USB and Digimatic interface
- Suitable for workshop use, IP 67
- 20% larger DATA logger (100 measured values)
- Application-specific measurement programmes and measuring contacts
- mm/inch switching

Scope of delivery:
- Charging pad
- Qualified test certificate
- Operating instructions

Note:
Connection cable, see art. no. 35200 317+318.

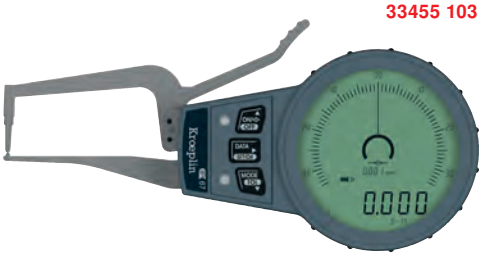


Wireless charging
thanks to inductive charging concept

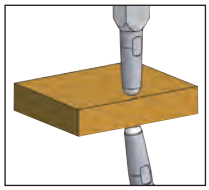
NEW

33455 101-102

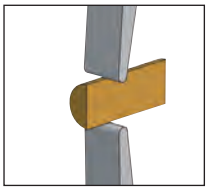
33455 103



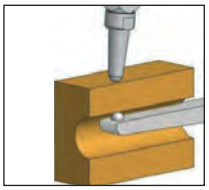
C015



C015S

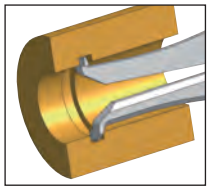


C0R15

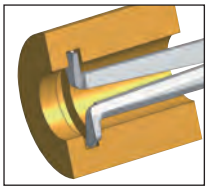


33455 104-106

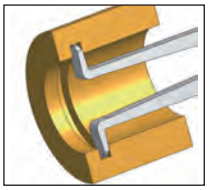
G002

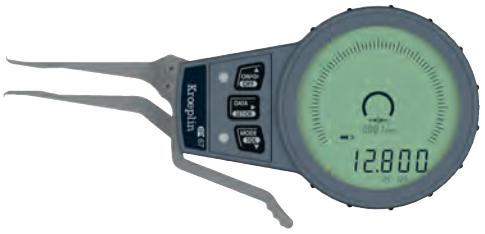


G005



G010





Type	Measuring range mm	Scale interval mm	Measuring depth max. mm	Groove depth/ width mm	Error limit mm	Repeatability mm	Measuring contact length mm	Measuring force incl. tolerance N	Measuring contact shape	33455 ...
C015	0–15	0.001	45	15/2.5	0.010	0.005	17	1.3–1.5	ball Ø 1.5	101
C015S	0–15	0.001	45	11/1.5	0.015	0.005	12	1.3–1.5	cutting edge R 0.4	102
C0R15	0–15	0.001	45	-	0.010	0.005	0.9	1.3–1.5	ball Ø 1.5	103
G002	2.5–12.5	0.001	12	0.7/0.6	0.010	0.005	0.9	0.8–1.3	cutting edge R 0.12	104
G005	5–20	0.001	44	2.2/0.8	0.010	0.005	2.2	0.8–1.3	ball Ø 0.6	105
G010	10–25	0.001	46	4/1.5	0.010	0.005	4.4	0.8–1.3	ball Ø 1.0	106

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33466 2-point internal comparison measurement instruments set IRA 2

Design
- **Integrated precision pointer with 0.01 mm scale interval**
- **Especially large measuring range 10–150 mm thanks to** measuring arms with adjustable angles
- Safe handling when measuring thanks to low weight and optimal shaping
- Automatic centring for 3-point measurements and centring aids for 2-point measurements.

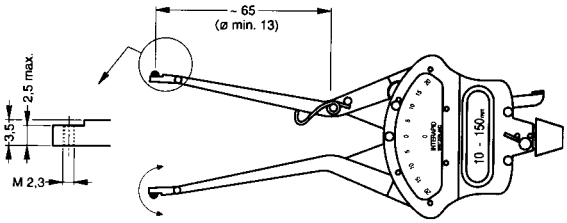
Display setting:
- Adjustment of the measuring arms using a bolt (locking device) and fine adjustment device on the precision pointer
- **Repeatability f_w:**
  10–30 mm = 6 µm,
  30–80 mm = 8 µm,
  80–120 mm = 10 µm,
  120–150 mm = 12 µm
- **Error limits:**
  10–90 mm = +/- 10 µm,
  100 mm = +/- 15 µm,
  120 mm = +/- 24 µm,
  150 mm = +/- 54 µm.
- Supplied in case incl. normal accessories, operating instructions and **declaration of conformity**
- Each measuring instrument is labelled with an individual production number.

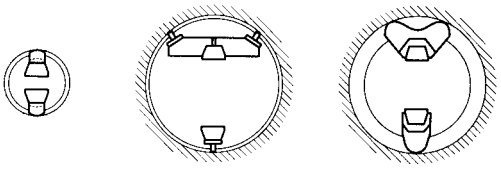
Applications
Ideal for measuring through holes and blind holes, recesses and turned grooves. Internal measurements on workpieces with plane-parallel surfaces, e.g. groove widths. Recording of shape and position deviations.

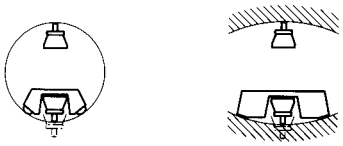
Quality
Steel measuring surfaces, hardened.

Note:
Special accessories available on request.

33466







Standard accessories:	
3	gauge slides Ø 3.0 mm, spherical measuring surfaces, r = 2 mm
3	gauge slides Ø 1.0 mm on 2.5 mm length, spherical measuring surfaces, r = 0.9 mm
3	gauge slides Ø 1.4 mm on 5.0 mm length, spherical measuring surfaces, r = 0.9 mm
2	swivelling gauge slides for measurements from Ø 7 mm
1	small gauge slide holder for 3-point contact
1	large gauge slide holder for 3-point contact
1	centring bridge for Ø 15–30 mm
1	centring bridge for Ø 30–150 mm
1	special screwdriver

Measuring range mm	Scale interval mm	Display range mm	Lifting path of the measuring arm mm	Measuring force approx. N	33466	...
10–150	0.01	+/- 0.20	10	3.5		102

33820 - 33821 Internal precision measuring instrument sets

33820
Probe head sets
Design
Scope of delivery: Probe heads, drive needles and dial gauge holder, **without** dial gauge. Supplied in wooden case with recesses for the corresponding probe heads, drive needles, holders and setting rings.

Applications
Indicating hole measuring instruments **for determining bore diameters and identifying bore errors.** The modular DIATEST device system enables measurement of most holes that occur in practice. A comprehensive range of accessories allows for the use of probe heads for manual measurements, the use of measuring stands and installation in measuring devices as needed. The measuring instruments can therefore be used for series and individual inspection of holes in the measuring room, for incoming and interim inspection and preferably directly on the production machine during operation.

Quality
Probe heads hardened and hard-chrome-plated (approx. 1000 HV), drive needles as a transmission element made of hardened special steel (approx. 63–65 HRC).

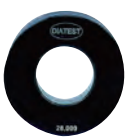
Note:
Additional devices and accessories available on request. DIATEST probe head sets are also available in the same measuring ranges in carbide-tipped design and in blind hole hard-chrome-plated design.

33821
Setting ring sets
Applications
Enable the reliable zero setting of the probe head measuring instruments.

Quality
Extremely wear-resistant gauge steel (approx. 63 HRC). Production accuracy in accordance with factory standard (better than DIN 2250, sheet 2).

33820

33821



Measuring range mm	Number of heads/rings	Probe heads 33820	...	Setting rings 33821	...
1.5–3.95	9		101		101
3.7–9.80	12		102		102
9.4–20.60	11		103		103

Internal chamfer gauges | Internal precision measuring instruments

33826 Internal chamfer gauge

DIATEST

Design
- Measuring surfaces and measuring cone made of hardened steel
- Impact-protected dial gauges
- Scale graduation of the dial gauge 0.01 mm
- Factory calibration or with setting master

Scope of delivery:
- IKT device incl. shock-resistant mechanical special dial gauge with certificate
- Wooden case
- Operating instructions

Applications
The internal chamfer gauge directly measures the greatest diameter of a conical hole or of a conical groove. As a result, this measuring instrument often replaces difficult or time-consuming measuring methods.

Functional principle:
The measuring cone is introduced into the hole and the measuring instrument is pressed onto the surface of the workpiece until the stop. The measured diameter can be read directly on the special dial gauge.

Caution:
IKT dial gauges are special dial gauges with a transmission ratio. The transmission ratio depends on the measuring cone used. The dial gauge is checked in accordance with the factory standard.

Note:
Other designs available on request.

NEW

33826

Measuring range mm	Cone	33826 ...
0.5–20	90°	101
10–30	90°	102
20–40	90°	103

33828 Internal precision measuring instrument sets

ATORN®

Design
- Repeatability limit 0.002 mm
- Fixed measuring pins made of hardened steel
- Movable probe bolt made of cemented carbide
- Supplied in wooden case **(without precision pointer)**

Easy to use:
The ATORN internal precision measuring instrument centres itself in the hole using the spring-loaded centring plate. The repeatable reversal point (measurement result) is determined precisely by the oscillation of the instrument in the hole. By simply replacing the measuring pins and discs, the devices can be quickly converted for other diameters.

Determination of shape deviations:
Turning and/or moving the device in the hole makes it possible to collect information about deviations in roundness or cylindricity.

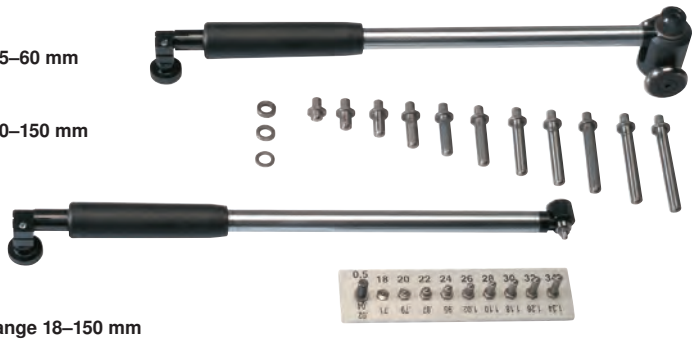
Applications
For determining bore diameters using the 2-point comparison measuring method.

33828 101
Set, measuring range 18–35 mm

33828 102
Set, measuring range 35–60 mm

33828 103
Set, measuring range 50–150 mm

33828



33828 201
Large set, measuring range 18–150 mm
Design
Consisting of 2 basic devices.
Measuring range extensions
cover the entire measuring range.

Note:
Precision pointer, see art. no. 33074.

Application area mm	Measurement depth (probe bolt centre to bottom edge of the handle) mm	33828 ...
18–35	176	101
35 - 60	178	102
50 - 150	178	103
18–150	176/178	201

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33830 - 33835 Internal precision measuring instrument sets

Schwenk

Type SU
Design
With automatic centring and play-free transfer of the probe bolt movement to the dial gauge, temperature-stabilised. Setting to nominal dimension with setting device art. no. 33845, setting rings art. no. 32492 using the measuring pins and measuring discs supplied. Measuring discs, replaceable measuring pins and carbide-tipped probe bolts are used to record all intermediate sizes. Reading 0.01 or 0.001 mm depending on the dial gauge used. Dial gauges, see art. no. 33001–33064, precision pointers, art. no. 33071–33074 (special probe art. no. 33114 no. 7 is required as a measuring pin extension for this). Deviation range max. 0.002 mm, repeatability max. 0.0005 mm (for measuring range up to 290 mm), **without dial gauge,** in wooden box.
Applications
For rapid determination of the diameter and for checking for deviations in shape.

Note:
Measuring range 18–100 mm, includes measuring pins of the sizes 18–35/35–60 and 50–100 mm.
Measuring range 50–160 mm includes measuring pins of the sizes 50–100 and 100–160 mm.
Measuring range 160–290 also includes a 70 mm extension.
ESU setting device, see art. no. 33845.
A detailed leaflet is available on request.
Other versions, e.g. for internal teeth and other measurement depths as well as angled versions, are available on request.

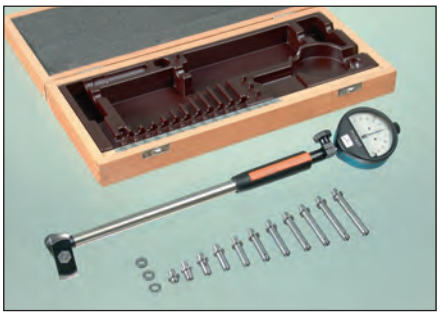
33830
Complete set,
measuring pins with steel balls.

33831
Complete set,
measuring pin, carbide-tipped.

33834
Measuring range extension
Only for measuring ranges 18–100 mm and 50-100 mm, for occasional measurements over 100 mm.

33835
Measurement depth extension
Clamping shank Ø 8 mm, usable from hole Ø 35 mm.

33830 - 33831



						Steel	Cemented carbide			Range ext.		Depth ext.	
Measuring range mm	Measuring depth mm	Number of measuring pins	Number of measuring discs	Thickness mm	Length mm	33830	...	33831	...	33834	...	33835	...
4.5–6	80	9	-	-	-				101				
6–8	100	7	-	-	-				102				
8–12	100	9	-	-	-				103				
12–20	110	9	1	0.5	-				104				
18–35	110	9	2	0.5/1	-		105		105				
35–60	177	6	3	1/2	-		106		106				
50–100	177	11	3	1/2/3	-		107		107				
18–100	110–177	28	8	-	-		108		108				
100–160	234	7	4	1/2/3/6	-		109		109				
50–160	180–234	18	7	-	-		110		110				
160–290	234	7	4	1/2/3/6	-		111		111				
280–510	417	7	4	1/2/3/6	-		112		112				
400–800	417	11	4	5	-		113		113				
-	-	-	-	-	50						101		
-	-	-	-	-	70						102		
-	-	-	-	-	250								101
-	-	-	-	-	500								102
-	-	-	-	-	750								103
-	-	-	-	-	1000								104

33837 - 33838 Internal precision measuring instrument sets

Schwenk

Design
See art. no. 33830–33835, however with 2 replaceable bottom parts, carbide-tipped probe bolts, fixed measuring pins for size 1 as standard, for size 2 optionally carbide-tipped, deviation range ≤ 0.002 mm, repeatability ≤ 0.0005 mm. Complete set consisting of top part, 2 measuring heads, measuring pins, measuring discs, measuring range extensions (for size 2) and various wrenches, **without dial gauge,** in wooden box.
Applications
Ideal for workplaces in which holes of all types must be measured in frequent alternation.

33837
Type SV
Complete set, fixed measuring pins with steel balls.

33837 103
Type SVS
Also with blind hole heads for measuring blind holes.

33838
Type SV
Complete set, fixed measuring pins, carbide-tipped.

33838 103
Type SVS
Also with blind hole heads for measuring blind holes.

Note:
ESU setting device, see art. no. 33845.

33837 103

							Steel		HM	
Size	Measuring range mm	Blind hole measuring range mm	Measuring depth mm	Number of measuring pins	Measuring disc thickness mm	Extension length mm	33837	...	33838	...
1	6–18	-	100	17	0.25/0.5	-				101
2	18–160	-	145	20	0.5/1/2/3	16/55		102		102
2	18–160	20–140	145	20	0.5/1/2/3	15/55		103		103

Internal precision measuring instruments | Setting devices | Length measuring devices | Surface specimen plates

Info

Spare parts and exploded drawings of Schwenk internal precision measuring instruments available on request.

33840 Internal precision measuring instruments

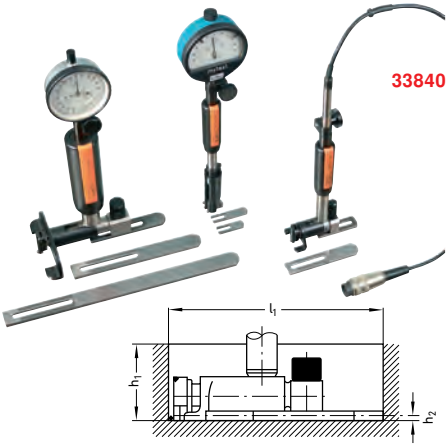
Schwenk

Type SS
Design
See art. no. 33830–33834. The instrument can determine diameters up to 1.5 mm (h2) at the base of a hole. The diameter to be tested is pre-set via the carbide-tipped vernier callipers with millimetre pitch. The slide is toothed and replaceable. For each device, several vernier callipers, divided into specific measuring ranges, are included in the standard equipment. The fine adjustment of the hole test dimension is then carried out using the setting device (see art. no. 33845 107) or setting rings.

The dial gauges art. no 33009–33025 are suitable for reading 0.01 mm, the dial gauges art. no. 33060–33064 or 33071 174 are suitable for reading 0.001 mm (special probe art. no. 33114, no. 7 is required as an extension), deviation range ≤ 0.004 mm (measuring range up to 50 mm) and ≤ 0.0025 mm (measuring range up to 110 mm), repeatability ≤ 0.001 mm, **without** dial gauge, in wooden box.
Applications
For determining the diameter of blind holes and centring shoulders.

Note:
ESU setting device, see art. no. 33845 107.
Measuring range 110 mm and design with h2 = 1.0 mm available on request.

33840



Measuring range (l_1) mm	Measuring depth (h_1) mm	Measuring ranges of vernier callipers (l_1) mm	33840	...
20–50	77	20-30/30-40/40-50		101
50–110	55	50-80/80-110		102
110–300	45	-		103

33845 ESU setting devices

Schwenk

Design
Scope of delivery: Frame with adjustable jaw holder, adjustable jaw pair, measuring arm made of solid carbide in gauge block quality, clamping element, **without** base, **without** gauge blocks.
Applications
Can be used horizontally and (vertically with base). For accurate fine adjustment of internal measuring instruments type SU/SK/SW/SMT/SP/SV to the desired nominal dimension with the help of gauge blocks.

33845 107
For type SS.

Note:
Measuring range 4.5–30 mm available on request.
Wooden case available on request.

33845

Measuring range mm	33845	...
4.5–160		101
18–160		103
18 - 290		104

Measuring range mm	33845	...
160 - 510		105
160 - 800		106
20 - 300		107

Info

Measuring instruments for special applications

Schwenk

Type KT: **For measuring internal teeth,**

Type SN: For measuring grooves and recesses,
Type ST: For measuring pedestal bearing housings, grooves and recesses,
Type SL: For measuring holes with retracted boring bar.

Delivery on request, please contact us.

Type KT

Type SN

Type ST

Type SL

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33846 Length measuring bench Precimar SM 60

Mahr

Design

- The Precimar SM 60 is an easy-to-use small lengths measuring bench for fast, precise external measurements on workpieces
- Simple design of the device
- Quick adaptation to new workpieces
- Freely selectable measuring equipment (e.g. digital dial gauge)
- Integrated coupling protects the measuring equipment
- Use of a wide range of different measuring attachments

Note:

Optional accessories available on request.

33846

NEW

Technical data:	
Application range:	0 - 60 mm
Measuring range movable sleeve:	25 mm
Measuring surfaces Ø:	6 mm H7
Measuring force (without dial gauge or measuring probe):	1 N +/- 0.2 N
Parallelism of the measuring surfaces:	< 1 µm
Large support table, infinite height adjustment:	dia. 60 mm
Mount for dial gauge or measuring probe:	dia. 8 mm

Type	33846	...
Precimar SM 60		101

33890 Surface specimen plate sets

RUGOTEST

Design

The roughness is divided into 12 classes - N0 to N11.

Applications

For comparative test of the surface quality by visual and tactile examination (with fingernail), in accordance with the standards **ISO/R468, ISO 2632/1 1975 and NFE 05-051.**

Note:

These specimen plates rationally illustrate the various surface types that are achieved with machines that are used in industry.

33890 101

Applications

For the full range of machining methods: roll milling, grinding, face milling, lapping, planing/lathing, honing. Incl. tables for the various machining types.

33890 101

33890 107

33890 110

Area of application	Number of Reference sample	Dimensions of the specimen plates mm	Comparison ranges Ra µm	ISO roughness categories	33890	...
General	27	120 x 90	0.05–12.5	N 2–N 10		101
Blasting	18	120 x 90	0.80–25.0	N 6–N 11		103
Planing	6	110 x 50	0.80–25.0	N 6–N 11		106
Lathing	6	110 x 50	0.40–12.5	N 5–N 10		107
Face milling	6	110 x 50	0.40–12.5	N 5–N 10		108
Flat-sanding	8	130 x 50	0.025–3.2	N 1–N 8		109
Round grinding	8	130 x 50	0.025–3.2	N 1–N 8		110
Spark erosion	6	110 x 50	0.40–12.5	N 5–N 10		111

Roughness measuring devices and accessories

33902 - 33903 Mobile roughness measuring device Waveline W5

JENOPTIK

33902

Design
- Large colour display with tolerance assessment
- Probe position display for precise alignment of the measuring instrument
- Intuitive click wheel operation for parameter selection and operation of all device functions
- Illuminated probe protection
- Internal memory for 5 measuring programs and max. 10,000 measurement results
- Integrated li-ion battery for up to 800 measurments
- USB and Bluetooth interface
- Replaceable skid-type probe
- Scanning paths in accordance with ISO/JIS/MO-TIF, max. 17.5 mm
- Cut-off: 0.25/0.8/2.5 mm
- Filter: phase-correct profile filter, double Gaussian filter, Ls filter
- Measurement and evaluation of the following roughness parameters:
  Ra, Rz, Rmax (Rt), Rq, RSm, Rmr(c), Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, R, AR, Rx, Rp, Rpm, RZ(JIS), Ry, tp, RPc, R3z.

Scope of delivery:
- Waveline W5
- Roughness probe T1E (2 µ/90°) with measuring range +/- 100 µm
- Supporting prism for small shafts
- USB cable
- Charger
- Operating instructions
- Factory calibration certificate
- In case

33903 101
Waveline PRINTER P5
- Thermal printer with Bluetooth interface for logging the parameters
- Measurement conditions and roughness profiles as a graphic presentation with high resolution
- Including 5 rolls of thermal paper, charger and storage case

Note:
Thermal paper for printer P5
see art. no. 33930 120.

33902

33903

Type	33902	...	33903	...
Waveline W5 roughness measuring device		101		
Waveline printer P5				101

33925 Mobile roughness measuring device Waveline W10

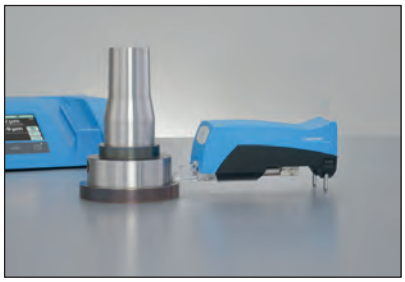
JENOPTIK

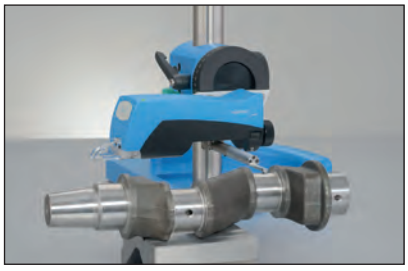
Design
- Mobile roughness measuring device of accuracy class 1 for skid measurements
- Measurement of all common roughness parameters with cordless feeding device
- Intuitive operation via 4.3 inch touchscreen
- Integrated thermal printer and integrated roughness standard
- Mains or battery operation
- USB interface for connection to PC
- Eight measuring programmes with extensive programming options offer customised measuring programme functions

Scope of delivery:
- Waveline W10 basic device
- Cordless feeding device LV17 with axial and transverse scanning
- Illuminated probe protection
- Roughness probe T1E 2 µm/ 90°, measuring range 100 µm
- Mains power supply adapter
- 2 rolls of printer paper
- Factory acceptance certificate
- Operating instructions
- Storage case

33925

Technical data:	
Measuring range:	Max. 320 µ (-210/+110) depending on the roughness probe
Probe:	Inductive skid-type probe 2 µm/90 degrees
Scanning path:	17.5 mm (1.5/4.8/ 15 mm)
Number of individual measurement lengths:	1 to 5 selectable
lc:	0.25/0.8/2.5 mm
lamda S filter:	independent of lc, can be switched off
Filter:	ΩDIN EN ISO 11562, DIN EN ISO 16610-21, ISO 13565-1, λs filter in accordance with DIN EN ISO 3274
Sensing speed:	0.15/0.5/1.0 mm/sec, return 3 mm/sec
Surface parameters DIN EN ISO 4287:	Ra, Rz, Rt, Rmax, Rp, Rpm, Rv, RPc, RSm, Rq, RSk, Rku, Rdq, Rdc, Rmr(c)[%], Rmr(c)[µm], R3z, Rz ISO
Surface parameters DIN EN ISO 13565:	Rpk*, Rpk, Rk, Rvk, Rvk*, Mr1, Mr2
Surface parameters MOTIF ISO 12085:	R, Rx, Ar, Nr, CR, CF, CL, W, Wx, Aw, Nw
Surface parameters DIN EN ISO 10049:	RPc, Ra
Special parameters:	Sealing parameters: Rmr(c), Pmr(c) with c = factor x parameter (factor: 0.01–1.00) Parameter: Rt, Tmax, Rz, Ra, Pt, Pmax, Pz, Pa)





Type	33925	...
Waveline W10 roughness measuring device		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33925 Mobile roughness measuring device Waveline W20

JENOPTIK

Design
- **Complete** – mobile measurement of all common roughness, ripple and profile parameters thanks to free tracer system
- **Automatic** – motorised height adjustment for automatic positioning and lifting of the probe from the workpiece surface
- **Mobile** – built-in battery for operation without external power supply
- **Informative** – display of parameters, profile graphics, Abbott curves and statistical data
- **Easy** – straightforward operation via touchscreen with context-sensitive key functions
- **Practical** – integrated printer for immediate documentation of the measurement results
- **Reliable** – immediate checking of the measuring instrument via the integrated roughness standard

waveline™ 20 feeding device for precise roughness and ripple measurements
- Integrated start button for single-handed operation
- High-precision linear guide for precise straightness and ripple measurements
- Variable measuring speed
- Measurement in all positions (also overhead)
- For all our reference surface probes

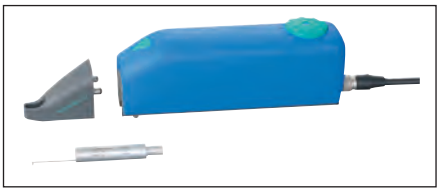
Motorised probe lowering
- Automatic positioning of the probe tip on the workpiece surface and setting of the selected measuring range
- Protection against unwanted damage to the probe tip when changing workpieces as a result of automatic lifting at the end of measurement

Context-sensitive operation via touchscreen
- 8 measuring programmes
- Function key bar with 4 basic functions
- Evaluation of all common roughness, ripple and profile parameters
- Comprehensive options for tolerance evaluation
- Fast and convenient entry of additional user inputs
- Clear presentation of the results: Characteristics, profile representation, interactive Abbott curve representation, comprehensive statistical function

Scope of delivery:
- Waveline W20 basic device
- waveline 20 feeding device
- Probe protection
- Integrated roughness standard with data sheet
- Measuring instrument with factory calibration certificate
- 2 rolls of printer paper
- Charger/100-V to 240-V mains power supply adapter
- USB cable
- Operating instructions
- Storage case

33925 201
Scope of delivery:
- Roughness probe TKL300L 2 µm/90°, measuring range 300 µm

33925



Type	33925	...
Waveline W20 roughness measuring device		201
Waveline W20 roughness measuring device (without roughness probe)		301

33910 Evovis software for Waveline W5+W10+W20

JENOPTIK

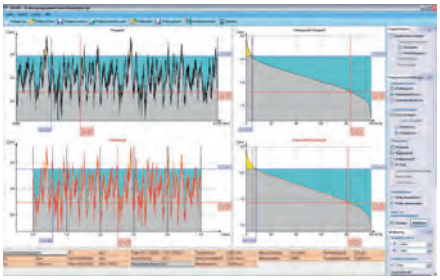
Design
PC-based evaluation program
for mobile roughness measuring devices:
- Waveline W5 (art. no. 33902 101), Waveline W10 (art. no. 33925 101) and Waveline W20 (art. no. 33925 201+301)
- HOMMEL-ETAMIC T1000basic, T1000wave from production year 1999
- Can run under Windows 7/64 bit, Windows XP

Performance features:
- Test plan creation
- Measurement and evaluation
- Automatic creation of results tables
- Logging/log editor
- Multi-print function
- Automatic measurement processes
- Object management / network diagram
- System settings
- Available languages: German, English, French, Spanish, Polish, Russian, Chinese

Evaluations:
- All common parameters in accordance with DIN EN ISO 4287, 13565, MOTIF ISO 12085, JIS B601, ASME B46 DIN EN 10049
- Filter in accordance with DIN EN ISO 11562, 3274, ISO 13565-1, robust Gaussian filter ISO 16610-31
- Evaluation of P/R/W profiles
- Interactive Abbott curve
- Comprehensive log editor
- Powerful online help

Scope of delivery:
Data carrier CD, software licence file, USB dongle

33910



Type	33910	...
Waveline Evovis mobile software		201

Roughness measuring devices and accessories

33903 - 33930 Accessories for Waveline W5+W10+W20 roughness measuring devices

JENOPTIK

33903 103
HS300 height measuring stand for W5+W10+W20
- With cast-iron stand base and ground three-point mounting
- Height adjustment range 300 mm, tilt range +/- 180°

Note:
An adapter W5 (art. no. 33903 104) is needed to mount mobile roughness measuring devices W5+W10.

33903 104
Adapter W5 for HS300
Applications
For mounting Waveline W5+W10 mobile measuring devices on the HS300 height measuring stand.

33903 106
Probe T1E (2 µm/90°) for W5+W10
- With skid for measuring on flat surfaces, shafts and in holes

33903 107
Probe T1E oil-resistant (2 µm/90°) for W5+W10
- With skid for measuring on flat surfaces, shafts and in holes

33903 108
Probe T3E (5 µm/90°) for W5+W10
- With skid for measuring on flat surfaces, shafts and in holes

33930 105
Probe T1K (5 µm 90°) for W5+W10
- With narrow skid for measuring on convex and concave surfaces, e.g. grooves on roller bearings. Skid radius = 0.2 mm

33930 106
Probe T1E oil-resistant (5 µm/90°) for W5+W10
- With skid for measuring on flat surfaces, shafts and in holes

33930 107
Probe T1E (5 µm/90°) for W5+W10
- With skid for measuring on flat surfaces, shafts and in holes

33930 108
Probe TK050 (2 µm/90°) for W5+W10
- With offset skid for holes from 2 mm diameter

33930 109
Probe T1D (5 µm/90°) for W5+W10
- With probe tip before the skid, for measuring in the immediate vicinity of front faces, blind holes and recesses

33930 122
Probe set TKU300 with 2 µm for W20
- Basic probe TKU300
- Probe arm for holes from 4 mm
- Probe arm for measuring directly on front faces
- Probe arm for grooves
- Probe depth 10 mm

Note:
Other probes available on request.

33930 112
Probe extension AZZ 55
- Extension for 6-pin probe, length 55 mm, shaft Ø approx. 11 mm

33930 113
Roughness book, theory and practice

33930 118
Stationary measuring station for W5+W10+W20
With T-groove, including measuring stands, measuring plate and continuously adjustable swivelling device +/- 180°, height adjustment range 300 mm. Dimensions (L x W x H) 400 x 280 x 483 mm.

Note:
An adapter W5 (art. no. 33903 104) is needed to mount mobile roughness measuring devices W5+W10.

33930 119
Roughness standard RNDH 3 for W5+W10+W20
Geometry standard made of nickel.
Triangular/sinusoidal grooves.
Including factory certificate.
Ra: approx. 3.2 µm,
Rz: approx. 10.0 µm.

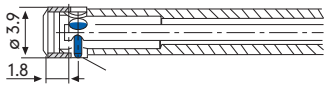
33930 120
Thermal paper for W10 and printer P5

33930 121
Clamping shank 8x46/M6 for W5+W10

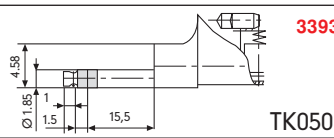
33930 123
Adapter W20
Applications
For mounting the waveline 20 feeding device on height measuring stand HS300.

33903 103

33930 106-107



33930 108



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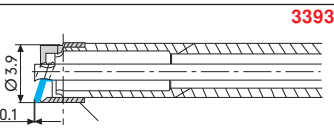

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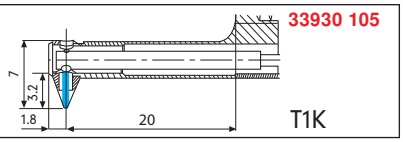
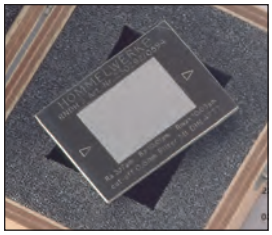


33930 122

33930 118

33930 119



33903 ...	
Height measuring stand HS300	103
Adapter W5 for HS300	104
Probe T1E (2 µm/90°)	106
Probe T1E, oil resistant (2 µm/90°)	107
Probe T3E (5 µm/90°)	108

33930 ...	
Probe T1K (5 µm/90°)	105
Probe T1E, oil resistant (5 µm/90°)	106
Probe T1E (5 µm/90°)	107
Probe TK050 (5 µm/90°)	108
Probe T1D (5 µm/60°)	109
Probe set TKU 300	122

33930 ...	
Probe extension AZZ 55	112
Roughness book	113
Stationary measuring station	118
Roughness standard RNDH 3	119
Thermal paper (10 rolls)	120
Clamping shank 8x46/M6	121
Adapter W20 for HS300	123

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33932 Mobile roughness measuring device MarSurf PS 10

Mahr

33932 102
MarSurf PS 10
Design
- Large, illuminated, rotating 4.3 inch TFT touch display
- Easy and intuitive operation: As easy as using a smartphone
- Removable feeding device
- Integrated calibration standard (removable)
- Calibration function: dynamic, Ra, Rz and RSm
- Data backup as TXT, X3P and PDF file
- Start button is also the home button for direct access to the home screen
- Calculation of 31 core sizes
- Gaussian filter in accordance with ISO 16610-21 (previously ISO 11562)
- Special filter in line with DIN EN ISO 13565-1
- Is filter in accordance with DIN EN ISO 3274 (can be deactivated)
- Automatic function for standardised selection of filters and scanning path
- USB interface, MarConnect, microSD card
- Internal memory, expandable with microSD card
- 16 available languages
- switchable between µm/µinch

Scope of delivery:
- Feeding device with tracing lengths up to 17.5 mm
- Skid probe with measuring range of 350 µm, 2 µm/90° diamond tip, probing force 0.7 mN
- Standard (integrated and removable)
- Probe protection
- Height adjustment
- Power supply with 3 adapters
- USB cable
- Bag
- Factory calibration certificate

33932 102

33932 430
adapters
Applications
For mounting the MarSurf PS 10
in measuring stands/scribers with Ø 8 mm.

33932 430

33932 431
Design
Mount for complete MarSurf PS 10
on measuring stands.

33932 431

Type	Dimensions mm	33932 ...
MarSurf PS 10	160 x 77 x 50	102
Adapter	-	430
Mount for MarSurf PS 10 on measuring stands ST	-	431 NEW

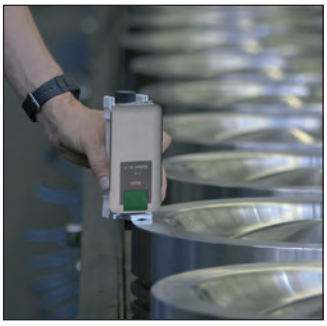
33932 Mobile roughness measuring device MarSurf M 300

Mahr

33932 201
MarSurf M 300
Design
- Wireless Bluetooth connection
- Automatic for standard-compliant device setting
- Integrated thermal printer with excellent print quality
- Output of the R-profile via thermal printer
- Log output at the push of a button or automatically
- Data transfer of the results to the PC via USB interface
- Evaluation of the most common characteristics in accordance with ISO/JIS as well as characteristic curves, characteristic lists (e.g. material share)
- Integrated memory for results and profiles
- Tolerance monitoring
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material share curve, results log
- Setting of asymmetrical section levels for peak counting
- 15 available languages
- Units of measure (µm/µinch) and standards (ISO/JIS/ASME/MOTIF) selectable
- Individual measurement lengths and shortened cutoff selectable
- Lock for device setting
- Built-in battery with power management
- Power supply with interchangeable adapters for worldwide use
- Date and time for logging

Scope of delivery:
- Evaluation device M 300
- Feeding device RD 18 with integrated standard
- Standard probe PHT6-350/2 µm (conforming to standards)
- Height adjustment
- Probe protection
- 2x USB cable
- Carry bag

33932 201



Type	Dimensions of feeding device mm	Dimensions of evaluation device mm	33932 ...
MarSurf M 300	130 x 70 x 50	190 x 140 x 75	201

Roughness measuring devices and accessories

33932 Mobile roughness measuring device MarSurf M 300 C

Mahr

33932 301
MarSurf M 300 C
Design
- Automatic for standard-compliant device setting
- Integrated thermal printer with excellent print quality
- Output of the R-profile via thermal printer
- Log output at the push of a button or automatically
- Data transfer of the results to the PC via USB interface
- Evaluation of the most common characteristics in accordance with ISO/JIS as well as characteristic curves, characteristic lists (e.g. material share)
- Integrated memory for results and profiles
- Tolerance monitoring
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material share curve, results log
- Setting of asymmetrical section levels for peak counting
- Units of measure (µm/µinch) and standards (ISO/JIS/ASME/MOTIF) selectable
- 15 available languages
- Individual measurement lengths and shortened cutoff selectable
- Lock for device setting
- Built-in battery with power management
- Power supply with interchangeable adapters for worldwide use
- Date and time for logging

Scope of delivery:
- Evaluation device M 300 C
- Cylindrical feeding device RD 18 C
- Standard probe PHT6-350/2 µm (conforming to standards)
- Surface standard PRN10 with Mahr calibration certificate
- Height adjustment
- Probe protection
- USB cable (for connecting to PC)
- Carry bag

Note:
Additional, separate feeding device MarSurf RD18 C2 for transverse scanning for M 300 C is available.

33932 301

Measurement on front faces

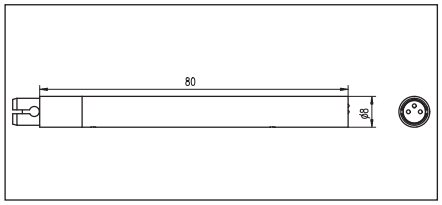
Overhead measuring

Type	Dimensions of feeding device mm	Dimensions of evaluation device mm	33932 ...
MarSurf M 300 C	139 x 26	190 x 140 x 75	301

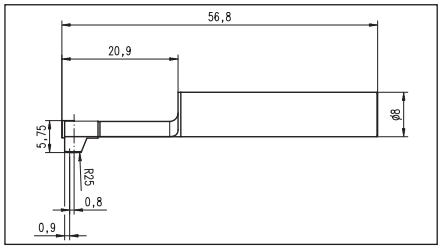
33932 Accessories for MarSurf PS 10 + M 300 + M 300 C

Mahr

33932 401



33932 402-404



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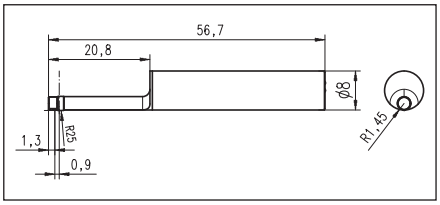

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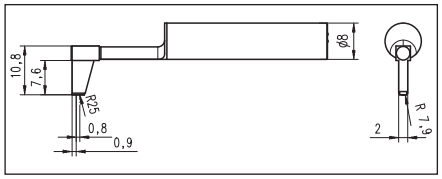

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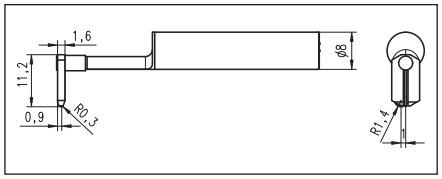

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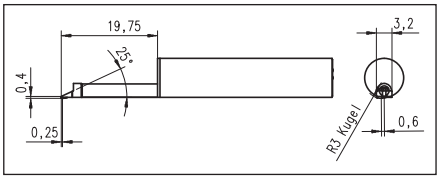

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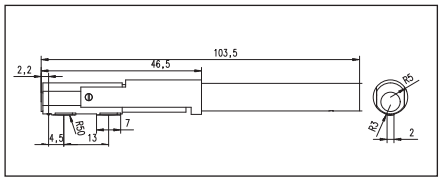


33932 412

33932 413

33932 414

33932 415

	33932 ...
Probe extension PHT (80 mm)	401
Standard probe PHT 6-350/2 µm	402
Standard probe PHT 6-350/5 µm	403
Standard probe PHT 6-350/10 µm	404
Probe for holes from 3 mm PHT 3-350	405
Prober for grooves PHT 11-100	406
Probe for concave and convex surfaces PHTR-100	407
Probe for tooth flanks PHTF 0.5-100	408
Probe for sheet metals PT 50	409
Adapter for transverse scanning PHT AQ	410
Prism bracket with prism attachment PS1 php	411

	33932 ...
Mount for MarSurf PS1/RD18 on measuring stands STST-a1	412
Measuring stands 300 mm with cast-iron base ST-D	413
Measuring stand 300 mm with base plate ST-F	414
Measuring stand 300 mm with base plate and T-groove ST-G	415
Swivel mount on Digimar 814 SR 814 Sh	416
Evaluation software SW PS1/M300 Explorer	417
Geometry standard with sinusoidal groove profile PGN 1	418
Geometry standard with sinusoidal groove profile PGN 3	419
Geometry standard with sinusoidal groove profile PGN 10	420
Mount for MarSurf RD 18 C on measuring stands ST PST-a2	421

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

33933 Mobile roughness measuring device MarSurf M 400 set

Mahr

Evaluation device MarSurf M 400
Design
- Simple. Fast. Innovative
- More and more often, surface evaluations that require free scanning are needed not only in the measuring room, but also in the manufacturing area
- Generally this means higher requirements for user qualification, a greater time expenditure and more adjustment work.
- Offers this required performance range in the line of mobile surface measuring technology at Mahr, with equally simple and fast operability

Feeding device SD 26
Features
- Free scanning with high-precision probe system
- Faster switching of probe arm thanks to magnetic probe-arm holder
- Protection against destruction
- Only a few seconds of set-up time thanks to motorised height adjustment of the feeding device with automatic zero setting
- Flexible handling thanks to wireless Bluetooth connection
- Transparent, clear and simple thanks to brilliant colour display for presentation of results and operator guidance
- Mobile use thanks to mains and battery operation
- Internationally up to date with all common characteristics in accordance with ISO, JIS, ASME, many languages integrated
- Quality documentation thanks to integrated thermal printer for profile and results
- Measuring point density in accordance with standards despite increased measuring speed

Scope of delivery:
- Evaluation device MarSurf M 400
- Feeding device MarSurf SD 26 incl. probe system BFW 250
- Standard probe arm
- 1 roll of thermal paper
- Wide-range power supply with 3 adapters
- 2 x USB cable (for connecting to PC and use with cable)
- Operating instructions
- In transport bag

Technical data:	Evaluation device MarSurf M 400
Profile determination:	Primary, ripple and roughness profile Inductive free tracer system with replaceable probe arms, 2 µm probe tip, measuring force approx. 0.7 mN (standard)
Standards:	DIN/ISO/JIS/ASME/MOTIF selectable
Parameters:	54 pieces
Scanning paths Lt (in accordance with ISO/JIS):	1.75/ 5.6/17.5 mm, automatic, free input
Scanning path (in accordance with MOTIF):	1/2/4/8/12/16 mm
Total distances lm (in accordance with ISO/JIS):	1.25/4.0/12.5 mm
Sensing speed:	0.2/1.0 mm/s
Measuring range:	+/- 250 µm = 8 nm, +/- 25 µm = 0.8 nm (standard probe arm length)
Languages:	15 selectable
Storage options:	max. 30 profiles or max. 40,000 results
	Integrated printer

Technical data:	Feeding device SD 26
Measurement path:	26 mm
Tilt adjustment:	+/- 1.5° (alignment function with user guide in the evaluation device)
Interfaces:	USB slave, MarConnect (RS232)

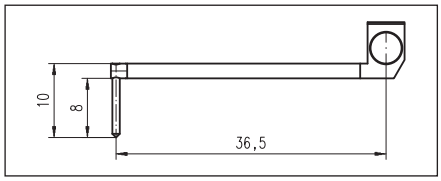
Type	33933 ...
MarSurf M 400 set	101

33933

33933 Probe system BFW 250 for MarSurf M 400 set

Mahr

33933 105



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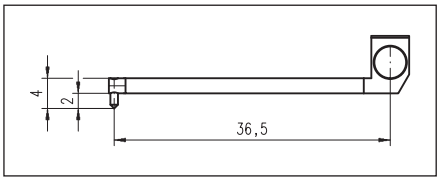

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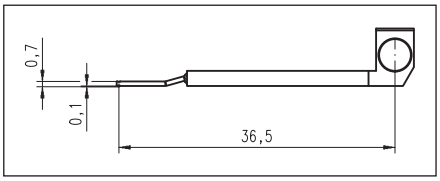
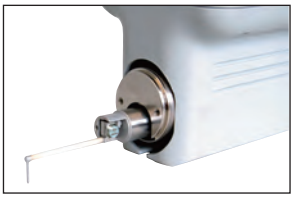


	33933 ...
Probe for holes from 11 mm BFW A 10-45-2/90°	105
Probe for holes from 4 mm BFW A 4-45-2/90°	106
Probe for holes from 0.8 mm BFW A 0.7-45-2/90°	107



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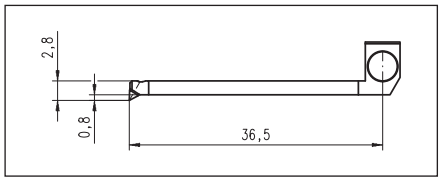

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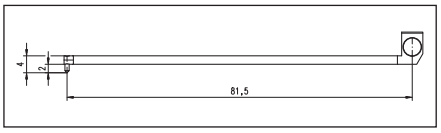
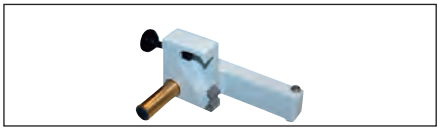


33933 115



	33933 ...
Probe with inclined tip BFW A 2.8-45-2/60°-s32°	108
Probe for holes from 4.5 mm measuring range +/-500 µm BFW A 4-90-2/90°	109
Mount for Marsurf SD 26/SD 26 C on measuring stands ST-D/-F/-G	115

Measuring instruments in pocket format

Info — Roughness measuring device MarSurf XR 1

Compact
- Few components
- Touchscreen operation
- MarWin software in combination with mobile feeding devices
- Powerful basic software

Cost-effective
- Low entry price

Comfortable
- Self-installation by customer
- Plug & play
- Software can be expanded with software options
- Multiple feeding devices can be connected via cable or Bluetooth

Measurement of a knee joint
with the feeding device MarSurf RD 18 and the skid probe system PHTR-100

Measurement of a graduated shaft
with the feeding device MarSurf SD 26 and/or MarSurf RD 18

MarSurf XR1 software
The MarWin software platform offers the user the option of using a service that is characterised by ease of use, with a wide range of measuring and selection criteria.

Data transfer of the feeding devices to the PC
- Connection of any number of feeding devices using a feeding device adapter
- Alternatively: For the feeding devices MarSurf RD 18 and MarSurf SD 26, a connection with the PC via the Bluetooth interface is possible. A one-off connection is sufficient. When starting the measuring programme, the feeding device linked with it will start.

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33940 Measuring instrument for air and surface temperature TESTO 810

33940

IR measurement with 1-point laser, measuring spot marking and 6:1 optics. Air temperature measurement, display of differential temperature e.g. between surface and air. Hold function and max./min. values. Operating temperature -10 to 50 °C.

Scope of delivery:
TESTO 810, calibration protocol, hand strap, belt bag, protective cap, batteries (2 x AAA).

Note:
Replacement batteries, see art. no. 39900 304.

Technical data:	TESTO 810
Surface temperature measuring range:	-30 to +300 °C
Resolution:	0.1 °C
Accuracy:	+/-2.0 °C (-30 to +100 °C) +/-2% of mv (remaining measuring range)
Appearance:	6:1
Units:	°C/°F
Air temperature measuring range:	-10 to +50 °C
Resolution:	0.1 °C
Accuracy:	+/- 0.5 °C
Units:	°C/°F
Dimensions (incl. protective cap):	119 x 46 x 25 mm

Type	33940 ...
TESTO 810	101

33941 Measuring instrument for temperature and humidity TESTO 610

33941

Design
Humidity sensor, which remains stable over the long term, 2.5%RH accuracy with calibration protocol. Incl. dew point calculation and wet bulb. Hold function and max./min. values. Operating temperature -10 to 50 °C.

Scope of delivery:
TESTO 610, calibration protocol, hand strap, belt bag, protective cap, batteries (2 x AAA).

Note:
Replacement batteries, see art. no. 39900 304.

Technical data:	TESTO 610
Temperature measuring range:	-10 to +50 °C
Resolution:	0.1 °C
Accuracy:	+/- 0.5 °C
Units:	°C/°F
Humidity measuring range:	0 to 100%RH
Resolution:	0.1%RH
Accuracy:	+/-2.5%RH (5 to 95%RH)
Units:	%RH, humidity, dew point
Dimensions (incl. protective cap):	119 x 46 x 25 mm

Type	33941 ...
TESTO 610	101

33942 Measuring instruments for material moisture, air humidity and temperature TESTO 606-1 and 606-2

33942 101 33942 102

33942 101-102
Design
Precise measurement of wood moisture thanks to stored characteristics, e.g. for beech, larch, oak, pine and maple. Characteristics for cement screed, concrete, gypsum, etc. With hold function and self-test function. Operating temperature -10 to 50 °C.

Scope of delivery:
TESTO 606, calibration protocol, hand strap, belt bag, protective cap, batteries (2 x AAA).
Note:
Replacement batteries, see art. no. 39900 304.

33942 102
TESTO on 606-2
Additional measurement of air temperature and humidity to evaluate drying processes.

Technical data:	TESTO 606-1	TESTO 606-2
Material moisture measuring range:	0 to 90%	0 to 90%
Resolution:	0.1	0.1
Accuracy:	+/-1 percent by weight	+/-1 percent by weight
Units:	%RH, wet bulb, dew point	%RH, wet bulb, dew point
Humidity measuring range:	-	0 to 100%RH
Resolution:	-	0.1%RH
Accuracy:	-	+/-2.5%RH (5 to 95%RH)
Units:	-	%RH, wet bulb, dew point
Air temperature measuring range:	-	-10 to +50 °C
Resolution:	-	0.1 °C
Accuracy:	-	+/- 0.5 °C
Units:	-	°C/°F
Dimensions (incl. protective cap):	119 x 46 x 25 mm	119 x 46 x 25 mm

Type	33942 ...
TESTO 606-1	101
TESTO 606-2	102

Measuring instruments in pocket format

33943 Measuring instruments for airflow, temperature and humidity TESTO 410-1 and 410-2

33943 101-102
Design
- Integrated flow measurement with 40 mm impeller
- Time averaging
- Hold function
- Max./min. values
- Wind chill calculation for outdoor areas
- Operating temperature -10 to 50 °C

Scope of delivery:
- TESTO 410
- Calibration protocol
- Hand strap
- Belt bag
- Protective cap
- Batteries (2 x AAA)

Note:
Replacement batteries, see art. no. 39900 304.

33943 102
TESTO on 410-2
Design
Additional measurement of humidity.

33943 101 33943 102

Technical data:	TESTO 410-1	TESTO 410-2
Flow measuring range:	0.4 to 20 m/s	0.4 to 20 m/s
Resolution:	0.1 m/s	0.1 m/s
Accuracy:	+/-(0.2 m/s + 2% of mv)	+/-(0.2 m/s + 2% of mv)
Units:	m/s, km/h, fpm, mph, knots, perceived temperature °C/°F (wind chill), Beaufort	m/s, km/h, fpm, mph, knots, perceived temperature °C/°F (wind chill), Beaufort
Temperature measuring range:	-10 to +50 °C	-10 to +50 °C
Resolution:	0.1 °C	0.1 °C
Accuracy:	+/-0.5 °C	+/-0.5 °C
Units:	°C/°F	°C/°F
Humidity measuring range:	-	0 to 100%RH
Resolution:	-	0.1%RH
Accuracy:	-	+/-2.5%RH (5 to 95%RH)
Units	-	%RH, wet bulb, dew point
Dimensions (incl. protective cap):	133 x 46 x 25 mm	133 x 46 x 25 mm

Type	33943 ...
TESTO 410-1	101
TESTO 410-2	102

33944 Measuring instrument for differential pressure TESTO 510

Design
- Display in pascal over the entire measuring range is possible
- Temperature compensation
- Magnets on the back of the device allow hands-free work
- Flow measurement with pitot tube
- Air density compensation
- Operating temperature 0 to 50 °C

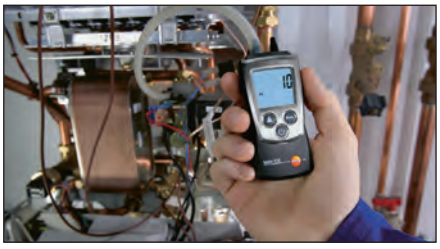
Scope of delivery:
- TESTO 510
- Calibration protocol
- Hand strap
- Belt bag
- Protective cap
- Connecting hose, silicone
- Batteries (2 x AAA)

Note:
Replacement batteries, see art. no. 39900 304.

33944

Technical data:	TESTO 510
Pressure measuring range:	0 to 100 hPa
Resolution:	0.01 hPa
Accuracy:	+/-0.03 hPa (0 to 0.30 hPa) +/-0.05 hPa (0.31 to 1.00 hPa) +/-(0.1 hPa +1.5% of mv) (1.01 hPa to 100 hPa)
Units:	hPa, mbar, Pa, mmH2O, mmHg, inH2O, inHg, psi, m/s, fpm
Dimensions (incl. protective cap):	119 x 46 x 25 mm

Type	33944 ...
TESTO 510	101



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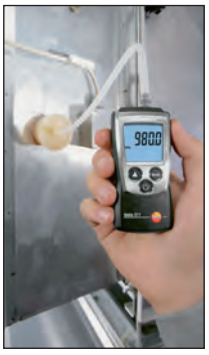
33945 Measuring instrument for absolute pressure, barometric pressure and altitude TESTO 511

Design
- Absolute pressure accuracy +/- 3 hPa
- Calculations of barometric air pressure
- Barometric altitude measurement
- Operating temperature 0 to 50 °C

Scope of delivery:
- TESTO 511
- Calibration protocol
- Hand strap
- Belt bag
- Protective cap
- Batteries (2 x AAA)

Note:
Replacement batteries, see art. no. 39900 304.

33945



Technical data:	TESTO 511
Pressure measuring range:	300 to 1,200 hPa
Resolution:	0.1 hPa
Accuracy:	+/- 3.0 hPa
Units:	hPa, mbar, Pa, mmH2O, mmHg, inH2O, inHg, psi, m, ft
Dimensions (incl. protective cap):	119 x 46 x 25 mm

Type	33945 ...
TESTO 511	101

39121 Measuring instrument for rotation speed, optical TESTO 460

Design
- Optical
  LED measuring spot marking
- Max./min. values
- Operating temperature 0 to 50 °C

Scope of delivery:
- TESTO 460
- Calibration protocol
- Hand strap
- Belt bag
- Protective cap
- Batteries (2 x AAA)

Note:
Reflex markers, see art. no. 39120 102.
Replacement batteries, see art. no. 39900 304.

39121

Technical data:	TESTO 460
Measuring range:	100 to 29,999 rpm
Resolution:	0.1 rpm (100 to 999.9 rpm) 1.0 rpm (1,000 to 29,999 rpm)
Accuracy:	+/- (0.02% of mv) +1 digit
Units:	rpm, rps
Dimensions (incl. protective cap):	119 x 46 x 25 mm

Type	39121 ...
TESTO 460	101

33947 Measuring instrument for illuminance TESTO 540

Design
- Sensor is adapted to the spectral sensitivity of the eye
- Hold function for comfortable reading of the measured values
- Max./min. values
- Operating temperature 0 to 50 °C

Scope of delivery:
- TESTO 540
- Calibration protocol
- Hand strap
- Belt bag
- Protective cap
- Batteries (2 x AAA)

Note:
Replacement batteries, see art. no. 39900 304.

33947

Technical data:	TESTO 540
Illuminance measuring range:	0 to 99,999 lux
	1 lux (0 to 19,999 lux) 10 lux (20,000 to 99,999 lux)
Accuracy:	+/-3% (compared with reference)
Units:	lux, footcandle
Dimensions (incl. protective cap):	133 x 46 x 25 mm

Type	33947 ...
TESTO 540	101

Temperature measuring strips | Infrared thermometers | Infrared temperature measuring instruments

33951 Temperature measuring strips

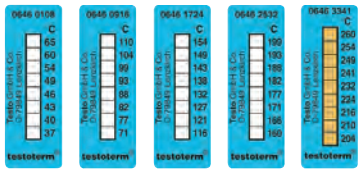
testo

Design
- Self-adhesive films with heat-sensitive elements
- Irreversible colour change within 2–3 sec.
- Accuracy up to + 150 °C: +/- 1.5 °C, from + 150 °C: +/-1% of the respective temperature value
- Practical measuring strip book with 10 strips
- L x W 50 x 18 mm

Applications
For temperature monitoring and control, e.g. for measurements on moving parts, for long-term monitoring and on small objects.

Note:
Measuring strips on a roll, e.g. for labelling machines, and other designs are available on request.

33951



Measuring range °C	33951 ...
+37...+65	102
+71...+110	103
+116...+154	104
+160...+199	105
+204...+260	106

33958 Infrared thermometer 830-T2/-T4

testo

33958 202-203
Design
- Emissivity adjustable from 0.1 to 1.0
- Operating temperature -20 to +50 °C
- Adjustable alarm limit values
- Illuminated display
- Good handling
- With acoustic alarm when a limit value is exceeded
- 9 V block battery
- Available with certificate at extra cost

Applications
For contactless measurements, e.g. on rotating measuring objects (1). With optional external sensors, e.g. on shiny metal surfaces (2).

Note:
For additional accessories, see art. no. 33971.
Replacement batteries, see art. no. 39900 405.

33958 202
TESTO 830-T2
Design
- **With 2 laser measuring spot markings** and mount for external TE sensors
- Measuring optics 10:1

33958 203
TESTO 830-T4
Design
- **With 2 laser measuring spot markings** and mount for external TE sensors
- Measuring optics 12:1 so that the measuring spot at a distance of one meter is only 3.6 cm. Therefore even small objects can be measured at a great distance
- Display of min. and max. values

33958 202 33958 203

(1)

(2)

Type	Measuring range °C	Accuracy (-30 to +400 °C)	Resolution °C	33958 ...
TESTO 830-T2	-30 to +400	+/-1.5°C/ +/-1.5% of mv	0.1	202
TESTO 830-T4	-30 to +400	+/-1°C/ +/-1% of mv	0.1	203

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33959 Infrared temperature-measuring instrument TESTO 835

Design
- Measure reliably and precisely up to the high temperature range
- 4-point laser indicates the exact measuring range and prevents incorrect measurements
- 50:1 optics allow reliable measurements from a great distance
- Integrated emissivity measurement for absolute measuring accuracy
- Convenient menu navigation with icons and joystick
- Measured value and location, storage and data evaluation on PC with EasyClimate software (free download)

Scope of delivery:
- Infrared temperature-measuring instrument with 4-point laser marking
- Measurement data management
- Incl. batteries and calibration protocol

Note:
For additional accessories, see art. no. 33971.
Replacement batteries, see art. no. 39900 303.

33959 101
TESTO 835-T1
Design
Entry into intelligent infrared measuring technology. This practical infrared thermometer offers maximum reliability and precision when measuring the temperatures of small objects from a moderate distance, e.g. when monitoring the temperature on walls, troubleshooting on heating and air-conditioning units or quality control of industrially manufactured products.

33959 102
TESTO 835-T2
Design
Professional for the high temperature range. Thanks to its extended measuring range, this infrared thermometer measures temperatures up to 1500 °C precisely and from a safe distance, e.g. when monitoring product temperature in the glass, ceramic and metal industry.

33959 103
TESTO 835-H1
Design
Special device with integrated surface moisture measurement. With the unique patented infrared surface moisture measurement, you can detect the risk of mould growth on building materials at an early stage, measure moisture or check the dew point distance.
Supplied with moisture module.

33959

Technical data:	TESTO 835-T1 (33959 101)	TESTO 835-T2 (33959 102)	TESTO 835-H1 (33959 103)
Sensor type infrared			
Appearance:	50:1 (typically with regard to the distance of 2.0 m to the measuring object) + opening diameter of the sensor (24 mm))		
Measuring spot marking:	4-point laser	4-point laser	4-point laser
Measuring range:	-30 to +600 °C	-10 to +1500 °C	-30 to +600 °C
Accuracy +/- 1 digit:	+/- 2.5 °C (-30.0 to -20.1 °C) +/- 1.5 °C (-20.0 to -0.1 °C) +/- 1.0 °C (+0.0 to +99.9 °C) +/- 1% of mv. (remaining measuring range)	+/- 2.0 °C or +/- 1% of mv	+/- 2.5 °C (-30.0 to -20.1 °C) +/- 1.5 °C (-20.0 to -0.1 °C) +/- 1.0 °C (+0.0 to +99.9 °C) +/- 1% of mv. (remaining measuring range)
Resolution:	0.1 °C	0.1 °C (-10.0 to +999.9 °C) 1 °C (+1000.0 to +1500.0 °C)	0.1 °C
Sensor type: K (NiCr-Ni)			
Measuring range:	-50 to +600 °C	-50 to +1000 °C	-50 to +600 °C
Accuracy +/- 1 digit:	+/- (-0.5 °C + 0.5% of mv)	+/- (-0.5 °C + 0.5% of mv)	+/- (-0.5 °C + 0.5% of mv)
Resolution:	0.1 °C	0.1 °C	0.1 °C
Sensor type: humidity sensor			
Accuracy:	-	-	+/- 2%RH +/- 0.5°
Resolution:	-	-	0.1 °C/0.1%RH/0.1 °Ctd
Emission factor:	0.10 to 1.00 (0.01 increments)	0.10 to 1.00 (0.01 increments)	0.10 to 1.00 (0.01 increments)
Dimensions:	193 x 166 x 63 mm	193 x 166 x 63 mm	193 x 166 x 63 mm
Weight:	514 g	514 g	514 g

Type	33959 ...
TESTO 835-T1	101
TESTO 835-T2	102
TESTO 835-H1	103

Infrared camera | Mini penetration thermometer | Multi-function climate-measuring instrument

33961 Infrared camera TESTO 872

IP 54

testo

TESTO 872

Design

The TESTO 872 infrared camera provides you with optimal support in your work in professional industry and building thermography. You can create thermographs quickly, reliably and intelligently with excellent image quality, good thermal sensitivity and innovative functions.
You can transport the infrared camera conveniently in the case supplied, ensuring that you always have it to hand when you need it.

Application areas:

Detect areas that are at risk of developing mould, locate heat bridges, find construction defects or detect overheated connections. The testo 872 infrared camera is ideal for applications involving daily maintenance and installation in trade and industry. Fast, easy and reliable for maintenance and detecting defects.

Scope of delivery:

- Infrared camera TESTO 872 with wireless module for Bluetooth/WLAN
- USB cable
- Power supply unit
- Lithium-ion battery
- Professional software IRSoft (free download)
- 3x Testo emissivity markers
- Commissioning instructions
- Quick user guide
- Calibration protocol
- Case

NEW

33961

Technical data:	TESTO 872
Measuring range 1:	-30 to +100 °C
Measuring range 2:	0 to +650 °C
Infrared resolution:	320 x 240 pixels
Thermal sensitivity (NETD):	60 mK
Lens/min. focus distance:	42° x 30°/less than 0.5 m
Focus:	Fixed focus
Image display:	3.5 inch TFT with 320 x 240 pixels
Display illumination:	3-level (bright, normal, dark)
Accuracy:	+/-2°C, +/-2% of measured value
Laser class:	2 (635 nm)
Dimensions:	219 x 96 x 95 mm
Weight:	510 g

Type	33961	...
TESTO 872	101	

33964 Mini penetration thermometer

IP 67

testo

Design

- Watertight, degree of protection to **IP 67**
- MAX/MIN and HOLD button
- °C/°F switching
- Battery level indicator
- Sensor tube length 120 mm
- With protective sleeve for sensor tube
- Supplied with LR44 button cell
- **Available with certificate at extra cost**

Applications

For recording the temperature in the air, in soft, powdery substances and liquids,
e.g. in the laboratory, in the food industry, heating and air conditioning technology, in horticulture, offices, etc.

Note:

Replacement batteries, see art. no. 39900 101.

33964

Technical data:	
Measuring range:	-20 to +230°C
Resolution:	0.1°C (-19.9 to + 199.9°C)/remaining 1.0°C
Accuracy:	+/-1°C (-20 to +53.9°C) +/-0.8°C (+54 to +90°C) +/-1°C (+90.1 to +180°C) +/-1.5°C (+180.1 to +230°C)
Operating temperature:	-10 to +50°C

	33964	...
	401	

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33965 Multi-function climate-measuring instrument TESTO 440

IP 54

TESTO 440
Design
Measure with the climate measuring instrument TESTO 440 and save all climate-relevant parameters in combination with high-quality probes (please order probes separately). Up to 3 probes can be connected simultaneously: one Bluetooth probe, one wired probe and a temperature sensor with thermocouple type K connection.

Automatic probe detection and clearly structured measuring menus ensure extremely simple operation and facilitate your day to day work.

Scope of delivery:
- Climate measuring instrument TESTO 440
- 3 batteries (type AA)
- USB cable
- Calibration protocol

NEW

Note:
Replacement batteries, see art. no. 39900 303.

33965 101

Technical data:	TESTO 440
	Temperature (NTC)
Measuring range:	-40 to +150 °C
Accuracy (+/-1 digit):	+/-0.4°C (-40 to -25.1°C) +/-0.3°C (-25 to +74.9 °C +/-0.4°C (+75 to +99.9 °C +/-0.5% of mv (remaining measuring range)
Resolution:	0.1 °C
	Temperature (TE)
Measuring range:	-200 to +1370 °C
Accuracy (+/-1 digit):	+/-(0.3°C + 0.3% of mv)
Batteries:	3x (type AA)
Dimensions:	154 x 65 x 32 mm
Weight:	250 g

Type	33965	...
TESTO 440		101

Probes for climate measuring instrument TESTO 440 (art. no. 33965 101)

33965 201
Impeller probe Ø 16 mm, wired
Applications
You can use the probe to reliably measure flow velocity and volumetric flow in ventilation ducts.

	33965 201
Measuring range:	0.6 to 50 m/s
Resolution:	0.1 m/s
Accuracy:	+/-(0.2 m/s + 1% of mv) (0.6 to 40 m/s) +/-(0.2 m/s + 2% of mv) (40.1 to 50 m/s)

33965 201

33965 202
Impeller probe Ø 100 mm, wired
- Incl. temperature sensor

Applications
Use the impeller probe to determine flow velocity, volumetric flow and temperature at air outlets as well as at poppet values, ventilation grilles or ceiling diffusors.

	33965 202
Measuring range:	0.3 to 35 m/s/-20 to +70 °C
Resolution:	0.01 m/s/0.1°C
Accuracy:	+/-(0.1 m/s + 1.5% of mv) (0.3 to 20 m/s) +/-(0.2 m/s + 1.5% of mv) (20.01 to 35 m/s) +/- 0.5°C

33965 202

33965 203
Humidity temperature probe, wired
Applications
For measurements in storage, cooling and work rooms, in ventilation ducts, as well as in cooling systems and heat pumps: The humidity temperature probe enables you to measure relative humidity and air temperature (with the appropriate measuring instrument).

	33965 203
Measuring range:	0 to 100%RH -20 to +70 °C
Resolution:	0.1%RH 0.1 °C
Accuracy:	+/- 2%RH (5 to 90%RH) +/- 0.5°C

33965 203

33965 204
Lux probe, wired
Applications
For measurements at workstations, for example, in the office or in production. You can use the lux probe (with the TESTO 440) to measure illuminance.

	33965 204
Measuring range:	0 to 100,000 lux
Resolution:	0.1 lux (< 10,000 lux) 1 lux (≥ 10,000 lux)
Accuracy:	DIN 13032-1 Appendix B Class C according to DIN 5032-7

33965 204

33965 205
CO_2probe, wired
- Incl. Temperature and humidity sensor

Applications
Probe for evaluating CO2 concentration, humidity and air temperature. Wet bulb temperature, dew point and absolute humidity are calculated at the same time.

	33965 205
Measuring range:	0 to 10,000 ppm CO2 5 to 95%RH/0 to +50°C
Resolution:	1 ppm/0.1%RH/ 0.1°C
Accuracy:	+/-(50 ppm + 3% of mv) (0 to 5000 ppm) +/-(100 ppm v + 5% mv) (5,001 to 10,000 ppm)

33965 205

33965 206

Type	33965	...
Impeller probe Ø 16 mm		201
Impeller probe Ø 100 mm		202
Humidity temperature probe		203

Type	33965	...
Lux probe		204
CO_2 probe		205
Service case (empty)		206

33969 Temperature measuring instruments TESTO 925

All-round thermometer
TESTO 925
Design
- Robust measuring instrument **with wireless option**
- Measurement sensor: NiCr-Ni (thermocouple plug connector type K)
- HOLD button to retain the measured value
- LC display (digit height 14 mm)
- Large illuminated display
- °C/°F switching
- Battery indicator

Accuracy:
+/- 0.5°C +/- 3% of mv (-40 to +900°C), +/- 0.7°C +/- 5% of mv (remaining measuring range).

Scope of delivery:
- 9 V battery (type 6 LR 61), designed for long-term operation
- Operating instructions and calibration protocol
- Without measuring probe (see cat. no. 33971)
- **Available with ISO calibration certificate at extra cost**

Applications
Ideal for rough use for daily temperature measurements in industry and trade.

Note:
Appropriate accessories for wireless mode and sensor, see art. no. 33971.
Protective cover TopSafe, see art. no. 33971 139.
Replacement batteries, see art. no. 39900 405.

33969

Type	Measuring range °C	Resolution °C	Dimension mm	Weight g	33969	...
TESTO 925	-50 to +1000	0.1/1.0 (> 200°C)	190 x 57 x 42	300		201

33971 Accessories for TESTO measuring instruments

Note:
For easy assignment of the accessories, please use the overview in the price table.
Replacement batteries, see art. no. 39900.

	Suitable for measuring instrument									
Type	830 (33958)	835 (33959)	845 (33960)	925 (33969)	110 (33976)	440 (33965)	735-2 (33983)	435-1 (33996)	33971	...
Replacement thermal paper	-	-	x	-	-	-	-	-		105
Surface sensor	-	x	x	x	-	x	x	x		106
Immersion sensor	-	x	-	x	-	x	x	-		107
Thermocouple	-	-	-	x	-	x	-	-		108
Immersion/penetration sensor	x	x	-	x	-	x	x	-		109
Air sensor	x	x	x	x	-	x	x	-		110
Immersion/penetration sensor	-	x	-	x	-	x	x	x		112
Pipe contact sensor	-	x	-	x	-	x	x	x		113
Magnetic sensor	-	x	-	x	-	x	x	-		114
Immersion measuring tip	-	x	-	x	-	x	x	-		115
Handle	-	-	-	x	-	-	x	x		120
Transport case	-	-	-	x	x	-	-	-		121
TopSafe for 925	-	-	-	x	-	-	-	-		139
Air sensor NTC	-	-	-	-	x	-	-	x		140

▶ Printer accessories

33971 105
Replacement thermal paper

▶ Transport and protection

33971 139
Protective cover TopSafe
Applications
For TESTO 925 (art. no. 33969 201).

33971 139

33971 121
Transport case
Applications
For the safe transport of measuring instruments, 3 sensors and accessories.

▶ Other

33971 120
Handle with connecting cable
Applications
For plug-in blade tips.

33971 120

Continued ▶

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33971 Accessories for Testo measuring instruments

Continued

Note:
For easy assignment of the accessories, please use the overview in the price table (page 33.44).
Replacement batteries, see art. no. 39900.

▶ Immersion/penetration sensor

33971 107
Immersion sensor with wired handle
Design
TE type K, accurate and fast, watertight. Measuring range -60 to +1000°C.

33971 107

33971 109
Immersion/penetration sensor with wired handle
Design
TE type K, watertight. Measuring range -60 to +400°C.

33971 109

33971 112
Immersion/penetration sensor with wired handle
Design
TE type K, super fast and watertight. Measuring range -60 to +800°C.

33971 112

33971 115
Immersion blade tip without handle
Design
TE type K, flexible, length 500 mm, Ø 1.5 mm.
Measuring range -200 to +1000°C.

33971 115

▶ Surface sensor

33971 106
Surface sensor with wired handle
Design
TE type K, very fast response times with elastic thermocouple tape.
Measuring range -60 to +300°C, briefly up to +500°C.
Applications
Also for non-flat surfaces.

33971 106

33971 113
Pipe contact sensor without handle
Design
TE type K, with replaceable measuring head. Measuring range -60 to +130°C.

33971 113

33971 114
Magnetic sensor without handle
Design
TE type K, adhesive force approx. 10 N. Measuring range -50 to +400°C.
Applications
For measuring high temperatures on metallic surfaces.

33971 114

▶ Air sensor

33971 110
Robust air sensor with wired handle
Design
TE type K, length 115 mm, Ø 4 mm. Measuring range -60 to +400°C.

33971 110

33971 140
Air sensor
Design
NTC, precise and robust. Measuring range -50 to +150°C.

33971 140

▶ Thermocouple

33971 108
Thermocouple without handle
Design
TE type K, with TE plug, flexible, length 800 mm,
glass fibre. Measuring range -50 to +400°C.

33971 108

33970 pH tester for liquids TESTO 206-pH1

Design
- Combination of °C and pH
- Fast, accurate, simple
- Reliable thanks to automatic final value detection
- Robust, insensitive to contamination

Applications
Changes in the coolant quality can be detected by the self-monitoring function and corrected as necessary. Among other things, the pH value must be recorded here. Depending on the manufacturer's specifications, the pH value of the lubricant should lie between 7.7 and 9.2 pH. This measurement must be made when preparing the concentrate, and once weekly for emulsions ready for use. If the pH value drops sharply,there is a risk of corrosion, poor biostability connected with insufficient service life (additional costs), unpleasant odours and health hazards. Measures must be taken in the event of a decrease in pH of 0.2 pH, and the coolant should be changed in the event of a decrease of 0.5 pH.

33970 101
Device set TESTO 206-pH1
Scope of delivery:
- One-handed pH/°C measuring instrument
- pH1 probe head for liquid media
- Storage cap with gel
- Protective cover TopSafe
- Belt/wall bracket

33970 102
Starter set TESTO 206-pH1
Scope of delivery:
- One-handed pH/°C measuring instrument
- pH1 probe head for liquid media
- Storage cap with gel
- Calibration dosage bottles 250 ml pH 4+7
- Protective cover TopSafe
- Belt/wall bracket
- Aluminium case

33970

Technical data:	TESTO 206-pH1	
Measurement sensor:	pH electrode	NTC
Measuring range:	0 to 14 pH	0 to 60°C (for short periods up to +80°C, max. 5 min.)
Accuracy +/- 1 digit:	+/- 0.02 pH	+/- 0.4°C
Resolution:	0.01 pH	0.1°C
Compensation:	Autom. temperature compensation	Autom. temperature compensation
Measuring rate:	2 measurements per second	2 measurements per second
Dimensions:	197 x 33 x 20 mm	197 x 33 x 20 mm

Type	33970 ...
Device set TESTO 206-pH1	101
Starter set TESTO 206-pH1	102

33975 Wireless data logger TESTO Saveris 2-T1 and 2-H1

33975 301+304
TESTO Saveris 2-T1+ 2-H1
Design
- Automated temperature monitoring with integrated sensor
- Wireless data logger system with easy installation and operation and free cloud functionality
- Call up and evaluate temperature data at any time via smartphone, tablet or PC
- Reliable recording of temperature values, even over long periods
- Email or text message alerts if limits are exceeded

Applications
In storage, production, cold storage and work rooms.

Scope of delivery:
- Wireless data logger TESTO Saveris 2
- Including free cloud access
- Micro USB cable
- Wall bracket with lock
- Batteries (4 x AA)
- Quick user guide
- Calibration protocol

33975 304
TESTO Saveris 2-H1
Design
- Also features automated humidity monitoring

33975 305
Power supply with cable

Note:
Additional data loggers and sensors are available on request.

IP 65 33975 301

IP 30 33975 304

Technical data:	Temperature measuring range	Humidity measuring range	Protective class
TESTO 2-T1	-30 to +50°C	-	IP 65
TESTO 2-H1	-30 to +50°C	0 to 100%RH	IP 30

Type	33975 ...
TESTO Saveris 2-T1	301
TESTO Saveris 2-H1	304
Power supply with cable	305

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33976 Control thermometer TESTO 110

33976 201
TESTO 110
Design
- High-precision measuring instrument with wireless option
- Measurement sensor: NTC sensor
- LC display with 14 mm digit height
- Two-line display
- °C/°F switching
- Battery indicator
- Automatic shut-off
- Battery designed for long-term operation
- Supplied with 9 V battery, type 6 LR61, operating instructions and calibration log, **without** measuring probe (see art. no. 33977)

Accuracy:
+/- 0.2°C (-20 to +80°C),
+/- 0.3°C (remaining measuring range)

Applications
Ideal for the laboratory and the food, refrigeration and air-conditioning sector.

Note:
Additional accessories such as wireless modules, see art. no. 33971.
Replacement batteries, see art. no. 39900 405.

33976 202
NTC surface sensor
Design
- Watertight
- Measuring range -50 to +150°C
- Error limit max. 0.5% of measured value

Applications
For flat surfaces.

33976 203
Pipe contact sensor
Design
- With reclosable fastener
- Measuring range -50 to +70°C
- Error limit max 0.4% of measured value.

Applications
For measuring the temperature on pipes up to max. Ø 75 mm.

33976 204
NTC immersion/penetration sensor
Design
- Measuring range -50 to +150°C
- Error limit max. 0.5% of measured value

33976 201

33976 203

33976 202

33976 204

Type	Measuring range °C	Resolution °C	Dimension mm	Weight g	33976	...
TESTO 110	-50 to +275	0.1	182 x 64 x 40	171		201
Surface sensor	-50 to +150	-	-	-		202
Pipe contact sensor	-50 to +70	-	-	-		203
Immersion/penetration sensor	-50 to +150	-	-	-		204

33979 Thermo hygrometer TESTO 608-H1/-H2

Design
With dew point calculation td and min./max. value display. Humidity sensor insensitive to condensation.
Sensor type (NTC):
Accuracy +/-0.5°C (at +25°C).
Resolution
0.1°C (0 to +50°C). Operating temperature 0 to +50°C. **Certificate available at extra cost.**
Applications
For continuous measurement of humidity, temperature and dew point, e.g. for monitoring the indoor environment and dew point in nurseries, storage and clean rooms, museums, laboratories, etc.

Note:
Replacement batteries, see art. no. 39900 405.

33979 101
TESTO 608-H1
Design
Measuring range:
+10 to +95%RH,
0 to +50°C,
-20 to +50°C td.
Accuracy:
+/-3%RH (+10 to +95%RH).
Resolution:
0.1%RH (0 to +100% RH).
Supplied with 9 V battery, type 6 LR 61.

33979 102
TESTO 608-H2
Design
With LED alarm function to reliably inform you if the limit value is exceeded.
Measuring range:
+2 to +98%RH,
-10 to +70°C,
-40 to +70°C td.
Accuracy:
+/-2%RH (+2 to +98%RH).
Resolution:
-40 to +70°C td (0 to +100%RH).
Supplied with 9 V battery, type 6 LR 61 and **calibration protocol.**

33979 102

Type	33979	...
TESTO 608-H1		101
TESTO 608-H2		102

Sound measuring instruments | Measuring stands

33985 Sound measuring instruments TESTO 815/816-1

Note:
Replacement batteries, see art. no. 39900 405.

33985 101
TESTO 815
Design
- **Accuracy class 2**
- Easy to adjust (adjustment screwdriver included in the scope of delivery)
- Frequency evaluation according to characteristic curve A and C
- Maximum and minimum value memory
- Built-in tripod screw (1/4 inch)
- Switchable fast/slow time evaluation

Scope of delivery:
- Microphone
- Wind protection
- Battery

Applications
In air-conditioning and heating technology, discos, production areas and incinerators.

33985 202
TESTO on 816-1
Design
- **Accuracy class 2**
- Frequency evaluation according to characteristic curve A and C
- Precise sound level measurement in accordance with IEC 61672-1 and ANSI S1.4 Type 2
- Ideal for noise measurement in occupational safety and immission protection
- Integrated data memory for up to 31,000 measured values
- Long-term measurements are possible
- PC software for evaluation and USB cable for data transfer including
- Switchable fast/slow time evaluation
- Bar graph display
- Illuminated display
- AC output for connecting recorders and amplifiers
- DC output with 10 mV/dB for connecting recorders or data loggers

Scope of delivery:
- Wind protection
- PC software
- USB connecting cables
- Screwdriver for calibration
- Battery
- Operating instructions on CD-ROM
- In a practical measuring case

Applications
For workplace measurement, industrial and manufacturing halls and in public places.

33985 103
Calibrator
Applications
For regular calibration
of TESTO 815 and 816-1.

33985 101

33985 202

33985 103

Type	Total measuring range dB(A)	Accuracy dB(A)	Resolution dB(A)	Dimension mm	Weight g	33985 ...
TESTO 815	+32 to +130	+/- 1.0	0.1	255 x 55 x 43	195	**101**
TESTO 816-1	+30 to +130	+/- 1.4	0.1	272 x 83 x 42	390	**202**
Calibrator	-	-	-	-	-	**103**

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34002 Universal measuring stands

Design
- Base is finely milled on all sides
- Prismatic base for mounting on shafts or cylindrical bodies
- Column can be adjusted and tightened using large hand nut on the base
- The transverse arm can be adjusted on the column by means of the clamping device
- For exact setting of the clock, a fine adjustment is made to the transverse arm
- **Dial gauge mount 8 mm** (h 6) and dovetail for small feeler
- Supplied **without dial gauge**

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34002

Measuring height approx. mm	Overhang mm	Transverse arm Ø mm	Column Ø approx. mm	Base size approx. mm	Weight kg	34002	...
300	180	16	16	250 x 60	3.8		101

34003 Magnetic holder

Design
- Flat base, with height and lateral adjustment
- For gauges with **shaft Ø 8 mm** (h 6)
- Planar contact surface
- High adhesive force thanks to 2 sintered magnets integrated in the base

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34003

L x W x H approx. mm	34003	...
73 x 38 x 46		101

34008 Magnetic measuring stands

Design
- With location hole for normal dial gauges with **shaft Ø 8 mm** and dovetail aguide
- **With fine adjustment**

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34008

Overall height mm	Overhang approx. mm	Base Ø approx. mm	Adhesive force approx. N	34008	...
155	105	35	250		101

34012 Magnetic measuring stands (link stand)

ATORN®

Design
- Magnetic base
- Switching system: Rotary switch
- Can also be used in hard-to-reach places thanks to the movable column
- Perfect rigidity can be achieved by moving the eccentric clamping lever
- Regulating nut for adjusting the rope tension
- The mechanically resistant design and a special treatment of the surface of the balls ensure lasting precision
- Supplied **without** dial gauge

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

Magnetic base and linkage are also available individually on request.

34012

Overall height mm	Magnetic base approx. mm	Adhesive force approx. N	Magnetic sides	34012	...
350	70 x 46 x 65	600	2		102

Magnetic measuring stands | Articulated measuring stands

34013 Magnetic measuring stands

Design
- Base with powerful permanent magnet, high adhesive force
- Can be turned on and off using rotary switch
- Prismatic base
- Transverse arm with joint and fine adjustment of the **dial gauge**
- For gauges with **shaft Ø 8 mm** (h 6)
- Chrome-plated column and transverse arm

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

Magnetic base and linkage are also available individually on request.

34013

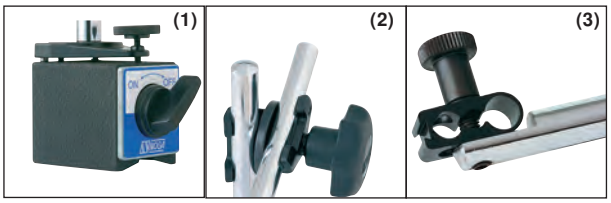
Overall height mm	Overhang approx. mm	Column Ø approx. mm	Transverse arm Ø approx. mm	Magnetic base approx. mm	34013	...
230	150	12	10	65 x 48 x 55		101

34014 Magnetic measuring stands

NOGA
SIMPLY SOPHISTICATED

Design
- Switchable magnetic base with precise fine adjustment and prismatic base **(1)**
- Patented clamping mechanism, three-point clamping mechanism **(2)**
- Universal dial-gauge mount: 6 and 8 mm, 3/8-inch, prisms and eyelet **(3)**

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.



34014

Overall height mm	Column Ø x height mm	Transverse arm Ø x length mm	Magnetic base mm	Adhesive force N	Magnetic base thread	34014	...
270	14 x 203	12 x 185	60 x 50 x 55	800	M 8		101

34015 - 34018 Magnetic measuring stands

34015
Design
- With high adhesive force
- Can be turned on and off using rotary switch
- V-shaped recess in the base
- Transverse arm with joint and fine adjustment of the **dial gauge**
- For dial gauges with **shaft Ø 8 mm** (h 6) and dovetail
- Chrome-plated column and transverse arm
- Overhang 180 mm
- Transverse arm Ø 16 mm
- **Without dial gauge**

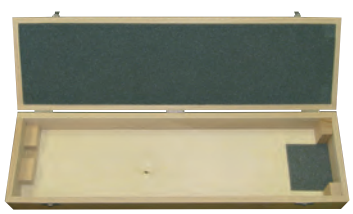
Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34016
Wooden boxes, empty.

34017
Magnetic base, individual.

34018
Linkage, individual.

34016



34015

34018

34017

				Measuring stands	Wooden boxes	Magnetic base	Linkage	
Overall height mm	Column Ø mm	Magnetic base approx. mm	Adhesive force approx. N	34015	... 34016	... 34017	... 34018	...
285	16	70 x 46 x 65	600		101	101	101	101
500	20	75 x 60 x 80	800		102		102	102

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34011 3D articulated measuring stands

ATORN®

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34011 101-103+105
Design
- Mechanical, maintenance-free central clamping
- Microfine adjustment with combined holder for dial gauges, with shaft Ø 8 mm and lever gauge probes with dovetail
- Delivery: **without dial gauge and lever gauge probe**

Advantage:
- Simple, quick operation
- High degree of mobility
- Precise positioning

34011 101
Advantage:
- Base of cylindrical mounting spigots Ø 10 mm for mounting in collet chucks or drill chucks
- For aligning and zero setting workpieces and devices

34011 101

34011 102

34011 103

34011 105

Overall height mm	Operating radius mm	Base size L x W x H mm	Adhesive force approx. N	34011 ...
200	130	*10 x 40	-	**101**
220	130	34 x 30 x 35	300	**102**
300	200	60 x 50 x 55	750	**103**
380	280	60 x 50 x 55	750	**105**

*with cylindrical mounting spigots (W x L)

34011 3D articulated measuring stand

ATORN®

Design
- Highly reinforced articulated arm with mechanical, maintenance-free central clamping for max. stability
- Microfine setting for precise fine adjustment (1 revolution 0.1 mm)
- With a combined mount for precision pointers with shaft Ø 8 mm and lever gauge probes with dovetail
- Strong switch-magnet base with prismatic base for standing stability in all positions
- Supplied **without precision pointer**

Advantage:
- Simple, quick operation
- High degree of mobility
- Precise positioning

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34011 106

Overall height mm	Operating radius mm	Base size L x W x H mm	Adhesive force approx. N	34011 ...
435	330	75 x 50 x 55	900	**106**

Measuring stands | Articulated measuring stands

34019 Magnetic measuring stands

FISSO Swiss Made

Design
- High stability and accuracy
- Practical positioning
- Secure, stable base
- Strong central clamping with robust aluminium clamping jaws
- Additional joint before fine adjustment
- Precise microfine adjustment with combined mount for dial gauges shaft Ø 8 mm and lever gauge probe with dovetail
- Strong switching magnet
- Supplied **without dial gauge/lever gauge probe**

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34019

Overall height mm	Transverse arm Ø x L mm	Vertical arm Ø x L mm	Micro fine adjustment Ø 8 mm	Adhesive force approx. N	Base size L x W x H mm	34019	...
277	8 x 75	10 x 106	x	300	34 x 30 x 35		**101**
367	10 x 106	12 x 156	x	750	60 x 50 x 55		**102**
453	12 x 164	14 x 184	x	750	60 x 50 x 55		**103**

34027 3D precision articulated measuring stands

FISSO Swiss Made

STRATO µ-LINE
Design
- **Extension of the STRATO-LINE in the high-precision range**
- **Precision fine adjustment** with outstanding ease of adjustment and a high level of repeatability especially for measurements in the thousandths of a millimetre range
- **Precise positioning in no time at all**
- FISSO articulated stands can be moved easily and precisely into any position required
- Central clamping handle for fixing and releasing all 3 joints
- Short clamping path for maximum operator comfort
- **Powerful and durable clamping**
- **Friction clamping** based on continuously adjustable, purely mechanical clamping system
- High stability of the articulated stand thanks to precise fit in the ball joint
- Pre-stress prevents unwanted collapse in the loosened state to protect the measuring instruments
- Maintenance-free and permanent system
- Made of steel, free of play, for precise positioning of the measuring devices, as well as high measurement and repeat accuracy
- Combined mount for dial gauges, electronic measuring probes with **shaft Ø 8 mm** and lever gauge probes with **dovetail**
- Supplied in polystyrene or cardboard box, **without a dial gauge/lever gauge probe.**

Quality
Ball joints with maximum precision made of steel, red anodised arm parts made of high-quality light metal, microfine adjustment made of steel.

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34027 097-098
Design
With **switching magnet.** The pre-stress is not adjustable.

34027 099-101
Design
With **switching magnet** with prism base, can be switched on and off via turning handle.

34027 102
Design
With **granite sliding base,** face ground, bottom side ground hollow within 0.01 mm, with dust grooves.
Applications
Excellent gliding on hard stone plates, e.g. for checking parallelism.

34027 097

34027 098

34027 099

34027 100

34027 101

34027 102

Overall height mm	Operating radius mm	Base size mm	Adhesive force approx. N	34027	...
228	130	40 x 40 x 40	600		**097**
317	204	60 x 50 x 55	800		**098**
399	287	60 x 50 x 55	800		**099**
399	287	75 x 50 x 55	1000		**100**
444	330	75 x 50 x 55	1000		**101**
438	330	150 x 120 x 50 x 50	-		**102**

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34020 3D articulated measuring stands

FISSO Swiss Made

STRATO-LINE
Design
- **Precise positioning in no time at all**
- FISSO articulated stands can be moved easily and precisely into any position required
- Central clamping handle for fixing and releasing all 3 joints
- Short clamping path for maximum operator comfort
- **Powerful and durable clamping**
- **Friction clamping** based on continuously adjustable, purely mechanical clamping system
- High stability of the articulated stand thanks to precise fit in the ball joint
- Pre-stress prevents unwanted collapse in the loosened state to protect the measuring instruments
- Maintenance-free and permanent system
- **Precise microfine adjustment**
- Made of steel, free of play, for precise positioning of the measuring devices, as well as high measurement and repeat accuracy
- Combined mount for dial gauges, electronic measuring probes with **shaft Ø 8 mm** and lever gauge probes with dovetail
- Supplied in polystyrene or cardboard box, **without dial gauge/lever gauge probe**

Quality
Ball joints with maximum precision made of steel, red anodised arm parts made of high-quality light metal, microfine adjustment made of steel.

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34020 110-115
STRATO M-28
Standard version
With continuously adjustable pre-stress.

34020 110
With **switching magnet,** approx. 800 N adhesive force.

34020 112
With **switching magnet,** approx. 1000 N adhesive force.

34020 115
With **vacuum base,** particularly suitable for hard stone slabs, as well as all flat and non-porous surfaces. Strong adhesion. Base is attached and released with the tilt lever. **Does not require any pneumatic or other energy.**

34020 118-120
STRATO S-20
Small version
Ideally suited for lever gauge probes.

34020 118
With **switching magnet,** approx. 800 N adhesive force.

34020 120
With **pot magnet,** approx. 300 N adhesive force (permanently).

34020 130-132
STRATO XS-13
The smallest articulated measuring stand, for use with precision feelers on machine tools, in measuring devices, in hard-to-reach areas and in confined spaces.

34020 130
With a powerful **switching magnet with prism base,** approx. 300 N adhesive force, can be switched on and off via turning handle.

34020 132
With **pot magnet,** approx. 150 N adhesive force.

34020 110

34020 112

34020 115

34020 118

34020 120

34020 130

34020 132

Overall height mm	Operating radius mm	Base size mm	Adhesive force approx. N	34020	...
390	280	60 x 50 x 55	800		**110**
390	280	75 x 50 x 55	1000		**112**
369	287	Ø 88 x 27	-		**115**
310	200	60 x 50 x 55	800		**118**

Overall height mm	Operating radius mm	Base size mm	Adhesive force approx. N	34020	...
335	200	Ø 40 x 30	300		**120**
220	130	36 x 30 x 35	300		**130**
210	130	Ø 30 x 25	150		**132**

Articulated measuring stands | Add-on articulated stands

34021 Add-on articulated stands

FISSO Swiss Made

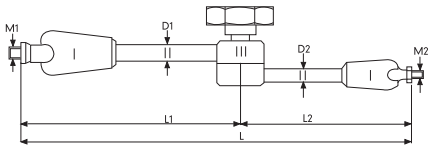
STRATO-LINE

Design
- Add-on articulated stands made in Switzerland
- Precise positioning in no time at all
- FISSO articulated stands can be moved easily and precisely into any position required
- Central clamping handle for fixing and releasing all 3 joints
- Short clamping path for maximum operator comfort
- **Powerful and durable clamping**
- **Friction clamping** based on continuously adjustable, purely mechanical clamping system
- High stability of the articulated stand thanks to precise fit in the ball joint
- Pre-stress prevents unwanted collapse in the loosened state to protect the measuring instruments
- Maintenance-free and permanent system
- Made from steel
- Free of play, for precise positioning of the measuring devices, as well as high measurement and repeat accuracy
- Supplied in polystyrene or cardboard box

Applications
Ideal as an add-on element in machine and instrument construction.

Quality
Ball joints with maximum precision made of steel, red anodised arm parts made of high-quality light metal, microfine adjustment made of steel.

34021



Type	L mm	L1 mm	D1 mm	M1 mm	L2 mm	D2 mm	M2 mm	Load-bearing capacity N	34021 ...
STRATO XS-13	130	70	9	M 6	60	8	M 6	30	**101**
STRATO S-20	200	120	10	M 8	80	9	M 6	40	**102**
STRATO M-28	280	170	16	M 8	110	10	M 6	70	**103**

34022 3D articulated measuring stands

FISSO Swiss Made

CLASSIC LINE

Design
- Precise positioning in no time at all
- FISSO articulated stands can be moved easily and precisely into any position required
- Central clamping handle for fixing and releasing all 3 joints
- Short clamping path for maximum operator comfort
- **Powerful and durable clamping**
- **Friction clamping** based on continuously adjustable, purely mechanical clamping system
- High stability of the articulated stand due precise fit in the ball joint
- Pre-stress prevents unwanted collapse in the loosened state to protect the measuring instruments
- Maintenance-free and permanent system
- **Precise microfine adjustment**
- Made of steel
- Free of play, for precise positioning of the measuring devices, as well as high measurement and repeat accuracy
- Combined mount for dial gauges, electronic measuring probes with **shaft Ø 8 mm** and level gauge probes with dovetail
- Supplied in polystyrene or cardboard box, **without a dial gauge/lever gauge probe**

Quality
Ball joints with maximum precision made of steel, chrome-plated arm parts made of high-grade steel, micro-fine adjustment made of steel.

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34022 089
Design
Switching magnet with prism base, approx. 300 N adhesive force, can be activated and deactivated using turning handle.
Applications
For dial gauges and probes in all areas of mechanics and where space is at a premium.

34022 090-096
Design
Powerful switching magnet with prism base, approx. 800 N adhesive force, can be activated and deactivated using turning handle.
Applications
For dial gauges and probes in all areas of mechanics.

34022 101
Design
Powerful switching magnet with prism base, approx. 1000 N adhesive force, can be activated and deactivated using turning handle.
Applications
For large workpieces and machines.

34022 102
Design
Powerful switching magnet, approx. 1500 N adhesive force, can be activated and deactivated using turning handle.
Applications
For workpieces and machines in the largest dimensions.

34022 089

34022 090

34022 096

34022 101

34022 102

Overall height mm	Operating radius mm	Base size mm	Adhesive force approx. N	34022 ...
220	130	34 x 30 x 35	300	**089**
310	200	60 x 50 x 55	800	**090**
390	288	60 x 50 x 55	800	**096**
568	450	75 x 50 x 55	1000	**101**
740	630	120 x 60 x 55	1500	**102**

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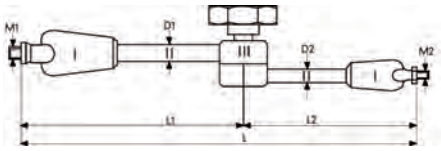
34023 Add-on articulated stands

FISSO Swiss Made

Design
- Add-on articulated stands made in Switzerland
- With mechanical central clamping
- Unlimited movement
- Patented mechanical central clamping – all three joints are fixed with one handle
- Maintenance-free
- Supplied in cardboard box

Applications
Ideal as an add-on element in machine and instrument construction.

Quality
Ball joints made of steel with maximum precision.



34023

L mm	L1 mm	D1 mm	M1 mm	L2 mm	D2 mm	M2 mm	Load-bearing capacity approx. N	34023 ...
197	112	10	M 8	85	9	M 6	40	**101**
288	161	12	M 8	127	10	M 6	70	**102**
453	260	12	M 8	193	12	M 8	60	**103**
635	373	24	M 10 x 1.25	264	20	M 8	120	**106**

34024 Magnets/vacuum base/granite sliding base

FISSO Swiss Made

34024 101-102
Design
- Powerful **switching magnet with prism base**
- Can be activated and deactivated using turning handle

34024 103
Design
- Powerful **switching magnet** with smooth base
- Can be activated and deactivated using turning handle

34024 110
Design
- **Switchable Anyform magnet** with contour bond
- Can be activated and deactivated using turning handle
- 70 steel segments adapt easily and precisely to the support shape

34024 105-106
Design
- Round **pot magnet**
- Cannot be switched on and off

34024 107
Design
- Powerful **switching magnet with prism base**
- Can be activated and deactivated using turning handle

34024 108
Design
- **Vacuum base adheres** powerfully and permanently
- Base is attached and released with the tilt lever
- Does not require any pneumatic or other energy

Applications
Particularly suitable for hard stone slabs and all even and non-porous surfaces.

34024 109
Design
- **Granite sliding base,** bottom side ground hollow within 0.01 mm, with dust grooves
- Made of black diabase granite
- Face ground

Applications
Glides excellently on hard stone plates, e.g. for checking parallelism.

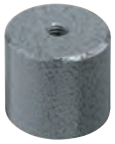
34024 101

34024 102

34024 103

34024 110

34024 105-106



34024 107

Designation	Can be activated/ deactivated	Dimension mm	Adhesive force approx. N	Thread	34024 ...
Switching magnet M	x	60 x 55 x 50	800	M 8	**101**
Switching magnet SM	x	75 x 55 x 50	1000	M 8	**102**
Switching magnet MM	x	120 x 55 x 60	1500	M 10 x 1.25	**103**
Anyform magnet AMO	x	91 x 52 x 55	600	M 8	**110**
Pot magnet TMS	–	Ø 30 x 25	150	M 6	**105**
Pot magnet TM	–	Ø 40 x 30	300	M 8	**106**
Switching magnet S	x	36 x 30 x 35	300	M 6	**107**
Vacuum base V	x	Ø 88 x 27	–	M 8	**108**
Granite sliding base G	–	150 x 120 x 50	–	M 8	**109**

34024 108

34024 109

Accessories for articulated stands | Articulated measuring stands

34025 Dial gauge and level gauge probe holders

FISSO Swiss Made

Applications
Combined mount for dial gauges, electronic length measuring probe with **shaft Ø 8 mm** and lever gauge probes with dovetail.

34025 101-102
Design
With microfine adjustment and clamping.
Applications
Suitable for add-on articulated stands art. no. 34023.

34025 101-102

34025 103
Design
Precision fine adjustment with dovetail.
Applications
Suitable for add-on articulated stands art. no. 34021.

34025 103

Location hole mm	Dovetail	Connecting thread	34025	...
8	x	M 6		101
8	x	M 8		102
8	x	M 8		103

34028 Accessories for articulated measuring stands

FISSO Swiss Made

34028 101-105
Clamp holders
Design
- Quick-action clamp in solid version
- Strong, rapid clamping on any thickness within the clamping widths

34028 106-107
Spring clamp holders
Design
- Strong clamping
- Connection bolt M 6
- Black zinc-plated

34028 106
Design
- Clamping jaws coated with plastic
- 50 mm wide

34028 107
Design
- Clamping jaws coated with plastic
- 21 mm wide

34028 108-109
Fibre-optic cable holder
Design
- Made of light metal, black anodised
- With a clamping ring to protect the fibre-optic cable

34028 110-111
Hex thread adapter
Applications
For thread reduction of the articulated measuring stands.

34028 112
Extension
Design
- With knurls, black zinc plated

34028 101

34028 106

34028 107

Clamp holders

Designation	Thread	Clamping width mm	34028	...
Clamp holder KT1 ST	M 6	25		101
Clamp holder KT1 ALU	M 6	25		102
Clamp holder KT2 ST	M 8	50		103
Clamp holder KT2 ST	M 6	50		104
Clamp holder KT2 ALU	M 6	50		105
Spring clamp holder with plastic jaws 50 mm wide	M 6	-		106
Spring clamp holder with plastic jaws 21 mm wide	M 6	-		107

34028 108-109

Fibre-optic cable holder

Ø mm	Thread	34028	...
9–12	M 6		108
11–16	M 6		109

34028 110-111

Adapters

Type	Thread outer/inner	Ø mm	34028	...
Thread adapter	M 6/M 8	13		110
Thread adapter	M 8/M 6	13		111
Extension	M 6/M 6	8 x 200		112

34028 112

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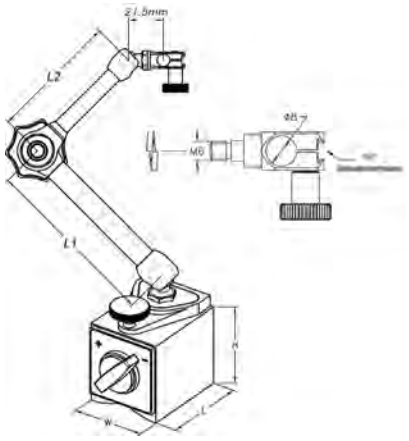
34029 Articulated measuring stands with fine adjustment on the magnet

Design
- Five-axis articulated measuring stand
- Low-wear mechanical central clamping
- **Fine adjustment on the magnetic base**
- Arms made of high-strength aluminium alloy
- With **shaft Ø 8 mm** and **dovetail guide**
- Powerful on/off magnet with prism base
- Rapid clamping in every position
- Can be adjusted quickly and easily to the required position

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.



34029

Overall height mm	Operating radius mm	Base size W x L x H mm	L1 mm	L2 mm	Adhesive force approx. N	34029	...
205	152	30 x 40 x 35	80	50	320		**101**
285	212	50 x 60 x 55	110	80	800		**102**
345	272	50 x 60 x 55	140	110	800		**103**

34026 Precision articulated measuring stands in the set

FISSO Swiss Made

34026 201
Fitter's kit
Design
Consisting of precision articulated measuring stand (operating radius 130 mm), lever gauge probe (art. no. 33247 101) and stable stand-by case.
Applications
For a wide variety of tasks, such as measurement of deviations in shape, position and location, as well as alignment work on machines, even in difficult conditions.

34026 102
Set for hard stone measuring plates
Design
Consisting of precision articulated measuring stand (operating radius 280 mm), microfine adjustment with 8 mm shaft mount, vacuum base, granite base, socket wrench for joint pre-stress and stable stand-by case.
Applications
With the vacuum base for static mounting of the stand on the measuring plate. With hard stone base if the stand needs to be moved.

34026 201

34026 102

Type	34026	...
Fitter's kit		**201**
Set for hard stone measuring plates		**102**

21780 Articulated measuring stand

Design
Mechanical central clamping for all joints, infinitely adjustable clamping force, any position within the action radius can be achieved. Dial gauge mount with 8-mm shank diameter, length = 40 mm for direct mounting in the machine (collet chuck!).

Applications
For lever gauge measuring instruments. Used for: workpiece positioning, centring bores/pins, aligning workpieces, hard-to-reach places.

Note:
For lever gauge measuring instruments, see art. no. 33245 et seq.

21780

Action radius approx. mm	21780	...
150		**201**

Magnetic measuring stands | Measuring tables | Measuring and control plates

34030 Magnetic measuring stands

Design
- Clamping: mechanical
- With joint stand, which guarantees absolute rigidity with great mobility and a wide operating radius thanks to central clamping
- Dial-gauge location hole **Ø 8 mm**
- **With fine adjustment** and additional dovetail mount

Applications
Ideal for inspection work in series production.

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34030

Overall height mm	Magnetic base approx. mm	Adhesive force approx. N	Weight approx. kg	34030	...
390	60 x 50 x 55	785	1.6		101

34612 Small measuring table

Design
- With a rigid measuring arm and round table
- Stable design
- Column made of solid material
- Table surface hardened, ground and lapped
- **Evenness in accordance with DIN 876/0**
- For gauges with **shaft Ø 8 mm** (h 6)
- Clamping by star-shaped handle

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34612

Measuring height approx. mm	Overhang approx. mm	Column Ø approx. mm	Table surfaces Ø approx. mm	Weight approx. kg	34612	...
100	49	22	50	2.3		101

34613 Small measuring table

Design
- Table surface hardened, ground and lapped
- **Evenness in accordance with DIN 876/0**
- With dust slots
- Column hardened and finely ground
- For gauges with **shaft Ø 8 mm** (h 6)

Note:
Dial gauges and lever gauge probes (small feeler), see art. no. 33001 et seq.

34613

Measuring height approx. mm	Overhang approx. mm	Column Ø approx. mm	Overall height mm	Table surface approx. mm	34613	...
100	49	22	200	60 x 68		101

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34624 Hard stone precision measuring tables

Design
- Table top made of dense, fine-grained natural black hard stone of the highest quality (lapped)
- The stone is completely free of inclusions
- Stable chrome column Ø 35 mm
- Height adjustment and locking on the column, which is equipped with a thread and an adjusting nut (ball-bearing guide)
- Evenness of the measuring table in accordance with DIN 876/00
- Diamond lapped measuring surfaces

Applications
- For dial gauges with shaft Ø 8 mm (h7)

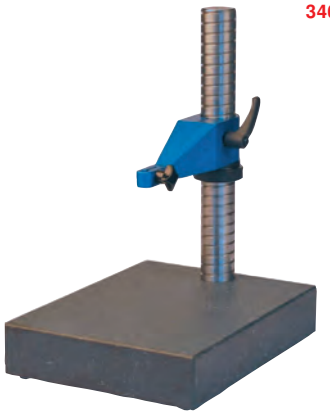
Note:
Dial gauges and lever gauge probes (small feeler) see art. no. 33001 et. seq.

34624 101
Design
- With rigid transverse arm

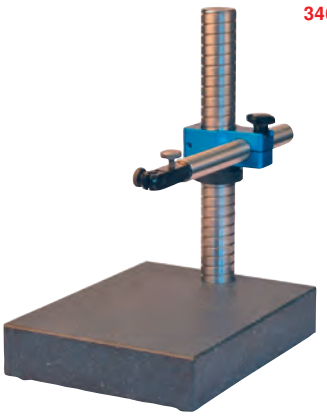
34624 102
Design
- With adjustable transverse arm

34624 103
Design
- With parallel fine adjustment

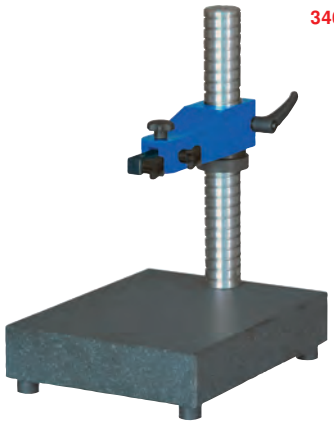
34624 101



34624 102



34624 103



Version	Measuring height approx. mm	Overall height approx. mm	Overhang approx. mm	Measuring surface approx. mm	Table top approx. mm	34624 ...
With rigid transverse arm	225	330	110	200 x 200	250 x 200 x 50	**101**
With adjustable transverse arm	225	330	180	200 x 200	250 x 200 x 50	**102**
With parallel fine adjustment	225	330	110	200 x 200	250 x 200 x 50	**103**

34626 Measuring and control plates

Design
- Accuracy in accordance with DIN 876/0
- With metric thread insert M 8

Applications
For mounting add-on articulated stands.
Quality
Made of natural hard stone.

34626

Dimension mm	Thread	Weight approx. kg	34626 ...
150 x 150 x 40	1 x M 8	3.5	**101**
400 x 250 x 50	3 x M 8	16.0	**102**
400 x 400 x 70	3 x M 8	35.0	**103**

35015 - 35016 Height measuring and marking devices

35015
Design
- With fine adjustment/magnifying glass
- Carbide-tipped marking-off needle
- **Zero setting**
- **Reading 0.02 mm**

35016
Replacement marking-off needle, carbide-tipped.

35015

Marking height mm	Measuring rod □ mm	Base L x W mm	Weight approx. kg	Scriber 35015	...	Carbide needle 35016	...
300	28 x 10	125 x 85	3.1		101		101
450	35 x 12	180 x 120	7.0		102		102
600	35 x 12	180 x 120	7.2		103		103

35022 - 35023 Scriber

35022
Design
- Vernier scale and scale, brushed chromium-plated
- With fine adjustment
- Accuracy according to factory standard

35023
Replacement scriber, carbide-tipped.

35022

Measuring range mm	Measuring rod □ mm	Scriber 35022	...	Carbide needle 35023	...
0–300	15 x 10		101		101
0–500	16 x 12		102		102 NEW

35017 - 35018 Precision scribers

ATORN®

35017
Design
- Error limits conforming to DIN 862
- **Parallax-free reading**
- Scales and vernier scale, brushed chromium-plated
- Guide rod, industrial chrome plated
- Locking screw
- Fine adjustment
- **Supplied with straight scriber, carbide-tipped**

35018
Design
- Error limits conforming to DIN 862
- **Parallax-free reading**
- Scales and vernier scale, brushed chromium-plated
- Guide rod, industrial chrome-plated
- Locking screw
- Precision callipers adjustment with toothed wheel and toothed rack
- **Supplied with straight scriber, carbide-tipped**

35024
Replacement scriber, carbide tipped
Design
- Straight, 75 mm

35017 35018

Measuring range mm	Reading mm	Measuring rod □ mm	Base L x W x H mm	Scriber with fine adjustment 35017	...	Scriber with toothed rack 35018	...	Carbide needle 35024	...
300	0.02	30 x 12	145 x 90 x 44		301		301		101
600	0.02	31 x 12	189 x 118 x 44		302		302		101
1000	0.02	32 x 12	189 x 118 x 44		303		303		101

Height measuring and marking devices

35030 Digital height measuring and marking devices Digimar 814 SR

Typ V | Typ W | Typ X

Mahr

Design
- Auto on/off function
- RESET function (resetting the display)
- PRESET function (measurement presetting)
- mm/inch switching
- Reference lock/unlock function (keypad lock)
- DATA function (in connection with data connection cable)
- ABS function (switching from relative to absolute measurement)
- High-contrast 12 mm high LCD display
- Easy-grip, secure base
- Hardened, lapped contact surface, lightweight and can be moved smoothly
- Slide and rail hardened, rust-free
- Hand wheel for positioning and measuring
- Fine adjustment
- Locking screw
- Interchangeable measuring and marking tip, carbide-tipped
- Adjustment speed 1.5 m/s (60 inch/s)
- Company standard
- MarConnect data output optional: USB, Opto RS232C, Digimatic
- Power supply: Battery, service life approx. 3 years

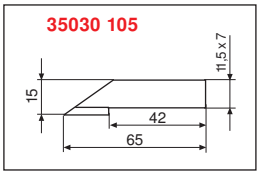
Scope of delivery:
- Scriber point
- Battery (3 V, type CR 2032)
- Operating instructions
- In box

Applications
For marking off and marking workpieces and for measuring heights and distances.

Note:
Connection cable, see art. no. 35200 404-406.
Replacement batteries, see art. no. 39900 102.

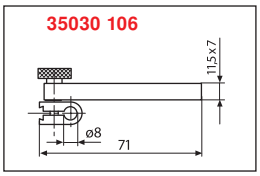
35030 105
Scriber 814 SRs, carbide-tipped.

35030 105



35030 106
Holder 27 Sp for lever gauge probes.

35030 106



35030 101-102

Measuring range mm	Reading mm	Measuring rod T mm	Base L x W mm	Overall height mm	Error limit µm	Weight approx. kg	35030 ...
350	0.01	35	180 x 62	580	40	7	101
600	0.01	35	180 x 62	835	50	8	102
Marking-off needle 814 SRs, carbide-tipped	-	-	-	-	-	-	105
Holder 27 Sp for lever gauge probes	-	-	-	-	-	-	106

35040 - 35042 Digital height measuring and marking devices

Typ J | Typ K | Typ L

ATORN®

Design
- Accuracy according to factory standard
- Finely machined and inspected with high precision
- Guide column made of special steel
- Interchangeable cemented carbide marking-off needle
- Cropped scriber holder for measuring from the base
- Data output proximity, J, K, L
- Supplied with 3 V lithium battery

Functions:
- Switching on/off
- Resetting in any position
- mm/inch switching
- HOLD function (measurement determination)
- PRESET +/- (measurement pre-setting)
- Locking screw

Applications
Absolute, differential, comparison measurements, etc. can be performed quickly, cleanly and easily.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

35040
Design
- With fine adjustment

35042
Design
- Fine adjustment with toothed rack and adjusting wheel with pinion

35024
Replacement scriber, carbide tipped
Design
- Straight, 75 mm

35040

35042

				Scriber with fine adjustment		Scriber with toothed rack		Carbide needle	
Measuring range mm	Base L x W x H mm	Reading mm	Measuring rod mm	35040	...	35042	...	35024	...
300	145 x 90 x 44	0.01	30 x 12		101		101		101
600	189 x 118 x 44	0.01	31 x 12		102		102		101
1000	189 x 118 x 44	0.01	32 x 12		103		103		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Process-related measurement in parts production

SCS calibration certificate
The TESA-HITE and MICRO-HITE production line includes a laboratory accredited by the Swiss Accreditation Service.

As a result, every vertical TESA length measuring device is supplied with a free SCS calibration certificate. Fully air-conditioned rooms (20 +/- 0.1 °C) and high-precision step gauges contribute to extremely low measurement uncertainty during calibration.

- In the first step, the measurement deviations of the manufactured measuring instrument are recorded. With help from CAA (computer aided accuracy), correction values are then calculated to reduce the systematic proportions of the measurement deviations.
- For automatic correction of the measurement values during the measurements, the individual correction values are stored in the memory of the respective measuring device
- The measurement results documented in the SCS calibration certificate are determined by means of final measurement series using another calibration device that is also equipped with a step gauge.
  The calibration procedures applied and the SCS calibration certificate guarantee that each vertical TESA length measuring device can be traced back to national standards.

35071 — Digital height measuring devices TESA-HITE MAGNA 400/700

Design
- Magna µ measuring system, IP 55
- Modern control panel
- Fine adjustment system
- Suitable for workshops
- IP 65 control panel
- Context-based help
- Backlit colour screen
- Fast measurement
- Fast reversal point search with Quickcenter dynamic technology
- 4 different display settings
- Height, surface or reversal point measurements
- Hole, shank, shaft, web measurement
- Min, max, delta (parallelism) measurements
- Distance and centre point calculation
- mm/inch switching
- Preset function

- TLC interface (cable or Bluetooth)
- Data can be sent manually or automatically
- Current position can be displayed continuously
- Large digital display 21 mm
- Operating keys with „click" feedback
- Short training time
- Free SCS certificate

NEW

Scope of delivery:
- Height measuring device incl. control panel
- Standard gauge slide holder
- Standard gauge slide with carbide ball ∅ 5 mm
- Reference piece
- Power supply and cable
- SCS certificate
- Declaration of conformity
- Quick start guide
- Operating instructions on USB stick

35071 101

Technical data:	35071 101 (MAGNA 400)	35071 102 (MAGNA 700)
Measuring range:	415 mm	715 mm
Error limit:	≤ 8 µm	≤ 8 µm
Repeatability limit on a level surface (2δ):	≤ 3 µm	≤ 3 µm
Repeatability limit on an arc (2δ):	≤ 5 µm	≤ 5 µm
Limit value of the perpendicularity deviation:	-	-
Resolution:	0.001/0.005/0.01 mm	0.001/0.005/0.01 mm
Measuring force:	1.5 N +/- 0.5 N	1.5 N +/- 0.5 N
Air cushion:	No	No
Fine adjustment:	Yes	Yes
Display:	LCD colour display 121 x 92 mm backlit	LCD colour display 121 x 92 mm backlit
Battery:	integrated, rechargeable Li-ion 12.8 V/3.0 Ah	integrated, rechargeable Li-ion 12.8 V/3.0 Ah
Autonomy:	60 h	60 h
Protection rating:	IP 55, control panel IP 65	IP 55, control panel IP 65
Weight:	15 kg	18 kg

Measuring range mm	35071 ...
415	101
715	102

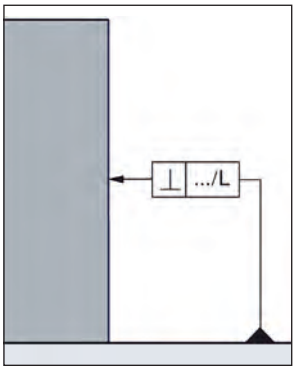
Digital height measuring devices

35074 Digital height measuring devices TESA HITE 400/700

Design
- Opto µ measuring system, IP 55
- Modern control panel
- Fine adjustment system
- Suitable for workshops
- IP 65 control panel
- Context-based help
- Backlit colour screen
- Fast measurement
- Fast reversal point search with Quickcenter dynamic technology
- 4 different display settings
- Height, surface or reversal point measurements
- Hole, shank, shaft, web measurement
- Min, max, delta (parallelism) measurements
- Distance and middle point calculation
- mm/inch switching
- Preset function
- TLC interface (cable or Bluetooth)
- Data can be sent manually or automatically
- Current position can be displayed continuously
- Large digit size 21 mm
- Operating keys with „click" feedback
- Short training time
- Free SCS certificate

Scope of delivery:
- Height measuring device incl. control panel
- Standard gauge slide holder
- Standard gauge slide with carbide ball ∅ 5 mm
- Reference piece
- Power supply and cable
- SCS certificate
- Declaration of conformity
- Quick start guide
- Operating instructions on USB stick

Measuring perpendicularity



NEW

35074 101

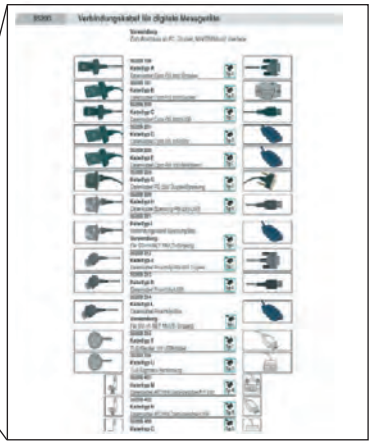
Technical data:	35074 101 (HITE 400)	35074 102 (HITE 700)
Measuring range:	415 mm	715 mm
Error limit:	(2.5+4 L) µm (L in m)	(2.5+4 L) µm (L in m)
Repeatability limit on a level surface (2δ):	≤ 2 µm	≤ 2 µm
Repeatability limit on an arc (2δ):	≤ 3 µm	≤ 3 µm
Limit value of the perpendicularity deviation:	9 µm	13 µm
Resolution:	0.0001/0.001/0.01 mm	0.0001/0.001/0.01 mm
Measuring force:	1.5 N +/- 0.5 N	1.5 N +/- 0.5 N
Air cushion:	Yes	Yes
Fine adjustment:	Yes	Yes
Display:	LCD colour display 121 x 92 mm backlit	LCD colour display 121 x 92 mm backlit
Battery:	integrated, rechargeable Li-ion 12.8 V/3.0 Ah	integrated, rechargeable Li-ion 12.8 V/3.0 Ah
Autonomy:	60 h	60 h
Protection rating:	IP 55, control panel IP 65	IP 55, control panel IP 65
Weight:	24 kg	30 kg

Measuring range mm	35074 ...
415	101
715	102

Info Connecting cable for transmitting measurement values from digital measuring instruments

Connecting cable for connecting to a PC, printer, MINITERM and interface can be found in **from page 35.12, art. no. 35200.**

In the catalogue, the different connection options for the digital measuring instruments are labelled with pictograms:



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35081 Digital height measuring devices MICRO-HITE 350/600/900

Design
- **Manually** adjustable, digital height measuring device
- Robust construction made of cast iron to ensure durability and long-term reliability of measurement results

Control panel
- Hybrid with colour touchscreen and keyboard
- Simplified keyboard for rapid familiarisation without complicated handling
- Adjustable control panel bracket for optimal reading of the screen at any time

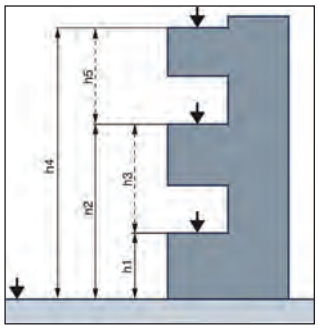
Autonomy
- Rechargeable and replaceable battery

Measurement
- Integration of patented QUICKCENTER technology for fast and simple measurement of the reversal points
- Advanced functions for a multifunction device suitable for a wide range of different users
- Online contextual help, which prevents complicated use and poor results
- Clear results to reduce possible errors due to poor evaluation of the indicated results

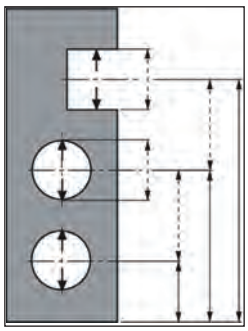
SCS calibration certification
- An SCS certificate is provided free of charge so that any additional costs for recalibration immediately after purchase can be avoided

35081 102

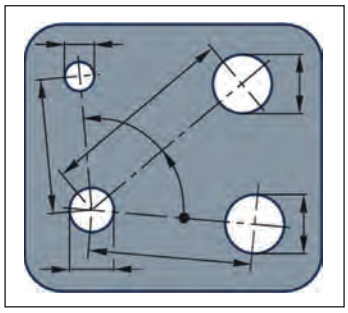
Measuring in one probe direction



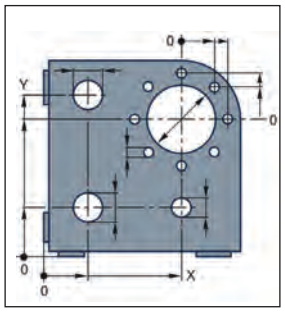
Measuring in two probe directions



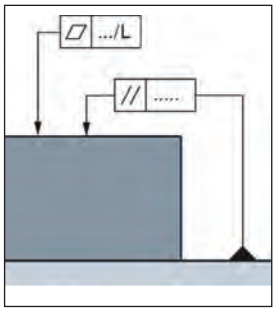
Angle measurement in two dimensions



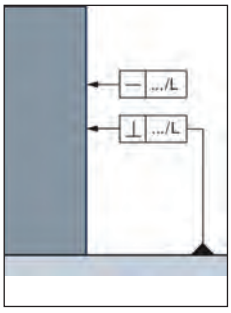
Measuring in two coordinate directions



Measuring parallelism and flatness



Measuring perpendicularity and straightness



Technical data:	35081 101 (HITE 350)	35081 102 (HITE 600)	35081 103 (HITE 900)
Measuring range:	350 mm	600 mm	900 mm
Maximum application area:	0–520 mm	0–770 mm	0–1075 mm
Error limit:	(2+2 L) µm = (L in m)	(2+2 L) µm = (L in m)	(2+2 L) µm = (L in m)
Repeatability on a flat surface (2δ):	≤ 1 µm	≤ 1 µm	≤ 1 µm
Repeatability in holes (2δ):	≤ 1 µm	≤ 1 µm	≤ 1 µm
Perpendicularity tolerance (frontal):	7 µm	9 µm	11 µm
Constant contact force:	1.6 N +/- 0.25 N	1.6 N +/- 0.25 N	1.6 N +/- 0.25 N
Air cushion:	x	x	x
Resolution:	0.0001/0.001/0.01 mm	0.0001/0.001/0.01 mm	0.0001/0.001/0.01 mm
Autonomy:	8 h	8 h	8 h
Weight with control panel:	33 kg	37 kg	45 kg

Measuring range mm	35081 ...
350	101
600	102
900	103

Digital height measuring devices

35082 Digital height measuring devices MICRO-HITE plus M 350/600/900

Design
- **Motorised,** digital height measuring device
- Robust construction made of cast iron to ensure durability and long-term reliability of measurement results

Control panel
- Hybrid with colour touchscreen and keyboard
- Simplified keyboard for rapid familiarisation without complicated handling
- Adjustable control panel bracket for optimal reading of the screen at any time

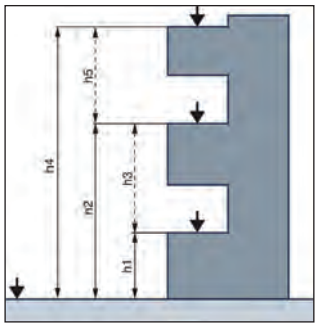
Autonomy
- Rechargeable and replaceable battery

Measurement
- Integration of patented QUICKCENTER technology for fast and simple measurement of the reversal points
- Advanced functions for a multifunction device suitable for a wide range of different users
- Online contextual help, which prevents complicated use and poor results
- Clear results to reduce possible errors due to poor evaluation of the indicated results

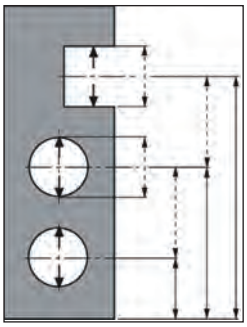
SCS calibration certification
- An SCS certificate is provided free of charge so that any additional costs for recalibration immediately after purchase can be avoided

35082 102

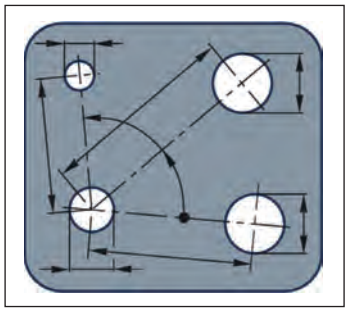
Measuring in one probe direction



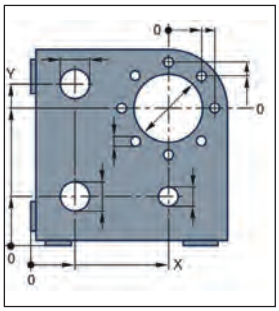
Measuring in two probe directions



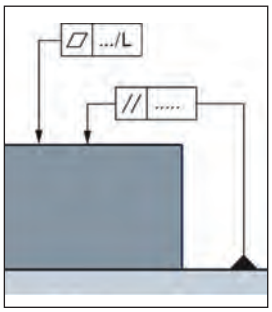
Angle measurement in two dimensions



Measuring in two coordinate directions



Measuring parallelism and flatness



Measuring perpendicularity and straightness

Technical data:	35082 101 (HITE plus M 350)	35082 102 (HITE plus M 600)	35082 103 (HITE plus M 900)
Measuring range:	350 mm	600 mm	900 mm
Maximum application area:	0–520 mm	0–770 mm	0–1075 mm
Error limit:	(1.8+2 L) µm = (L in m)	(1.8+2 L) µm = (L in m)	(1.8+2 L) µm = (L in m)
Repeatability on a flat surface (2δ):	≤ 0.5 µm	≤ 0.5 µm	≤ 0.5 µm
Repeatability in holes (2δ):	≤ 1 µm	≤ 1 µm	≤ 1 µm
Perpendicularity tolerance (frontal):	7 µm	9 µm	11 µm
Constant contact force:	1.6 N +/- 0.25 N	1.6 N +/- 0.25 N	1.6 N +/- 0.25 N
Air cushion:	x	x	x
Resolution:	0.0001/0.001/0.01 mm	0.0001/0.001/0.01 mm	0.0001/0.001/0.01 mm
Autonomy:	8 h	8 h	8 h
Weight with control panel:	33 kg	37 kg	45 kg

Measuring range mm	35082 ...
350	101
600	102
900	103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

35088 Accessories for height measuring devices MICRO-HITE plus M

35088 104
Probe insert holder
Applications
Specially designed for lever gauge probes TESATAST.

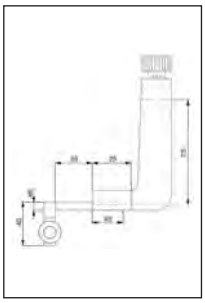
35088 105
Gauge slides set
Design
Supplied in plastic case with:
1 gauge slide holder,
1 probe rod for turned grooves, centring points, blind bores,etc., angled 8°, steel, hardened,
1 probe rod for depth measurements, cylindrically offset, steel, hardened,
3 gauge slides with steel ball, hardened, Ø 0.9 / 1.9 / 2.9 mm,
1 gauge slide with spherical measuring surface, Ø 8 mm, steel, hardened,
2 extensions, length 20 mm, thread M 3 to M 3 and length 20 mm, thread M 3 to M 2.5.

35088 106
Measuring probe IG-13
Design
With opto-electronic measuring system and glass scale with incremental graduation.
Comprising:
1 TESA measuring probe IG-13, measuring range 13 mm, resolution of the measuring signal 0.0005 mm, accuracy 1 µm, measuring force 0.45 N at zero and 0.75 N on the stop.
1 mount for TESA measuring probe IG-13.
Applications
For measuring shape and positional deviations, particularly when recording perpendicularity and straightness deviations. Only possible in combination with Power Panel plus M control panels.

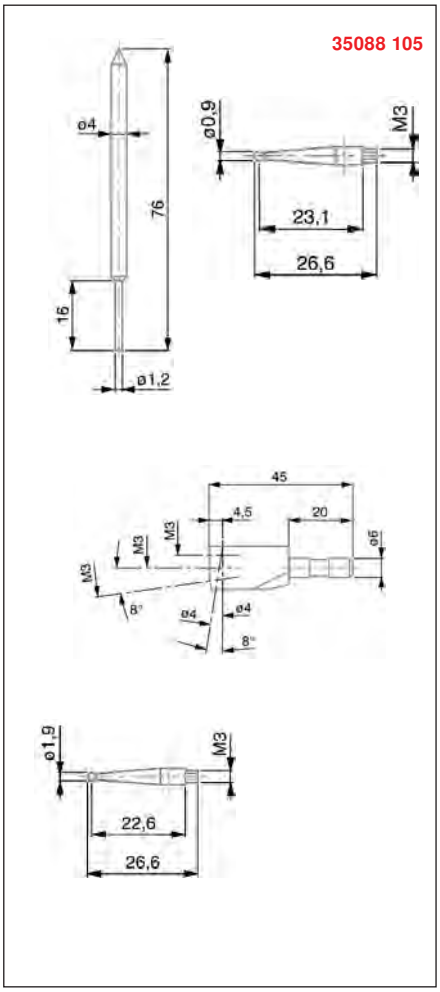
35088 108
Large accessory kit, 20 pieces
Design
Supplied in plastic case with:
1 gauge slide with cemented carbide ball, Ø 3 mm,
1 gauge slide with cemented carbide ball, Ø 10 mm, gauge slides with barrel-shaped cemented carbide measuring surface for cyl. holes and for determining the position of metric female threads,
1 piece Ø 2.2 mm (for M 3 to M 16),
1 piece Ø 4.5 mm (for M 6 to M 48),
1 piece Ø 9.7 mm (for M 12 to M 150),
gauge slides with cemented carbide disc, for grooves, turned grooves, centring shoulders, etc.,
1 piece E = 1 mm / Ø 4.5 mm,
1 piece E = 2 mm / Ø 14 mm,
1 piece E = 3 mm / Ø 19 mm,
1 gauge slide with small cyl. carbide measuring surface, Ø 2 mm,
1 probe insert holder for TESATAST probe inserts (thread M 1.4) and gauge slides M 2.5, probe inserts TESATAST, cemented carbide ball, thread M 1.4
1 piece Ø 1 mm,
1 piece Ø 2 mm,
1 piece Ø 3 mm,
1 key,
1 gauge slide with cyl. measuring surface (Ø 10 mm, length 12 mm) basic body made of stainless steel, hardened, measuring surface made of cemented carbide, gauge slide carrier for achieving greater measuring depth
1 piece for measuring depths up to 110 mm (L = 75 mm),
1 piece for measuring depths up to 185 mm (L = 150 mm),
1 gauge slide carrier to expand the application range,
1 gauge slide with probe rod, stainless steel, hardened, one flat and one ball-shaped measuring surface each made of cemented carbide, replaceable probe rod.

35088 109
USB printer
Applications
The optional printer can be connected to the control panel of the MICRO-HITE height measuring devices to receive and print data automatically.

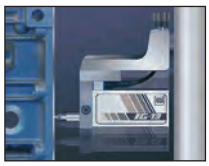
35088 104

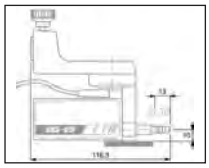


35088 105



35088 106





35088 109

	35088 ...
Probe insert holder	104
Gauge slides set	105
Measuring probe IG-13	106
Large accessory set 20 pieces	108
USB printer	109 NEW

Digital height measuring devices

35090 Digital height measuring devices Digimar 816 CL

Mahr

Basic measuring functions
- Probing at the bottom or top
- Bar width or groove distances incl. bar or groove centre
- Hole or shaft diameter incl. hole or shaft centre
- Reversal point holes (top or bottom)
- Reversal point shaft (top or bottom)
- Calculate distances or symmetry
- Dynamic measurement functions
- Measurement programme
- Measurement data processing

Control and display unit
- Easy-to-read graphic LCD display with backlight
- Clear function keys
- Language-neutral navigation using self-explanatory symbols
- Set an additionally zero point quickly
- Measured value storage of up to 99 values

Measuring system
- Optical incremental measuring system with double reading head for outstanding precision and reliability
- Dynamic probe system for high repeatability
- Air bearing system for easy, jerk-free movement
- Precise measuring head guide on stainless steel guide rails
- Simple measuring operations thanks to motorised measuring slides
- Integrated temperature sensor with temperature compensation
- Probe constant is maintained after switching off
- Integrated rechargeable battery with high operating time for battery-powered measurement

Scope of delivery:
- Height measuring device incl. operating and display element
- Carrier 817 h1
- Gauge slide K6/51
- Setting block 817 eb
- Charging unit
- Protective cover
- Calibration certificate
- Operating instructions

35090 101-102

Technical data:	35090 101	35090 102
Measuring range:	350 mm	600 mm
Application range from – to:	170 - 520 mm	170 - 770 mm
Error limit:	(2.8+3 L) µm (L in mm)	(2.8+3 L) µm (L in mm)
Repeatability limit, level (2δ):	2 µm	2 µm
Repeatability limit, hole (2δ):	3 µm	3 µm
Max. deviation from perpendicularity:	15 µm	20 µm
Resolution:	0.001 / 0.01 mm	0.001 / 0.01 mm
Measuring force (acoustic measuring signal):	1.0 N +/- 0.2 N	1.0 N +/- 0.2 N
Autonomy:	14 h	14 h
Rel. humidity, non-condensing:	65%	65%
Working temperature:	20°C	20°C
Operating temperature:	10–40°C	10–40°C

	Measuring range mm	Opto RS232C, USB	Weight kg	Cable length m	35090 ...
Height measuring device	**350**	x	25	-	**101**
Height measuring device	**600**	x	30	-	**102**
Data connection cable USB 2000 usb	-	-	-	2	**105**
Data connection cable RS232C 2000 r	-	-	-	2	**106**

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35091 Digital height measuring devices Digimar 817 CLM

Mahr

Basic measuring functions
- Probing at the bottom or top
- Bar width or groove distances incl. bar or groove centre
- Hole or shaft diameter incl. hole or shaft centre
- Reversal point holes (top or bottom)
- Reversal point shaft (top or bottom)
- Calculate distances or symmetry
- Dynamic measurement functions
- Perpendicularity measurement
- Straightness measurement
- Measurement in 2D mode
- Measurement programme
- Statistical evaluation
- Measurement data processing

Control and display unit
- Large and clear function keys
- Easy-to-read graphic LCD display with backlight
- Operator guidance via self-explanatory icons
- Operator guidance in several languages
- Option of setting additional zero points on the workpiece
- Additional measuring instrument with Opto RS232 interface can be connected
- Future-proof thanks to update capability
- Automatic stand-by switching
- Adjustable auto-off function (without loss of measured values)

Measuring system
- Optical incremental measuring system with double reading head for outstanding precision and reliability
- Dynamic probe system for high repeatability
- Air bearing system for easy, jerk-free movement
- Precise measuring head guide on stainless steel guide rails
- Simple measuring operations thanks to motorised measuring slides
- Probe constant is maintained after switching off
- Integrated rechargeable battery with high operating time for battery-powered measurement
- Temperature compensation via integrated temperature sensor

Scope of delivery:
- Height measuring device incl. operating and display element
- Carrier 817 h1
- Gauge slide K6/51
- Setting block 817 eb
- Charging unit
- USB cable
- Protective cover
- Calibration certificate
- Operating instructions

35091 101-103

- Measurement programme for series parts

Control panel with backlit graphic display

Technical data:	35091 101	35091 102	35091 103
Measuring range:	350 mm	600 mm	1000 mm
Application range from – to:	170–520 mm	170–770 mm	170–1170 mm
Error limit:	(1.8+6 L) µm (L in mm)	(1.8+6 L) µm (L in mm)	(1.8+6 L) µm (L in mm)
Repeatability limit, level (2δ):	0.5 µm	0.5 µm	0.5 µm
Repeatability limit, hole (2δ):	1 µm	1 µm	1 µm
Max. deviation from perpendicularity:	5 µm	6 µm	9 µm
Resolution:	0.0005 / 0.0001 / 0.005 / 0.001 / 0.01 mm	0.0005 / 0.0001 / 0.005 / 0.001 / 0.01 mm	0.0005 / 0.0001 / 0.005 / 0.001 / 0.01 mm
Measuring force (acoustic measuring signal):	1.0 N +/- 0.2 N	1.0 N +/- 0.2 N	1.0 N +/- 0.2 N
Autonomy:	16 h	16 h	16 h
Rel. humidity, non-condensing:	65%	65%	65%
Working temperature:	20°C	20°C	20°C
Operating temperature:	10–40°C	10–40°C	10–40°C

	Measuring range mm	RS232C	Weight kg	Cable length m	35091 ...
Height measuring device	**350**	x	25	-	**101**
Height measuring device	**600**	x	30	-	**102**
Height measuring device	**1000**	x	35	-	**103**
Adapter cable RS232-USB	-	-	-	1	**107**

Accessories for digital height measurement devices

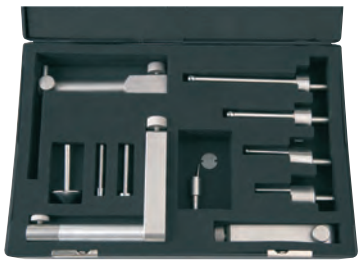
35092 Measuring probe sets Digimar 817 ts1/2 for digital height measuring devices

Mahr

35092 101
Digimar 817 ts1
Design
- Large accessory set
- In a practical plastic case

35092 101

Set contents of Digimar 817 ts1 (art. no. 35092 101)	
1	carrier for gauge slides, location hole 6 mm (817 h2)
1	disc gauge slide Ø 15 mm (S15/31.2)
1	cylinder gauge slide Ø 10 mm (Z10/31.2)
1	cone gauge slide Ø 30 mm (MKe30)
1	depth gauge (TMT 120)
1	holder including gauge slide 800 ts Ø 2 mm (KM 2)
1	carrier for gauge slides, location hole 8 mm (817 h4)
1	ball measuring insert Ø 4 (K 4/30)
1	ball measuring insert Ø 6 (K 6/40)
1	ball measuring insert Ø 10 (K 10/60)
1	ball measuring insert Ø 10 (K 10/100)



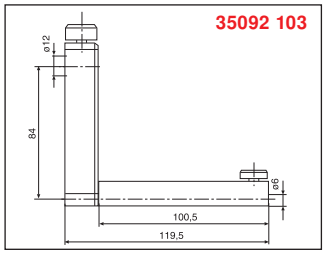
35092 102
Digimar 817 ts2
Design
- Small accessory kit
- In a practical plastic case

35092 102

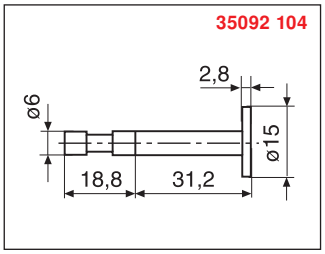
Set contents of Digimar 817 ts2 (art. no. 35092 102)	
1	carrier for gauge slides, location hole 6 mm (817 h2)
1	disc gauge slide Ø 15 mm (S15/31.2)
1	cylinder gauge slide Ø 10 mm (Z10/31.2)
1	cone gauge slide Ø 30 mm (MKe30)
1	depth gauge (TMT 120)
1	holder including gauge slide 800 ts Ø 2 mm (KM 2)

Type	Set 35092	...
Digimar 817 ts1		101
Digimar 817 ts2		102

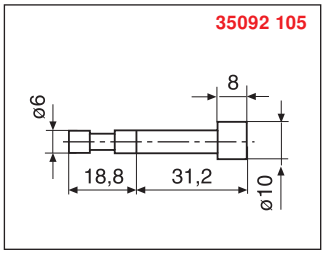
35092 103



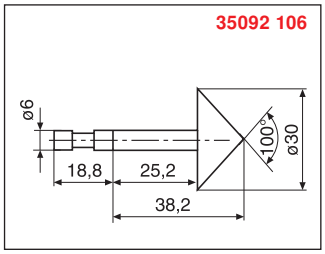
35092 104



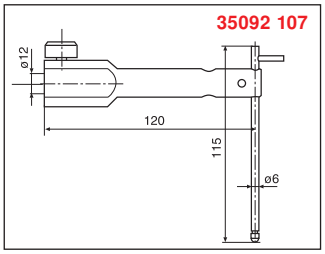
35092 105



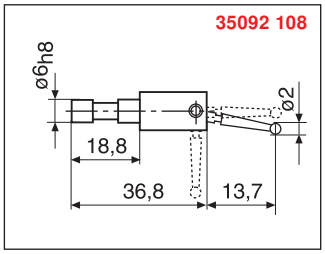
35092 106



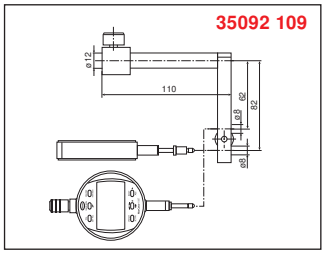
35092 107



35092 108



35092 109



	Individual 35092	...
Support for gauge slides 817 h2		103
Disc gauge slide Ø 15 mm S15/31.2		104
Cylinder gauge slide Ø 10 mm Z10/31.2		105
Cone gauge slide MKe 30		106

	Individual 35092	...
Depth gauge TMT 120		107
Holder incl. gauge slide 800 ts Ø 2.0 mm KM 2		108
Carrier for perpendicularity measurement 817 h3		109
Measuring probe P1514 H		110

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Info

Measurement data acquisition

- Interfaces for 2000 different measuring instruments
- Compatible with over 50 CAQ/ERP/MES systems
- Wireless measuring equipment connection
- Dynamic measurement data processing
- Multi-point measurement
- Measurement value transfer in Office applications
- PC connection via RS232, USB and keyboard (HID)

DC-HI-NET „bt"

Wireless measuring equipment connection via Bluetooth® via USB or STEINWALD interfaces!

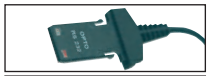
SINGLE Mx-K

Simple data acquisition via keyboard interface (HID) in any software – without additional drivers!

Connecting cable for digital measuring instruments

35200 Connecting cable for digital measuring instruments

Applications
For connecting to PC, printer, MINITERM and interface.



35200 100
Cable type A
Data cable Opto RS 232 simplex
Typ A

35200 101
Cable type B
Data cable Opto RS 232/duplex
Typ B

35200 303
Cable type C
Data cable Opto RS 232/USB
Typ C

35200 201
Cable type D
Data cable Opto RS 232/Box
Typ D

Applications
For DC-HI-NET MULTI input

35200 204
Cable type G
Data cable RS 232 duplex/feed
Typ G

35200 309
Cable type H
Data cable feed RS 232/USB
Typ H

35200 311
Cable type I
Date cable feed/box
Applications
For DC-HI-NET MULTI input
Typ I

35200 312
Cable type J
Data cable proximity/RS 232 duplex
Typ J

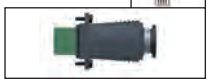
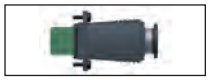
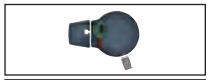
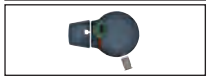
35200 313
Cable type K
Data cable proximity/USB
Typ K

35200 314
Cable type L
Data cable proximity/box
Applications
For DC-HI-NET MULTI input
Typ L

35200 401
Cable type M
Data cable ATORN data variable/RS 232
Typ M

35200 402
Cable type N
Data cable ATORN data variable/USB
Typ N

35200 403
Cable type O
Data cable ATORN data variable/box DIGIMATIC
Typ O

35200 307
Cable type R
Interface adapter with DIGIMATIC signal line
Typ R

35200 308
Cable type S
Interface adapter with USB signal line
Typ S

35200 318
Cable type R1
Interface adapter with DIGIMATIC signal line
Typ R1

35200 317
Cable type S1
Interface adapter with USB signal line
Typ S1

Cable type	Cable length m	35200	...
A	2		100
B	2		101
C	2		303
D	2		201
G	2		204
H	2		309

Cable type	Cable length m	35200	...
I	2		311
J	3		312
K	3		313
L	2		314
M	2		401
N	2		402

Cable type	Cable length m	35200	...
O	2		403
R	2		307
S	2		308
R1	2		318 NEW
S1	2		317 NEW

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35200 Connecting cable for digital measuring instruments (Mahr)

Mahr

35200 404
Cable type V
Applications
For connecting the measuring instrument to an interface box or a PC. Data transmission in MarCom or via virtual COM interface to other applications.

35200 405 + 407
Cable type W + F
Applications
For connecting Digimatic-compatible interfaces and evaluation devices.

35200 406
Cable type X
Applications
For connecting the measuring instrument to a PC. Data transmission in MarCom or via virtual COM interface to other applications.
Scope of delivery:
- USB cable, drivers, MarCom Standard software

35200 410
i-Stick wireless receiver
Design
- 3-channels
- 8 emitter modules per stick
- 2400 MHz frequency band
- Incl. MarCom Standard software 3.1

35200 411
Cable type Z
Applications
Adapter cable USB for foot switch 16 ESf.

35200 412
Foot switch 16 ESf
Applications
For measurement value transfer.

35200 413
USB hub 7-way
industrial version

35200 404

35200 405+407

35200 406

35200 410

	Cable type	Cable length m	35200	...
Adapter cable RS232C 16 EXr	V	2.0		404
Adapter cable Digimatic 16 EWd	W	2.0		405
Adapter cable USB 16 EXu	X	2.0		406
Adapter cable Digimatic 2000 d	F	2.0		407
Wireless receiver i-Stick	-	-		410

	Cable type	Cable length m	35200	...
Adapter cable USB	Z	0.1		411
Foot switch 16 ESf	-	-		412
USB hub, 7-way	-	-		413
Adapter cable USB duplex DK-U1	P	2.0		415
Adapter cable Digimatic duplex DK-D1	Q	2.0		416

35200 Connecting cable for digital measuring instruments (Tesa)

TESA

35200 315
Cable type T
- TLC connector with USB cable

35200 316
Cable type U
- TLC Digimatic connection

35200 501
Wireless transmitter TLC-BLE

35200 502
Wireless receiver
Comprising:
- USB dongle receiver and 2 m extension cable
Applications
A USB dongle can be used with 8 measuring instruments. Reception can be optimised using the 2 m extension cable, e.g. if the computer is under or behind the workbench/work surface.

35200 503
Starter kit
Comprising:
- 1 wireless transmitter (art. no. 35200 501)
- 1 wireless receiver with 2 m extension cable (art. no. 35200 502)

35200 504
Adapter cable Opto-RS232/TLC
Design
- With reclosable fastener for attaching to the transmitting unit
- Without Bluetooth® transmitter
Applications
All devices with Opto-RS232 or TLC output can be easily upgraded to Bluetooth® technology.

35200 315

35200 316

35200 501

35200 502

35200 503

35200 504

	Cable type	Cable length m	35200	...
Adapter cable TLC/USB	T	2.0		315
Adapter cable TLC/Digimatic	U	2.0		316
TLC-BLE transmitter	-	-		501 NEW

	Cable type	Cable length m	35200	...
USB dongle receiver	-	-		502 NEW
TLC-BLE starter kit	-	-		503 NEW
Adapter cable Opto RS 232/TLC	-	2.0		504 NEW

Info TESA data viewer

TESA

Free software for managing data, recorded with TESA measuring instruments.

Free download at tesatechnology.com

- Instruments are detected and connected automatically
- Compatible with most TESA instruments
- Bar graph display with adjustable tolerance
- 8 languages available

Scribers | Deep hole markers

35405 - 35407 Scribers

35405
Design
- Corrugated handle
- Interchangeable chrome-vanadium marking-off needles

35406
Design
- Corrugated handle
- Interchangeable chrome-vanadium marking-off needles
- With one straight and one 90° marking-off needle

35407
Design
- Plastic handle
- Marking-off needles, chrome plated
- With one straight and one 45° marking-off needle

35405

35406

35407

Length mm	35405 ...	35406 ...	35407 ...
175	101		
220			101
250		102	

35410 - 35411 Permanent scriber

35410
Design
- Hollow aluminium shaft, red anodised (Ø 7 mm) with clamping chuck
- Tips hardened and replaceable
- **Incl. 10 replacement tips** (in shaft)

35411
Replacement tips, pack = 10 pieces

35410

35411

Length mm	Scriber 35410 ...	Replacement tips 35411 ...
150	101	201

35440 Cemented carbide scriber

Design
- Straight
- Shaft, hexagon, 6 mm
- With cemented carbide tip for marking off hard materials
- With clip

35440

Length mm	35440 ...
150	101

35441 - 35442 Pocket scriber

35441
Design
- Marking-off needle, retractable
- Adjustable tip length
- Strong hold thanks to clamping chuck
- Tip can be reground
- Shaft, hexagon, 8 mm
- With clip

Complete with cemented carbide scriber and pencil lead.

35442
Cemented carbide replacement needle

35441

35442

Length mm	Scriber 35441 ...	Replacement needle 35442 ...
150	101	101

35443 - 35444 Cemented carbide scriber

rico marker
35443
Cemented carbide scriber
Design
- Complete
- Maximum precision
- Cemented carbide tip can be engaged and disengaged
- Scriber lead is adjustable, which means that the cemented carbide tip can be reground to 12 mm after becoming dull
- With clip

35444
Replacement needle
- Solid carbide
- Ø 1.5 x 70 mm

35443

35444

Length mm	Scriber 35443 ...	Replacement needle 35444 ...
165	101	101

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35445 - 35446 Cemented carbide scriber

ATORN®

35445
Cemented carbide scriber
Design
- Metal housing, nickel-plated
- Handle Ø 8 mm
- Replaceable cemented carbide tip
- With clip

35446
Cemented carbide replacement needle
- Ø 2 x 30 mm

35445

35446

	Scriber		Replacement needle	
Length mm	35445	...	35446	...
150		101		101

35447 Cemented carbide scribers

TICOM

Design
- With cemented carbide needle
- Retractable, regrindable and replaceable thanks to drop-down mechanism
- In practical pen form with a pocket clip

Applications
For sharply defined marking off of metals and other materials with smooth surfaces with a hardness up to 60° HRc.

35447 200
TopForm scriber
Design
- Plastic shaft with handily shaped grip zone

35447 201
ErgoPlus scriber
Design
- Aluminium shaft with non-slip grip zone made of plastic

35447 102
Replacement hard metal needles, pack = 5 pieces

35447 200

35447 201

35447 102

	Length mm	Shaft Ø mm	Needle Ø mm	Pack = piece	35447	...
TopForm	150	8.8	2.0	1		200
ErgoPlus	150	8.8	2.0	1		201
Replacement cemented carbide needle	32	-	2.0	5		102

35448 Pica Dry deep hole marker

35448 101
Pica Dry deep hole marker
Design
- Marks and writes on almost all material surfaces (on dry, damp, smooth, rough, dusty, oily, bright or dark surfaces)
- Replaceable special lead made of graphite
- Automatic lead feed - Stainless steel tube
- Integrated sharpener on the front in the protector
- Practical quiver protector with special clip
- Marking on smooth surfaces can be wiped off with a damp cloth

35448 102-105
Pica Dry replacement lead set
Design
- For all surfaces
- Can be wiped off with a damp cloth
- Best output
- Best contrast
- Already sharpened
- Lead diameter 2.8 mm
- In a practical and robust plastic box

35448 102
Comprising:
- 4 graphite leads
- 2 red leads
- 2 yellow leads

35448 103
Comprising:
- 10 graphite leads

35448 104
Comprising:
- 10 red leads

35448 105
Comprising:
- 10 yellow leads

Note:
Red and yellow colour protect against high temperatures.

35448 101

35448 102

35448 103

35448 104

35448 105

	Colour	Pack = pieces	35448	...
Marker	-	-		101
Refill set	Graphite, red, yellow	8		102
Lead set	graphite	10		103
Lead set	red	10		104
Lead set	yellow	10		105

35449 Pica Ink deep hole marker

Design
- Ideal for hard-to-reach areas
- Writes on all dry material surfaces
- Permanent ink, removable with alcohol and spirit
- Marking width 1–2 mm
- Can be left open for 1 day
- Self-adjusting patented stainless steel telescopic tip
- Practical quiver protector with special clip for one-handed operation

35449 101

35449 102

	Colour	35449 ...
Marker	red	101
Marker	black	102

35460 Metal marker pen

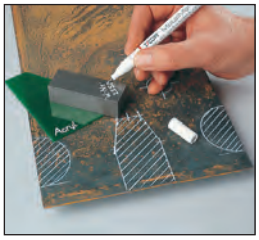
TICOM

Design
- **Draws in white with a super fine line width of only approx. 0.8 mm**
- Permanent coverage, light-resistant, quick drying
- Easy to remove with organic solvents such as washing solvent or toluene

Applications
Ideal for high-contrast marking of metals with rolled, dark or slightly rusted surfaces. Also adheres to many other materials on which white labelling is easier to read.

Note:
Not suitable for use on paper.

35460



Length mm	Shaft Ø mm	Weight g	Pack = piece	35460 ...
133	11	15	1	101

35480 - 35481 Precision marking gauge

35480
Design
- Slider manufactured from one piece
- With locking screw
- The guide roller ensures proper parallel guidance
- Stainless steel, mm graduation, brushed chromium-plated

Applications
For marking off arcs and parallels.

35481
Replacement tip, individual

35480

35481

		Marking gauge	Replacement tip	
Measuring range mm	Reading mm	35480 ...	35481	...
0–200	0.01	101	101	

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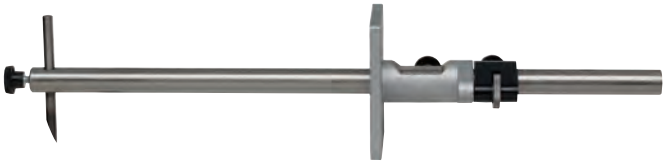
35490 Precision marking gauge

HELIOS·PREISSER

Design
- **With fine adjustment** and guide groove
- Round measuring rod made of **stainless steel** with mm graduation
- Cast iron slider with rectangular stop plate
- Interchangeable, hardened scribing tip

35490



Measuring range mm	Measuring rod Ø mm	Reading mm	35490	...
300	11	0.1		202

35492 Marking gauges

Design
- Flat**, rust-free,** matt finished
- Hardened marking edge
- Millimetre pitch
- Without fine adjustment

35492

Measuring length mm	Rail section mm	35492	...
200	40 x 3		201
250	40 x 3		202
300	40 x 3		203

35600 - 35601 Dividers

Design
- With rivet hinge
- Box joint
- Hardened tips

Quality
Chrome plated square arm.

35600
Divider DIN 6486

35601
Divider with arc DIN 6486

35600

35601

	Without arc		With arc	
Length mm	35600	...	35601	...
150		102		102
200		104		104
250		105		105
300		106		106
400				107

35630 - 35632 Precision spring dividers

Design
- Extra strong, angular arms
- Continuous spindle
- With quick-action lock nut
- Tips and measuring surfaces hardened

35630

35631

35632

	Divider		Inside divider		Outside calliper	
Length mm	35630	...	35631	...	35632	...
125		102				
150		103		103		103
200		105		105		105
300		108		108		108

Compasses | Compass vernier callipers | Rulers

35681 - 35683 Beam compasses

HELIOS·PREISSER

35681
Design
- **With fine adjustment** and guide groove
- Round measuring rod made of special steel with mm graduation
- Aluminium slider
- With locking screw
- Exchangeable, hardened scribing tips

35682
Replacement tips
- **Hardened**
- Up to measuring range of 3000 mm
- Ø 6 mm
- Pairs

35683
Replacement tips
- **Cemented carbide tipped**
- Up to measuring range of 3000 mm
- Ø 6 mm
- Pairs

35681

35682

35683

Measuring range mm	Measuring rod Ø mm	Reading mm	Compass 35681	...	E-tips steel 35682	...	E-tips cemented carbide 35683	...
500	20	0.1		201		101		101
1000	20	0.1		202		101		101
1500	20	0.1		203		101		101
2000	20	0.1		204		101		101
3000	28	0.1		205		101		101

35701 Precision compass vernier callipers

HHW

Design
- **With carbide tips**
- Gauge bar and spout made of one piece
- Slider manufactured from one piece
- Marking-off tip (measuring surfaces) hardened and precision ground

Applications
Precision marking off thanks to parallel positioning of the marking-off arm.

Quality
Special steel.

35701

Measuring range mm / Ø mm	Reading mm	Jaw length mm	Weight approx. g	35701	...
150 / 300	0.1	40	150		101
200 / 400	0.1	40	180		102
300/600	0.1	40	250		104

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36005 - 36006 Workshop straight edges DIN 874/2

Design
- **Accuracy in accordance with DIN 874/2**
- Top edges finely ground
- **With factory test protocol**

Applications
For general work.

Note:
Other dimensions available on request.

36005

Length mm	⫫ approx. mm	Normal steel 36005	...	Stainless steel 36006	...
500	30 x 6		101		101
1000	40 x 8		102		102
1500	50 x 10		103		103

Length mm	⫫ approx. mm	Normal steel 36005	...	Stainless steel 36006	...
2000	60 x 12		104		104
2500	70 x 14		105		105
3000	80 x 15		106		106

36010 - 36011 Workshop straight edges DIN 874/1

Design
- **Accuracy in accordance with DIN 874/1**
- Test surfaces carefully adjusted
- Flat sides finely ground
- From 2000 mm length, double T-shaped and with hand slots
- **With factory test protocol**

Applications
For precision mechanical engineering.

Note:
Other dimensions available on request.

36010 - 36011

Length mm	⫫ approx. mm	Normal steel 36010	...	Stainless steel 36011	...
500	40 x 8		101		101
1000	50 x 10		102		102
1500	60 x 12		103		103

Length mm	⫫ approx. mm	Normal steel 36010	...	Stainless steel 36011	...
2000	70 x 14		104		104
2500	80 x 15		105		105
3000	100 x 16		106		106

36015 - 36016 Normal straight edges DIN 874/0

Design
- **Accuracy in accordance with DIN 874/0**
- Test surfaces carefully adjusted
- Flat sides ground
- **With factory test protocol**

Note:
Other dimensions available on request.

36015 - 36016

Length mm	⫫ approx. mm	Normal steel 36015	...	Stainless steel 36016	...
500	50 x 10		101		101
1000	60 x 12		102		102
1500	70 x 14		103		103

Length mm	⫫ approx. mm	Normal steel 36015	...	Stainless steel 36016	...
2000	80 x 15		104		104
2500	100 x 16		105		105
3000	120 x 18		106		106

36060 - 36062 Straight edges DIN 874/00

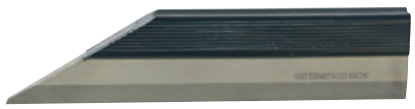
ATORN®

Design
- **Accuracy in accordance with DIN 874/00**
- Measuring surfaces hardened, ground and lapped
- Wedge-shaped cross section, pointed end
- With insulated handle
- In case

Applications
To check evenness using the light gap method.

36060

36062



Length mm	Normal steel 36060	...	Stainless steel 36062	...
75		101		101
100		102		102
125		103		103
150		104		104

Length mm	Normal steel 36060	...	Stainless steel 36062	...
200		105		105
300		106		106
400		107		107
500		108		108

Squares

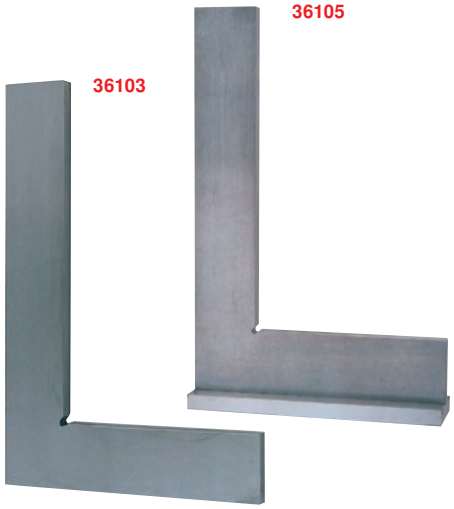
36103 - 36105 Metalwork squares

Design
- Trued to 90°

Applications
Only for the simplest metalwork.

Quality
Steel, up to 1000 x 500 mm bright zinc-plated and rust protected.

Note:
Cannot be calibrated.



Arm length mm	Arm ⌑ mm	Without stop 36103	...	With stop 36105	...
100 x 70	20 x 5		101		101
150 x 100	20 x 5		102		102
200 x 130	20 x 5		103		103
250 x 160	25 x 5		104		104
300 x 180	25 x 5		105		105
400 x 230	30 x 5		106		106
500 x 280	30 x 5		107		107
750 x 375	30 x 5		108		108
1000 x 500	30 x 5		109		109
1500 x 750	30 x 5		110		110
2000 x 1000	40 x 5		111		

36111 - 36113 Workshop squares DIN 875/2

ATORN®

Design
- **Accuracy in accordance with DIN 875/2**
- Top edges and flat sides ground

Applications
For general work.

Quality
Normal steel.

Arm length mm	Arm ⌑ mm	Without stop 36111	...	With stop 36113	...
100 x 70	20 x 5		101		101
150 x 100	25 x 5		102		102
200 x 130	30 x 6		103		103
250 x 165	35 x 7		104		104
300 x 175	35 x 7		105		105
500 x 250	40 x 8		107		107
600 x 300	40 x 8		108		108
750 x 375	45 x 10		109		109
1000 x 500	50 x 10		110		110

36100 - 36101 Workshop squares DIN 875/1

HHW

Design
- **Accuracy in accordance with DIN 875/1**
- Lasered scaling, mm graduation

Quality
Hard-coded aluminium (HRC63).
Scratch-resistant, black anodised surface.

NEW

Arm length mm	Without stop 36100	...	With stop 36101	...
75 x 50		101		101
100 x 70		102		102
150 x 100		103		103
200 x 130		104		104
250 x 165		105		105
300 x 200		106		106
400 x 265		107		107
500 x 330		108		108

36115 - 36119 Workshop squares DIN 875/1

ATORN®

Design
- **Accuracy in accordance with DIN 875/1**
- Top edges and flat sides finely ground

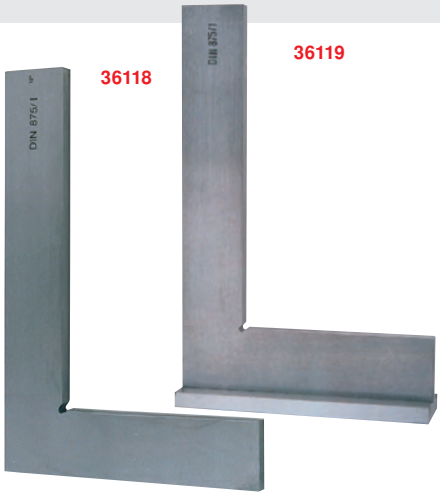
Applications
For precision mechanical engineering.

36115
Design
Without stop.
Quality
Normal steel.

36117
Design
With stop.
Quality
Normal steel.

36118
Design
Without stop.
Quality
Stainless steel.

36119
Design
With stop.
Quality
Stainless steel.



		Without stop/steel		With stop/steel		Without stop/stainless steel		With stop/stainless steel	
Arm length mm	Arm ⊔ mm	36115	...	36117	...	36118	...	36119	...
75 x 50	15 x 5		101		101		101		101
100 x 70	20 x 5		102		102		102		102
150 x 100	25 x 5		103		103		103		103
200 x 130	30 x 6		104		104		104		104
250 x 165	35 x 7		105		105		105		105
300 x 200	40 x 8		106		106		106		106
500 x 330	50 x 10		108		108		108		108
750 x 500	60 x 12		110		110				
1000 x 660	70 x 15		111		111				

36120 - 36122 Normal squares DIN 875/0

ATORN®

Design
- **Accuracy in accordance with DIN 875/0**
- With factory calibration certificate
- Measuring surfaces lapped
- Lateral surfaces finely ground

Applications
Suitable for inspection and mechanical engineering.

Quality
Steel.

		Without stop		With stop	
Arm length mm	Arm ⊔ mm	36120	...	36122	...
75 x 50	15 x 5		101		101
100 x 70	20 x 5		102		102
150 x 100	25 x 5		103		103
200 x 130	30 x 6		104		104
250 x 165	35 x 7		105		105
300 x 200	40 x 8		106		106

36135 - 36136 Hardened precision squares DIN 875/0

ATORN®

Design
- **Accuracy in accordance with DIN 875/0**
- With factory calibration certificate
- Precisely adjusted
- Measuring surfaces lapped
- Lateral surfaces finely ground

Quality
Stainless steel.

		Without stop		With stop	
Arm length mm	Arm ⊔ mm	36135	...	36136	...
50 x 40	12 x 5		101		101
75 x 50	15 x 5		102		102
100 x 70	20 x 5		103		103
150 x 100	25 x 5		104		104
200 x 130	30 x 6		105		105

Measuring instrument set | Squares

36139 Measuring instrument set

Design
5 pieces, comprised of:
1 straight edge, carbon steel,
DIN 874, length 100 mm,
1 knife-edge square, rust-proof,
DIN 875/00, 75 x 50 mm,
2 incision squares,
rust-proof, 25 x 20 and 40 x 28 mm,
1 end gauge scribing tip,
60 x 8 x 8 mm.

Set contents	36139 ...
5 pieces	101

36142 Precision knife-edge square DIN 875/00

Design
- **Accuracy in accordance with DIN 875/00**
- Precisely adjusted
- Test surfaces lapped, fully hardened, with weak and strong arms, **stop** and **2 hairline measuring edges**

Quality
Stainless steel.

Arm length mm	Arm ⊓ mm	36142 ...
50 x 40	16 x 2/14 x 10	101
75 x 50	15 x 2/14 x 10	102
100 x 70	19 x 3/18 x 12	103
150 x 100	25 x 3/24 x 12	104
200 x 130	29 x 4/28 x 16	105

36151 - 36152 Knife-edge square DIN 875/00

36151
Design
- Accuracy in accordance with DIN 875/00
- Fully hardened
- With **2 hairline measuring edges**
- Top edges and flat sides ground and lapped

Applications
For tests using the light gap method.

Quality
Stainless steel.

36152
Wooden case

		Knife-edge square	Wooden case	
Arm length mm	Arm ⊓ mm	36151 ...	36152 ...	
50 x 40	13 x 4	101	106	
75 x 50	15 x 5	102	107	
100 x 70	20 x 6	103	108	
150 x 100	25 x 7	104	109	
200 x 130	33 x 7	105	110	

36153 Incision square DIN 875/00

Design
- Accuracy in accordance with DIN 875/00
- Top edges and flat sides precisely and very finely ground
- With a hairline measuring edge inside the long arm
- Without stop

Applications
For checking surfaces on cutting, punching and embossing tools. As a normal square with 90°.
For device and tool manufacture.

Quality
Stainless steel.

Arm length mm	Arm ⊓ Short/long arm mm	36153 ...
25 x 20	6.0 x 3.5/5.0 x 3.5	201
40 x 28	6.0 x 3.5/5.5 x 3.5	202

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36154 Adjustable knife-edge square

Design
- **Error limit in accordance with DIN 875 GG 0**
- Hardened and ground
- The double-tightening claw prevents deflection of the thin measuring arm during tightening, with consistent precision
- Supplied in a case

Applications
Multiple use in tool, punch and die and device manufacture.

36154

Straight edge mm	Basic body mm	36154	...
60 x 4 x 4	40 x 22 x 10		101

36171 Hexagonal angle 120° DIN 875/2

Design
- **Accuracy in accordance with DIN 875/2**
- Top edges and flat sides finely ground

Applications
For precise marking off and inspection of 60° or 120°.

36171

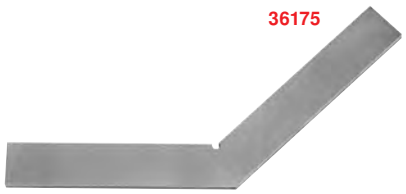
Arm length mm	Arm ⫫ mm	36171	...
75 x 75	18 x 5		201
100 x 100	20 x 5		202

36175 Octagonal angle 135° DIN 875/2

Design
- **Accuracy in accordance with DIN 875/2**
- Top edges and flat sides finely ground

Applications
For precise marking off and inspection of 45° or 135°.

36175



Arm length mm	Arm ⫫ mm	36175	...
75 x 75	18 x 5		201
100 x 100	20 x 5		202

36181 Mitre square 135° DIN 875/2

Design
- With stop
- **Accuracy in accordance with DIN 875/2**
- Top edges and flat sides finely ground
- With equally strong arms

Applications
For precise marking off and inspection of 45° or 135°, for 90° corner joints.

36181

Arm length mm	Arm ⫫ mm	36181	...
150 x 100	20 x 5		102
200 x 130	25 x 5		103

36182 Flange angle

Applications
For installers.
Special tool for aligning the flanges.

Quality
Normal steel, zinc-plated.

Note:
Cannot be calibrated.

36182

Arm length mm	Arm ⫫ mm	36182	...
300	30 x 5		100
400	30 x 5		101

36186 Centring angle

Design
- Lasered scaling, mm graduation

Quality
Hard-coded aluminium (HRC63).
Scratch-resistant, black anodised surface.

36186

Arm length mm	For shafts to Ø mm	36186	...
100 x 70	90		101
150 x 130	190		102
200 x 150	220		103
250 x 160	230		104

Arm length mm	For shafts to Ø mm	36186	...
300 x 180	280		105
400 x 240	400		106
500 x 300	520		107

Squares | Prisms | Precision vices

36188 Folding square

Design
- **3 pieces**
- With locking screw

Applications
Can be set to any angle and locked with a wing nut.

36188

Length mm	Shaft ⌷ mm	36188 ...
200	22 x 9	**103**
300	30 x 9	**104**
500	30 x 9	**106**

36191 - 36194 Angle plate DIN 876

Design
- Fixed, 90°, with clamping slots
- **Evenness in accordance with DIN 876**
- **Angular deviation in accordance with DIN 875**
- 2 sides, exact

Applications
For marking off and inspection work.
Also suitable as a clamping device for millers, planers and drills.

Quality
Dense special cast iron with high wear resistance.

Note:
Angle plates with different accuracies, larger dimensions and with T-clamp slots in accordance with DIN 650 in the clamping surface are available on request.

36191
Design
- **Quality 1**
- Base and clamping surface, polished

36194
Design
- **Quality 3**
- Base and clamping surface, finely milled

36191 - 36194

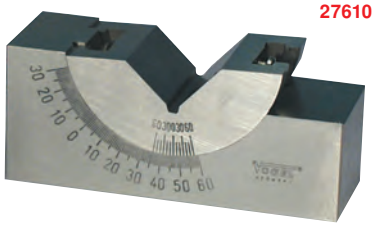
L x W x H approx. mm	Weight approx. kg	Quality 1 36191 ...	Quality 3 36194 ...
200 x 100 x 150	8	**102**	**102**
275 x 150 x 200	20	**103**	**103**
400 x 225 x 300	45	**105**	**105**

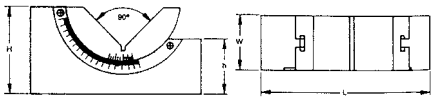
27610 Adjustable optical squares

Design
- **Accuracy +/- 0.1 mm**
- **Angular accuracy +/- 10 min**

Applications
Universal use for grinding, drilling, measuring and marking off. The prism is clamped in a vice. The desired angle is set and locked with a locking screw.
Quality
Alloyed tool steel, hardened to HRC 55.

27610





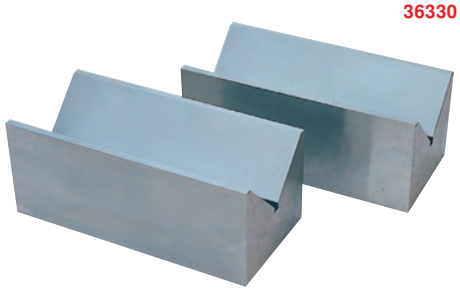
Length mm	W mm	H mm	h mm	Weight approx. g	27610 ...
75	25	33	23	380	**101**
102	30	46	29	850	**102**

36330 Hardened vee block pairs (single prisms)

Design
- **Paired**
- 90° grooves
- In precision design, made of steel
- **Finely ground and adjusted in pairs**
- **Accuracy 0.004 mm**

Applications
For inspection, marking off and straightening work on cylindrical parts.

36330



Length mm	W x H mm	For workpiece Ø mm	36330 ...
75	35 x 30	5–40	**201**
100	47 x 40	5–55	**202**
150	55 x 45	5–60	**203**
200	65 x 55	5–75	**204**
250	85 x 70	5–100	**205**

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36332 - 36335 Vee block pairs (single prisms)

Design
- **Paired**
- Approx. 90° grooves

Applications
For inspection, marking off and straightening work on cylindrical parts.

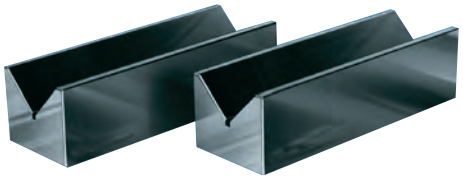
Quality
Made of dense special cast iron with high wear resistance.

Note:
Larger prism pairs up to 450 mm workpiece Ø are available on request.

36332
Design
- **Quality 1**
- Groove and base area ground
- **Parallelism deviation max. 0.016 mm**

36335
Design
- **Quality 3**
- Groove and base area finely milled
- **Parallelism deviation max. 0.06 mm**

36332 - 36335



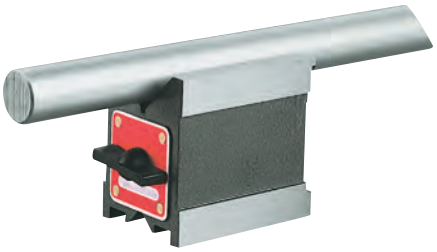
			Quality 1		Quality 3	
Length mm	Width mm	For workpiece Ø mm	36332	...	36335	...
100	40	6–40		102		102
150	50	8–50		103		103
200	70	8–70		104		104
300	100	12–100		106		106

36338 Permanent magnetic prism block

Design
- Unhardened
- **Individual**
- 3 clamping surfaces with 2 prisms above and below
- Including on/off rotary switch

Applications
For measuring, testing and other purposes.

36338



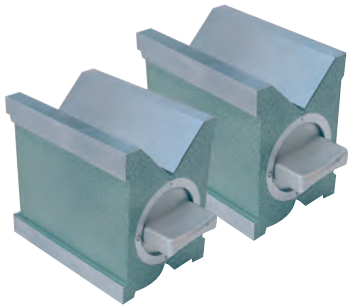
Parallelism mm/100 mm	Angularity mm/100 mm	Adhesive force N	L x W x H mm	Weight kg	36338	...
0.025	0.025	2000	100 x 70 x 95	4		101

36341 Magnetic measuring and clamping prisms (pair)

Design
- **Paired**
- **Measuring surfaces and prism hardened, ground**
- Prism processed with the highest precision, **exactly even on all sides, parallel, precisely angled and finely ground**
- With magnet that can be switched off with a rotary switch
- The face opposite the switch is designed as a magnetic surface
- Adhesive force of cylindrical parts in the prism approx. 400 N
- Supplied in a wooden case

applications
For material Ø 6–70 mm.
For measuring, marking off and processing workpieces on machine tools.

36341



Accuracy mm	Adhesive force on the surface approx. N	L x W x H mm	Weight kg/piece	36341	...
0.004	1800	100 x 70 x 96	3.8		102

36342 Hardened double vee block pairs with clamping bracket

ATORN®

Design
- With clamping bracket
- Evenness, parallelism and perpendicularity tolerance **0.004 mm**
- 2 x 90° incisions
- Machined in pairs
- Side, front and standing surfaces at angles

Quality
Special steel, hardened.

36342

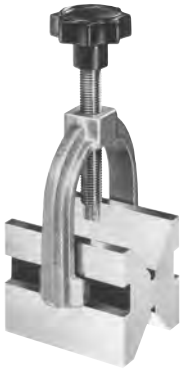
Length mm	Width mm	Height mm	For workpiece Ø mm	36342 ...
60	40	58	5–30	101
75	54	70	5–50	102
100	75	96	7–70	103

36343 - 36344 Hardened vee block pairs

Design
- In the finest precision design
- With clamping bracket
- **Pairs**
- **Finely ground** and adjusted
- With 2 different large incisions
- 90° grooves

36343
Design
- Accuracy 0.01 mm

36344
Design
- Accuracy 0.004 mm



36343 - 36344

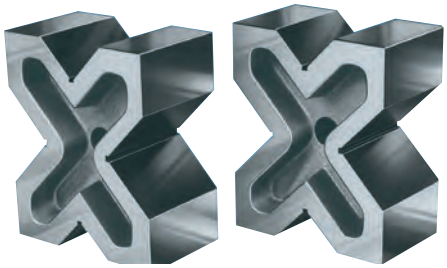
Length mm	Width mm	Height mm	For workpiece Ø mm	36343 ...	36344 ...
50	40	40	5–30		101
50	40	50	5–30	101	
75	55	55	5–50	102	102
100	75	75	7–70	103	103

36383 Quadruple prisms (parallel pieces) DIN 876/1

Design
- **Pairs**
- 4 grooves, approx. 90°
- **Parallelism deviation** of vee grooves in comparison to base area max. 0.016 mm
- **Accuracy class 1**

Quality
Made of dense special cast iron with high wear resistance.

Note:
Other accuracies available on request.



36383

Length mm	Width mm	Height mm	For workpiece Ø mm	36383 ...
60	100	120	8–90	101
75	130	150	10–120	102
90	170	200	12 - 180	103

36385 Precision vices (mini)

Design
- With threaded spindle
- With horizontally and vertically ground prism
- Supplied with 1 plain jaw and 1 prism jaw
- With clamping grooves on the long sides

Applications
For clamping small parts on profile projectors, measuring microscopes and for various other applications.

36385 201

36385 202-203

36385 204

Jaw width mm	Material	L x W x H mm	Clamping width mm	Clamping depth mm	Angular accuracy mm	36385 ...
15	Brass, matt chrome plated	50 x 15 x 15	14	8	0.02	201
25	Aluminium, matt anodised	75 x 25 x 25	23	15	0.02	202
35	Aluminium, matt anodised	100 x 35 x 35	32	21	0.02	203
35	Stainless steel	100 x 35 x 35	32	21	0.02	204

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36600 Precision parallel rest sets

Design
- Pairs
- Plane parallel, finely ground
- Size specifications on the face
- Sets cover a wide range with 1 mm increment
- Case-hardened.
- Nominal dimensional tolerance +/- 0.01 mm
- Remaining dimensions in accordance with **DIN ISO 2768 m**
- In wooden holder

Applications
For clamping and positioning a wide range of workpieces, e.g. when grinding, milling, eroding, measuring and marking off.
In connection with corresponding clamping tools such as the precision grinding and eroding vice, ideal for exact-angle or exact-parallel processing of a wide range of workpieces.

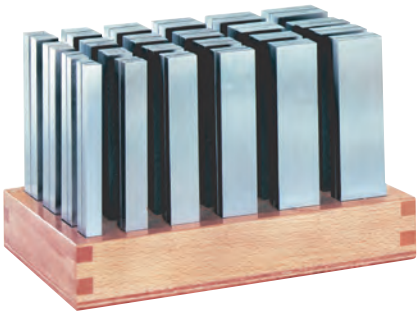
Note:
Designs of special dimensions, in high precision or as individual pairs available on request.

36600 101
Design
Length 100 mm.
Box contents one pair each:
2 x 5 / 2 x 10 / 2 x 15 / 2 x 20 / 3 x 6 / 3 x 11 / 3 x 16 / 3 x 21 / 4 x 7 / 4 x 12 / 4 x 17 / 4 x 22 / 5 x 8 / 5 x 13 / 5 x 18 / 5 x 23 / 6 x 9 / 6 x 14 / 6 x 19 / 6 x 24 mm.

36600 103
Design
Length 125 mm.
Box contents one pair each:
8 x 11 / 8 x 16 / 8 x 21 / 8 x 26 / 8 x 31 / 8 x 36 / 10 x 13 / 10 x 18 / 10 x 23 / 10 x 28 / 10 x 33 / 10 x 38 / 12 x 15 / 12 x 20 / 12 x 25 / 12 x 30 / 12 x 35 / 12 x 40 / 14 x 17 / 14 x 22 / 14 x 27 / 14 x 32 / 14 x 37 / 14 x 42 mm.

36600 102
Design
Length 150 mm.
Box contents one pair each:
8 x 11 / 8 x 16 / 8 x 21 / 8 x 26 / 8 x 31 / 8 x 36 / 10 x 13 / 10 x 18 / 10 x 23 / 10 x 28 / 10 x 33 / 10 x 38 / 12 x 15 / 12 x 20 / 12 x 25 / 12 x 30 / 12 x 35 / 12 x 40 / 14 x 17 / 14 x 22 / 14 x 27 / 14 x 32 / 14 x 37 / 14 x 42 mm.

36600



Pair tolerance in height mm	Length mm	Contents pairs	36600	...
IT 5	100	20		**101**
IT 5	125	24		**103**
IT 5	150	24		**102**

36602 Parallel rest sets

Design
- Case-hardened and ground
- Contact surfaces finely ground
- **Nominal dimensional tolerance** up to height of 30 mm = **+/- 0.2 mm,** from height 35 mm = **+/- 0.3 mm.**
- Nominal dimensions in accordance with **ISO 2768 m**
- In wooden case with removable hinged lid

Contents:
1 pair each (= 14 pairs).
Height of the measuring surfaces mm:
14/16/18/20/22/
24/26/28/30/32/35/40/45/50.

36602

Pair tolerance in height mm	Length mm	Width mm	Contents pairs	36602	...
0.01	150	10	14		**101**

36615 Parallel rest sets

Design
- Case-hardened and ground
- Contact surfaces finely ground
- Nominal size tolerance in height +/- 0.004 mm
- Nominal length and width in accordance with **ISO 2768 m**
- In wooden case with removable hinged lid

Applications
As shims for workpieces for a wide range of different machining processes. Thanks to the constant width, the parallel rests can be built up in height. Thanks to the removable hinged lid, the set can be stored open in the tool cabinet.

Contents:
1 pair each (= 14 pairs).
Height of the measuring surfaces mm: 14/16/18/20/22/24/26/28/30/32/35/40/45/50.

36615

Pair tolerance in height mm	Length mm	Width mm	Contents pairs	36615	...
0.004	150	10	14		**101**

Marking-off and test plates | Measuring and control plates

36760 - 36761 Marking-off and test plates DIN 876/0 and 876/3

Design
- Evenness in accordance with DIN 876-2
- Rib construction

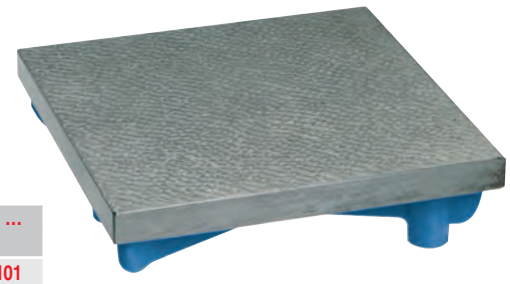
Quality
Made of special cast iron.

Note:
We recommend using base frames. These as well as different sizes and accuracies are available on request.

36760
Accuracy DIN 876/0, scraped.

36761
Accuracy DIN 876/3, ground.

36760 - 36761



Dimension approx. mm	Weight approx. kg	DIN 876/0 36760	...	DIN 876/3 36761	...
300 x 300	15		101		101
400 x 400	35		102		102
500 x 400	40				103
600 x 500	65				104
800 x 500	95				105

36763 Hard stone measuring and control plates DIN 876/0 with floor unit

ATORN®

Design
- **Accuracy DIN 876/0**
- Fine diamond lapped
- Diamond-lapped measuring surfaces guarantee long service life
- Measuring and control plates made of **hard stone** are manufactured in climate and humidity-controlled rooms
- Vickers hardness HV: 850-900
- Tensile bending strength: 13–22 N/mm²
- Absolute warping resistance, temperature-insensitive, hard and wear-resistant, electrically non-conductive, absolutely acid resistant
- Housing RAL 7035, light grey
- Drawers RAL 5010, gentian blue
- **Supplied with factory calibration certificate**

Quality
Made of hard stone, diamond lapped, made of specially selected material of the highest quality, completely free of errors.

36763 101
Scope of delivery:
1 x hard stone plate, 1 x table bearing (3 pieces), 1 x floor unit with level adjustment (20 mm),
3 drawers:
- 1 x VA 100/120, 100 kg,
- 1 x VA 130/150, 100 kg,
- 1 x VA 130/240, 100 kg.

36763 101

36763 102
Scope of delivery:
1 x hard stone plate, 1 x table storage (5 pieces), 1 x floor unit with level adjustment (20 mm)
3 drawers:
- 1 x VA 100/120, 100 kg,
- 1 x VA 130/150, 100 kg,
- 1 x VA 130/180, 100 kg.

36763 102

Hard stone plate Dimensions W x D x H approx. mm	Evenness mm	Weight approx. kg	Floor unit Dimensions W x D x H mm	Weight approx. kg	DIN 876/0 36763	...
1000 x 630 x 100	0.008	189	920 x 553 x 720	140		101
1200 x 800 x 160	0.009	460	1100 x 703 x 660	180		102

36762 Hard stone measuring and control plates DIN 876/0

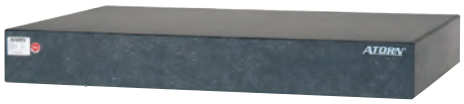
ATORN®

Design
- Accuracy DIN 876/0
- Fine diamond lapped
- Diamond-lapped measuring surfaces guarantee long service life
- Measuring and control plates made of **hard stone** are manufactured in climate and humidity-controlled rooms
- Vickers hardness HV: 850-900
- Tensile bending strength: 13–22 N/mm²
- Absolute warping resistance, temperature-insensitive, hard and wear-resistant, electrically non-conductive, absolutely acid resistant
- Blue-black colour
- Supplied with factory calibration certificate

Quality
Made of hard stone –diamond lapped, made of specially selected material of the highest quality, completely free of errors.

Note:
Installation *on pedestals, base frames and cabinet bases* ***is carried out by means of steel ball inserts. These are included in the scope of delivery from size 1000 x 630 x 100 mm.*** *The steel ball inserts are positioned on the bottom of the plate in such a way that they fit for* ***base frames (art. no. 36768)*** *and individual supports (on request).*

36762



Dimensions W x D x H approx. mm	Evenness mm	Weight approx. kg	DIN 876/0 36762	...
400 x 400 x 50	0.006	25		103
630 x 400 x 70	0.007	53		106
1000 x 630 x 100	0.008	189		108
1200 x 800 x 160	0.009	460		109

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

36765 - 36766 Hard stone measuring and control plates DIN 876/1 and 876/0

PLANOLITH

Design
- Diamond-lapped measuring surfaces guarantee long service life
- Measuring and control plates made of **hard stone** are manufactured in climate and humidity-controlled rooms
- Vickers hardness HV: 850-900
- Tensile bending strength: 13–22 N/mm²
- Absolute warping resistance, temperature-insensitive, hard and wear-resistant, electrically non-conductive, absolutely acid resistant
- Blue-black colour
- **Supplied with factory calibration certificate**

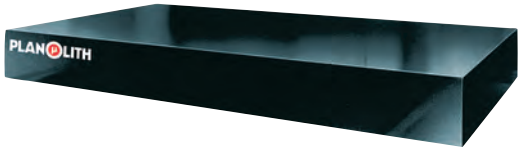
Quality
Made of hard stone –diamond lapped, made of specially selected material of the highest quality, completely free of errors.

Note:
Installation *on pedestals, base frames and cabinet bases* ***is carried out by means of steel ball inserts. These are included in the scope of delivery*** *(with the exception of end no. 101 + 102). The steel ball inserts are positioned on the bottom of the plate in such a way that they fit for base frames (art. no. 36768) and individual supports (on request). The plates are also available with T-grooves. Service: Use our measuring plates processing service. Our fitters will come to you and perform follow-up work on site. No packaging, no transportation, no loss of working hours.*

36765
- **Accuracy DIN 876/1**
- Diamond lapped

36766
- **Accuracy DIN 876/0**
- Fine diamond lapped

36765 - 36766

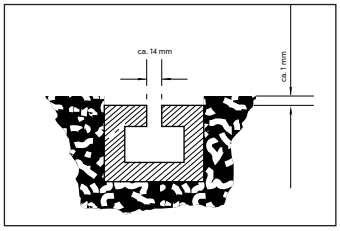


Dimension approx. mm	DIN 876/1 Evenness mm	DIN 876/0 Evenness mm	Weight approx. kg	DIN 876/1 36765	...	DIN 876/0 36766	...
250 x 250 x 50	0.012	0.005	10		101		101
400 x 250 x 50	0.014	0.006	15		102		102
400 x 400 x 50	0.014	0.006	25		103		103
500 x 400 x 90	0.015	0.006	55		104		104
600 x 500 x 100	0.016	0.007	90		105		105
800 x 600 x 120	0.018	0.007	173		106		106
1000 x 630 x 100	0.02	0.008	189		107		107
1200 x 800 x 160	0.022	0.009	460		108		108
1600 x 1000 x 160	0.025	0.01	768		109		109
2000 x 1000 x 220	0.03	0.012	1320		110		110

Info Clamping and guide T-slot bars DIN 650

Design
Steel, anti-glare brushed chromium-plated, guide and clamping T-slots ground; the nominal size 14 mm is only an approx. size. Accessories such as tailstocks and similar are precisely adapted to this actual size, **accuracy 0.01 mm/m.**

Applications
For natural hard stone test plates, for mounting tailstocks, etc.
For plate length mm:
600/630/800/1000/1200/1500/1600/2000.



36768 Base frames for measuring and control plates

Design
- Stable welded construction, including bearing set (3-point contact and 2 adjusting screws as tipping protection)
- **Top edge of measuring plate approx. 900 mm**
- Silver grey paint

Applications
For measuring and control plates
(art. no. 36762, 36765 and 36766).

Quality
Sectional steel.

Note:
Special paints are available on request.

36768

Delivery **without** measurement and control plate (available separately, art. no. 36762, 36765 and 36766)

For plate size approx. mm	Weight approx. kg	36768	...
400 x 400 x 50	20		101
500 x 400 x 90	20		102
600 x 500 x 100/630 x 400 x 70	22		103
800 x 600 x 120	25		106
1000 x 630 x 100	28		107
1200 x 800 x 160	30		112
1600 x 1000 x 160	35		115
2000 x 1000 x 220	40		116

Measuring angles | Cleaning/care products | Marker dyes | Surface contact paste | Solvent spray | Concentricity test devices

36781 Natural hard stone measuring angle of 90° DIN 875/00

ATORN®

Design
- **Exactly 2-sided**
- Hard and wear-resistant
- **Surface accuracy in accordance with DIN 876/00**
- Extra fine diamond lapped
- Angularity in accordance with DIN 875
- From arm length 600 x 400 mm with weight-reducing holes, which also serve as recessed handles for better handling

Applications
For checking the 90° angle and straightness. E.g., for the assembly and removal of machine tools and for inspecting workpieces, machine elements, etc. on measurement and control plates. Can be used horizontally and vertically.

Note:
Other dimensions available on request.

36781

Arm length mm	Width mm	Permissible deviation of the perpendicularity mm	Weight-reducing holes mm	Weight approx. kg	DIN 875/00 36781	...
400 x 250	50	0.003	-	10		101
500 x 300	60	0.004	-	17		102
600 x 400	70	0.005	2 x Ø 110	30		103
800 x 500	80	0.006	2 x Ø 130	55		104

36793 Cleaning/care products for hard stone test plates

36793 101
Cleaning agent
DURALIN
Design
- In plastic container, approx. 5 l

Applications
The liquid removes dirt, oil, surface contact dye, etc. and ensures that measuring and marking tools move smoothly over the plate.

36793 300
Care product
Design
- In 500 ml spray bottle

Applications
The liquid reduces wear and tear on the test plate and ensures smooth movement of the measured objects and specimens.

36793 101 36793 300

Type	Design	Contents	36793	...
Cleaning agent	Container	5 l		101
Care product	Spray bottle	500 ml		300 NEW

36795 Marker dye/marking stick

Applications
For marking machining points on metal surfaces. Ensures easy, clear marking off.

36795 101
Marker dye
Design
In pot, liquid, quick drying, well adhering. Apply with brush.

36795 102
Marking stick

36795 101

36795 102

	Contents ml	Colour	36795	...
Marker dye	500	blue		101
Marking stick	-	blue		102

36796 Marker-dye spray

Design
- In spray can
- Quick drying
- Optimal contrast effect
- Long lasting
- Filled with environmentally neutral release agent
- Flammable

Applications
For all metals.

36796

Contents ml	Colour	36796	...
400	blue		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

36798 Surface contact paste

Applications
For surface inspection. The evenness of the colour layer provides information about the processing quality.

36798 101

36798 102

Contents	Colour	36798	...
60 g tube	blue		101
225 g can	blue		102

36799 Solvent spray

Design
- Highly flammable

Applications
For general cleaning, particularly for removing marker dye.

36799

Content ml	36799	...
400		101

36855 Concentricity test benches

HELIOS·PREISSER

Design
- Contact surface finely ground
- **Evenness in accordance with DIN 876/2**
- With 2 slidable tailstocks
- Left tailstock with fixed tip
- Right tailstock with spring-loaded tip, travel approx. 15 mm
- Tailstocks can be locked using eccentric clamping
- Lateral T-groove with measuring stand, dial gauge mount 8 mm H7 and fine adjustment

36855 100
Design
Additionally with vee-block support.

Note:
Accessories such as tailstocks with collet chuck device, prismatic inserts, vee blocks and roller blocks with ball bearings are available on request.

36855 099

Tip height mm	Tip width mm	T-groove width mm	Base plate mm	Weight kg	36855	...
50	200	10	350 x 110	8		099
75	350	10	500 x 110	12		100
100	450	12	700 x 180	35		102
150	450	12	700 x 180	38		103

Info

Additional concentricity test devices and accessories such as tailstocks, prismatic inserts and vee blocks are available on request.

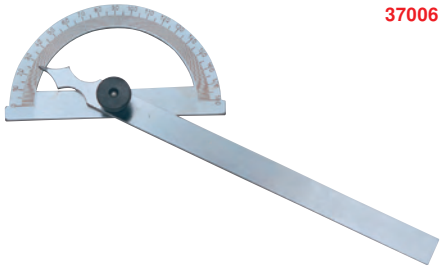
Please contact us!

37006 Goniometer

ATORN®

Design
- With 0–180° degree division and locking screw

Quality
Chrome-plated carbon steel, anti-glare scale, brushed chromium-plated.



37006

Degree arc Ø mm	Rail length mm	37006	...
80	120		101
120	150		102
150	200		103
200	300		104

37007 Protractor

H:W

Design
- With 0–180° degree division
- Scale interval 1°
- Lasered scaling, mm graduation

Quality
Hard-coded aluminium (HRC63). Scratch-resistant, black anodised surface.

NEW

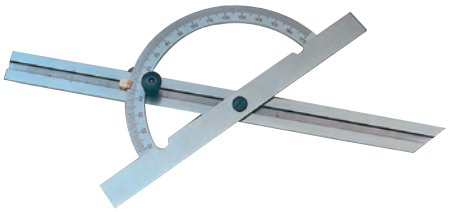
37007

Degree arc Ø mm	Rail length mm	37007	...
80	120		101
120	150		102
150	200		103
200	300		104
300	500		105

37008 Universal adjustable square

Design
- With 10–170° degree division
- Longitudinally adjustable and lockable rail
- Rail end bevelled 45°

Quality
Chrome-plated carbon steel, anti-glare scale, brushed chromium-plated.



37008

Degree arc Ø mm	Rail length mm	37008	...
100	150		101
150	300		102
200	400		103
300	600		105

37013 - 37019 Precision universal goniometer set

37013
Design
- **With fine adjustment**
- Division of the base plate 4 x 90°
- Reading precision 1/12° = 5 arc minutes
- **Parallax-free reading thanks to adjacent vernier scale** (as a result, reading errors are largely eliminated)
- Hardened measuring edges
- **With 3 replaceable measuring rails (length 150, 200, 300 mm)** that can be moved over the full length
- **Complete with panoramic magnifying glass and supplementary angle**
- **In case**

Applications
To measure angles of workpieces, devices, machines, etc., as well as ruler, cross and mitre angles.

Quality
Stainless steel.

37018
Angle stop
- Measuring arm length 75 mm
- To measure the smallest angle from 0°
- **Also suitable for art. no. 37030**

37019
Prism base
- With prismatic base
- Finely ground on all sides
- For vertical clamping of the angle sensor for measurements directly on the levelling plate
- **Also suitable for art. no. 37030**

37013

37018

37019

Rail length mm	Set 37013	...	Angle stop 37018	...	Prism base 37019	...
150 - 300		101				
-				101		101

37030 Digital universal goniometer

Typ B Typ C Typ D

ATORN®

Design
- With wear-resistant, capacitive measuring system
- **With fine adjustment**
- Large LC display (8.5 mm)
- Reading in degrees and minutes (10° 24 min.) or alternatively in decimal degrees (10, 40°)
- **Resolution 1 min. or 0.01°**
- **Measurement uncertainty of +/- 1 digit**
- Measuring ranges (switchable): 1 x 360°, 2 x 180°, 4 x 90°
- **Data output Opto RS 232**
- Easy adjustment or zero setting on any flat surface
- Zero setting (RESET) possible in any position
- Replaceable measuring rail
- Supplied in a case, incl. 3 V battery (type CR 2032)

Quality
Rust-free, measuring edges hardened.

Note:
Connection cable, see art. no. 35200.
Replacement batteries, see art. no. 39900 102.

Matching angle stop and prism foot see art. no. 37018–37019.

37030

Rail length mm	Data output Opto RS 232	37030	...
150	x		101
200	x		102
300	x		103

37100 - 37101 Precision angle gauge

37100
Magnetic precision angle gauge
Design
- Made of aluminium and stainless steel
- With a centre punch and 360° graduation, on 90° V-base
- With laser-scaled dial
- Accuracy +/- 0.5°

Applications
For searching for the centre point, cutting, grinding, pipe installation, assembly of control devices, levelling heating systems, welding, frame setting, etc.

37101
Wooden case for precision angle gauge (art. no. 37100 101).

37100

	Accuracy	Weight approx. g	37100	...	37101	...
Angle gauge	+/- 0.5°	800		101		
Wooden case	-	-				101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

37305 - 37308 Feeler gauge sets

Design
- Interchangeable
- Dimensions in mm and inches on every gauge blade

Quality
Hardened spring steel.

37305
Design
Conical leaf shape. Nickel-plated cover with locking screw.
Applications
In the motor industry and for measuring light gaps.

37305 102
Increasing from 0.05–0.30 mm in increments of 0.05 mm and increasing from 0.40–1.00 mm in increments of 0.10 mm.

37305 103
Increasing from 0.05–1.00 mm in increments of 0.05 mm.

37305 104
0.05 mm and increasing from 0.10–2.00 mm in increments of 0.10 mm.

37308
Design
Cylindrical leaf shape, 13 mm wide. Loose, held together by a ring.
Applications
To adjust valve clearance in inaccessible places, etc.

37308 102
Increasing from 0.05–0.30 mm in increments of 0.05 mm and increasing from 0.40–1.00 mm in increments of 0.10 mm.

37308 103
Increasing from 0.05–1.00 mm in increments of 0.05 mm.

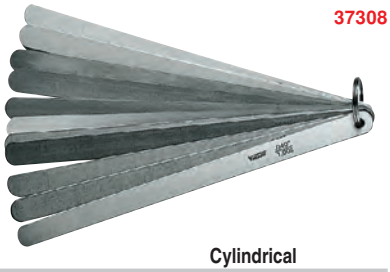
37308 104
Increasing from 0.10–2.00 mm in increments of 0.10 mm.

37308 105
Increasing from 0.05–0.30 mm in increments of 0.05 mm and increasing from 0.40–1.00 mm in increments of 0.10 mm.

37308 106
Increasing from 0.05–1.00 mm in increments of 0.05 mm.

37305

37308



Conical

Number of blades Pieces	Blade length mm	from–to mm	from–to inch	37305	...
13	100	0.05–1.00	.002–.040		102
20	100	0.05–1.00	.002–.040		103
21	100	0.05–2.00	.002–.080		104

Cylindrical

Number of blades Pieces	Blade length mm	from–to mm	from–to inch	37308	...
13	200	0.05–1.00	.002–.040		102
20	200	0.05–1.00	.002–.040		103
20	200	0.10–2.00	.002–.080		104
13	300	0.05–1.00	.002–.040		105
20	300	0.05–1.00	.002–.040		106

37310 - 37313 Foil tapes

Design
- Precision gauge strip
- Convenient unrolling in plastic box (easy to remove), the individual boxes can be connected to a block, stacked to save space and protect the material against dirt
- Accuracy tolerance of +/-10%

Applications
For setting up tools, adjusting devices, compensating for tolerances, aligning machines, etc.

37310
Design
- **Unalloyed steel** (SM steel strip)
- Tensile strength 490–640 N/mm²
- **Foil size 150 x 2500 mm**

37311
Design
- **Stainless steel** (material number 1.4301, 18 Cr 9 Ni)
- Tensile strength 1300–1500 N/mm²
- **Foil size 150 x 2500 mm**

37312
Design
- **Brass** (Ms 63)
- Tensile strength 440–540 N/mm²
- **Foil size 150 x 2500 mm**

37313
Workshop assortment
Design
- **Brass (Ms 63)**
- Tensile strength 440–540 N/mm²

Contents:
- 1 box each of 0.025/0.050/0.075 and 0.100 mm thickness
- **Foil size 150 x 1200 mm**

37312

37313

Foil thickness mm	Unalloyed steel 37310	...	Stainless steel 37311	...	Brass 37312	...	Workshop assortment 37313	...
0.025		101		101		101		
0.050		102		102		102		
0.075		103		103		103		
0.100		104		104		104		
0.150		105		105		105		
0.200		106		106		106		
0.250		107		107		107		
0.300		108		108		108		
0.400		109		109		109		
0.500		110		110		110		
0.025–0.100							58.50	101

Feeler gauge strips | Feeler gauges | Grinding gauges | Twist-drill gauges

37315 Feeler gauge strips

Design
- Carbon steel, hardened
- Width: 12.7 mm
- Length: 5 m
- In plastic box

Note:
From thickness 0.08 mm, marked with dimensions.

37315

Thickness mm	37315 ...
0.01	200
0.02	201
0.03	202
0.04	203
0.05	204
0.06	205
0.07	206
0.08	207

Thickness mm	37315 ...
0.09	208
0.10	209
0.12	210
0.15	211
0.18	212
0.20	213
0.25	214
0.30	215

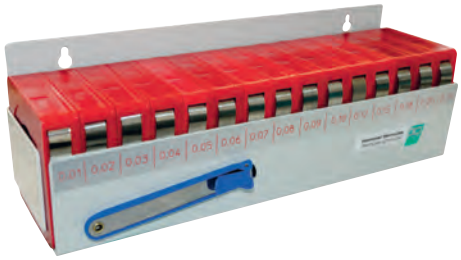
Thickness mm	37315 ...
0.35	216
0.40	217
0.45	218
0.50	219
0.55	220
0.60	221
0.65	222
0.70	223

Thickness mm	37315 ...
0.75	224
0.80	225
0.85	226
0.90	227
0.95	228
1.00	229

37317 Feeler gauge strip assortments

Design
- **15 pieces,** in wall mounting incl. mounting for feeler gauge strip and fastening material
- Wall mounting made of sheet steel, painted
- Gauge strips made of carbon steel, hardened
- With size labelling

37317



Dimensions mm	Graduation mm	37317 ...
330 x 100 x 110	0.01–0.25	101
330 x 210 x 220	0.30–1.00	102

37318 Feeler gauge strips (INOX)

Design
- Stainless steel
- Width: 12.7 mm
- Length: 5 m
- In plastic box

Note:
From thickness 0.08 mm, marked with dimensions.

NEW

37318

Thickness mm	37318 ...
0.01	101
0.02	102
0.03	103
0.04	104

Thickness mm	37318 ...
0.05	105
0.06	106
0.07	107
0.08	108

Thickness mm	37318 ...
0.09	109
0.10	110
0.12	111
0.15	112

Thickness mm	37318 ...
0.18	113
0.20	114
0.25	115

37319 Feeler gauge strip assortment (INOX)

Design
- **15 pieces,** in wall mounting incl. mounting for feeler gauge strip and fastening material
- Wall mounting made of sheet steel, painted
- Gauge strips made of stainless steel
- With size labelling

NEW

37319

Dimensions mm	Graduation mm	37319 ...
330 x 100 x 110	0.01–0.25	101

37325 Brass feeler gauges

Design
- Non-magnetic
- Blades conical, replaceable
- In sheath

Contents:
13 blades from 0.05–1.0 mm.
Increasing from 0.05 mm to 0.3 mm in increments of 0.05 mm, increasing from 0.3–1 mm in increments of 0.1 mm.

Applications
To check gaps or the play on slide guides, bearings, Schrader valves, etc.

37325

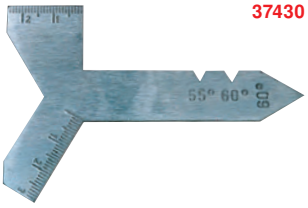
Blade length mm	37325 ...
100	103

37430 Universal grinding gauge

Design
- With square and hexagonal angle
- Every angle milled

Applications
To check the tip angle on twist drills (118°) and the cutting profile on threading tools 60° (metric) and 55° (Ww).

37430



	37430 ...
	101

37431 Twist drill gauge

Design
- Lasered scaling, mm graduation

Quality
Hard-coded aluminium (HRC63).
Scratch-resistant, black anodised surface.

NEW

With thread table on the rear

37431

	37431 ...
	101

Thread gauges | Threading tool gauges | Nozzle gauges | Millimetre hole gauges | Wedge gauges | Welding seam gauges | Radius gauges

37505 - 37508 Thread gauges

Design
High accuracy thanks to machined teeth

Applications
To measure the pitch of female and male threads.

37505
For metric threads,
flank angle 60°,
24 pitches 0.25–6 mm,
0.25/0.3/0.35/0.4/0.45/0.5/0.6/0.7/0.75/0.8/0.9/1.0/1.25/1.5/1.75/2.0/2.5/3.0/3.5/4.0/4.5/5.0/5.5/6.0 mm.

37506
For Whitworth thread,
flank angle 55°,
28 pitches, 4–62 tpi/inch,
4/4,5/5/6/7/8/9/10/11/12/13/14/16/18/19/20/22/24/25/26/28/30/32/36/40/48/60/62 threads.

37507
Combined for metric and Whitworth thread, 52 pitches, such as art. no. 37505 and 37506 together.

37508
For Whitworth pipe thread,
thread angle 55°,
6 pitches, 8–28 tpi/inch, 8/10/11/14/19/28.

37505

37506

37507

37508

	37505	...	37506	...	37507	...	37508	...
		101		101		101		101

37515 - 37530 Thread-cutting gauges

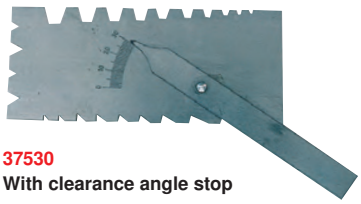
37515
Combined threading tool gauge
Applications
For flat, trapezoidal and triangular threads 55° and 60°.

37530
Combined turning and threading tool gauge
Design
- With clearance angle stop
- Clearance angle adjustment of 0–30° by means of the stop
- Recesses for trapezoidal, Whitworth and metric threads and 40–80° angles

Applications
For checking clearance and wedge angles for turning tools and thread cutting tools.

37515

37530



37530
With clearance angle stop

	37515	...	37530	...
		101		101

37605 - 37610 Nozzle gauges (hole gauges)

37605
Design
- Hardened, round plug gauge
- With protective cap
- Cone 1:10, vernier scale 1:10
- **Reading: Direct reading 0.1 mm, with 10-part vernier scale**

Applications
Mainly for engine and automotive workshops.

37610
Design
- With steel pins
- Mounted in plastic

Applications
For measuring all types of nozzles. Can also be used as a tolerance gauge for small holes.

37605

37610

Measuring range mm	Number of measuring pins	37605	...	37610	...
0–5.0	–		102		
0.45–1.5	20				101
1.50 - 3.0	16				102

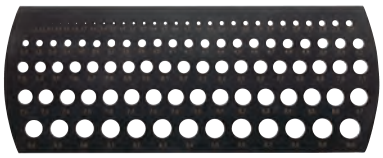
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

37630 Millimetre hole gauge

Design
- Steel, nitrided

Applications
For measuring wires, twist drills, balls, etc.

37630



Measuring range mm	Pitch mm	Number of holes	37630	...
0.1 - 10	0.1	100		201

37632 Wedge gauges

Design
- Knurled handle

Applications
For measuring gap dimensions.

37632 101-102
Design
- Special steel
- Ground on all sides
- Brushed chromium-plated
- Lasered scale

37632 103
Design
- ABS plastic
- CNC divided scale

NEW

37632 101

37632 102

37632 103

Measuring range mm	Material	Dimensions mm	Weight g	37632	...
0.5–7	Special steel	124 x 8 x 8	39		101
0.5–11	Special steel	153 x 12 x 8	62		102
0.5–11	ABS plastic	155 x 12 x 8	17		103

37701 - 37710 Welding seam gauges

Quality
Stainless steel.

37701
Design
- Measuring range 20 mm
- Reading 0.1 mm
- Slide with clamping screw
- In leather bag

Applications
For measuring flat and corner welding seams.
For checking the V-seam, 60, 70, 80 and 90° angles are attached to the gauge.

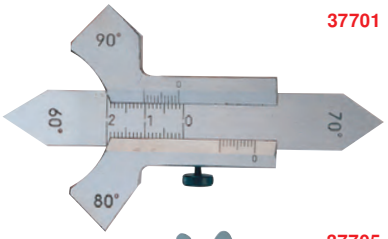
37705
Design
- Fan-like
- 12 blades 3/3.5/4/4.5/5/5.5/6/6.5/7/ 8/10/12 mm, held together by a ring

Applications
For measuring welding seams on corners welded at right angles.

37710
Wedge seam measuring gauge DPB
Design
- Contact on one side only, which means that measuring errors due to angular shrinkage are largely eliminated
- 3 measuring scales, various measuring options
- **Direct reading 0.1 mm**
- In leather bag

Applications
For easy and rapid checking of the welding seam dimensions.

37701



37705

37710

	37701	...	37705	...	37710	...
		101		101		101

37805 - 37806 Radius gauges (concave and convex gauges)

Design
- With locking screw

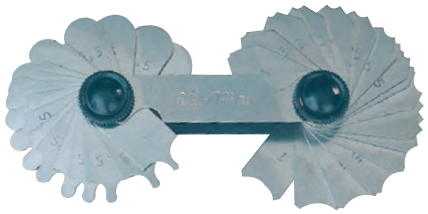
Applications
To check raised or hollow curves that form parts of a circle.

Contents:
Size 1 (1–7 mm) 17 sheets: increasing from 1–3 mm in increments of 0.25 mm, and from 3–7 mm in increments of 0.5 mm.

Size 2 (7.5–15 mm) 16 sheets: increasing in increments of 0.5 mm.

Size 3 (15.5–25 mm) 15 sheets: increasing from 15.5–20 mm in increments of 0.5 mm, and from 20–25 mm in increments of 1 mm.

37805 - 37806



	Normal steel		Stainless	
Size	37805	...	37806	...
1		101		101
2		102		102
3		103		103

Thread indicators | ISO tolerance keys | TORX® profile gauges | Inclinometers | Spirit levels

37905 Thread indicator FILETOR

Design
- Dust and dirt-proof
- Plastic housing 110 x 60 x 30 mm
- Thread display for the following thread types: ISO metric, ISO fine thread, UNC, UNF, UNEF, Ww, BSF, GAS, BA, PG.

Applications
For direct reading of all information necessary to identify a thread with standardised terminology, including core hole Ø.

37905

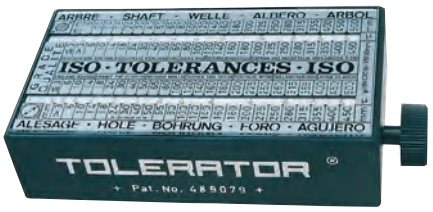
	37905 ...
	101

37912 ISO tolerance key TOLERATOR

Design
- Dust-proof
- Plastic housing 110 x 60 x 30 mm
- Multilingual inscription (French, English, German, Italian, Spanish).

Applications
For direct reading of all tolerance values according to ISO recommendation R 286-1962, contains the complete list of all ISO tolerances used in Germany and abroad up to a nominal size of 500 mm = over 6400 tolerance value pairs.

37912



	37912 ...
	101

37930 TORX® profile gauge

GEDORE
WERKZEUGE FÜRS LEBEN

Applications
For identifying the female and male TORX® screw profiles even in confined spaces. For the sizes E 4–E 16 and T 10–T 60.

37930

	37930 ...
	301

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

38005 Electronic inclinometer ClinoBevel 1 USB

Design
- Universal compact device with 4 precision-machined measuring bases on the housing circumfrence
- Slope indicator can be selected via the keyboard in every common tilt unit

- **Selectable units of measure:** degrees, degrees/min., mm/m, inch/10 or 12 inch, mm or inch rel. base (to be selected), milliradians and others
- Housing is impermeable to spray water and resistant to workshop chemicals

Scope of delivery:
- USB cable 1.8 m
- Software Clino Soft1 on CD
- 1 x 1.5 V battery (type LR 6, AA)
- Test certificate with declaration of conformity
- In case

Applications
For incline measurements in immediate and comparative measuring processes.

Note:
Replacement batteries, see art. no. 39900 303.
Optional remote control available.

38005

Measuring range Degrees	Digit increment sensitivity mm/m	Repeatability mm/m	RS 485	W x H x D mm	38005	...
+/- 45	≥ 0.02	< 0.1	x	100 x 75 x 30		101

Info Electronic levels

Working according to the pendulum system with capacitive scanning, insensitive to magnetic fields. No mechanical transmissions, therefore wear-free. With digital display of the angle (tilt and pitch in mm/m), precise, handy and robust. For inspection work and workshop use.

Horizontal model
With prismatic measuring base, 2 sensitivities, switchable 0.001/0.01 mm/m,with analogue output for recorder.

Angled model
With 2 prismatic measuring bases, 2 sensitivities, switchable 0.001/0.01 mm/m, with analogue output for recorder.

Electronic level set
The ideal set for fitters

Contents:
1 level, horizontal model 150 mm long, with flat, hardened steel measuring base and without its own display
1 the same, but angle model 150 mm long
1 display and power supply unit
2 connecting cables, each 2.5 m long
4 batteries, each 1.5 volts in a robust plastic case.

Electronic precision levels
Powerful design, but very handy. Suitable for both inspection and operation.

Angled model
With horizontal and vertical prisms and surfaces for horizontal and vertical shafts and surfaces.

Please contact us!

38014 - 38018 Precision spirit levels, adjustable

ATORN®

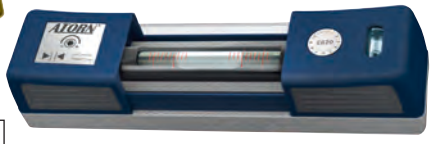
Design
- Adjustable precision spirit level in accordance with DIN 877
- Easy setting of a relative zero point ≤with the adjustment unit
- Adjustment range +/- 4.0 mm/m
- With ground, externally adjustable longitudinal vial, transverse vial and full thermal insulation
- Indication of the scale value on the name plate
- Flat and prismatic measuring surface (150°)
- Measuring surfaces finely ground
- Supplied in a case

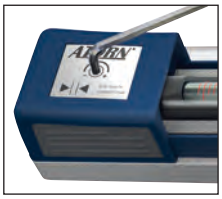
Applications
For aligning horizontal surfaces and shafts.

Quality
High-quality special cast iron.

NEW

38014 - 38018





Sensitivity	0.3 mm/m		0.1 mm/m		0.04 mm/m		0.02 mm/m		0.01 mm/m	
Length mm	38014	...	38015	...	38016	...	38017	...	38018	...
160		101		101		101		101		
200		102		102		102		102		101
250		103		103		103		103		102
300		104		104		104		104		103
500		105		105		105		105		104

Spirit levels

38010 - 38013 Horizontal spirit levels DIN 877

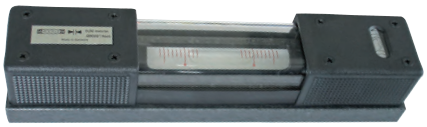
ROECKLE Neigungsmesstechnik e.K.

Design
- With prismatic base, ground and graduated longitudinal vial and full thermal insulation
- Longitudinal vial visible from the side – Advantageous when measuring points that are high up
- Measuring surfaces finely ground
- Consistent accuracy thanks to stress-free installation of the level: Eliminates time-consuming adjustments
- Sensitivity of the longitudinal vial = in mm/m Deviation from the horizontal at 1 m length
- In case

Applications
For aligning horizontal surfaces and shafts.

Quality
Heavy special cast iron.

38010 - 38013



Sensitivity	0.1 mm/m		0.04 mm/m		0.02 mm/m		0.01 mm/m	
Length mm	38010	...	38011	...	38012	...	38013	...
160		101		101		101		
200		102		102		102		102
300		104		104		104		104

38020 Light metal spirit levels

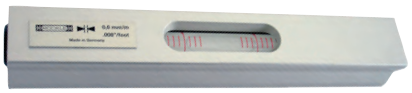
ROECKLE Neigungsmesstechnik e.K.

Design
- With prism and surfaces
- 1 graduation mark = 0.6 mm/m
- In plastic case

Applications
For simple measurements.

Quality
Aluminium.

38020



Length mm	38020	...
150		101
200		102

38025 - 38029 Frame spirit levels DIN 877

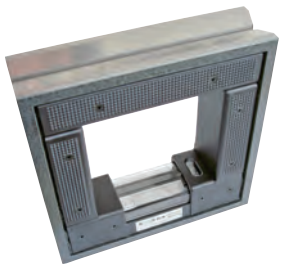
ROECKLE Neigungsmesstechnik e.K.

Design
- 3 sides prismatic
- 1 vertical side, flat, with ground and graduated longitudinal vial, a transverse vial and full thermal insulation
- Longitudinal vial also visible from the side – Advantageous when measuring points that are high up
- Finely ground measurement surfaces
- Consistent accuracy thanks to stress-free installation of the level: Eliminates time-consuming adjustments
- Sensitivity of the longitudinal vial = in mm/m Deviation from the horizontal at 1 m length
- In case

Applications
For aligning horizontal surfaces and shafts.

Quality
Heavy special cast iron.

38025 - 38029



Sensitivity	0.1 mm/m		0.04 mm/m		0.02 mm/m		0.01 mm/m	
Length 1 side mm	38025	...	38026	...	38028	...	38029	...
100				101				
150				102		102		
200		103		103		103		103
300						104		104

38034 Precision circular spirit level

TESA

Design
- With longitudinal and transverse vial and 3 screw holes
- Incl. declaration of conformity

Applications
As a level on machines, devices, etc.

Note:
Prismatic or T-shaped levels with different sensitivities and dimensions are available on request.

38034

Ø mm	Thickness mm	Sensitivity mm/m Scale interval	38034	...
40	11	2.0–5.0		101

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38043 Precision crankpin spirit levels DIN 877

ROECKLE Neigungsmesstechnik e.K.

Design
- Longitudinal and transverse prism in the base
- Longitudinal and transverse vial with graduation
- Full thermal insulation
- Ground measurement surfaces, highly sensitive
- In case

Applications
For aligning crankshafts and crankpins on engines, etc.

Quality
Heavy special cast iron.

38043

Length mm	1 graduation mark equals longitudinal/transverse mm/m	38043 ...
60	0.2 / 0.8	101
90	0.1 / 0.8	102

38047 Graduated spirit level (angle spirit level)

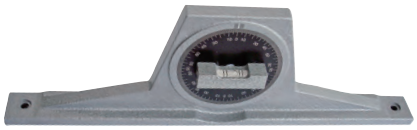
ROECKLE Neigungsmesstechnik e.K.

38047 102
Graduated spirit level
Design
- With a flat base and mounting holes, 300 mm long, 25 mm wide
- Measuring range 4 x 90°, **accuracy 1°**

Applications
For horizontal, vertical and angle measurements.

38047 103
Case

38047



	38047 ...
Graduated spirit level	102
Case	103

38150 Plastic angle spirit level

HHW

Design
- All-round plastic spirit level
- Horizontal vial and vial with angle measuring device made of acrylic glass
- **With magnet**

- Marking edges as a drawing aid for 45°, 60°, 120° and 135° angles
- Measuring scale graduated in cm and mm

38150

Length mm	38150 ...
250	101

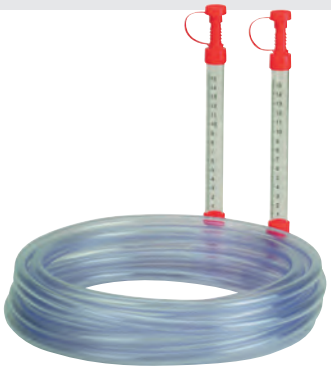
38155 Tube spirit level

STABILA®

Design
- Unbreakable **acrylic glass tubes**
- With plastic fittings and plastic vent valves
- Scale: mm graduation 5–155 mm
- For tube widths 10 and 12 mm (1/2 inch)
- **Supplied with 20 m tube,** in box

Applications
Fast and easy work: Attachment of level and meter markers, for gradient measurements at great distances, level measurements when the survey points are out of sight, ground surveying.

38155



	38155 ...
	101

Spirit levels

38054 - 38055 Pocket spirit levels

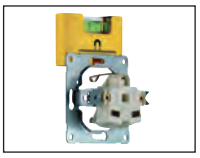
STABILA®

Design
- With an extra strong rare-earth magnet – up to 5x more powerful than a conventional ferrite magnet
- **Measurement accuracy +/- 1.0 mm/m in normal position**
- With belt clip – always within reach

38054
Pocket electric
Design
- Plastic spirit level for rapid and reliable horizontal alignment of flush switches and sockets thanks to a powerful rare-earth magnet system
- With base measurement surface on the rear of the spirit level and an ingenious cut-out for the screwdriver guide
- The installation part can be conveniently adjusted with the attached spirit level

38055
Pocket Pro Magnetic
Design
- Professional mini-format spirit level with robust right-angle aluminium-core housing with two precise milled measuring surfaces with V-groove for horizontal and vertical measurements on flat and round surfaces
- Vertical measuring area is at a 90° angle to the horizontal measuring area – this allows for vertical measurements with the horizontal vial
- Strong rare-earth magnet system on ground and side measuring surface for adhesion to metallic components – free hands for aligning and adjusting
- Always on hand – the small spirit level takes up hardly any space

38054



38055

Type	L x W x H mm	38054	...	38055	...
Pocket Electric	70 x 20 x 40		101		
Pocket Pro Magnetic	70 x 20 x 40				101

38057 PICO spirit level and scale

BMI®

Design
- Ideal measuring equipment, as horizontal/vertical measurements usually have to be performed in combination with length measurements
- Rust-free stainless steel tape measure
- Waterproof
- Made in Germany

Accuracy:
- Tape measure EG II
- Spirit level 1.0 mm/m

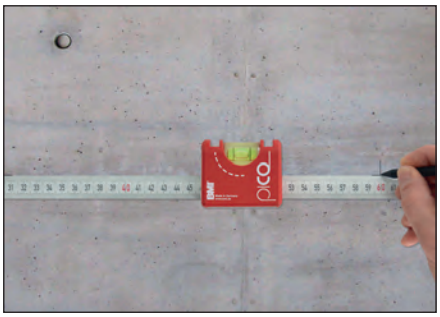
Advantages:
- The tape measure can be stretched and locked on the housing for measurement applications
- The tape measure can be stored compactly and securely in the spirit level housing
- The convex arch of the tape allows for perfect readings

38057 101
Design
- Without magnet

38057 102
Design
- With magnet

38057

38057 102



Tape length mm	Tape width mm	Without magnet 38057	...	With magnet 38057	...
1000	16		101		102

38052 Hardwood spirit levels

BMI

Design
- Low heat conduction
- Oiled
- **Measuring accuracy in normal position 1.0 mm/m**

Applications
For all sensitive surfaces.

38052

Length mm	38052 ...
300	201
400	202

Length mm	38052 ...
500	203
600	204

38056 Light metal spirit levels

HHW

Design
- Made of reinforced, grey powder-coated aluminium profile with smooth side surfaces
- Horizontal and vertical vial
- Very good visibility thanks to acrylic glass
- **Measuring accuracy in normal position 0.5 mm/m**

Applications
For measurements in horizontal and vertical normal position.

38056

Length mm	38056 ...
300	101
400	102
500	103

Length mm	38056 ...
600	104
800	105
1000	106

38053 - 38066 Light metal (magnetic) spirit levels

ATORN®

Design
Laser-divided horizontal round vial:
- **1 =** Precision reading due to additional divisions for exactness of the 0-position of the air bubble for the horizontal vial (zero-point deviation in the normal position: 0.5 mm/m)
- **2 =** Additional reading of 2% incline
- Absolutely secure connection to the profile thanks to ultrasound welding
- Maximum long-term accuracy thanks to laser marking (patented process)
- Magnifying effect for improved readability
- 270° view of vial from all positions without any interfering edges
- Made from high-strength non-breakable polycarbonate

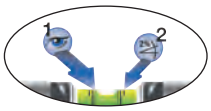
Strong aluminium rectangular profile:
- **3 =** Silicone pads on rear side surface for non-slip positioning on walls
- **4 =** Rubber end caps with impact protection
- Scratch-proof thanks to special anodising treatment

38053 - 38066

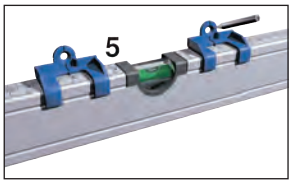
38053 106-108
Design
- **5 =**With printed scale on the upper measuring surface and 2 movable markers attached for measuring and marking

38066
Design
- **Magnetic base**

38066



38053 106-108



Length mm	With magnet 38053 ...	38066 ...
200	101	
300	102	
400	103	101
500	104	
600	105	102
800	106	103

Length mm	With magnet 38053 ...	38066 ...
1000	107	104
1200	108	
1500	109	
1800	110	
2000	111	

38061 Short magnetic spirit level

BMI

Design
- Exceptionally good view in the case of vertical measurements thanks to head vial
- Vials with magnifying glass effect for good readability
- With strong internal permanent magnet
- **Measuring accuracy 0.5 mm/m in normal position and during reverse measuring**

Quality
Smooth aluminium profile, silver anodised.

38061

Length mm	38061 ...
200	101

Spirit levels | Inclinometers

38063 Aluminium spirit levels SUPERSTAR

BMI

Design
- Powder-coated surface
- Round horizontal vial with magnifying effect
- Edgeless horizontal vial for undistorted view of bubble even during reverse measuring
- Life-long high measuring accuracy (0.5 mm/m) thanks to ultrasound-welded level
- Reverse measuring possible (0.5 mm/m)
- Solid body and impact-resistant rubber end flap maintain high measuring precision
- Milled measuring surface

38063 201-203
Design
- **Magnetic base**

NEW

38063

38063 201-203

Length mm	38063 ...	With magnet 38063 ...
400	101	201
500		202
600	103	203
800	104	
1000	105	
2000	106	

38065 Aluminium spirit levels HIGHPRECISION

BMI

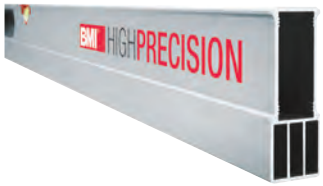
Design
With the new HIGHPRECISION, levels are used that offer the user **5 times better readability** than conventional spirit levels. Thanks to the use of a level with a 1000 mm turning radius (200 mm is standard), the smallest inaccuracies/inclines can be detected more quickly.

- With the same incline, the bubble makes a 5x wider path than conventional spirit levels. As a result, inaccuracies are can be detected more quickly

- **BMI round vial** for non-glare visibility
- Built-in accuracy of the levels of 0.3 mm/m in normal position
- **BMI 4-chamber profile**, the most robust profile on the market
- Effective additional protection thanks to **shock-absorbing rubber end caps**

Note:
Available as a magnetic spirit level on request.

38065



Length mm	38065 ...
1000	101
1200	102

Length mm	38065 ...
1800	103
2000	104

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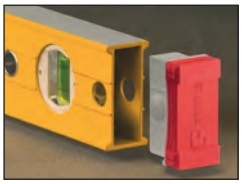
38078 Electronic light-metal spirit levels

IP 65

STABILA®

Design
- Extra strong light-metal rectangular profile with handle grooves and innovative, **removable end caps** made from two material components
- These end caps ensure increased absorption and, after removal, a continuous, clean marking line into the corners
- **Patented anti-slip stoppers**
- Punch-through openings in two-component technique
- With a second vertical vial
- Two milled measuring surfaces
- **Electronics module for inclination measurement**
- Display in degrees, percent, mm/m and many more.
- Two displays for easy reading, even from above (narrow face) with selectable lighting
- Acoustic guidance in the range of +/- 2° for a vertical, horizontal and individually adjustable reference plane and key lock to secure the reference plane
- **Degree of protection IP 65**
- Hold and automatic shutdown function
- Warning when tilting the spirit level in the second axis
- **Supplied with transport bag**

38078



Electronics module			Level		38078	...
Length mm	Error limit ° at 0° and 90°	Error limit ° at 1° to 89°	Max. measurement tolerance standard position mm/m (°)	Max. measurement tolerance reverse measurement mm/m (°)		
610	0.05	0.2	0.5 (0.029)	0.5 (0.029)		101
800	0.05	0.2	0.5 (0.029)	0.5 (0.029)		102

38080 Electronic inclinometer

ATORN®

Design
- **With digital display (in degrees and percent)**
- Arrows in the display indicate the direction of the 0° or 90° position
- Easy resetting
- Switchable acoustic signal for the 0° or 90° position
- With hold function
- Supplied with battery electric block 9 V 6LR61
- In sturdy plastic tubes

Applications
For rapid and precise measurement of gradients/ pitches.

Note:
Replacement batteries, see art. no. 39900 405.

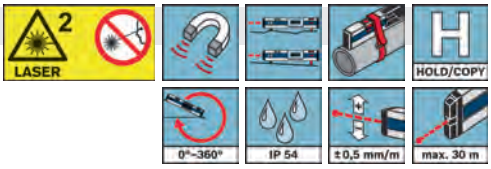
38080

Display in percent

Display in degrees

Measuring range	Resolution °/%	Error limit ° at 0° and 90°	Error limit ° at 1° to 89°	Total length approx. mm	Test surface length approx. mm	38080	...
4 x 90°	0.1	+/- 0.05	+/- 0.3	256	230		101

38085 Digital inclinometer GIM 60 L



BOSCH

Design
- Integrated point laser for inclination measurement up to 30 m length
- Strong magnets and two tethers for secure mounting on workpieces
- Tilt mechanism for fine adjustment on uneven surfaces
- Any value can be set as an alternative 0°
- Manual adjustment of angles is possible for easy transfer
- Audio signal leads to the desired angle even without viewing the display

Technical data:
- Laser type: 635 nm, less than 1 mW
- Laser range: 30 m
- Laser class: 2
- Levelling accuracy of laser: +/- 0.5 mm/m
- Measurement units: °, %, mm/m
- Tripod mount: 1/4 inch

Scope of delivery:
- 4 x 1.5 V batteries (type LR6, AA)
- Protective case

Note:
Replacement batteries see art. no. 39900 303.

38085

Length cm	Measuring range	Measuring accuracy electronics 0°/90°	Measuring accuracy electronics 1–89°	Work area of laser m	L x W x H mm	Weight approx. kg	38085	...
60	0–360 (4 x 90°)	+/- 0.05°	+/- 0.1°	30	618 x 27 x 59	0.9		101

Goniometers | Cross-line lasers

38086 Digital goniometer TECH 700 DA

IP 54

STABILA®

Design
- Electronic goniometer for quickly determining and transferring external angles ina range of 0°–270°
- Digital display with large digits and switchable, dimmable lighting
- **LOCK function:** Locking mechanism for reliable transfer of angles
- Optimum readability of levels, even when the arm is folded in
- Two extra wide edge guides for precise and secure marking off of angles in all positions
- **REF function:** easy acceptance, saving and transfer of a reference angle to other components
- **HOLD function:** saves the measured value for precise measurements and rapid transfer, even on difficult-to-access areas
- Display of the bisecting angle at the push of a button, ideal for fast and precise mitre cuts
- Automatic switch-off after 60 minutes when not in use

- Precise measurement results with an accuracy of +/- 0.1°
- Protection class IP 54
- Equipment: 1 digital display, 1 horizontal vial, 1 vertical vial, 2 coated measuring surfaces

Scope of delivery:
- Digital goniometer TECH 700 DA
- 2 batteries (type AA)
- Bag

Application areas:
- Ideal for carpentry and joinery work
- Determine and transfer angles, for example for kitchen building or for aligning other built-in furniture
- The ideal assistant for laying complex tile motifs – transfer of angles when cutting the tiles
- The perfect partner in timber construction – removal of angles to prepare mitre cuts
- Indispensable in metalwork – when measuring, checking or marking off angles

Note:
Replacement batteries, see art. no. 39900 303.

NEW

38086 101

38086 102

Length cm	Measuring range degrees (°)	Accuracy in normal position mm/m (°)	Accuracy in reverse position mm/m (°)	Accuracy for electronic angle measurement (°)	38086	...
45	0–270	0.5 (0.029)	0.75 (0.043)	+/- 0.1		101
80	0–270	0.5 (0.029)	0.75 (0.043)	+/- 0.1		102

38111 Cross-line soldering laser LAX 300

IP 54

STABILA®

Design
- 1 horizontal line, 1 vertical line
- Solder points upwards and downwards
- Easy to see, bright and sharp laser lines and points for precision work
- Compact, rotatable housing with extendable foot for height adjustment for direct work on U profiles
- Shock-absorbing STABILA Softgrip casing
- Easy change of function thanks to one-button operation
- Protection class IP 54

Scope of delivery:
- Cross-line soldering laser LAX 300
- Target plate
- Wall bracket
- Batteries (3 x 1.5 V AAA)
- Belt bag

Application areas:
- In dry walling – suspending ceilings, positioning partition walls and dividers
- For electrical installation work – installing cable ducts
- For tile work – creating a tile backsplash
- In window construction – levelling off the window height
- For carpentry and joinery work – constructing kitchen cabinets, aligning worktops

Note:
Replacement batteries, see art. no. 39900 304.

NEW

38111

Technical data:	
Levelling accuracy:	+/- 0.3 mm/m
Top/bottom line accuracy:	0.3 mm/m / 0.4 mm/m
Self-levelling area:	+/- 4.5°
Range of visible line:	20 m*
Laser class:	2
Batteries:	3 x 1.5 V AAA

* Indoors under typical working conditions

Type	38111	...
LAX 300		101

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38100 Cross-line laser autoCROSS 3

LASER 2 | IP 54

BMI

38100 101
Cross-line laser autoCROSS 3
Design
- Red diode laser, wavelength 635 nm
- Laser class 2
- Self-levelling (pendulum)
- Horizontal and vertical lines can be switched separately
- Thanks to pulsed laser diode, can also be used with receiver
- Range with receiver at least 30 m
- Automatic detection of „outside levelling area"
- Slope by switching off auto-levelling
- Multifunctional adapter

Scope of delivery:
- Basic device
- 3 x 1.5 V batteries (type LR6, AA)
- Wall bracket
- Transport case

Note:
Replacement batteries, see art. no. 39900 303.

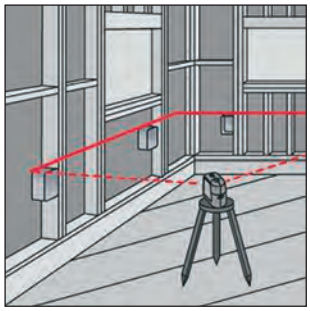
38100 301
Tripod
Design
- Tripod connection 1/4 inch
- Robust aluminium design with handle and level
- Including carrying case

Applications
For Torpedo 3, autoCROSS 3, autoCROSSplus and autoMAGIC.

Technical data:
- Height min. 0.6 m, max. 1.68 m
- Weight: 1.3 kg
- Max. load capacity 3 kg

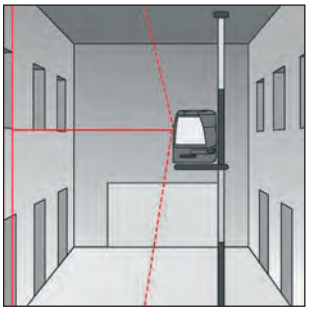
38100 301

38100 101

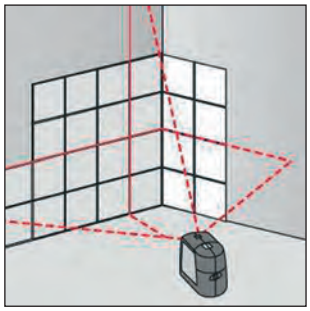


Meter markers for floors, electrical components etc.

... Suspending ceilings



Vertical line (carpentry work)



Laser cross for aligning tiles, etc.

Type	Self-levelling range +/-°	Accuracy +/- mm/m	Opening angle of the lines vertical/horizontal	Work area °C	Storage temperature °C	Dimensions mm	38100	...
autoCROSS 3	4	3/10	140°/120°	-10 to +50	-20 to +70	120 x 95 x 62		101
Tripod	-	-	-	-	-	-		301

38101 Cross-line laser micro CL-100

LASER 2

RIDGID

Design
- One-button operation, very user friendly
- Levelling and alignment tasks can be performed in no time at all
- Immediate projection of extremely bright vertical and horizontal lines
- Extended range in 30 m rooms
- Integrated 360° turntable
- Laser class 2/630-670 nm

Scope of delivery:
- Cross-line laser micro CL-100
- Robust plastic case
- 3 AAA batteries
- Laser goggles
- Tripod

Note:
Replacement batteries, see art. no. 39900 304.

NEW

38101

Technical data:	
Accuracy:	2 mm/10 m
Work area, inside:	30 m
Laser lines:	2x, horizontal and vertical
Self-levelling area:	+/- 6°
Area deviation display:	Yes (visual)
Dust and splash protection:	IP 54
Locking mechanism:	Yes (to prevent damage)
Tripod mount:	Yes (5/8 inch thread)
Power supply:	3x batteries (type AAA)
Weight:	0.54 kg

Type	38101	...
micro CL-100		101

Laser and distance meters | Pocket scales

38143 Laser range finder GLM 40 / GLM 80

IP 54

BOSCH

38143 100
GLM 40
Design
- **Particularly easy and convenient reading of measured values** even with poor lighting conditions thanks to a large and automatically illuminating display
- **Robust and reliable** protection against dust and water (IP 54), fall tested up to 1 m
- **Long service life:** 5,000 single measurements or 2.5 hours of continuous measurement without changing the battery
- **Intuitive operation** thanks to the clear and self-explanatory keypad
- **Convenient and pleasant handling** thanks to the slim and handy design with soft grip as well as high-quality silicone keys
- **Ideal for indoor use** with a range of up to 40 m and a measuring accuracy of +/- 1.5 mm.

Scope of delivery:
Rangefinder, GLM 40, 2 x 1.5 V batteries (AAA), protective case, manufacturer's certificate.

38143 102
GLM 80
Design
- **Highest level of functionality** thanks to integrated 2-axis tilt sensor:
- Horizontal axis - +/- 60° (reference area - back)
- Vertical axis - 360° (reference area - side edge)
- **Extraordinary working efficiency** with up to 25,000 measurements thanks to lithium-ion technology, rechargeable via standard micro-USB connector
- **Automatically rotating display** for better reading of measured values regardless of the device position
- **Automatic display lighting** due to an intelligent light sensor for different lighting conditions
- **Especially easy and convenient handling** thanks to the new slim and handy design as well as the high-quality silicone keyboard.

Scope of delivery:
Rangefinder, GLM 80, 1 x Li-ion battery 3.7 V/1.25 Ah, micro-USB charger, protective case, short guide, manufacturer's certificate.

Note:
Replacement batteries, see art. no. 39900 304.

38143 100 38143 102

Indirect height measurement made easy
The tilt sensor allows for very fast and accurate indirect height measurements. Obstructions in the measuring range are now also no longer a problem.

Technical data:	38143 100	38143 102
Type:	**GLM 40**	**GLM 80**
Measuring range:	0.15 - 40 m	0.05 - 80 m
Measuring accuracy:	+/- 1.5 mm	+/- 1.5 mm
Display accuracy:	1 mm	1 mm
Measuring time type:	< 0.5 s	< 0.5 s
Max. measuring time:	< 4 s	< 4 s
Integrated tilt measurement:	-	x
Number of memory values:	10	20 + 1
Laser class/diode:	2/635 nm, < 1 mW	2/635 nm, < 1 mW
Automatic switch-off:	5 min.	5 min.
Units of measurement:	m/cm/mm	m/cm/mm
Power supply:	2 x 1.5 V (AAA)	1 x Li-ion battery 3.7 V/1.25 Ah

Type	38143	...
GLM 40		100
GLM 80		102

38146 Laser distance meter Leica DISTO™

Bluetooth® SMART

IP 54

Leica DISTO™
The original laser distance meter

Design
Fast and accurate, distance, area and volume measurement with visible laser.
Small and handy for every pocket.

Note:
Using a homing board is very helpful, especially for measurements outdoors and in bright surroundings.
Deliverable on request.
Replacement batteries, see art. no. 39900 303.
Other models are available on request.

38146 201
Disto™ D110
The smallest model in the Leica Disto™ series with integrated Bluetooth® SMART technology.

38146 302
Disto™ D2
Small and handy laser distance measuring device for indoor use. Data can also be transferred to smartphones via Bluetooth® using the free Leica Disto™ sketch app.

38146 201 38146 302

Technical data:	38146 201	38146 302
Type:	**DISTO™ D110**	**DISTO™ D2**
Measuring accuracy:	+/- 1.5 mm	+/- 1.5 mm
Range:	0.2 - 60 m	0.05 - 100 m
X-Range Power Technologie™	x	x
Area and volume measurement:	area only	x
Painter function:	-	x
Min./max. Distance tracking:	x	x
Pythagoras function:	-	x
Addition/subtraction:	-	x
Most recent values can be called up:	-	10
BLUETOOTH® technology:	x	x
Multi-line display:	x	x
Display lighting:	-	x
Multi-functional end piece:	-	x
Hand strap:	-	x
Belt bag:	x	x
Pocket clip:	x	-
Measurements with one set of batteries:	up to 5000*	up to 10,000*
Batteries:	2 x 1.5 V (AAA)	2 x 1.5 V (AAA)
Protection rating:	IP 54	IP 54
Dimensions in mm:	120 x 37 x 23	116 x 44 x 26
Weight with batteries g:	93	100

* reduced in BLUETOOTH® mode

Type	38146	...
Disto™ D110		201
Disto™ D2		302

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Functional overview of scales art. no. 38160–38431

KERN

- **Adjustment programme (CAL):**
  For setting the accuracy with an external test weight (not included in the scope of delivery)
- **Quantities (PCS):**
  Reference quantities can be selected, toggles display between unit and weight
- **Recipe A (RECIPE):**
  The weight values of the recipe components can be added up and the total weight of the recipe printed out
- **Percentage determination (PERCENT):**
  Display of deviation from reference weight (100%) as a percentage instead of in grammes
- **Animal weighing programme (MOVE):**
  Vibrations are filtered out to determine a stable weight value
- **Underfloor weighing (UNDER):**
  Load suspension option with a hook on the bottom of the scales
- **Weighing units (UNIT):**
  Can be switched at the push of a button, e.g. to non-metric units
- **Weighing with tolerance range (checkweighing):**
  Input of an upper/lower limit. An optical signal supports portioning, dosing and sorting in counting mode
- **Sum level A (SUM):**
  The weight values of similar products to be weighed can be added up and the total printed out

38160 Pocket scales type CM

KERN

Design
- LCD display (digit height 12 mm)
- Hinged lid offers protection against pressure and dust
- With integrated calculator
- Battery operation with automatic switch-off (approx. 4 minutes)
- Total dimensions W x D x H 85 x 130 x 25 mm
- Supplied with 2 x 1.5 V batteries (type AAA)

Note:
Replacement batteries, see art. no. 39900 304.
Test weights available on request.

38160

Model	Reading g	Weighing range max. g	Weighing tray mm	38160	...
CM 60-2N	0.01	60	80 x 70		100
CM 320-1N	0.1	320	80 x 70		102
CM 1 K1N	1	1000	80 x 70		103

38161 Pocket scales type TGC

KERN

Design
- High-resolution pocket scales with extremely fast reaction and settling time
- Backlit LCD display (digit height 12 mm)
- With practical tare tray
- Especially flat design
- Cover made of shock-resistant plastic
- Stainless steel weighing tray
- Total dimensions W x D x H 100 x 130 x 18 mm
- Supplied with 2 batteries of type CR 2032, operating time up to 33 h

Note:
Replacement batteries, see art. no. 39900 102.
DKD certificate and test weights available on request.

NEW

38161

Model	Reading g	Weighing range max. g	Weighing tray mm	38161	...
TGC 150-2	0.01	150	Ø 81		201
TGC 500-1	0.1	500	Ø 81		202
TGC 1K-3	1	1000	Ø 81		203

Precision scales | Counting scales | Counting systems

38162 Precision scales type PCB

CAL EXT | PCS | RECIPE | PERCENT | MOVE | UNDER | UNIT

KERN

NEW

38162 200 | 38162 209 | 38162 211-212

Design
- Backlit LCD display (digit height 15 mm)
- **PRE-TARE function** for manually subtracting a known container weight, useful for filling volume checks
- Freely programmable weighing unit, e.g. thread length g/m, paper weight g/m² or similar
- Recipe function
- Plus/minus weighing operations
- Protection hood included in the scope of delivery
- Total dimensions W x D x H 163 x 245 x 79 mm (without wind protection)

38162 200
Design
- With ring-shaped wind protection (weighing chamber ØxH 90x40 mm)

Model	Readability g	Weighing range max. g	Weighing tray mm	Reproducibility g	Linearity +/- g	38162 ...
PCB 350-3	0.001	350	Ø 81	0.002	0.005	200
PCB 3500-2	0.01	3500	130 x 130	0.02	0.05	209
PCB 6000-1	0.1	6000	150 x 170	0.1	0.3	211
PCB 10000-1	0.1	10000	150 x 170	0.1	0.3	212

38174 Precision scales type EMB

CAL EXT | UNDER | UNIT

KERN

Note:
Replacement batteries, see art. no. 39900 405.
Mains power supply adapter, DKD certificate and test weights available on request.

38174 101 | 38174 102-105

Design
- Entry-level laboratory scales with impressive weighing performance
- Large LCD display (digit height 15 mm)
- Plastic weighing tray
- Especially flat design
- AUTO-OFF function to conserve battery
- Secure and slip-free installation thanks to rubber feet
- Total dimensions W x D x H 170 x 244 x 39 mm
- Permissible ambient temperature range 5 °C–35 °C
- Supplied with 9 V batteries

Model	Reading g	Weighing range max. g	Reproducibility g	Linearity +/- g	Weighing tray Ø mm	38174 ...
EMB 600-2	0.01	600	0.01	0.03	105	101
EMB 500-1	0.1	500	0.1	0.2	150	102
EMB 1200-1	0.1	1200	0.1	0.3	150	103
EMB 2200-0	1	2200	1	2	150	104
EMB 5.2K1	1	5200	1	3	150	105 NEW

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38165 Counting scales type CXB

KERN

Design
- Large LCD display (digit height 18 mm)
- Automatic shut-off of the backlight after 5 seconds to save power, can be switched off
- With protective cover over keyboard and housing
- Dirt-repellent design thanks to water channels on the housing edge and sealing rings over the top housing inlets
- Mains power supply adapter 230V/50Hz
- Internal rechargeable battery with approx. 200 h running time (charging time approx. 8 h)
- With indication of charging status in the display

Functions programmable via keypad:
- Known reference weight
- Desired reference quantity
- Manual saving of a known container weight (PRE-TARE)
- Programmable target quantity or target weight
- When reaching the target value, an acoustic signal sounds (fill-to-target)
- Counting total memory to add up equal counted parts in total pieces and total weight

Note:
DKD certificate and test weights available on request.

38165

Model	Reading g	Weighing range max. kg	Reproducibility g	Linearity +/- g	Piece weight min. for piece counting g	Weighing tray mm	38165	...
CXB 3K0.2	0.2	3	0.2	0.4	0.10	300 x 225		101
CXB 6K0.5	0.5	6	0.5	1.0	0.25	300 x 225		102
CXB 15K1	1	15	1.0	2.0	0.50	300 x 225		103
CXB 30K2	2	30	2.0	4.0	1.00	300 x 225		104

38166 Counting systems type CCS

KERN

Design
Reference scales CFS:
- Programmable via keypad
- Three displays
- Memory PLU for 100 articles
- Acoustic signal, fill-to-target
- Precise counting
- Protection hood included in the scope of delivery

Quantity scales:
- Quantity piece counting with high precision on the weighting platform, so that even the smallest countable parts can be counted in very large volumes
- Stainless steel weighing tray, steel base
- Aluminium single point weighing cell

Applications
For counting the smallest parts in large quantities.

Note:
DKD certificate and test weights available on request.

38166

Model	Readability Quantity scales g	Weighing range Quantity scales kg	Readability Reference scales g	Weighing range Reference scales g	Counting resolution Parts	Smallest part weight g/piece	38166	...
CCS 30K0.1	1	30	0.1	6000	300,000	1		301
CCS 60K0.1	2	60	0.1	6000	600,000	1		302
CCS 60K0.1L	2	60	0.1	6000	600,000	1		303
CCS 150K0.1	5	150	0.1	6000	1,500,000	1		304
CCS 150K0.1L	5	150	0.1	6000	1,500,000	1		305

Table scales | Platform scales | Suspended scales

38173 Table scales type FCB/FKB

CAL EXT | PCS | RECIPE | PERCENT | MOVE | UNDER | UNIT

KERN

NEW

Design
- Large LCD display (digit height 25 mm)
- Pre-tare function
- High mobility thanks to operation with rechargeable battery (batteries not included in the scope of delivery), battery operation optional
- Data interface RS 232
- Protection hood included in the scope of delivery

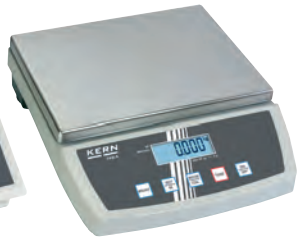
Note:
Batteries, see art. no. 39900 405.
DKD certificate and test weights available on request.

38173 102–105:
The second display is on the rear of the scales

38173 102-105
Design
- With a second display on the rear of the scales

38173 102-105

38173 106



Model	Readability g	Weighing range max. g	Weighing tray mm	38173	...
FCB 8K0.1	0.1	8000	253 x 229		102
FCB 12K1	1	12,000	253 x 229		103
FCB 30K1	1	30000	253 x 229		105
FKB 65K1A	1	65,000	340 x 240		106

38175 Platform scales type EOC with practical flip/flop evaluation device

KERN

CAL EXT | PCS | PERCENT | MOVE | TOL | SUM

Design
- High mobility thanks to operation with rechargeable battery
- Platform: Stainless steel weighing tray, painted steel base, dust and splash protection IP 65, level and foot screws
- Backlit LCD display (digit height 24 mm)
- Weighing in the tolerance range (checkweighing): Optical and acoustic signal
- Hold function
- Table base incl. wall bracket fitted as standard
- Protection hood included in the scope of delivery

- Query and remote control of the scales via external control devices or computer using Kern Communication Protocol (KCP)

NEW

38175

Model	Readability g*	Weighing range max. kg*	Smallest part weight g/piece	Cable length approx. m	Weighing tray W x D x H mm	38175	...
EOC 10K-3	2/5	6/12	5	3	300 x 300 x 110		101
EOC 30K-3	5/10	15/35	10	3	300 x 300 x 110		102
EOC 60K-2	10/20	30/60	20	3	300 x 300 x 110		103
EOC 60K-2L	10/20	30/60	20	3	500 x 400 x 120		104
EOC 100K-2	20/50	60/150	50	3	300 x 300 x 110		105
EOC 100K-2L	20/50	60/150	50	3	500 x 400 x 120		106
EOC 300K-2	50/100	150/300	100	3	500 x 400 x 120		107

* Dual range scales (automatic switch-over)

Info Test weights

Test weights can be delivered in both standard and special forms or in set combinations.
DKD calibration certificates are available for all test weights.

Please contact us for more information.

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

38427 Digital suspended scales type CH

KERN

Design
- With stainless steel hook and extendable tape measure (length 100 cm)
- LCD display (digit height 11 mm)
- Data hold button
- Housing W x D x H 90 x 30 x 175 mm (with hook 270 mm)
- Battery operation with automatic shut-off (approx. 3 min.)
- Incl. 1 x 9 V battery (type 6 LR 61)

Note:
Replacement batteries, see art. no. 39900 405.
Accessories (wall console, belt, tare tray, tray bracket) available on request.

38427

Model	Reading g	Weighing range max. kg	38427	...
CH 15 K 20	20	15		101
CH 50 K 50	50	50		103
CH 50 K 100	100	50		104

38424 Digital suspended scales type HCB

KERN

Design
- With stainless steel snap hook with safety catch (opening 15 mm) and stainless steel S hook (opening approx. 25 mm)
- LCD display (digit height 12 mm)
- Data hold button
- Housing W x D x H 80 x 45 x 150 mm (with snap hook and S-hook 290 mm)
- Battery operation with automatic shut-off (3 min.)
- Incl. 3 x 1.5 V batteries (type AA)

Note:
Replacement batteries, see art. no. 39900 303.
Accessories (snap hook and S-hook) and DKD certificate available on request.

38424

Model	Reading g	Weighing range max. kg	38424	...
HCB 20 K 50	50	20		101
HCB 50 K 100	100	50		102
HCB 100 K 200	200	100		103
HCB 200 K 500	500	200		104

38425 Digital suspended scales type HDB-XL

KERN

Design
- LCD display (digit height 12 mm)
- Additional weighing units: kg, lb, N
- Permissible ambient temperature range: 5 °C–35 °C
- Hold function
- Incl. 2 x 1.5 V batteries (type AAA) operating time up to 180 hours

Note:
Replacement batteries, see art. no. 39900 304.

NEW

38425

Model	Readability g	Weighing range max. kg	Housing dimensions W x D x H mm	38425	...
HDB 6K-3XL	5	6	107 x 25 x 101		101
HDB 10K-2XL	10	15	107 x 25 x 101		102
HDB 30K-2XL	20	30	107 x 25 x 101		103

38429 Type HCD digital crane balances

KERN

Design
- Full-fledged crane scales for lower to medium load ranges
- Large, high-contrast LCD display (digit height 28 mm)
- Hold function
- Battery charge indicator
- Hook with safety catch
- Infrared remote control
- Supplied with 4 x 1.5 V batteries (type AA) operating time up to 100 hours

Note:
Replacement batteries see art. no. 39900 303.
DKD certificate and test weights available on request.

NEW

IR remote control

38429

Model	Readability g	Weighing range max. kg	Net weight approx. kg	38429	...
HCD 60K-2	20	60	0.85		101
HCD 100K-2	50	150	0.85		102
HCD 300K-1	100	300	0.85		103

38431 Type HFM digital crane balances

KERN

Design
- Self-illuminated LED display (digit height 30 mm)
- Professional device for robust applications in production, quality control, logistics, etc.
- Also ideally suited for continuous use in industrial environments thanks to the sturdy construction and robust design
- Adjust to unstable environmental conditions by changing the readability
- Data hold button
- Hook with safety catch, rotating
- **Wireless remote control** (incl. 2 x 1.5 V batteries, type AAA), range approx. 20 m, all functions are selectable (with the exception of ON/OFF)
- High mobility thanks to operation with rechargeable battery, operating time of up to 50 hours, charging time approx. 14 hours via mains power supply adapter, LED battery charge indicator
- With the TÜV/GS mark, the scales meet the requirements of the German Equipment and Product Safety Act **and were tested in accordance with EN 13155 (Non-fixed sensors) and EN 61010-1 (Electrical safety)**

Note:
Replacement batteries for wireless remote control, see art. no. 39900 304.
DKD certificate available on request.

38431

Model	Reading g	Weighing range max. kg	38431	...
HFM 1T0.1	100	1000		101
HFM 3T0.5	500	3000		102
HFM 5T0.5	500	5000		103
HFM 10T1	1000	10,000		104

38210 spring balances with spherical probes

ATORN®

Design
- Tolerance +/- 0.01 x (measuring range + measured value)
- To achieve an accurate measurement result, the probe ball must be loaded perpendicular to the lever axis
- The measurements can be carried out in both directions
- **With trailing pointer**
- Supplied with test certificate in accordance with factory guidelines
- In case

Applications
For measuring and setting the correct values for contact pressures on electrical switch gears, tracking forces of motor brushes, measuring pressures of pointer-type measuring devices, tactile pressures of typewriters, calculators and musical instruments, support weights of phonograph pick-ups, tensile and compressive forces of springs.

Note:
Factory calibration certificate for traceability to test equipment monitoring is available on request.

38210

Measuring range cN	Dial Ø mm	Graduation line cN	Lever gauge length mm	38210	...
3–30	36	1.0	29		103
5–50	36	1.0	29		104
10–100	36	2.0	29		105
25–250	36	5.0	29		106

Measuring range cN	Dial Ø mm	Graduation line cN	Lever gauge length mm	38210	...
0.5–5	72	0.1	48		107
1–10	72	0.2	48		108
3–30	72	0.5	48		110
5–50	72	1.0	48		112
10–100	72	2.0	8		114

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38401 Cylindrical dynamometers

Design
- With built-in overload protection
- The instrument can be loaded up to approx. 20% over the max. measured value without any change occurring to the measuring spring
- Reserved measurement errors: +/- 1% from the full scale value
- Black scale on silver-plated inner tube
- Nickel-plated tube, caps, ring and hook

Applications
For fine measurements and fine weighing.

Note:
Also available with factory calibration certificate on request.

38401

Measuring range N	Fine graduation N	Total length mm without/with max. load	Scale tube Ø mm	Scale length mm	Weight kg	38401	...
2	0.02	240/340	14.5	100	0.15		**201**
5	0.05	240/340	14.5	100	0.15		**202**
10	0.10	240/340	14.5	100	0.15		**203**
25	0.25	240/340	14.5	100	0.15		**204**
50	0.50	246/346	14.5	100	0.15		**205**
100	2.00	246/346	14.5	60	0.15		**206**
200	4.00	262/322	18.0	60	0.20		**207**
300	5.00	302/362	21.0	60	0.35		**208**

38605 Digital force measuring devices (tension and pressure)

ATORN®

Design
- Aluminium die-cast housing
- LCD display with switchable backlight
- Mechanical overload protection, up to approx. 200% of the measuring range
- Tare suppression
- Switchable units: kN, N, kg, lbs
- Automatic saving of settings when device shuts off
- Electronic peak value acquisition for tension and compression
- Simultaneous display of the current measured value in peak operation
- Analogue output 0–2 V DC, USB 2.0 interface for data transfer to PC
- Tolerance limit settings
- Connecting thread for clamping devices: ≤1000 N: M6, > 1000 N: M12
- 4 languages selectable (D/GB/F/I)
- Software on CD (installation on PC)
- Power supply: Mains operation or NiMH batteries (3 x 1.2 V AA). Alternatively, use of non-rechargeable 1.5 V AA batteries is also possible
- Dimensions H x W x D = 170 x 75 x 35 mm (Dimension H without threaded spindle)
- **Data transfer to a PC using either:**

1) interchangeable 2 GB SD card via an SD card reader (not included in the scope of delivery).
2) continuous data transfer in streaming mode in real time via the USB interface.

Scope of delivery:
Device with battery pack, 230 V power supply unit/charger,
SD memory card, USB connecting cable,
CD with software and operating instructions,
factory calibration certificate, transport case.

38605 101-106
Additionally with pressure plate Ø 23 mm, 2 extensions M 6 x 25 or 45 mm and pull hook.

38605 107-108
Additionally with pressure piece Ø 18 mm and 1 extension M 12 x 50 mm.

38605

Measuring range N	Resolution N	Accuracy %	38605	...
0–20	0.001	< +/- 0.05		**101**
0–50	0.001	< +/- 0.05		**102**
0–100	0.01	< +/- 0.05		**103**
0–200	0.01	< +/- 0.05		**104**

Measuring range N	Resolution N	Accuracy %	38605	...
0–500	0.01	< +/- 0.05		**105**
0–1000	0.1	< +/- 0.05		**106**
0–2000	0.1	< +/- 0.05		**107**
0–5000	0.1	< +/- 0.05		**108**

Info Test stands for force measuring devices

Universal test stands for force measuring devices available on request.

Please contact us!

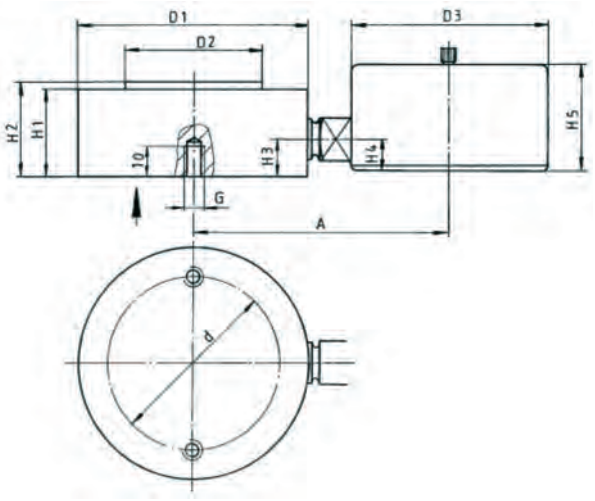
38801 Pressure measuring cells (hydraulic dynamometers)

ATORN®

Design
- Extremely low overall height
- Measurability from zero
- Temperature resistance from -20°C to +70°C
- High load frequency
- With maximum trailing pointer
- Accuracy +/- 2% from the full scale value
- Throttle damping for light, prompt loading and unloading
- Supplied with plant test certificate in accordance with ISO 9001
- In transport case

Applications
For static and dynamic force measurements.

Note:
For additional force measuring cells, see HHW Catalogue Volume 1 (Machining + Clamping technology) art. no. 27701.



38801

Measuring range N	Measuring range kN	Scale interval N	Scale interval kN	Ø D1 mm	Ø D2 mm	H1/H2 mm	H3/H4 mm	H5 mm	A mm	G	Ø d mm	Ø D3 mm	38801	...
160	**-**	5	-	75	45	28/30	12/10	36	82	M 6	55	63		**101**
250	**-**	5	-	75	45	28/30	12/10	36	82	M 6	55	63		**102**
400	**-**	10	-	75	45	28/30	12/10	36	82	M 6	55	63		**103**
600	**-**	10	-	75	45	28/30	12/10	36	82	M 6	55	63		**104**
-	**1.0**	-	0.02	75	45	28/30	12/10	36	82	M 6	55	63		**105**
-	**1.6**	-	0.05	75	45	28/30	12/10	36	82	M 6	55	63		**106**
-	**2.5**	-	0.05	75	45	28/30	12/10	36	82	M 6	55	63		**107**
-	**4.0**	-	0.10	75	45	28/30	12/10	36	82	M 6	55	63		**108**
-	**6.0**	-	0.10	75	45	28/30	12/10	36	82	M 6	55	63		**109**
-	**10.0**	-	0.20	75	45	28/30	12/10	36	82	M 6	55	63		**110**
-	**16.0**	-	0.50	75	45	28/30	12/10	36	82	M 6	55	63		**111**
-	**25.0**	-	0.50	75	45	28/30	12/10	36	82	M 6	55	63		**112**
-	**40.0**	-	1.00	75	45	28/30	12/10	36	82	M 6	55	63		**113**
-	**60.0**	-	1.00	90	56	30/32	12/10	36	90	M 6	75	63		**114**
-	**100.0**	-	2.00	90	56	30/32	12/10	36	90	M 6	75	63		**115**

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39025 Stroke counter

Design
- With key zero position
- Adding in one stroke direction
- Stroke lever automatically returns to home position
- Stroke stop: min. 38°–60°
- Stroke direction away from the viewer
- Drive shaft protrudes to left and right
- Front/rear mounting
- Stroke lever can be mounted on both sides

39025

Max. strokes/min.	Number of digits	Digit height mm	Base area mm	39025	...
500	6	4.5	70 x 60		101

39035 Crown stop watch

hanhart CHRONOGRAPHEN 1882

Design
- Pin-lever movement
- 1 stone
- Impact-resistant
- ABS special housing
- 30-minute counter
- Start, stop, reset by pressing on the crown

39035

Housing Ø mm	Reading sec./min.	39035	...
55	0.2/0.01		101

39040 Addition stop watch

hanhart CHRONOGRAPHEN 1882

Design
- Pin-lever movement
- 1 stone
- Impact-resistant
- ABS special housing
- 30-minute counter
- Start and stop by pressing on the crown, in any desired sequence
- Reset using side button

39040

Housing Ø mm	Reading sec.	39040	...
55	0.2		201

39045 Digital stopwatch

hanhart CHRONOGRAPHEN 1882

Design
- Waterproof ABS housing
- Easy-to-read LCD display
- Display range 9 hours, 59 minutes, 59.99 seconds.
- Supplied with protective case, cord and 1.5 V battery (type LR 6, AA)

Functions:
Start/Stop/Reset/Addition/Split/Lap/Time.
5 memory spaces: 5 split and lap times.

Note:
Replacement batteries, see art. no. 39900 303.

39045

Size mm	LCD display	Digit height mm	Weight approx. g	39045	...
22 x 61 x 28	7-digit	8	90		101

Stopwatches | Tachometers | Rotation speed measuring instruments

39050 Digital stopwatch

hanhart CHRONOGRAPHEN 1882

Design
- Ultrasound-welded viewing window
- **Watertight ABS housing**
- 2-button operation
- 1/100 min, 1/100 sec. can be selected
- 2.5-line LCD display: Top line 6-digit with battery level display, bottom line 7-digit
- Function window for lap/standard time
- 2-digit memory display, digit height 7 mm/5 mm
- **Display range:** top line 9999.99 min., bottom line 99,999.99 min.
- Supplied with lanyard, protective case and 1.5 V battery (type LR 03, AAA)

Functions with 1/100 min.:
- Start/Stop/Reset Split/Lap/Addition (Split and Lap can be read simultaneously)
- Time, date
- **65 memory spaces** for Split and Lap

Functions with 1/100 sec.:
- Start/Stop/Reset – Addition/Split/Lap/Short-Lap
- Split time can be set from the time
- Countdown function (countdown and stopwatch can be used simultaneously)
- Time, date
- **65 memory spaces** with evaluation
- Quick search

Note:
Replacement batteries, see art. no. 39900 304.

39050

Size mm	Weight g	39050	...
82 x 61 x 28	85		301

39055 Table stopwatch

hanhart CHRONOGRAPHEN 1882

Design
- Quartz-controlled
- Display 0–60 seconds, 0–60 minutes
- Inner scale 0–100/100 minutes
- Dial Ø 110 mm
- Dimensions 175 x 130 x 40/95 mm
- Supplied with 1.5 V battery (type LR 6, AA)

Functions:
1. Start/Stop
   Reset (zero setting)
2. Addition (as often as desired)
   Reset (zero setting)

Note:
Replacement batteries, see art. no. 39900 303.

39055

Size mm	Dial Ø mm	39055	...
175 x 130 x 40/95	110		101

39110 Hand-held tachometer

DEUMO

Design
- Works according to the eddy current principle
- Push-button locking of the respective measured value
- **Display accuracy +/-0.5%** (related to the end value)
- Measuring range divided into 3 measuring stages: 40–500/400–5000/4000–50,000 rpm.
- Complete with rubber tip, rubber centre inserts, carrier funnel, roller disc for speed measurement, extension and replacement tips, in case

Applications
For rotation and cutting speed measurement (roller disc) with continuous display, for both directions of rotation.

39110

Measuring range rpm	Dial Ø mm	39110	...
40 - 50,000	74		101

39120 Tachometers TESTO 465 / TESTO 470

39120 101
TESTO 465
Design
- Optical measured value recording with modulated light beam
- Easy one-handed operation
- Max/Min function
- Storage of average/max value and last value after shutdown
- Measuring distance up to 600 mm
- Auto-Off function (30 sec.)

Scope of delivery:
- Tachometer TESTO 465
- Soft case (protective sleeve)
- Reflective markers
- Calibration protocol
- 1.5 V batteries, type LR 6, AA

Applications
For non-contact measurement of rotation speeds in industry and trades, e.g. on shafts of a filter pump, on turbines and pumps, on fans and ventilators, etc.

Note:
Replacement batteries, see art. no. 39900 303.

39120 100
TESTO 470
Design
- **With adapter for mechanical speed measurement**
- Optical measured value recording with modulated light beam
- Easy one-handed operation
- Max/Min function
- Storage of average/max value and last value after shutdown
- Measuring distance up to 600 mm
- Auto-Off function (30 sec.)

Scope of delivery:
- Tachometer TESTO 470
- Soft case (protective sleeve)
- Adapter
- Sensor tip
- Impeller
- Reflective markers
- Calibration protocol
- 1.5 V batteries, type LR 6, AA

Note:
Replacement batteries, see art. no. 39900 303.

39120 102
Reflective markers
150 mm self-adhesive **(1 pack = 5 pieces).**

39120 101

39120 100

39120 102

Type	Optical measuring range rpm	Mechanical measuring range rpm	Accuracy	Dimension mm	Weight g	39120 ...
TESTO 465	1.00 ... 99,999	-	+/- 0.02% of meas. val. (+/- 1 digit)	144 x 58 x 20	145	**101**
TESTO 470	1.00 ... 99,999	1.00 ... 19,999	+/- 0.02% of meas. val. (+/- 1 digit)	175 x 60 x 28	190	**100**
Reflective markers	-	-	-	-	-	**102**

39121 Optical tachometer TESTO 460

Design
- Optical rotation speed measurement with LED measuring spot marking
- Max/min values operating temperature 0–50 °C

Scope of delivery:
- TESTO 460
- Calibration protocol
- Hand strap
- Belt bag
- Protective cap
- Batteries (2 x AAA)

Note:
Replacement batteries, see art. no. 39900 304.
Reflex markers, see art. no. 39120 102.

39121

Type	39121 ...
TESTO 460	**101**

Technical data:	TESTO 460
Measuring range:	100 to 29,999 rpm
Resolution:	0.1 rpm (100 to 999.9 rpm) 1.0 rpm (1,000 to 29,999 rpm)
Accuracy:	+/- (0.02% of meas. val.) +1 digit
Units:	rpm, rps
Dimensions (incl. protective cap):	119 x 46 x 25 mm

Paint and powder-coating measuring instruments | Layer thickness measuring instruments

39145 Paint and powder-coating measuring instrument easyCOATING

ATORN®

Design
- Ergonomic wireless probe for quick and simple layer thickness measurement
- Measuring layers of paint, lacquer, rubber or plastic on steel, iron or cast iron (Fe)
- Measuring layers of paint, lacquer, rubber or plastic on aluminium, copper or brass (NFe)
- Measuring anodised coatings on aluminium
- Measuring ranges: 0–2500 µm Fe, 0–2500 µm NFe

Scope of delivery:
- Wireless probe
- USB cable
- 2 calibration films 25 µm/250 µm
- 2 metal plates Fe/NFe
- Operating instructions
- Case

Features:
- Automatic detection of base material
- Suitable for measurements on smooth and rough surfaces
- Wireless probe with Bluetooth for connection to smartphone or tablet
- LED lighting when tolerance limits are exceeded
- Free software app for measured value display and calibration (for download)
- Create and manage measurement tasks, analyses and reports
- Measurement reports in PDF or CSV format, insertion of photos and comments

NEW

LED lighting when tolerance limits are exceeded

Measured value display via app

39145

Type	Dimensions L x Ø mm	Weight g	39145	...
easyCOATING	133.4 x 25	74		101

39146 Layer thickness measuring instrument professionalCOATING

IP 65

ATORN®

Design
- Robust, powerful handheld device for simple layer thickness measurement
- Measurement of paint, lacquer, rubber or plastic coatings, chrome or copper layers as well as zinc-plated and hot-dip zinc-plated coatings on steel and iron
- Measurement of paint, lacquer or plastic coatings on aluminium, copper or brass
- Measuring range of 0–2500 µm on Fe/0–2000 µm on NFe

Accuracy:
0–100 µm: ≤ 1.0 µm
100–1000 µm: ≤ 1.5 %
1000–2500 µm: ≤ 3.0 %

Features:
- Dual probe enables measurements on Fe + NFe substrates
- Shockproof, dustproof and waterproof IP65
- One-handed operation via 4 buttons for efficient working
- Three-point support for precise measurement
- High-contrast, rotating display for all viewing angles
- The following measuring standards: SSPC-PA 2 with Level 1–5, IMO PSPC, ISO 19840, Australian AS 3894.3 B, Swedish IS 184160, etc. are already preconfigured
- Visual, haptic and acoustic signal for user-defined limits
- Data transfer via Bluetooth, Wi-Fi and USB-C
- Storage space for more than 100,000 values

NEW

39146

Type	Dimensions mm	Weight g	39146	...
professionalCOATING	130 x 73 x 40	187		101

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39150 Layer thickness measuring instrument QNix® 1500

Design
- Precise measurement of layer thickness with extremely simple handling
- Broad range of applications on different metal surfaces as well as a wide **measuring range from 0 to 5000 µm for both measurement processes Fe and NFe**
- Usually at least four instruments are required for this purpose – one for the lower and one for the upper measuring range, as well as for each of the two measurement processes

Features:
- Both measuring probes Fe and NFe integrated in the instrument
- Large measuring range 0–5000 µm
- High accuracy over the entire measuring range
- No measuring range changeover necessary
- No probe change necessary
- Comfortable one-handed operation
- Design without cables and connectors
- High operational safety in harsh working conditions
- No calibration necessary
- Automatic switch on and off
- Measuring in hard-to-reach places
- Storage of the last measured value
- Duplex display for reading in any position
- Wear-resistant measuring probes thanks to fitting with ruby
- V-groove for measurement on axes and bars

Type	39150	...
QNix® 1500		101

Scope of delivery:
- Layer thickness measuring instrument
- 9 V battery (type 6 LR 61)
- Case with zero plates
- Test certificate
- Operating instructions

Note:
Replacement battery, see art. no. 39900 405.

39150

Technical data:	
Base material (substrate) steel and iron:	Fe probe
Non-magnetic metals, e.g. aluminium, zinc, copper, brass, stainless steel:	NFe probe
Measuring range:	0.0–5000 µm or 0.00–200 mil (switchable)
Measurement display:	from 0.00–999 in µm from 1.00–5.00 in mm or from 0.00–200 mil
Measuring accuracy:	+/- (1 µm + 2%) of the measured value in the range of 0–999 µm +/- 3.5% of the measured value in the range of 1.00–5.00 mm
Smallest measuring surface:	10 x 10 mm
Smallest curvature radius:	5 mm convex/25 mm concave
Smallest thickness of base material:	Fe: 0.2 mm/NFe: 0.05 mm
Temperature range:	0°C–50°C
Display:	Digital (LCD)
Probes:	Single-point, integrated in the instrument
Power supply:	9 V electric block (alkaline) Type 6 LR 61
Dimensions (L x W x H):	166 x 64 x 34 mm
Weight:	approx. 150 g with battery

39152 Layer thickness measuring instruments QNix® 4200 P/4500P

Design
- High measuring accuracy over the entire measuring range
- Only one function key
- Proven Hall sensor technology (and eddy current technology for QNix® 4500)
- One-handed operation for all measuring tasks
- **No calibration necessary on uncoated base material**
- Integrated sensor without cables or connectors
- Automatic switch on/off
- Metric or inch display can be selected
- Acoustic signal on start of measurement
- LC display for measurement value, battery status, measuring unit, operating mode and serial number

Scope of delivery:
- Layer thickness measuring instrument
- 2 x 1.5 V AA batteries LR 6 AA
- Device case with zero references
- Test certificate
- Operating instructions

Applications
Specially designed for automotive and painting applications.

Type	39152	...
QNix® 4200 P		201
QNix® 4500 P		202

Note:
Replacement batteries, see art. no. 39900 303.
1 m cable probe available as an option.

39152

39152 201
QNix® 4200 P
Applications
For measurements on steel and iron.

39152 202
QNix® 4500 P
Applications
For measurements on both steel and iron as well as on non-ferrous metals.You can switch between the two measurement processes at the touch of a button.

Technical data:	
Base material (substrate) steel and iron:	Fe probe (4200/4500)
Non-magnetic metals, e.g. aluminium, copper, brass:	NFe probe (4500)
Measuring range:	Fe: 0–3000 µm/NFe: 0-3000 µm
Measuring accuracy:	+/- (2 µm + 3%*) (*of the measured value)
Smallest curvature radius:	5 mm convex/25 mm concave
Smallest thickness of base material:	Fe: 0.2 mm/NFe: 0.05 mm
Temperature range:	0°C–50°C
Display:	Digital (LCD)
Sensor:	Single-point, integrated in the instrument
Power supply:	2 x 1.5 V AA batteries (alkaline) type LR 6, AA
Dimensions:	100 x 60 x 27 mm
Weight:	approx. 100 g

Info Layer thickness measuring instruments QNix®

Further layer thickness measuring instruments QNix® with various accessories deliverable on request.

Please contact us!

Layer thickness measuring instruments | Wall thickness measuring instruments | Hardness testers

39153 - 39154 Layer thickness measuring instruments QNix® 8500

39153
QNix® 8500
Design
- High measurement accuracy over the entire measuring range
- Ergonomic modern, illuminated keypad
- All languages can be installed through available editors
- One-handed operation for all measuring tasks
- Probes can be used both directly and with adapter cables on the handheld unit
- Automatic switch on/off
- Metric or inch display can be selected
- Acoustic signal on start of measurement
- High resolution, rotating graphic display for measurement value, battery state, measuring unit, operating mode and serial number
- Due to the modular design of the device, the digital probe must be ordered separately

Applications
Suitable for paint as well as for corrosion protection on metals. Can be used with iron, aluminium, copper, zinc and steel. By simply changing probes, both all non-magnetic coatings on steel and iron as well as all insulating coatings on non-ferrous metals can be measured with the highest measuring accuracy and without any damage.

If ordered with a coating thickness measuring instrument and a probe, an adapter cable is included in the delivery.

39153 101
QNix® 8500 Basic
- 100 memory spaces for measured values
- 1 memory block
- 1 calibration option

Scope of delivery:
- Layer thickness measuring instrument (without sensor)
- Adapter cable for external probe (not for wireless probe)
- Test certificate for optional sensor
- 2 x 1.5 V AA batteries (AA)
- Operating instructions
- Soft bag with belt clip
- Plastic case with reference plates

39153 102
QNix® 8500 Premium
- 30,000 memory spaces for measured values
- 250 memory blocks
- 100 calibration options
- Selectable resolution

Scope of delivery:
- Layer thickness measuring instrument (without sensor)
- Adapter cable for external probe (not for wireless probe)
- USB dongle
- QNix® software
- Test certificate for optional sensor
- 2 x 1.5 V AA batteries (AA)
- Operating instructions
- Soft bag with belt clip
- Plastic case with reference plates

Display
- High-resolution graphic display
- All major languages can be displayed as menu navigation
- Backlight
- Flip display by 180 degrees

Navigation cross
- Ergonomic modern keypad
- Simple menu navigation
- 2-colour LEDS to display measurement, data transfer and limit setting

39153 101 39153 102

Technical data:	
Base material (substrate) steel and iron:	Fe probe
Non-magnetic metals, e.g. aluminium, copper, brass:	NFe probe
Measuring range:	Fe: 0–5000 µm/NFe: 0-5000 µm
Measuring accuracy:	from 0–2000 µm: +/- (1 µm + 2% of the measured value) 2000 µm: +/- 3.5% of the measured value
Smallest curvature radius:	5 mm convex/30 mm concave
Smallest thickness of base material:	Fe: 0.2 mm/NFe: 0.05 mm
Temperature range:	0 °C–50 °C
Display:	Digital (LCD)
Sensor:	Replaceable
Power supply:	2 x 1.5 V AA batteries (alkaline) type AA
Dimensions:	124 x 67 x 33 mm
Weight:	approx. 120 g

Type	39153	...
QNix® 8500 Basic		101
QNix® 8500 Premium		102

39154 101-105
Digital probes

39154 201-206
Wireless probes
- Enhanced safety for the user and avoids significant sources of error
- Wireless transmission of data between the handheld device and a PC
- Wireless range of the probe to the hand-held device up to max. 20 metres
- Confirmation of measurement transmission via LED signal
- Stable and secure one-hand measurement with cord safety mechanism
- Up to 4000 measurements without recharging
- Charging using handheld device

39154 107
QNix® software
- For wireless, bi-directional exchange between PC and handheld device via USB dongle
- Automatic device recognition, simple configuration, simultaneous control and management of multiple QNix® 8500 devices
- All languages can be installed through available editors
- Enables downloading and installation of firmware updates via the Internet
- Online measurements and on screen help
- Simple transfer and statistical evaluation of the measured values in Excel (data and graphics)
- QNix® software can be run from Windows 2000, XP and with the last SP

Scope of delivery:
- QNix® software (1 CD-Rom)

39154 108
Adapter cable (1 m) for external probes

39154 201-206

39154 107

	Digital probes		Wireless probes		USB dongle		QNix® software		Adapter cable	
Measuring range µm	39154	...	39154	...	39154	...	39154	...	39154	...
Fe 0–2000		101		201						
Fe 0–5000		102		202						
NFe 0–2000		103		203						
Fe 0–2000/NFe 0–2000		104		204						
Fe 0–5000/NFe 0–2000		105		205						
Fe 0–5000/NFe 0–5000				206						
Accessories						106		107		108

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

39166 Ultrasonic wall thickness measuring instrument

SAUTER

Design
- Measuring head 5 MHz, Ø 10 mm
- Sound speed can be adjusted from 1000–9999 m/sec
- Measuring range 1.2–230 mm (steel)
- Measurement uncertainty: 0.5% of the measured value + 0.04 mm
- Internal data memory for 20 files (with up to 100 individual values per file)
- Selectable units: mm/inch
- External measuring head for easy accessibility of hard-to-reach measuring points, cable length 1 m
- Scan mode: (10 measurements per second) or single-point measurement can be selected
- Auto power off function.

Scope of delivery:
- Ultrasonic wall thickness measuring instrument with external measuring head
- 2 x 1.5 V AA batteries
- In robust carrying case

Applications
For measuring the thickness of hard materials, such as metal, glass and plastic. Material thickness, corrosion and wear testing of pressure vessels, boilers and tanks.

Note:
Replacement batteries, see art. no. 39900 303. PC software, thermal printer, ISO calibration certificate as well as optional probes are deliverable on request.

39166

Type	Resolution mm	Measuring range mm	Dimensions L x W x H mm	39166	...
TN 230-0.01 US	0.01	1.2–230	150 x 74 x 32		102

39173 SHORE analogue hardness tester

ATORN®

39173 101-102
SHORE hardness testers
Design
- With trailing pointer
- Large glare-free display, rotates through 360°
- In case

Advantage:
- Ergonomic handles for excellent handling

Note:
Can be used as a handheld device or for series testing using ATORN test stand (art. no. 39173 103).

39173 101
SHORE A hardness testers
Design
- For soft materials

Applications
For determining hardness in accordance with SHORE A in accordance with DIN ISO 7619-1, ISO 7619-1, ISO 868 and ASTM D 2240. Suitable for e.g. soft rubber, elastomers, natural rubber, neoprene, polyester, casting resins etc.

39173 102
SHORE D hardness tester
Design
- For hard materials

Applications
For determining hardness in accordance with SHORE D in accordance with DIN ISO 7619-1, ISO 7619-1, ISO 868 and ASTM D 2240. Suitable for e.g. hard rubber, acrylic glass, stiff thermoplastics, Resopal, vinyl sheets, cellulose/acetate, hard plastic materials etc.

39173 103
Test stand
NEW
Design
- Height adjustable including setting disc 20 SHORE
- Overhang 115 mm
- Test bench Ø 98 mm
- Sample thickness max. 180 mm
- Materials testing unit: aluminium construction
- Delivery without hardness tester

Advantage:
- Tilt lever for shock-free and constant test force

Applications
For fitting the ATORN SHORE hardness testers, art. no. 39173 101–102.
Ideal for precise and reproducible individual or series measurements.

39173 104
Loading weight SHORE D 4000 g
Design
- Material: Stainless steel A2, 1.4305

Applications
For ATORN test stand, art. no. 39173 103.

39173 105
Test sample set SHORE A
Design
- 7 pieces
- Hardness range SHORE: 30, 40, 50, 60, 70, 80, 90

39173 106
Test sample set SHORE D
Design
- 3 pieces
- Hardness range SHORE: 60, 75, 85

39173 101

39173 102

39173 103

39173 104

39173 105

39173 106

Hardness tester | Accessories

	Trailing pointer	Dial gauge Ø mm	Scale interval SHORE	Error limit SHORE	39173	...	39173	...
Hardness tester SHORE A	x	57	1	+/- 0.5		101		
Hardness tester SHORE D	x	57	1	+/- 0.5		102		
Test stand	-	-	-	-				103
Loading weight	-	-	-	-				104
Test sample set SHORE A	-	-	-	-				105
Test sample set SHORE D	-	-	-	-				106

Hardness testers

39174 SHORE digital hardness tester

ATORN®

39174 101-103
SHORE hardness testers
Design
- Large, high-contrast LCD display
- Data output OPTO-RS 232
- Accurate to 0.5 hardness units
- Measurement times for standards set
- Preset time of 1 to 99 s
- Resolution 0.1
- AUTO-OFF and HOLD function
- Ergonomic handle design for ease of use

Note:
Can be used as a handheld device or for series testing using ATORN test stand (art. no. 39173 103 and 39174 105).Replacement batteries, see art. no. 39901 103.

39174 101
SHORE A hardness testers
Design
- For hardness testing of rubber items

Applications
For determining hardness in accordance with SHORE A in accordance with DIN ISO 7619-1, ISO 7619-1, ISO 868 and ASTM D 2240.

39174 102
SHORE D hardness tester
Design
- For hardness testing of plastic items

Applications
For determining hardness in accordance with SHORE D in accordance with DIN ISO 7619-1, ISO 7619-1, ISO 868 and ASTM D 2240.

39174 103
SHORE OO hardness tester
Design
- For very soft materials

Applications
For determining hardness in accordance with SHORE OO in accordance with ASTM D 2240. Suitable for e.g. foams, cellular and micro cellular rubber, etc.

39174 104
adapters
Applications
This adapter connects the **digital** ATORN SHORE hardness testers with the ATORN test stands.

39174 105
Test stand for SHORE OO hardness tester
Design
- Height adjustable including setting disc 20 SHORE
- Overhang 115 mm
- Test bench Ø 98 mm
- Sample thickness max. 180 mm
- Test unit material: Aluminium construction
- Delivery without hardness tester

Advantage:
- Tilt lever for shock-free and constant test force

Applications
For fitting the ATORN SHORE OO hardness tester, art. no. 39174 103. The test stand was developed for series tests on samples in accordance with SHORE OO (ASTM D 2240) in order to determine accurate and reproducible results. Subjective measurement errors caused by incorrect pressure force or non-vertical measurement are excluded.

39174 106
Test sample set SHORE OO
Design
- 3 pieces
- SHORE hardness range: 35, 60, 80
- Test samples 50 x 50 x 8 mm
- In storage box

Applications
For checking the hardness testers
SHORE OO 3 test samples with the hardness grades approx. 35, 60 and 80 type OO are available. Here too, an annual verification should take place.

Note:
Test sample sets for SHORE A and SHORE D, see art. no. 39173 105+106.

39174 107
Software for digital SHORE hardness testers
Design
- Windows® 7 compatible
- Measurement display, analogue/digital
- Comprehensive statistics
- Configurable test report (pdf)
- Output files as .csv or .jpg
- Different languages can be set
- Individual licenses for the products named above
- Configurable user interface
- Pre-adjustable user profile
- Automatic device recognition

Applications
The ATORN software for digital ATORN SHORE hardness testers is an ideal tool for laboratory application and documentation.

Note:
An USB adapter cable, art. no. 39174 108 is enclosed with the software.

39174 108
USB adapter cable
Design
- Adapter cable RS232/USB for digital ATORN SHORE hardness testers, art. no. 39174 101–103

Applications
For connecting digital hardness testers to a PC.

NEW

39174 101-103

39174 105

39174 104

39174 106

	Error limit SHORE	Hardness tester 39174 ...	Accessories 39174 ...
Hardness tester SHORE A	+/- 0.5	101	
Hardness tester SHORE D	+/- 0.5	102	
Hardness tester SHORE OO	+/- 1.0	103	
Adapter for test stand	-		104
Test stand for SHORE OO	-		105
Test sample set SHORE OO	-		106
Software	-		107
USB adapter cable RS232/USB	-		108

39175 - 39176 Impact handheld hardness tester

-POLDI-
39175
Design
- Delivery complete with magnifier, gauging rod and table
- In case (pocket size)

Applications
For testing according to Brinell, for testing materials with a tensile strength between 300 and 2200 N/mm², particularly in the case of semi-finished products of all forgeable iron and steel grades, of bulky or built-in pieces. **Tensile strength and the Brinell hardness can be read from table.** The specimen must be at least 12 mm thick and 16 mm wide at the testing point (with round parts 12 mm).

39176
Replacement gauging rod
- Dimensions: 12.5 x 12.5 x 150 mm

39175

39176

	39175	...	39176	...
		101		101

39181 Portable Leeb hardness tester HN-D

SAUTER
39181 101
Design
- The compact design enables a much broader range of applications than with conventional devices
- It can be **operated with just one hand,** making it faster and more flexible to use
- High-contrast LC display optimised for industrial applications: High brightness and backlight can be switched on to ensure the display can be read from all directions
- Rebound hardness test
- Measurement uncertainty +/- 4 HLD

Digital display of the hardness scales:
Rockwell (B & C), Vickers (HV), Brinell (HB), Shore (HSD), Leeb (HL)
- Tests in all test directions (360°) automatically compensated
- Internal data memory for up to 500 pieces of measurement data with date and time
- Wireless printer connection via IR (printer optional)
- USB-PC data output: Easily installable on any PC
- Battery operation

Scope of delivery:
Hardness tester TN-D, 1 sensor type D, in sturdy carrying case.

Note:
ISO calibration certificate, attachment rings, impact body, thermal printer, test blocks and PC software deliverable on request.

39181 102
Test block type D
Design
Ø 90 mm, hardness range 790 +/- 40 HL.

39181

Type	Measuring range HL	Dimensions L x W x H mm	39181	...
HN-D	0–999	145 x 35 x 25		101
Test block type D	-	-		102

Hardness testers | Mirrors | Magnifiers

39184 Portable Leeb hardness tester

SAUTER

Design
- **Mobility:** Compared to stationary table devices and hardness testers, offers maximum mobility and flexibility with internal sensor
- Automatic sensor detection
- **Mini statistics function:** Displays the measured value, the average value, the difference between the max and min values, time and date
- **Tests in all test directions (360°)**
- Internal data memory for up to 9 measuring groups (with up to 9 individual values, from which the average value of the group was formed)
- **Measurement display:** Rockwell (B & C), Vickers (HV), Brinell (HB), Shore (HSD), Leeb (HL) and tensile strength (MPa)
- **Automatic unit conversion:** Converts the measurement result automatically to all of the above-mentioned hardness units, as well as to tensile strength
- Auto power off function

Scope of delivery:
- Portable hardness tester HMM
- Impact device type D
- Wireless infrared-connected printer
- 3 x 1.5 V AAA batteries
- Mains plug

Note:
Replacement batteries, see art. no. 39900 304.

39184

Wireless infrared-connected printer (battery operated) for on-site printouts of measuring protocols

Technical data:			Hardness values			
Material	**HLD**	**HRC**	**HRB**	**HSD**	**HB**	**HV**
Steel and cast iron	170–960	19.8–68.5	59.6–99.6	26.4–99.5	140–651	83–976
Tool steel (cold work tool steel)	170–960	19.8–68.5	-	-	-	83–976
Stainless steel	170–960	19.8–68.5	59.6–99.6	-	140–651	83–976
Cast iron	170–960	-	-	-	140–334	-
Spheroidal graphite cast iron	170–960	-	-	-	140–387	-
Cast aluminium	170–960	-	-	-	30–159	-
Brass (copper-zinc alloys)	170–960	-	13.5–95.3	-	40–173	-
Bronze (copper-aluminium-tin alloys)	170–960	-	-	-	60–290	-
Wrought copper alloys	170–960	-	-	-	45–315	-

Measuring range HL	Measurement uncertainty	Thinnest measurable layer mm	Dimensions L x W x H mm	39184	...
170–960	1% at 800 HLD (+/- 6 HLD)	8	150 x 80 x 30		**101**

39190 Portable ultrasonic hardness testers HO

SAUTER

Design
- **Mini statistics function:** Displays the measurement result, the number of measurements, the maximum and the minimum value, as well as the average value and standard deviation
- **Measurement data memory:** Saves up to 1000 measured value groups of 20 individual values
- **Precision:** +/- 3 HV, +/- 1.5 HR, +/- 3% HB
- **Measuring time:** adjustable from 1–5 seconds
- **Display units:** HRC, HV, HBS, HBW, HK, HRA, HRD, HR15N, HR30N, HR45N, HS, HRF, HR15T, HR30T, HR45T, HRB

Principle:
The HO measures using a Vickers diamond tip, which is pressed onto the test object with a defined force. Then the tip is moved in high-frequency ultrasonic vibrations.
The hardness is derived from the damping.

Scope of delivery:
- Display unit
- UCI sensor unit
- Connection cable
- Transport case
- Software to transfer the saved data to the PC
- Hardness reference plate

Applications
Ideal for portable hardness testing where the emphasis is on fast and precise results.

Note:
ISO calibration certificate and accessories deliverable on request.

39190

Type	Hardness scale	Measuring range HRC	Measuring range HRB	Measuring range HRA	Measuring range HV	Measuring range HB	Tensile strength N/mm²	39190	...
HO 1K	HV 1	20.3–68	41–100	61–85.6	80–1599	76–618	255–2180		**101**
HO 2K	HV 2	20.3–68	41–100	61–85.6	80–1599	76–618	255–2180		**102**

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39200 Inspection mirrors

39200 101
Design
2 pieces, with metal handle.

39200 102
Design
2 pieces, with plastic handle.

39200 101

39200 102

Mirror Ø mm	Length mm	39200 ...
30	210	101
24	260	102

39205 Flexible workshop mirror

BAHCO

39205

Design
- Aluminium mirror housing
- Metal guide hose chrome-plated brass
- The mirror can be adjusted from the handle to the desired angle

Mirror size mm	Shaft length mm	39205 ...
50 x 70	500	101

39206 Inspection mirror

Design
- Inspection mirror with telescopic handle
- No unintentional twisting of the mirror with the oval telescopic tube

39206 101

39206 102

Mirror Ø mm	Extendable length from–to mm	39206 ...
30	240 - 680	101
50	240 - 680	102

39210 Inspection mirror

Design
- With lighting, flexible shaft plus plastic handle for 1.5 V battery, type LR 03
- With 2 replaceable mirrors, 24 and 30 mm Ø flat
- The mirrors are threaded for easy replacement, enabling you to see even into small openings
- Smallest Ø without mirrors 11 mm, smallest Ø with mirror 24 mm

Applications
The light falls on the mirror and is reflected onto the visible surface in the mirror.

Note:
Replacement batteries, see art. no. 39900 304.

39210

Mirror Ø mm	39210 ...
24/30	101

39209 LED telescopic inspection mirror

Design
- Inspection mirror with handy and slip-proof telescopic handle
- Mirror can be folded and turned
- With 2 LEDs

39209

Length mm	Mirror size mm	39209 ...
285–870	41 x 62	101

39211 Illuminated inspection mirror

HAZET

Note:
Replacement batteries, see art. no. 39900 303.

Design
- Flexible shaft
- Mirror angle adjustable by up to 90° via thumb control
- Powerful lamp for illuminating dark places

39211

Length mm	39211 ...
620	101

Mirrors | Magnifiers

39212 LED inspection mirror set

Design
- 1 telescopic pick-up magnet with LED lighting, extendable up to 665 mm, load-bearing capacity 450 g
- 1 telescopic pick-up magnet, extendable up to 665 mm, load-bearing capacity 3500 g
- 3 inspection mirrors, mirror Ø 21, 31 and 38 mm
- Practical storage bag
- Includes 3 batteries (type SR41)

Note:
Replacement batteries, see art. no. 39900 100.

39212

Mirror Ø mm	39212 ...
21/31/38	101

39214 Pocket magnifier lamp easyPOCKET

ESCHENBACH

Design
Diffractive, aspherical PXM® lightweight lens (very flat and thin) for inserting into the credit card-sized housing. Housing colour: blue metallic.
- Ultra-flat and lightweight design: Small-sized case for protected storage guaranteed in every pocket
- Brilliant image with 4x magnification
- Very bright LED lighting when lens is extended
- Very economical. The LED light switches on automatically only when the lens is fully extended.
- Very small, bright SMD LED lighting with virtually unlimited life

Supplied with 2 batteries (AA 1.5 V, type 2025)

39214

Magnification	Housing dimensions mm	39214 ...
4x	86 x 54 x 6	101

39215 Folding magnifier visoPOCKET

ESCHENBACH

Design
- Diffractive aspherical lens
- Large visual field with super flat lens
- Handy credit card size
- Lens protected from scratches thanks to leather case

Applications
Ideal for on the go, when small print needs to magnified quickly and easily.

39215

Magnification	Dimensions mm	Dioptre	Colour	39215 ...
2.5x	74 x 48	6	brown	101

39216 Folding pocket magnifiers

Design
- 2 lenses
- Housing made of brass
- Frame made of zinc, chrome-plated

39216

Magnification	Lens Ø mm	39216 ...
10x	21	101
20x	21	102

39217 Folding magnifier

ATORN®

Design
- Biconvex glass lens in plastic frame
- Nickel-plated brass cover plates

39217

Magnification	Lens Ø mm	39217 ...
3/6/9x	30	201

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39220 Watchmaker's magnifier/stone magnifier

ESCHENBACH

Design
- PXM® lightweight lens with duplex coating
- With ventilation hole to prevent misting
- Made from flame retardant plastic
- Colour anthracite

Magnification	Lens	Lens Ø mm	Design	39220	...
5x	plano-convex	25	Watchmaker's magnifier		301
7x	plano-convex	25	Watchmaker's magnifier		302
10x	aspheric	25	Watchmaker's magnifier		303
15x	aspheric	25	Stone magnifier		304

39220 301

39220 304

39222 Watchmaker's magnifier

Design
- With 2 glass lenses

Magnification	Lens Ø mm	39222	...
3x	25		101

39222

39223 Reading glasses

Design
- Glass lens

Magnification	Lens Ø mm	39223	...
10x	30		102
15x	21		103

39223 102

39223 103

39225 Reading glasses

Design
- **Biconvex**
- Glass lens
- With plastic/wooden handle
- Metal frame

39225 105

ATORN®

Design
- Round aluminium handle with recessed grips
- Nickel-plated brass frame.

Magnification	Dimension Ø approx. mm	39225	...
2.0x	100		102
2.5x	75		105
4.0x	65		104

39225 102

39225 105

39225 104

39224 Handheld magnifiers

ATORN®

Design
- Aplanatic glass lens for high-contrast and very sharp image up to the edge
- Frame and handle made of black anodised aluminium

Magnification	Lens Ø mm	39224	...
4x	50		201
5x	40		202
8x	30		203
10x	23		204
15x	23		205

39224

Magnifiers | Thread counters

39218 LED magnifier lamps powerlux

ESCHENBACH

Design
- PXM® lightweight lens with cera-tec® coating
- Very easy, intuitive movement over the reading material thanks to ergonomic design
- With battery conserving, automatic switch-off
- Consistently bright and dazzle-free illumination
- Shadow-free illumination thanks to the 2 opposing SMD LEDs
- Suitable for right-handed and left-handed people
- Switches off after 30 minutes.
- Supplied with 3 batteries (AAA) and protective hard foam case

Note:
Replacement batteries, see art. no. 39900 304.

39218

Magnification	Lens Ø mm	Light colour	39218 ...
5x	58	8000 K	101
7x	58	8000 K	102

39230 Digital magnifier mobilux DIGITAL Inspection

ESCHENBACH

Design
- Large magnification range and extensive configuration options
- Test images in HD quality
- Software for live streaming and as measuring software
- Integrated 1/4 inch thread for tripod
- Touchscreen 4.3 inch display resolution 480 x 272 pixels
- Photographic resolution 1280 x 720 pixels, 16:9 format, JPEG
- Automatic shut-off
- Memory feature for storing up to 10,000 images

Applications
Checking specific quality characteristics during incoming and outgoing goods inspections, with warehouse samples and during the production process is a basic prerequisite for ensuring high customer satisfaction.
mobilux DIGITAL Inspection is an ideal tool for **non-contact visual inspection** in areas such as production, quality control or repairs – both at the workbench and on the go.
For enlarged presentation and documentation.

Scope of delivery:
- Measuring software
- 4 GB SD card
- Charger with plug adapters (EU, US, UK, AUS)
- Storage case
- Stand (optional)

39230

Magnification	39230 ...
1.25–15x	101

39219 Pocket magnifier lamps mobiluxLED

ESCHENBACH

Design
- Three different colours of light can be selected using supplied filter
- No lamp replacement is required, the LED lighting used has a lifespan of approx. 50,000 hours
- Voltage control via step-up converter, meaning brighter, constant illumination over a longer period of time
- Bright, homogeneous illumination from SMD-LED and collimating lens
- Easy battery replacement thanks to easy-to-use battery cover and clearly specified battery location due to contact springs
- Improved comfort due to eyelet for lanyard
- Supplied with 2 batteries (AA) and case with loop for connection.

Note:
Replacement batteries, see art. no. 39900 303.

39219 100

39219 101-104

Magnification	Lens size mm	39219 ...
3x	90 x 54	100 NEW
5x	Ø 58	101
7x	Ø 35	102
10x	Ø 35	103
12.5x	Ø 35	104

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39227 Magnifier lamps

Design
- Biconvex plastic lens
- Frame and handle in impact-resistant plastic
- Batteries not included in the scope of delivery

39227 101
Design
- Power supply 2 x 1.5 volt AA batteries type LR 6, AA (art. no. 39900 303)

39227 102
Design
- With **LED lamp**
- Power supply 3 x 1.5 V micro batteries type LR 03, AAA (art. no. 39900 304)

39227 101

39227 102

Magnification	Lens Ø mm	39227 ...
3x	50	101
10x	30	102

39236 Magnifying glasses maxDetail

ESCHENBACH

Design
- Very light
- Straight arms for comfortable fit
- Also suited for spectacle wearers since dioptric compensation of +/- 3 dpt is possible
- Large visual field (approx. Ø 150 mm at a distance of 400 mm)
- Long working distance and large field of vision
- Supplied in glasses case

Applications
Relaxed and detailed view with maximum freedom of movement.

39236

Magnification (Galileo system)	Working distance approx. mm	39236 ...
2x	400	101

39229 Headband magnifying glasses

Design
- User-friendly due to adjustable head band with hook and loop fastener
- Weight only approx. 120 g
- Large field of vision
- Suitable for users who wear glasses
- Both hands remain free
- 2nd lens can be folded down for greater magnification

Applications
For reading, precision work, quality controls, etc.

39229

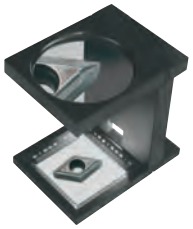
Magnification	Lens size mm	39229 ...
2.2–3.3x	100 x 30	101

39233 Measuring magnifying glass

Design
- **With illumination**
- **Biconvex plastic lens**
- Frame and stand part in impact-resistant plastic
- **Measuring plate,** pitch 1 mm, scale length 60 mm and from 0–2.1/4
- Power supply 4 x 1.5 V AA batteries type LR 6, AA
- Batteries not included in the scope of delivery

Note:
Batteries, see art. no. 39900 303.

39233



Magnification	Lens Ø mm	Height approx. mm	39233 ...
3x	89	133	101

39234 Measuring magnifying glass (thread counter)

Design
- With millimetre and inch scale

39234

Magnification	Lens Ø mm	39234 ...
6x	30	101

39238 Precision thread counter

ESCHENBACH

39238

Design
- **Biconvex**
- With a square cut-out, without scale
- Thread counter in precision design
- Brass housing, semi-gloss chrome-plated
- Silicate glass

Magnification	Lens Ø mm	Cut-out mm	39238 ...
8x	17.6	20 x 20	101

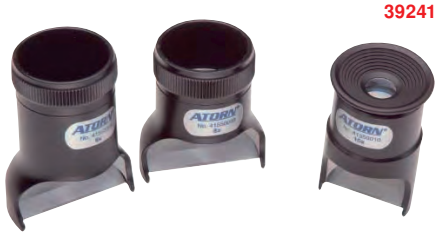
39241 Measuring magnifiers

ATORN®

39241

Design
- Full metal design
- Achromatic glass lens system
- Parallax-free, distortion-free reading
- Brass scale plate, chrome-plated, high-precision laser graduated
- Half-open tube with white background for optimum, glare-free illumination of objects
- Superb edge sharpness for near parallax-free viewing

Applications
For surface measuring tasks, e.g. measuring the indentation in the Brinell hardness test.



Magnification	Measuring range mm	Scale interval mm	Height mm	39241 ...
6x	20	0.1	56	101
8x	10	0.1	45	102
10x	10	0.1	52	103

39242 Precision scale magnifiers

ESCHENBACH

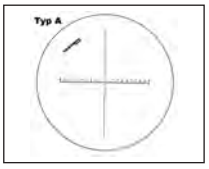
39242 101-102
Precision scale magnifiers
Design
- **Achromatic glass lens,** tempered
- Distortion-free and razor-sharp picture
- Sharpness setting using non-slip focusing ring
- **With scale type A** (art. no. 39242 201)
- Supplied in a solid plastic box with space for other scales

39242 201-204
Scales, individual

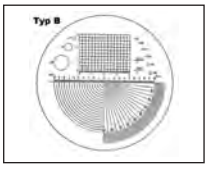
39242 101

39242 102

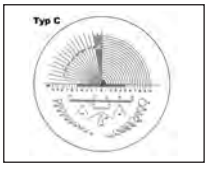
39242 201



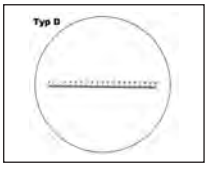
39242 202



39242 203



39242 204



Type	Magnification	Lens Ø mm	39242 ...
Scale magnifier	7x	23	101
Scale magnifier	10x	23	102
Scale type A	-	-	201
Scale type B	-	-	202
Scale type C	-	-	203
Scale type D	-	-	204

39243 LED lighting equipment for scale magnifiers art. no. 39242

ESCHENBACH

39243

Design
- Illumination with 2 high-quality LEDs for highest image quality
- Grip cover for 2 batteries, type Baby
- Supplied with lamp, but without batteries.

Applications
For scale magnifiers (art. no. 39242) if the ambient light is no longer sufficient.

Note:
Batteries, see art. no. 39900 402.

	39243 ...
	101

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39249 Measuring microscopes

ATORN®

Design
- Achromatic lens system
- Robust light metal housing
- Focussing using screw thread in lens and eyepiece
- Mounted LED lighting
- Power supply via 4 x button cell 1.5 V (type SR 44)

Scope of delivery:
- Measuring microscope with LED illumination
- 4 batteries
- In transport case

Applications
For general measuring tasks in linear measurement technology, the graphics industry or hardness tests for Brinell and Vickers.

Note:
Replacement batteries, see art. no. 39900 101.

39249

Magnification	Object field Ø mm	Measuring range mm	Scale interval mm	Lens distance mm	39249	...
20x	8.0	7	0.05	57		101
40x	5.0	4	0.02	36		102
60x	2.5	2	0.0125	26		103

39252 Magnifying glass on stand

ATORN®

Design
- Aplanatic silicate lens
- Flexible metal gooseneck arm
- Heavy table base

39252

Magnification	Lens Ø mm	Arm length mm	Table base Ø mm	39252	...
2x	75	300	110		101

39253 Magnifying glass on stand with LED lighting

ATORN®

Design
- **Biconvex** wide field glass lens
- **5 power LEDs** for very bright lighting
- Extremely sturdy construction (heavy steel base, flexible gooseneck arm, magnifier head made of aluminium)
- Half-frame lens mount for viewing without disturbing edges
- Shadow-free light
- Low power consumption
- With 5 V mains plug

39253

Magnification	Lens Ø mm	39253	...
2x	120		101

LED magnifying lamps | Cleaning cloths

39254 LED magnifying lamps

ATORN®

39254 301-302
LED magnifying lamps
Design
- Segmented switching of the SMD LEDs in two stages
- High-quality, clear optical lens
- Compact lamp housing with integrated hinge
- Non-slip, well-designed soft plastic ring provides impact protection
- Can also be used as a reading lamp using external lamp switch
- Even distribution of light in the working area
- Concealed, easily moveable arm mechanism that does not present a risk of trapping
- Large working radius
- Removable protective cover
- Replaceable glass lens

39254 201-202
Replacement lenses

39254 203
Universal holder
Design
- Made of cast aluminium with plastic plain bearings
- A plain bearing and a cover for the hole that is not required are supplied
- The plain bearing mount is suitable for bolts up to 12.9 mm.

Applications
Can be mounted either as a wall or table holder.

39254 301-302

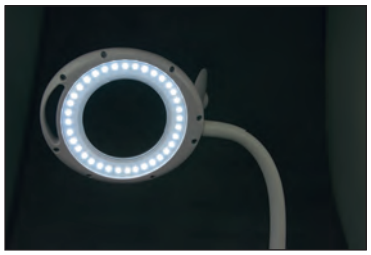
Technical data: Technology	LED magnifying lamps (art. no. 39254 301-302)
Lamp:	90 ultrabright SMD LEDs, 2 settings using electronic button
Service life of the LEDs:	Up to 25,000 hours
Colour temperature:	6500 K
Mains voltage:	240 V/50 Hz
Power consumption:	3.5 W (art. no. 39254 301)/9 W (art. no. 39254 302)
Energy efficiency class:	A+
Power consumption in standby mode:	0.3 Watt
Dimensions and weights	
Lamp housing (L x W x H):	230 x 200 x 30 mm
Upper arm length:	approx. 500 mm
Lower arm length:	approx. 470 mm
Distance from lower joint to lens centre:	approx. 1060 mm
Mandrel diameter for clamp or tripod:	12.7 mm, length approx. 48 mm
Maximum bench plate thickness:	approx. 65 mm
Length of connecting cable:	approx. 165 mm
Weight:	2.4 kg
Scope of delivery:	Magnifying lamp, table clamp, instructions

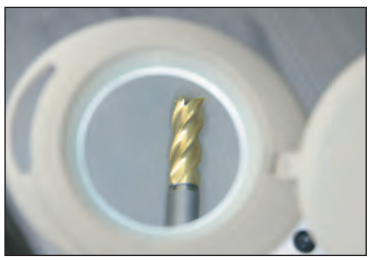
Magnification	Dioptres	Lens-Ø mm	Lamp 39254 ...	Replacement lens 39254 ...	Universal holder 39254 ...
1.75x	3	125	**301**	**201**	**203**
2.25x	5	125	**302**	**202**	**203**

39254 LED magnifying lamp

ATORN®

Design
- Real glass lens
- 45 extremely bright, highly efficient SMD LEDs
- Low power consumption of 7 watts
- New gooseneck design with silicone cover
- Lamp head with recessed handle
- Lens removable without the need for tools
- Lamp base with blue rubber ring
- Integrated power supply: AC 220–240 V, 50 Hz, Euro plug
- Well-balanced table-top base
- Colour: White





39254 303

Magnification	Dioptres	Lens Ø mm	Luminous flux lm	39254 ...
1.75x	3	100	665	**303**

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39262 LED magnifier lamp TEVISIO

Waldmann
ENGINEER OF LIGHT.

Design
- 48 premium SMD LEDs
- 40% energy saving
- Powerful 6000 lx with only 14 W
- Maintenance-free: LED service life up to 50,000 hours and more
- Dimmable up to 10%
- Structure-emphasised effects at the push of a button
- Approximately twice the magnification by 3.5 dioptres
- Absolutely scratch-resistant magnifying glass
- Large field of vision with a diameter of 153 mm for distortion-free view
- Closed joints protect the cables inside
- Enormous operating radius, unique movable head joint
- Balanced linkage: easily adjustable, can be locked exactly as required

39262

Magnification	Lens Ø mm	39262	...
2x	160		101

69167 Scotch-Brite high-performance cleaning cloth

3M

Design
- With patented fibre combination of polyester and nylon
- This enables extremely economical cleaning of both aqueous and fatty dirt with little effort
- The grease and dirt absorption is up to 100 times greater than for conventional cleaning cloths
- The cloth is machine washable up to 95°C
- Colour: blue

Applications
Suitable for all surfaces.
Cleans dry, damp or wet.

69167

Cloth size approx. cm	Pack = pieces	69167	...
36 x 32	5		101

Endoscopes | Inspection cameras

39308 Video endoscope

39308 301
Video endoscope with 4.9 mm Ø probe
Design
- 1 m camera cable with 4.9 mm Ø micro lens, LED light sources and 90° switching function and 0° viewing direction
- Videos and photos can be played back instantly on the TFT monitor
- Date and time can be shown or hidden
- Automatic switch-off function to save energy
- Improved image resolution
- Improved connection between probe and housing (metal) - For adapter for using older probes, see art. no. 39308 206
- One-handed operation of the multifunctional console
- All in one: observation, recording and playback via TFT monitor

2nd generation probe:
- Position of the side LED altered for improved illumination in the 90° function
- Improved LED luminosity
- Simplified handling
- Improved quality of the probe sheath

Scope of delivery:
- Control panel
- 1 m camera cable with probe Ø 4.9 mm
- Hook including magnet
- 4 GB SD card
- 4 x AA batteries
- In plastic case

Applications
For perfect documentation of damage images etc. by recording video and/or taking images. Live observation via the TFT colour display or recordin straight to the SD card in the multifunctional console.

Note:
Replacement batteries, see art. no. 39900 303.

39308 301

Probes

39308 203 + 303–306
Individual probes to supplement the Video endoscope
Design
- With metal connector
- Camera resolution: 325 (H) x 250 (V) = 76,800 pixels
- Camera opening angle: horizontal 46°, vertical 34°, diagonal 56°
- Depth of focus: 10 to 60 mm
- Probe length: 1000 mm
- Ambient conditions: 0° to +55°C
- Weight: 220 g

39308 203
Standard probe 5.5 mm Ø
- Camera viewing direction: Straight ahead (front view)
- Light source: 4 dimmable LEDs

39308 304
Semi flexible probe 3.9 mm Ø
- Camera viewing direction: Straight ahead (front view)
- Light source: 3 dimmable LEDs

39308 303
Semi flexible probe 3.9 mm Ø
- Camera viewing direction: 90° – fixed mirror (side view) – no edges in the image
- Light source: 2 dimmable LEDs in 90° direction – no reflection in the mirror

39308 305
Flexible probe 6.0 mm Ø
- Camera viewing direction: Straight ahead (front view)
- Pivot range: 2 x 150°
- Swivel radius: approx. 48 mm
- Probe head can be locked in swivel position
- Probe head: IP 67
- Light source: 4 dimmable LEDs

39308 306
Flexible probe 6.0 mm Ø
- Camera viewing direction: 90° (side view) – no edges in the image
- Pivot range: 2 x 150°
- Swivel radius: approx. 48 mm
- Probe head can be locked in swivel position
- Probe head: IP 67
- Light source: 1 LED in 90° direction

39308 203

39308 304

39308 303

39308 305

39308 306

Probe adapter

39308 206
Probe adapter for old probes
Applications
For older probes (4812-) in conjunction with the video endoscope art. no. 39308 301.

39308 207
Probe adapter for new probes
Applications
For probes, with new, improved connection (4812 N-) in conjunction with the video endoscopes (4812-1/7, 4812-1/6 and 4812-1/8).

39308 206

39308 207

Type	Probe Ø mm	Cable length m	39308 ...
Video endoscope (set)	4.9	1	301
Probe, standard	5.5	1	203
Probe, semi-flexible (0°)	3.9	1	304
Probe, semi-flexible (90°)	3.9	1	303
Probe, flexible (0°)	6.0	1	305
Probe, flexible (90°)	6.0	1	306
Adapter for old probes	-	-	206
Adapter for new probes	-	-	207

39317 Inspection camera micro CA-150

RIDGID

39317 401
Inspection camera micro CA-150
Design
- **Endoscope with camera Ø 17 mm and 4 adjustable LED lamps**
- With **3.5 inch LC display** (resolution 320 x 240 pixels) with control panel
- Comfortable pistol grip enables one-handed operation while manoeuvring the camera cable and camera head
- Saves up to 20 images on the internal memory (for direct view or subsequent playback on the camera display)
- Camera head with aluminium housing, rotatable through 360° (4 x 90° steps)
- Semi-flexible 90 cm long cable, with optional accessories can be extended by up to 9 m
- The accessories include a **hook, magnet and mirror attachment,** which are simply attached to the camera head and expand the area of application

Scope of delivery:
- Inspection camera micro CA-150
- Accessory kit, 3 pieces (hook, magnet and mirror attachment)
- RCA cable
- 4 batteries
- In transport case

Applications
For inspecting and problem-solving behind and in objects, walls, cables, lines and other hard-to-reach places.

Note:
Replacement batteries, see art. no. 39900 303.

39317 102-203 + 39318
Accessories for inspection camera micro CA-150

39317 401

Type	Weight approx. kg	39317 ...	39318 ...
Inspection camera micro CA-150	2.5	401	
Cable extension 90 cm	-	102	
Cable extension 180 cm	-		203
Camera head Ø 6 mm with 100 cm cable	-		105
Camera head Ø 6 mm with 400 cm cable	-		106
Camera head Ø 17 mm	-	203	

39318 Digital inspection camera micro CA-350

RIDGID

39318 201
Digital inspection camera micro CA-350
Design
- Comfortable pistol grip, large screen and simple operation
- **Longer operating time** thanks to 12 V Li-ion battery, as well as **extremely fast charging time** (only 45 minutes)
- Watertight aluminium camera head Ø 17 mm
- 3.5 inch (90 mm) colour TFT
- Dark areas are illuminated with 4 bright LEDs
- The image rotation in 90° steps as well as the digital zoom ensure the best view
- **USB:** Simple transfer of image and video material to your computer or laptop via the mini USB connector
- **Video output (PAL and NTSC):** Live broadcast e.g. on larger monitors or units for even better visibility and detailed observation
- **Saving to SD:** Supports all SD cards up to 32 GB
- **Integrated audio recorder:** Record voice notes or comments on your video recording with the built-in speaker/microphone or headset with microphone
- **Internal memory:** 235 MB

Scope of delivery:
- Inspection camera micro CA-350 with 17 mm camera head
- 12 V Li-ion rechargeable battery
- Charger
- USB cable
- Accessory kit, 3 pieces (hook, magnet and mirror attachment)
- RCA cable
- Power supply unit
- Headset
- 8 GB SD card
- In transport case

Applications
For inspecting and problem-solving behind and in objects, walls, cables, lines and other hard-to-reach places.

39318 104-203
Accessories for inspection camera micro CA-350

39318 104
Accessory kit, 3 pieces consisting of mirror, hook and magnet attachment.

39318 201

Type	Weight approx. kg	39318 ...
Inspection camera micro CA-350	0.9	201
Cable extension 180 cm	-	203
Camera head Ø 6 mm with 100 cm cable	-	105
Camera head Ø 6 mm with 400 cm cable	-	106
Accessory kit, 3 pieces	-	104

Stethoscopes | Polyscopes | Microscopes

39325 Automotive stethoscope

Design
- With steel tip
- Tester to locate mechanical damage to the engine

Applications
For reliable fault diagnosis.
Enables sources of error to be pinpointed.

39325

	39325 ...
	101

88060 Polyscope (listening device)

BAHCO

Design
- Probe tip made of steel
- Handle and sound conduction made of plastic

Applications
For detecting and identifying mechanical damage on all apparatuses and devices with moving parts. Even hard-to-reach places are easy to access.

88060

	88060 ...
	101

Info

Technical endoscopy

MICRO-EPSILON Eltrotec

Endoscopes are high-quality optical devices developed specifically for use in industrial environments. They essentially consist of high-precision optical and mechanical components. Their design and structure make them ideal for applications in industrial environments.
Thanks to a wide product range featuring a variety of functions, a multitude of testing tasks can be performed even on complex objects.

Use focus areas:
- Surface inspection and general maintenance tasks in engine, gearbox, power station and aircraft manufacturing (e.g. detecting cracks, burrs, wear etc.)
- Welding seam checks in cavities (e.g. pipelines)
- Inspections of cast parts (mould residue, scale, completeness)
- Monitoring functions or soldering joints in components for precision and electrical engineering
- Criminology/ballistics (e.g. smoke detection in weapons)

Rigid endoscopes

TOP-LINE rigid endoscopes
- Gradient lenses for image transmission
- 360° panoramic view thanks to mirror tube
- Two versions available as standard
  with Mini Maglite lighting (halogen)
  with SuperNova lighting (Xenon)
- No mains power supply required to allow mobile use
- Optional: TV adaptation
- As a complete set:
  TOP-LINE rigid endoscope
  90° mirror tube
  Mini Maglite or SuperNova light source
  Robust aluminium case

Model	Probe diameter in mm	Useful length in mm	Mirror tube diameter in mm	Image angle
ProMicroslim	1.85	80/120/180	2.2	40°
Superslim	2.4	120/185	2.77	32°
Slim	4.2	50/180/305/435/560	4.8	42°
Hardy	6.35	180/305/435/560	8.0	50°

Our product portfolio:

Rigid endoscopes | Video endoscopes | Flexible endoscopes | Light sources | Cameras | Monitors

From a simple complete set to a set-up workplace, we can create your individual package according to your needs and requirements.
Get in touch.

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39326 Stereo microscopes

KERN

39326 101
Type OSF 439
Design
- Practical and robust microscope for school, the workshop and in the laboratory
- Integrated handle and sturdy mechanical stand
- LED incident light and transmitted illumination
- Ergonomically designed work surface
- Interchangeable lens
- Eyepieces fixed in the tube to protect them against damage or loss
- Incl. dust cover and eyepieces

39326 102-103
Type OZL463/OZL464
Design
- The flexible and cost-effective all-rounder with zoom function
- LED incident light and transmitted illumination
- Large working area

33926 104-107
Stereo microscope sets
Design
- Predefined sets, consisting of a stereo microscope head, a universal stand, a holder, ring lighting and a dust cover
- Holder with coarse drive, adjustable rotational strength of the hand wheels
- Simple, practical and cost effective, saves time-consuming configuration work and being spoilt for choice when it comes to combining different components

NEW

39326 101

39326 102-103

39326 104-105

39326 106-107

Model	Tube	Eyepiece	Visual field mm	Lens	Stand	Lighting	39326	...
OSF 439	Binocular	WF 10x/Ø 20 mm	Ø 20	1x/2x/4x	Mechanical	1 W LED (incident light)/0.35 W LED (transmitted light)		**101**
OZL 463	Binocular	HWF 10x/Ø 20 mm	Ø 28.6–4.4	0.7x–4.5x	Pillar	3 W LED (incident light)/3 W LED (transmitted light)		**102**
OZL 464	Trinocular	HWF 10x/Ø 20 mm	Ø 28.6–4.4	0.7x–4.5x	Pillar	3 W LED (incident light)/3 W LED (transmitted light)		**103**
OZM 912	Binocular	HSWF 10x/Ø 23 mm	Ø 32.8–5.1	0.7x–4.5x	Telescopic arm with plate	4.5 W LED ring light		**104**
OZM 913	Trinocular	HSWF 10x/Ø 23 mm	Ø 32.8–5.1	0.7x–4.5x	Telescopic arm with plate	4.5 W LED ring light		**105**
OZM 952	Binocular	HSWF 10x/Ø 23 mm	Ø 32.8–5.1	0.7x–4.5x	Articulated arm with table clamp	4.5 W LED ring light		**106**
OZM 953	Trinocular	HSWF 10x/Ø 23 mm	Ø 32.8–5.1	0.7x–4.5x	Articulated arm with table clamp	4.5 W LED ring light		**107**

39327 Accessories for stereo zoom microscopes, art. no. 39326

KERN

39327 101
C mount camera adapter OZB-A4811
Applications
For mounting a camera on a microscope OZL 464 (art. no. 39326 103).

39327 102
C mount camera adapter OZB-A5702
Applications
For mounting a camera on the microscopes OZM 913 (art. no. 39326 105) and OZM 953 (art. no. 39326 107).

39327 103
Tablet camera for microscopes
Design
- With integrated camera for optimal observation as well as digital documentation
- A 2-in-1 solution in digital microscopy as a universal system for all trinocular microscopes with C mount adapters
- Integrated 5 MP camera enables live broadcasting and creation of images and videos for documentation
- Automatic white balance and contrast adjustment
- Integrated interfaces:
- Data storage on a USB stick or SD card
- Connection of a USB mouse
- Transfer of the image to an external display via HDMI
- Transfer of stored data to an external receiver via WiFi

39327 104-105
C mount cameras type ODC-82
Design
- CMOS technology, in combination with USB 2.0 or USB 3.0
- Multilingual camera software Microscope VIS KERN OXM 901
- 1x USB cable (2 m long), various eyepiece adapters and a stage micrometer for calibrating the software

39327 106
HDMI microscope camera type ODC-851
Design
- Specifically developed for direct HDMI connection to your HDMI-capable playback device
- The images can also be saved directly to the supplied SD card
- Alternatively, a USB 2.0 connection is available for connecting to a laptop or PC via the USB interface

Note:
Please also order the appropriate C mount adapter (see art. no. 39327 101–102).

NEW

39327 103

39327 104-105

39327 106

Type	39327	...
C mount camera adapter OZB-A4811		**101**
C mount camera adapter OZB-A5702		**102**
Tablet camera ODC 241		**103**

Type	39327	...
Microscope camera ODC 824		**104**
Microscope camera ODC 825		**105**
HDMI microscope camera ODC 851		**106**

Image viewing system

39319 Software combi package dhs Basic CAM

dhs-Basic CAM
Design
- With C mount thread
- Resolution of 4.92 Mpix
- 1/2 inch sensor
- USB 3.0 interface

Software for image recording and processing:
- Two-dimensional measuring
- Fast live image
- Comprehensive automatic functions for recording
- Clear operating menu
- Management of 300 images and 5 data fields

Modular expansion with software tools:
- Panorama, depth of focus
- Indicative range, HDR
- Welding seam
- Grain size
- Phases and pores
- Digital camera dhs-Basic CAM
- Stage micrometer for calibration
- USB 3.0 connection cable
- Online licensing

Applications
- For all commercially available microscopes, macroscopes, endoscopes and lenses with C mount thread
- Stand-alone solution for industry, QA, laboratory, teaching and research
- Can be extended for special image analysis applications
- Simple operation and licensing
- Possible to upgrade from pixel-fox to dhs-Basic

39319

dhs-Basic software with object window and data window in the overview

dhs-Basic image measurement

dhs-Basic image recording

Resolution Mpix	39319	...
4.92		101

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pixel-fox

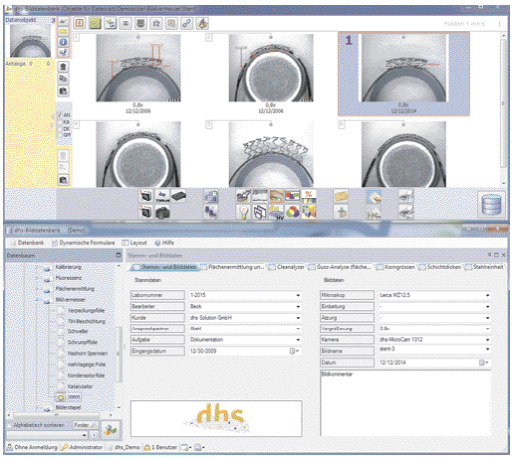
Image management system

Professional, modular, compliant with standards - perfect for a wide variety of tasks in the QA workflow

dhs

dhs Image Data Base® is mainly used in QA and laboratory applications. With its wide range of software functions for image archiving, image acquisition, image processing, image analysis and documentation, it can be used for the following applications:

- Incoming goods inspections
- In-production inspections
- Surface assessments
- Particle and pore analyses
- Steel purity determination tests
- Weld seam measurements
- Casting and damage analyses
- Residual dirt analyses and many more



Basic module of the dhs Image Data Base®

Advantages and features of dhs Image Data Base®:

- All test results are professionally reproduced and easy to share
- An interface-independent SQL database that can be adjusted specifically for the application (included in the basic module)
- The system can be adapted to existing organisational units and EDP landscapes
- Stand-alone/network and integrated solutions are available either locally or across multiple sites
- Can be fully programmed to allow customer-specific customisation
- Individual installation service, training and support

Complete image management system with dhs Image Data Base®

Software functions	Archiving	Holder	Processing	Analysis	Documentation	Service
Modules	Licence server	Image acquisition	Image measurement	Surface determination	Report generation	dhs consulting
	Viewer		Panorama image	Grain size	Communication	dhs service contract
	DataImEx		Sharper structure	Cast analysis		Individual programming
			ImageWizard	Particle analysis		Training
			Photo retouching	Coating thickness		Microscope maintenance
			Reference charts	Residual dirt analysis		dhs online support
			HDR	Spherical cap		
				Dendrite arms spacing		
				Steel purity		

Tool presetters

39385 Tool presetters ATORN IC basic

Design
The ImageController basic is a professional entry model to the world of tool presetters. The table-top unit with ImageController basic is simple to operate and returns precise measurement results thanks to thorough checks and high-quality brand components. Pressing the unique EZclick rotary/push-button starts standard measuring functions such as length, diameter, concentricity and axial runout.
Delivery does not include a workbench.

Advantages and benefits for you:
- Speedy familiarisation with minimal training thanks to easy operation
- High-precision spindle SK 50 with integrated calibration balls
- Fast measurement, setting and testing of tools (length and diameter)
- EZmax software function for easy creation of tool contours
- Various measurement programs make it incredibly easy to measure variables such as concentricity and axial runout on the tool blades
- Quick and convenient printing of measurement results on labels (optional)
- One-handed control button for rapid, simultaneous positioning of the Z and X axes
- Data output via RS232 interface

Note:
Cardboard packaging (art. no. 39385 411) is mandatory when ordering a tool presetting device.
For accessories, see art. no. 39388–39389.

39385 501-503

39385 405

39385 412

Type	Measuring range Z axis mm	Measuring range X axis mm	Spindle	39385 ...
ATORN IC basic 350	350	320	SK 50	501
ATORN IC basic 420	420	420	SK 50	502
ATORN IC basic 600	600	420	SK 50	503
Equipment table for IC basic	-	-	-	505 NEW

Accessories	39385 ...
Pneumatic spindle brake	403
Pneumatic spindle indexer	404
Software extension, tool memory	407
Software extension, measurement programs	408
Blade inspection with LED incident light	405

Accessories	39385 ...
Software extension, measurement values	406
Thermal printer for IC basic	412 NEW
Label roll matt white 25 x 75 mm (950 pieces)	413 NEW
Spindle hood for IC basic	410 NEW
Carton packaging for ATORN IC basic 350, 420 and 600	411

39384 Tool presetters ATORN IC 1

Design
The ImageController 1 is a professional entry-level model that functions as an excellent introduction to the world of tool presetters. Manufactured using high-quality branded components and subjected to thorough testing, the tool presetter with ImageController 1 is characterised by simple operation without the need for extensive training and by rapid and precise measuring results. Standard measuring functions such as length, diameter, radius, two blade angles, concentricity and axial runout can be selected and performed quickly and easily using the 13.3-inch touchscreen monitor.
Delivery includes a workbench.

Advantages and benefits for you:
- Speedy familiarisation with minimal training thanks to easy operation
- High-precision spindle SK 50 with integrated calibration edge **including** spindle indexing and spindle brake
- Fast measurement, setting and testing of tool blades (length, diameter, radius, two angles)
- EZmax software function for easy creation of tool contours
- Various measurement programmes, e.g. to measure concentricity and axial runout on the tool blades with µm accuracy
- Fast and convenient printing of measurement results on labels
- One-handed control button for rapid, simultaneous positioning of the Z and X axes

Note:
Carton packaging (art. no. 39388 207) is mandatory when ordering a tool presetter.
For accessories, see art. no. 39388–39389.

EZstart:
- Fast and user-independent measuring of several parameters on different tool types: Selection of 16 tool types
- Graphic menu for selecting the tool type

39384 501-504

Type	Measuring range Z axis mm	Measuring range X axis mm	Spindle	Snap gauge mm	39384 ...
ATORN IC 1 350	350	320	SK 50	0	501
ATORN IC 1 420	420	420	SK 50	100	502
ATORN IC 1 600	600	420	SK 50	100	503
ATORN IC 1 600/570	600	570	SK 50	0	504

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

39386 - 39387 Tool presetters ATORN IC 2

ATORN®

Design
The ImageController 2 measures, stores and documents tool blades in a matter of seconds. It is also possible to save multi-step tools. Image processing using the 13.3 or 24-inch touchscreen monitor of the Image Controller2 is intuitive and guarantees fast and simple measurement procedures.
Delivery includes a workbench.

Advantages and benefits for you:
- Speedy familiarisation with minimal training thanks to easy operation
- High-precision spindle SK 50 with integrated calibration balls including spindle indexer and spindle brake
- Fast measurement, setting and testing of tool blades
- EZmax software function for easy creation of tool contours
- Various measurement programmes, e.g. concentricity and axial runout at the tool cutting edge to accurately measure µm
- Fast and convenient printing of measurement results on labels
- One-handed control button for rapid, simultaneous positioning of the Z and X axes
- Turning centre camera and auto-focus available as options (art. no. 39387 403)
- Data output package available as an option (art. no. 39388 206)

Note:
Cardboard packaging (art. no. 39388 207) is mandatory when ordering a tool presetting device.
For accessories, see art. no. 39388–39389.

39386 501-504

39386 501-504
Design
With 13.3-inch touchscreen

NEW 39386 601-604

39386 601-604
Design
With 24-inch touchscreen

Type	Measuring range Z axis mm	Measuring range X axis mm	Spindle	Snap gauge mm	13.3 inch 39386 ...	24 inch 39386 ...
ATORN IC 2 350	350	320	SK 50	0	501	601 NEW
ATORN IC 2 420	420	420	SK 50	100	502	602 NEW
ATORN IC 2 600	600	420	SK 50	100	503	603 NEW
ATORN IC 2 600/570	600	570	SK 50	0	504	604 NEW

39387 403
Auto focus CNC drive for IC 2 spindle
Design
- Automatic focusing of the tool cutting edge by CNC rotation of the spindle to the highest point of the tool cutting edge

39387 403

Accessories	39387 ...
Automatic-focus CNC drive for spindle for ATORN IC 2	403

Accessories for tool presetting devices | Video measuring microscopes

39388 Accessories for tool presetters

ATORN®

Note:
Further accessories deliverable on request.

Accessories	39388 ...
Optional vacuum clamping device	202
Uni spindle for power-driven tool clamping	217 NEW
Rotation centre measurement camera for ATORN IC 1/IC 2	205
Data output package format generator for ATORN IC 2	206
Post-processor for ATORN IC 2	211
Barcode printer zidCode	214 NEW
Tool identification with fixed scanner	215 NEW
Tool identification with hand-held scanner	216 NEW
Conditioning unit NL1-G 1/8 inch with pressure reducer	203
Q-check device maintenance incl. certificate	213 NEW
Cover	212
Cleaning agent	210
Work surface with keyboard and mouse	218 NEW
Commissioning/training daily rate in Germany	209
Cardboard packaging for ATORN IC 1/IC 2	207
Shipping within Germany	208

39388 202

39388 205

39388 206

39389 Adapter for SK 50 tool presetters

ATORN®

Note:
Other adapters (e.g. Capto) deliverable on request.

39389 201-202
Adapter SK 50/steep taper SK
- For mounting tool shanks with steep taper DIN 69871-1
- Integrated calibration balls

39389 203-209
Adapter SK 50/VDI straight shank with manual tool holder clamp
- For mounting tools with a VDI straight shank DIN 69880
- Integrated calibration balls

39389 210-216
Adapter SK 50/hollow shank taper HSK with manual offset clamp
- For mounting tool shanks with hollow shank taper DIN 69893 with and without cooling tube
- Flat contact surface for HSK tool chuck
- Integrated calibration balls

39389 217-220
Adapter SK 50/hollow shank taper HSK without tool clamp
- For mounting tool shanks with hollow shank taper DIN 69893
- Flat contact surface for HSK tool chuck
- Integrated calibration balls

Size	39389 ...
SK 30	201
SK 40	202
VDI 16	203
VDI 20	204
VDI 25	205
VDI 30	206
VDI 40	207
VDI 50	208
VDI 60	209
HSK A25-F32	210
HSK A32-F40	211
HSK A40-F50	212
HSK A50-F63	213
HSK A63-F80	214
HSK A80-F100	215
HSK A100-F125	216
HSK A32-F40	217 NEW
HSK A40-F50	218 NEW
HSK A50-F63	219 NEW
HSK A63-F80	220 NEW

39389 201-202

39389 203-209

39389 210-216

39389 217-220

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

39392 Video measuring microscope

ATORN®

39392 101-104
Video measuring microscope
Design
- Precision measuring table
- Quick adjustment with friction drive
- Innovative measuring software, easy to use without submenus
- 23 inch touchscreen monitor
- Four-segment LED ring light for individual lighting scenarios
- Windows 10 operating system
- M3 measuring software for automatic edge detection
- Clear geometry functions
- Individual lighting control
- Live image display during measuring
- Saving of images
- Free axis alignment

Scope of delivery:
Video measuring microscope with 23 inch touchscreen PC, keyboard, mouse, calibration certificate and operating instructions.

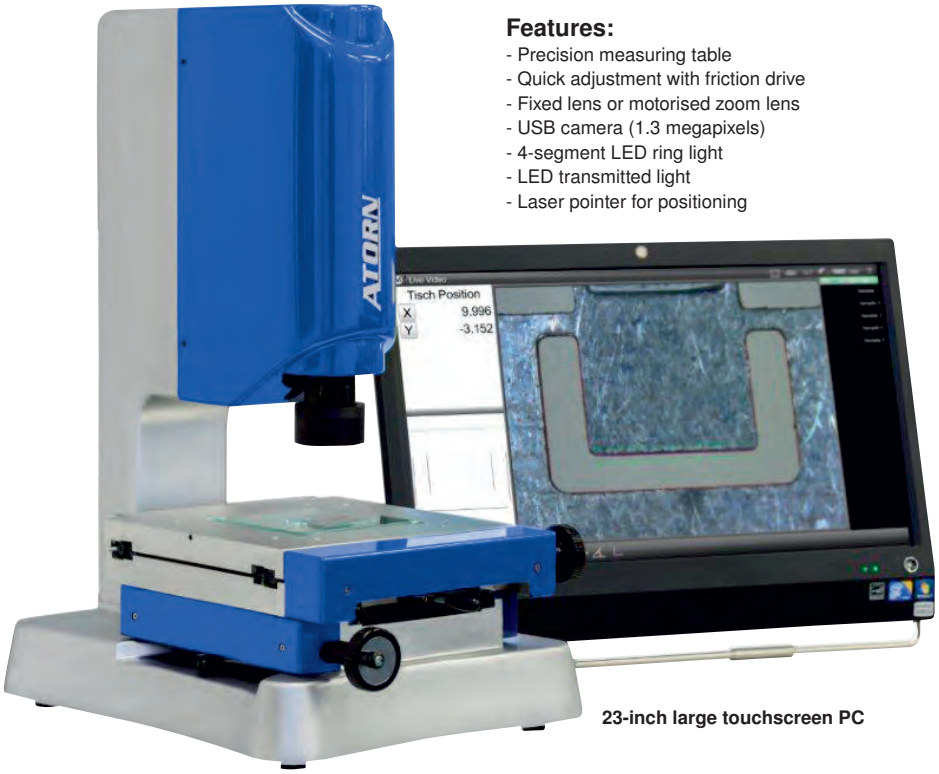
Applications
For optical measurement of complex workpieces, which would be extremely difficult or impossible to measure by tactile means. Can be used universally in the measuring room and in production.

39392 201
Z-axis measuring system

39392 202
dxf software module
Applications
For importing CAD data.

39392 203
Calibration standard (circles/scale)
- 50 mm
- Without certificate

39392 101-104



23-inch large touchscreen PC

Features:
- Precision measuring table
- Quick adjustment with friction drive
- Fixed lens or motorised zoom lens
- USB camera (1.3 megapixels)
- 4-segment LED ring light
- LED transmitted light
- Laser pointer for positioning

Note:
We would be happy to send you the operating instructions as well as detailed technical information.

Please contact us.

M3 Measuring software
- Simple and intuitive software operation without submenus
- Automatic edge detection
- Clear geometry functions
- Live image
- Data export in different formats
- USB interface

39392 203

Technical data:	39392 101–102	39392 103–104
Error limits:	E1 = 1.5 + L/100 (L in mm) E2 = 2.9 + L/100 (L in mm)	E1 = 1.5 + L/100 (L in mm) E2 = 2.9 + L/100 (L in mm)
Camera:	USB 2.0, 25 images/s, 1.3 megapixels	USB 2.0, 25 images/s, 1.3 megapixels
Lens:	40x fixed	Zoom 35–225x
Image section:	8 mm	9 mm–1.5 mm
Incident light:	4-segment LED ring light	4-segment LED ring light
Transmitted light:	LED	LED
Positioning aid:	Laser pointer	Laser pointer
Max. table load:	20 kg	20 kg

Measuring range X, Y, Z axis mm	Lens	Magnification	39392 ...
100 x 100 x 100	Fixed lens	40x	101
200 x 100 x 100	Fixed lens	40x	102
100 x 100 x 100	Motorised zoom lens	34–225x	103
200 x 100 x 100	Motorised zoom lens	34–225x	104
Z axis measuring system	-	-	201
dxf software module	-	-	202
Calibration standard	-	-	203

Video measuring microscopes | Folding rules

39392 Video measuring microscope CNC

ATORN®

Design
- Precision measuring table
- Innovative measuring software, easy to use without submenus
- 23 inch touchscreen monitor
- Four-segment LED ring light for individual lighting scenarios
- Windows 10 operating system
- M3 measuring software for automatic edge detection
- Clear geometry functions
- Individual lighting control
- Live image display during measuring
- Saving of images
- Free axis alignment
- Motorised control of the 3 axes by joystick
- Z axis measuring system enables depth measurement using depth of focus
- Simple creation of measurement programmes even for complex workpieces

39392 301

M3 Measuring software
- Simple, intuitive software operation without submenus
- Automatic edge detection
- Clear geometry functions
- Live image
- Data export in different formats
- USB interface

Scope of delivery:
- Video measuring microscope with 23-inch touchscreen PC
- Keyboard with mouse
- Calibration certificate
- Operating instructions

Applications
For optical measurement of complex workpieces, which would be extremely difficult or impossible to measure by tactile means. Can be used universally in the measuring room and in production.

Note:
Can be supplied with dxf software module for measuring against CAD data as an option, see art. no. 39392 202.
We would be happy to send you the operating instructions as well as detailed technical information.

Technical data:	
Error limits:	E1 = 1.5 + L/100 (L in mm) E2 = 2.9 + L/100 (L in mm)
Camera:	USB 2.0, 25 images/s, 1.3 megapixels
Lens:	35–225x zoom
Image section:	9 mm–1.5 mm
Incident light:	4-segment LED ring light
Transmitted light:	LED
Positioning aid:	Laser pointer
Max. table load:	20 kg

Measuring range X, Y, Z axis mm	Lens	Magnification	39392	...
200 x 100 x 100	Motorised zoom lens	34–225x		301

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39510 - 39513 Folding rules

BMI

39510 101
Design
- Made of beech wood
- Black double millimetre graduation
- Red decimal numbers
- Brass-plated steel springs
- 3 mm thick sections
- Weather-resistant special paint
- Colour: yellow
- **EC precision class III**

39510 102
Design
- 3 mm thick sections made of copper beech
- Red decimal numbers
- Double-sided cm and mm scale on both edges
- Built-in steel springs ensure smoothness and unsurpassed durability of the folding rule
- **EC precision class III**

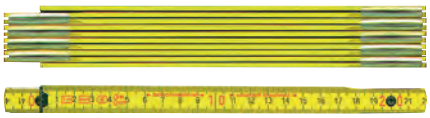
39512
Design
- Made from aluminium
- Numbers and graduation etched in deep black
- Nickel-plated steel springs
- 1.4 mm thick sections
- Spring-tempered special paint, aluminium-coloured
- **EC precision class II**

39513
Design
- Plastic folding rule **-LONGLIFE-**, white, made of fibreglass-reinforced polyamide
- Joints engage at right angles
- Etched graduation with red decimal numbers
- **EC precision class III**

39513 104
Design
- Additional markings in the opposite direction on the reverse to ensure easy reading in unfavourable working conditions

39510 101

39510 102



39512 103

39513 104

Length m	Width mm	Number of sections	39510 ...	39512 ...	39513 ...
1	13	10			101
1	16	6	101		
2	14	10		103	
2	16	10	102		104

39515 Folding rule

ATORN®

Design
- Made of beech wood
- With mm graduation
- Rule thickness 3.0 mm
- Inner plastic joints with additional angle scale
- **EC precision class III**

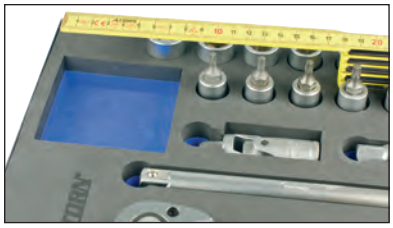
Advantage:
Makes measuring and reading significantly easier. With a standard folding rule, you have to calculate backwards from 200 cm when reading the scale on the reverse side. This is time-consuming and can lead to calculation errors. **The parallel graduation on the front and reverse reliably prevents reading errors.**

39515

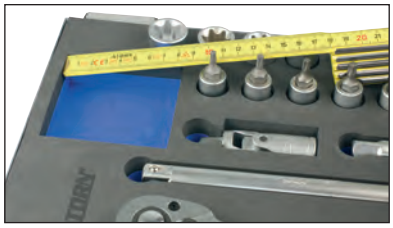
Length m	Width mm	Number of sections	39515 ...
2	16	10	101

Info Added value of the ATORN folding rule (art. no. 39515)

Traditional folding rule:

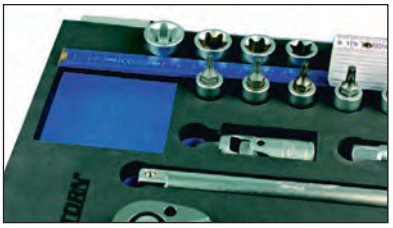


Precise positioning of the rule is not possible.



Reading of the scale is inaccurate and can lead to errors.

ATORN folding rule:



Thanks to the parallel graduation, you can read the measurements as usual and place the rule flat and securely.

Reading errors and tolerances are thus effectively avoided.

ATORN® Leistung braucht Qualität.

Pocket tape rules

39517 Pocket tape rules BMImeter

BMI

Design
- Stainless steel tape, painted white
- With tape stopper
- **Special treatment of the stainless steel tape ensures that it rolls out on its own**
- Fully waterproof
- Unbreakable, durable
- Very compact, light and practical
- Ideal for use as a ruler
- Tape lies flat on the table, enabling measurements to be transferred easily
- With belt clip
- **EC precision class II**

39517

Length m	Tape width mm	39517 ...
2	16	101
3	16	102

39527 Pocket tape rule

STANLEY

Type Panoramic
Design
- The lower part of the housing features additional protection in the form of a U-shaped aluminium strip
- Direct readout of the internal dimensions in the viewing window
- Painted steel tape
- End angle can be adjusted around the material thickness to prevent measuring errors when applying or attaching the tape
- Millimetre graduation at top and bottom
- **EC precision class II**

Applications
For external and internal measurements.

39527

Length m	Tape width mm	39527 ...
3	12.7	102

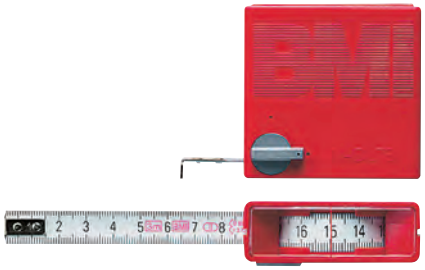
39530 Pocket tape rule

BMI

Design
- Highly impact-resistant ABS plastic housing
- Free running tape with locking device, made of the best spring steel, white stove-enamelled
- Millimetre graduation at top and bottom
- **EC precision class II**

Applications
For external and internal measurements; internal measurements are read directly in the viewing window.

39530



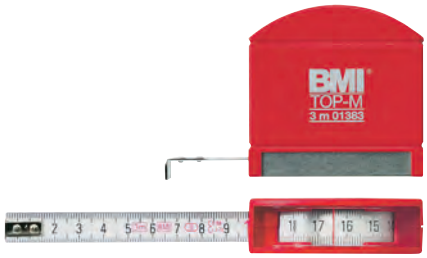
Length m	Tape width mm	39530 ...
3	13	101

39531 Pocket tape rules

BMI

Design
- Housing made of polyamide **with stainless steel base**
- Internal measuring tape without locking device (free-running tape in pull-push design)
- Viewing window with magnifying glass effect, graduation is not upside down (no reading errors)
- Millimetre graduation at top and bottom
- **EC precision class II**

39531



Length m	Tape width mm	39531 ...
2	13	101
3	13	102

39534 Pocket tape rules

BMI

Design
- Housing made from fibreglass-reinforced polyamide
- **Stainless steel tape design** for special applications
- The tape, retraction spring and end hook are all completely rustproof
- Stainless steel with black millimetre graduation at top and bottom
- Automatic tape return with stop button
- **EC precision class II**

Applications
For external and internal measurements.

39534

Length m	Tape width mm	39534 ...
2	13	101
3	13	102
5	16	103

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39533 Pocket tape rules

Design
- Impact-resistant ABS plastic housing
- With durable tape mechanics
- Automatic tape return with stopper
- Tape with additional wear protection
- Millimetre graduation at top and bottom
- With belt clip
- **EC precision class II**

Applications
For external and internal measurements.

39533

Length m	Tape width mm	39533 ...
3	16	101
5	19	102
8	25	103

39539 Pocket tape rules

ATORN®

Design
- Robust and ergonomic housing made of ABS plastic
- Automatic tape locking by pressing the stop button (self-lock system)
- Durable tape return
- Millimetre graduation at top and bottom
- Steel tape painted white, polyamide-coated for optimum protection properties
- With practical belt loop
- **EC precision class II**

39539

Length m	Tape width mm	39539 ...	With magnet 39539 ...
3	16	101	201 NEW
5	19	102	202 NEW
8	25	103	203 NEW

39545 Pocket tape rules POWERLOCK

STANLEY

Design
- **With locking device, automatic tape return and removable belt clip**
- Yellow painted steel tape, printed in two colours
- **MYLAR coating** for durability, protects against corrosion, scratching and chemicals
- **EC precision class II**

Applications
For external and internal measurements.

39545 102
Design
- **Metal housing**
- Millimetre graduation at top and bottom
- Extra stable

39545 104-107
Design
- **Plastic housing**
- Millimetre graduation at top and bottom
- Triple riveted end hook prevents the hook breaking off
- Greater tape widths offer higher kink resistance
- **10 m in length with buffer system**

39545

Length m	Tape width mm	Housing	39545 ...
3	12.7	Metal	102
5	19.0	Plastic	104
5	25.0	Plastic	105
8	25.0	Plastic	106
10	25.0	Plastic	107

39548 Pocket tape rules twoCOMP

BMI

Design
- Impact-resistant ABS plastic housing
- With durable tape mechanics and belt clip
- Easy-to-hold soft components for secure handling
- With tape stop and automatic soft tape return
- Tape measure with sliding end hooks for internal and external measurements
- Continuous mm graduation at the top and bottom
- Steel tape, white, polyamide-coated
- **EC precision class I**

39548

Length m	Tape width mm	39548 ...
3	16	101
5	19	102
8	25	103
10	25	104

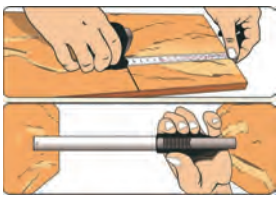
Marking gauges | Capsule roll tape measures

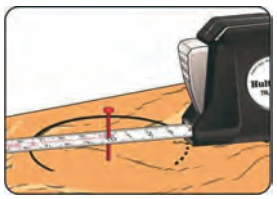
39550 Marking gauges TALMETER

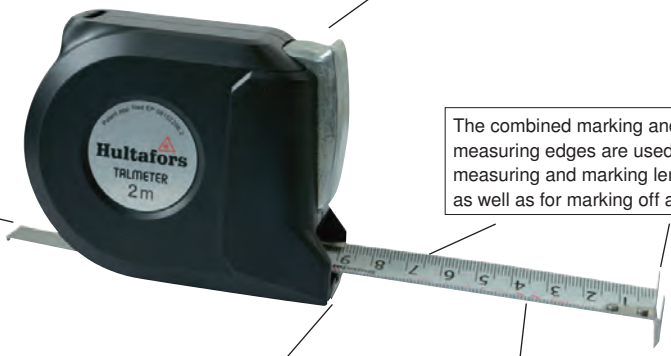
Design
- The TALMETERskala is a self-winding steel tape that can be stopped automatically at any length with a retention force of approximately 5 kp (50 N)
- With ABS housing
- Easily adjustable, 100 mm long measuring tongue, enables internal measurements to be taken with the same precision and lightness as **external measurements**
- Scale in mm
- Combined measuring and marking-off blades made from thin, hardened steel makes pencils superfluous
- Marking even possible on steel
- **Accuracy of the graduation 0.3 mm** on the entire length of the scale
- **Reading of measurements without angle errors**
- Diameter of pipes or cylinders can be read using the Pi scale

Applications
Can be used as an internal measurement tool, parallel marker and special compass. The tool- rather than the eye- determines the accuracy both when marking off and when measuring. When measuring with **TALMETER**, the length of the tool is registered and automatically retained. When marking off, the length is transferred to the workpiece using the tool. The **TALMETER** can also be used as a special compass for marking off measurements (with the edge of the workpiece as centre). Each of the 3 edges can be used as a scoring blade or centre.

Note:
The tape and measuring tab can be replaced and are available as spare parts.







The measured or set length is retained by the automatic lock. This enables the measurement to be transferred directly to the desired material without reading off.

Using the folding measuring tab, internal measurements can be made as simply as external measurements. The tab is easy to fold out and lock with the handy slide.

The combined marking and measuring edges are used for measuring and marking lengths as well as for marking off arcs.

The reading pointer makes it easier to set and read from the tape measure.

White, impact-resistant steel tape with measuring scale for internal and external measurements at the top and a diameter scale at the bottom. Scale applied using inkjet technology and protected with an anti-reflection polyester lacquer.

Length m	Tape width mm	Curve mm	39550 ...
2	16	1.5	201
3	16	1.5	202
6	25	1.5	203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

39555 - 39561 Capsule roll tape measure -RADIUS-

BMI

Design
- **With FLEXTOP start fitting, which reliably prevents breaking at the start of the tape**
- Highly impact-resistant plastic capsule
- Soft finish surface improves grip on the capsule body
- Good handling thanks to large crank arm, foldable
- Tape-protecting parking position for the pull ring
- Crank arm can be mounted on both sides for right-handed and left-handed users
- **Tolerance in accordance with EC precision class II** (+/- 2.3 mm on 10 m length)

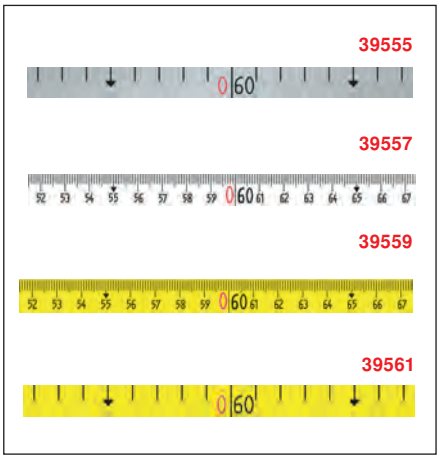
39555
Stainless steel tape
PONTARIT
Design
- **cm graduation on one side**
- Cold-worked spring tape made of chrome-nickel steel
- Matt-stained surface
- Printed graduation with red metre markings, fired
- Synthetic resin paint provides wear protection, fired

39557
Steel tape, painted white
Design
- **mm graduations on one side**
- Hardened spring tape made of carbon steel C75
- Phosphate coating for corrosion protection
- White synthetic resin paint, fired
- Printed graduation with red metre markings, fired
- Synthetic resin paint provides wear protection, fired and non-reflective

39559
Steel tape, polyamide-coated
ISOLAN
Design
- **mm graduations on one side**
- Hardened spring tape made of carbon steel C75
- Phosphate coating for corrosion protection
- Yellow synthetic resin paint, fired
- Printed graduation with red metre markings, fired
- All-round polyamide coating provides high-quality wear protection
- Largely protected against breakage, alkalis, salt solutions, greases, oils and diluted acids

39561
Fibreglass tape, yellow
Design
- **cm graduation on both sides**
- Fibreglass filaments
- Extruded plastic sheath
- Printed graduation with red metre markings
- Synthetic resin paint for wear protection
- Highly flexible, non-conductive, resistant to water and virtually all chemicals

39555 - 39561



Crank arm can be mounted on both sides for right-handed and left-handed users

Length m	Tape width mm	Stainless steel 39555 ...	Steel, white 39557 ...	Steel, polyamide 39559 ...	Fibreglass tape 39561 ...
10	13	101	101	101	101
20	13	102	102	102	102
30	13	103	103	103	103
50	13	104			

39563 Capsule roll tape measures

BMI

Design
- **Steel tape, painted white**
- **mm graduations on one side**
- Hardened spring tape made of carbon steel C75
- Phosphate coating for corrosion protection
- White synthetic resin paint, fired
- Printed graduation with red metre markings, fired
- Synthetic resin paint provides wear protection, fired
- Plastic capsule
- ABS plastic housing
- Crank mechanism made of polyamide
- With carry strap
- **Tolerance in accordance with EC precision class II** (+/- 2.3 mm on 10 m length)

39563

Length m	Tape width mm	39563 ...
10	10	101
20	10	102

Frame roll tape measures | Circumference tape measures | Rulers

39570 - 39576 Frame roll tape measures -ERGOLINE-

BMI

Design
- **With FLEXTOP start fitting, which reliably prevents breaking at the start of the tape**
- Optimal tape guidance thanks to robust, silver-coloured anodised aluminium rails, easy to replace
- Ergonomic pistol grip to relieve the wrist, with soft rubber nubs for secure grip
- Convenient winding mechanism with ball bearing that is sealed against dirt
- Robust, removable crank arm, foldable
- Tape-protecting parking position for the pull ring
- Crank arm can be mounted on both sides for right-handed and left-handed users
- **Tolerance in accordance with EC precision class II** (+/- 2.3 mm on 10 m length)

39570
Stainless steel tape
PONTARIT
- **Tape width 13 mm**
- **mm graduations on one side**
- **Straight frame**
- Cold-worked spring tape made of chrome-nickel steel
- Matt-stained surface
- Printed graduation with red metre markings, fired
- Synthetic resin paint provides wear protection, fired

39572
Steel tape, painted white
- **Tape width 13 mm**
- **mm graduations on one side**
- **Straight frame**
- Hardened spring tape made of carbon steel C75
- Phosphate coating for corrosion protection
- White synthetic resin paint, fired
- Printed graduation with red metre markings, fired
- Synthetic resin paint provides wear protection, fired and non-reflective

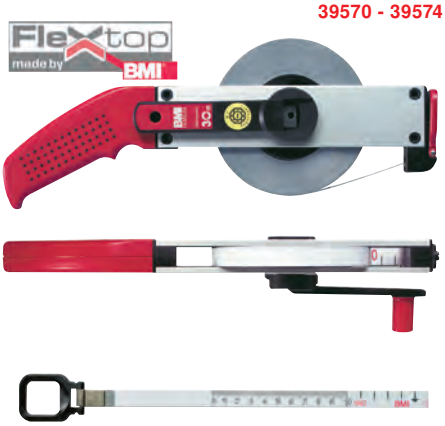
39574
Steel tape, polyamide-coated
ISOLAN
- **Tape width 13 mm**
- **mm graduations on one side**
- Hardened spring tape made of carbon steel C75
- Phosphate coating for corrosion protection
- Yellow synthetic resin paint, fired
- Printed graduation with red metre markings, fired
- All-round polyamide coating provides high-quality wear protection
- Largely protected against breakage, alkalis, salt solutions, greases, oils and diluted acids

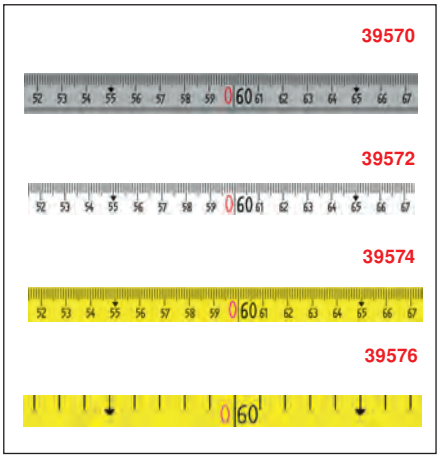
Note:
*Art. no. 39574 101 with **straight frame,***
*Art. no. 39574 103–104 **with V frame.***

39576
Fibreglass tape, yellow
- **Tape width 13 mm**
- **cm graduation on one side, mm graduation on the other**
- **V frame**
- Fibreglass filaments
- Extruded plastic sheath
- Printed graduation with red metre markings
- Synthetic resin paint for wear protection
- Highly flexible, non-conductive, resistant to water and virtually all chemicals

Crank arm can be mounted on both sides for right-handed and left-handed users

39570 - 39574





39574 - 39576

Length m	Tape width mm	Stainless steel 39570	...	Steel, white 39572	...	Steel, polyamide 39574	...	Fibreglass tape 39576	...
20	13						101		
25	13		102		102				
30	13		103		103		103		103
50	13		104				104		104

39580 Circumference tape measures

Design
- Millimetre scale
- Cover plate with vernier scale reading 0.1 mm
- Accuracy according to factory standard
- Laser-divided graduation

Applications
For simultaneous measurement of the circumference and diameter of all round elements, e.g. gravure cylinders.

Quality
Spring steel, with etched graduation.

Note:
Larger diameter and rustproof version deliverable on request.

39580

Measuring range scope mm	Measuring range Ø mm	Tape width mm	39580	...
60 - 950	20 - 300	10		101
940 - 2200	300 - 700	10		102
2190 - 3460	700 - 1100	15		103

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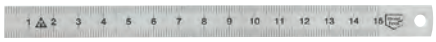
39799 Precision rulers

Design
- Matt, glare-free surface
- Scaling deeply etched and black chrome plated
- Graduation at the top and bottom 1/1 mm

Quality
Rustproof stainless steel.

39799



Length mm	Width x thickness mm	39799	...
150	13 x 0.3		101
200	13 x 0.3		102
300	13 x 0.3		103
500	18 x 0.5		104
1000	18 x 0.5		105

39800 - 39803 Flexible rulers

BMI

Design
- Deep black graduation, largely resistant to oils, greases and virtually all chemicals
- Rounded edges
- With hanging eyelet
- **EC precision class II**

Quality
Stainless, hard-rolled spring steel with matt surface.

39803
Design
Graduation on one side, top 1/2 mm, bottom 1/1 mm.

39800
Design
Graduation on both sides, front side top 1/2 mm, bottom 1/1 mm, rear side top and bottom 1/1 mm.

39800 - 39803

		One-sided graduation		Double-sided graduation	
Length mm	Width x thickness mm	39803	...	39800	...
150	13 x 0.5		102		101
200	13 x 0.5		103		102
300	13 x 0.5		105		104
500	18 x 0.5		107		105
1000	18 x 0.5		108		106

39805 - 39807 Flexible rulers

HELIOS·PREISSER

Design
- With lasered graduation and numbering
- With hanging eyelet
- **EC precision class II**

Quality
Stainless spring steel, brushed chromium-plated.

39805
Graduation at the top and bottom 1/1 mm.

39805

39807
Graduation top 1/2 mm, bottom 1/1 mm.

39807

Length mm	Width x thickness mm	39805	...	39807	...
150	13 x 0.5				101
300	15 x 0.5				103
300	30 x 1.0				104
500	20 x 0.5				105
500	30 x 1.0				106

Length mm	Width x thickness mm	39805	...	39807	...
1000	20 x 0.5				107
1000	30 x 1.0				108
1500	35 x 1.3		109		
2000	35 x 1.3		110		

39814 - 39815 Working rulers DIN 866/B

Design
- Top edges and flat sides ground
- Lasered 1/1 mm graduation

39815

		Normal steel		Stainless steel	
Length mm	Width x thickness mm	39814	...	39815	...
500	25 x 5		101		101
1000	30 x 6		102		102
1500	30 x 6		103		103
2000	40 x 8		104		104

Length mm	Width x thickness mm	Normal steel 39814	...	Stainless steel 39815	...
3000	40 x 5		105		105
4000	50 x 10		106		106
5000	60 x 12		107		107
6000	70 x 15		108		108

Rulers | Batteries

39821 Light metal rulers

ATORN®

Design
- With glare-free 1/1 mm graduation and Indian ink edge
- Rust-proof
- **EC precision class II**

Quality
Aluminium profile drawn, anodised.

39821

Length mm	Width x thickness mm	39821 ...
300	50 x 5	101
400	50 x 5	102

Length mm	Width x thickness mm	39821 ...
600	50 x 5	103
1000	50 x 5	104

39824 - 39825 Test rulers DIN 866/A

Design
- Flat sides ground
- Top edges finely ground
- Protective ends on both sides
- Lasered 1/1 mm graduation

Note:
Can also be used as a ruler

39825

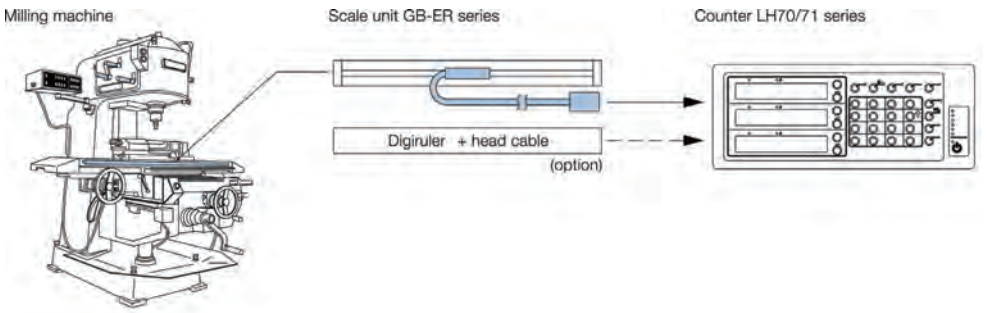
Length mm	Width x thickness mm	Normal steel 39824	...	Stainless steel 39825	...
500	30 x 6		101		101
1000	40 x 8		102		102
1500	40 x 8		103		103
2000	50 x 10		104		104

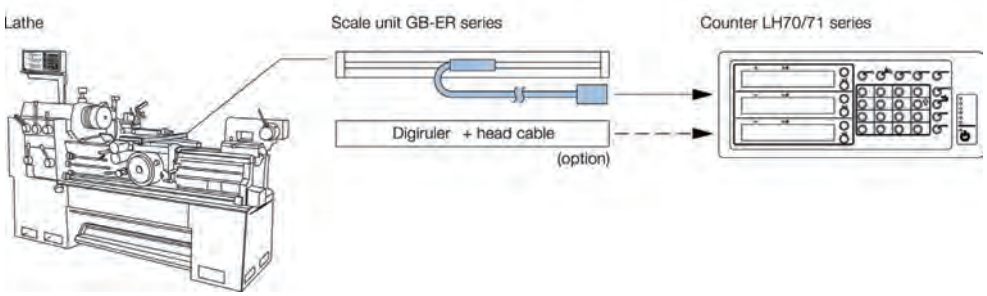
Length mm	Width x thickness mm	Normal steel 39824	...	Stainless steel 39825	...
3000	50 x 10		105		105
4000	60 x 12		106		106
5000	70 x 14		107		107
6000	80 x 15		108		108

Info Rulers for digital displays

Magnescale
SPEED X PRECISION

- Magnet technology
- Excellent resistance in workshop conditions
- Resistant to oil, dirt, vibration and shocks (IP 54)
- Compact design
- **Precision:** +/- 5 µm
- **Resolution:** 0.5 µm
- **Measuring length:** 50 to 2200 mm
- The same coefficient of thermal expansion as machine tools





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39900 Batteries

Design
- None of the batteries contain mercury

39900 101-102
Design
- The world's highest performance and longest lasting battery in high-tech equipment
- Ideal for high-tech devices with high power requirements
- Withstands extreme conditions from -40 °C to +60 °C
- Can be stored for **20 years**
- 33% lighter than Energizer alkaline batteries

Type	Voltage V	Designation	Pack = pieces	39900	...
Button cell	1.5	392/384, SR 41, SR 736 SW	1		100
Button cell	1.5	357, SR 44, SR 1154	1		101
Button cell	3.0	CR 2032	1		102
Button cell	3.0	CR 2450N	1		202
Button cell	3.0	CR1/3N	1		213
Button cell	1.4	AC 13 E, PR 48	8		214

39900 101

39900 102

39900 213

39900 214

39900 303–304+401–405
Industrial Alkaline
Design
- Alkaline manganese high-performance cells
- State-of-the-art technologies
- Optimum leak-protection
- Highest quality standard
- Excellent temperature stability (-20 °C to +55 °C)

39900 303

39900 304

Type	Voltage V	Designation	Pack = pieces	39900	...
Mono	1.5	EN 95, LR 20, D	1		401
Baby	1.5	EN 93, LR 14, C	1		402
Mignon	1.5	EN 91, LR 6, AA	10		303
Micro	1.5	EN 92, LR 03, AAA	10		304
Electric block	9.0	EN 22, 6 LR 61, 9 V	1		405

39900 401

39900 402

39900 405

Type	Voltage V	Designation	Pack = pieces	39900	...
Lady	1.5	LR 1, E 90, UM 5, N	1		103
Photo	3.0	CR 123 AP, EL 123 AP	1		212
A23	12.0	A23-MN21-23GA	1		215

39900 103

39900 212

39900 215

39903 Batteries (alkaline)

Design
- Super Alkaline High Performance technology
- Resealable value pack
- Highly durable and leak-proof (7 years)
- Ideal for high to medium-sized energy consumption
- Maximum safety and highest quality

39903 101
Design
Resealable value pack Micro (AAA)

39903 102
Design
Resealable value pack Mignon (AA)

39903 103
Design
Multi-pack with 32x Mignon (AA) and 12x Micro (AAA)

39903 101

39903 102

39903 103

Type	Voltage V	Pack = pieces	39903	...
Micro (AAA)	1.5	40		101
Mignon (AA)	1.5	40		102
Mignon (AA)/Micro (AAA)	1.5	44		103

Batteries | Rechargeable batteries | Chargers

39901 - 39902 Batteries (lithium)

39901 101-102
Design
- State-of-the-art lithium technology
- Much lighter than alkaline batteries
- For certain applications (e.g. in digital cameras), up to 7 x longer service life than alkaline batteries
- Can be used for up to 15 years

39902 101
Design
- Storage life of over 10 years
- Functional efficiency in wide temperature ranges: -20 °C up to +60 °C
- Self-discharge is less than 0.16% per month at 23 °C

39901 101

39901 102

Type	Voltage Volt	Designation	Pack = pieces	39901 ...	39902 ...
Micro	1.5	FR03, L91, AAA	2	101	
Mignon	1.5	FR6, L91, AA	2	102	
Mignon (1/2)	3.6	LS-14250	1	103 NEW	
Electric block	9.0	6LR61	1		101

39901 103

39902 101

39905 Rechargeable batteries (NiMH)

Design
- State-of-the-art nickel-metal hydride technology (NiMH)
- High load capacity, meaning longer usage time between charges
- No memory effect (recharge at any time)
- Environmentally friendly as 0% cadmium
- Can be charged up to 1000x, therefore especially economical

39905 201

39905 202

Type	Voltage V	Capacity mAh	Designation	Pack = pieces	39905 ...
Mono	1.2	2500	D	2	201
Baby	1.2	2500	C	2	202
Mignon	1.2	2300	AA	2	203
Micro	1.2	700	AAA	2	204
Electric block	8.4	175	9 V	1	205

39905 203

39905 204

39905 205

39909 USB quick charger

Design
- Overheating and short-circuit protection
- Individual bay monitoring (simultaneous charging of different batteries)
- Charging individual batteries is possible
- Trickle charging for charged batteries
- Charging status display using 4 LEDs
- Detects alkaline batteries or defective batteries
- Incl. USB mains adapter and USB charging cable and 4x GP ReCyko+ batteries AA 2600 mAh

39909

For battery sizes	For battery technology	Minimum charging time for NiMH batteries min.	39909 ...
AA, AAA	NiMH	40	101

39910 - 39911 Chargers

39910
Maxi charger
Design
- Charges Mignon AA and Micro AAA batteries
- Suitable for NiMH cells
- Continuous charge
- Automatic switch off of timer after full charge
- Intuitively large green and red LEDs indicate the charging status of the batteries
- Reverse polarity protection
- 4 separate charging channels
- Energy Star certified
- **Incl. batteries: 4x Mignon AA 2000 mAh** Ready to Use EXTREME

39911
V2 universal charger for button cells
Design
- Charges the five most common battery sizes, such as Mignon AA, Micro AAA, Baby C, Mono D and 9 V block
- The LEDs indicate whether charging is still in progress or the batteries are already charged
- Charging in pairs
- Minus-delta-U shut-off
- Battery defect detection
- Timer shut-off
- LED display
- Short-circuit-proof
- Reverse polarity protection
- Does **not** include batteries

39910

39911

For battery sizes	For battery technology	Minimum charging time for NiMH batteries hrs.	39910 ...	39911 ...
AA, AAA	NiMH	2	301	
AA, AAA, C, D, 9 V	NiCd, NiMH	2		201

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Electrical measured variables and measuring instruments

Temeka
Test-, Mess- und Kalibriertechnik

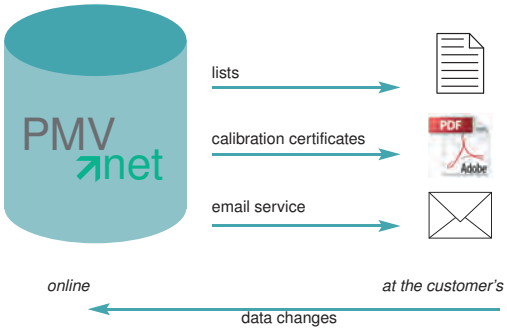
Measured variables	Measuring instruments	Measured variables	Measuring instruments
DC voltage	Multimeter	Inductance	RLC measuring instruments
Direct current	Calibrators		Resistors/resistance standards
Resistance	Current/voltage sources		Inductances/inductance standards
AC voltage	Current clamps		Capacities/capacity standards
AC voltage	Lead measuring instruments (DC and AC)	HF measured variables	Network/spectrum analysers
Frequency/time	Oscilloscopes (analogue and digital)		Measuring heads
Function generators	Frequency counters	Power meters	
	Time measuring instruments		Amplifiers
	Safety measuring instruments		Attenuators
	Insulation measuring instruments		Generators
	High-voltage measuring instruments		EMC measuring instruments
	etc.	Temperature	Measuring instruments
Resistance	Ohmmeters	Humidity	Sensors
Capacity	Measuring bridges	Data loggers	

Online test equipment management

Test equipment management made easy!

Your benefits:

- Current information on the test equipment status
- Online access to your calibration certificates
- Individual search queries
- Automated list dispatch as an email information service
- Direct correction option for data
- Individual user profiles
- Direct access to calibration certificates
- Customised information about your test equipment
- Free input of test equipment data
- Upload your own test reports
- Logging of costs



Torque service

Full service package, manufacturer-independent

„Everything from a single source..."
Repair, adjustment and calibration.

We offer a complete service for all common torque wrenches:

ATORN® SALTUS® SOLINGEN – GERMANY
GEDORE WERKZEUGE FÜRS LEBEN
STAHLWILLE®
HAZET®

and others on request.

Test equipment monitoring | Calibration service

30001 Graduated rulers (form A and B)

Test:
DIN 866.

30001

Measuring range mm	30001 ...
0 - 500	001
> 500–1000	002
> 1000 - 2000	003
> 2000 - 3000	005
> 3000 - 4000	006

30002 External and internal quick calipers

Test:
VDI/VDE/DGQ guideline 2618.

30002

	30002 ...
All models	001

30005 Micrometers

Test:
VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30005

Measuring range mm	30005 ...
0 - 25	011
> 25 - 100	012
> 100 - 500	013
> 500 - 1000	014
> 1000	015

30007 Setting gauges, JS2, for micrometers

Test:
In accordance with Temeka calibration instructions.

30007

Measuring range mm	30007 ...
0 - 100	001
> 100 - 200	002
> 200 - 500	003
> 500 - 1000	004
> 1000 - 1500	008
> 1500 - 2000	009
> 2000 - 3000	010

30010 Thickness measuring devices

Test:
Based on VDI/VDE/DGQ guideline 2618.

30010

Measuring range mm	30010 ...
Basic unit	001
Up to 10	004
Up to 50	008

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30013 Torque sensor/torque testing devices

Test:
In accordance with manufacturer specifications.

Note:
DAkkS calibration available on request.

30013

Measuring range Nm	30013 ...
0 - 1000	001
Right and left	002

30014 Torque wrench

Test:
In accordance with manufacturer specifications.

Note:
DAkkS calibration available on request.

30014

Measuring range Nm	30014 ...
0 - 1000	001
0–1000 right and left	101
> 1000 - 2000	002
> 1000–2000 right and left	102

30015 - 30016 Tachometers

Test:
In accordance with Temeka calibration instructi-ons.

30015 30016

Type	30015 ...	30016 ...
Electronic	001	
Mechanical		001

30017 Compressive force measuring devices

Test:
In accordance with Temeka calibration instructions.
Tension and compression testing up to 100 kN.

30017

Measuring points	Test	30017 ...
4	Tension	005
4	Compression	010
Per additional measuring point	-	101

30021 Micrometer heads

Test:
VDI/VDE/DGQ guideline 2618.

30021

Measuring range mm	30021 ...
0 - 50	001

30022 Setting rings, go or no-go ring gauges

Test:
Based on VDI/VDE/DGQ guideline 2618.
Without roundness testing.

Note:
DAkkS calibration available on request.

30022

Measuring range mm	30022 ...
1.4 - 10	001
> 10 - 50	002
> 50 - 200	003
> 200 - 300	006
> 300 - 500	008

Test equipment monitoring | Calibration service

30025 Precision pointers

Test:
VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30025

	30025 ...
All models	001

30026 - 30027 Micrometers with precision pointer

Test:
Based on VDI/VDE/DGQ guideline 2618.
Separate charge for dial gauge/precision pointer.

30026

Measuring range mm	30026 ...	30027 ...
0 - 25	001	
> 25 - 150	002	
Basic price		004

30030 Feeler gauges

Test:
In accordance with Temeka calibration instructions.

30030

Number of	30030 ...
Per blade	001

30031 Lever gauge probes

Test:
VDI/VDE/DGQ guideline 2618.

30031

	30031 ...
All models	001

30035 Thread limit plug gauges (good and scrap side)

Test:
VDI/VDE/DGQ guideline 2618. Sheet 4.8, option 1.

Note:
DAkkS calibration available on request.

30035

Measuring range mm	30035 ...
1 - 3	001
> 3 - 20	002
> 20 - 60	003
> 60 - 100	004
> 100 - 200	005

30036 Thread limit roller gauges

Test:
In accordance with Temeka calibration instructions.
Adjusting mandrels must be available.

30036

Measuring range mm	30036 ...
2 - 20	001
> 20–50	002
> 50 - 150	003
> 150 - 200	004

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30037 Threaded plug gauges (go or no-go)

Test:
VDI/VDE/DGQ guideline 2618. Sheet 4.8, option 1.

Note:
DAkkS calibration available on request.

30037

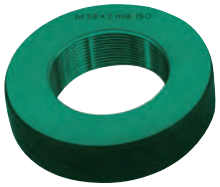
Measuring range mm	30037 ...
1 - 3	001
> 3 - 20	002
> 20 - 60	003
> 60 - 100	004
> 100 - 200	005

30038 Threaded ring gauges (go or no-go)

Test:
VDI/VDE/DGQ guideline 2618. Sheet 4.8, option 1.

Note:
DAkkS calibration available on request.

30038

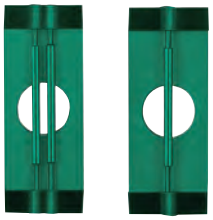


Measuring range mm	30038 ...
Up to 4	001
> 4 - 40	002
> 40 - 80	003
> 80 - 120	004
> 120 - 200	005
> 200 - 300	006

30039 Thread measuring wires

Test:
Based on VDI/VDE/DGQ guideline 2618.

30039



Number of	30039 ...
Per set (3 pieces)	001

30040 Inserts for thread micrometers

Test:
In accordance with Temeka calibration instructions.

Note:
Price per item.

30040

Angle	30040 ...
All models	001

30041 Setting gauges for thread micrometers

Test:
In accordance with Temeka calibration instructions.

30041

Measuring range mm	30041 ...
25 - 100	001
> 100 - 200	002
> 200 - 500	003

30042 Thread pitch gauges

Test:
In accordance with Temeka calibration instructions.

30042

Number of blades	30042 ...
Per blade	001

Test equipment monitoring | Calibration service

30043 Protractor

Test:
Based on VDI/VDE/DGQ guideline 2618.

30043

Degrees	30043 ...
90° or 180°	001

30045 Limit plug gauges, DIN 2245 (good and scrap side)

Test:
VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30045

Measuring range mm	30045 ...
0 - 50	001
> 50 - 100	002
> 100 - 150	003
> 150 - 200	004
> 200 - 250	005
> 250 - 300	006
> 300	007

30046 Limited snap gauges (good and scrap side)

Test:
VDI/VDE/DGQ guideline 2618.

30046

Measuring range mm	30046 ...
2 - 50	001
> 50 - 150	003
> 150 - 250	005
> 250	007

30047 Limited snap gauges (adjustable)

Test:
Based on VDI/VDE/DGQ guideline 2618.

30047

Measuring range mm	30047 ...
2 - 10	001
> 10 - 25	002
> 25 - 40	003
> 40 - 70	004
> 70 - 95	005
> 95 - 120	006
> 120 - 150	007

30048 Go or no-go plug gauges (1 test piece)

Test:
VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30048

Measuring range mm	30048 ...
1 - 50	001
> 50 - 100	002
> 100 - 200	003
> 200 - 300	004
> 300 - 500	005
> 500 - 1000	006

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

30049 Go or no-go snap gauges

Test:
VDI/VDE/DGQ guideline 2618.

30049

Measuring range mm	Go 30049 ...	No-go 30049 ...
2–50	001	021
> 50–150	003	023
> 150 - 250	005	025
> 250 - 350	007	027
> 350 - 450	009	029
> 450 - 500	011	031

30052 Straight edges, DIN 874

Test:
VDI/VDE/DGQ guideline 2618.

30052

Measuring range mm	30052 ...
0 - 200	001
> 200 - 500	002
> 500 - 1000	003

30058 Height measuring devices

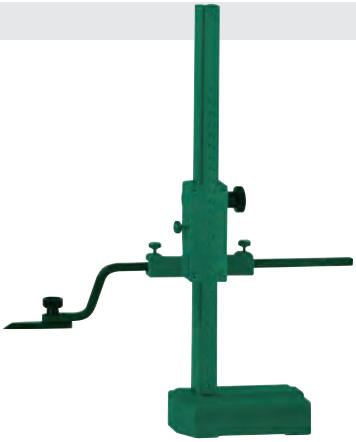
Test:
Based on VDI/VDE/DGQ guideline 2618.

30058

Measuring range mm	30058 ...
0 - 350	015
0 - 650	001
0 - 1000	002

30059 Height calipers

Test:
Based on VDI/VDE/DGQ guideline 2618.



30059

Measuring range mm	30059 ...
0 - 300	001
> 300 - 600	002
> 600 - 1000	003
> 1000	004

30060 Height micrometers

Test:
Based on VDI/VDE/DGQ guideline 2618.

30060

Measuring range mm	30060 ...
0 - 300	001
0 - 600	002
0 - 1000	003

30065 Extensions for internal micrometers

Test:
Based on VDI/VDE/DGQ guideline 2618.

30065

Measuring range mm	30065 ...
25 - 100	021
> 100 - 500	023
> 500 - 1000	024
> 1000	025

30067 Internal measuring instruments (DIATEST, SUBITO, INTO etc.)

Test:
In accordance with Temeka calibration instructions.
Separate charge for dial gauge.

Measuring range mm	30067 ...
4.5 - 160	001
> 160 - 300	003
> 300	004

30068 Internal micrometres (with three-point contact)

Test:
Based on VDI/VDE/DGQ guideline 2618.

30068

Measuring range mm	30068 ...
0 - 50	001
> 50 - 100	002
> 100 - 200	003
> 200 - 250	005
> 250 - 300	006

30069 Internal micrometres (with two-point contact)

Test:
Based on VDI/VDE/DGQ guideline 2618.

30069

Measuring range mm	30069 ...
25 - 50	001
> 50 - 200	002
> 200 - 500	003
> 500 - 1000	004
> 1000	005

30080 Length measuring devices (electronic)

Test:
Based on VDI/VDE/DGQ guideline 2618.

30080

Measuring range mm	30080 ...
0 - 25	001
> 25 - 50	002
> 50 - 100	003

30082 Rulers, DIN 874

Test:
Based on VDI/VDE/DGQ guideline 2618.

30082

Measuring range mm	30082 ...
0 - 500	001
> 500 - 1000	002
> 1000 - 1500	003
> 1500 - 2000	004
> 2000 - 3000	005

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30085 Measuring tapes (steel rules, tape measures etc.)

Test specification:
EC standard I/II/III.

30085

Measuring range mm	30085 ...
0 - 1000	001
> 1000 - 2000	004
> 2000 - 5000	006
> 5000 - 10000	007
> 10000 - 20000	008
> 20000 - 50000	009

30086 Measuring bridges

Test:
Based on VDI/VDE/DGQ guideline 2618.
Separate charge for dial gauge.

30086

Bridge length	30086 ...
Universal	001

30090 Vernier calipers (analogue, digital)

Test:
VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30090

Measuring range mm	30090 ...
0 - 200	001
0 - 500	002
0 - 1000	003
0 - 2000	004
0 - 3000	005

30092 Dial gauges, DIN 878

Test:
VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30092

Measuring range mm	Reading mm	30092 ...
0.4	0.01	001
0.8	0.01	002
3.0	0.01	003
5.0	0.01	004
10.0	0.01	005

30094 Dial gauges, analogue (non-standard)

Test:
In accordance with Temeka calibration instructions.

Note:
DAkkS calibration available on request.

30094

Measuring range mm	30094 ...
0 - 10	001
0 - 30	006
0 - 100	009

30096 Dial gauges, digital (non-standard)

Test:
In accordance with Temeka calibration instructions.

Note:
DAkkS calibration available on request.

30096

Measuring range mm	30096 ...
Up to 30	004
Up to 50	005
Up to 100	007

Test equipment monitoring | Calibration service

30105 - 30106 Parallel gauge blocks (tolerance classes 0, 1, 2 – steel, cemented carbide, ceramic)

Test:
VDI/VDE/DGQ guideline 2618.

Note:
Up to 100 mm measuring range: testing of the mean size deviation, deviation fo and fu, and the deviation range fs. Over 100 mm measuring range: testing of the mean size deviation from the nominal dimension. DAkkS calibration available on request.

30105

	Individual	
Measuring range mm	30105	...
0 - 100		001
> 100 - 200		002
> 200 - 300		003
> 300 - 400		004
> 400 - 500		005
> 500 - 700		006
> 700 - 1000		008
> 1000 - 2000		011
> 2000 - 3000		012

30106

	Set	
Content Pieces	30106	...
32teilig		032
47 pieces		047
87teilig		087
111 pieces		111

30136 Test weights

Test:
In accordance with Temeka calibration instructions. Tolerances: commercial weight M3.

30136

Weight kg	30136	...
0–5		001
> 5 - 10		002
> 10 - 20		003
> 20 - 50		004

30138 Test pins

Test:
Based on VDI/VDE/DGQ guideline 2618.

Note:
Price per pin.

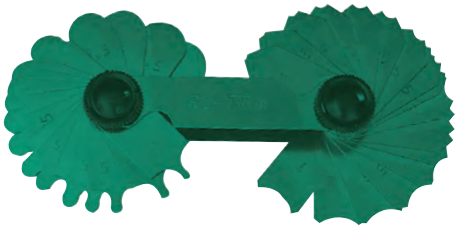
30138

Measuring range mm	30138	...
0.1 - 50		001
In the set: per pin		101

30151 Radius gauges

Test:
In accordance with Temeka calibration instructions.

30151



Number of	30151	...
Per blade		002

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30152 Roughness testers

Test:
In accordance with Temeka calibration instructions.

30152

Measurement variables		30152	...
Tester	Ra/Rz/R max.		001
Geometry standard	Ra/Rz/R max.		101

30160 Coating thickness gauges

Test:
In accordance with Temeka calibration instructions.

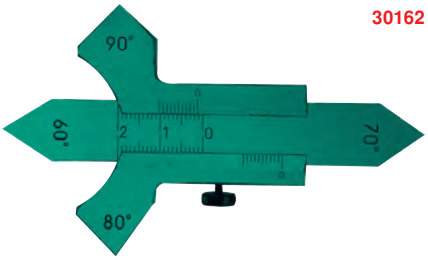
30160

Measuring range mm	30160	...
Universal		001

30162 Welding seam gauges

Test:
VDI/VDE/DGQ 2618, sheet 27.

30162



	30162	...
Universal		001

30163 Shore hardness testers

Test:
In accordance with Temeka calibration instructions.

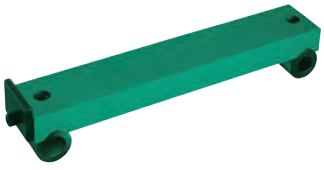
30163

Measuring range mm	30163	...
Universal		001

30164 Sine bars

Test:
In accordance with DIN 2273.

30164



Measuring range mm	30164	...
100/200		001

30200 Stop watches

Test:
In accordance with Temeka calibration instructions.

30200

Measuring range min	30200	...
0–60		002

Test equipment monitoring | Calibration service

30207 3D probe

Design
Calibration for 3D probe cat. no. 21768 101 and 21769 201.

Note:
Calibration for other 3D probes on request.

30207

	30207 ...
	001

30209 Temperature measuring instruments (including 1 sensor)

Test:
Based on DAkkS guideline.

Note:
Additional temperature ranges and DAkkS calibration on request.

30209

Measuring points °C	30209 ...
Up to +150° (5 MP)	001
- 20 to +150° sensor	002

30210 Depth callipers

Test:
VDI/VDE/DGQ guideline 2618.

30210

Measuring range mm	30210 ...
0 - 200	001
0 - 500	002
0 - 1000	003

30212 Depth micrometers

Test:
VDI/VDE/DGQ guideline 2618.

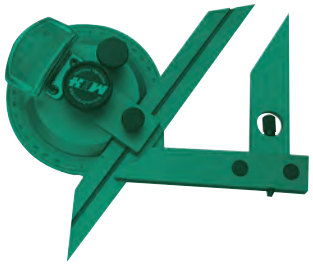
30212

Measuring range mm	30212 ...
0 - 50	001
> 50 - 100	002
> 100 - 150	003
> 150 - 200	004
> 200 - 250	005
> 250 - 300	006
> 300	007

30219 Universal protractors (mechanical, optical, electronic)

Test:
VDI/VDE/DGQ guideline 2618.

30219



Display	30219 ...
360°	001
With 3 measuring rails, 360°	002

30220 Tapered plug gauges or ring gauges/sleeves

Test:
VDI/VDE/DGQ guideline 2618.

30220

Measuring range mm	30220 ...
4 - 20	001
20 - 50	002
50 - 90	003

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30221 Threaded plug gauges, tapered

Test:
Based on VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30221

Measuring range mm	30221 ...
4 - 20	001
20 - 40	002
40 - 90	003

30222 Threaded ring gauges, tapered

Test:
Based on VDI/VDE/DGQ guideline 2618.

Note:
DAkkS calibration available on request.

30222

Measuring range mm	30222 ...
4 - 20	001
20 - 50	002
50 - 90	003

30223 Test gauges

Test:
Based on VDI/VDE/DGQ guideline 2618.

30223

Size mm	30223 ...
30 x 10	001

30225 Scales

Test:
In accordance with Temeka calibration instructions.

Note:
DAkkS calibration available on request.

30225

Measuring range kg	30225 ...
0 - 50	001
> 50 - 100	002
> 100 - 200	003
> 200 - 300	004

30900 Crane scales (up to 100 kN)

Test:
In accordance with Temeka calibration instructions.

Note:
Up to a maximum total length of 750 mm.

30900

Measuring points	30900 ...
4	831

30226 Pressure gauge (1-1200 bar)

Test:
Based on DAkkS guideline.

Note:
DAkkS calibration available on request.

30226

Class	30226 ...
< 0.1	010
0.1 - 0.6	009
> 0.6	008

Test equipment monitoring | Calibration service

30227 Spirit levels/horizontal spirit levels/frame spirit levels

Test:
In accordance with DIN 877.

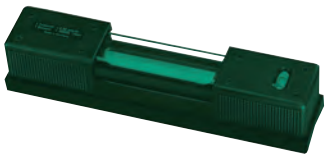
30227

spirit levels

Graduation mm/m	30227 ...
> 0.3	007
With angle guide, 0.1°	009

Horizontal spirit levels

Graduation mm/m	30227 ...
> 0.05	005
> 0.02 - 0.05	004
Up to 0.02	002



Frame spirit levels

Graduation mm/m	30227 ...
> 0.05	006
> 0.02 - 0.05	003
> 0.02	001

30228 Squares (try squares, flat squares, knife-edge squares)

Test:
VDI/VDE/DGQ guideline 2618.

30228

Dimension mm	30228 ...
Up to 100	001
Up to 300	004
Up to 600	008
Up to 1000	011

30230 Measuring and marking-off plates

Calibration with laser interferometer.

Test:
VDI/VDE/DGQ guideline 2618.

Note:
Test specifications and traceability verification available on request.
The calibration work is carried out on site. Prices do not include travel and accommodation expenses.

30230

Plate size	30230 ...
Up to 0.5 m²	008
Up to 1.0 m²	009
Surcharge per commenced m²	010

30800 Marking of test equipment

Design
Stencil marking with electrolytic marking device or labelling with marking tape for plastic items.

	30800 ...
Up to 5 digits	001
6–10 digits	002
11–15 digits	003

30805 Sealing of test equipment

	30805 ...
Up to 100 mm	001
100 mm	002

30806 - 30807 Surcharges for on-site calibration

	30806 ...	30807 ...
Per kilometre driven (car)	004	
Per kilometre driven (truck)	005	
Daily rate/person plus accommodation expenses	006	
Travel time per hour/person	007	
Mobile calibration laboratory on site		000

Info Mobile calibrations

Our fully air-conditioned mobile laboratories provide the perfect environment to perform a wide range of calibrations. Do you want or need your test equipment to be calibrated on site?

No problem!
Temeka will calibrate your stationary test equipment on site!

Your benefits:

- Short distances
- Optimal throughput times
- No packaging costs
- No shipping costs
- Reduced administration costs
- Defined environmental conditions
- No redundant test equipment required

Measurement technology at its finest

Temeka
Test-, Mess- und Kalibriertechnik

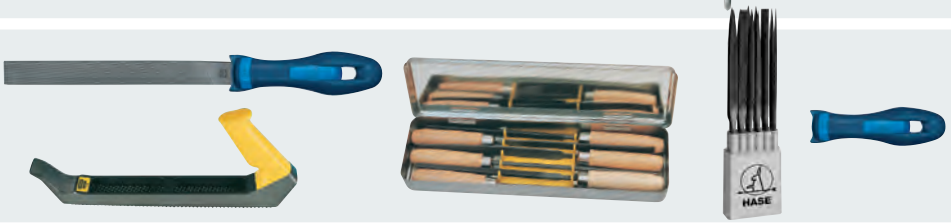
Accredited in accordance with DIN EN ISO/IEC 17025

Sanding/cutting tools

- Saw bows
- Jigsaw blades
- Circular saw blades
- Hole saws
- Machine saw blades
- Band saws

40

40.3 – 40.40



- Flat hand engineer's files
- Precision files
- Needle files
- Riffling files
- Plane cutters
- Wood rasps
- File handles

41

41.1 – 41.16

- Grinding files
- Grinding stones
- Hand lapping tools

42

42.1 – 42.8

- Matting bodies
- Abrasive caps
- Sanding belts
- Abrasive cloth
- Sandpaper
- Fibre discs
- Flap discs

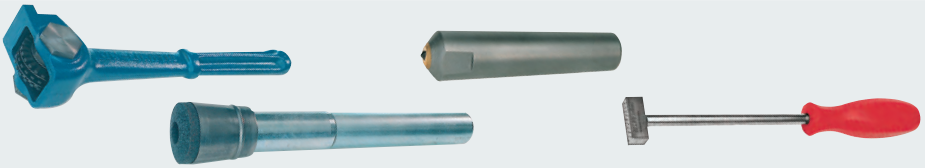
43

43.1 – 43.52

- Milling bits
- Grinding and polishing points
- Polishing pastes
- Sanding discs
- Rough grinding discs
- Cutting discs

44

44.1 – 44.44



- Sanding disc dressing tools
- Dressing diamonds

46

46.1 – 46.2

- File brushes
- Wire end brushes
- Cylinder wire brushes
- Wire cup brushes
- Conical brushes
- Tube brushes
- Internal cleaning brushes
- Honing brushes

47

47.1 – 47.14

Our suppliers for *SANDING/CUTTING TOOLS:*

ATORN®
HHW
3M
AMADA
BAHCO
BOSCH
DICK
FACOM
HASE
KLINGSPOR
LENOX
LUKAS
M.P.S.®
osborn
PFERD
RHODIUS
SC ABRASIVES
STANLEY
STARCKE®
VSM
WIKUS
Präzision an der Schnittstelle

Info HHW Quality abrasives

The quality products of the brands

ATORN® HHW 3M KLINGSPOR LUKAS PFERD RHODIUS VSM

delivered by HHW meet the OSA quality standard

In close collaboration with the Federation of European Producers of Abrasives (FEPA), pursues the objective of maintaining and improving the safety standard currently achieved by the products and making this standard more transparent for users and consumers. The members manufacture safe and accident-preventing abrasive tools nationwide and these tools are specially marked for identification by the user. OSA members are obliged to manufacture, market and have their abrasive tools tested in accordance with the safety regulations specified in the procurement directives.

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40033 Pocket saw

ATORN®

Design
With a multi-purpose saw blade (PUK) and reinforced plastic handle.

Applications
For metal, plastic, wood.

Note:
Replacement blades, see art. no. 40039 and 40040.

40033

Clamping width mm	40033 ...
146	101

40035 - 40040 Universal pocket saw

40035
Universal pocket saw
Design
Handle adjustable on all sides for sawing in hard-to-reach places, frame made of square steel, nickel-plated, with clamped universal saw blade for burr-free cutting of all common materials.
Length 310 mm, folded 190 mm.
Applications
For industry, trade, do-it-yourself enthusiasts, hobbyists and households. It quickly and effortlessly cuts pipes, rods, profiles, bars, rails, screws, cables, branches, etc. in the smallest of spaces.

40039
Replacement saw blades
Design
Metal saw blade, crimped fine toothing, tooth pitch 0.8 mm, 32 teeth per inch. **Pack = 12 pieces.**
Applications
For high-quality saw cuts: All metals, non-ferrous metals (copper), stainless steels, special alloys, plexi-glass, plastics.

40040
Replacement saw blades
Design
Metal fine saw blade, extremely fine toothing, tooth pitch 0.5 mm, 50 teeth per inch. **Pack = 12 pieces.**
Applications
For clean highest-quality cuts: Very thin rods, bars, fine sheets, thin-walled profiles/pipes, hard/high-alloy steels, aluminium, brass, copper etc., particularly suitable for electronics and model construction.

40035

40039

	40035 ...	40039 ...	40040 ...
	101	101	101

40180 Metal saw bow

BAHCO

Design
With SANDFLEX® bimetal saw blade for metal and plastic.

Applications
For work in poorly accessible places.
For bow saw spare blades 250 mm and 300 mm.

Note:
Use only bimetal saw blades, see art. no. 40224-40225.

40180

	40180 ...
	101

40190 Bow saw

BAHCO

Design
- Oval frame made of sturdy steel tube
- Plastic tooth guard
- Knuckle guard
- Clamping lever

Advantage
Fits into every tool box
Scope of delivery
Complete with
1x pointed-tooth blade for wood
1x SANDFLEX® bimetal saw blade for metal and plastic

Applications
For bow saw spare blades 300 mm.
For ceramics, a 300 mm cemented carbide rod saw can also be used.

Note:
Bow saw spare blades, see art. no. 40212-40226.

40190

Overhang mm	40190 ...
165	101

40200 Aluminium saw bow

ATORN®

Design
- Made solely from high-pressure die cast aluminium
- Weighs just 650 g
- Ergonomic shape
- More comfortable to use thanks to soft rubber handle and front grip
- Quick-action clamping in grip
- Captive pins hold the blade
- Saw blade not included in delivery

Applications
For bow saw spare blades 300 mm.

Note:
Bow saw spare blades, see art. no. 40212-40226.

40200

For saw blade length mm	Weight g	40200 ...
300	650	101

40202 - 40208 Metal saw bows

Applications
For bow saw spare blades 300 mm.

Note:
Bow saw spare blades, see art. no. 40212-40228.

40202
BAHCO
Design
Traditional metal saw bow with wooden handle. Delivery **with** SANDFLEX® saw blade.

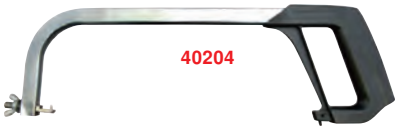
40203
BAHCO
Design
Delivery **with** saw blade, 24 teeth per inch.

40204
Design
With ergonomically shaped handle made of light metal injection moulding and blade clamping with wing nut. Heavy, stable frame. Negative curve on the saw back – thus no deformation when clamping. With captive pins. Saw blade **not included** in delivery.

40206
BAHCO
Design
Light-weight two-component frame with steel core for easy handling. High blade tension of 100 kg for straight, clean cuts with precise joints. Clamping mechanism integrated in the handle. Alternative blade clamping at 55° for flush cuts. Complete **with** practically unbreakable SANDFLEX® bimetal saw blade with 24 teeth per inch, for excellent cutting results.

40207
BAHCO
Design
Ergonomic professional metal saw bow with very high blade tension. Centred blade for correct balance, spring-tensioned blade fastening for rapid blade changes. Alternative blade clamping at 55° for flush cuts. Equipped **with** unbreakable SAND-FLEX® bimetal saw blade, 24 teeth per inch.
Applications
For straight, clean cuts and precise kerfs. For bow saw spare blades 300 mm.

40208
Design
Blade clamping at 90° and 50°. Solid, sturdy design. Handle made of special die-cast aluminium, with hand guard. Clamping mechanism integrated in the handle. Saw blade **not included** in delivery.



BAHCO 40202 ...	BAHCO 40203 ...	40204 ...	BAHCO 40206 ...	BAHCO 40207 ...	40208 ...
101	101	101	201	101	101

Info You can find more saws in our catalogue group 67

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40212 - 40225 Single-sided metal bow saw spare blades

Applications
Number of teeth:
18 teeth for solid material above approx. 5 mm.
24 teeth for sheet metals and profiles.
32 teeth for very thin sheet metals and profiles less than approx. 2 mm.

40212
ATORN®
Design
Flexible, tooth-hardened blade.
Applications
For universal use in industry and workshops.
Quality
Flex SS hard tooth.

40218
ATORN®
Design
Flexible, straight-set blade.
Applications
For cutting hard and toughened steels.
Quality
HSS fully hardened.

40224
BAHCO
Design
SANDFLEX®
Virtually unbreakable and splinter-proof with precision-ground teeth.
Blade back made of resistant, flexible spring steel.
Tooth edge made of high-alloy Super-HSS steel.
Applications
For all types of metal cutting.
Quality
Bimetal.

40225
ATORN®
Design
Semi-flexible, heavy-duty, break-proof safety blade.
Applications
Universal use, also for hard, high-alloy steels or stainless steels.
Extremely long service life and high cutting force.
Quality
HSS bi-cobalt, hardened tooth tips and semi-flexible.

40225 104
ATORN®
Design
With progressive tooth pitch.

40212

40218

40224

40225 201-203

40225 104

Number of teeth per inch	Dimensions mm		Flex SS 40212	...	HSS 40218	...	Bimetal 40224	...	HSS Bi-Cobalt 40225	...
18	300 x 13 x 0.65	10 pieces							101	201
24	300 x 13 x 0.65	10 pieces		102		102			102	202
32	300 x 13 x 0.65	10 pieces							103	203
18–32	300 x 13 x 0.65	10 pieces								104

40226 Double-sided metal bow saw spare blade

ATORN®
Design
Flexible, tooth-hardened blade.

Applications
For universal use in industry and workshops.
Quality
HSS.

40226

Number of teeth per inch	Dimensions mm		40226 ...
24	300 x 25 x 0.8	10 pieces	102

Info — Overview of pictograms

For jigsaw, sabre saw, tiger saw, bodywork saw and circular saw blades (art. no. 40229–40239)

	Aluminium		Solid wood
	Coated boards		Stainless steel
	Sheets		Profiles
	Non-ferrous metals		Pipes
	Eternit boards		Sandwich material
	Fresh, wet wood		Chipboard
	Gas concrete		Plywood
	Gypsum plasterboard Cement-bonded chipboard		Steel, iron
	Glass		Wood core plywood
	Hard-fibre boards		Straight cuts
	Hardwood and softwood		Curved cuts
	Wood with nails		Rectangular cuts
	Ceramic, clay		Clean cut
	Plastics		Fast cut

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

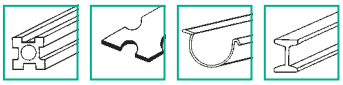
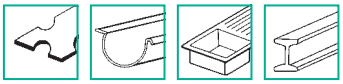
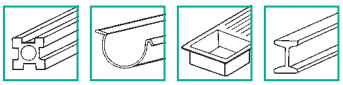
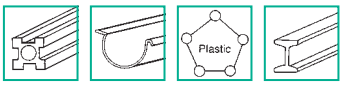
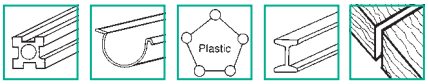
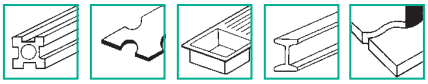
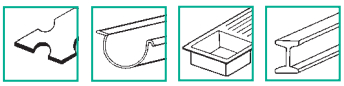
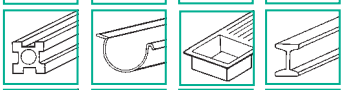
40230 Jigsaw blades for metal and aluminium

Applications
Suitable for AEG, Atlas Copco, Bosch, ELU, Festool, Flex, Hitachi, Holz-Her, Kanggo Wolf, Kress, Makita, Metabo, Milwaukee, Perles.
Quality
HSS.

40230 101-109
Pack = 5 pieces.

40230 202-204
Pack = 20 pieces.

40230 301
Multi-set metal:
8 x art. no. 40230 102,
8 x art. no. 40230 103,
4 x art. no. 40230 104.

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	Applications	40230
0.9 mm 36 tpi	50	crimped, 1 mm thick	T 118 G		for thin sheet metals 101
1.2 mm 21 tpi	50	crimped, 1 mm thick	T 118 A		102 202
2.0 mm 13 tpi	50	crimped, 1 mm thick	T 118 B		103 203
3.0 mm 8 tpi	75	straight-set, 1 mm thick	T 127 D		104 204
2.0 mm 13 tpi	75	Conical ground, 1.45 mm thick	T 101 A		107
3.0 mm 8 tpi	75	straight-set, 1 mm thick	T 227 D		108
1.2 mm 21 tpi	50	crimped, 1 mm thick	T 218 A		109
1.2 mm 21 tpi	50	8 pieces crimped, 1 mm thick	T 118 A		301
2.0 mm 13 tpi	50	8 pieces crimped, 1 mm thick	T 118 B		301
3.0 mm 8 tpi	75	4 pieces straight-set, 1 mm thick	T 127 D		301

Pack = Pieces	40230 ...
5	101
5	102
20	202
5	103
20	203
5	104
20	204
5	107
5	108
5	109
Multi set	301

Jigsaw blades

40260 Jigsaw blades for metal

BOSCH

Applications
For use with jigsaws with T shank holder (single lug shank). **Pack = 5 pieces.**

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40260
1.1–1.5 mm	92	HSS, crimped, milled, 1–3 mm thick	T 118 A	101
1.1–1.5 mm	92	HSS crimped, milled, 1–3 mm thick	T 218 A	**specially for curved cuts** 102
1.9–2.3 mm	92	bimetal, crimped, milled, 2.5–6.0 mm thick	T 118 BF	103

Pack = Pieces	40260 ...
5	101

Pack = Pieces	40260 ...
5	102

Pack = Pieces	40260 ...
5	103

40262 Jigsaw blades for aluminium

BOSCH

Applications
For thin to thick sheets from 3–15 mm thick. For pipes and profiles less than 30 mm thick. For use with jigsaws with T shank holder (single lug shank).
Pack = 5 pieces.

Quality
HSS.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40262
3.0 mm	100	straight-set, milled, 3–15 mm thick	T 127 D	101

Pack = Pieces	40262 ...
5	101

40264 Jigsaw blades for stainless steel

BOSCH

Design
- Carbide technology (bar)

Applications
For use with jigsaws with T shank holder (single lug shank). **Pack = 3 pieces.**

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40264
1.1 mm	83	ground, 1.5–3.0 mm thick	T 118 AHM	101
1.4 mm	83	ground, 2.5 mm thick	T 118 EHM	102

Pack = Pieces	40264 ...
3	101
3	102

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40231 Jigsaw blades for metal and wood

Applications
Suitable for AEG, Atlas Copco, Bosch, ELU, Festool, Flex, Hitachi, Holz-Her, Kanggo Wolf, Kress, Makita, Metabo, Milwaukee, Perles.

Quality
Bimetal.

40231 101-113
Pack = 5 pieces.

40231 201-203
Pack = 20 pieces.

Tooth pitch	Usable length mm	Design	Corresp. to Bosch No.	Applications	40231	
1.2 mm 21 tpi	50	crimped, 1 mm thick	T 118 AF		3111-F	101 201
2.0 mm 13 tpi	50	crimped, 1 mm thick	T 118 BF		3113-F	103 203
3.0 mm 8 tpi	75	straight-set, 1 mm thick	T 127 DF	Plastic	3118-F	104
2.5 mm 10 tpi	75	sharpened, tapered ground, 1.45 mm thick	T 101 BF	Plastic	3101-F	107
1.8–2.4 mm 14–10 tpi	110	straight-set, 1.3 mm thick	-	Plastic	3150-F Combination tooth shape	108
1.65 mm 15 tpi	75	sharpened, tapered ground, 1.25 mm thick	T 101 AIF	Plastic	3160-F Pointed teeth	110
2.5–5.0 mm 10–5 tpi	105	straight-set, 1.25 mm thick	T 345 XF		3156-F Progressive tooth pitch	112
1.0–1.6 mm 16–25 tpi	110	milled straight-set 1.00 mm thick	3176-F	Plastic	3176-F	113

Pack = Pieces	40231 ...
5	101
20	201
5	103
20	203

Pack = Pieces	40231 ...
5	104
5	107
5	108
5	110

Pack = Pieces	40231 ...
5	112
5	113

40261 Jigsaw blades for metal and wood

BOSCH

Design
- Carbide technology

Applications
Suitable for fast cutting in thick and thin wood and metal.For timber with nails less than 65 mm thick. For wood materials, fibre-reinforced plastic (FRP), sheet metals, pipes/profiles, including aluminium with Ø 4–10 mm.For use with jigsaws with T shank holder (single lug shank).
Pack = 3 pieces.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40261	
3.5–5.0 mm	132	ground, straight-set	T 367 XHM		101

Pack = Pieces	40261 ...
3	101

Jigsaw blades

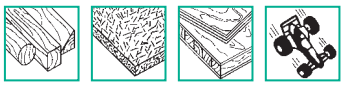
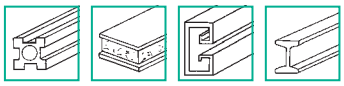
40234 Long jigsaw blades

MPS

Applications
Suitable for AEG, Atlas Copco, Bosch, ELU, Festool, Flex, Hitachi, Holz-Her, Kanggo Wolf, Makita, Metabo, Milwaukee, Perles.
Pack = 5 pieces.

40234 101
Quality
Tool steel.

40234 102-103
Quality
Bimetal.

Tooth pitch	Usable length mm	Design	Corresp. to Bosch No.	Applications	40234
4.0 mm 6 tpi	110	sharpened, straight-set, 1.3 mm thick	T 344 D		101
2.0 mm 13 tpi	100	bimetal crimped, 1 mm thick	T 318 BF		102
1.2 mm 21 tpi	100	bimetal crimped, 1 mm thick	T 318 AF		103

Pack = Pieces	40234 ...
5	101
5	102
5	103

40267 Jigsaw blades for laminate/plastic/HPL

BOSCH

Design
- Carbide technology (bar)

Applications
Clean cuts in high-pressure laminate (HPL) and Trespa® (from 2 to 15 mm). For use with jigsaws with T shank holder (single lug shank).
Pack = 3 pieces.

NEW

Tooth pitch	Usable length mm	Design	Corresp. to Bosch No.	40267
1.8 mm	92	ground teeth	T 128 BHM	101

Pack = Pieces	40267 ...
3	101

Info

HHW has an extensive range of electric saws, jigsaws, sabre saws and circular saws in cat. group 9.

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40232 Jigsaw blades for wood

Applications
Suitable for AEG, Atlas Copco, Bosch, ELU, Festool, Flex, Hitachi, Holz-Her, Kanggo Wolf, Kress, Makita, Metabo, Milwaukee, Perles.
Quality
Tool steel.

40232 103-129
Pack = 5 pieces.

40232 208
Pack = 20 pieces.

40232 301
Multi-set wood:
8 x art. no. 40232 108,
8 x art. no. 40232 110,
4 x art. no. 40232 112.

Tooth pitch	Usable length mm	Design	Corresp. to Bosch No.	Applications	40232
3.0 mm 8 tpi	75	straight-set, 1.3 mm thick	T 111 C		103
2.5 mm 10 tpi	75	sharpened, tapered ground, 1.45 mm thick	T 101 B		108 208
4.0 mm 6 tpi	75	sharpened, tapered ground, 1.45 mm thick	T 101 D		109
2.0 mm 12 tpi	50	crimped, 1 mm thick	T 119 BO		112
4.0 mm 6 tpi	75	sharpened, straight-set, 1.3 mm thick	T 244 D		113
2.5 mm 10 tpi	75	sharpened, tapered ground, 1.4 mm thick	T 101 BR	reverse cutting direction	115
4.0 mm 6 tpi	85	sharpened, tapered ground, 1.45 mm thick	T 301 D		116
4.0 mm 6 tpi	110	sharpened, tapered ground, 1.45 mm thick	T 301 DL	special tooth shape	123
8 pieces					
2.5 mm 10 tpi	75	sharpened, tapered ground 1.45 mm thick	T 101 B		
8 pieces					
4.0 mm 6 tpi	75	sharpened, straight-set 1.3 mm thick	T 144 D		
4 pieces					
2.0 mm 13 tpi	50	crimped, 1 mm thick	T 119 BO		301
3 pieces					
2.5 mm 10 tpi	75	tapered ground 1.45 mm thick	3100		
3 pieces					
4.0 mm 6 tpi	75	straight-set ground 1.25 mm thick	3100		
2 pieces					
3.0 mm 8 tpi	75	milled ground 1.25 mm thick	3100		
1 piece					
1.2 mm 21 tpi	50	milled crimped 1.00 mm thick	3100		
1 piece					
2.0 mm 12 tpi	50	milled straight-set 1.00 mm thick	3100		402

Continued

40232 Jigsaw blades for wood

Continued ▶

Pack = Pieces	40232 ...
5	103
5	108
20	208

Pack = Pieces	40232 ...
5	109
5	112
5	113

Pack = Pieces	40232 ...
5	115
5	116
5	123

	40232 ...
Multi-set 20 pieces	301
Box-8 10 pieces	402

40265 Jigsaw blades for wood

BOSCH

Applications
For use with jigsaws with T shank holder (single lug shank).
Pack = 5 pieces.

40265 101-102
Applications
For softwood, chipboard, wood-core plywood, fibreboards.

40265 103
Applications
For softwood, plywood, coated boards.

NEW

40265 104-105
Applications
For softwood and non-abrasive wood materials.

40265 106-107
Applications
For hardwood and abrasive wood materials.

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40265
4.0–5.2 mm	100	HCS, straight-set, ground	T 144 D	101
2.7 mm	100	HCS clearance angle, ground teeth	T 101 B	102
1.4 mm	83	HCS pointed-toothed, clearance angle, ground teeth	T 101 AO	specially for curved cuts 103
2.2 mm XC	117	HCS clearance angle, ground teeth	T 308 B	104
2.2 mm XC	117	HCS clearance angle, ground teeth	T 308 BO	specially for curved cuts 105
2.2 mm XC	117	bimetal, clearance angle, ground teeth	T 308 BF	106
2.2 mm XC	117	bimetal, clearance angle, ground teeth	T 308 BOF	specially for curved cuts 107

Pack = Pieces	40265 ...
5	101
5	102
5	103

Pack = Pieces	40265 ...
5	104
5	105
5	106

Pack = Pieces	40265 ...
5	107

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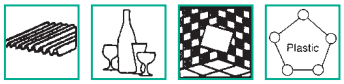
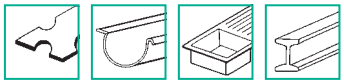
40233 Jigsaw blades for glass/ceramic and stainless steel

Applications
Suitable for AEG, Atlas Copco, Bosch, ELU, Festool, Flex, Hitachi, Holz-Her, Kanggo Wolf, Kress, Makita, Metabo, Milwaukee, Perles.

Quality
Cemented carbide.

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	Applications	40233
-	50	Carbide-tipped, (grain) 1.3 mm thick	T 130 Riff		101
1.1 mm 24 tpi	50	bimetal, 1 mm thick	T 118 AHM		Especially for VA steel 105

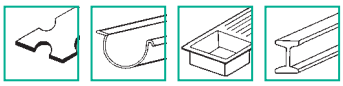
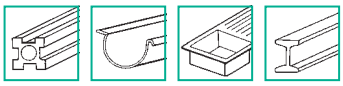
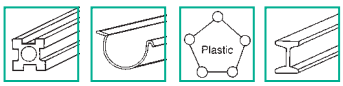
Pack = Pieces	40233 ...
1	101
3	105

40229 Jigsaw blades HSS/WS for Fein and Kanggo-Wolf

Applications
Suitable for Fein:
ASt 636-1, ASt 636b, ASte 636-1, Mot 6-17-1.
Kanggo-Wolf:
6544, 6552.

40229 102-104
Quality
HSS.
Pack = 5 pieces.

40229 118
Quality
Tool steel.
Pack = 5 pieces.

Tooth pitch	Usable length mm	Design	Corresponds to Fein No.	Applications	40229
1.2 mm 21 tpi	50	crimped, 1 mm thick	Z 22-35		102
2.0 mm 13 tpi	50	crimped, 1 mm thick	Z 22-36		103
3.0 mm 8 tpi	75	straight-set, 1 mm thick	-		Especially for aluminium 104
4.0 mm 6 tpi	75	sharpened, tapered ground 1.45 mm thick	082 010		118

Pack = Pieces	40229 ...
5	102
5	103
5	104
5	118

40263 Jigsaw blade set for metal 10 pcs.

BOSCH

Applications
Robust Line is the usual choice for special metal work. The blades are ideal for straight and curved cuts. They cut in solid sheet metal and make fast cuts in aluminium. They are also break-proof in the case of metal pipes and profiles. For use with jigsaws with T shank holder (single lug shank).
Pack = 10 pieces.

NEW

40263

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40263
0.7 mm	92	**1 piece** HSS crimped, milled, 0.5–1.5 mm thick	T 118 G	
1.1–1.5 mm	92	**1 piece** HSS crimped, milled, 1–3 mm thick	T 118 A	
1.9–2.3 mm	92	**1 piece** HSS crimped, milled, 2.5–6.0 mm thick	T 118 B	
1.5 mm	83	**1 piece** bimetal, crimped, milled, 1.5–4.0 mm thick	T 118 EOF	**specially for curved cuts**
1.1–1.5 mm	92	**1 piece** bimetal, crimped, milled, 1–3 mm thick	T 118 AF	
1.9–2.3 mm	92	**1 piece** bimetal, crimped, milled, 2.5–6.0 mm thick	T 118 BF	
0.8 mm	83	**1 piece** bimetal, crimped, milled,	T 118 GFS	
3.0 mm	100	**1 piece** HSS straight-set, milled, 3.0–15.0 mm thick	T 227 D	**specially for curved cuts**
3.0 mm	100	**1 piece** HSS straight-set, milled, 3.0–15.0 mm thick	T 127 D	
1.2–2.6 mm	100	**1 piece** HSS straight-set, milled, 1.5–10.0 mm thick	T 123 XF	101

	40263 ...
Jigsaw blade set 10 pieces	101

www.hhw.de
Fax order hotline: 0800 0 915910

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40266 Jigsaw blade set for wood 10 pcs.

BOSCH

Applications
Robust Line is the usual choice for special wood work. The blades are ideal for straight and curved cuts. They make precise, fast and clean cuts in hardwood and wood materials. For use with jigsaws with T shank holder (single lug shank).
Pack = 10 pieces.

NEW

40266

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40266
		1 piece HCS pointed-toothed, clearance angle, ground teeth		
1.4 mm	83		T 101 AO	**specially for curved cuts**
		1 piece HCS clearance angle, ground teeth		
2.7 mm	100		T 101 B	
		1 piece HCS clearance angle, ground teeth		
2.5 mm	100		T 101 BR	
		1 piece bimetal, clearance angle, ground teeth		
1.4 mm	83		T 101 AOF	
		1 piece bimetal, clearance angle, ground teeth		
2.7 mm	100		T 101 BF	
		1 piece bimetal, clearance angle, ground teeth		
2.5 mm	100		T 101 BRF	
		1 piece HCS straight-set, ground		
4.0–5.2 mm	100		T 244 D	
		1 piece HCS straight-set, ground		
4.0–5.2 mm	100		T 144 D	
		1 piece bimetal, straight-set, ground		
4.0–5.2 mm	100		T 144 DF	
		1 piece bimetal, straight-set, ground		
4.0–5.2 mm	100		T 144 DP	101

	40266 ...
Jigsaw blade set 10 pieces	101

40268 Jigsaw blade set All in One 10 pcs.

BOSCH

Applications
For use with jigsaws with T shank holder (single lug shank).
Pack = 10 pieces.

NEW

40268 101

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40268
4.0–5.2 mm	100	**1 piece** HCS straight-set, ground	T 244 D	
4.0–5.2 mm	100	**1 piece** HCS straight-set, ground	T 144 D	
1.4 mm	83	**1 piece** HCS pointed-toothed, clearance angle, ground teeth, 1.5–15.0 mm thick	T 101 AO	**specially for curved cuts**
2.7 mm	100	**1 piece** HCS clearance angle, ground teeth, 3–30 mm thick	T 101 B	
2.7 mm	100	**1 piece** bimetal, clearance angle, ground teeth, 3–30 mm thick	T 101 BF	
1.1–1.5 mm	92	**1 piece** HSS crimped, milled, 1–3 mm thick	T 118 A	
1.9–2.3 mm	92	**1 piece** HSS crimped, milled, 2.5–6.0 mm thick	T 118 B	
3.0 mm	100	**1 piece** HSS straight-set, milled, 3–15 mm thick	T 127 D	
0.8 mm	83	**1 piece** bimetal, crimped, milled	T 118 GFS	
2.3 mm	100	**1 piece** HCS clearance angle, ground teeth	T 102 H	101

	40268 ...
All in One 10 pieces	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

40268 Jigsaw blade set Wood and Metal 10 pcs.

40268 102

BOSCH

Applications
For use with jigsaws with T-Shank holder (single lug shank).
Pack = 10 pieces.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40268
		1 piece HCS crimped, milled,		
2.0 mm	83	2–15 mm thick	T 119 BO	
		1 piece HCS crimped, milled,		
1.9–2.3 mm	92	2–15 mm thick	T 119 B	
		1 piece HCS straight-set, milled,		
3.0 mm	100	4–50 mm thick	T 111 C	
		1 piece HCS straight-set, ground,		
4.0–5.2 mm	100	5–50 mm thick	T 244 D	
		1 piece HCS straight-set, ground,		
4.0–5.2 mm	100	5–50 mm thick	T 144 D	
		1 piece HCS pointed-toothed, clearance angle, ground teeth,		**specially for curved cuts**
1.4 mm	83	1.5–15.0 mm thick	T 101 AO	
		1 piece HCS clearance angle, ground teeth,		
2.7 mm	100	3–30 mm thick	T 101 B	
		1 piece HSS crimped, milled,		
1.1–1.5 mm	92	1–3 mm thick	T 118 A	
		1 piece HSS crimped, milled,		
1.9–2.3 mm	92	2.5–6.0 mm thick	T 118 B	
		1 piece HSS straight-set, milled,		
3.0 mm	100	3–15 mm thick	T 127 D	102

	40268 ...
Wood and Metal 10 pieces	102

Sabre saw blades

40235 Sabre saw blades for wood and metal

Applications
Suitable for AEG, Atlas Copco, Black & Decker, Bosch, Fein, Flex, Hitachi, Holz-Her, Makita, Metabo, Milford, Milwaukee, Rockwell, Rems, Skill, etc.
Quality
Bimetal.

40235 210-236
Pack = 5 pieces

40235 400
Set 3 pieces
1 x saw blade 230 mm, 210 mm working length, milled, straight-set, coarse and fast cutting, wood, material thickness of 20–150 mm
1 x saw blade 150 mm, 130 mm working length, milled, straight-set, fast cutting, curved blade, wood, material thickness of 1.5–3 mm
1 x saw blade 150 mm, 130 mm working length, milled, crimped, straight cut, metal stainless steel, material thickness of 1.5–3 mm

Tooth pitch	Total length mm	Design	Corresponds to Bosch No.	Applications	40235
2.5 mm 10 tpi	150	straight-set, 1 mm thick	S 922 H		210
1.8 mm 14 tpi	150	straight-set, 1 mm thick	S 922 BF		211
1.4 mm 18 tpi	150	crimped, 1 mm thick	S 922 EF		212
1.0 mm 25 tpi	150	crimped, 1 mm thick	S 922 AF		213
1.8 mm 14 tpi	200	straight-set, 1 mm thick	S 1122 BF		217
1.4 mm 18 tpi	200	crimped, 1 mm thick	S 1122 EF		218
1.8–2.4 mm 14–10 tpi	200	straight-set, 1.3 mm thick	S 1022 VF	Combination tooth shape	219
2.5 mm 10 tpi	300	straight-set, 1 mm thick	S 1211 H		224
1.8–2.4 mm 14–10 tpi	300	straight-set, 0.9 mm thick	S 1222 VF	Combination tooth shape	225
1.8–2.4 mm 14–10 tpi	150	straight-set, 1.3 mm thick	S 922 VF	Combination tooth shape	229
4.2 mm 6 tpi	150	straight-set, 1.3 mm thick	-		231
4.2 mm 6 tpi	230	straight-set, 1.3 mm thick	-		232
2.5–4.5 mm 10–5 tpi	200	straight-set, 1.3 mm thick	S 3456 XF	Progressive tooth pitch	236

Continued

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

40235 Sabre saw blades for wood and metal

Continued ▶

		1 piece			
4.2 mm		straight-set,			
6 tpi	130	1.20 mm thick	-		
		1 piece			
1.4 mm		crimped,			
18 tpi	130	0.90 mm thick	-		
		1 piece			
8.5 mm		straight-set,			
3 tpi	210	1.20 mm thick	-		400

Pack = Pieces	40235 ...
5	210
5	211
5	212
5	213
5	217

Pack = Pieces	40235 ...
5	218
5	219
5	224
5	225
5	229

Pack = Pieces	40235 ...
5	231
5	232
5	236

	40235 ...
Set 3 pieces	400

40270 Sabre saw blades for metal

BOSCH

Applications
Universal shaft, for use with sabre/reciprocating saws. **Pack = 5 pieces.**

Quality
Bimetal.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40270	
1.4 mm	150	straight-set, milled, 1.5–4.0 mm thick	S 922 EF		101
1.8 mm	150	straight-set, milled, 3.0–8.0 mm thick	S 922 BF		102
1.4 mm	225	straight-set, milled, 1.5–4.0 mm thick	S 1122 EF		103
1.8 mm	225	straight-set, milled, 3.0–8.0 mm thick	S 1122 BF		104

Pack = Pieces	40270 ...
5	101

Pack = Pieces	40270 ...
5	102

Pack = Pieces	40270 ...
5	103

Pack = Pieces	40270 ...
5	104

Sabre saw blades

40272 High-performance sabre saw blades for metal

BOSCH

Design
The Endurance for Heavy Metal sabre saw blade offers maximum blade life for accurate straight cuts in metal. The cemented carbide teeth are specially designed for maximum service life with high-strength steels. A wide body (25 mm) and high blade thickness (1.25 mm) allow precise cutting. In addition, the teeth are welded to the highly elastic steel body using cemented carbide technology, which makes the blade suitable for cutting even the toughest of materials. **Pack = 1 piece.**

Applications
Universal shaft, for use with sabre/reciprocating saws. Suitable for cutting the toughest of metals and high-strength steels thanks to individually welded teeth.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40272	
3.0 mm	150	Carbide technology, uniform tooth spacing	S 955 CHM		101
3.0 mm	225	Carbide technology, uniform tooth spacing	S 1155 CHM		102

Pack = Piece	40272 ...
1	101

Pack = Piece	40272 ...
1	102

40273 Sabre saw blades for disassembly/dismantling of vehicles

BOSCH

Design
The Endurance for Vehicle Rescue saw blade offers the ultimate in blade life while effortlessly cutting automotive steel. Thanks to the cemented carbide technology, it enables maximum load-bearing capacity during rescue work and when dismantling vehicles. Excellent stability during the disassembly due to a wall thickness of 1.35 mm. The tapered body and relief-ground first tooth enable plunge cuts. The teeth are welded to the highly elastic steel body using cemented carbide technology.
Pack = 1 piece.

Applications
Universal shaft, for use with sabre/reciprocating saws. The blade is even suitable for cutting the toughest of materials. The medium tooth pitch (3 mm) is ideal for cutting A-, B- and C-pillars of vehicles. The standard length (150 mm) cuts up to 100 mm deep. The blade is ideal for windscreens, roofs and „third doors".

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40273	
3.0 mm	150	Carbide technology, uniform tooth spacing	S 957 CHM		101
3.0 mm	225	Carbide technology, uniform tooth spacing	S 922 BF		102

Pack = Piece	40273 ...
1	101

Pack = Piece	40273 ...
1	102

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40274 Sabre saw blades for wood and metal

BOSCH

Applications
Universal shaft, for use with sabre/reciprocating saws. For wood with nails/metal, sheet metals, pipes and aluminium profiles. Ideal for pallet repair.
Pack = 5 pieces.

Quality
Bimetal.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40274
2.5 mm	150	straight-set, milled, 3.0–12.0 mm thick	S 922 HF	101
2.5 mm	225	straight-set, milled, 3.0–12.0 mm thick	S 1122 HF	102
2.1–4.3 mm	200	straight-set, milled, 3.0–18.0 mm thick	S 3456 XF	103

Pack = Pieces	40274 ...
5	101

Pack = Pieces	40274 ...
5	102

Pack = Pieces	40274 ...
5	103

40277 Sabre saw blades for wood and metal

BOSCH

Design
The Endurance for Wood and Metal Demolition sabre saw blade satisfies even the most demanding applications. Particularly long service life thanks to cemented carbide technology which ensures highly effective cutting even in the toughest of materials. The new design with wide webs provides the ultimate hold for the cemented carbide teeth under extreme operating conditions. **Pack = 1 piece.**

Applications
Universal shaft, for use with sabre/reciprocating saws. Ideal for high-strength steel in wood.
Quality
Cemented carbide technology.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40277
5.0 mm	150	straight-set, ground, 5.0–100.0 mm thick	S 967 XHM	101
3.5–5.0 mm	225	straight-set, ground, 5.0–175.0 mm thick	S 1167 XHM	102
3.5–5.0 mm	300	straight-set, ground, 5.0–250.0 mm thick	S 1267 XHM	103

Pack = Piece	40277 ...
1	101

Pack = Piece	40277 ...
1	102

Pack = Piece	40277 ...
1	103

40278 Sabre saw blades for wood

BOSCH

Applications
Universal shaft, for use with sabre/reciprocating saws.

Ideal for construction timber, chipboard and MDF panels, plywood and plastic. **Pack = 5 pieces.**

Quality
HCS.

NEW

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40278
4.3 mm	150	straight-set, ground, 6.0–60.0 mm thick	S 644 D	101
5.0 mm	240	straight-set, ground	S 1531 L	102

Pack = Pieces	40278 ...
5	101

Pack = Pieces	40278 ...
5	102

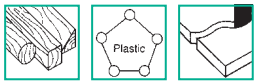
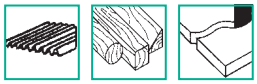
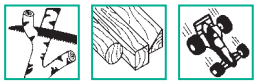
40236 Sabre saw/tiger saw blades WS

M.P.S.

Applications
Suitable for AEG, Atlas Copco, Black & Decker,

Bosch, Fein, Flex, Hitachi, Holz-Her, Makita, Metabo, Milford, Milwaukee, Rockwell, Rems, Ridgid, Skill, etc. **Pack = 5 pieces.**

Quality
Tool steel.

Tooth pitch	Total length mm	Design	Corresponds to Bosch No.	Applications	40236
4.2 mm 6 tpi	150	straight-set, 1.3 mm thick	S 644 D		210
4.2 mm 6 tpi	300	straight-set, 1.3 mm thick	-		211
4–6.5 mm 5 tpi	250	straight-set, 1.3 mm thick	S 1531 L		218

Pack = Pieces	40236 ...
5	210
5	211
5	218

40235 Sabre saw/tiger saw blades Tri-Metal

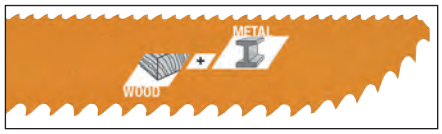
M.P.S.

Design
- Extremely long service life
- Due to the variety of toothing, cuts in different thicknesses are possible

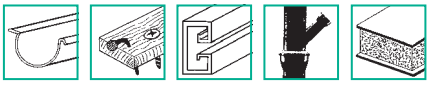
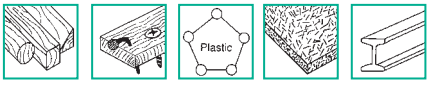
Applications
Suitable for stainless steel, sheet steel, Steel pipes, open profiles, closed profiles milled, straight-set.

Suitable for AEG, Atlas Copco, Black & Decker, Bosch, Fein, Flex, Hitachi, Holz-Her, Makita, Metabo, Milford, Milwaukee, Rockwell, Rems, Skill, etc. **Pack = 2 pieces.**

Quality
Tri-Metal with 8% cobalt content.



Toothed all-round. Due to the special round nose, trouble-free immersion in the material (wood) is possible. The blades are suitable for universal use and can be clamped in both directions using the **double holder**.

Tooth pitch	Total length mm	Design	Corresp. to Bosch No.	Applications	40235
1.8 mm 14 tpi	130	straight-set, 0.90 mm thick	4701		300
4.2 mm 6 tpi	130	straight-set, 0.90 mm thick	4703		302
4.2 mm 6 tpi	230	straight-set, 1.57 mm thick	4706		305

Pack = Pieces	40235 ...
2	300

Pack = Pieces	40235 ...
2	302

Pack = Pieces	40235 ...
2	305

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40271 Sabre saw/reciprocating saw blade set for metal 20 pcs.

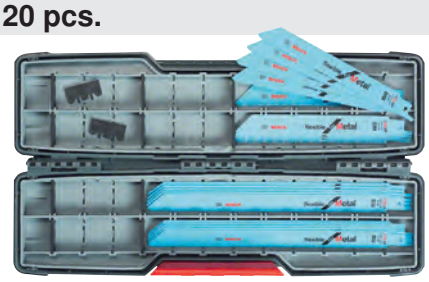
BOSCH

Design
Sabre saw blade set Top seller in Tough Box. 20 pieces. The universal choice for clean cuts in metal. **Pack = 20 pieces.**

Applications
Universal shaft, for use with sabre/reciprocating saws. Saw blades especially suitable for fine cuts in a wide variety of metal materials. Suitable for sawing steel tubes, profiles and sheet metals.
Quality
Bimetal.

NEW

40271



Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40271
		5 pieces straight-set, milled,		
1.4 mm	150	1.5–4.0 mm thick	S 922 EF	
		5 pieces straight-set, milled,		
1.8 mm	150	3.0–8.0 mm thick	S 922 BF	
		5 pieces straight-set, milled,		
1.4 mm	225	1.5–4.0 mm thick	S 1122 EF	
		5 pieces straight-set, milled,		
1.8 mm	225	3.0–8.0 mm thick	S 1122 BF	101

	40271 ...
Sabre saw/reciprocating saw blade set 20 pieces	101

40275 Sabre saw blade set for wood and metal 20 pcs.

BOSCH

Design
Sabre saw blade set Wood and Metal. 20 pieces in Tough Box. **Pack = 20 pieces.**

Applications
Universal shaft, for use with sabre/reciprocating saws. Specialist for cutting wood with embedded nails/metal, sheet metals, pipes and aluminium profiles. Ideal for pallet repair.

NEW

40275

Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	
		5 pieces bimetal, straight-set, milled,		
1.4 mm	150	1.5–4.0 mm thick	S 922 EF	
		5 pieces bimetal, straight-set, milled,		
1.8 mm	150	3.0–8.0 mm thick	S 922 BF	
		5 pieces bimetal, straight-set, milled,		
2.5 mm	150	3.0–12.0 mm thick	S 922 HF	
		5 pieces HCS straight-set, ground,		
4.3 mm	150	6.0–60.0 mm thick	S 644 D	101

	40275 ...
Jigsaw blade set 20 pieces	101

40276 Sabre saw blade set for wood and metal 16 pcs./20 pcs.

BOSCH

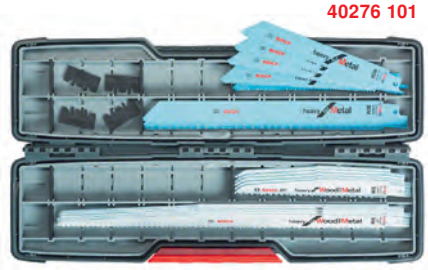
Applications
Universal shaft, for use with sabre/reciprocating saws.

Supplied in Tough Box:
Practical storage of jigsaw blades and sabre saw blades or similar products up to a length of 300 mm. Resistant shell made of robust ABS material with soft grip edges for a firm grip and safe handling.

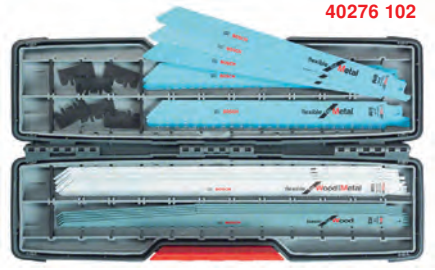
40276 101
Design
Sabre saw blade set Heavy for Wood and Metal Demolition. The ideal choice for extra strong cuts.
Pack = 16 pieces.
Applications
Saw blades suitable for fine cuts and coarse cuts for demolition work in softwood and metal materials. Also suitable for sawing steel pipes and profiles.

40276 102
NEW
Design
Top Seller Sabre saw blade set Wood and Metal. The perfect choice. **Pack = 20 pieces.**
Applications
Saw blades ideally suited for fine cuts in metal and softwood. Suitable for sawing steel pipes and profiles.

40276 101



40276 102



Tooth pitch	Usable length mm	Design	Corresponds to Bosch No.	40276
		4 pieces bimetal, Vario toothing,		
1.8–2.6 mm	150	2.0–10.0 mm thick	S 925 VF	
		4 pieces bimetal, Vario toothing,		
1.8–2.6 mm	225	2.0–10.0 mm thick	S 1125 VF	
		4 pieces bimetal,		
3.2–5.0 mm	150	special vario toothing,	S 610 VF	
		4 pieces bimetal, straight-set,		
4.3 mm	300	milled	S 1411 DF	101
		5 pieces bimetal, straight-set, milled,		
1.4 mm	225	1.5–4.0 mm thick	S 1122 EF	
		5 pieces bimetal, straight-set, milled,		
1.8 mm	225	3.0–8.0 mm thick	S 1122 BF	
		5 pieces bimetal, Vario toothing,		
1.8–2.6 mm	300	3.0–10.0 mm thick	S 1222 VF	
		5 pieces HCS straight-set,		
8.5 mm	300	ground	S 1617 K	102

	40276 ...
Jigsaw blade set 16 pieces	101
Jigsaw blade set 20 pieces	102

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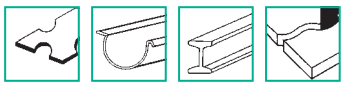
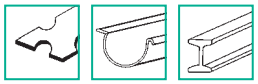
40239 Bodywork jigsaw blades bimetal

Applications
Suitable for pneumatic and electric machines from SIG, Flex, Pneutec, Chicago-Pneumatic, Shinano, Ober, Red-Rooster, Yokota, Holger-Clasen, PMS.
Pack = 5 pieces.
Quality
Bimetal.

40239 101
Applications
St 37, V2A, non-ferrous base metal sheets up to 1 mm.

40239 102
Applications
St 37, V2A, non-ferrous base metal sheets up to 2 mm.

40239 103
Applications
St 37, non-ferrous base metal sheets up to 2.5 mm, wood, plastic, fabric-reinforced laminate.

Tooth pitch	Total length mm	Applications	40239
0.8 mm 32 tpi	76		101
1.0 mm 24 tpi	76		102
1.8 mm 14 tpi	76		103

Pack = Pieces	40239 ...
5	101
5	102
5	103

40238 Hand-held circular saw blades cemented carbide

Applications
Suitable for natural wood, all plastics, wood core plywood, laminated wood, bonded wood, coated plastic panels (one-sided), veneered panels, chipboard and plywood.
Pack = 1 piece.
Quality
Cemented carbide.

40238 200 + 300 + 400
Applications
Fast, rough cut.

40238 201 + 301 + 401
Applications
Fast cuts.

40238 202 + 302 + 402
Applications
Clean cuts.

40238 203 + 303
Applications
Finest cuts.

40238 200

Number of teeth	Tooth shape	Ø mm	Drill hole mm	Cutting width mm	Reducing rings	Corresponds to Bosch No.	Applications	40238 ...
14	Tool	160	20	2.8	20/16	2608641173	Fast, coarse cuts	200
14	Tool	190	30	2.8	30/20/16	2608641182	Fast, coarse cuts	300
20	Tool	230	30	2.8	30/16	-	Fast, coarse cuts	400
20	Tool	160	20	2.8	20/16	-	Fast cuts	201
30	Tool	190	30	2.8	30/20/16	-	Fast cuts	301
34	Tool	230	30	2.8	30/16	2608640628	Fast cuts	401
34	Tool	160	20	2.8	20/16	2608640597	Clean cuts	202
42	Tool	190	30	2.8	30/20/16	-	Clean Cuts	302
42	Tool	230	30	2.8	30/16	-	Clean cuts	402
42	Tool	160	20	2.8	20/16	-	Extremely fine cuts	203
52	Tool	190	30	2.8	30/20/16	2608640614	Extremely fine cuts	303

Hole saws

40240 - 40242 HSS bimetal hole saws

Design
- Teeth precisely milled
- Closely toleranced offset
- Variable tooth pitch, which gives more room for chips

Advantage
- Low-vibration sawing
- Robust
- Insensitive
- Solid base plate, thus more threads and greater stability as well as concentricity and side stroke accuracy
- The problems with conventional hole saws, such as torn out or overwound threads, are significantly reduced by this design

Use
Cutting depth up to approx. 38 mm.
Suitable for unalloyed steel (up to 700N/mm²).
For cutting holes in metal, wood containing nails, plywood, fibreboards, plastics, pipes and boards.
For use on column-type drills and low-speed hand drills as well as lathes.

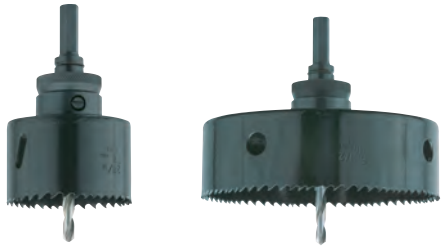
Quality
HSS bimetal, 8% cobalt alloy.

Note:
Core bit, also suitable for other commercially available holders.
Accessories for HSS bimetal hole saws, see art. no. 40244–40248.

40240
Hole saw sets

40242
ATORN®
Hole saws, individual
Scope of delivery
Without holder and without centre drill.

40242



40240

	Set contents 40240 201
12	**hole saws** Ø 16/19/22/25/29/32/35/38/44/51/64/76 mm
1	**holder** A 6
1	**holder** A 2-SS
1	**spare centre drill**

	Set contents 40240 202
9	**hole saws** Ø 16/19/22/29/35/44/52/57/67 mm
1	**holder** A 6
1	**holder** A 2-SS
1	**spare centre drill**

	Set contents 40240 203
8	**hole saws** Ø 16/19/24/29/38/44/57/67 mm
1	**holder** A 6
1	**holder** A 2-SS
1	**spare centre drill**

	Set contents 40240 204
7	**hole saws** Ø 22/29/35/44/51/64/68 mm
1	**holder** A 6
1	**holder** A 2-SS
1	**spare centre drill**

	Contents	Design	40240 ...
Professional set	15 pieces	in storage case	201
Standard set	12 pieces	in storage case	202
Installation set	11 pieces	in storage case	203
Electric set	10 pieces	in storage case	204

individual Ø mm	ATORN® 40242 ...
14	200
16	201
17	260
19	202
20	261
21	203
22	204
24	262
25	205
27	206
29	207
30	208
32	209
33	210

individual Ø mm	ATORN® 40242 ...
35	211
37	270
38	213
40	272
41	214
43	274
44	215
46	276
48	216
51	217
52	280
54	218
57	219
59	282

individual Ø mm	ATORN® 40242 ...
60	221
64	222
67	223
68	224
70	225
73	226
76	228
79	229
83	230
86	288
89	231
92	232
95	290
98	292

individual Ø mm	ATORN® 40242 ...
102	233
105	234
108	294
111	296
114	235
121	298
127	236
140	237
152	238
160	246
168	250
177	254
210	258

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

40243 HSS bimetal hole saws

LENOX

Design
Bimetal hole saw with variable toothing on flexible special steel body (bimetal). Reinforced base with thread and driving pin holes (from Ø 32 mm) for secure mounting on the shaft. Optimised coating reduces thermal load when sawing. High cutting performance and long service life thanks to a special tooth geometry and low manufacturing tolerances.

- Vario toothing 4.5/5.5 teeth per inch
- Cutting depth 40 mm

Advantage
- SPEED SLOT® – rapid removal of the drilling core due to stepped recesses
- Optimised coating reduces the thermal load when sawing

Applications
For use on stationary drills or electric hand drills with appropriate rotation speed. Suitable for steel, stainless steel, brass, copper, cast iron, light metal, wood, plaster and plastic panels.

Quality
HSS bimetal with cobalt alloy.

Note:
The use of cutting oil (art. no. 19382 101) increases the service life.
Accessories for HSS bimetal hole saws, see art. no. 40244–40248.

NEW

40243 201

40243 202

40243 203

40243 204

	Set contents 40243 201
6	**hole saws** Ø 19/22/29/38/44/68 mm
2	**hole saw holders** 2L and 5L
1	**hole saw adapter**

	Set contents 40243 202
16	**hole saws** Ø 19/22/25/29/35/38/44/51/57/68/76/83/92/95/105/121 mm
2	**hole saw holders** 1L and 2L
2	**4321 guide drill bits**
1	**56PD guide drill bit**

	Set contents 40243 203
6	**hole saws** Ø 22/29/35/44/51/64 mm
2	**hole saw holders** 2L and 5L
1	**4321 guide drill bits**
1	**hole saw adapter**

	Set contents 40243 204
20	**hole saws** Ø 19/22/25/29/35/38/44/51/54/57/64/68/76/83/86/92/95/105/114/121 mm
2	**hole saw holders** 2L and 5L
2	**4321 guide drill bits**
1	**56PD guide drill bit**

	Contents	Design	40243 ...
Set for plumbers	9 pieces	in storage case	201
Set for electricians	21 pieces	in storage case	202
Set for electricians	10 pieces	in storage case	203
Set for construction	25 pieces	in storage case	204

40243 101-155

Individual Ø mm	40243 ...	Individual Ø mm	40243 ...	Individual Ø mm	40243 ...	Individual Ø mm	40243 ...
14	101	35	115	64	129	102	143
16	102	37	116	65	130	105	144
17	103	38	117	67	131	108	145
19	104	40	118	68	132	111	146
20	105	41	119	70	133	114	147
21	106	43	120	73	134	117	148
22	107	44	121	76	135	121	149
24	108	46	122	79	136	127	150
25	109	48	123	83	137	140	151
27	110	51	124	86	138	152	152
29	111	52	125	89	139	168	153
30	112	54	126	92	140	177	154
32	113	57	127	95	141	210	155
33	114	60	128	98	142		

40244 - 40248 Accessories for HSS bimetal hole saws

Applications
For HSS bimetal hole saws art. no. 40240–40242 (ATORN) and 40243 (Lenox).

40244
Holder
Design
- With guide drill bits HSS

Note:
The holder A 2-SS art. no. 40244 102 is a quick-change holder with solid shaft.
It ensures no crushing in the drill chuck.

40246
Holder extension
Design
- Length: 300 mm

Applications
Suitable for holder A 6 and A 2-SS.

40247
Spare centre drill
Quality
HSS

40248
Ejector spring

40244 101

40244 102-103

40244 104

40244 105

40246

40248

For saw Ø mm	Type	Shaft Ø mm	Shaft type	Holder 40244 ...	Extension 40246 ...	Spare centre drill 40247 ...	Ejector spring 40248 ...
14–30	A 6	9.50	hexagonal	101	101	102	101
32–152	A 2-SS	9.50	hexagonal	102	101	102	101
32–210	A 3-SS	11.11	hexagonal	103		102	101
14–30	A 6-SDS-plus	-	SDS	104		102	101
32–152	A 2-SDS-plus	-	SDS	105		102	101

40249 - 40252 Cemented carbide hole saws

Design
- High concentricity due to solid construction
- CAD-optimised chip angle with special grinding surface ensure high cutting performance and long service life
- Fast drilling core removal by ejection spring
- Carbide tips allow repeated regrinding
- Repairable: Teeth can be replaced if they break
- Tapered centre drill with pre- and post-cutter, replaceable

Advantage
- The hole saw is manufactured from a single piece for Ø from 15.2 mm (3/16 inch) to 30.0 mm (1.1/8 inch)
- A specially hardened holder is used for Ø from 31.0 mm (1.3/16 inch) to absorb the torsional forces under heavy loads and thus prevent premature shearing of the drive arbor

Quality
Carbide-tipped.

Note:
- *For higher material thicknesses: Cut 2–3 mm (1/16-7/64 inch) in each work step, then remove chips*
- *A high-quality cutting oil should be used when sawing metals*
- *Exceptions: Do not use cutting oil for cast iron, and use petroleum instead of oil for aluminium*
- *Note: Always wear safety goggles!*

40249
Hole saw sets
Design
Flat-cut design.
Scope of delivery
- 5x hole saws
- 5x centre drills
- 5x ejection springs
- 2x Allen keys
- 1x plastic case

Applications
Stainless steel up to 2 mm (1/16 inch), unalloyed steel up to 4 mm (3/16 inch), plastics, PVC, aluminium, zinc, gypsum and lightweight panels, etc. can be processed economically. For hand drills and pillar drills (no automatic feed in the case of pillar drills).

40252
Spare centre drill
Design
Tapered centre drill with pre- and post-cutter.
Advantage
- Spot drilling without straying
- Centre punch not required

Applications
For cemented carbide hole saws art. no. 40249-40250.
Quality
HSS.

40249

Set contents	Hole saw Ø mm	Design	40249 ...
5 pieces	16/20/25/32/40	in plastic case	101

Spare centre drill

Applications for	For core bit Ø mm	Drill bit Ø x length mm	40252 ...
flat-cut design	15.2–100.0	6 x 50	101
long design	16.0–59.0	6 x 80	201 NEW
long design	60.0–100.0	8 x 100	203 NEW

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

40249 - 40252 Cemented carbide hole saws

40250 101-190
Hole saws, individual
Design
Flat-cut design.
Scope of delivery
- Hole saw
- Centre drill
- Ejection spring

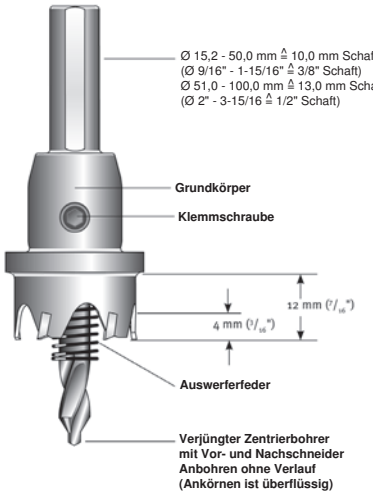
Applications
Stainless steel up to 2 mm (1/16 inch), unalloyed steel up to 4 mm (3/16 inch), plastics, PVC, aluminium, zinc, gypsum and lightweight panels, etc. can be processed economically.
For hand drills and pillar drills (no automatic feed in the case of pillar drills).

40250 202-290
Hole saws, individual
Design
Long version.
Scope of delivery
- Hole saw
- Centre drill

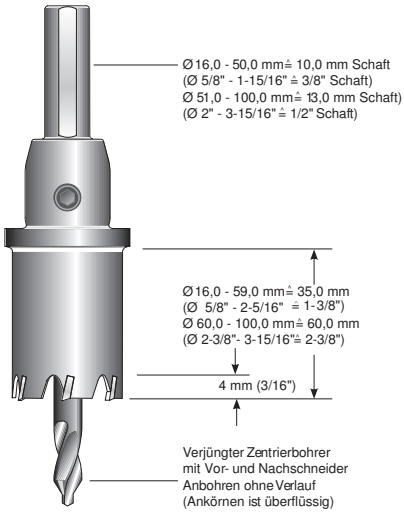
Applications
Especially developed for use on pipe material and curved surfaces, for unalloyed and alloyed steels, non-ferrous metals, plastics and GFRP.
For material thicknesses up to 4 mm (3/16 inch); stainless steel up to 2 mm (1/16 inch).
Recommended for use on hand drills up to max. Ø 40 mm (1.9/16 inch) or stationary machines.

Note:
- *When spot drilling pipes, drill with low contact pressure and avoid pendulum motions*
- *Note: Always wear safety goggles!*
- *Special designs for special applications are available on request.*

40250 101-190
Flat-cut design



40250 202-290
Long design



Ø mm		Flat-cut 40250	...	Long 40250	...
15.2	PG 9		101		
16	M 16		102		202 NEW
17	-		103		203 NEW
18	-		104		204 NEW
18.6	PG 11		105		
19	-		106		206 NEW
20	M 20		107		207 NEW
20.4	PG 13		108		
21	-		109		209 NEW
22	-		110		210 NEW
22.5	PG 16		111		
23	-		112		212 NEW
25	M 25		114		214 NEW
26	-		115		215 NEW
27	-		116		216 NEW
28	-		117		217 NEW
28.3	PG 21		118		
29	-		119		219 NEW
30	-		120		220 NEW
32	M 32		122		222 NEW
33	-		123		223 NEW
34	-		124		224 NEW
35	-		125		225 NEW
36	-		126		226 NEW
37	PG 29		127		227 NEW
38	-		128		228 NEW
39	-		129		229 NEW
40	M 40		130		230 NEW

Ø mm		Flat-cut 40250	...	Long 40250	...
42	-		132		232 NEW
43	-		133		233 NEW
44	-		134		234 NEW
45	-		135		235 NEW
46	-		136		236 NEW
47	PG 36		137		237 NEW
48	-		138		238 NEW
49	-		139		239 NEW
50	M 50		140		240 NEW
51	-		141		241 NEW
52	-		142		242 NEW
53	-		143		243 NEW
54	PG 42		144		244 NEW
55	-		145		245 NEW
57	-		147		247 NEW
58	-		148		248 NEW
59	-		149		249 NEW
60	PG 48		150		250 NEW
63	M 63		190		290 NEW
65	-		151		251 NEW
68	-		152		252 NEW
70	-		153		253 NEW
75	-		154		254 NEW
80	-		156		256 NEW
85	-		157		257 NEW
90	-		158		258 NEW
95	-		159		259 NEW
100	-		160		260 NEW

Info — Recommendations for selecting the right saw band

Sawing pipes and profiles

Wall thickness (S) in mm	Diameter (B) Teeth per inch											
	20	40	60	80	100	120	150	200	300	500	750	1000
2	22	22	18	18	14	14	10/14	10/14	8/12	6/10	5/8	5/8
3	22	18	14	14	10/14	10/14	8/12	8/12	6/10	5/8	4/6 0°	4/6 0°
4	18	10/14	10/14	10/14	8/12	8/12	6/10	6/10	5/8	4/6 0°	4/6 0°	4/6 0°
5	18	10/14	10/14	8/12	6/10	6/10	6/10	58	4/6 0°	4/6 0°	4/6 0°	3/4 0°
6	14	8/12	8/12	8/12	6/10	6/10	5/8	5/8	4/6 0°	4/6 0°	3/4 0°	3/4 0°
8		6/10	6/10	6/10	5/8	5/8	5/8	4/6 0°	4/6 0°	3/4 0°	3/4 0°	3/4 0°
10		6/10	6/10	5/8	5/8	5/8	4/6 0°	4/6 0°	4/6 0°	3/4 0°	3/4 0°	3/4 0°
12		5/8	5/8	5/8	4/6 pos	4/6 pos	4/6 pos	4/6 pos	3/4 pos	3/4 pos	2/3 pos	2/3 pos
15			5/8	4/6 pos	4/6 pos	4/6 pos	4/6 pos	3/4 pos	3/4 pos	2/3 pos	2/3 pos	2/3 pos
20			4/6 pos	4/6 pos	4/6 pos	3/4 pos	3/4 pos	3/4 pos	2/3 pos	2/3 pos	2/3 pos	2/3 pos
30				3/4 pos	3/4 pos	3/4 pos	3/4 pos	3/4 pos	3/4 pos	3/4 pos	1.4/2 pos	1.4/2 pos
50						3/4 pos	2/3 pos	2/3 pos	2/3 pos	1.4/2 pos	1.4/2 pos	1.4/2 pos
75								2/3 pos	1.4/2 pos	1.4/2 pos	1.4/2 pos	0.75/1.25 pos
100									1.4/2 pos	0.75/1.25 pos	0.75/1.25 pos	0.75/1.25 pos
150										0.75/1.25 pos	0.75/1.25 pos	0.75/1.25 pos
200										0.75/1.25 pos	0.75/1.25 pos	0.75/1.25 pos

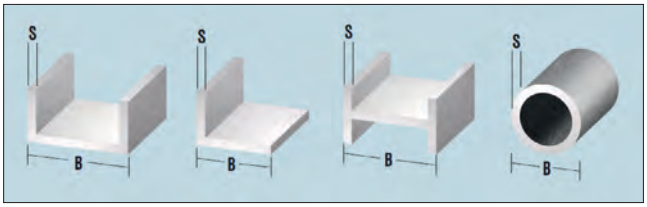
If two or more pipes are to be separated adjacent to each other, use the table while taking into account the double wall thickness.
Decisive factors for the correct choice of tooth pitch:

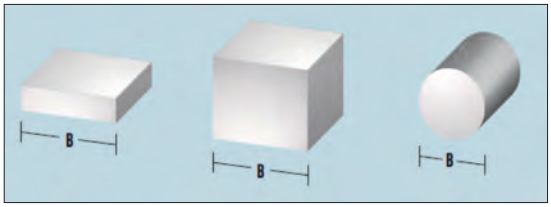
- Sawing pipes and profiles in layers and bundles
- Sawing pipes and profiles in individual cuts

Tooth pitch and tooth shapes / Sawing solid material

Constant gearing Material cross section (B)	Tooth pitch with tooth shape	Variable gearing Material cross section (B)	Tooth pitch with tooth shape
up to 15 mm	14 ZpZ	up to 30 mm	10/14 ZpZ
15 – 30 mm	10 ZpZ	20 – 50 mm	8/12 ZpZ
30 – 50 mm	8 ZpZ	25 – 70 mm	6/10 ZpZ
50 – 80 mm	6 ZpZ	35 – 90 mm	5/8 ZpZ
80 – 120 mm	4 ZpZ	50 – 100 mm	4/6 ZpZ pos.
120 – 200 mm	3 ZpZ	80 – 150 mm	3/4 ZpZ pos.
200 – 400 mm	2 ZpZ	120 – 350 mm	2/3 ZpZ pos.
400 – 800 mm	1.25 ZpZ	250 – 600 mm	1.4/2 ZpZ pos.
> 800 mm	0.75 ZpZ	> 500 mm	0.75 – 1.25 ZpZ pos.

- Selection of the correct tooth pitch is crucial for optimum cutting results.
- The tooth pitch is determined by the length of engagement of the saw blade.
- If the tooth pitch is too small, it can cause cutting and premature wear.
- If the tooth pitch is too large, it can cause teeth to break out.
- At least 3 teeth should be meshed to achieve an economic result.





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40412 Machine saw blades HSS

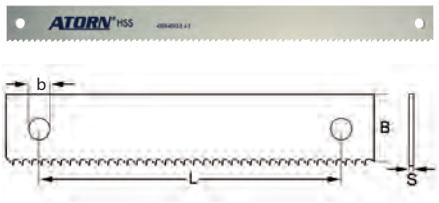
NEW

ATORN®

Design
- Long service life
- Optimum protection of your sawing machine
- Precision-manufactured machine saw blade HSS with special heat treatment for long service life
- Very high surface quality for a precise and straight cut
- High-quality cutting material for extremely demanding service life equirements

Applications
For accurate, fast and economical sawing.
Quality
HSS. DMo 5 quality (material no. 1.3343). For materials up to a tensile strength of 1100 N/mm².

40412



L x W x Th mm	Teeth per inch	b mm	40412	...
300 x 25 x 1.50	10	8.5		301
300 x 25 x 1.50	14	8.5		302
350 x 30 x 1.50	6	8.5		303
350 x 30 x 1.50	8	8.5		304
350 x 30 x 1.50	10	8.5		305
350 x 30 x 1.50	14	8.5		306
350 x 30 x 2.00	4	8.5		307
350 x 30 x 2.00	6	8.5		308
350 x 30 x 2.00	8	8.5		309
350 x 30 x 2.00	10	8.5		310
400 x 25 x 1.25	14	8.5		311
400 x 25 x 1.25	22	8.5		312
400 x 25 x 1.50	10	8.5		313
400 x 25 x 1.50	14	8.5		314

L x W x Th mm	Teeth per inch	b mm	40412	...
400 x 30 x 1.50	6	8.5		315
400 x 30 x 1.50	8	8.5		316
400 x 30 x 1.50	10	8.5		317
400 x 30 x 1.50	14	8.5		318
400 x 30 x 1.50	18	8.5		319
400 x 30 x 1.50	22	8.5		320
400 x 30 x 2.00	4	8.5		321
400 x 30 x 2.00	6	8.5		322
400 x 30 x 2.00	8	8.5		323
400 x 30 x 2.00	10	8.5		324
400 x 40 x 2.00	4	10.5		325
400 x 40 x 2.00	6	10.5		326
400 x 40 x 2.00	8	10.5		327
450 x 30 x 2.00	4	10.5		328

L x W x Th mm	Teeth per inch	b mm	40412	...
450 x 30 x 2.00	6	10.5		329
450 x 30 x 2.00	8	10.5		330
450 x 40 x 2.00	4	10.5		331
450 x 40 x 2.00	6	10.5		332
450 x 40 x 2.00	8	10.5		333
450 x 40 x 2.00	10	10.5		334
500 x 40 x 2.00	6	10.5		335
500 x 40 x 2.00	8	10.5		336
550 x 50 x 2.50	6	12.5		337
600 x 50 x 2.50	6	12.5		338
650 x 50 x 2.50	4	12.5		339
650 x 50 x 2.50	6	12.5		340

40414 Machine saw blades HSS for KASTO saws

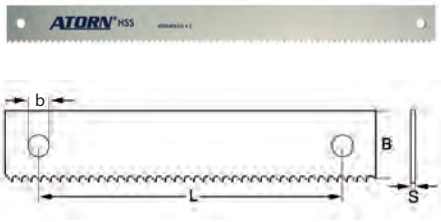
NEW

ATORN®

Design
- Long service life
- Optimum protection of your sawing machine
- Precision-manufactured machine saw blade HSS with special heat treatment for long service life
- Very high surface quality for a precise and straight cut
- High-quality cutting material for extremely demanding service life requirements

Applications
For accurate, fast and economical sawing.
Quality
HSS. DMo 5 quality (material no. 1.3343). For materials up to a tensile strength of 1100 N/mm².

40414



L x W x Th mm	Teeth per inch	b mm	40414	...
300 x 30 x 1.50	6	8.5		301
300 x 30 x 1.50	10	8.5		302
300 x 30 x 1.50	14	8.5		303
350 x 36 x 2.00	4	8.5		304
350 x 36 x 2.00	6	8.5		305
350 x 36 x 2.00	10	8.5		306
400 x 32 x 2.00	4	8.5		307
400 x 32 x 2.00	6	8.5		308
400 x 32 x 2.00	8	8.5		309

L x W x Th mm	Teeth per inch	b mm	40414	...
400 x 32 x 2.00	10	8.5		310
450 x 36 x 2.00	4	8.5		311
450 x 36 x 2.00	6	8.5		312
450 x 36 x 2.00	8	8.5		313
450 x 40 x 2.00	4	8.5		314
450 x 40 x 2.00	6	8.5		315
450 x 40 x 2.00	8	8.5		316
450 x 40 x 2.00	10	8.5		317
550 x 45 x 2.00	4	10.5		318

L x W x Th mm	Teeth per inch	b mm	40414	...
550 x 45 x 2.00	6	10.5		319
575 x 50 x 2.50	4	10.5		320
575 x 50 x 2.50	6	10.5		321
600 x 50 x 2.50	4	10.5		322
600 x 50 x 2.50	6	10.5		323
650 x 55 x 2.50	4	10.5		324
650 x 55 x 2.50	6	10.5		325
700 x 55 x 2.50	4	10.5		326
700 x 55 x 2.50	6	10.5		327

40416 Machine saw blade HSS bimetal

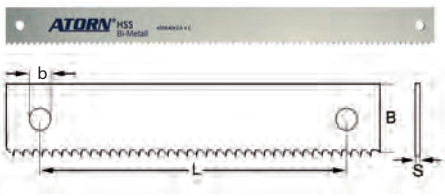
NEW

ATORN®

Design
- With long service life and short cutting times
- Long service life
- Optimum protection of your sawing machine
- The perfect combination of flexibility and hardness with special heat treatment for long service life
- Very high surface quality for a precise and straight cut

Applications
For accurate, fast and economical sawing.
Quality
HSS bimetal. DMo 5 cutting quality (material no. 1.3343) on a special steel back. For materials up to a tensile strength of 1100 N/mm².

40416



L x W x Th mm	Teeth per inch	b mm	40416	...
300 x 32 x 1.60	10	8.5		301
350 x 32 x 1.60	6	8.5		302
350 x 32 x 1.60	8	8.5		303
400 x 32 x 1.60	4	8.5		304

L x W x Th mm	Teeth per inch	b mm	40416	...
400 x 32 x 1.60	6	8.5		305
400 x 32 x 1.60	8	8.5		306
500 x 38 x 1.90	6	10.5		307
500 x 50 x 2.50	6	12.5		308

L x W x Th mm	Teeth per inch	b mm	40416	...
600 x 50 x 2.50	4	12.5		309
600 x 50 x 2.50	6	12.5		310

40418 Machine saw blades HSS bimetal for KASTO saws

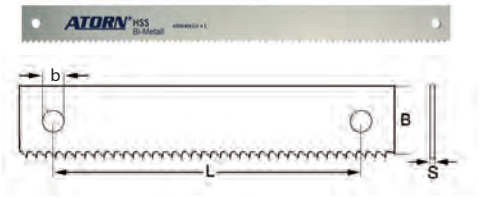
ATORN®

Design
- With long service life and short cutting times
- Long service life
- Optimum protection of your sawing machine
- The perfect combination of flexibility and hardness with special heat treatment for long service life
- Very high surface quality for a precise and straight cut

Applications
For accurate, fast and economical sawing.
Quality
HSS bimetal. DMo 5 cutting quality (material no. 1.3343) on a special steel back.
For materials up to a tensile strength of 1100 N/mm².

NEW

40418



L x W x Th mm	Teeth per inch	b mm	40418	...
400 x 38 x 1.90	4	8.5		301
400 x 38 x 1.90	6	8.5		302
400 x 38 x 1.90	10	8.5		303
500 x 38 x 1.90	6	10.5		304

L x W x Th mm	Teeth per inch	b mm	40418	...
575 x 50 x 2.50	4	10.5		305
575 x 50 x 2.50	6	10.5		306
600 x 50 x 2.50	4	10.5		307
600 x 50 x 2.50	6	10.5		308

L x W x Th mm	Teeth per inch	b mm	40418	...
700 x 50 x 2.50	4	10.5		309
700 x 50 x 2.50	6	10.5		310

40419 Machine saw blades HSS-Co

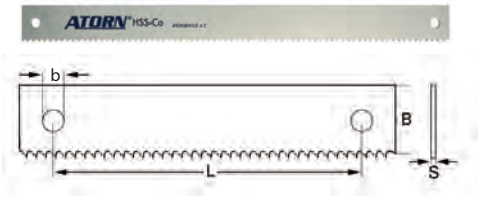
ATORN®

Design
- With long service life and short cutting times
- Long service life
- Optimum protection of your sawing machine
- Cobalt-alloyed machine saw blades are particularly suitable for tough and hard materials such as alloyed, unalloyed and heat-treated steel, as well as high-strength steel and stainless steel
- High-quality cutting material for extremely demanding service life requirements

Applications
For accurate, fast and economical sawing.
Quality
HSS-Co. EMo 5 Co 5 quality (material no. 1.3243). For extremely hard materials up to 1300 N/mm² such as austenitic steels and steels with a high chromium-nickel content.

NEW

40419



L x W x Th mm	Teeth per inch	b mm	40419	...
400 x 32 x 2.00	4	8.5		101
400 x 32 x 2.00	6	8.5		102

L x W x Th mm	Teeth per inch	b mm	40419	...
400 x 32 x 2.00	8	8.5		103
450 x 40 x 2.00	4	10.5		104

L x W x Th mm	Teeth per inch	b mm	40419	...
450 x 40 x 2.00	6	10.5		105
450 x 40 x 2.00	8	10.5		106

40420 Machine saw blades HSS-Co for KASTO saws

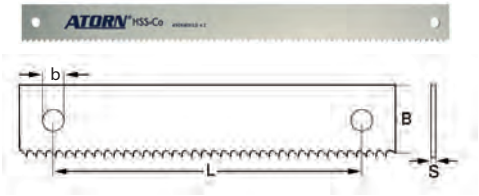
ATORN®

Design
- With long service life and short cutting times
- Long service life
- Optimum protection of your sawing machine
- Cobalt-alloyed machine saw blades are particularly suitable for tough and hard materials such as alloyed, unalloyed and heat-treated steel, as well as high-strength steel and stainless steel
- High-quality cutting material for extremely demanding service life requirements

Applications
For accurate, fast and economical sawing.
Quality
HSS-Co. EMo 5 Co 5 quality (material no. 1.3243). For extremely hard materials up to 1300 N/mm² such as austenitic steels and steels with a high chromium-nickel content.

NEW

40420



L x W x Th mm	Teeth per inch	b mm	40420	...
400 x 36 x 2.00	4	8.5		101
400 x 36 x 2.00	6	8.5		102
450 x 40 x 2.00	4	8.5		103
450 x 40 x 2.00	6	8.5		104

L x W x Th mm	Teeth per inch	b mm	40420	...
450 x 40 x 2.00	8	8.5		105
450 x 40 x 2.00	10	8.5		106
500 x 40 x 2.00	6	8.5		107
550 x 45 x 2.00	6	10.5		108

L x W x Th mm	Teeth per inch	b mm	40420	...
600 x 50 x 2.50	4	10.5		109
600 x 50 x 2.50	6	10.5		110
700 x 55 x 2.50	4	10.5		111
700 x 55 x 2.50	6	10.5		112

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

40609 - 40614 Metal bandsaw blades WS

ATORN®

Design
In rolls of 30 m, hard teeth, flexible back, standard tooth -N-, standard offset.

Note:
Bandsaw blades in rolls of 50 m, 100 m and in production length deliverable on request.

40609
Design
Tooth-hardened with flexible blade body.
Applications
Suitable for cutting non-ferrous materials, unalloyed and low-alloy steels.
Quality
Unalloyed tool steel.

40614
Design
Heat treatment and alloying technology optimised for increased cutting durability and cutting performance.
Applications
Suitable for cutting up to medium-heavy machinable materials.
Quality
Tool steel.

40609 - 40614

W x Th mm	Teeth per inch	Unalloyed tool steel 40609	...	Tool steel 40614	...
4 x 0.65	14				107
4 x 0.65	18				108
4 x 0.65	22				109
6 x 0.65	8		118		118
6 x 0.65	10		119		119
6 x 0.65	14		121		121
6 x 0.65	18		122		122
6 x 0.65	22		123		123
8 x 0.65	6		125		125
8 x 0.65	8				126
8 x 0.65	10		127		127
8 x 0.65	14		129		129
8 x 0.65	18		130		130
8 x 0.65	22		131		131

W x Th mm	Teeth per inch	Unalloyed tool steel 40609	...	Tool steel 40614	...
10 x 0.65	6		133		133
10 x 0.65	8		134		134
10 x 0.65	10		135		135
10 x 0.65	14		137		137
10 x 0.65	18		138		138
10 x 0.65	22		139		139
13 x 0.65	8				150
13 x 0.65	10		151		151
13 x 0.65	14		153		153
13 x 0.65	18		154		154
13 x 0.65	22		155		
16 x 0.80	6		157		
16 x 0.80	14		161		
25 x 0.90	3		174		
25 x 0.90	8		177		

40616 Metal bandsaw blades HSS bimetal M42

ATORN®

Design
In rolls of 30 m. Top performance saw blade, particularly wear resistant. Achieves maximum cutting performance in large-scale production.
Quality
HSS bimetal M42.
Cutting edge made of wear-resistant HSS bimetal M42.

Note:
Bandsaw blades in rolls of 50 m, 100 m and in production length deliverable on request.

40616

W x Th mm	Teeth per inch	40616	...
6 x 0.9	10		119
6 x 0.9	14		121
10 x 0.9	10		135
10 x 0.9	14		137

W x Th mm	Teeth per inch	40616	...
13 x 0.9	6		149
13 x 0.9	10		151
13 x 0.9	14		153

40626 - 40628 Metal bandsaw blades HSS bimetal M42

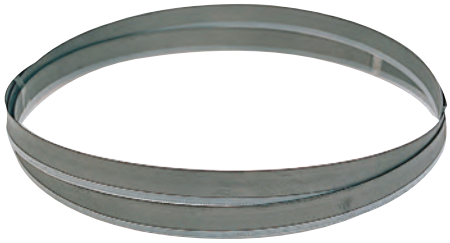
ATORN®

Design
Continuous, ready for use, for horizontal and vertical band saws.
Quality
HSS bimetal M42.
Cutting edge made of wear-resistant HSS bimetal M42.

Note:
Other dimensions deliverable on request.

40626
Peak performance band saws
Design
Standard tooth -N-, standard offset. Particularly wear-resistant. Optimum fatigue strength. Achieves maximum cutting performance in large-scale production.
Applications
Suitable for non-ferrous materials right through to materials that are difficult to machine.

40626 - 40628

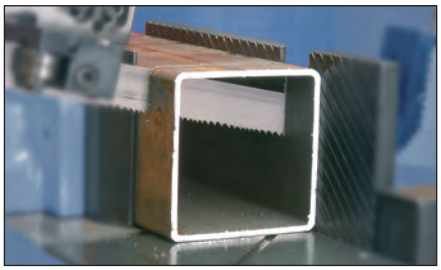


L x W x Th mm	Teeth per inch	40626 ...
3660 x 27 x 0.9	4	117
3660 x 27 x 0.9	6	118
3660 x 27 x 0.9	8	120
3660 x 27 x 0.9	10	121
3660 x 27 x 0.9	14	122

40628
Universal band saws
Design
Continuous welded, ready-to-use band saws
Applications
For small to large workshop and production machines.Can be used universally for solid material and profiles of small diameter.

Band saws with toothing
10/14, 8/12, 6/10, 5/8

Band saws with toothing
4/6, 3/4, 2/3



Combi-tooth

L x W x Th mm	Teeth per inch	40628 ...
687 x 13 x 0.50	10/14	201
687 x 13 x 0.50	14/18	202
733 x 13 x 0.50	10/14	203
733 x 13 x 0.50	14/18	204
1140 x 13 x 0.65	6/10	100
1140 x 13 x 0.65	8/12	101
1140 x 13 x 0.65	10/14	102
1140 x 13 x 0.50	14/18	206
1335 x 13 x 0.65	6/10	103
1335 x 13 x 0.65	8/12	104
1335 x 13 x 0.65	10/14	105
1440 x 13 x 0.65	6/10	106
1440 x 13 x 0.65	8/12	107
1440 x 13 x 0.65	10/14	108
1638 x 13 x 0.65	10/14	213
1735 x 13 x 0.90	6/10	214
1735 x 13 x 0.90	10/14	215
2035 x 20 x 0.90	6/10	216
2035 x 20 x 0.90	8/12	217
2085 x 20 x 0.90	6/10	218
2085 x 20 x 0.90	8/12	219
2362 x 20 x 0.90	5/8	220
2362 x 20 x 0.90	6/10	221
2450 x 27 x 0.90	4/6	222
2450 x 27 x 0.90	5/8	223
2450 x 27 x 0.90	6/10	224
2450 x 27 x 0.90	8/12	225
2480 x 27 x 0.90	5/8	226
2480 x 27 x 0.90	6/10	227
2480 x 27 x 0.90	10/14	228
2750 x 27 x 0.90	4/6	112
2750 x 27 x 0.90	5/8	114
2750 x 27 x 0.90	6/10	231
2750 x 27 x 0.90	8/12	116
2750 x 27 x 0.90	10/14	232

Combi-tooth

L x W x Th mm	Teeth per inch	40628 ...
2760 x 27 x 0.90	4/6	233
2760 x 27 x 0.90	5/8	234
2760 x 27 x 0.90	6/10	235
2890 x 27 x 0.90	3/4	236
2890 x 27 x 0.90	4/6	237
2910 x 27 x 0.90	4/6	238
2950 x 27 x 0.90	4/6	239
2950 x 27 x 0.90	5/8	240
2950 x 27 x 0.90	6/10	241
3010 x 27 x 0.90	4/6	242
3010 x 27 x 0.90	5/8	243
3150 x 27 x 0.90	4/6	244
3150 x 27 x 0.90	5/8	245
3280 x 27 x 0.90	3/4	118
3280 x 27 x 0.90	4/6	120
3280 x 27 x 0.90	5/8	247
3280 x 27 x 0.90	6/10	122
3320 x 27 x 0.90	4/6	248
3320 x 27 x 0.90	5/8	249
3660 x 27 x 0.90	2/3	124
3660 x 27 x 0.90	3/4	125
3660 x 27 x 0.90	4/6	126
3660 x 27 x 0.90	5/8	252
3660 x 27 x 0.90	6/10	128
3660 x 27 x 0.90	8/12	254
3660 x 27 x 0.90	10/14	255
3770 x 27 x 0.90	4/6	256
3770 x 27 x 0.90	5/8	257
3770 x 27 x 0.90	6/10	258
3800 x 27 x 0.90	6/10	259
3830 x 27 x 0.90	2/3	132
3830 x 27 x 0.90	3/4	133
3830 x 27 x 0.90	4/6	134
4150 x 27 x 0.90	4/6	144

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40627 Band saws for structural steel

ATORN®

40627

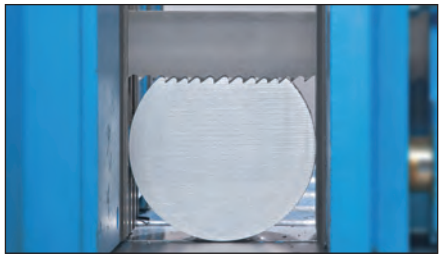
Design
- Continuous welded, ready-to-use band saws

Applications
For small to large workshop and production machines.
Band saws for solid material and thick-walled profiles/pipes.

Quality
HSS bimetal M42.

Band saws with toothing 5/8

Band saws with toothing 4/6, 3/4, 2/3



L x W x Th mm	Teeth per inch	40627 ...
2450 x 27 x 0.90	4/6	201
2450 x 27 x 0.90	5/8	202
2480 x 27 x 0.90	5/8	203
2750 x 27 x 0.90	4/6	204
2750 x 27 x 0.90	5/8	205
2760 x 27 x 0.90	4/6	206
2760 x 27 x 0.90	5/8	207
2910 x 27 x 0.90	4/6	208
2910 x 27 x 0.90	5/8	209
2950 x 27 x 0.90	4/6	210
2950 x 27 x 0.90	5/8	211
3010 x 27 x 0.90	4/6	212
3010 x 27 x 0.90	5/8	213
3150 x 27 x 0.90	4/6	214
3150 x 27 x 0.90	5/8	215
3280 x 27 x 0.90	4/6	216
3280 x 27 x 0.90	5/8	217
3320 x 27 x 0.90	4/6	218

L x W x Th mm	Teeth per inch	40627 ...
3320 x 27 x 0.90	5/8	219
3660 x 27 x 0.90	2/3	220
3660 x 27 x 0.90	3/4	221
3660 x 27 x 0.90	4/6	222
3660 x 27 x 0.90	5/8	223
3800 x 27 x 0.90	4/6	224
3800 x 27 x 0.90	5/8	225
3830 x 27 x 0.90	3/4	226
3830 x 27 x 0.90	4/6	227
2890 x 27 x 0.90	3/4	228
2890 x 27 x 0.90	4/6	229
3505 x 34 x 1.10	2/3	230
3505 x 34 x 1.10	3/4	231
3505 x 34 x 1.10	4/6	232
3800 x 34 x 1.10	3/4	233
3800 x 34 x 1.10	4/6	234
3830 x 34 x 1.10	3/4	235
3830 x 34 x 1.10	4/6	236

L x W x Th mm	Teeth per inch	40627 ...
4150 x 34 x 1.10	3/4	237
4150 x 34 x 1.10	4/6	238
4200 x 34 x 1.10	4/6	239
4400 x 34 x 1.10	3/4	240
4400 x 34 x 1.10	4/6	241
4530 x 34 x 1.10	3/4	242
4530 x 34 x 1.10	4/6	243
4640 x 34 x 1.10	2/3	244
4640 x 34 x 1.10	3/4	245
5000 x 34 x 1.10	3/4	246
5000 x 34 x 1.10	4/6	247
5090 x 34 x 1.10	3/4	248
5090 x 34 x 1.10	4/6	249
5334 x 34 x 1.10	4/6	250
5400 x 34 x 1.10	4/6	251
5400 x 34 x 1.10	5/8	252
6300 x 34 x 1.10	4/6	253

40629 Band saws for stainless steel

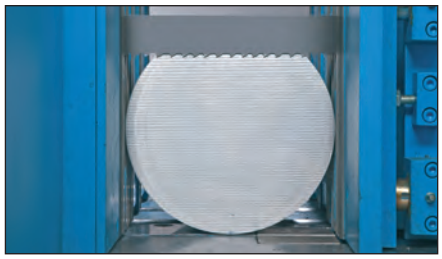
ATORN®

40629

Design
- Continuous welded, ready-to-use band saws

Applications
For small to large workshop and production machines. The specialist for stainless steel and materials that are difficult to machine.
For solid material and large dimensions.

Quality
HSS bimetal M42.



L x W x Th mm	Teeth per inch	40629 ...
2750 x 27 x 0.90	2/3	201
2750 x 27 x 0.90	3/4	202
2750 x 27 x 0.90	4/6	203
2760 x 27 x 0.90	2/3	204
2760 x 27 x 0.90	3/4	205
2760 x 27 x 0.90	4/6	206
2950 x 27 x 0.90	2/3	207
2950 x 27 x 0.90	3/4	208
2950 x 27 x 0.90	4/6	209
3150 x 27 x 0.90	2/3	210
3150 x 27 x 0.90	3/4	211
3150 x 27 x 0.90	4/6	212
3660 x 27 x 0.90	2/3	213
3660 x 27 x 0.90	3/4	214
3660 x 27 x 0.90	4/6	215
3800 x 27 x 0.90	2/3	216

L x W x Th mm	Teeth per inch	40629 ...
3800 x 27 x 0.90	3/4	217
3830 x 27 x 0.90	2/3	218
3830 x 27 x 0.90	3/4	219
3505 x 34 x 1.10	3/4	220
3505 x 34 x 1.10	4/6	221
3660 x 34 x 1.10	2/3	222
3660 x 34 x 1.10	3/4	223
3660 x 34 x 1.10	4/6	224
3800 x 34 x 1.10	2/3	225
3800 x 34 x 1.10	3/4	226
4115 x 34 x 1.10	2/3	227
4115 x 34 x 1.10	3/4	228
4400 x 34 x 1.10	2/3	229
4400 x 34 x 1.10	3/4	230
4530 x 34 x 1.10	2/3	231
4530 x 34 x 1.10	3/4	232

L x W x Th mm	Teeth per inch	40629 ...
4900 x 34 x 1.10	2/3	233
4900 x 34 x 1.10	3/4	234
5090 x 34 x 1.10	2/3	235
5090 x 34 x 1.10	3/4	236
5334 x 41 x 1.30	1.4/2	237
5334 x 41 x 1.30	2/3	238
5400 x 41 x 1.30	1.4/2	239
5400 x 41 x 1.30	2/3	240
5700 x 41 x 1.30	1.4/2	241
5700 x 41 x 1.30	2/3	242
6830 x 41 x 1.30	1.4/2	243
6830 x 41 x 1.30	2/3	244
6900 x 41 x 1.30	1.4/2	245
6900 x 41 x 1.30	2/3	246
5800 x 54 x 1.60	1.4/2	247
5800 x 54 x 1.60	2/3	248

40630 Band saws for profiles and bundles

ATORN®

40630

Design
- Continuous welded, ready-to-use band saws

Applications
For small to large workshop and production machines.
The specialist for thin-walled pipes and profiles in a single cut or bundle.

Quality
HSS bimetal M42.

L x W x Th mm	Teeth per inch	40630 ...
2035 x 20 x 0.90	6/10	201
2035 x 20 x 0.90	8/12	202
2085 x 20 x 0.90	6/10	203
2085 x 20 x 0.90	8/12	204
2362 x 20 x 0.90	5/8	205
2362 x 20 x 0.90	6/10	206
2450 x 27 x 0.90	4/6	207
2450 x 27 x 0.90	5/8	208
2450 x 27 x 0.90	6/10	209
2450 x 27 x 0.90	8/12	210
2480 x 27 x 0.90	5/8	211
2480 x 27 x 0.90	6/10	212
2480 x 27 x 0.90	10/14	213
2750 x 27 x 0.90	4/6	214
2750 x 27 x 0.90	5/8	215
2750 x 27 x 0.90	6/10	216
2750 x 27 x 0.90	10/14	217
2760 x 27 x 0.90	4/6	218
2760 x 27 x 0.90	5/8	219
2760 x 27 x 0.90	6/10	220
2910 x 27 x 0.90	4/6	221
2910 x 27 x 0.90	5/8	222
2950 x 27 x 0.90	4/6	223
2950 x 27 x 0.90	5/8	224
2950 x 27 x 0.90	6/10	225
3010 x 27 x 0.90	4/6	226
3010 x 27 x 0.90	5/8	227
3150 x 27 x 0.90	4/6	228
3150 x 27 x 0.90	5/8	229
3280 x 27 x 0.90	4/6	230
3280 x 27 x 0.90	5/8	231
3320 x 27 x 0.90	4/6	232
3320 x 27 x 0.90	5/8	233
3660 x 27 x 0.90	3/4	234
3660 x 27 x 0.90	4/6	235
3660 x 27 x 0.90	5/8	236
3660 x 27 x 0.90	6/10	237
3800 x 27 x 0.90	4/6	238
3800 x 27 x 0.90	5/8	239
3800 x 27 x 0.90	6/10	240
3830 x 27 x 0.90	3/4	241
3830 x 27 x 0.90	4/6	242
3660 x 34 x 1.10	3/4	243
3660 x 34 x 1.10	5/8	244
3660 x 34 x 1.10	6/10	245
3800 x 34 x 1.10	3/4	246
3800 x 34 x 1.10	4/6	247
4400 x 34 x 1.10	3/4	248
4400 x 34 x 1.10	4/6	249

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40714 Band saws Speedcut M42

NEW

40714

Design
Quality band saw MADE IN AUSTRIA for all metals up to a tensile strength of 1400 N/mm² as well as for aluminium and machinable plastics. This M42 bimetal band saw can be used for single cuts as well as for bundle cuts or layer cuts. Proven and continuously optimised tooth shapes and offset patterns make it very robust, precise and extremely flexible to use. Frequent material changes and parameters that are not always optimal are no problem for the Speedcut M42.

Applications
Ideal for structural steel, as well as for heat-treated steel, cold- and heat-resistant steel and cast iron. Conditionally suitable for stainless steels.
Recommended application
Optimum10–30 teeth in the material (not less than 3 and not more than 40 teeth).

	Optimal ooo	Suitable oo	Conditionally o	Not recommended

L mm	W mm	Th mm	Teeth per inch	Solid material small Ø/thin-walled pipes/interrupted cuts/profiles	Solid material Steel/Inox 50–100 mm	Solid material Steel/Inox 100–200 mm ALU up to 175 mm	Solid material Steel/Inox from 200 mm ALU from 175 mm	40714	...
2000	20	0.90	6/10	000	00				**101**
2140	20	0.90	6/10	000	00				**102**
2140	20	0.90	10/14	000	0				**103**
2625	20	0.90	6/10	000	00				**104**
2360	20	0.90	6/10	000	00				**105**
2360	20	0.90	10/14	000	0				**106**
2450	27	0.90	5/7	0	00	0			**107**
2450	27	0.90	6/10	000	00				**108**
2480	27	0.90	5/7	0	00	0			**109**
2480	27	0.90	6/10	000	00				**110**
2700	27	0.90	4/6	0	000	0			**111**
2700	27	0.90	5/7	0	00	0			**112**
2700	27	0.90	6/10	00	00				**113**
2750	27	0.90	4/6	0	000	0			**114**
2750	27	0.90	5/7	0	00	0			**115**
2750	27	0.90	6/10	000	00				**116**
2750	27	0.90	10/14	000	0				**117**
2760	27	0.90	5/7	0	00	0			**118**
2760	27	0.90	6/10	000	00				**119**
2760	27	0.90	8/12	000	0				**120**
2835	27	0.90	3/4		0	000	0		**121**
2835	27	0.90	4/6	0	00	0			**122**
2835	27	0.90	5/7	0	00	0			**123**
2890	27	0.90	3/4		0	000	0		**124**
2890	27	0.90	4/6	0	000	0			**125**
2890	27	0.90	6/10	000	00				**126**
2910	27	0.90	4/6	0	000	0			**127**
2910	27	0.90	5/7	0	00	0			**128**
2920	27	0.90	4/6	0	000	0			**129**
2950	27	0.90	2/3		0	0	000		**130**
2950	27	0.90	3/4		0	0	0		**131**
2950	27	0.90	4/6	0	000	0			**132**
3010	27	0.90	4/6	0	000	0			**133**
3010	27	0.90	5/7	0	00	0			**134**
3090	27	0.90	3/4		0	000	0		**135**
3090	27	0.90	4/6	0	000	0			**136**
3150	27	0.90	3/4		0	00	0		**137**
3150	27	0.90	4/6	0	000	0			**138**
3280	27	0.90	3/4		0	000	0		**139**
3280	27	0.90	4/6	0	000	0			**140**
3280	27	0.90	6/10	000	00				**141**
3320	27	0.90	4/6	0	000	0			**142**
3370	27	0.90	3/4		0	000	0		**143**
3370	27	0.90	4/6	0	000	0			**144**
3375	27	0.90	3/4		0	000	0		**145**
3375	27	0.90	4/6	0	000	0			**146**
3505	34	1.10	3/4		0	000	0		**147**
3660	27	0.90	2/3		0	0	000		**148**
3660	27	0.90	3/4		0	000	0		**149**
3660	27	0.90	4/6	0	000	0			**150**

Continued

40714 Band saws Speedcut M42

Continued

NEW

Optimal ooo | Suitable oo | Conditionally o | Not recommended

L mm	W mm	Th mm	Teeth per inch	Solid material small Ø/thin-walled pipes/interrupted cuts/profiles	Solid material Steel/Inox 50–100 mm	Solid material Steel/Inox 100–200 mm ALU up to 175 mm	Solid material Steel/Inox from 200 mm ALU from 175 mm	40714	...
3660	27	0.90	5/7	0	00	0			151
3660	27	0.90	6/10	000	00				152
3660	27	0.90	10/14	000	0				153
3720	27	0.90	2/3			0	000		154
3720	27	1.10	4/6	0	00	0			155
3770	27	0.90	3/4		0	00	0		156
3770	27	0.90	4/6	0	00	0			157
3770	27	0.90	5/7	0	00	0			158
3770	27	0.90	6/10	00	00				159
3830	27	0.90	2/3			0	000		160
3830	27	0.90	3/4		0	000	0		161
3830	27	0.90	4/6	0	000	0			162
3900	27	1.10	3/4		0	000	0		163
3930	27	0.90	3/4		0	000	0		164
3930	27	0.90	4/6	0	000	0			165
3930	27	0.90	5/7	0	00	0			166
4100	34	1.10	2/3			0	000		167
4100	34	1.10	3/4		0	000	0		168
4100	34	1.10	4/6	0	000	0			169
4115	34	1.10	2/3			0	000		170
4115	34	1.10	3/4		0	000	0		171
4115	34	1.10	4/6	0	000	0			172
4150	34	1.10	4/6	0	000	0			173
4200	34	1.10	4/6	0	000	0			174
4400	34	1.10	3/4		0	000	0		175
4400	34	1.10	4/6	0	000	0			176
4400	34	1.10	5/7	0	00	0			177
4420	34	1.10	4/6	0	000	0			178
4570	34	1.10	2/3			0	00		179
4570	34	1.10	3/4		0	000	0		180
4570	34	1.10	4/6	0	000	0			181
4570	41	1.30	2/3			0	000		182
4570	41	1.30	3/4		0	000	0		183
4570	41	1.30	4/6	0	000	0			184
4570	41	1.30	5/7	0	00	0			185
4640	34	1.10	2/3			0	000		186
4640	34	1.10	3/4		0	000	0		187
4640	34	1.10	5/7	0	00	0			188
4700	27	0.90	2/3			0	00		189
4755	34	1.10	3/4		0	000	0		190
4755	34	1.10	4/6	0	000	0			191
4755	34	1.10	5/7	0	00	0			192
4860	34	1.10	2/3			0	000		193
4860	34	1.10	3/4		0	000	0		194
4860	34	1.10	6/10	000	00				195
4930	34	1.10	3/4		0	000	0		196
5000	34	1.10	2/3		0	0	000		197
5090	34	1.10	2/3			0	000		198
5090	34	1.10	4/6	0	000	0			199
5334	34	1.10	2/3			0	00		200
5334	34	1.10	3/4		0	000	0		201
5370	41	1.30	2/3			0	000		202
5400	41	1.30	3/4		0	000	0		203
5800	41	1.30	2/3			0	000		204
5800	41	1.30	3/4		0	000	0		205
6300	41	1.30	2/3			0	000		206
6830	41	1.30	2/3			0	000		207
7200	54	1.60	2/3			0	000		208
7239	54	1.30	2/3			0	000		209
8585	67	1.60	1.4/1.6			0	000		210

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40715 Band saws Speedcut M42 profiles

AMADA

NEW

40715

Design
The M42 bimetal band saw for pipes, profiles and small cross-sections. Optimum for single-, layer- and bundle cuts. High resistance to tooth breakage due to patented AMADA PROTECTOR tooth and therefore maximum profitability when sawing various materials. By reinforcing the back of the tooth, tooth overloads are reduced and at the same time the patented offset pattern ensures a low-vibration run and thus better surfaces and less noise.

Applications
Suitable for the following materials: Structural steel, stainless steel, aluminium.

Recommended application
Optimum10–30 teeth in the material (not less than 3 and not more than 40 teeth).

				Optimal ooo	Suitable oo	Conditionally o	Not recommended		
L mm	W mm	Th mm	Teeth per inch	Solid material Ø/thin-walled pipes/interrupted cuts/profiles	Solid material Steel/Inox 50–100 mm	Solid material Steel/Inox 100–200 mm ALU up to 175 mm	Solid material Steel/Inox from 200 mm ALU from 175 mm	40715	...
2000	20	0.90	6/10	000	0				101
2110	20	0.90	5/7	0	00				102
2140	20	0.90	4/6	0	000	0			103
2140	20	0.90	6/10	000	0				104
2360	20	0.90	6/10	000	0				105
2450	27	0.90	4/6	0	000	0			106
2450	27	0.90	5/7	0	00				107
2450	27	0.90	6/10	000	0				108
2455	27	0.90	6/10	000	0				109
2465	27	0.90	4/6	0	000	0			110
2780	27	0.90	5/7	0	00				111
2570	27	0.90	4/6	0	000	0			112
2590	27	0.90	4/6	0	000	0			113
2625	20	0.90	5/5	0	00				114
2625	20	0.90	6/10	000	0				115
2625	20	0.90	10/14	000	0				116
2750	27	0.90	4/6	0	000	0			117
2750	27	0.90	5/7	0	00				118
2760	27	0.90	4/6	0	000	0			119
2760	27	0.90	5/7	0	00				120
2760	27	0.90	6/10	000	0				121
2760	27	0.90	8/12	000	0				122
2765	27	0.90	6/10	000	00				123
2825	27	0.90	3/4		0	000	0		124
2825	27	0.90	4/6	0	000	0			125
2825	27	0.90	5/7	0					126
2825	27	0.90	6/10	000	0				127
2835	27	0.90	5/7	0	00				128
2890	27	0.90	4/6	0	0	0			129
2890	27	0.90	6/10	000	0				130
2910	27	0.90	4/6	0	000	0			131
2910	27	0.90	5/7	0	00				132
2910	27	0.90	6/10	000	00				133
2920	27	0.90	6/10	000	0				134
2945	27	0.90	4/6	0	000	0			135
2945	27	0.90	5/7	0	00				136
2950	27	0.90	4/6	0	000	0			137
2950	27	0.90	5/7	0	00				138
3010	27	0.90	3/4		0	000	0		139
3010	27	0.90	4/6	0	000	0			140
3010	27	0.90	5/7	0	00				141
3010	27	0.90	6/10	000	0				142
3090	27	0.90	4/6	0	000	0			143
3090	27	0.90	8/12	000	0				144
3090	27	0.90	10/14	000	0				145
3110	27	0.90	4/6	0	000	0			146
3150	27	0.90	3/4		0	00	000		147
3150	27	0.90	4/6	0	000	0			148
3150	27	0.90	5/7	0	00				149
3150	27	0.90	6/10	000	0				150

Continued

40715 Band saws Speedcut M42 profiles

Continued

NEW

Optimal ooo | Suitable oo | Conditionally o | Not recommended

L mm	W mm	Th mm	Teeth per inch	Solid material Ø/thin-walled pipes/interrupted cuts/profiles	Solid material Steel/Inox 50–100 mm	Solid material Steel/Inox 100–200 mm ALU up to 175 mm	Solid material Steel/Inox from 200 mm ALU from 175 mm	40715	...
3180	27	0.90	4/6	0	000	0			151
3280	27	0.90	4/6	0	000	0			152
3280	27	0.90	6/10	000	0				153
3320	27	0.90	4/6	0	000	0			154
3340	27	0.90	5/7	0	00				155
3370	27	0.90	8/12	000	0				156
3505	27	0.90	3/4		0	000	0		157
3505	27	0.90	6/10	000	0				158
3505	27	1.10	3/4		0	00	00		159
3505	27	1.10	4/6	0	000	0			160
3660	27	0.90	4/6	0	000	0			161
3660	27	0.90	5/7	0	00				162
3660	27	0.90	6/10	000	0				163
3660	27	0.90	8/12	000	0				164
3660	27	0.90	10/14	000	0				165
3770	27	0.90	4/6	0	000	0			166
3830	27	0.90	3/4		0	000	0		167
3830	27	0.90	4/6	0	000	0			168
4100	34	1.10	3/4		0	000	0		169
4200	34	1.10	3/4		0	000	0		170
4400	34	1.10	3/4		0	000	0		171
4400	34	1.10	4/6	0	000	0			172
4420	34	1.10	4/6	0	000	0			173
4570	34	1.10	3/4		0	000	0		174
4570	41	1.30	3/4		0	000	0		175
4660	34	1.10	3/4		0	000	0		176
4860	34	1.10	4/6	0	000	0			177
4870	27	0.90	4/6	0	000	0			178
4870	41	1.30	3/4		0	000	0		179
5000	34	1.10	3/4		0	000	0		180
5040	41	1.30	3/4		0	000	0		181
5200	34	1.10	3/4		0	000	0		182
5370	41	1.30	2/3		0	0	000		183
5800	41	1.30	3/4		0	000	0		184
6175	41	1.30	3/4		0	000	0		185
6300	41	1.30	3/4		0	000	0		186
6990	41	1.30	3/4		0	000	0		187

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41000 Flat hand engineer's file sets

HASE

Design
Extra quality, with plastic file handles, in pouch.

Set contents 41000 101–106
1 flat hand file
1 half-round file
1 round file
1 triangular file

4 pieces

Length mm	Cut	41000 ...
150	1	101
200	1	102
250	1	103
150	2	104
200	2	105
250	2	106

Set contents 41000 201–209
1 flat hand file
1 half-round file
1 round file
1 triangular file
1 square file

5 pieces

Length mm	Cut	41000 ...
200	1	201
250	1	202
300	1	203
200	2	204
250	2	205
300	2	206

41000

5 pieces

Length mm	Cut	41000 ...
200	3	207
250	3	208
300	3	209

41100 Flat hand engineer's file sets

PFERD

Design
Quality files, with ergonomically shaped file handles, in weatherproof PVC tool roll.

Set contents
1 flat hand file
1 half-round file, pointed tip
1 round file
1 triangular file
1 square file

5 pieces

Length mm	Cut	41100 ...
200	1	101
250	1	102
300	1	103

5 pieces

Length mm	Cut	41100 ...
200	2	104
250	2	105
300	2	106
250	3	108

41100

41001 - 41003 Flat hand engineer's files DIN 7261 A

HASE

41001 - 41003

Length mm	Cross-section mm	Cut 1 41001 ...	Cut 2 41002 ...	Cut 3 41003 ...
100	12.0 x 2.5	101	101	101
150	16.0 x 4.0	103	103	103
200	20.0 x 5.0	104	104	104

Length mm	Cross-section mm	Cut 1 41001 ...	Cut 2 41002 ...	Cut 3 41003 ...
250	25.0 x 6.0	105	105	105
300	30.0 x 6.5	106	106	106
350	35.0 x 7.5	107	107	107

41101 - 41103 Flat hand engineer's files DIN 7261 A

PFERD

41101 - 41103

Length mm	Cross-section mm	Cut 1 41101 ...	Cut 2 41102 ...	Cut 3 41103 ...
100	12.0 x 2.5	101	101	101
150	16.0 x 4.0	102	102	102
200	20.0 x 5.0	103	103	103

Length mm	Cross-section mm	Cut 1 41101 ...	Cut 2 41102 ...	Cut 3 41103 ...
250	25.0 x 6.0	104	104	104
300	30.0 x 6.5	105	105	105
350	35.0 x 7.5	106	106	

41011 - 41013 Half-round engineer's files DIN 7261 E

HASE

41011 - 41013

Length mm	Cross-section mm	Cut 1 41011 ...	Cut 2 41012 ...	Cut 3 41013 ...
100	10.4 x 2.5	101	101	101
150	16.0 x 4.5	103	103	103
200	20.0 x 6.0	104	104	104

Length mm	Cross-section mm	Cut 1 41011 ...	Cut 2 41012 ...	Cut 3 41013 ...
250	25.0 x 7.0	105	105	105
300	30.0 x 8.5	106	106	106
350	35.0 x 10.0	107		

41110 - 41112 Half-round engineer's files DIN 7261 E

PFERD

41110 - 41112

Design
Pointed tip, outstanding performance thanks to PFERD spiral cut.

Length mm	Cross-section mm	Cut 1 41110	...	Cut 2 41111	...	Cut 3 41112	...
100	10.4 x 2.5				101		
150	16.0 x 4.5		102		102		102
200	20.0 x 6.0		103		103		103
250	25.0 x 7.0		104		104		104
300	30.0 x 8.5		105		105		105

41016 - 41018 Triangular engineer's files DIN 7261 C

HASE

41016 - 41018

Length mm	Width mm	Cut 1 41016	...	Cut 2 41017	...	Cut 3 41018	...
100	8.0		101		101		101
150	11.0		103		103		103
200	15.0		104		104		104
250	17.5		105		105		105
300	20.0		106		106		106

41113 - 41115 Triangular engineer's files DIN 7261 C

PFERD

41113 - 41115

Length mm	Width mm	Cut 1 41113	...	Cut 2 41114	...	Cut 3 41115	...
150	11.0		102		102		102
200	15.0		103		103		103
250	17.5		104		104		104
300	20.0		105		105		

41021 - 41023 Square engineer's files DIN 7261 D

HASE

41021 - 41023

Length mm	Width mm	Cut 1 41021	...	Cut 2 41022	...	Cut 3 41023	...
100	4.0		101		101		101
150	6.0		103		103		103
200	8.0		104		104		104
250	10.0		105		105		105
300	12.0		106		106		106

41116 - 41118 Square engineer's files DIN 7261 D

PFERD

41116 - 41118

Length mm	Width mm	Cut 1 41116	...	Cut 2 41117	...	Cut 3 41118	...
150	6.0		102		102		102
200	8.0		103		103		103
250	10.0		104		104		104

41026 - 41028 Round engineer's files DIN 7261 F

HASE

41026 - 41028

Length mm	Ø mm	Cut 1 41026	...	Cut 2 41027	...	Cut 3 41028	...
100	4.0		101		101		101
150	6.0		103		103		103
200	7.5		104		104		104
250	9.5		105		105		105
300	12.0		106		106		106
350	15.0		107		107		

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41119 - 41121 Round engineer's files DIN 7261 F

PFERD

41119 - 41121

Design
Outstanding performance thanks to PFERD spiral cut.

Length mm	Ø mm	Cut 1 41119	...	Cut 2 41120	...	Cut 3 41121	...
100	4.0		101		101		101
150	6.0		102		102		102
200	7.5		103		103		103

Length mm	Ø mm	Cut 1 41119	...	Cut 2 41120	...	Cut 3 41121	...
250	9.5		104		104		104
300	12.0		105		105		105

41032 - 41033 Engineer's knife files DIN 7261 G

HASE

Quality
Extra.

41032 - 41033

Design
Back uncut.

Length mm	Crosssection mm	Cut 2 41032	...	Cut 3 41033	...
200	22 x 5.0		102		102

Length mm	Crosssection mm	Cut 2 41032	...	Cut 3 41033	...
250	27 x 6.5		103		103

Info For precision files, see cat. pages 41.3 - 41.11

Precision files meet the highest standards in dimensional accuracy, cutting performance and service life. Precision files are smaller than regular engineer's files, more comfortable to use and more accurate in their shape. They are used in jig and tool making, especially when making tools for punching, shaping, forging and embossing in job lot production etc. Precision files are also needed for the installation and manufacture of complex, high-precision equipment and machines.

Table comparing Swiss cut and German cut

Length 100 + 150 mm:

Swiss cut	00	0	1	2	3	4	6
German cut	1	1–2	3	3–4	4	4–5	6

Length 200 + 250 mm:

Swiss cut	00	0	1	2	3	4	-
German cut	1	2	3	4	4–5	5	-

41050 - 41054 Precision flat hand files

DICK

41050 - 41054

Design
Normal width, 3 sides cut.

German Length mm	Crosssection mm	Cut 1 41050	...	Cut 2 41051	...	Cut 3 41052	...	Cut 4 41053	...	Cut 5 41054	...
100	9.5 x 2.5		101		101		101		101		101
125	12.5 x 3.2		102		102		102		102		
150	16.0 x 4.0		103		103		103		103		103
200	21.3 x 4.8		104		104		104		104		104
250	25.3 x 6.3		105		105		105		105		
300	29.3 x 7.8		106		106		106				

41131 - 41135 Precision flat hand files

PFERD

41131 - 41135

Design
Normal width, 3 sides cut.

Swiss Length mm	Crosssection mm	Cut 0 41131	...	Cut 1 41132	...	Cut 2 41133	...	Cut 3 41134	...	Cut 4 41135	...
100	13 x 3		101		101		101		101		101
150	18 x 4		102		102		102		102		102
200	22 x 5		103		103		103		103		103

Precision files

41055 - 41057 Precision flat hand files/needle files

DICK

Design
Semi-narrow, 3 sides cut.

41055 - 41057

German		Cut 1		Cut 2		Cut 3	
Length mm	Crosssection mm	41055	...	41056	...	41057	...
150	12.0 x 4.0		101		101		101
200	14.5 x 4.5		102		102		102
250	17.5 x 5.3		103		103		103

41058 - 41060 Precision flat hand files/needle files

DICK

Design
Narrow, 3 sides cut.

41058 - 41060

German		Cut 1		Cut 2		Cut 3	
Length mm	Crosssection mm	41058	...	41059	...	41060	...
125	8.0 x 3.0						101
150	8.3 x 3.8		102		102		102
200	12.0 x 4.0		103		103		103
250	15.0 x 5.0		104				104

41062 - 41064 Precision flat hand files/needle files

DICK

Design
Extra narrow, 3 sides cut.

41062 - 41064

German		Cut 1		Cut 2		Cut 3	
Length mm	Crosssection mm	41062	...	41063	...	41064	...
125	5.5 x 2.5		102		102		102
150	8.0 x 3.0		103		103		103
200	8.3 x 3.8		104		104		104

41066 - 41068 Precision half-round files

DICK

Design
With fine tip.

41066 - 41068

German		Cut 1		Cut 2		Cut 3	
Length mm	Crosssection mm	41066	...	41067	...	41068	...
100	12.7 x 3.5		101		101		101
150	18.0 x 5.5		103		103		103
200	21.1 x 6.3		104		104		104

41153 - 41155 Precision half-round files

PFERD

41153 - 41155

Swiss		Cut 1		Cut 2		Cut 3	
Length mm	Crosssection mm	41153	...	41154	...	41155	...
150	16 x 4.5		102		102		102
200	21 x 6.0		103		103		103
250	25 x 7.0		104				

41071 - 41073 Precision triangular files

DICK

Design
With fine tip.

41071 - 41073

German		Cut 1		Cut 2		Cut 3	
Length mm	Width mm	41071	...	41072	...	41073	...
100	5.8		101		101		101
150	10.3		103		103		103
200	14.2		104		104		104

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41076 - 41078 Precision square files

DICK

Design
With fine tip.

41076 - 41078

German		Cut 1		Cut 2		Cut 3	
Length mm	Width mm	41076	...	41077	...	41078	...
150	5.5		103		103		103
250	9.4		105		105		105

41080 - 41082 Precision round files

DICK

Design
With fine tip.

41080 - 41082

German		Cut 1		Cut 2		Cut 3	
Length mm	Ø mm	41080	...	41081	...	41082	...
100	3.8		101		101		101
125	4.8		102		102		102
150	5.8		103		103		103
200	7.8		104		104		104
250	9.4		105		105		105

41084 - 41086 Precision knife files

DICK

Design
With fine tip and curved, cut cutting edge, back uncut.

41084 - 41086

German		Cut 1		Cut 2		Cut 3	
Length mm	Crosssection mm	41084	...	41085	...	41086	...
200	22 x 4.2		102		102		102

41176 Precision knife files

PFERD

Design
Back blank.

41176

Swiss		Cut 2	
Length mm	Crosssection mm	41176	...
200	22 x 5		103

41178 Precision lenticular crossing files

PFERD

41178

Swiss		Cut 2	
Length mm	Crosssection mm	41178	...
150	16 x 4.5		101

41095 - 41097 Precision barrette files

DICK

Design
Only the flat sides cut (flat roof shape).

41095 - 41097

German		Cut 1		Cut 3	
Length mm	Crosssection mm	41095	...	41097	...
100	12.4 x 2.6				101
150	15.5 x 3.5				102
200	21.5 x 5.0		103		103

41185 - 41187 CORINOX® precision files

PFERD

Design
Unusual surface hardness of 1200 HV (Vickers hardness), which makes the files **extremely wear-resistant and durable.** Stainless surface, therefore no corrosion marks on the material to be machined. The files do not clog. Chips can be removed by lightly knocking the file against a hard surface.
Applications
Particularly suitable for hard-to-machine materials, for machining stainless steels such as **V2A, V4A,** highly heat-resistant steels and exotic alloys, but also for fibre-reinforced plastics, amongst others.

41187 102

41187 104

41187 106

41187 107

41187 108

41187 109

Swiss				Cut 00		Cut 0		Cut 2	
Shape	Length mm	Crosssection mm	Design	41185	...	41186	...	41187	...
Flat hand file	150	18 x 4	3 sides cut		101		101		
Flat hand file	200	22 x 5	3 sides cut		102		102		102
Flat hand file/needle file	150	13 x 4	semi-narrow, 2 sides cut		103		103		
Flat hand file/needle file	200	15 x 5	semi-narrow, 2 sides cut		104		104		104
Half round	150	16 x 4.5	-				105		
Half round	200	21 x 6.0	-				106		106
Round	200	8	-				107		107
Triangular	200	14 x 14	-				108		108
Square	150	6 x 6	-				109		109

41205 - 41206 Milled tooth files DIN 7264 A/D

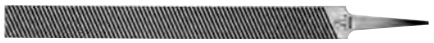
HASE

Design
Teeth cut at an angle, with chip breaker. Fast cutting action even when applying only gentle pressure (labour saving). No wave formations on the workpiece if files are guided diagonally relative to the surface (to right and left – not at right angles).
Applications
Serration 1 = coarse (approximately 9 teeth per inch) for steel, bronze, iron (large areas) and for aluminium, tin, lead, leather and plastics amongst others.
Serration 2 = medium (approx. 12 teeth per inch), for steel, bronze, iron (small areas).

Quality
Chrome alloy special steel.

Note:
Art. no. 41206 102 hollow, only the half round side is serrated.

41205



41206

			Flat hand file		half round	
Serration	Length mm	Crosssection mm	41205	...	41206	...
1/coarse	250	23 x 7.0				102
1/coarse	250	26 x 7.0		102		
1/coarse	300	31 x 8.3		103		
2/medium	250	26 x 7.0		107		
2/medium	300	31 x 8.3		108		

41210 Milled tooth files DIN 7264 A

PFERD

Design
Teeth cut at an angle. The aggressively milled teeth with large flutes prevent the file from clogging.

Applications
For coarse machining of soft metals such as unhardened steel, grey cast iron, copper and brass.

41210

Serration	Length mm	Crosssection mm	41210	...
1	300	31 x 8.3		102
1	350	36 x 8.8		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

41484 - 41487 Diamond handy files

PFERD

Design
With a forged shank that makes use of a handle unnecessary.
D 126 = medium, universal grain.
The precision-forged and ground file blanks are electroplated with diamond grains. The coating, which is uniformly dense, rough and wear resistant, provides great performance.
Applications
For machining hardened or tempered steels and cemented carbide in cutting, punching, moulding and profiling tools, as well as glass, ceramics and fibre-reinforced plastics.

Set contents 41484 101
1 flat hand file
1 half-round file
1 triangular file
1 square file
1 round file

41484 101

Set contents	Total length mm	Diamond coating mm	Design	Medium 41484	...
5 pieces	215	100	in pouch		101

Shape	Total length mm	Diamond coating mm	Width x height mm	Medium 41487	...
Flat hand file	215	100	10.3 x 2.8		101
Half round	215	100	12.5 x 3.8		102
Triangular	215	100	10.0		103
Square	215	100	5.5 x 5.5		104
Round	215	100	6.7		105

41487 101

41487 102

41487 103

41487 104

41487 105

41490 - 41492 Diamond needle files

PFERD

Design
D 126 = medium, universal grain.
The precision-forged and ground file blanks are electroplated with diamond grains. The coating, which is uniformly dense, rough and wear resistant, provides great performance.
Applications
For machining hardened or tempered steels and cemented carbide in cutting, punching, moulding and profiling tools, as well as glass and ceramics.

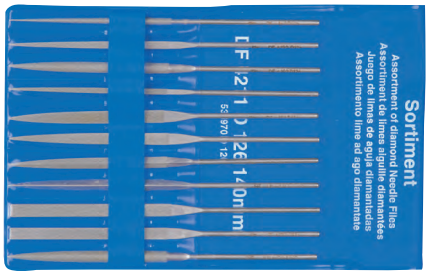
Note:
For screw head handles, see art. no. 41910 and 41911.

Set contents 41490 101
1 flat hand file
1 triangular file
1 square file
1 half-round file
1 round file

41490 101

Set contents 41490 102
1 flat hand file
1 flat hand file with rounded edges
1 flat-pointed file
1 triangular file
1 square file
1 half-round file
1 round file
1 knife file
1 slitting file
1 lenticular crossing file
1 barrette file

41490 102



Set contents	Total length mm	Diamond coating mm	Shank Ø mm	Design	Medium 41490	...
5 pieces	140	70	3	in pouch		101
11 pieces	140	70	3	in pouch		102

41492 101

41492 102

41492 103

41492 104

41492 105

41492 106

41492 107

41492 108

Shape	Total length mm	Diamond coating mm	Shank Ø mm	Width x height mm	Medium 41492	...
Flat hand file	140	70	3	5.5 x 1.6		101
Flat hand file with rounded edges	140	70	3	5.5 x 1.6		102
Flat-pointed	140	70	3	5.5 x 1.6		103
Triangular	140	70	3	3.5		104
Square	140	70	3	2.6 x 2.6		105
Half round	140	70	3	5.5 x 1.6		106
Round	140	70	3	3.2		107
Knife	140	70	3	5.0 x 1.8		108

41501 - 41505 Diamond needle files

Applications
For the machining of cutting, drawing and pressing tools made of cemented carbide or hardened steel as well as moulded parts made of glass, ceramics etc.

Note:
For screw head handles, see art. no. 41910 and 41911.

41501
Design
Medium = D 126, universal grain.

41502
Design
Coarse = D 151, for preliminary filing.

41504
Design
Medium = D 126, universal grain.

41505
Design
Fine = D 91, for finishing.

41501 101

Set contents 41501 101
1 flat hand file
1 triangular file
1 square file
1 half-round file
1 round file
1 knife file.

Set contents	Total length mm	Diamond coating mm	Shank Ø mm	Design	Medium 41501 ...
6 pieces	140	70	3	in pouch	101

Type	Total length mm	Diamond coating mm	Shank Ø mm	Coarse 41502 ...	Medium 41504 ...	Fine 41505 ...
Flat hand file	140	70	3	101	101	101
Flat-pointed	140	70	3		103	
Triangular	140	70	3	104	104	104
Square	140	70	3	105	105	
Half round	140	70	3		106	106
Round	140	70	3	107	107	107
Knife	140	70	3		108	
Lenticular crossing	140	70	3		110	
Barrette	140	70	3		111	

41506 - 41508 Diamond riffling files

PFERD

Design
D 126 = medium, universal grain.
The precision-forged and ground file blanks are electroplated with diamond grains. The coating, which is uniformly dense, rough and wear resistant, provides great performance.

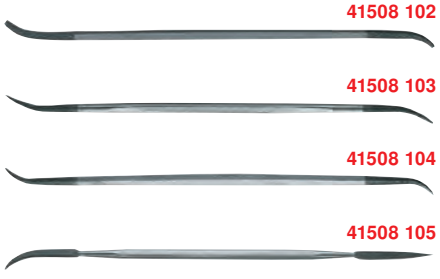
Applications
For machining hardened or tempered steels and cemented carbide in cutting, punching, moulding and profiling tools, as well as glass and ceramics.

41506 102

Set contents 41506 102
1 flat hand file
1 round file
1 square file
1 triangular file
1 lenticular crossing file.

Set contents	Total length mm	Diamond coating mm	Design	Medium 41506 ...
5 pieces	150	2 x 25	in pouch	102

Shape	Total length mm	Diamond coating mm	Width x height mm	Medium 41508 ...
Flat hand file	150	2 x 25	3.1 x 3.0	102
Round	150	2 x 25	3.0	103
Square	150	2 x 25	2.5 x 2.5	104
Triangular	150	2 x 25	3.0	105



41570 - 41572 Precision needle file assortment

HASE

Design
Made from high-grade filing steel with added chromium. A uniform steel structure, high degree of hardness and wear resistance are achieved with careful heat treatment.
Assortment including **12 different shapes**.

Note:
For screw head handles, see art. no. 41910 and 41911.

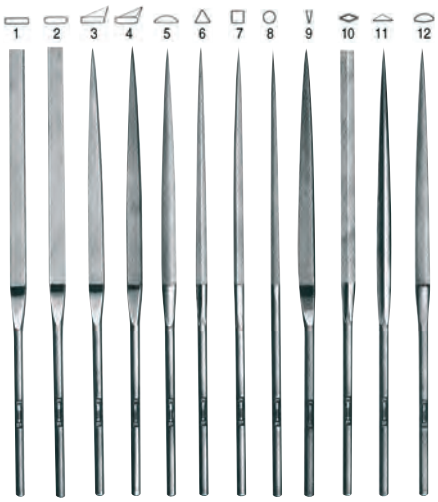
41570
Design
In plastic pouch with button fastening.

41572
Design
In plastic stand box.

Shape 1	flat hand file
Shape 2	flat hand file with rounded edges
Shape 3	flat-pointed
Shape 4	flat-pointed with rounded edges
Shape 5	half round
Shape 6	triangular
Shape 7	square
Shape 8	round
Shape 9	knife
Shape 10	slitting (41570 106 = oval)
Shape 11	barrette
Shape 12	lenticular crossing

41572

41570 - 41572



Total length mm	German cut	Pouch 41570	...	Box 41572	...
100	2		101		
140	2		103		103
160	2		104		104
200	2		106		

41515 - 41516 Precision needle file assortment

PFERD

Design
Assortment including **12 different shapes.**

Note:
For screw head handles, see art. no. 41910 and 41911.

41515
Design
In plastic case.

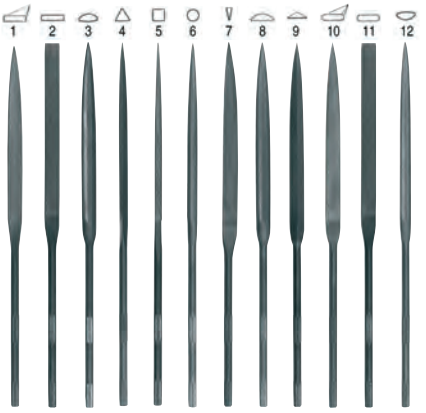
41516
Design
In plastic stand box.

Shape 1	flat-pointed
Shape 2	flat hand file
Shape 3	lenticular crossing
Shape 4	triangular
Shape 5	square
Shape 6	round
Shape 7	knife
Shape 8	half round
Shape 9	barrette
Shape 10	flat-pointed with rounded edges
Shape 11	flat hand file with rounded edges
Shape 12	lenticular crossing round-oval

41515

41516

41515 - 41516



Total length mm	Swiss cut	Case 41515	...	Box 41516	...
140	1		101		101
160	1		102		102
200	0		103		

41574 - 41576 Precision needle files, flat hand file

HASE

Design
Made from high-grade filing steel with added chromium.

Note:
For screw head handles, see art. no. 41910 and 41911.

41574 - 41576

German Total length mm	Shank Ø mm	Cut 1 41574	...	Cut 2 41575	...	Cut 3 41576	...
140	3.00		101		101		101
160	3.00		102		102		102
200	3.50		103		103		103

Needle files

41517 - 41520 Precision needle files, flat hand file

PFERD

Note:
For screw head handles, see art. no. 41910 and 41911.

41517 - 41520

Swiss			Cut 0		Cut 1		Cut 2		Cut 3	
Total length mm	Crosssection mm	Shank Ø mm	41517	...	41518	...	41519	...	41520	...
140	5.1 x 1.1	3.00		101		101		101		101
160	5.5 x 1.2	3.25		102		102		102		102
200	6.4 x 1.3	3.75		104		104		104		

41578 - 41580 Precision needle files, half round

HASE

Design
Made from high-grade filing steel with added chromium.

Note:
For screw head handles, see art. no. 41910 and 41911.

41578 - 41580

German		Cut 1		Cut 2		Cut 3	
Total length mm	Shank Ø mm	41578	...	41579	...	41580	...
140	3.00		101		101		101
160	3.00		102		102		102
200	3.50		103		103		103

41523 - 41525 Precision needle files, half round

PFERD

Note:
For screw head handles, see art. no. 41910 and 41911.

41523 - 41525

Swiss			Cut 1		Cut 2		Cut 3	
Total length mm	Crosssection mm	Shank Ø mm	41523	...	41524	...	41525	...
140	5.0 x 1.6	3.00		101		101		101
160	5.7 x 1.8	3.25		102		102		102
200	6.4 x 1.8	3.75				104		104

41582 - 41584 Precision needle files, triangular

HASE

Design
Made from high-grade filing steel with added chromium.

Note:
For screw head handles, see art. no. 41910 and 41911.

41582 - 41584

German		Cut 1		Cut 2		Cut 3	
Total length mm	Shank Ø mm	41582	...	41583	...	41584	...
140	3.00		101		101		101
160	3.00		102		102		102
200	3.50		103		103		103

41527 - 41532 Precision needle files, triangular

PFERD

Note:
For screw head handles, see art. no. 41910 and 41911.

41527 - 41532

Swiss			Cut 00		Cut 0		Cut 1		Cut 2		Cut 3		Cut 4	
Total length mm	Width mm	Shank Ø mm	41527	...	41528	...	41529	...	41530	...	41531	...	41532	...
140	3.50	3.00			101		101		101		101			
160	3.65	3.25			102		102		102		102		102	
200	4.10	3.75		104	104				104		104			

41586 - 41588 Precision needle files, square

HASE

Design
Made from high-grade filing steel with added chromium.

Note:
For screw head handles, see art. no. 41910 and 41911.

41586 - 41588

German		Cut 1		Cut 2		Cut 3	
Total mm	Shank Ø mm	41586	...	41587	...	41588	...
140	3.00		101		101		101
160	3.00		102		102		102
200	3.50		103		103		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

41534 - 41537 Precision needle files, square

PFERD

Note:
For screw head handles, see art. no. 41910 and 41911.

41534 - 41537

Swiss			Cut 0		Cut 1		Cut 2		Cut 3	
Total length mm	Width mm	Shank Ø mm	41534	...	41535	...	41536	...	41537	...
140	2.4	3.00		101				101		
160	2.4	3.25		102		102		102		102
200	3.0	3.75						104		

41590 - 41592 Precision needle files, round

HASE

Design
Made from high-grade filing steel with added chromium.

Note:
For screw head handles, see art. no. 41910 and 41911.

41590 - 41592

German			Cut 1		Cut 2		Cut 3	
Total mm	Shank Ø mm		41590	...	41591	...	41592	...
140	3.00			101		101		101
160	3.00			102		102		102
200	3.50			103		103		103

41540 - 41542 Precision needle files, round

PFERD

Note:
For screw head handles, see art. no. 41910 and 41911.

41540 - 41542

Swiss			Cut 0		Cut 1		Cut 2	
Total length mm	Ø mm	Shank Ø mm	41540	...	41541	...	41542	...
140	3.00	3.00				101		101
160	3.25	3.25		102		102		102
200	3.75	3.75						104

41595 - 41596 Precision needle files, flat-pointed

HASE

Design
Made from high-grade filing steel with added chromium.

Note:
For screw head handles, see art. no. 41910 and 41911.

41595 - 41596

German			Cut 2		Cut 3	
Total length mm	Shank Ø mm		41595	...	41596	...
140	3.00			101		101
160	3.00			102		102

41557 - 41558 CORINOX® needle files

PFERD

Design
Unusual surface hardness of 1200 HV (Vickers hardness), which makes the files **extremely wear-resistant and durable.** Stainless surface, therefore no corrosion marks on the material to be machined. The files do not clog. Chips can be removed by lightly knocking the file against a hard surface.

Applications
Particularly suitable for hard-to-machine materials, for machining stainless steels such as **V2A, V4A,** highly heat-resistant steels and exotic alloys, but also for fibre-reinforced plastics, amongst others.

Note:
For screw head handles, see art. no. 41910 and 41911.

41557 101

41557 102

41557 103

41557 104

41557 105

41557 106

Swiss			Cut 0		Cut 2	
Shape	Total length mm	Shank Ø mm	41557	...	41558	...
Flat hand file	180	4		101		101
Half round	180	4		102		102
Triangular	180	4		103		103
Square	180	4		104		104
Round	180	4		105		105
Flat-pointed	180	4		106		106

41610 Riffling files

PFERD

41610 101

41610 103

41610 104

41610 108

Swiss Shape	Length mm	Width x thickness mm	Cut 2 41610	...
Flat hand file	180	8.2 x 2.5		101
Triangular	180	6.5		103
Square	180	4.5 x 4.5		104
Knife	180	8.5 x 4.0		108

41612 Key file (broaching file) sets DIN 7283 A-F

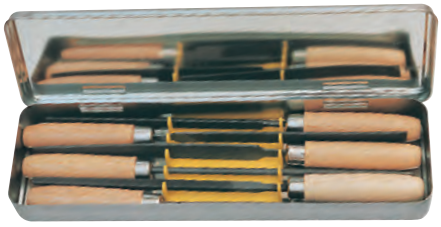
HASE

Design
Thin shape. With handle.

Set contents
1 flat hand file
1 flat-pointed file
1 triangular file
1 square file
1 half-round file
1 round file

41612 101

41612 110



Set contents	Length mm	Design	Cut 2 41612	...
6 pieces	100	in plastic pouch		101
6 pieces	100	in metal box		110

41613 Key file (broaching file) set DIN 7283 A-F

PFERD

Design
With wooden handle.

Set contents
1 flat hand file
1 flat-pointed file
1 triangular file
1 square file
1 half-round file
1 round file

41613

Set contents	Length mm	Design	Cut 2 41613	...
6 pieces	100	in metal box		101

41615 Triangular saw file DIN 7262 B

PFERD

Design
Narrow.

41615

Cut	Length mm	Width mm	41615	...
2	150	8.5		103

41617 Sash saw file, flat hand file

PFERD

Design
With two rounded edges.

41617

Cut	Length mm	Crosssection mm	41617	...
2	250	25 x 4.5		109

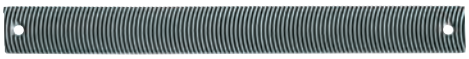
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

41621 Bodywork file blades

PFERD

Design
Curved serration on both sides, straight type. **Outstanding performance and perfect surface quality thanks to positive chip angle, unparalleled curved shape and unique sharpness of teeth.** The teeth are milled, not hammered, from solid stock. Each tooth is formed to roll up the chip in front of the rounded chip area and move it to the large chip chamber. A special finishing process creates **razor-sharp tooth cutting edges** that give the files outstanding cutting performance. Due to the curved cross-section shape, the tooth cutting edges are not in a straight line, but rather have their greatest height in the middle and their lowest height on the sides. The height difference is approximately 0.4 mm. This prevents the edges of the file touching the workpiece. Thus, **scratches cannot** occur.

Applications
Perfect for all sheet metal machining in which the surface must be very smooth and free of grooves. **The work surfaces can be painted immediately after filing.** Finishing polish is not necessary because scratches do not occur.

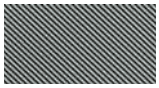


41621 104

41621 106

41621 108

41621 110



Serration	Teeth per inch	Length mm	Crosssection mm	41621 ...
1/coarse	9	350	36 x 5.4	104
2/medium	10	350	36 x 5.4	106
3/fine	12	350	36 x 5.4	108
Special crosscut	-	350	36 x 4.9	110

41622 Holders for bodywork file blades

PFERD

Applications
For bodywork files with a length of **350 mm.** Thanks to the clamping mechanism, the bodywork files can be bent into a convex shape with a variable radius. Therefore, special adaptation to different surface shapes is possible.

41622

41622 ...
102

41624 Flat hand engineer's files PLUS®

PFERD

Design
With file handle. 3 sides cut. Extraordinary performance thanks to spade-shaped teeth, which ensure **easy, labour-saving** filing. Wide chip breaker to prevent clogging of the files during soft material machining.

Applications
Universal file is used for roughing and finishing of steel, non-ferrous metals, wood and plastics.

41624

Length mm	Crosssection mm	Plus cut 41624 ...
200	20 x 5.0	101
250	25 x 6.0	102

41625 - 41626 Soft metal files

HASE

Quality
Extra.

41625

41626

Cut	Length mm	Crosssection mm	Flat hand file 41625 ...	half round 41626 ...
0	250	25 x 6.0	101	
0	250	25 x 7.0		103

41631 Lightweight metal file

HASE

Design
Flat hand file, both surfaces and one narrow side cut.

41631

Cut	Length mm	Crosssection mm	41631 ...
2	250	25 x 6.0	102

41655 Multi-purpose files

DICK

Design
Flat hand file, special cut. One side for roughing, the other for finishing.

Applications
For steel, non-ferrous and soft metals, plastics and wood.

41655

Length mm	Crosssection mm	41655 ...
200	20 x 5.0	101
250	25 x 6.3	102

41670 Lathe files DIN 7261 H

HASE

Design
Single cut, narrow sides blank.

Quality
Extra.

41670

Cut	Length mm	Crosssection mm	41670 ...
1	250	25 x 6.0	101
1	300	30 x 6.5	102

41671 Lathe files, flat hand file DIN 7261 H

PFERD

Design
Single cut, opposite cut.

Advantage
The file moves away from the chuck of the lathe for increased safety.

41671

Cut	Length mm	Crosssection mm	41671 ...
1	250	25 x 6.0	101
1	300	30 x 6.5	102

41675 - 41677 Planer cutters and files

STANLEY

Design
The interchangeable cutting blades work according to the plane principle. The material is cut by the razor-sharp teeth and ejected up through the blade. The teeth do not clog.
With cutting blade 250 x 42 mm = art. no. 41678 101.
Applications
For coarse and fine machining of different materials.

41675
Standard plane

41676
Combination plane
Applications
Can be used with the handle raised as a plane or folded down as a file.

41677
Standard file

41675

41676

41677

	Standard plane		Combination plane		Standard file	
	41675	...	41676	...	41677	...
		101		101		101

41678 - 41681 Replacement blades for planer cutters and files

STANLEY

41678
Standard cutting blade, straight
Applications
For processing hard and softwood, chipboard, plywood, vinyl, plaster etc.

41679
Fine cutting blade, straight
Applications
For processing hard and softwood, end-grain wood, vinyl, plaster, non-ferrous metals etc.

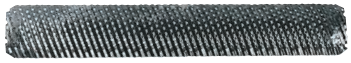
41680
Half round cutting blade
Applications
For processing hard and softwood, end-grain wood, vinyl, plaster etc.

41681
Special cutting blade
Applications
For processing fibreglass, non-ferrous metals, iron, plastic panels, plastic filler etc.

41678

41679

41680



41681

	Standard		Fine cut		Half round		Special	
Size mm	41678	...	41679	...	41680	...	41681	...
250 x 42		101		101		101		102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

41700 Thread files

HASE

Design
Milled, finely polished.
Applications
For reworking damaged female and male threads.

41700 101
Design
With 8 leads 0.8–3 mm.
For metric thread.

41700 102
Design
24–10 pitch per inch.
For Ww thread.

	41700	...
8 leads/metric thread		101
24–10 pitch per inch/Ww thread		102

41700

41755 Chainsaw files

PFERD

Design
Round files with precise, non-slip spiral cut and a cutting edge that sharpens quickly without any grooves. Long service life.

Applications
For chainsaw sharpeners cat. no. 41750.
Quality
Tool steel.

Note:
For compatible file handle, see art. no. 41885 101 + 41886 101.

41755

Ø mm	Length mm	41755	...
4.0	200		102
4.8	200		104
5.5	200		106

41802 Wood rasps, flat hand file DIN 7263 A

HASE

Design
With sharp, deeply cut teeth.

Note:
For wood rasp handles, see art. no. 41904–41905.

41802

		Cut 1	
Length mm	Crosssection mm	41802	...
200	20 x 6.5		101
250	25 x 7.5		102
300	30 x 8.0		103

41803 - 41804 Wood rasps, half round DIN 7263 C

HASE

Design
With sharp, deeply cut teeth.

Note:
For wood rasp handles, see art. no. 41904–41905.

41803 - 41804

		Cut 1		Cut 2	
Length mm	Crosssection mm	41803	...	41804	...
200	21 x 7.5		101		101
250	25 x 8.5		102		102
300	30 x 10.0		103		103

41805 Wood rasps, round DIN 7263 E

HASE

Design
With sharp, deeply cut teeth.

Note:
For wood rasp handles, see art. no. 41904–41905.

41805

		Cut 2	
Length mm	Ø mm	41805	...
200	9.5		101
250	11.5		102

41822 Wood rasps DIN 7263 D (cabinet rasps)

HASE

Design
Flat half round.

Note:
For wood rasp handles, see art. no. 41904–41905.

41822

		Cut 2	
Total length mm	Crosssection mm	41822	...
250	29 x 7.0		102
300	34 x 8.0		103

41885 Plastic file handles

PFERD

Design
Impact-resistant plastic, **reusable,** patented tang mount with displacement chamber, octagonal cross-section at the end ensures that the file will not roll away. Air chambers remove hand moisture, hanging hole. The semi-circular shape of the handle's end distributes pressure over a wide surface area on the base of the thumb during roughing work, minimising strain.

For file length mm	Total length mm	Applications	41885	...
100-150	90	Chainsaw files + key files + very narrow tangs		101
100-150	90	Standard tangs		102
200-250	110	All tangs		103
300-350	130	All tangs		104

41885 101-102

41885 103

41885 104

41886 Ergonomic file handles

PFERD

Design
Made of two components with soft gripping surface. **Very comfortable** thanks to the perfect ergonomic shape, soft plastic in the gripping area, large, rounded contact surfaces. **Maximum occupational safety** due to the fact that the handle shape is designed to fit the natural contours of the hand. No danger of injuries caused by the sharp corners and edges of the files. The octagonal shape of the end of the handle prevents it from rolling away. Frictional connection between hand and handle. Effortless work. Good force transfer and comfort when using the handle. **Reusable.** Recyclable raw materials.

For file length mm	Total length mm	Applications	41886	...
100-150	110	Chainsaw files + key files + very narrow tangs		101
100-150	110	Standard tangs		102
200-250	115	Flat hand, flat-pointed, half round profiles		103
300-350	115	Flat hand, flat-pointed, half round profiles		105

41886 101

41886 102

41886 103

41886 105

41904 - 41910 File handles/screw head handle

41904
Design
Beech wood, with pressed-in steel ferrule.

41910
Design
Closed plastic handle with jaw insert.
Applications
For quick mounting of needle files.

		File handle	Screw head handle	
Total length mm	For file length mm	41904 ...	41910	...
80	< 100	102		
90	< 125	103		
100	100 - 175	104		
110	150 - 250	105		
120	150 - 300	106		
130	200 - 300	107		
140	250 - 350	108		
160	> 350	110		
85	120 - 200			101

41904

41910

41911 Tool handle with spring collet and knob clamping

Design
High-quality GFRP handle perfect for: triangular scrapers, needle files, marking-off needles, drills. Rapid switching.

Applications
For quick and stable fastening of needle files, small drills, scrapers, reamers etc.

Chucking range mm	Handle length mm	41911	...
2.2-4.5	90		101

41911

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Info — DEGUSSIT Fine grinding tools

DEGUSSIT fine grinding tools are free from bonding agents. They have maximum resistance to wear and deformation as a result of the high hardness of the sintered aluminium oxide crystals.This property is particularly important for precision work to achieve excellent surface quality and geometrical accuracy. Low wear brings significant economic benefits.

When using **DEGUSSIT fine grinding tools**, the surface of the workpiece is not only machined, but by using the finest grade and applying pressure, can also be strengthened and polished.

They are the ideal hand tools for all grinding, finishing and deburring work. They are also perfect for resharpening tools of all kinds. Furthermore, they are particularly suitable for making bevels on cutting tools, notching profiles, working shaped parts made from hardened steel as well as other hard or abrasive materials such as quartz, glass and ceramics.

The tools can be used wet or dry.
Moistening once with petroleum or cutting oil is sufficient.
Clean by wiping with a degreasing agent. If using dry,
simply clean the tool using a pencil eraser.

Fine grinding tools from DEGUSSIT DD57 offer the following benefits:
- Extreme hardness
- Excellent stability of edges and profiles
- High resistance to wear for outstanding durability
- Outstanding surface finish for workpieces

Our fine grinding tools are designed for use in the following industries:
- Precision engineering and watchmaking
- Glass and optical industry
- Tool and mould making
- The electrical industry

42086 - 42088 DEGUSSIT grinding file assortment

Design
Made of sintered oxide ceramic crystals, without any bonding agents. Extreme hardness, low wear, extremely stable form.
Applications
For fine grinding work in mould and tool making, precision engineering, optical industry, glass and porcelain industry etc. Ideal for machining hardened steels, glass and porcelain. Use dry or with oil or petroleum.

	Set contents 42086
1	square grinding file
1	triangular grinding file
1	round grinding file (medium grain)
1	half-round grinding file (coarse grain)
1	flat grinding file (fine grain)

	Set contents 42088
11	different mini grinding files
1	holder
2	mountings

42086

42088

	Grinding files	...	Mini files	...
Design	42086	...	42088	...
In a solid cardboard box		101		
In a plastic box				101

42090 DEGUSSIT square files

42090

L x W mm	Grain	42090	...
100 x 6	medium		202
100 x 8	medium		203
100 x 10	medium		204
100 x 10	fine		304

42091 DEGUSSIT triangular files

42091

L x W mm	Grain	42091	...
100 x 8	medium		203
100 x 10	medium		204
100 x 10	fine		304

42092 DEGUSSIT round files

L x W mm	Grain	42092 ...
100 x 4	medium	201
100 x 6	medium	202
100 x 8	medium	203

42092

42093 DEGUSSIT half-round file

L x W mm	Grain	42093 ...
100 x 10	medium	201

42093

42094 DEGUSSIT file (knife blade form)

L x W x H mm	Grain	42094 ...
100 x 15 x 3/0.5	medium	201

42094

42095 DEGUSSIT flat file

L x W x H mm	Grain	42095 ...
100 x 8 x 6	medium	201

42095

42002 - 42012 Silicon carbide grinding files

Applications
One of the hardest abrasives. It is used for filing hard workpieces (hardened steel and cemented carbide) wherever steel files are inadequate.
Use
Dry or with oil, petroleum or water.

42002 - 42004

42005 - 42007

42009

42012

L x W mm	Square coarse 42002 ...	Square medium 42003 ...	Square fine 42004 ...	Triangular coarse 42005 ...	Triangular medium 42006 ...	Triangular fine 42007 ...	Round medium 42009 ...	Half-round medium 42012 ...
100 x 10	103	103	103	103	103	103	103	103
100 x 13	104	104	104	104	104	104	104	104
150 x 13	106	106	106	106	106	106	106	106
150 x 20	108	108	108	108	108	108	108	108

42020 - 42021 Silicon carbide composite stones/gouge stones

Applications
One of the hardest abrasives. It is used for filing hard workpieces (hardened steel and cemented carbide) wherever steel files are inadequate.
Use
Dry or with oil, petroleum or water.

42020
Composite stones
Applications
With one coarse side for pre-grinding and one fine coating for finishing and honing.

42021
Gouge stones
Design
With two round edges of different thicknesses, medium grain.

42020

42021

Composite stones

L x W x Th mm	42020 ...
100 x 25 x 13	101
125 x 50 x 20	103
150 x 50 x 25	105
200 x 50 x 25	107

Gouge stones

L x W x Th mm	42021 ...
115 x 45 x 6/2	102
115 x 45 x 10/3	103

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42025 Silicon carbide dressing stones (rubbing stones)

Design
Coarse-grained and untreated.
Applications
For the machining of cast iron, steel, iron, glass, ceramics and porcelain, granite and synthetic stone.
Also for dressing sanding discs.

42025

L x W x Th mm	42025 ...
150 x 50 x 25	101
200 x 50 x 25	102

42106 - 42111 Corundum grinding files

Design
Hard and very ductile material, non-wearing tool with high edge strength.
Applications
For fine machining of hardened steel parts and cemented carbide.
Use
Dry or with oil, petroleum or water.

42106 - 42108

42110 - 42111

	Square coarse		Square medium		Square fine		Triangular medium		Triangular fine	
L x W mm	42106	...	42107	...	42108	...	42110	...	42111	...
100 x 8		102		102		102		102		102
100 x 10		103		103		103		103		103
150 x 13		106		106		106		106		106
150 x 20		108		108		108		108		108

42113 - 42118 Corundum grinding files

Design
Hard and very ductile material, non-wearing tool with high edge strength.
Applications
For fine machining of hardened steel parts and cemented carbide.
Use
Dry or with oil, petroleum or water.

42113 - 42114

42115 - 42116

42118

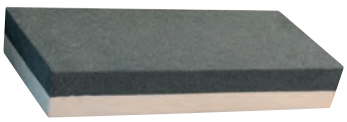
	Round medium		Round fine		Half-round coarse		Half-round medium		Knife blade medium	
L x W mm	42113	...	42114	...	42115	...	42116	...	42118	...
100 x 10		103		103				103		
150 x 13		106		106		106		106		
100 x 25										102

42130 Corundum composite stones

Design
Hard and very ductile material, non-wearing tool with high edge strength.
Applications
For fine machining of hardened steel parts and Cemented carbide.
Use
Dry or with oil, petroleum or water.

Note:
With one coarse side for pre-grinding and one fine coating for finishing and honing.

42130



L x W x H mm	42130 ...
100 x 25 x 13	101
125 x 50 x 20	103

L x W x H mm	42130 ...
150 x 50 x 25	105
200 x 50 x 25	107

42306 - 42310 Hard Arkansas natural stone grinding files

Applications
Particularly suitable for superfinishing hardened steel, used with oil or petroleum.

Note:
Depending on the stone, these dimensions can vary within the tolerances given.

42306

42307

42308

42309

42310

Length x width approx. mm	Square 42306	...	Triangular 42307	...	Round 42308	...	Half-round 42309	...	Knife blade 42310	...
75–100 x 5–6		101		101						
75–100 x 7–8		102		102				102		
75–100 x 9–10		103		103		103		103		
75–100 x 11–13		104		104		104		104		
125–150 x 14–16		107								
75–100 x 20–25 x 3–6										101

42330 Hard Arkansas oil stones (Mississippi stone) bench stone

Applications
The extremely fine and uniform grain is particularly suitable for superfinishing hardened steel.
Use with oil or petroleum.

42330

L x W mm	Design	42330	...
90 x 25	in wooden case		101
100 x 40	in wooden case		102
125 x 50	in wooden case		103
150 x 50	in wooden case		104
175 x 50	in wooden case		105

42331 Hard Arkansas oil stones (Mississippi stone) gouge stone

Applications
The extremely fine and uniform grain is particularly suitable for superfinishing hardened steel.
Use with oil or petroleum.

Note:
Depending on the stone, these dimensions can vary within the tolerances given.

42331

L x W x H approx. mm	42331	...
75–100 x 35–50 x 8–10/2–3		101
100–120 x 35–50 x 10–13/3–4		102

42325 Honing stone (Coticule)

Design
Super fine, uniform abrasive grain.
Applications
For honing bevelled-edge chisels and knife blades etc. with oil, petroleum and possibly also water.

42325

Dimensions approx. mm	42325	...
115 x 60 x 18–20		101

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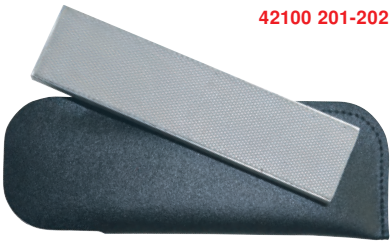
42100 - 42101 Diamond all-purpose sharpeners

3M

Design
Diamond abrasive-coated aluminium plate, 10 mm thick.
Applications
For sharpening and honing engraving irons, chisels, bevelled-edge chisels and tool cutting edges. For shearing cutting edges on glass, stone and all hard materials.

42101 201-202
Design
With non-slip feet.

42100 201-202



42101 201-202

Grain	Dimensions mm	Design	42100	...	42101	...
Very fine	100 x 25 x 10	in leather sleeve		201		
Very fine	150 x 50 x 10	in plastic sleeve				201
Fine	100 x 25 x 10	in leather sleeve		202		
Fine	150 x 50 x 10	in plastic sleeve				202

42911 - 42912 Hand lapping tool

Design
With plastic handle.
Applications
For sharpening, chamfering and shearing cutting edges, primarily of cemented carbide cutting tools. Also for post-machining hardened and ground workpieces.

42911
Hand lapping tool
Applications
For maintaining fine cutting edges on wood and metal milling cutters as well as small lathe chisels.

42912
Diamond hand lapping tools
Applications
For lathe chisels and milling heads in metalworking.

42911

42912 101

42912 102

Grain µm	Coating mm	Colour	42911	...	42912	...
180–130	60 x 20 x 10	Yellow		101		
220–100	60 x 20 x 10	Blue		102		
360–50	60 x 20 x 10	Red		103		
D 46 resin bond	30 x 9	Blue				101
D 64 bronze bond	30 x 9	Red				102

Sanding blocks for finishing machines

42200 Plastic sanding blocks

OTEC

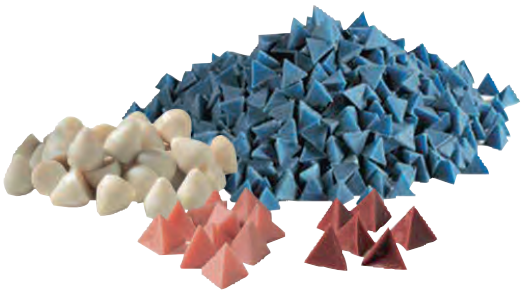
Consumables for surface finishing processes
The correct consumable/medium must be selected for each individual application.
Relevant factors include the composition, type and associated process parameters (time/speed). The correct consumable allows a high surface accuracy and gives you the option of individual machining and finishing of the workpieces to be machined.

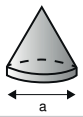
Note:
Suitable for ECO series centrifugal finishing machines/surface finishers art. no. 92866–92867.

Plastic sanding blocks
Design
- Plastic bonded sanding block with low density and soft base material

Applications
Mainly used for sanding and finishing non-ferrous base metals.

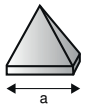
Note:
Other sizes and qualities on request.
Order example: Type K, quality M.
Size 6 mm => KM6





Type K

Type	Colour	Sanding effect	Taper Size a in mm	42200	...
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	6		294
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	10		295
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	12		296
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	15		297
F	Orange	Finishing and polishing, good material removal, results in very smooth surfaces	6		298
F	Orange	Finishing and polishing, good material removal, results in very smooth surfaces	10		299
A	Red	Medium coarse, medium roughness	10		300
A	Red	Medium coarse, medium roughness	12		301
T	Purple	Extremely coarse, coarse roughness	10		302
T	Purple	Extremely coarse, coarse roughness	12		303



Type P

Type	Colour	Sanding effect	Pyramid Size a in mm	42200	...
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	10		395
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	12		396
M	Mint green	Finishing and polishing, good material removal, results in very smooth surfaces	15		397
F	Orange	Finishing and polishing, good material removal, results in very smooth surfaces	10		398
A	Red	Medium coarse, medium roughness	6		399
A	Red	Medium coarse, medium roughness	10		400
O	Blue	Coarse, medium roughness	6		401
T	Purple	Extremely coarse, coarse roughness	10		402
T	Purple	Extremely coarse, coarse roughness	12		403
T	Purple	Extremely coarse, coarse roughness	20		404

Continued

Info Surface finishing machines can be found in catalogue group 9

OTEC

Inexpensive to purchase and maintain, the ECO-18 was designed for medium and large series. Fast and versatile, suitable for the most varied surface machining. Deburring, chamfering, sanding and polishing are possible with a wide range of media (sanding bodies).

Its compact size and closed water circuit mean that it can be used directly adjacent to a machining centre,

Saving up to 90% machining time - with perfect results!

Type ECO-18
(art. no. 92867 200)

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

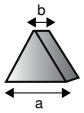
42200 Ceramic sanding block

Continued

Ceramic sanding block
Design
- Ceramic bonded sanding block with high density and hard base material

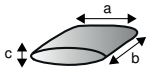
Applications
Mainly used for sanding steel alloys.

Note:
Other sizes and qualities on request.

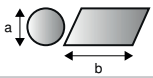


Type	Sanding effect	Triangle Size a/b in mm	Type D 42200 ...
M	Medium coarse	4/4	094
M	Medium coarse	6/6	095
M	Medium coarse	8/8	096
M	Medium coarse	13/13	097
S	Coarse sanding finish	4/4	098
S	Coarse sanding finish	6/6	099
S	Coarse sanding finish	6/10	100
S	Coarse sanding finish	10/8	101
S	Coarse sanding finish	10/10	102
S	Coarse sanding finish	13/13	103
BS	Extremely coarse sanding finish	4/4	104
BS	Extremely coarse sanding finish	6/6	105
BS	Extremely coarse sanding finish	8/8	106
BS	Extremely coarse sanding finish	10/10	107

Type	Sanding effect	Triangle (diagonal cut) Size a=b in mm	Type S 42200 ...
S	Coarse sanding finish	DSS 4/10	108
S	Coarse sanding finish	DSS 6/6	109
S	Coarse sanding finish	DSS 6/10	110
S	Coarse sanding finish	DSS 4/10	111
S	Coarse sanding finish	DSS 6/10	112

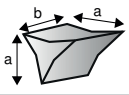


Type	Sanding effect	Ellipse Size a/b in mm	Type E 42200 ...
SF	Coarse sanding finish	15/15/6	113



Type	Sanding effect	Cylinder ** (diagonal cut) Size a/b in mm	Type ZS 42200 ...
S	Coarse sanding finish	6/13	114
S	Coarse sanding finish	4/10	115
S	Coarse sanding finish	6/13	116
S	Coarse sanding finish	7/13	117
S	Coarse sanding finish	7/15	118
S	Coarse sanding finish	8/15	119

** Also available without diagonal cut



Type	Sanding effect	Triangle (diagonal cut) Size a=b in mm	Type DZ 42200 ...
M	Medium coarse	4/4	195
M	Medium coarse	6/6	196
M	Medium course	6/6 SK*	197
M	Medium coarse	8/8	198
S	Coarse sanding finish	4/4	199
S	Coarse sanding finish	6/6	200
S	Coarse sanding finish	6/6 SK*	201
S	Coarse sanding finish	10/10	202

* Very sharp-edged

Continued

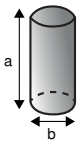
42200 Porcelain polishing block

Continued ▶

Porcelain polishing block
Design
- Excellent polishing properties, retains shape even after prolonged use

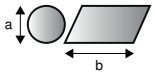
Applications
For smoothing, polishing (and high-gloss polishing) of different materials.

Note:
Other sizes and qualities on request.



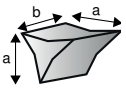
Type Z

Type	Sanding effect	Cylinder Size a/b in mm	42200 ...
P	Polishing	4/10	499



Type ZS

Type	Sanding effect	Triangle (diagonal cut) Size a=b in mm	42200 ...
P	Polishing	4/5	500
P	Polishing	4/10	501
P	Polishing	5/10	502
P	Polishing	6/10	503
P	Polishing	7/15	504



DZ type

Type	Sanding effect	Ellipse Size a/b in mm	42200 ...
P	Polishing	4/4	600
P	Polishing	4/4 SK*	601
P	Polishing	6/6 SK*	602
P	Polishing	8/8 SK*	603
P	Polishing	10/10 SK*	604

* Very sharp-edged

42201 Compound

OTEC

Design
- A suitable compound is used to rinse away the abrasion particles resulting from the surfacing finishing process
- Concentration in process water 3–5%

42201 100-101
SC 15
Applications
Specially designed for ferrous metals, with corrosion protection, low foaming.

42201 200-201
SC 13
Applications
For all ferrous and non-ferrous metals, with corrosion protection, more suitable for polishing due to foaming action; however, this results in slightly longer process times because the foam slows down machining.

42201 100

42201 101

Type	Design	Contents Litre	42201 ...
SC15	in a bottle	1	100
SC15	in a canister	20	101
SC13	in a bottle	1	200
SC13	in a canister	20	201

42202 ACTICIDE MBS for preservation and bacteria reduction

OTEC

Design
ACTICIDE MBS is effective on a broad range of bacteria, fungi and yeasts. ACTICIDE MBS offers outstanding protection against pseudomonads in particular.

Applications
ACTICIDE MBS is the ideal preservative for aqueous products, such as emulsion paints, polymer emulsions, adhesives, bitumen emulsions, lignosulphonates, pigment pastes, diesel fuel emulsions, slurry, glazes, coating compounds, fillers, starch products, process water, cleaning and care products, inks, printing pastes and pumping media.

Dosage:
OTEC surface finishing: Initial dose of 0.5%; a subsequent dose of between 0.2–0.5% can be added, depending on the bacteria present.

42202

Contents Litre	42202 ...
1	100

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43141 Special grinding paste

Design
Oil-soluble grinding paste in a robust, re-sealable plastic box.

Applications
For fine sanding, lapping and adjustment work on hardened steel, aluminium and plastic. Can be diluted or removed with oil, petroleum and petrol.

43141

Grain	Grain size approx. µm	Contents ml	Version	43141	...
90 = Very coarse	180–160	220	in tin		111
150 = Coarse	105–88	220	in tin		112
240 = Medium-fine	55–40	220	in tin		114
320 = Fine	39–21	220	in tin		115

Grain	Grain size approx. µm	Contents ml	Version	43141	...
400 = Finer	28–14	220	in tin		116
600 = Finest	15–8	220	in tin		117
800 = Very Finest	12–6	220	in tin		118
1200 = Micro-Fine	5–1	220	in tin		120

43110 Grinding flaps, synthetic corundum

AO

ATORN®

Design
- Shaft length 40 mm
- Special flap structure ensures perfect fit on the workpiece
- Flexible abrasive flaps and optimum ventilation prevent discolouration
- The primary application for ATORN grinding flaps is finishing steel and stainless steel as well as smoothing out welding seams
- The flexible flap structure and cool grinding prevent the tool from clogging up too quickly, making it ideal for working with wood and plastic

Advantage
- Perfect adaptation to contours due to flexible abrasive flaps
- Consistently high material removal over the entire service life

Applications
For machining small parts, tight curves, pipes, moulds, models, fittings as well as for smoothing, deburring, machining surfaces and weld seams and for uniform finishing. For machining stainless steel, steel, wood, plastic and other materials.

Quality
Synthetic corundum (AO).

43110

NEW

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm		Grain 60 43110	...	Grain 80 43110	...	Grain 120 43110	...	Grain 150 43110	...	Grain 240 43110	...
10	10	76,300	38,000	3	10 pcs.	201		301		401		501		601	
20	10	38,150	19,000	3	10 pcs.	202		302		402		502		602	
20	15	25,400	19,000	3	10 pcs.	203		303		403		503		603	
30	5	25,400	16,000	3	10 pcs.	204		304		404		504		604	
30	10	25,400	16,000	3	10 pcs.	205		305		405		505		605	

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm		Grain 40 43110	...	Grain 60 43110	...	Grain 80 43110	...	Grain 120 43110	...
20	10	38,150	19,000	6	10 pcs.			106		206		306	406
20	15	38,150	19,000	6	10 pcs.			107		207		307	407
30	5	25,400	16,000	6	10 pcs.			108		208		308	408
30	10	25,400	16,000	6	10 pcs.			109		209		309	409
30	15	25,400	16,000	6	10 pcs.			110		210		310	410
40	15	19,000	12,000	6	10 pcs.			111		211		311	411
40	20	19,000	12,000	6	10 pcs.			112		212		312	412
50	15	15,200	9,000	6	10 pcs.			113		213		313	413
50	20	15,200	9,000	6	10 pcs.			114		214		314	414
50	30	15,200	9,000	6	10 pcs.			115		215		315	415
60	20	12,700	8,000	6	10 pcs.			116		216		316	416
60	30	12,700	8,000	6	10 pcs.			117		217		317	417
60	40	12,700	8,000	6	10 pcs.			118		218		318	418
80	30	9,500	6,000	6	10 pcs.			119		219		319	419
80	50	9,500	6,000	6	10 pcs.			120		220		320	420

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm		Grain 150 43110	...	Grain 240 43110	...	Grain 320 43110	...
20	10	38,150	19,000	6	10 pcs.			506		606	706
20	15	38,150	19,000	6	10 pcs.			507		607	707
30	5	25,400	16,000	6	10 pcs.			508		608	708
30	10	25,400	16,000	6	10 pcs.			509		609	709
30	15	25,400	16,000	6	10 pcs.			510		610	710
40	15	19,000	12,000	6	10 pcs.			511		611	711
40	20	19,000	12,000	6	10 pcs.			512		612	712
50	15	15,200	9,000	6	10 pcs.			513		613	713
50	20	15,200	9,000	6	10 pcs.			514		614	714
50	30	15,200	9,000	6	10 pcs.			515		615	715
60	20	12,700	8,000	6	10 pcs.			516		616	716
60	30	12,700	8,000	6	10 pcs.			517		617	717
60	40	12,700	8,000	6	10 pcs.			518		618	718
80	30	9,500	6,000	6	10 pcs.			519		619	719
80	50	9,500	6,000	6	10 pcs.			520		620	720

43162 - 43168 Grinding flaps, synthetic corundum (shaft Ø 6 mm)

AO

PFERD

Design
DIN 69183 (except Ø 50 x 15 mm/60 x 40 mm/80 x 15 mm). Recommended peripheral speed: 15–20 m/s. The abrasive grain is embedded in the synthetic resin coating of the strong fabric segments. Highly flexible and concentric. High removal rate due to aggressive sanding belt material. Carrier material removes material from the workpiece surface in a uniform manner without leaving residue.

Applications
For fine sanding work in tool and mould making with large curves. For machining smaller, difficult-to-access areas in container and equipment construction. For machining fittings made of non-ferrous and light metals. The flat casting core design allows access to very tight corners and edges on the front side.
Quality
Abrasive grain synthetic corundum (AO).

43162 - 43168

				Grain 60		Grain 80		Grain 120		Grain 150		Grain 240		Grain 320	
Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	43162	...	43163	...	43164	...	43165	...	43167	...	43168	...
30	10	25,400	12,000	110		110		110		110		110		110	
40	15	19,100	9,600	114		114		114		114		114		114	
50	15	15,200	7,000	117		117		117		117		117		117	
60	15	12,700	6,300	120		120		120		120		120		120	
60	20	12,700	6,300	121		121		121		121		121		121	
60	30	12,700	6,300	122		122		122		122		122		122	
60	40	12,700	6,300	123		123		123		123		123			
80	15	9,500	4,800	125		125		125							
80	50	9,500	4,800	129		129		129		129		129		129	

43172 - 43175 Silicon carbide grinding flaps

SIC

PFERD

Design
DIN 69183. The abrasive grain is embedded in the synthetic resin coating of the strong fabric segments. Highly flexible and concentric. High removal rate due to aggressive sanding belt material. Carrier material removes material from the workpiece surface in a uniform manner without leaving residue.

Applications
For materials such as aluminium, copper, bronze, titanium, high-alloy steels and plastics. Particularly recommended for titanium and titanium alloys because the sharp grinding action and low build-up of heat do not cause heat cracks.
Quality
Abrasive grain silicon carbide (SIC).

43172 - 43175

					Grain 60		Grain 80		Grain 120		Grain 150	
Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	43172	...	43173	...	43174	...	43175	...
30	10	25,400	12,000	6			101		101		101	101
60	30	12,700	6,300	6			102		102		102	102

43176 Ceramic abrasive grain grinding flaps

CER

PFERD

Design
Grinding additives in coating
- achieve a significantly higher removal rate
- prevent clogging and
- ensure cooler grinding

Advantage
- High degree of flexibility
- Higher material removal rate due to aggressive abrasive on base layer
- Carrier material removes material from the workpiece surface in a uniform manner without leaving residue, meaning sharp abrasive grain is always available
- The flat casting core design allows access to very tight corners and edges on the front side

Applications
For aggressive grinding with the highest cutting performance on hard materials that conduct heat poorly.
Example applications:
- For fine sanding work on curves in tool and mould making
- For machining smaller, difficult-to-access areas in container and equipment construction
- For machining fittings made of non-ferrous and light metals
- Grinding turbine blades in engine construction and repair

Quality
Ceramic abrasive grain (CER).

43176

					Grain 40		Grain 60		Grain 80		Grain 120	
Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	43176	...	43176	...	43176	...		...
20	10	38,100	19,000	6				201		301		401
30	10	25,400	12,000	6		102		202		302		402
30	15	25,400	12,000	6		103		203		303		403
30	20	25,400	12,000	6		104		204		304		404
40	20	19,100	9,600	6		105		205		305		405
50	30	15,200	7,000	6		106		206		306		406
60	15	12,700	6,300	6		107		207		307		407
60	30	12,700	6,300	6		108		208		308		408

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43159 Abrasive fleece/cloth matting body, synthetic corundum

AO

ATORN®

Design
Abrasive fleece/cloth matting bodies consist of synthetic corundum on fleece and cloth segments, attached alternately around the tool axle in a fan shape. The edging density has a positive effect on the service life, increasing it significantly. The combination with abrasive cloth enhances the abrasive effect. Extra-soft abrasive fleece for optimum adaptation to the contours of the workpiece.

Advantage
- Increased service life due to higher material density and exact processing
- Increased removal rate due to combination with abrasive cloth in synthetic corundum (AO)

Applications
For cleaning and rust removal on oxidised and non-ferrous metals, for texturing, roughing and pre-grinding of workpiece surfaces.

Quality
Abrasive grain synthetic corundum (AO).

NEW

43159

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	Grain 80 43159 ...	Grain 150 43159 ...	Grain 240 43159 ...
40	20	15,200	7,500	40	6	301	401	501
50	30	12,200	6,000	40	6	302	402	502
60	30	10,100	5,000	40	6	303	403	503
60	50	10,100	5,000	40	6	304	404	504
80	50	7,600	4,000	40	6	305	405	505
100	50	6,100	3,000	40	6	306	406	506

43185 - 43186 POLINOX® abrasive fleece/cloth matting body, synthetic corundum

AO

PFERD

Design
The fleece material is arranged radially in segments, with abrasive cloth between each segment. This arrangement allows a higher rate of material removal to be achieved, while at the same time giving the surface a coarser finish.

Applications
For matting and burnishing metals, matting non-ferrous metals, cleaning oxidised non-ferrous base metals, line matting stainless steels without shoulder formation and for roughing plastics as preparation for gluing.

Quality
Abrasive grain synthetic corundum (AO).

43185 - 43186

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	Shaft length mm	Grain 100 43185 ...	Grain 180 43186 ...
40	20	15,000	7,500	6	40	101	101
60	50	10,000	5,000	6	40	102	102
80	50	7,500	4,000	6	40	103	103
100	50	6,000	3,000	6	40	104	104

43160 - 43165 Abrasive fleece/cloth matting body, ceramic abrasive grain with colour coding

CER

ATORN®

Design
Specially designed for machining stainless steel, the matting body comprises a combination of ceramic abrasive grain fleece and cloth segments, attached alternately around the tool axle in a fan shape. The combination with ceramic abrasive grain cloth significantly enhances the grinding effect and creates a brushed grinding finish. Colour coding prevents the tools from being mixed up.

Advantage
- Double impregnation for a long service life
- Virtually shoulder-free line matting on stainless steel surfaces
- Colour-coded tools make it easy to achieve a suitably fine texture
- High material removal and long service life due to ceramic abrasive grain

Applications
For metalworking and machining stainless steels in equipment, container, automotive and mould construction as well as in the tool industry.

Quality
Ceramic abrasive grain (CER).

NEW

43160 - 43165

Contents	Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	43165 ...
3 pieces (orange/yellow/green)	80	50	7,600	4,000	40	6	600

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	Grain 60 orange 43160 ...	Grain 120 yellow 43160 ...	Grain 240 green 43160 ...
40	25	15,200	7,500	40	6	301	401	501
50	25	12,200	6,000	40	6	302	402	502
60	40	10,100	5,000	40	6	303	403	503
80	50	7,600	4,000	40	6	304	404	504

Matting bodies

43156 Abrasive fleece matting body, synthetic corundum

AO

ATORN®

Design
Abrasive flaps made of synthetic corundum abrasive fleece segments comprise a number of fleece segments attached around the tool axle in a fan shape. The increased material density has a positive effect on the service life, increasing it significantly. Extra-soft abrasive fleece for optimum adaptation to the workpiece.

Advantage
- Increased service life due to higher material density and exact processing
- Creates a uniform, matt finish

Applications
For matting and burnishing metals, non-ferrous metals and cleaning oxidised non-ferrous base metals. Smoothing and final sanding of workpiece surfaces.

Quality
Abrasive grain synthetic corundum (AO).

43156

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	Grain 100 43156 ...	Grain 180 43156 ...	Grain 280 43156 ...
40	20	14,000	7,500	40	6	301	401	501
50	30	11,000	6,000	40	6	302	402	502
60	30	9,000	5,000	40	6	303	403	503
60	50	9,000	5,000	40	6	304	404	504
80	50	7,000	4,000	40	6	305	405	505

43169 Abrasive fleece matting body, synthetic corundum with colour coding

AO

ATORN®

Design
Abrasive flaps made of synthetic corundum abrasive fleece segments (AO) with special double impregnation comprise a number of fleece segments attached around the tool axle in a fan shape. The double impregnation has a positive effect on the service life, significantly improving it further.

Advantage
- Significantly longer service life thanks to double impregnation and material density
- For achieving virtually shoulder-free line matting on stainless steel surfaces
- Colour-coded tools make it easy to achieve a suitably fine texture

Applications
For matting and burnishing metals, non-ferrous metals and cleaning oxidised non-ferrous base metals. Smoothing and final sanding of workpiece surfaces.

Quality
Abrasive grain synthetic corundum (AO).

43169

Contents	Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	43169 ...
3 pieces (orange/yellow/green)	50	25	12,200	6,000	40	6	400

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	Orange Grain 80 43169 ...	Yellow Grain 180–240 43169 ...	Green Grain 280–320 43169 ...
40	25	15,200	7,500	40	6	101	201	301
50	25	12,200	6,000	40	6	102	202	302
60	40	10,100	5,000	40	6	103	203	303
80	50	7,600	4,000	40	6	104	204	304

43177 - 43179 POLINOX® abrasive fleece matting body, synthetic corundum

AO

PFERD

Design
The abrasive fleece segments are arranged radially. Long service life due to very densely packed segments.

Applications
For matting and burnishing metals, matting non-ferrous metals, cleaning oxidised non-ferrous base metals, for shoulder-free line matting of stainless steels as well as for roughing plastics as preparation for gluing. Primarily for surface machining.

Quality
Abrasive grain synthetic corundum (AO).

43177 - 43179

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	Shaft length mm	Grain 100 43177 ...	Grain 180 43178 ...	Grain 280 43179 ...
40	20	15,000	7,500	6	40	101	101	101
50	30	12,000	6,000	6	40	102	102	102
60	50	10,000	5,000	6	40	103	103	103
80	50	7,500	4,000	6	40	104	104	104

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43157 Abrasive fleece matting body, silicon carbide

SIC

ATORN®

Design
Abrasive flaps made of silicon carbide abrasive fleece segments comprise a number of fleece segments attached around the tool axle in a fan shape. The increased material density has a positive effect on the service life, increasing it significantly. Extra-soft abrasive fleece for optimum adaptation to the workpiece.
Advantage
- Ideal for machining stainless steel
- Increased service life due to higher material density and exact processing
- Creates a uniform, matt finish

Applications
For matting and burnishing metals, non-ferrous metals and cleaning oxidised non-ferrous base metals. Smoothing and final sanding of workpiece surfaces.
Quality
Abrasive grain silicon carbide (SIC).

43157

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft length mm	Shaft Ø mm	Grain 100 43157	...	Grain 180 43157	...	Grain 280 43157	...
40	20	14,000	7,500	40	6		**301**		**401**		**501**
50	30	11,000	6,000	40	6		**302**		**402**		**502**
60	30	9,000	5,000	40	6		**303**		**403**		**503**
60	50	9,000	5,000	40	6		**304**		**404**		**504**
80	50	7,000	4,000	40	6		**305**		**405**		**505**

43180 - 43181 POLINOX® abrasive fleece matting body, silicon carbide

SIC

PFERD

Design
The abrasive fleece segments are arranged radially. Long service life due to very densely packed segments.

Applications
For matting and burnishing metals, cleaning oxidised metals, for shoulder-free line matting of stainless steels and for roughing plastics as preparation for gluing. Ideal for finishing and matting of non-ferrous metals and stainless steels, for fine deburring of processed aluminium parts and for processing paint layers and coatings.
Quality
Abrasive grain silicon carbide (SIC).

43180 - 43181

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	Shaft length mm	Grain 180 43180	...	Grain 280 43181	...
40	20	15,000	7,500	6	40		**101**		**101**
50	30	12,000	6,000	6	40		**102**		**102**
60	50	10,000	5,000	6	40		**103**		**103**
80	50	7,500	4,000	6	40		**104**		**104**

43187 - 43188 POLINOX® abrasive fleece matting body, synthetic corundum

AO

PFERD

Design
Several sharply crimped fleece strips are wound around a core.
Advantage
- The crimped fleece material allows shoulder-free line matting of surfaces

Applications
For matting and burnishing metals, matting non-ferrous metals, cleaning oxidised non-ferrous base metals, shoulder-free line matting of stainless steels and for roughing plastics as preparation for gluing.
Quality
Abrasive grain synthetic corundum (AO).

43187 - 43188

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	Shaft length mm	Grain 100 43187	...	Grain 180 43188	...
80	50	7,500	4,000	6	40		**100**		**100**
100	50	6,000	3,000	6	40		**101**		**101**

43197 Segmented felt polisher

Design
- Polishing tools for surface machining
- Optimum adaptation to the contours of the workpiece
- The lower contact pressure largely prevents erosion of the workpiece
- Lower contact pressure also means less heat is produced and therefore less heat discolouration

Applications
High-strength and painted sheet metal, non-ferrous metals, hardened steels, rust- and acid-resistant steels, high-alloy steels.

Use in combination with special grinding paste, art. no. 43141 and polishing paste, art. nos. 43380 and 43381.

For optimum results, felt products should always be used at speeds of approx. 10 m/s.

NEW

43197

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm		Soft D2/H25 43197	...	Medium D2/H40 43197	...
25	20	10,700	7,600	6	10 pcs.		101		201
25	30	10,700	7,600	6	10 pcs.		102		202
30	20	10,500	6,300	6	10 pcs.		103		203
40	20	9,000	4,750	6	10 pcs.		104		204
40	30	9,000	4,750	6	10 pcs.		105		205
50	20	8,000	3,800	6	10 pcs.		106		206
50	30	8,000	3,800	6	10 pcs.		107		207
50	40	8,000	3,800	6	10 pcs.		108		208
60	30	7,000	3,150	6	10 pcs.		109		209
60	40	7,000	3,150	6	10 pcs.		110		210
80	50	6,000	2,400	6	10 pcs.		111		211

43198 Segmented felt polisher

Design
- Greater flexibility for irregular shapes and contours
- Polishing tools for surface machining
- Optimum adaptation to the contours of the workpiece
- The lower contact pressure largely prevents erosion of the workpiece
- Lower contact pressure also means less heat is produced and therefore less heat discolouration

Applications
High-strength and painted sheet metal, non-ferrous metals, hardened steels, rust- and acid-resistant steels, high-alloy steels.

Use in conjunction with special grinding paste art. no. 43141 and polishing paste art. nos. 44380 and 44381.

For optimum results, felt products should always be used at speeds of approx. 10 m/s.

43198

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm		Soft D2/H25 43198	...	Medium D2/H40 43198	...
40	30	9,000	4,750	6	10 pcs.		101		201
50	30	8,000	3,800	6	10 pcs.		102		202
60	40	7,000	3,150	6	10 pcs.		103		203
80	50	6,000	2,400	6	10 pcs.		104		204

43199 Felt polishing set, 8 pieces

Design
- Polishing tools for surface machining
- Optimum adaptation to the contours of the workpiece
- The lower contact pressure largely prevents erosion of the workpiece
- Lower contact pressure also means less heat is produced and therefore less heat discolouration

Applications
High-strength and painted sheet metal, non-ferrous metals, hardened steels, rust- and acid-resistant steels, high-alloy steels.

Use in conjunction with special grinding paste art. no. 43141 and polishing paste art. nos. 44380 and 44381.

For optimum results, felt products should always be used at speeds of approx. 10 m/s.

43199

Felt polishing set, 8 pieces, consists of:	
1x segmented felt polisher	20 x 20 mm soft
1x segmented felt polisher	40 x 30 mm soft
1x segmented felt polisher	40 x 30 mm medium
1x segmented felt polisher, brush form	40 x 30 mm soft
1x felt polishing roll, cylindrical	13 x 25 mm
1x felt polishing roll, tapered	13 x 25 mm
1x mounting mandrel	3.2 x 19 x 6 mm
1x polishing paste	

Felt polishing set	Shaft Ø mm	43199	...
8 pieces	6		100

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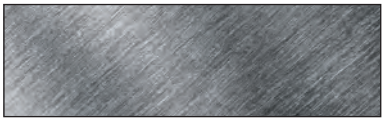
Info — Important information for abrasive fleece tools

osborn

Abrasive fleece tools are used without polishing paste because the abrasive grain is already contained in the carrier material of the burnishing tools.

These tools are made of matted fleece with abrasive grain and they are characterised by their open and flexible structure. They are self-sharpening and can be used dry or wet.
As they can also be used on hand-guided machines, they are suitable for a wide range of applications from burnishing and de-oxidisation to finishing.

Our abrasive fleece tools are available in various sizes and grain types depending on the application.



Coarse brush stroke

Medium brush stroke

Fine brush stroke

Economical cutting speeds (average values)
The higher the disc speed, the harder and less flexible the layers become.

Application	Cutting speed
Grinding	approx. 30 m/sec.
Burnishing	approx. 20 m/sec.
Pre-polishing	approx. 25–30 m/sec.
Polishing metal	approx. 30–36 m/sec. +/-15%
Polishing metal (sharp contours)	approx. 20 m/sec. +/-10 %
Polishing plastic	approx. 15 m/sec. +/-10 %

43210 — Abrasive fleece satin finishing rings

osborn

NEW

Satin finishing set

43210 100

43210 100
Abrasive fleece satin finishing ring assortment
Design
- With abrasive fleece rings for the three satin finishing levels: coarse, medium-fine and fine

Scope of delivery:
With clamping shaft Ø 6 mm for drills or flexible shafts.

Set contents 43210 100	
1x	abrasive fleece burnishing ring, coarse
1x	abrasive fleece burnishing ring, medium-fine
1x	abrasive fleece burnishing ring, fine
1x	clamping shaft Ø 6 mm

External Ø mm	Hole Ø mm	Rotation speed rpm	43210 ...
100	10	4,000	100

Note:
Clamping shaft Ø 6 mm, see art. no. 43210 301.

43210 101
Abrasive fleece satin finishing ring, coarse

43210 102
Abrasive fleece satin finishing ring, medium-fine

43210 103
Abrasive fleece satin finishing ring, fine

Coarse — 43210 101

Medium-Fine — 43210 102

Fine — 43210 103

External Ø mm	Width mm	Hole Ø mm	Rotation speed rpm	43210 ...	43210 ...	43210 ...
100	23	10	4,000	101		
100	30	10	4,000		102	103

43210 — Clamping shafts for polishing and satin-finishing rings

osborn

43210 301
Applications
Clamping shaft for drills or flexible shafts for clamping polishing and satin finishing rings with a 10 mm hole up to a diameter of 100 mm.

43210 300
Applications
Clamping shaft for angle polishers for clamping polishing and satin finishing rings with a 14 mm hole from a diameter of 150 mm.

NEW

43210 301

43210 300

Clamping shaft for	Ø mm	Thread	43210 ...
Drills, flexible shafts	6	-	301
Angle polisher	-	M14	300

( ) = Items with prices in brackets partly available from stock.

43210 Polishing fleece cloth rings

osborn

43210 200
Polishing assortment
Design
- With 2 sisal cloth rings and 2 polishing cloth rings for each of the three polishing stages
- Polishing stages: Pre-polishing, levelling and high-gloss polishing (glazing)

Scope of delivery:
With 1 brown, 1 white and 1 blue polishing paste along with a clamping shaft, Ø 6 mm for drills or flexible shafts.

Set contents 43210 200
2x sisal cloth rings
2x polishing fleece cloth rings NTF914
2x polishing fleece cloth rings NTF925
1x polishing paste, brown
1x polishing paste, white
1x polishing paste, blue
1x clamping shaft Ø 6 mm

NEW

43210 200

External Ø mm	Hole Ø mm	Rotation speed rpm	Polishing set 43210 ...
100	10	4,000	200

43210 201
Sisal cloth ring
Pack = 1 pieces

43210 202
Polishing fleece cloth ring NTF914
Pack = 2 pieces

43210 303
Polishing fleece cloth ring NTF925
Pack = 2 pieces

Note:
Clamping shaft Ø 6 mm, see art. no. 43210 301.

43210 201 | 43210 202 | 43210 203

Outer Ø mm	Width mm	Hole Ø mm	Rotation speed rpm	Pack = pieces	Sisal cloth 43210 ...	NTF914 43210 ...	NTF925 43210 ...
100	17	10	4,000	1	201		
100	15	10	4,000	2		202	
100	10	10	4,000	2			203

43192 POLIVLIES® discs

AO

PFERD

43192 101-102
POLIVLIES® discs
Design
- Up to 3 discs can be clamped together to increase the range of application
- Order tool holder (art. no. 43192 201) separately

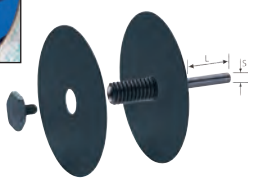
Applications
Difficult workpiece contours can be processed flexibly with edge grinding.
Example applications:
- Deburring ridges and deep grooves
- Cleaning cylinder heads
- Finishing radiators

Quality
Abrasive grain synthetic corundum (AO).

43192 201
Tool holders
Applications
For POLIVLIES® discs, art. no. 43192 101–102.
Clamping width is preset using the hexagon nut on the shaft side of the tool holder.
Up to 3 POLIVLIES® discs can be clamped. In order to vary the lateral flexibility, a pair of side discs with a Ø 50 mm and a pair with a Ø 80 mm are supplied.
The tool is changed from the front by loosening the fastening screw.
It is not necessary to remove the tool holder from the drive machine to change tools.

43192 101-102

43192 201



Grain	External Ø x width mm	Hole Ø mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	43192 ...
Medium	150 x 8	13	4,000	1,300–3,100	101
Very fine	150 x 8	13	4,000	1,300–3,100	102

	S x L mm	Suitable for hole Ø mm	Clamping range mm	43192 ...
Tool holder	6 x 35	13	1–25	201

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43189 - 43190 POLINOX® flap wheels

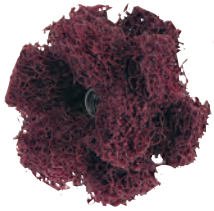
AO

PFERD

Applications
For cleaning, deburring and finishing of areas and contours, particularly in tight working areas such as holes, recesses and in hard-to-reach areas, e.g. cleaning and deburring of threads.

Quality
Abrasive grain synthetic corundum (AO).

Note:
For suitable clamping bolts, see art. no. 43191.



43189 - 43190

Ø mm	Grain	Number of layers	Max. permitted rotation speed rpm	Recommended rotation speed rpm	43189 ...	43190 ...
25	Medium fine 100	2	19,100	10,000	101	
25	Very fine 280	2	19,100	10,000	102	
38	Medium fine 100	3	12,600	7,500		101
38	Very fine 280	3	12,600	7,500		102

43191 Clamping bolts

PFERD

43191 101
Applications
For POLINOX® flap wheels **25 mm Ø** (art. no. 43189).

43191 102
Applications
For POLINOX® flap wheels **38 mm Ø** (art. no. 43190).

43191

For flap wheel Ø mm	Shaft Ø mm	Clamping length mm	Bolt length mm	43191 ...
25	6	30	75	101
38	6	30	125	102

43193 Marbling body

PFERD

Applications
The abrasive fleece discs (art. no. 43194–43196) are attached to the elasticated rubber layer by riptape, for easy replacement.

43193

Ø mm	Ø inch	Recommended rotation speed rpm	Shaft Ø mm	43193 ...
40	1 1/2	600–1,400	6	101
50	2	600–1,400	6	102
60	2 1/2	600–1,400	6	103

43194 - 43196 Abrasive fleece discs for marbling bodies

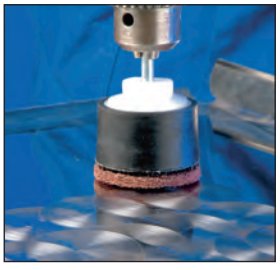
AO

PFERD

Design
Oil- and waterproof.

Applications
Special tool for achieving surface effects (marbling of surfaces) as well as for profiled workpieces. The easily replaceable abrasive fleece discs are attached to the elasticated rubber layers (art. no. 43193) by riptape.
Quality
Abrasive grain synthetic corundum (AO).

43194 - 43196



			Grain 100		Grain 180		Grain 280	
Ø mm	Ø inch	Recommended rotation speed rpm	43194	...	43195	...	43196	...
40	1 1/2	600–1,400	101		101		101	
50	2	600–1,400	102		102		102	
60	2 1/2	600–1,400	103		103		103	

43208 Silicon carbide coarse cleaning roller

SIC

ATORN®

Design
The SIC cleaning roller is a coarsely structured cleaning fleece. The open structure prevents unwanted clogging. The Ø 19 mm hole has a plastic core and 2 keyways to fit all common roller drives.

Advantage
- Open fleece structure prevents clogging
Applications
Optimum results when cleaning weld seams on stainless steels. Also when removing corrosion, scale, discolouration, stubborn paint and coatings.
Quality
Abrasive grain silicon carbide (SIC).

NEW

43208

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43208 ...
100	100	5,000	2,500	19	201

Segmented rollers

43200 Synthetic corundum abrasive flap rollers

AO

ATORN®

Design
Abrasive flap rollers (AO) consist of synthetic corundum on cloth segments which are positioned around the axle in a fan shape and embedded in a plastic core. The Ø 19 mm hole has a plastic core and 2 keyways to fit all common roller drives.

Applications
Suitable for larger areas e.g. in container and equipment construction for removing rust, oxidation layers, light scratches and for powerful texturing (finishing) and burnishing of metals.
Quality
Abrasive grain synthetic corundum (AO).

NEW

43200

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	Grain 40	...	Grain 60	...	Grain 80	...	Grain 120	...
					43200	...	43200	...	43200	...	43200	...
100	50	6,100	3,800	19		201		202		203		204
100	100	6,100	3,800	19		301		302		303		304

43201 Abrasive fleece/cloth segmented rollers

AO

ATORN®

Design
Abrasive fleece/cloth segmented rollers (AO) consist of synthetic corundum (AO) on fleece and cloth segments which are positioned around the axle in a fan shape and embedded in a plastic core. The Ø 19 mm hole has a plastic core and 2 keyways to fit all common roller drives.
Advantage
- The use of synthetic corundum abrasive cloth (AO) achieves a higher rate of material removal and a coarser grinding finish
- Increased service life and lower heat production due to 110 mm diameter

Applications
Suitable for larger areas e.g. in container and equipment construction for removing rust, oxidation layers, light scratches and for powerful texturing (finishing) and burnishing of metals.
Quality
Abrasive grain synthetic corundum (AO).

NEW

43201

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	Grain 60	...	Grain 80	...	Grain 150	...	Grain 240	...
					43201	...	43201	...	43201	...	43201	...
100	50	4,800	2,800	19				101		102		103
110	100	4,700	2,800	19		201		202		203		204

43202 Abrasive fleece/cloth segmented rollers with colour coding

CER

ATORN®

Design
Abrasive fleece/cloth segmented rollers (CER) consist of ceramic abrasive grain (CER) fleece and cloth segments which are positioned around the axle in a fan shape and embedded in a plastic core. The Ø 19 mm hole has a plastic core and 2 keyways to fit all common roller drives. The combination with ceramic abrasive grain cloth significantly enhances the grinding effect and creates a brushed grinding finish. More trimming material compared to conventional 100/110 rollers provides a longer service life and generates less heat while working. Colour coding prevents the tools from being mixed up.

Advantage
- Double impregnation for very high durability
- Maximum service life and removal rate thanks to the use of ceramic abrasive grain and the layer thickness of Ø 115 mm
- Reduced heat load in machining process
- Colour coding prevents the tools from being mixed up

Applications
Suitable for larger areas e.g. in container and equipment construction for removing rust, oxidation layers, light scratches and for powerful texturing (finishing) and burnishing of metals. Specialist tool for machining stainless steel.
Quality
Ceramic abrasive grain (CER).

NEW

43202 201

43202 202

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	Grain 60 orange	Grain 120 yellow	...
					43202	43202	...
115	100	4,800	2,500	19		201	202

43203 Abrasive fleece segmented roller, synthetic corundum

AO

ATORN®

Design
Segmented rollers made of synthetic corundum abrasive fleece segments (AO) comprise a number of fleece segments positioned around the axle in a fan shape and embedded in a plastic core.
The Ø 19 mm plastic hole has 2 keyways to fit all common roller drives. The high material density has a positive effect on the service life, increasing it significantly.

Extra-soft abrasive fleece for optimum adaptation to the workpiece.
Advantage
- Increased service life due to increased material density and exact processing
- Creates a uniform, matt finish

Applications
For matting and burnishing metals, non-ferrous metals and cleaning oxidised non-ferrous base metals. Smoothing and final sanding of workpiece surfaces.

Quality
Abrasive grain, synthetic corundum (AO).

NEW

43203

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	Grain 80	...	Grain 120	...	Grain 180	...	Grain 280	...
					43203	...	43203	...	43203	...	43203	...
100	50	4,800	2,700	19		101		102		103		104
110	100	4,800	2,600	19		201		202		203		204

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43204 Abrasive fleece segmented roller with colour coding

AO

ATORN®

Design
Segmented rollers made of synthetic corundum abrasive fleece segments (AO) comprise a number of fleece segments positioned around the axle in a fan shape and embedded in a plastic core. The Ø 19 mm plastic hole has 2 keyways to fit all common roller drives. More trimming material compared to conventional 100/110 rollers provides a longer service life and generates less heat while working. Colour coding prevents the tools from being mixed up.

Advantage
- Increased service life due to higher material density and exact processing
- Colour coding prevents the tools from being mixed up
- Creates a uniform, matt finish

Applications
For matting and burnishing metals, non-ferrous metals and cleaning oxidised non-ferrous base metals. Smoothing and final sanding of workpiece surfaces.

Quality
Abrasive grain synthetic corundum (AO).

NEW

43204 201

43204 202

43204 203

	Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43204	...
Colour set, 3 pcs.	115	100	4,800	2,800	19		**300**

Grain	Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43204	...
K 80/orange	115	100	4,800	2,800	19		**201**
K 180–240/yellow	115	100	4,800	2,800	19		**202**
K 280–320/green	115	100	4,800	2,800	19		**203**

43205 Wavy abrasive fleece segmented roller with colour coding

AO

ATORN®

Design
Segmented rollers made of synthetic corundum abrasive fleece segments (AO) comprise a number of fleece segments which are positioned around the axle in waves and embedded in a plastic core. The Ø 19 mm plastic hole has 2 keyways to fit all common roller drives. The wavy construction allows shoulder-free line matting over large areas. Colour coding for easier selection of the correct tool.

Advantage
- Shoulder-free line matting over large areas due to wavy construction
- Very long service life thanks to double impregnation
- Colour coding prevents the tools from being mixed up

Applications
For matting and burnishing metals, non-ferrous metals and cleaning oxidised non-ferrous base metals. Smoothing and final sanding of workpiece surfaces. Specialist tool for machining stainless steel.

Quality
Abrasive grain synthetic corundum (AO).

NEW

43205 200

Contents	Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43205	...
Colour set, 5 pcs.	100	100	4,800	2,500	19		**200**

43205 101

43205 102

43205 103

43205 104

43205 105

Grain	Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43205	...
K 80/orange	100	100	4,800	2,500	19		**101**
K 120/red	100	100	4,800	2,500	19		**102**
K 180–240/yellow	100	100	4,800	2,500	19		**103**
K 280–320/green	100	100	4,800	2,500	19		**104**
K 400–600/purple	100	100	4,800	2,500	19		**105**

43206 Felt abrasive flap rollers

Design
- The flexibility of the individual segments allows cool airflow at all times

Advantage
- Undesirable discolouration is avoided
- The tool adapts perfectly to the workpiece
- Improved polishing paste application enables long-lasting and uniform polishing effect

Applications
Soft D5/H25: For glazing or machining workpieces with many contours
Medium D5/H40: For pre-polishing flat surfaces

A very fine surface can be achieved by using both versions, one after the other.

For surface treatment of pre-ground workpieces. Suitable for polishing stainless steel, non-ferrous metals and for high-gloss polishing of medium to large components.

Use in conjunction with special grinding paste art. no. 43141 and polishing paste art. nos. 44380 and 44381.

For optimum results, felt products should always be used at speeds of approx. 10 m/s.

43206

Flexibility	Ø mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43206	...
Soft D5/H25	100 x 100	3,700	1,900	19		101
Medium D5/H40	100 x 100	3,700	1,900	19		201

43207 Felt abrasive flap rollers in brush form

Design
- Segmented with multiple slits for maximum flexibility
- Felt brush rollers thus adapt to irregular shapes and surfaces
- The flexibility of the individual segments allows cool airflow at all times

Advantage
- Undesirable discolouration is avoided
- The tool adapts perfectly to the workpiece
- Improved polishing paste application enables long-lasting and uniform polishing effect

Applications
Soft D5/H25: For glazing or machining workpieces with many contours
Medium D5/H40: For pre-polishing flat surfaces

A very fine surface can be achieved by using both versions, one after the other.

For surface treatment of pre-ground workpieces. Suitable for polishing stainless steel, non-ferrous metals and for high-gloss polishing of medium to large components.

Use in conjunction with special grinding paste art. no. 43141 and polishing paste art. nos. 44380 and 44381.

For optimum results, felt products should always be used at speeds of approx. 10 m/s.

43207

Flexibility	Ø mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43207	...
Soft D5/H25	100 x 100	3,700	1,900	19		101
Medium D5/H40	100 x 100	3,700	1,900	19		201

47310 Roller brushes

PFERD

Design
Crimped, hole with 4 keyways.

47310 101
Design
Steel wire (stranded wire).
Applications
Suitable for very heavy-duty brushing work. The special arrangement of the wires produces a highly aggressive brushing effect.

47310 102
Design
INOX wire.
Applications
For texturing INOX workpieces. Provides optimum corrosion protection.

47310 103
Design
With plastic (SiC) trim.
Applications
Suitable for texturing steel, INOX and wood. Also for fine deburring of holes and openings in large parts.

47310 101

47310 102

47310 103

Trim	Ø mm	Hole Ø mm	Trim thickness Ø mm	Trim length mm	Trim width mm	Rec. rotation speed approx. rpm	Max. rotation speed approx. rpm	47310	...
Steel wire	100	19	0.27	26	100	3,000–4,500	6,000		101
Stainless steel wire	100	19	0.20	26	100	2,400–3,900	6,000		102
Plastic (SiC)	100	19	1.27	26	100	2,400–3,900	6,000		103

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Info — POLIROLL® grinding rollers, art. no. 43300–43304

PFERD

Design
POLIROLL® tools consist of abrasive material on a support layer in a spiral shape. The abrasive grain is embedded into the tight fabric backing with a synthetic resin layer, achieving the highest cutting performance.

The grinding rollers sit securely during use thanks to the self-tensioning, ribbed, tapered tool holder.

Advantages:
- Once the outer abrasive cloth is worn, POLIROLL® grinding rollers offer fresh abrasive grain ready for use
- Very good cutting performance
- Easily replaceable due to special tool holder

Example applications:
- Deburring tasks in holes and in difficult-to-reach areas
- Machining fillet weld seams in metalwork
- Deburring tasks on cast parts

Recommended use:
- Always grind with the tip and not with the flat part, as otherwise the effect of the heat will damage the adhesion
- Always place the glued side of the grinding roller on the tool holder
- Use with a grinding oil that is suitable for the material being processed to increase tool service life and grinding performance

43300 POLIROLL® grinding rollers, synthetic corundum (cylindrical)

AO

PFERD

Design
- Cylindrical shape

Applications
For universal grinding tasks on metals and other materials.

Quality
Abrasive grain synthetic corundum (AO).

Note:
For a suitable tool holder, see art. no. 43304.

43300

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Suitable tool holder		Grain 50 43300	...	Grain 80 43300	...	Grain 150 43300	...
6	25	25,000	20,000	BO 3-18-3. BO 6-18-3	50 pcs.				201		301
6	35	25,000	20,000	BO 6-24-3	50 pcs.				202		302
9	25	23,000	15,000	BO 6-18-3	50 pcs.				203		303
9	35	23,000	15,000	BO 6-24-3	50 pcs.				204		304
12	25	17,000	12,000	BO 6-18-3	50 pcs.		105		205		305
12	35	17,000	12,000	BO 6-24-3	50 pcs.		106		206		306
18	35	12,000	8,000	BO 6-25-5	50 pcs.		107		207		307
18	50	12,000	8,000	BO 6-30-5	50 pcs.		108		208		308

43301 POLIROLL® grinding rollers. synthetic corundum (conical)

AO

PFERD

Design
- Conical shape

Applications
For universal grinding tasks on metals and other materials.

Quality
Abrasive grain synthetic corundum (AO).

Note:
For a suitable tool holder, see art. no. 43304.

43301

Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Suitable tool holder		Grain 50 43301	...	Grain 80 43301	...	Grain 150 43301	...
10	25	23,000	15,000	BO 3-18-3. BO 6-18-3	50 pcs.				201		301
12	25	17,000	12,000	BO 6-18-3	50 pcs.		102		202		302
12	35	17,000	12,000	BO 6-24-3	50 pcs.		103		203		303
15	35	15,000	10,000	BO 6-24-3	50 pcs.		104		204		304

43303 POLIROLL® grinding rollers, ceramic abrasive grain (conical)

CER

PFERD

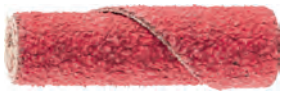
Design
- Conical shape
- Active grinding additives in the coating noticeably increase the removal rate, prevent clogging and facilitate cooler grinding.

Applications
For aggressive grinding with the highest cutting performance on hard materials that conduct heat poorly.

Quality
Ceramic abrasive grain (CER).

Note:
For a suitable tool holder, see art. no. 43304.

43303



Ø mm	Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Suitable tool holder		Grain 60 43303 ...	Grain 80 43303 ...	Grain 120 43303 ...
6	25	25,000	20,000	BO 3-18-3. BO 6-18-3	50 pcs.	101	201	301
6	35	25,000	20,000	BO 6-24-3	50 pcs.	102	202	302
9	25	23,000	15,000	BO 6-18-3	50 pcs.	103	203	303
9	35	23,000	15,000	BO 6-24-3	50 pcs.	104	204	304
12	25	17,000	12,000	BO 6-18-3	50 pcs.	105	205	305
12	35	17,000	12,000	BO 6-24-3	50 pcs.	106	206	306

43302 POLIROLL® grinding roller set

AO

PFERD

Applications
For universal grinding tasks on metals and other materials.

Quality
Abrasive grain synthetic corundum (AO).

43302

Set contents: Quantity	Ø x Width mm	Grain	Form	Art. no.
20 pcs.	6 x 25	80	cylindrical	43300 201
20 pcs.	6 x 25	150	cylindrical	43300 301
20 pcs.	9 x 25	80	cylindrical	43300 203
20 pcs.	9 x 25	150	cylindrical	43300 303
20 pcs.	12 x 25	80	cylindrical	43300 205
20 pcs.	12 x 25	150	cylindrical	43300 305
10 pcs.	10 x 25	80	conical	43301 201
10 pcs.	10 x 25	150	conical	43301 301
10 pcs.	12 x 25	80	conical	43301 202

Grinding roller set	43302 ...
150 pieces	101

43304 POLIROLL® tool holder

PFERD

Design
- Tool holder for POLIROLL® tools
- The tool can be changed without unclamping the holder from the collet chuck of the tool drive.

Applications
For holding POLIROLL® grinding rollers, art. no. 43300–43303.

43304

Type	Shaft Ø x length mm	43304 ...
BO 3-18-3	3 x 27	101
BO 6-18-3	6 x 30	102
BO 6-24-3	6 x 30	103
BO 6-25-5	6 x 30	104
BO 6-30-5	6 x 30	105

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43470 - 43473 Grinding cap carrier and grinding caps (green)

AO

LUKAS

Applications
The abrasive cap is placed on the abrasive cap holder. Centrifugal force keeps the caps in place while working. Quick and easy to change! **For machining corrosion and heat-resistant steel** in tool and mould making.

Quality
Abrasive grain synthetic corundum (AO).

43470
Abrasive cap holder
Design
Slotted rubber body with steel shaft.

43472 - 43473
Grinding caps NKS
Design
High-quality abrasive grain in conjunction with an **active grinding top layer** for optimum grinding results with low wear and increased removal rate.

Shape	Shaft Ø mm	Ø x head height mm	Max. permitted rotation speed rpm	Carrier 43470	...	Grain 80 43472	...	Grain 150 43473	...
Cylindrical	3	5 x 10	57,000		101		101		101
Cylindrical	3	7 x 12	42,000		102		102		102
Cylindrical	3	10 x 15	30,000		103		103		103
Rounded roller	3	5 x 11	57,000		201		201		201
Rounded roller	3	7 x 13	42,000		202		202		202
Rounded roller	3	10 x 15	30,000		203		203		203
Rounded roller	3	13 x 19	23,000		204		204		204
Conical end	3	5 x 11	57,000		301		301		301
Conical end	3	7 x 13	42,000		302		302		302
Conical end	3	10 x 15	30,000		303		303		303
Rounded roller, long	6	16 x 32	18,000		403		403		403

43490 - 43493 POLICAP® abrasive cap holder and abrasive caps

AO

PFERD

Applications
The abrasive cap is placed on the abrasive cap holder. Centrifugal force keeps the caps in place while working. **Quick and easy to change!** Used primarily in tool construction for finishing tasks in difficult-to-access areas. For machining steel and stainless steel.

43490
Abrasive cap holder
Design
Slotted rubber body with steel shaft.

43491 - 43493
Abrasive caps
Design
Seam-free mould.
Grains: 60 (coarse, brown),
150 (medium, black),
280 (fine, red-brown).
Quality
Abrasive grain synthetic corundum (AO).

Shape	Shaft Ø mm	Ø x head height mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Carrier 43490	...	Grain 60 43491	...	Grain 150 43492	...	Grain 280 43493	...
Cylindrical	3	7 x 12	65,000	30,000		102		102		102		102
Cylindrical	3	10 x 15	45,000	20,000		103		103		103		103
Cylindrical	6	13 x 17	35,000	16,000		104		104		104		104
Cylindrical	6	16 x 26	30,000	12,000		105		105		105		105
Rounded roller	3	7 x 13	65,000	30,000		202		202		202		202
Rounded roller	3	10 x 15	45,000	20,000		203		203		203		203
Rounded roller	6	13 x 17	35,000	16,000		204		204		204		204
Rounded roller	6	16 x 26	30,000	12,000		205		205		205		205
Conical end	3	7 x 13	65,000	30,000		302		302		302		302
Conical end	3	10 x 15	45,000	20,000		303		303		303		303
Conical end	6	13 x 17	35,000	16,000		304		304		304		304
Conical end	6	16 x 26	30,000	12,000		305		305		305		305
Rounded roller, long	6	11 x 25	40,000	20,000		402		402		402		402
Rounded roller, long	6	16 x 32	30,000	12,000		403		403		403		403
Rounded roller, long	6	21 x 40	20,000	9,500		404		404		404		404

43505 Sanding belt ring carrier

Design
Cylindrical. Slotted rubber body (expands due to centrifugal force and tensions the sanding belt ring).

Applications
For replaceable sanding belt rings, art. no. 43511-43515.

43505

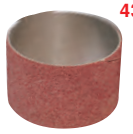
Ø x Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	43505 ...
22 x 20	26,000	18,000	6	101
15 x 30	38,000	26,000	6	201
30 x 30	19,000	13,000	6	202
45 x 30	13,000	8,500	6	203
60 x 30	9,500	6,500	6	204

43511 - 43515 Sanding belt rings

AO

Design
Cylindrical. Cloth sanding belt with synthetic corundum abrasive in a synthetic resin bond.

Applications
On sanding belt ring carrier art. no. 43505.
For surface grinding tasks with high material cutting – as well as for edge grinding.
Quality
Abrasive grain synthetic corundum (AO).



43511 - 43515

				Coarse, Grain 50		Medium, Grain 80		Fine, Grain 150	
Ø x Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm		43511	...	43513	...	43515	...
22 x 20	26,000	18,000	50 pcs.		105		105		105
15 x 30	38,000	26,000	50 pcs.		111		111		111
30 x 30	19,000	13,000	50 pcs.		119		119		119
45 x 30	13,000	8,500	50 pcs.		121		121		121
60 x 30	9,500	6,500	50 pcs.				123		123

43516 Sanding belt ring carrier

PFERD

Design
Cylindrical. The slots allow the rubber body to expand more easily (hardness approx. 65 Shore A). This tensions the sanding belt and increases the elasticity.

The belt is non-slip and sits flat on the workpiece, enabling its full width to be used.
Applications
For replaceable sanding belt rings, art. no. 43518-43523.

43516

Ø x Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	43516 ...
10 x 20	44,000	30,000	6	108
15 x 30	36,000	26,000	6	112
30 x 30	19,100	13,000	6	118
38 x 25	15,900	10,000	6	120
45 x 30	12,700	8,500	6	121
60 x 30	9,500	6,500	6	124

43518 - 43523 Sanding belt rings

AO

PFERD

Design
Cylindrical. Tear-proof base material in fully synthetic bond. Good grain adhesion and high grain quality achieve a long service life. Recommended circumferential speed approx. 20–30 m/s.

Applications
In series production, rework and in assembly. To be used on sanding belt ring carrier art. no. 43516.
Quality
Abrasive grain synthetic corundum (AO).

43518 - 43523

			Grain 40		Grain 50		Grain 60		Grain 80		Grain 150		Grain 240	
Ø x Width mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	43518	...	43519	...	43520	...	43521	...	43522	...	43523	...
10 x 20	44,000	30,000									105		105	105
15 x 30	36,000	26,000					109		109		109		109	109
30 x 30	19,100	13,000		114		114		114		114		114		
38 x 25	15,900	10,000							115		115		115	
45 x 30	12,700	8,500		116		116		116		116		116		
60 x 30	9,500	6,500		118		118		118		118		118		

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43524 Sanding belt ring carrier

Design
Conical. Slotted rubber body (expands due to centrifugal force and tensions the sanding belt ring).

Applications
For replaceable sanding belt rings, art. no. 43525–43528.

43524

Ø x Width mm	Max. rotation speed rpm	Recommended rotation speed rpm	Shaft Ø mm	43524	...
14/20 x 63	21,000	18,500	6		101
22/29 x 30	21,000	16,000	6		102

43525 - 43528 Sanding belt rings

AO

Design
Conical. Cloth sanding belt with synthetic corundum abrasive in a synthetic resin bond.

Applications
On sanding belt ring carrier art. no. 43524. For mould-making, sheet metal machining, deburring, bodywork. Very good on steel (even hardened), for all metals, limited for soft materials.
Quality
Abrasive grain synthetic corundum (AO).

43525 - 43528

			Grain 40, coarse		Grain 50, coarse		Grain 80, medium		Grain 150, fine	
Ø x Width mm	Max. rotation speed rpm	Recommended rotation speed rpm	43525	...	43526	...	43527	...	43528	...
14/20 x 63	21,000	18,500		101				101		101
22/29 x 30	21,000	16,000				102		102		102

43529 Sanding belt rings

ZA

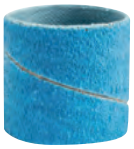
PFERD

Design
- Cylindrical shape
- The highly aggressive cutting power of the zirconia alumina is effective at higher contact pressure and allows outstanding material removal rates
- Designed for excellent removal rates

Advantage
- Slots cause the carrier to expand during use, which ensures the sanding sleeve will not slip
- Outstanding service life due to special manufacturing process – even under the toughest conditions
- Particularly high rate of material removal and highly aggressive abrasive

Applications
- Removal of welding seams in steel construction
- Fine grinding tasks in apparatus and container construction
- Reworking during assembly and repair tasks
- Machining of edges and contours in engine construction

Quality
Abrasive grain, zirconia alumina (ZA).



43529

		Grain 36		Grain 40		Grain 50		Grain 60		Grain 80		Grain 120	
Ø x Width mm	Recommended rotation speed rpm	43529	...	43529	...	43529	...	43529	...	43529	...	43529	...
13 x 25	30,000–44,000						301		401		501		601
19 x 25	20,000–30,000				202		302		402		502		602
25 x 25	16,000–22,900		103		203		303		403		503		603
30 x 30	13,000–19,100		104		204		304		404		504		
38 x 25	10,000–15,900		105		205		305		405		505		605
45 x 30	8,500–12,700				206		306		406		506		

43530 Sanding belt rings

ZA

PFERD

Design
- Conical shape
- The highly aggressive cutting power of the zirconia alumina is effective at higher contact pressure and allows outstanding material removal rates
- Designed for excellent removal rates

Advantage
- Slots cause the carrier to expand during use, which ensures the sanding sleeve will not slip
- Outstanding service life due to special manufacturing process – even under the toughest conditions
- Particularly high rate of material removal and highly aggressive abrasive

Applications
- Removal of welding seams in steel construction
- Fine grinding tasks in apparatus and container construction
- Reworking during assembly and repair tasks
- Machining of edges and contours in engine construction

Quality
Abrasive grain, zirconia alumina (ZA).

43530

		Grain 36		Grain 50		Grain 60		Grain 80		Grain 120	
Ø x Width mm	Recommended rotation speed rpm	43530	...	43530	...	43530	...	43530	...	43530	...
20/14 x 63	19,000–26,000		101		301		401		501		601
29/22 x 30	20,000–30,000		102		302		402		502		602
36/22 x 60	16,000–22,900		103		303		403		503		603

Sanding belts

43533 Endless sanding belts

AO

Design
Bond:
Synthetic resin on a special fabric. Corundum coating with high removal rate. Highly abrasion-resistant cotton fabric for a long service life.
Applications
For all types of wood, chipboard panels, construction panels and metals. Also suitable for sanding paint. For AEG belt sanders of type HBS 1000 E (art. no. 91530 102).

Quality
Corundum with fully synthetic resin bond.

43533

Grain	Belt size mm	Pack = pieces	43533	...
40	533 x 75	10		101
60	533 x 75	10		102
80	533 x 75	10		103

Grain	Belt size mm	Pack = piece	43533	...
100	533 x 75	10		104
150	533 x 75	10		105
220	533 x 75	10		106

43535 Endless sanding belts

AO

Design
Synthetic resin bonded corundum sanding belt on highly abrasion-resistant polyester/cotton mixed fabric backing.
Applications
For machining and deburring cast, stamped and forged parts with dry or wet cutting. For Flex band filing machine type LBS 1105 VE (art. no. 91532).

Quality
Abrasive grain synthetic corundum (AO).

43535

Grain	Belt size mm	Pack = pieces	43535	...
40	533 x 9	10		101
60	533 x 9	10		102

Grain	Belt size mm	Pack = piece	43535	...
120	533 x 9	10		103
220	533 x 9	10		104

43537 Endless sanding belts, synthetic corundum

AO

Applications
For belt sanding machines.
For general sanding work on metals and wood.
Also suitable for stainless steel.

Quality
Abrasive grain synthetic corundum (AO).

43537

		Grain 40		Grain 60		Grain 80		Grain 120		Grain 180	
Width x length mm	Belt speed max. m/s.	43537	...	43537	...	43537	...	43537	...	43537	...
3 x 520	32		101		102		103		104		105
6 x 520	32		201		202		203		204		205
12 x 520	32		301		302		303		304		
16 x 520	32		401		402		403		404		405
20 x 520	32		501		502		503		504		505
30 x 533	32		601		602		603		604		605

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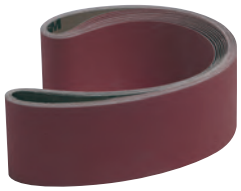
43542 - 43546 Endless sanding belts, synthetic corundum

AO

Design
Semi-robust/robust fabric, synthetic resin bond.
Applications
Ideal for grinding metals under normal loads. For automated and robotic grinding, manual grinding on a back stand and for hand-guided machines.

Quality
Abrasive grain synthetic corundum (AO).

43542 - 43546



Width x length mm		Grain 40	...	Grain 60	...	Grain 80	...	Grain 100	...	Grain 120	...
		43542		43543		43544		43545		43546	
12 x 305	10 pcs.		101		101		101		101		101
13 x 610	10 pcs.		100		100		100		100		100
50 x 1020	10 pcs.		117 NEW		117 NEW		117 NEW		117 NEW		117 NEW
50 x 2000	10 pcs.		116		116		116		116		116
75 x 533	20 pcs.		102		102		102		102		102
75 x 2000	10 pcs.		114		114		114		114		114
100 x 560	20 pcs.		103		103		103		103		103
100 x 620	10 pcs.		104		104		104		104		104
100 x 950	10 pcs.		105		105		105		105		105
100 x 1000	10 pcs.		106		106		106		106		106
110 x 920	10 pcs.		108		108		108		108		108
150 x 1450	10 pcs.		110		110		110		110		110
150 x 2000	10 pcs.		115		115		115		115		115
200 x 1825	10 pcs.		113		113		113		113		113
200 x 1490	10 pcs.		112		112		112		112		112

43550 - 43554 Endless Zirconia Alumina Sanding Belt

ZA

Design
Semi-robust/robust fabric, synthetic resin bond, zirconia alumina layer.
Applications
Suitable for machining metals under medium to heavy loads. Can be used for grinding with hand-guided machines as well as for grinding on a back stand.

Quality
Abrasive grain, zirconia alumina (ZA).

Note:
Zirconia alumina belts are characterised by their self-sharpening effect, are very durable and ensure cool grinding.

43550 - 43554

Width x length mm		Grain 40	...	Grain 60	...	Grain 80	...	Grain 100	...	Grain 120	...
		43550		43551		43552		43553		43554	
10 x 330	100 pcs.		201		201		201		201		201
12 x 305	100 pcs.		202		202		202		202		202
12 x 520	100 pcs.		203		203		203		203		203
13 x 457	100 pcs.		204		204		204		204		204
13 x 610	100 pcs.		205		205		205		205		205
20 x 480	100 pcs.		206		206		206		206		206
20 x 520	100 pcs.		207		207		207		207		207
20 x 760	100 pcs.		208		208		208		208		208
20 x 815	20 pcs.		209		209		209		209		209
30 x 533	20 pcs.		210		210		210		210		210
40 x 618	20 pcs.		211		211		211		211		211
40 x 760	20 pcs.		212		212		212		212		212
40 x 815	20 pcs.		213		213		213		213		213
50 x 1020	10 pcs.		220 NEW		220 NEW		220 NEW		220 NEW		220 NEW
50 x 2000	10 pcs.		214		214		214		214		214
50 x 3500	10 pcs.		104		104		104		104		104
75 x 1300	10 pcs.		101		101		101		101		101
75 x 2000	10 pcs.		102		102		102		102		102
100 x 950	10 pcs.		218		218		218		218		218
100 x 1000	10 pcs.		219		219		219		219		219
150 x 2000	10 pcs.		103		103		103		103		103

Info — VSM CERAMICS: Self-sharpening high-tech ceramic abrasive grain products

VSM

The products in the **VSM CERAMICS** series are specifically designed for aggressive yet cool grinding. Using this abrasive allows you to increase the machining speed while simultaneously improving surface quality and achieving outstanding cut volumes. The cool grind allows a longer service life and minimises discolouration of the workpiece surface. The highest level of VSM quality.

VSM CERAMICS abrasives are particularly suitable for machining high-alloy steels, titanium and nickel-based alloys. Their high level of hardness means they can also be used for machining all kinds of extremely hard surfaces.

We recommend using TOP SIZE products for dry machining of stainless and heat-resistant steels. This additional active grinding layer
- multiplies the cutting performance by several times
- further reduces the temperature of the grinding area.

The way VSM CERAMICS work:
Self-sharpening effect

Fine aluminium oxide (Al_2O_3) crystals are bonded together in the ceramic abrasive grain through a sintering process. During the grinding process, the forces involved break these crystals off, meaning the abrasive grain always has a new, sharp cutting edge.

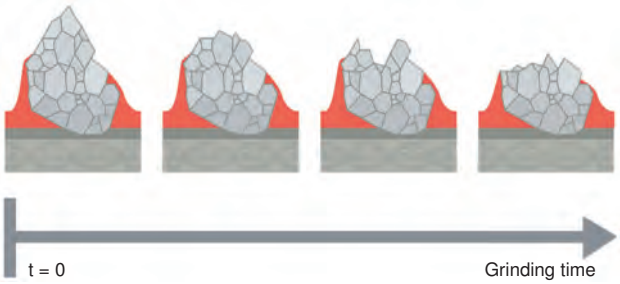
The benefits for you:

Faster machining
- due to the aggressive cutting effect of the ceramic abrasive grain
- due to the optimum scatter method and active grinding additives

More consistent surface quality
- due to the continually renewed cutting edge over the entire service life

Very long service life
- thanks to the self-sharpening ceramic abrasive grain
- due to the excellent adhesion of the special premium grain to the carrier material
- due to the additional active grinding layer (on TOP SIZE products)

Low-temperature grinding
- through high level of aggressiveness and quick material removal
- due to the „self-lubrication" of the additional active grinding layer (on TOP SIZE products)



43548 - 43549 High-performance ceramic abrasive grain cloth belts

TopSize CER

VSM

Design
- Semi-robust/robust fabric
- Ceramic grain layer, fully synthetic resin bond
- Extremely high removal rate with self-sharpening effect
- Additional active grinding layer TOP SIZE

Applications
Suitable for aggressive machining of hard metals such as steel, nickel- and titanium-based alloys and cast iron under the heaviest loads.
For automated and robotic grinding, manual grinding on a back stand/block and for hand-guided machines.
Quality
Ceramic abrasive grain (CER) with TopSize coating.

43548 - 43549

Width x length mm		Grain 40		Grain 60		Grain 80		Grain 120	
		43548	...	43549	...	43549	...	43549	...
10 x 330	100 pcs.		103		103		203		303
12 x 305	100 pcs.		104		104		204		304
12 x 520	100 pcs.		105		105		205		305
13 x 457	100 pcs.		106		106		206		306
13 x 610	100 pcs.		107		107		207		307
20 x 480	100 pcs.		108		108		208		308
20 x 520	100 pcs.		109		109		209		309
30 x 533	20 pcs.		110		110		210		310
40 x 815	20 pcs.		111		111		211		311
50 x 2000	10 pcs.		112		112		212		312
50 x 3500	10 pcs.		113		113		213		313
75 x 2000	10 pcs.		101		101		201		301
150 x 2000	10 pcs.		102		102		202		302

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43560 - 43562 Abrasive cloth 237AA Trizact™

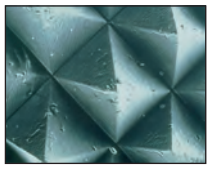
AO

3M

Design
Semi-flexible, textured grinding tool with pyramid structure. The unique texture provides a very long service life with a unique grinding finish.

Design features: X-fabric, fully synthetic resin, aluminium oxide, pyramid structure, grinding aid.
Applications
Especially for hard metal surfaces such as titanium, nickel, cobalt, chromium and other stainless steel alloys.

43560 - 43562



Width x length mm	Grain 280/A65 43560	...	Grain 400/A45 43561	...	Grain 600/A30 43562	...
13 x 610			101		101	
20 x 815			102		102	102
40 x 815			103		103	103
50 x 2000			104		104	104
75 x 2000			105		105	105

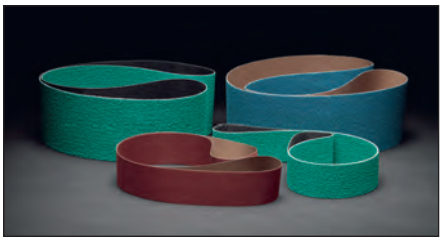
43556 Grit sanding belts, type Z

ZA

Design
- All-round abrasive, blue
- Long service life and high performance
- Economical in use
- Heavy polyester fabric
- Fully synthetic resin bond with zirconia alumina

Applications
For grinding and deburring steel and non-ferrous metals.
Quality
Abrasive grain, zirconia alumina (ZA).

43556



Grain	Width x length mm	Pack = piece	43556	...
36	75 x 2,000	10		101
60	75 x 2,000	10		103

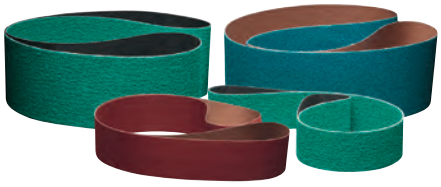
43557 - 43678 Grit sanding belts, type R

TopSize ZA

Design
- Top sanding belt, green
- Superior service life and performance
- Significantly shorter machining times
- Extra-heavy polyester fabric
- Fully synthetic resin bond with zirconia alumina
- Additional covering layer for cooling during the grinding process

Applications
For machining stainless and high-alloy steel.
Quality
Zirconia alumina abrasive grain (ZA) with TopSize coating.

43557 - 43678



Grain	Width x length mm	Pack = pieces	43557	...	43675	...	43677	...	43676	...	43678	...
36	75 x 2,000	10				102						
36	75 x 2,250	10								102		
36	150 x 2,000	10						102				
36	150 x 2,250	10										102
60	75 x 2,000	10				104						
60	150 x 2,000	10						104				
80	75 x 2,000	10				105						
80	150 x 2,000	10						105				
120	75 x 2,000	10		106								
120	150 x 2,000	10						106				

43538 Short belts, fleece version

AO

Design
Made of underlaid tangled fleece, highly elastic.
Max. belt speed 25 m/s.

Applications
For belt sanding machines.
For producing matt and semi-gloss surfaces on steel, stainless steel and non-ferrous metals.
For dry and wet grinding.
Quality
Abrasive grain synthetic corundum (AO).

43538

Grain	Coarse 43538	...	Medium 43538	...	Fine 43538	...
Width x length mm						
6 x 520		101		102		103
12 x 520		201		202		203
30 x 533		501		502		503
40 x 618		601		602		603

43570 - 43572 Scotch-Brite™ fleece sanding belts

AO

3M

Design
Special fleece construction with flexible fabric underlay. Low-temperature grinding due to open construction.

Applications
For use on all belt sanding machines for finishing and deburring tasks.

Quality
Abrasive grain synthetic corundum (AO).

43570 - 43572

Grain		Coarse/a crs		Medium/a med		Fine/very fine	
Width x length mm	Usable width max. mm	43570	...	43571	...	43572	...
13 x 457	1,270		101		101		101
13 x 610	1,270		102		102		102
20 x 815	1,270		103		103		
40 x 815	1,270		104		104		104
75 x 2000	1,270		106		106		106

43644 Scotch-Brite™ hand sheets, perforated

AO ZA

3M

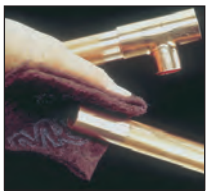
Design
The practical tear-off roll allows simple and economical separation of the perforated sheets. Metallic, pure alternative to steel wool.

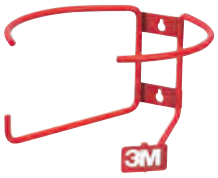
Applications
Can be used by hand or with a hand block (art. no. 43647).

43644 101-102
Multi-Flex
Design
Synthetic nylon fleece with abrasive grain, set in fully synthetic resin bond.
Applications
For manual cleaning tasks. The high degree of flexibility also makes it ideal for maintenance and cleaning of copper pipes.

43644 103-104
CF-SR
Design
Robust, easy-to-cut abrasive fleece.
Applications
For all cleaning and finishing tasks on flat surfaces. Particularly suitable for line matting stainless steel.

43644 201
Wall bracket
Applications
For perforated hand sheets (art. no. 43644 101–104). Sheets can be removed from above or below.





43644 201

43644 101-102

43644 103-104

Grain	Abrasive mineral	Dimensions mm	Colour	1 roll = sheets	43644	...
Very fine/P 320–360	Synthetic corundum	102 x 203	Purple	60		101
Ultra-fine/P 500–600	Silicon carbide	102 x 203	Grey	60		102
Very fine/P 320–360	Synthetic corundum	115 x 150	Purple	35		103
Ultra-fine/P 500–600	Synthetic corundum	115 x 150	Grey	35		104
-	-	Ø 22.5 x 12.5	-	-		201

43645 Scotch-Brite™ fleece hand sheets

AO SIC

3M

Design
Synthetic nylon fleece with abrasive grain, set in fully synthetic resin bond.

Applications
Can be used by hand, with a hand block (art. no. 43647) or on a rubbing block. For cleaning, deburring, finishing and grinding surfaces in the metal, wood, plastic and other industrial and commercial sectors.

43645

Grain	Abrasive mineral	Dimensions mm	Colour		43645	...
Medium/P 180–220	Synthetic corundum	158 x 224	Brown	10 pcs.		101
Very fine/P 320–360	Synthetic corundum	158 x 224	Red	10 pcs.		102
Super fine/P 400–500	Silicon carbide	158 x 224	Grey	10 pcs.		103
Ultra-fine/P 500–600	Silicon carbide	158 x 224	Grey	10 pcs.		104

43640 - 43641 Abrasive fleece, synthetic corundum

AO

Applications
Abrasive fleece products are ideal for fine machining of all materials.

Quality
Abrasive grain synthetic corundum (AO).

43640

43641

	Grain	Dimensions mm		43640	...	43641	...
Sheet	120	152 x 229	10 pcs.		101		
Sheet	320	152 x 229	10 pcs.		102		
Roll	120	115 x 10,000	-				101
Roll	320	115 x 10,000	-				102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43639 Abrasive fleece

AO SiC

ATORN®

Design
- Easy to cut
- High degree of flexibility
- Long service life and optimum grinding results thanks to the uniform fibre structure

Applications
For matting, cleaning, roughing and rust removal. Degreasing and cleaning of surfaces.
For texturing softwood.
For de-rusting and subsurface preparation of zinc and zinc coatings.

43639 103-106

43639 203-206

	Fineness	Grain type	Colour	Dimensions mm		43639 ...
Sheet	Coarse (K280)	Synthetic corundum	Blue	150 x 210	10 pcs.	103
Sheet	Fine (K1200)	Silicon carbide	Grey	150 x 210	10 pcs.	106
Roll	Coarse (K280)	Synthetic corundum	Blue	115 x 10,000	-	203
Roll	Fine (K1200)	Silicon carbide	Grey	115 x 10,000	-	206

43646 Scotch-Brite™ fleece rollers

AO SiC

3M

Design
Synthetic nylon fleece with abrasive grain, set in fully synthetic resin bond.

Applications
Can be used by hand, with a hand block (art. no. 43647) or on a rubbing block. For cleaning, finishing and light deburring tasks. For removing dirt, corrosion and other contamination as well as for matting surfaces.

43646

Grain	Grinding mineral	Dimensions mm x m	Colour	43646 ...
Fine/P 280–320	Synthetic corundum	100 x 10	Red	101
Very fine/P 320–360	Synthetic corundum	100 x 10	Red	102
Ultra-fine/P 500–600	Silicon carbide	100 x 10	Grey	103
Medium/P 180–220	Synthetic corundum	125 x 10	Red	104
Very Fine/P 320–360	Synthetic corundum	125 x 10	Red	105
Ultra-Fine/P 500–600	Silicon carbide	125 x 10	Grey	106

43647 Scotch-Brite™ hand block

3M

Applications
For fleece hand sheets and rolls (art. no. 43644–43646).

43647

Dimension mm	43647 ...
120 x 80	101

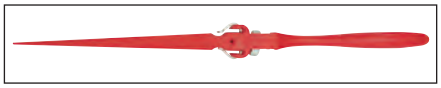
43654 Flexible sanding belt holder

Design
With wedge-shaped sheet support. Retaining clip and clamping screw for quick, secure clamping of the sanding belt.

Applications
For tensioning abrasive cloth strips 280 mm in length (sheets or economy rolls). Particularly useful when working in hard-to-reach places. Many areas of use, ideal file extension including for difficult applications.

Quality
Flexible plastic material.

43654



Sanding belt width mm	Sanding area length mm	Total length mm	43654 ...
25	125	270	101

43656 Economy roll magazine

VSM

Design
Robust magazine for 5 rolls. Install directly at workstation, economical consumption.

Applications
Universal for economy rolls from 25–50 mm in width and 50 m in length.

43656

	43656 ...
	101

43648 Abrasive cloth economy rolls

AO

ATORN®

Design
- Robust, oil/petroleum-resistant, highly flexible cotton fabric
- Excellent grinding performance with high-quality synthetic corundum (AO resin-bonded) and dense covering
- Holder core for mounting on an economy roll holder

Applications
Manual and machine sanding (width: 115 mm) of alloyed and unalloyed steels, stainless steel, chrome and chrome-nickel steel, brass, bronze, wood, paint and plastic. Fine machining of profiles and drill holes. Cleaning machine parts, rollers and shafts. Cleaning contact surfaces, as well as universal use on wood and other materials.

Quality
Abrasive grain synthetic corundum (AO).

NEW

43648 101-110
Design
- Width: 25 mm
- In a practical tear-off box with side window for monitoring usage

43648 201-210
Design
- Width: 40 mm
- In a practical tear-off box with side window for monitoring usage

43648 301-310
Design
- Width: 50 mm

43648 401-409
Design
- Width: 115 mm
- Wide design to enable it to be mounted on orbital sanders

43648 101-110

43648 201-210

43648 301-310

43648 401-409

Tear-off box		Width 25 mm		Width 40 mm	
Grain	Roll length m	43648	...	43648	...
40	50		101		201
60	50		102		202
80	50		103		203
100	50		104		204
120	50		105		205
150	50		106		206
180	50		107		207
240	50		108		208
320	50		109		209
400	50		110		210

Economy roll		Width 50 mm		Width 115 mm	
Grain	Roll length m	43648	...	43648	...
40	50		301		401
60	50		302		402
80	50		303		403
100	50		304		404
120	50		305		405
150	50		306		406
180	50		307		407
240	50		308		408
320	50		309		409
400	50		310		

43650 - 43653 Abrasive cloth economy rolls

AO

VSM

Design
Corundum cloth, brown, very flexible.
Applications
For manual sanding of metals. For sanding edges, curves, profiles, crankshafts etc.
Quality
Abrasive grain synthetic corundum (AO).

43650
25 mm wide, **in tear-off box.**

43651
40 mm wide, **in tear-off box.**

43652
50 mm wide, **without tear-off box.**

43653
115 mm wide, **without tear-off box.**

43650 - 43651

43652

43653

Width		25 mm		40 mm		50 mm		115 mm	
Grain	Roll length m	43650	...	43651	...	43652	...	43653	...
40	50		101		101		101		101
60	50		102		102		102		102
80	50		103		103		103		103
100	50		104		104		104		104
120	50		105		105		105		105
150	50		106		106		106		106
180	50		107		107		107		107
240	50		109		109		109		109
320	50		111		111		111		111
400	50		112		112		112		

43649 Corundum abrasive cloth (sheets)

AO

NEW

ATORN®

Design
- Carrier material: robust, oil/petroleum-resistant, highly flexible cotton fabric
- Excellent grinding performance with high-quality synthetic corundum (AO resin-bonded) and dense covering

Applications
Hand sanding of alloyed and unalloyed steels, stainless steel, chrome and chrome-nickel steel, brass, bronze, wood, paint and plastic. Fine machining of profiles and drill holes. Cleaning machine parts, rollers and shafts. Cleaning contact surfaces, as well as universal use on wood and other materials.

43649 101-110

Grain	Dimensions mm		43649	...
40	230 x 280	50 pcs.		101
60	230 x 280	50 pcs.		102
80	230 x 280	50 pcs.		103
100	230 x 280	50 pcs.		104
120	230 x 280	50 pcs.		105

Grain	Dimensions mm		43649	...
150	230 x 280	50 pcs.		106
180	230 x 280	50 pcs.		107
240	230 x 280	50 pcs.		108
320	230 x 280	50 pcs.		109
400	230 x 280	50 pcs.		110

43625 - 43626 Corundum abrasive cloth (sheets)

AO

VSM

Applications
For hand sanding of iron, steel and non-ferrous metals.

Note:
Grains 444 and 999 = polishing cloth, washed.

43625
Applications
For normal loads, sanding radii etc. Carrier material: paper.

43626
Applications
Very flexible hand sanding material for a wide range of applications. Carrier material: robust cotton fabric.

43625 200 + 43626 200
Abrasive cloth assortments
Design
Comprises 10 sheets each of 60, 80, 120, 180 and 320 grain.
Price = 50 pieces/pack.

43625

43626

Abrasive cloth assortment

Grain	Dimensions mm		43625	...	43626	...
10 each of 60/80/120/180/320	230 x 280	50 pcs.		200		200

			Blue		Brown	
Grain	Dimensions mm		43625	...	43626	...
40	230 x 280	50 pcs.		201		201
60	230 x 280	50 pcs.		202		202
80	230 x 280	50 pcs.		203		203
100	230 x 280	50 pcs.		204		204
120	230 x 280	50 pcs.		205		205
150	230 x 280	50 pcs.		206		206
180	230 x 280	50 pcs.		207		207
220	230 x 280	50 pcs.		208		208

			Blue		Brown	
Grain	Dimensions mm		43625	...	43626	...
280	230 x 280	50 pcs.				209
320	230 x 280	50 pcs.		210		210
400	230 x 280	50 pcs.		211		211
444	230 x 280	50 pcs.				213
600	230 x 280	50 pcs.				214
800	230 x 280	50 pcs.				215
999	230 x 280	50 pcs.				212

43680 Waterproof sandpaper (sheets)

SIC

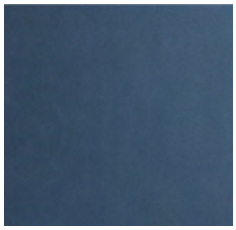
STARCKE®

Design
- Flexible
- Fully synthetic resin bond, waterproof
- Dense distribution

Advantage
- A short dip in water is sufficient, lengthy soaking is not necessary
- Use of water prevents the sandpaper from clogging quickly. This allows you to achieve an optimum service life
- No dust production
- Optimum surfaces

Applications
For wet sanding of primer, putty, filler, paint, optical lenses and gold jewellery.

Quality
Abrasive grain silicon carbide (SIC).



43680

Grain	Dimensions mm		43680 ...
100	230 x 280	50 pcs.	201
120	230 x 280	50 pcs.	202
150	230 x 280	50 pcs.	203
180	230 x 280	50 pcs.	204
240	230 x 280	50 pcs.	205
280	230 x 280	50 pcs.	206
320	230 x 280	50 pcs.	207
360	230 x 280	50 pcs.	208

Grain	Dimensions mm		43680 ...
400	230 x 280	50 pcs.	209
600	230 x 280	50 pcs.	210
800	230 x 280	50 pcs.	211
1000	230 x 280	50 pcs.	212
1200	230 x 280	50 pcs.	213
1500	230 x 280	50 pcs.	214
2000	230 x 280	50 pcs.	215
2500	230 x 280	50 pcs.	216

43692 Riptape sheet strips

AO

VSM

Design
- Sheet strips with mesh fabric

Applications
Universal abrasive for a variety of application areas. Suitable for grinding surfaces and profiles in hard and soft wood, for sanding paint and varnish with a low contact pressure etc. Suitable for sanding block art. no. 43693 100.

Quality
Abrasive grain synthetic corundum (AO).

43692

Grain	Dimensions mm		43692 ...
60	140 x 67	50 pcs.	101
80	140 x 67	50 pcs.	102
100	140 x 67	50 pcs.	103
120	140 x 67	50 pcs.	104

43693 Sanding block

VSM

Design
- Double hand sanding block
- Ergonomic shape
- High degree of flexibility
- VSM riptape strips KP131K can be fitted on each side

Applications
Suitable for a variety of applications. Suitable for sheet strips for sanding block art. no. 43692 101–104.

Quality
Medium-hard, high-quality cellular rubber.

43693

L x W mm	43693 ...
140 x 67	100

43696 Sanding cork

Design
Made of top-quality, non-porous, compressed sanding cork.

Applications
For re-tensioning and holding sandpaper. The ideal hand tool for workshops and factories.

43696

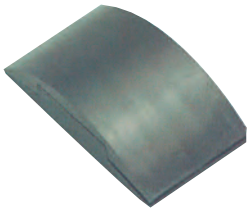
L x W x H approx. mm	43696 ...
115 x 60 x 24	101

43697 Special sanding block (soft PVC)

Design
Black, high quality, with vulcanised holding pins, a handy shape and recessed handles.

Applications
For clamping abrasive cloth and paper.

43697



L x W x H mm	43697 ...
120 x 70 x 32	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43698 Sanding sponges

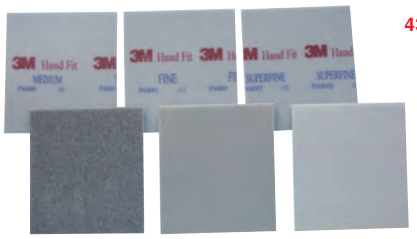
AO

3M

Design
3M Handfit sanding sponges are single-sided soft pads in economical and ergonomic palm size for machining profiled workpieces.

Design features: Polyurethane foam, synthetic bond.
Applications
Universal sanding sponge for wood and paint sanding applications.
Quality
Abrasive grain synthetic corundum (AO).

43698



Grain	Coating	Dimensions mm	43698	...
Medium/P 60	1-sided	90 x 100 x 5		101
Fine/P 100	1-sided	90 x 100 x 5		102
Superfine/P 220	1-sided	90 x 100 x 5		103

43700 Sanding sponges

AO SIC

3M

Design
Extremely adaptable. Foam underlay, fully synthetic resin bond.

Applications
For fine work on wood, filler and painted surfaces. Particularly suitable for difficult-to-access and profiled surfaces.

43700

Grain	Abrasive mineral	Coating	Dimensions mm	43700	...
Fine/P 100	Synthetic corundum	4-sided	68 x 100 x 26		101
Medium/P 60	Synthetic corundum	4-sided	68 x 100 x 26		102
Fine/P 100	Silicon carbide	2-sided	98 x 125 x 13		103

43699 Universal sanding blocks

SIC

KLINGSPOR

Design
In an easy-to-handle shape, elasticated rubber interspersed with abrasive grain, chemically neutral, silicon-free, largely resistant to solvents, acids and alkalis. Can be used dry and wet. Free from hazardous materials, making it safe and environmentally friendly.
Applications
For buffing, smoothing, finishing, removing and de-rusting. For removing layers of oxidation on welding seams and solder joints. Suitable for all metals, woods and plastics. The ideal hand tool for workshops and factories.

Quality
Silicon carbide abrasive grain (SIC).

43699

Grain	L x W x H mm	43699	...
60 Coarse	80 x 50 x 20		101
120 Medium	80 x 50 x 20		102
240 Fine	80 x 50 x 20		103

43670 Sanding blocks siasponge Block hard and Block soft

AO

SIA ABRASIVES

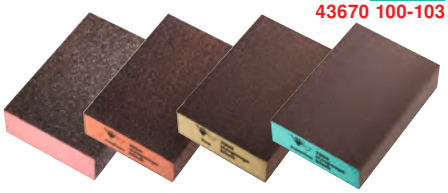
Design
- Easy to use
- Grain coating on all four sides and around the edges
- Adapts perfectly to all seams, edges and profiles
- Easy to clean
- Can be used several times
- Grain type: Corundum
- Binder: elastic

Advantage
- Colour coding
- Minimal clogging
- Can be used wet and dry
- Coated on four sides
- Uniform pressure distribution

Applications
- For easy and rapid surface machining
- For universal use
- Sanding wood, metal or plastic before applying colour
- Fine sanding of fillers
- Intermediate sanding of paint and varnish
- Sanding seams and gentle curves

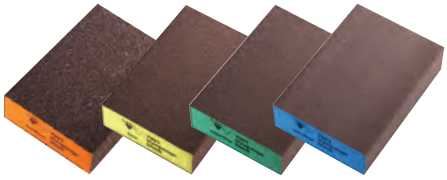
43670 100-105
siasponge block, hard
Design
- Pressure is applied more firmly to the entire surface of the workpiece
- Focus is on material removal
- Carrier material/underlay: Hard PU (polyurethane)

43670 100-103



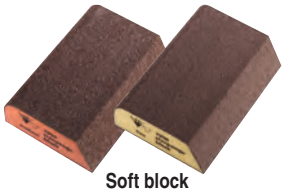
43670 200-203
siasponge block soft
Design
- Adapts better to the shape of the workpiece
- Focus is on finish
- Carrier material/underlay: Soft PU (polyurethane)

43670 200-203



43670 104-105
Combination blocks
Applications
The specially designed shape guarantees ease of use in instances where only one side needs to be ground or in round profiles.

43670 104-105



Grain	Foam colour	L x W x H mm			Hard block 43670	...	Soft block 43670	...
Coarse	Red	98 x 69 x 26	10 pcs.			100		
Medium	Orange	98 x 69 x 26	10 pcs.			101		200
Fine	Yellow	98 x 69 x 26	10 pcs.			102		201
Superfine	Green	98 x 69 x 26	10 pcs.			103		202
Ultrafine	Blue	98 x 69 x 26	10 pcs.					203
Medium	Orange	98 x 69 x 26	10 pcs.	Combination block		104		
Fine	Yellow	98 x 69 x 26	10 pcs.	Combination block		105		

43670 Sanding pads siasponge flex

AO

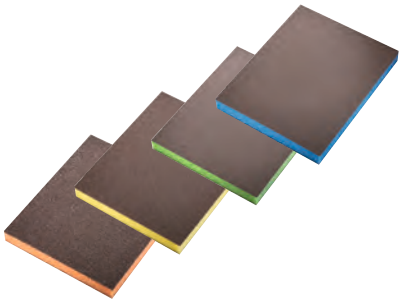
Design
- Extra-soft carrier material
- Grain coating on two sides
- Adapts perfectly to all profiled and rounded workpieces
- Does not tend to clog even when used in filler, varnish and paint applications
- Perfect, uniform grinding finish without scratches
- Can also be used damp for specific applications
- Grain type: Corundum
- Binder: elastic
- Carrier material/underlay: PU (polyurethane)

Advantage
- Colour coding
- Does not sand through paint or lacquer
- Adapts perfectly to the workpiece
- Minimal clogging
- Can be used several times

Applications
- For maximum adaptability
- Sanding wood, metal or plastic before applying colour
- Fine sanding of fillers
- Grinding flat surfaces, rounded areas and profiles
- Grinding without changing the surface shape

Quality
Abrasive grain synthetic corundum (AO).

43670 300-303



Grain	Foam colour	L x W x H mm		43670	...
Medium	Orange	120 x 98 x 13	10 pcs.		**300**
Fine	Yellow	120 x 98 x 13	10 pcs.		**301**
Superfine	Green	120 x 98 x 13	10 pcs.		**302**
Ultra-fine	Blue	120 x 98 x 13	10 pcs.		**303**

Info siasponge

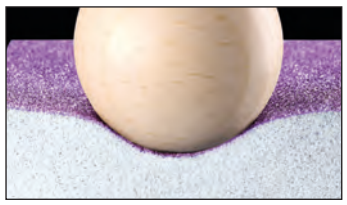
Advantages of foam as backing material

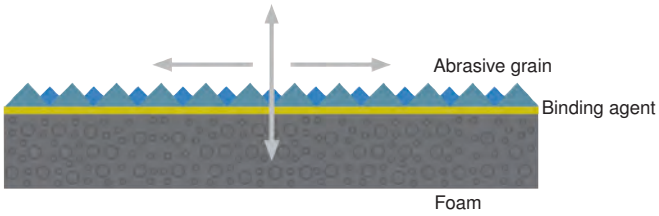
Maximum form adaptability
Their ability to adapt to shapes makes foam abrasives the perfect choice for difficult-to-access and profiled surfaces.
Uneven surfaces such as profiles, round rods and curved shapes are the ideal application for siasponge. The sophisticated shapes of the siasponge block series make machining seams and curves easier.

The benefit for you
- Perfect adaptation to the workpiece, even in difficult-to-access areas
- Foam distributes pressure for perfect surface results
- Impossible to sand through paint layers due to excessive contact pressure

Low clogging thanks to 3D effect
A combination of soft carrier material and flexible grain bond minimises clogging of the foam abrasive. The sanding dust is continuously pushed out of the areas between the grains. The clogging behaviour has been further improved with the use of more elastic binding agents and an optimised scatter process along with improved 3D embedding of the abrasive grain. This means the pad can be reused several times.

The benefit for you
- Longer service life due to lower clogging
- Can be reused multiple times





Benefits for the user:
- Grain can be clearly recognised through colour coding
- Highly flexible abrasive
- Grain side does not discolour
- Corners of sanding pad do not warp or fold
- No pungent solvent smell
- Improved grain consistency for a uniform grinding finish
- Suitable for a range of uses on plastics, compound materials, paints, varnishes, old coatings, fillers and primers

Application range:
Paint and varnish
Soft pad: Dry sanding
Soft disc: Dry, damp, wet sanding

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43688 - 43689 Sanding sheets

AO

BOSCH

43688 200
Sanding sheet set for orbital sanders
Design
- Bosch Expert for Wood and Paint
- Comprises 10 sheets: 4x 60 grain, 4x 120 grain, 2x 180 grain
- 93 x 186 mm
- Perforated
- With riptape layer

Applications
The expert on sanding all types of wood, wood materials, paints and varnishes. Suitable for common orbital sanders.

43688 201-207
Design
- 93 x 186 mm
- Perforated
- With riptape layer

43688 300
Sanding sheet set
Design
- Comprises 10 sheets: 4x 60 grain, 4x 120 grain, 2x 180 grain
- 115 x 230 mm
- Perforated
- With riptape layer

43688 301-307
Design
- 115 x 230 mm
- Perforated
- With riptape layer

43689 201-207
Design
- 93 x 230 mm
- Non-perforated
- Without riptape layer

43689 301-307
Design
- 115 x 280 mm
- Non-perforated
- Without riptape layer

43689 301

Perforated		93 x 186 mm		115 x 230 mm	
Grain	Pack = pieces	43688	...	43688	...
4x60, 4x120, 2x180	-		200		300
40	10		201		301
60	10		202		302
80	10		203		303
100	10		204		304
120	10		205		305
180	10		206		306
240	10		207		307

Unperforated		93 x 230 mm		115 x 280 mm	
Grain	Pack = pieces	43689	...	43689	...
40	10		201		301
60	10		202		302
80	10		203		303
100	10		204		304
120	10		205		305
180	10		206		306
240	10		207		307

43686 Riptape sanding discs

AO

BOSCH

Design
With riptape fastening for quick sheet change and suction holes for internal dust extraction.
Applications
Suitable for Bosch **palm sanders,** Metabo, Makita riptape system. For quick, high-volume material removal, outstanding service life. For all wood types, chipboard and construction panels. Also suitable for metal.

Quality
Corundum with synthetic resin bond.

43686

Grain	Pack = pieces	43686	...
40	5		101
60	5		102
80	5		103

Grain	Pack = pieces	43686	...
120	5		104
60/120/240	6 (2 each of 60, 120 and 240 grain)		105

43684 Riptape sanding discs

AO

AVSM

Design
- Strong paper
- With riptape layer
- Stearate additive above 60 grain for better chip removal and to prevent premature clogging

Applications
Suitable for **random orbital sanders** from AEG, Bosch, DeWalt, Metabo, Milwaukee.
For paint, varnish, fine and polyester putty, plastic, primer and much more.
Quality
Abrasive grain synthetic corundum (AO).

43684

Grain	Stearate additive	Pack = pieces	8 hole Ø 125 mm 43684	...	6 hole Ø 150 mm 43684	...
40	-	50		301		201
60	x	50		302		202
80	x	50		303		203
120	x	50		304		204
240	x	50		306		206

43681 Riptape sanding discs

AO

BOSCH

Design
- Perforated
- With riptape layer
- Calcium stearate coating minimises premature clogging

Applications
For sanding wood, paint, varnish, putty.

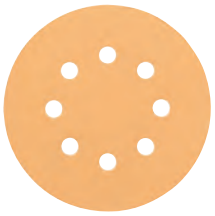
Quality
Abrasive grain synthetic corundum (AO).

43681 401-405
Applications
8 holes, suitable for **random orbital sanders** from Bosch, DeWalt, Festool, Makita, Metabo.

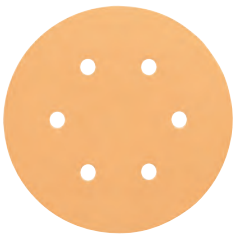
43681 501-505
Applications
6 holes, suitable for **random orbital sanders** from AEG, Bosch, DeWalt, Metabo, Milwaukee.

perfect FINISH

43681 401-405



43681 501-505



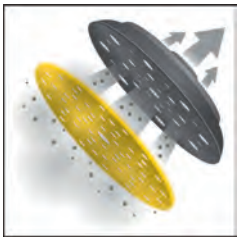
Grain	Pack = pieces	8 hole Ø 125 mm 43681 ...	6 hole Ø 150 mm 43681 ...
40	50	401	501
60	50	402	502
80	50	403	503
120	50	404	504
240	50	405	505

43685 Riptape intermediate disc for random orbital sanders

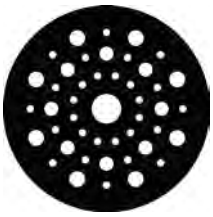
One for all

Dust FREE

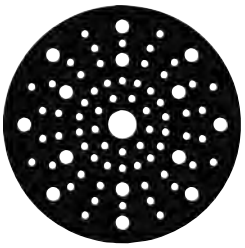
Applications
Multi-hole riptape intermediate disc for random orbital sanders with Ø 125 mm and Ø 150 mm. The protective disc with siafast riptape system protects the installed support plate from unintentional damage. The new multi-hole pattern makes the disc suitable for universal use.



43685 101



43685 102



Ø mm	Number of holes	For disc Ø mm		43685 ...
123	45	125	2 pcs.	101
147	80	150	2 pcs.	102

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One for all

Dust FREE

BOSCH

Design

- Universal support plate compatible with all common brands

- The new multi-hole system allows the plate to be used with all common hole patterns
- In contrast to conventional hole patterns, the plate allows better extraction and therefore faster removal along with extended disc service life
- Achieves 35% higher material removal and three-times longer service life in combination with grinding discs art. no. 43682 and 43683

Compatible brands:

e.g. Bosch, Festool, Makita, DeWalt, Mirka, 3M, Dynabrade.

Note:

The support plate can also be protected from damage with intermediate disc art. no. 43685.

43687 301+101+201
Soft/grey
Applications

As preparation for intermediate grinding or finishing for high surface quality. For pronounced curvature and waves.

43687 302+102+202
Medium/black
Applications

Universal use.
Also particularly for intermediate grinding to prepare a painted surface. For flat and curved surfaces.

43687 303+103+203
Hard/blue
Applications

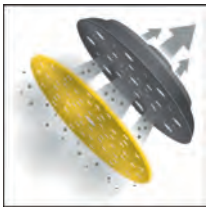
Coarse grinding, e.g. of paint, filler, plaster and unprocessed natural wood. For flat surfaces and narrow areas, high edge strength.

43687 301–303
Applications

Suitable for Bosch
GEX 150 AC,
GEX 150 Turbo,
GEX 125-150 AVE.

Scope of delivery:

- 1 multi-hole sanding pad
- 1 M8 screw



43687 101-203
Applications

Suitable for **5/16-inch thread**, e.g. 3M, Mirka **and M8 thread**, e.g. Festool, Makita, DeWalt.

Scope of delivery:

- 1 multi-hole sanding pad
- 1 5/16-inch screw
- 2 washers
- 1 M8 screw
- 1 Festool/Makita adapter
- 1 DeWalt adapter

Soft 1 2 **3** Ø150 — 43687 301

Soft 1 2 **3** Ø125 — 43687 101

Soft 1 2 **3** Ø150 — 43687 201

Medium 1 **2** 3 Ø150 — 43687 302

Medium 1 **2** 3 Ø125 — 43687 102

Medium 1 **2** 3 Ø150 — 43687 202

Hard **1** 2 3 Ø150 — 43687 303

Hard **1** 2 3 Ø125 — 43687 103

Hard **1** 2 3 Ø150 — 43687 203

Ø mm	Suitable for	Version	Application	Colour	43687 ...
150	Bosch	Soft	Finishing	Grey	301
150	Bosch	Medium	Intermediate sanding	Black	302
150	Bosch	Hard	Coarse sanding	Blue	303
125	Various manuf.	Soft	Finishing	Grey	101
125	Various manuf.	Medium	Intermediate sanding	Black	102
125	Various manuf.	Hard	Coarse sanding	Blue	103
150	Various manuf.	Soft	Finishing	Grey	201
150	Various manuf.	Medium	Intermediate sanding	Black	202
150	Various manuf.	Hard	Coarse sanding	Blue	203

Info — Dust-free grinding with the Bosch multi-hole pads

BOSCH

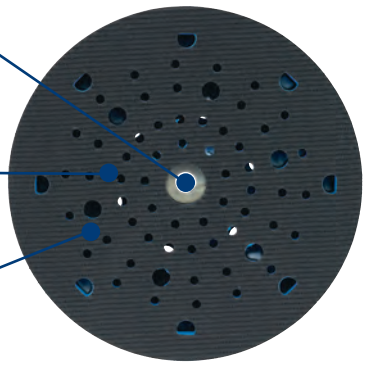
The new Bosch multi-hole pads offer state of the art dust extraction

Pad compatibility
Unique feature: One pad, compatible with all common brands, such as Bosch, Festool, Makita, DeWalt, Mirka, 3M, Dynabrade and Rupes

All for one:

Versatile hole pattern
Suitable for all disc hole patterns and riptape types

Dust extraction
Significantly better dust extraction than the current 6-/8-hole standard pads from Bosch



Info — Product profile: Bosch multi-hole pad

Soft

For finishing and fine sanding in preparation for an intermediate or final coat of paint with a high-quality surface, pronounced curves and arcs

Medium

For intermediate sanding to prepare a painted surface and for universal use on flat and wavy surfaces

Hard

For coarse sanding, e.g. of paint, filler, gypsum and untreated natural wood, for flat surfaces and narrow edges, high edge strength

Info — Product range: Bosch multi-hole pad

BOSCH

Available in various diameters

Orbital sander		GEX 150 AC GEX 150 Turbo GEX 125-150 AVE	5/16 inch: 3M, Mirka, Dynabrade, Rupes	5/16 inch: 3M, Mirka, Dynabrade, Rupes M8: Festool, Makita, DeWalt
Diameter		**150 mm**	**125 mm**	**150 mm**
Soft	HHW no.	43687 301	43687 101	43687 201
	Bosch no.	2 608 601 568	2 608 601 333	2 608 601 336
Medium	HHW no.	43687 302	43687 102	43687 202
	Bosch no.	2 608 601 569	2 608 601 332	2 608 601 335
Hard	HHW no.	43687 303	43687 103	43687 203
	Bosch no.	2 608 601 570	2 608 601 331	2 608 601 334

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43748 - 43749 Riptape sanding discs

AO

VSM

Design
Synthetic corundum layer, synthetic resin bond, mesh fabric layer on rear.
Applications
For support plate art. no. 43760.
Quality
Abrasive grain synthetic corundum (AO).

Note:
Quick disc change, no screws, no glue. Pull disc off support plate, press new disc centrally onto plate.

43748 - 43749

Grain		115 mm Ø 43748	...	125 mm Ø 43749	...
40	50 pcs.		101		101
60	50 pcs.		102		102
80	50 pcs.		103		103
120	50 pcs.		104		104

43750 Riptape sanding discs, ceramic abrasive grain

TopSize CER

VSM

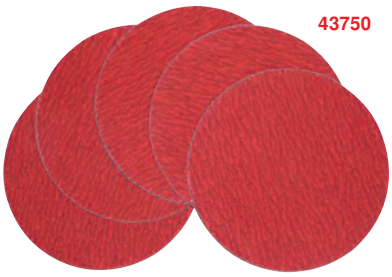
Design
- Aggressive and low-temperature grinding

Self-sharpening effect:
- Higher, more consistent material removal
- Significantly longer service life
- Significantly shorter machining times

Additional active grinding layer TOP SIZE:
- Ideal for machining stainless and heat-resistant steels
- Cutting performance is several times higher
- Creates an optimum surface finish

Applications
VSM CERAMICS grinding discs made of robust polyester cloth are suitable for surface polishing of high-alloy steel, nickel-based alloys, titanium alloys, brass and bronze etc. Suitable for support plate, art. no. 43760.
Quality
Ceramic abrasive grain (CER) with TopSize coating.

43750



Ø mm	Grain	Max. permitted rotation speed rpm	Recommended rotation speed rpm		43750	...	43750	...
115	60	5,300	5,000	50 pcs.		201		
115	80	5,300	5,000	50 pcs.		202		
115	100	5,300	5,000	50 pcs.		203		
115	120	5,300	5,000	50 pcs.		204		
125	60	4,850	4,600	50 pcs.				301
125	80	4,850	4,600	50 pcs.				302
125	100	4,850	4,600	50 pcs.				303
125	120	4,850	4,600	50 pcs.				304

43760 Riptape support plate

VSM

Design
Mushroom head fabric on adhering side which holds the riptape disc secure even under heavy load.

Applications
For M14 connecting thread.
For riptape sanding discs, art. nos. 43748–43750.

43760

Ø mm	43760	...
115		101
125		102

Fibre discs

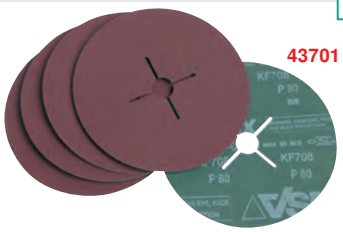
43701 - 43703 Fibre discs, synthetic corundum

AO

VSM

Design
Vulcanised fibre disc, with synthetic corundum layer, fully synthetic resin bond, Cross hole, 22 mm.

Applications
For coarse and fine sanding on level and wavy parts. Can be used on high-performance angle grinders (max. working speed 80 m/sec.) in conjunction with a support plate, art. nos. 43740 and 43744.
Quality
Abrasive grain synthetic corundum (AO).



43701 - 43703

Grain		115 mm Ø 43701	...	125 mm Ø 43702	...	180 mm Ø 43703	...
16	50 pcs.			101			101
24	50 pcs.			102		102	102
36	50 pcs.			104		104	104
40	50 pcs.			100		100	100
50	50 pcs.			105		105	105

Grain		115 mm Ø 43701	...	125 mm Ø 43702	...	180 mm Ø 43703	...
60	50 pcs.			106		106	106
80	50 pcs.			107		107	107
100	50 pcs.			108		108	108
120	50 pcs.			109		109	
150	50 pcs.			110		110	

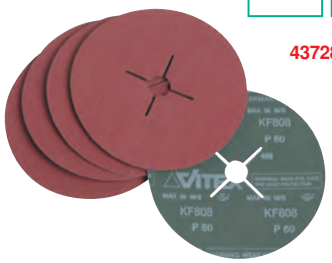
43728 - 43730 Fibre discs, synthetic corundum

TopSize AO

VSM

Design
Very strong and resistant vulcanised fibre disc, synthetic corundum layer, full synthetic resin with TOP SIZE additional active grinding layer. Low-temperature grinding, high chip removal, long service life.

Applications
For manual **pre-, intermediate and final sanding.** Grinding of alloyed rust-, acid- and heat-resistant steel, stainless steel containers. Use on all pneumatic and electric disc sanders and angle grinders in conjunction with a support plate, art. no. 43740 and 43744.
Quality
Synthetic corundum abrasive grain (AO) with Topsize coating.



43728 - 43730

Grain		115 mm Ø 43728	...	125 mm Ø 43729	...	180 mm Ø 43730	...
36	50 pcs.			101		101	101
50	50 pcs.			098		098	
60	50 pcs.			102		102	102

Grain		115 mm Ø 43728	...	125 mm Ø 43729	...	180 mm Ø 43730	...
80	50 pcs.			103		103	103
100	50 pcs.			104		104	104
120	50 pcs.			105		105	105

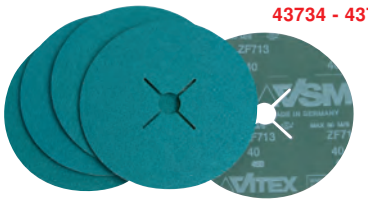
43734 - 43736 High-performance zirconia alumina fibre discs

ZA

VSM

Design
Very strong and resistant vulcanised fibre disc, **zirconia alumina,** normal scatter, fully synthetic resin bond. Low-temperature grinding, **long service life,** aggressive grinding performance even with low contact pressure.

Applications
For manual **pre-, intermediate and final sanding.** Grinds unalloyed steels, grey cast iron, non-ferrous metals and much more. Use on all pneumatic and electric disc sanders and angle grinders in conjunction with a support plate, art. no. 43740 and 43744.
Quality
Abrasive grain, zirconia alumina (ZA).



43734 - 43736

Grain		115 mm Ø 43734	...	125 mm Ø 43735	...	180 mm Ø 43736	...
24	25 pcs.			101		101	101
36	25 pcs.			102		102	102
40	25 pcs.			103		103	103

Grain		115 mm Ø 43734	...	125 mm Ø 43735	...	180 mm Ø 43736	...
60	25 pcs.			104		104	104
80	25 pcs.			105		105	105

43704 Ceramic abrasive grain fibre discs

TopSize CER

VSM

Design
- Special grinding technology for aggressive and cool grinding

VSM CERAMICS abrasive grain:
- Continually self-sharpening
- Very high material removal rate
- Long service life

Additional active grinding layer TOP SIZE:
- Cutting performance is several times higher
- Discolouration of the workpiece is prevented

Applications
In manual applications, the VSM CERAMICS fibre discs are suitable for flat grinding of high-alloy steels, nickel-based alloys, titanium alloys, brass and bronze etc.
Quality
Ceramic abrasive grain with TopSize coating.

43704

Grain		115 mm Ø 43704	...	125 mm Ø 43704	...
40	50 pcs.			101	201
60	50 pcs.			102	202
80	50 pcs.			103	203

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43706 - 43708 Ceramic abrasive grain fibre discs/CERAMICS PLUS

TopSize CER

VSM

Design
- Abrasive grain with optimised **self-sharpening effect:** The micro-crystalline structure of the ceramic abrasive grain allows it to wear down in a controlled manner during grinding
- Aggressive cutting behaviour
- Low working temperatures
- Significantly longer service life

Additional active grinding layer TOP SIZE:
- Ideal for machining stainless and heat-resistant steels
- Cutting performance is several times higher
- Creates an optimum surface finish

Applications
The VSM CERAMICS Plus fibre discs are suitable for flat grinding of high-alloy steels, nickel-based alloys, titanium alloys, brass and bronze etc.
Quality
Ceramic abrasive grain with TopSize coating.

43706 - 43708

Standard ceramic abrasive grain

VSM CERAMICS PLUS

Grain		115 mm Ø 43706	... 43707	... 43708	...
24	50 pcs.		201	201	201
36	50 pcs.		202	202	202
40	50 pcs.		203	203	203
50	50 pcs.		204	204	204

Grain		115 mm Ø 43706	... 43707	... 43708	...
60	50 pcs.		205	205	205
80	50 pcs.		206	206	206
120	50 pcs.		207	207	207

43715 - 43717 Ceramic abrasive grain fibre discs, Cubitron™ II

CER

3M

Design
- To make grinding processes more efficient, 3M developed the Cubitron™ II generation and designed high performance abrasive grain in a defined, geometric shape
- The very sharp cutting surface boasts an unprecedented removal rate and service life
- The benefits of Cubitron™ II discs are felt in all metalworking operations, including steel construction, container construction, welding shops, foundries and forges
- They replace and improve on conventional fibre discs as well as surface sanding tasks conducted by roughing and flap discs
- Cross hole, 22 mm

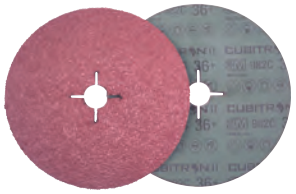
Applications
- Weld seam preparation/removal
- Machining cast parts
- Chamfering before welding
- General removal tasks

Can be used on high-performance angle grinders (max. working speed 80 m/sec.) in conjunction with a support plate, art. no. 43717.
Quality
Ceramic abrasive grain (CER).

43715
982C Cubitron™ II
Applications
On steel, tool steel and non-ferrous metals.

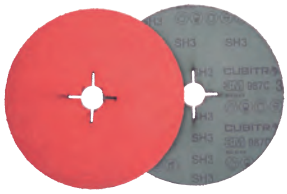
43716
987C Cubitron™ II
Applications
A binding additive reduces the grinding temperature (grinding aid). The resulting cooler grind sets new boundaries in particular for stainless steels with low thermal conductivity, nickel alloys and titanium.

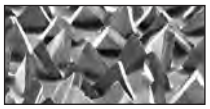
43715



TopSize

43716





Abrasive Grain Cubitron™ II

Conventional ceramic abrasive grain

43717

Grain	Ø mm	982C 43715	... 987C 43716	... Support plate 43717	...
36	115		101	101	
36	125		102	102	
36	178		103	103	
60	115		201	201	
60	125		202	202	
60	178		203	203	
80	115		301	301	
80	125		302	302	
80	178		303	303	
-	115				101
-	125				102
-	178				103

43717
Support plate
Applications
The support plate has been specially developed for the Cubitron™ fibre discs (art. no. 43715–43716) and makes an impressive contribution to the final result. In combination with an angle grinder and the 3M 982C and 987C fibre discs, this newly designed, ribbed support plate achieves double the removal rate of conventional products (actual grinding results depend on the respective application process).

43718 Ceramic abrasive grain fibre discs VICTOGRAIN-COOL

VICTO GRAIN CER

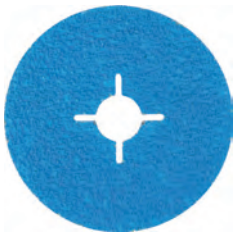
PFERD

Design
For extremely aggressive grinding with maximum removal rate on steel materials, hard materials and those with low thermal conductivity, while maintaining an extremely long service life. Continuous ultimate performance thanks to the VICTOGRAIN abrasive grain. Active grinding additives in the coating noticeably increase the removal rate, prevent clogging and facilitate cooler grinding.
Advantage
- Constant maximum removal rate with an extremely long service life and cool grinding

Machinable materials:
Nickel-based alloys (e.g. Inconell and Hasteloy), non-ferrous metals, highly heat-resistant materials, hard non-ferrous metal, stainless steel (INOX), steel, steel casting, hardened and tempered steels above 1200 N/mm² (above 38 HRC).
Applications
- Smoothing
- Deburring
- Surface machining
- Edge machining
- Welding seam machining

Quality
Ceramic abrasive grain (CER).

NEW



43718

Ø mm	Grain	Hole Ø mm	Max. permitted rotation speed rpm		43718 ...
115	36	22	13,300	25 pcs.	**101**
125	36	22	12,200	25 pcs.	**201**

43740 Support plate

Design
- Support plate with good contour adaptation due to high flexibility

Advantage
- Particularly suitable for components with contours/rounded areas

Applications
For use on angle grinders with an M14 thread.

43740

For fibre disc Ø mm	Chuck	Ø mm	43740 ...
115	M14	112	**101**
125	M14	125	**102**
180	M14	178	**103**

43744 Turbo support plate

Design
- High performance support plate with open segment structure/cooling fins for active cooling of the workpiece surface
- Boasts cool grinding and high removal rate

Advantage
- Open segment structure removes heat from the machining process
- Fibre disc provides consistent removal and increased service life
- Extremely dimensionally stable, particularly in flat grinding
- Particularly suitable for machining stainless steel

Applications
For use on angle grinders with an M14 thread.

43744

For fibre disc Ø mm	Clamping nut	Ø mm	43744 ...
115	M14	112	**101**
125	M14	125	**102**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43720 Scotch-Brite™ riptape fleece discs

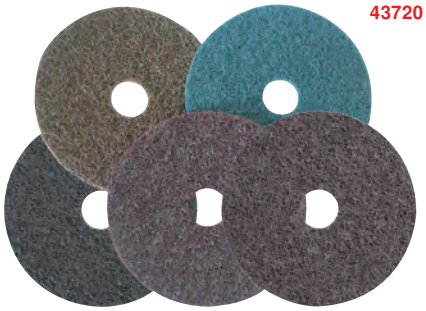
AO

3M

Design
With fabric underlay, removable centre core for exact positioning and holding the disc on the support plate, which significantly reduces vibrations.

Applications
For reducing surface roughness after grinding, removing discolouration and finishing welding seams. Only for angle grinders with riptape support plates, see art. no. 43722.

Quality
Abrasive grain synthetic corundum (AO).



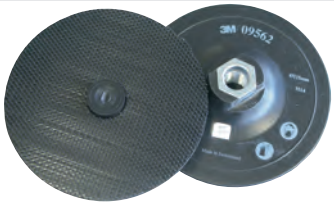
43720

Ø mm	Grain	Max. permitted rotation speed rpm	Recommended rotation speed rpm		43720	...	43720	...
115	Extra coarse/P 50	5,300	3,300	20 pcs.		101		
115	Extra coarse/P 80	5,300	3,300	20 pcs.		102		
115	Coarse/P 100-120	5,300	3,300	20 pcs.		103		
115	Medium/P 180–220	5,300	3,300	20 pcs.		104		
115	Fine/P 360	5,300	3,300	20 pcs.		105		
125	Extra coarse/P 50	4,850	300	20 pcs.				201
125	Extra coarse/P 80	4,850	300	20 pcs.				202
125	Coarse/P 100–120	4,850	300	20 pcs.				203
125	Medium/P 180–220	4,850	300	20 pcs.				204
125	Fine/P 360	4,850	300	20 pcs.				205

43722 Riptape support plate with centring

3M

Design
With centring. Adhering side with double T-hook system for a secure hold of riptape fleece discs.
Applications
For M14 connecting thread.
For riptape fleece discs, art. no. 43720.



43722

Ø mm	43722	...
115		101
125		201

43754 - 43755 Abrasive fleece discs

HERMES

Design
Compact, intensive-grinding fleece design without central hole.

Applications
For surface finishing, fine work, light deburring work and sanding small defects out of metal surfaces.
Recommended circumferential speed: 10–25 m/s.
For support plate art. no. 43745.

43754 - 43755

Grain	Recommended Circumferential speed m/s		115 mm Ø 43754	...	125 mm Ø 43755	...
100	10–25	10 pcs.		101		101
280	10–25	10 pcs.		102		102

43745 Riptape support plate

HERMES

Design
With special double-hook riptape fabric.
Applications
For M14 connecting thread.
For riptape sanding discs, art. nos. 43754–43755.

43745

Ø mm	43745	...
112		101
123		102

43761 - 43762 Angle grinder mop, synthetic corundum

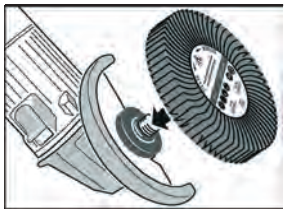
AO

KLINGSPOR

Design
Synthetic resin bond. Quick, simple clamping with integrated M14 female thread.

Applications
For all common angle grinders. For grinding, deburring, dressing steel, stainless steel, varnish, filler, paint, plastic, wood. Ideal for machining difficult-to-access areas. Not approved for wet sanding.
Quality
Abrasive grain synthetic corundum (AO).

43762



Grain	Width mm	Max. permitted rotation speed rpm	Highest working speed m/s	115 mm Ø 43761	...	125 mm Ø 43762	...
40	20	13,300	80		101		
60	20	13,300	80		102		
80	20	13,300	80		103		
40	20	12,200	80				101
60	20	12,200	80				102
80	20	12,200	80				103

Segmented grinding discs

43766 - 43769 Segmented grinding discs, synthetic corundum

TopSize AO

PFERD

Performance line A-COOL SG INOX + ALU
Advantage
- Generates less heat in the workpiece than other flap discs
- The active grinding coating means the abrasive does not clog on materials such as soft aluminium

Applications
Suitable for surface sanding, machining welding seams, chamfering and deburring. For aluminium, only 40 and 60 grain should be used. Can be used for stainless steel (INOX), aluminium, other non-ferrous metals.

Quality
Synthetic corundum abrasive grain (AO) with active grinding, cooling top layer (COOL).

Note:
Does not contain iron, sulphur or chlorine fillers.

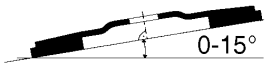
43766 - 43767
Design
- Conical shape
Recommendation:
Grain 40: Aluminium, soft metals, wood and plastics.
Grain 60: high-alloyed, stainless, heat-resistant and tempered steels.
Grain 80: highly heat-resistant alloys.

43768 - 43769
Design
- Flat shape
Recommendation:
Grain 40: Aluminium, unalloyed and low-alloyed steels, low-strength stainless steels.
Grain 60: high-alloyed, stainless, heat-resistant and tempered steels.
Grain 80: highly heat-resistant alloys.

43766 - 43769

43766 - 43767

43768 - 43769



Ø mm	Grain	Max. permitted rotation speed rpm		Conical 43766 ...	Conical 43767 ...	Flat 43768 ...	Flat 43769 ...
115	40	13,300	10 pcs.	101		101	
115	60	13,300	10 pcs.	102		102	
115	80	13,300	10 pcs.	103		103	
125	40	12,200	10 pcs.		101		101
125	60	12,200	10 pcs.		102		102
125	80	12,200	10 pcs.		103		103

43756 - 43757 Segmented grinding discs, Zirconia alumina/corundum

ZA

HHW

Design
Diagonal form. Pitch angle approx. 12°. Base disc made of fibreglass cloth. Zirconia alumina/corundum segments attached in a uniform pattern. The arrangement of the segments ensures a **high level of flexibility** and uniform, **high grinding performance.**

Applications
Suitable for metalworking, surface grinding in particular.

43756 - 43757

Grain	Hole Ø mm	Max. permitted rotation speed rpm	Highest working speed m/s		115 mm Ø 43756 ...	125 mm Ø 43757 ...
40	22.2	13,300	80	10 pcs.	101	
60	22.2	13,300	80	10 pcs.	102	
80	22.2	13,300	80	10 pcs.	103	
40	22.2	12,200	80	10 pcs.		101
60	22.2	12,200	80	10 pcs.		102
80	22.2	12,200	80	10 pcs.		103

43741 HighTech zirconia fabric segmented grinding disc

ZA

ATORN®

Design
- HighTech zirconia fabric for tremendous grinding performance on steel/stainless steel
- Self-trimming while grinding (grind to the last grain!)
- Carrier plate dampens noise and vibration while absorbing heat (natural fibre)
- Backing disc made from natural fibre compound protects the environment and the user (CO_2 neutral)
- Visco-elastic carrier plate for optimum workpiece adaptation and clean grinding finish
- Slightly angled (5° angle)
- No risk of injury from splintered fibres
- Markedly cuts down on required work steps due to high performance

Applications
Quality flap disc for machining steel and stainless steel.

Quality
Abrasive grain, zirconia alumina (ZA).

43741

Can be trimmed to the last millimetre!

Grain	Max. permitted rotation speed rpm		115 mm Ø 43741 ...	125 mm Ø 43741 ...
40	13,200	10 pcs.	101	
60	13,200	10 pcs.	102	
80	13,200	10 pcs.	103	
120	13,200	10 pcs.	104	
40	12,200	10 pcs.		201
60	12,200	10 pcs.		202
80	12,200	10 pcs.		203
120	12,200	10 pcs.		204

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43770 - 43771 Segmented grinding discs, zirconia alumina

ZA

ATORN®

Design
Diagonal form. Pitch angle approx. 12°. Cool grinding segmented grinding disc with a **bevelled fibreglass cloth carrier**. Optimum cutting performance with an excellent service life due to additional high-quality **zirconia alumina.** The disc retains its high strength even when grinding on the edges.

Applications
Also suitable for machining wavy surfaces and rounded areas in steel, stainless steel, cast iron and non-ferrous metal. Wood, plastic, paint and filler can also be machined. The workpiece cannot be damaged by the carrier.
Quality
Abrasive grain, zirconia alumina (ZA).

Note:
The diagonal shape allows grinding of difficult-to-reach areas with a working angle of 15–20°.

43770 - 43771

Grain		115 mm Ø 43770	...	125 mm Ø 43771	...
40	10 pcs.		101		101
60	10 pcs.		102		102
80	10 pcs.		103		103

43772 - 43773 Zirconia alumina segmented grinding disc, plastic plate

ZA

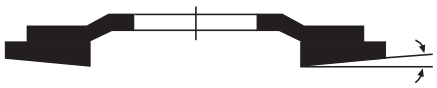
ATORN®

Design
Slightly curved shape for a variety of applications.
Additional cooling materials for cooler grinding.
50% higher removal rate, meaning less time is required. **New, food-safe backing plate** can be used (no more glass dust particles).
Circumferential speed 80 m/s.

Applications
For steel, stainless steel, non-ferrous metals, cast etc.
Quality
Abrasive grain, zirconia alumina (ZA).

43772 - 43773

Grain		115 mm Ø 43772	...	125 mm Ø 43773	...
40	10 pcs.		101		101
60	10 pcs.		102		102
80	10 pcs.		103		103
120	10 pcs.		104		104



43776 - 43778 Segmented grinding discs, zirconia alumina

ZA

ATORN®

Design
Slightly curved shape. Pitch angle approx. 8°. Low noise level, uniform grinding finish until worn out, low setup times, low-temperature grinding. Optimum use of grinding tool on mould parts and flat surfaces. Multi-layer, **straight fibreglass plate,** safe and maintains shape, **zirconia alumina segments** uniformly attached. The arrangement ensures a high degree of flexibility with high grinding performance.

Applications
For all angle grinders. For coarse and intermediate grinding when machining welding seams. For deburring, de-rusting, fettling, internal grinding of containers. For iron, normal steel, stainless steel, alloyed steels, non-ferrous metals, plastics, varnishes, paints.
Quality
Abrasive grain, zirconia alumina (ZA).

Note:
The curved shape allows grinding of difficult-to-reach areas with a working angle of 15–20°.

43776 - 43778

Grain		115 mm Ø 43776	...	125 mm Ø 43777	...	178 mm Ø 43778	...
40	10 pcs.		101		101		101
60	10 pcs.		102		102		102
80	10 pcs.		103		103		

Segmented grinding discs

43782 - 43783 Segmented grinding discs, zirconia alumina

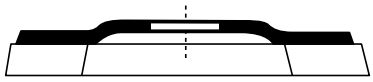
ZA

ATORN®

Design
Straight design. Low noise level, uniform grinding finish until worn out, low setup times, low-temperature grinding. Optimum use of grinding tool on mould parts and flat surfaces. Multi-layer, **straight fibreglass plate,** safe and maintains shape, **zirconia alumina segments** uniformly attached. The arrangement ensures a high degree of flexibility with high grinding performance.

Applications
For all angle grinders. For flat grinding, surface grinding and machining welding seams. For deburring, de-rusting, fettling, internal grinding of containers. For iron, normal steel, stainless steel, alloyed steels, non-ferrous metals, plastics, varnishes, paints.
Quality
Abrasive grain, zirconia alumina (ZA).

43782 - 43783



Grain		115 mm Ø 43782	...	125 mm Ø 43783	...
40	10 pcs.		101		101
60	10 pcs.		102		102
80	10 pcs.		103		103

43789 Segmented grinding discs, zirconia alumina

ZA

PFERD

POLIFAN Z SG POWER version
The POLIFAN Z SG POWER flap disc boasts aggressive machining performance and an outstanding service life, making it highly cost effective. The best conventional flap disc for steel.
Advantage
- Fast progress and maximum efficiency due to aggressive cutting performance
- Maximum aggressiveness over the entire service life
- **Cutting performance ST37 up to 5 kg**
- Outstanding service life, meaning fewer tool changes

Applications
- Steel
- Stainless steel/INOX

Machining tasks:
- Welding seam machining
- Chamfering
- Deburring

Quality
Abrasive grain, zirconia alumina (ZA).

Note:
We recommend at least a 1200 watt angle grinder.

NEW

43789 101-104

43789 201-204

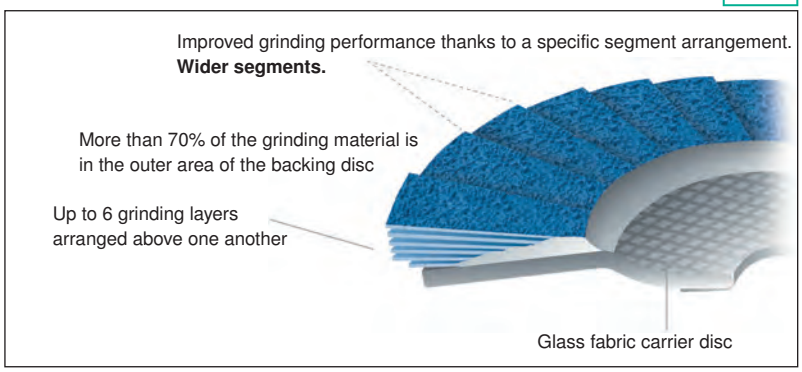
Grain	Hole Ø mm	Max. permitted rotation speed rpm		115 mm Ø 43789	...	125 mm Ø 43789	...
40	22.23	13,300	10 pcs.		101		
60	22.23	13,300	10 pcs.		102		
80	22.23	13,300	10 pcs.		103		
120	22.23	13,300	10 pcs.		104		
40	22.23	12,200	10 pcs.				201
60	22.23	12,200	10 pcs.				202
80	22.23	12,200	10 pcs.				203
120	22.23	12,200	10 pcs.				204

43758 - 43759 Segmented grinding discs, zirconia alumina

ZA

LUKAS

V2 Power
Design
Flat-diagonal form.
High-strength fibreglass plate for soft grinding behaviour. Outstanding cutting performance. Improved grinding performance due to innovative segment arrangement (up to 6 grinding layers above one another, 70% of the grinding material is in the outer area). **Long service life, outstanding removal,** reduced **abrasive consumption, time-saving.**
Applications
Optimised for universal use on a variety of different steels and on aluminium. Ideal for machining welding seams, deburring, de-rusting, dressing and smoothing.
Quality
Abrasive grain, zirconia alumina (ZA).



43758 - 43759

Grain	Hole Ø mm	Max. permitted rotation speed rpm		115 mm Ø 43758	...	125 mm Ø 43759	...
40	22.23	13,300	10 pcs.		101		
60	22.23	13,300	10 pcs.		102		
40	22.23	12,200	10 pcs.				101
60	22.23	12,200	10 pcs.				102

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43779 - 43780 Segmented grinding discs, zirconia alumina

ZA

LUKAS

SLTT

Design

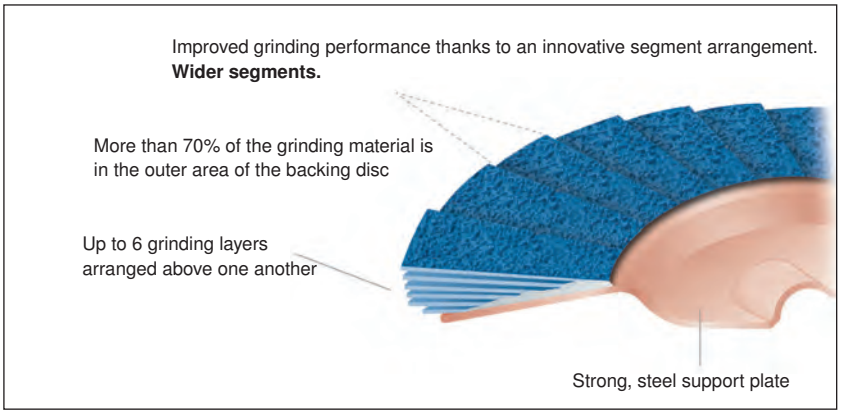
Straight design. Outstanding cutting performance, exceptional service life. Robust steel support plate, quiet, low-vibration. **Patented segment shape and arrangement** (more abrasive grains in use). **More than 70% of the abrasive grain is located on the outer portion of the carrier disc.** Up to six sanding layers arranged one on top of the other. Extremely resistant grain with high pressure resistance.

Applications

Optimised for universal use on a variety of different steels and on aluminium. Ideal for machining welding seams, deburring, de-rusting, dressing and smoothing.

Quality

Abrasive grain, zirconia alumina (ZA).



Note:

Applications for the straight design e.g. edge and surface grinding with a working angle of 0–15°.

43779 - 43780

Grain	Hole Ø mm	Max. permitted rotation speed rpm		115 mm Ø 43779	...	125 mm Ø 43780	...
40	22.23	13,300	10 pcs.		101		
60	22.23	13,300	10 pcs.		102		
40	22.23	12,200	10 pcs.				101
60	22.23	12,200	10 pcs.				102

43790 - 43791 Segmented grinding discs, ceramic abrasive grain

CER

ATORN®

Design

Slightly angled shape. Pitch angle approx. 8°. With self-sharpening ceramic abrasive grain which continuously provides an extremely high removal rate and guarantees a long service life. The ceramic abrasive grains sit on a robust polyester backing. Fully synthetic resin bond with active grinding additives guarantees the wear resistance of the abrasive grain, even under heavy loads. Low-temperature grinding on surfaces and edges.

Applications

Ideal for extreme grinding work or special tasks such as machining high-alloy steels, titanium alloys, nickel-based alloys as well as chromium and chrome-nickel steel, brass or bronze. Areas of application: Sheet metal machining, container construction, cast parts, hand tools, pipes and rods, metal structures.

Quality

Ceramic abrasive grain (CER).

43790 - 43791

Grain		115 mm Ø 43790	...	125 mm Ø 43791	...
40	10 pcs.		201		201
60	10 pcs.		202		202
80	10 pcs.		203		203

43737 Segmented grinding discs, ceramic abrasive grain

CER

3M

Cubitron ™ II

Design

- To make grinding processes more efficient, 3M developed the Cubitron™ II generation and designed high performance abrasive grain in a defined, geometric shape
- The very sharp cutting surface boasts an unprecedented removal rate and service life
- The benefits of Cubitron™ II discs are felt in all metalworking operations, including steel construction, container construction, welding shops, foundries and forges
- They replace and improve on conventional fibre discs as well as surface sanding tasks conducted by roughing and flap discs
- Faster removal and longer service life
- Fast, low-temperature grinding and optimised grinding processes
- Angled fibreglass plate

Applications

For stainless steel and structural steel:

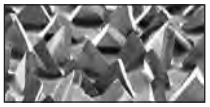
- Freeform parts
- Metal surfaces
- Single welding seams
- Cylinders

Quality

Ceramic abrasive grain (CER).

43737

Grain	Hole Ø mm	Highest working speed m/s		115 mm Ø 43737	...	125 mm Ø 43737	...
40	22.2	80	10 pcs.		101		104
60	22.2	80	10 pcs.		102		105
80	22.2	80	10 pcs.		103		106



Abrasive grain Cubitron™ II

Conventional ceramic abrasive grain

Segmented grinding discs

43753 Segmented grinding discs, ceramic abrasive grain

CER TopSize

PFERD

CO FREEZE SG INOX version

The POLIFAN flap disc, developed specifically for stainless steel (INOX) with ultra-cool grinding. Even in sub-optimal temperatures, the CO ceramic abrasive grain with active grinding, cooling special coating (FREEZE) causes **no discolouration**, **eliminating the need for reworking**.

Advantage

- FREEZE coating for significantly lower heat conduction into the workpiece
- Fast progress and high efficiency due to aggressive cutting performance
- Maximum aggressiveness over the entire service life
- Outstanding service life, meaning fewer tool changes
- Normal spark production is reduced to a minimum. This means it is virtually impossible to damage stainless steel workpieces with hot flying sparks.

Applications

- Stainless steel/INOX
- Nickel-based alloys (e.g. Inconel, Hastelloy)

Machining tasks:

- Surface grinding
- Surface machining
- Welding seam machining
- Finishing

Quality

Ceramic abrasive grain (CER) with active grinding, cooling special coating (FREEZE).

Note:

Even on the first use of POLIFAN CO FREEZE, the segments show an unusual wear pattern after a few seconds. The highly effective fillers form a glossy, cooling film on the segment (no glazing effect). This is the foundation for the ultra-cool grind.

NEW

43753 201-203

43753 301-303

Grain	Hole Ø mm	Max. permitted rotation speed rpm		115 mm Ø 43753 ...	125 mm Ø 43753 ...
36	22.23	13,300	10 pcs.	201	
50	22.23	13,300	10 pcs.	202	
80	22.23	13,300	10 pcs.	203	
36	22.23	12,200	10 pcs.		301
50	22.23	12,200	10 pcs.		302
80	22.23	12,200	10 pcs.		303

43738 Segmented grinding discs, ceramic abrasive grain

CER

LUKAS

PurpleGrain Multi

Design

- The Purple Grain Multi is a latest-generation flap disc, offering maximum removal rate with constant, aggressive cutting performance and tremendous service life
- Its unique, multi-layer design allows the powerful Purple Grain Multi to achieve maximum service life. The three grinding layers exhibit controlled wear levels until the end. This is reflected in measurable cost savings in comparison to conventional flap discs
- Constantly aggressive grinding until the last grain in the centre of the disc and the cool grind achieves a high level of surface quality without blue colouration
- Low contact pressure and quiet running for the most comfortable working possible
- The integrated M14 threaded mount allows very fast tool changes without an awkward clamping nut. With its flat tool geometry, the Purple Grain Multi achieves very good surfaces, saving on rework.

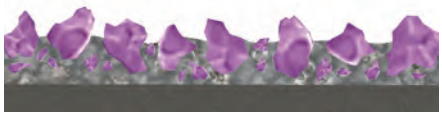
Applications

For machining stainless steel, steel.

Quality

Ceramic abrasive grain (CER).

43738



Ceramic abrasive grain structure

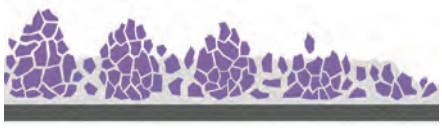


Illustration of self-sharpening effect of ceramic abrasive grain

Ø mm	Grain	Thread	Speed max. rpm		43738 ...
115	36	M14	13,300	10 pcs.	101
125	36	M14	12,200	10 pcs.	201

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43742 - 43743 Segmented grinding discs, zirconia alumina

ZA

PFERD

Special line Z SGP CURVE STEELOX
Design
The patented flap disc POLIFAN-CURVE has been specifically developed for machining fillet welds. This is the only flap disc in the world to have segments on the grinding side, the reverse side and on the edge.
Advantage
- High removal rate ensures fast progress and a significant reduction in labour costs
- Excellent service life in the machining of fillet welds
- Precise and optimum grinding of the fillet weld geometry

Applications
Suitable for machining fillet welds, weld seams, chamfering and deburring. High-performance flap disc for maximum material removal on steel and stainless steel (INOX).
Quality
Abrasive grain, zirconia alumina (ZA).

43742 101 + 43743 101
Design M
- For fillet weld radii > 5 mm
- Width at radius 11 mm.

43742 102 + 47743 102
Design L
- For fillet weld radii > 8 mm
- Width at radius 14 mm

43742 - 43743

Ø mm	Fillet weld width mm	Width at radius mm	Grain	Hole Ø mm	Max. permitted rotation speed rpm	Highest working speed m/s		43742 ...	43743 ...
115	> 5	M (11)	40	22.23	13,300	80	10 pcs.	101	
115	> 8	L (14)	40	22.23	13,300	80	10 pcs.	102	
125	> 5	M (11)	40	22.23	12,200	80	10 pcs.		101
125	> 8	L (14)	40	22.23	12,200	80	10 pcs.		102

43746 - 43747 Segmented grinding discs, ceramic abrasive grain

TopSize CER

PFERD

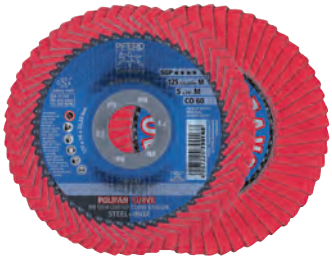
Special line CO SGP CURVE STEELOX
Design
The patented flap disc POLIFAN-CURVE has been specifically developed for machining fillet welds. This is the only flap disc in the world to have segments on the grinding side, the reverse side and on the edge.
Advantage
- High removal rate ensures fast progress and a significant reduction in labour costs
- Excellent service life in the machining of fillet welds
- Precise and optimum grinding of the fillet weld geometry

Applications
For machining fillet welds, weld seams, chamfering and deburring. High-performance flap disc for achieving fine-quality surfaces on steel and stainless steel (INOX).
Quality
Ceramic abrasive grain (CER) with active grinding, cooling special coating.

43746 101 + 43747 101
Design M
- For fillet weld radii > 5 mm
- Width at radius 11 mm

43746 102 + 43747 102
Design L
- For fillet weld radii > 8 mm
- Width at radius 14 mm

43746 - 43747



Ø mm	Fillet weld width mm	Width at radius mm	Grain	Hole Ø mm	Max. permitted rotation speed rpm	Highest working speed m/s		43746 ...	43747 ...
115	> 5	M (11)	60	22.23	13,300	80	10 pcs.	101	
115	> 8	L (14)	60	22.23	13,300	80	10 pcs.	102	
125	> 5	M (11)	60	22.23	12,200	80	10 pcs.		101
125	> 8	L (14)	60	22.23	12,200	80	10 pcs.		102

43774 - 43775 Segmented grinding discs, zirconia alumina

ZA

RHODIUS BRAINTOOLS by Rhodius

LSZ-F Vision
Design
Diagonal form. Viewing holes ensure low-temperature grinding and a clear view of the workpiece being processed. Minimises blue colouration and material distortion. **Free from iron and sulphur.**

Applications
For machining thin panels in bodywork, for edge and surface grinding, for deburring and de-rusting, for processing weld seams and offset panels.
Also for machining wavy surfaces and curves. For machining steel, stainless steel and non-ferrous metals. Wood, plastics, paints and filler can be smoothed extremely well.
Quality
Abrasive grain, zirconia alumina (ZA).

43774 - 43775

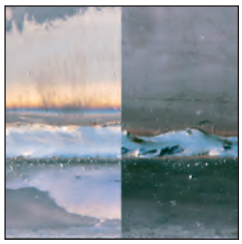
Grain	Hole Ø mm	Max. permitted rotation speed rpm	Highest working speed m/s		115 mm Ø 43774 ...	125 mm Ø 43775 ...
40	22.23	13,285	80	10 pcs.	101	
60	22.23	13,285	80	10 pcs.	102	
80	22.23	13,285	80	10 pcs.	103	
40	22.23	12,200	80	10 pcs.		101
60	22.23	12,200	80	10 pcs.		102
80	22.23	12,200	80	10 pcs.		103

Info — Segmented polishing discs: Achieve perfection with the right material!

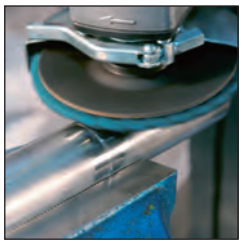
ATORN®

Due to their innovative, highly effective abrasive fleece in a segmented, fan-shaped structure, the segmented polishing discs achieve outstanding results when machining steel, stainless steel, aluminium and non-ferrous metals.

Delivers optimum results e.g. when machining welding seams, re-working welding seams or removing welding spatter in accordance with EN ISO 5817. Removes oxidation films/discolouration after welding pipelines, containers and equipment, or after plasma cutting stainless steel in accordance with DIN 50930, DIN 25410, DVGW W41.
- Descaling and de-rusting workpieces
- Preparation and subsequent polishing of welding seams
- Preparation of painted surfaces
- Polishing stainless steel



De-scaling surfaces before welding leads to cleaner welding seams



Grinding fine welding seams and removing thermal blue colouration

Professional de-rusting and de-scaling

43792 - 43793 Segmented polishing discs

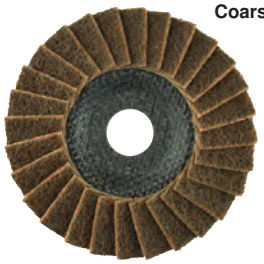
ATORN®

Design
- Innovative, highly effective abrasive fleece in a segmented, fan-shaped structure

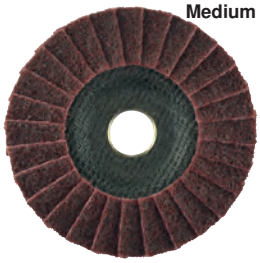
Applications
Depending on the fineness of the abrasive fleece, ideally for
- De-scaling and de-rusting workpieces made of steel, stainless steel, aluminium and non-ferrous metals
- Preparation and subsequent polishing of welding seams
- Preparation of painted surfaces
- Polishing stainless steel
- Surface machining.

Can be used for edge and surface grinding on all angle grinders without a support plate.

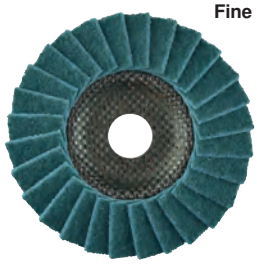
43792 201–43793 201 — Coarse



43792 202–43793 202 — Medium



43792 203–43793 203 — Fine



Ø mm	Grain	Hole Ø mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	43792	...	43793	...
115	Coarse	22.23	13,300	5,000–5,800		201		
115	Medium	22.23	13,300	5,000–5,800		202		
115	Fine	22.23	13,300	5,000–5,800		203		
125	Coarse	22.23	12,200	4,600–5,300				201
125	Medium	22.23	12,200	4,600–5,300				202
125	Fine	22.23	12,200	4,600–5,300				203

43788 Segmented felt polishing and grinding disc

HHW

Design
- Segmented disc made of 70% wool felt (height 20 mm) for polishing stainless steel and non-ferrous metals
- Also suitable for high-gloss polishing of medium to large components
- The flexibility of the individual segments allows cool airflow at all times

Advantage
- Undesirable discolouration is avoided
- The tool adapts perfectly to the workpiece
- Improved polishing paste application enables long-lasting and uniform polishing effect

Applications
Soft D5/H25: For glazing or machining workpieces with many contours
Medium D5/H40:
For pre-polishing flat surfaces

A very fine surface can be achieved by using both versions, one after the other.

For surface treatment of pre-ground workpieces. Suitable for polishing stainless steel, non-ferrous metals and for high-gloss polishing of medium to large components.

Use in conjunction with special grinding paste art. no. 43141 and polishing paste art. nos. 44380 and 44381.

For optimum results, felt products should always be used at speeds of approx. 10 m/s.

43788 101-102
Design
- Normal support plate

43788 201-202
Design
- With reduced support plate for keyway processing

43788

Reduced support plate

Flexibility	Ø mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Hole Ø mm	43788	...	43788	...
Soft D5/H25	125	7,700	1,520	22.23		101		201
Medium D5/H40	125	7,700	1,520	22.23		102		202

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43795 Grinding and polishing pad

SIC

LUKAS

Design

Diagonal version. The fleece fibre design prevents the tool from clogging, the long service life and low edge wear improve productivity.

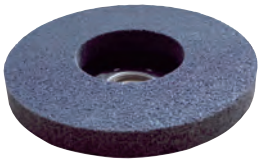
Applications

Ideal for machining stainless steels, aluminium and other non-ferrous metals. For deburring, cleaning and polishing work.

Quality

Abrasive grain silicon carbide (SIC).

43795



Hardness	Ø mm	Hole Ø mm	Max. permitted rotation speed rpm	SIC fine 43795	...
Soft	115	22.23	8,350		201
Medium	115	22.23	8,350		202

43796 Polishing disc

SIC

LUKAS

Design

- Polishing disc for angle grinder
- Polish large areas to a mirror finish in a short time
- SiC grain = silicon carbide
- Free from iron, sulphur and chlorine compounds

Advantage

- Four polishing steps to achieve a high-gloss finish
- Long service life
- Quick, clean working
- Works without polishing paste

Product benefits:

- Polish even large areas quickly and effortlessly using your controlled angle grinder
- Thanks to the four polishing discs with different grain sizes, you can quickly achieve the desired surface result
- Even lacquer can be removed without clogging the tool
- Clean your workpiece and refine the surface in one operation

Applications

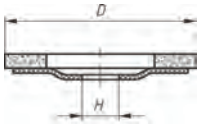
Suitable for controlled angle grinders.
Cleaning or removing paint from components, removing filler and putty (paint shops), removing powder coating, de-rusting and fine deburring, polishing a wide variety of materials.

Quality

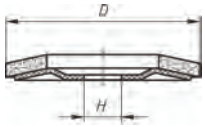
Abrasive grain silicon carbide (SIC).

43796

43796 300-304



43796 400-404



	Grain	Ø D mm	Hole Ø H mm	Vmax m/s	Max. permitted rotation speed rpm	Flat 43796	...	Diagonal 43796	...
Set, 4 pieces	150/240/400/800	125	22.23	32	4,850		300		400
Single	150	125	22.23	32	4,850		301		401
Single	240	125	22.23	32	4,850		302		402
Single	400	125	22.23	32	4,850		303		403
Single	800	125	22.23	32	4,850		304		404

43800 - 43801 Scotch-Brite™ coarse cleaning discs

SIC

3M

Applications

De-rusting, removing paint, cleaning welding seams, removing severe surface contamination and coatings. For radial use. Use on straight grinders, flexible shafts or drills.

Quality

Abrasive grain silicon carbide (SIC).

43800 201-202
XT-RD
Design

Edge-stable, aggressive, open structure, does not clog. Supplied **without** clamping mandrel.

43800 200+203
CG-RD
Design

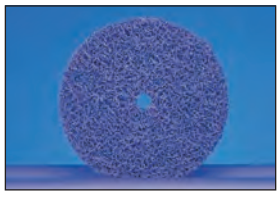
More flexible than XT, aggressive, open texture, does not clog. Supplied **without** clamping mandrel.

43801

43801
Clamping mandrels
Applications

For clamping 1 or 2 coarse cleaning discs XT-DC/CG-DC and 1 or 2 Bristle Brush™ polishing and deburring discs (art. no. 47400) on straight grinders, flexible shafts or drills.

43800



Type	Ø mm	Grain	Working width mm	Recommended rotation speed rpm	Max. permitted rotation speed rpm	Pack = pieces	Number of discs	Shaft Ø mm	Sanding disc 43800	...	Clamping mandrel 43801	...
XT-DC	100	Extra coarse/P 60–80	13	3,500–4,000	6,000	2	-	-		201		
XT-DC	150	Extra coarse/P 60–80	13	2,400–2,700	4,000	2	-	-		202		
CG-DC	100	Extra coarse/P 60–80	13	3,500–4,000	6,000	2	-	-		200		
CG-DC	150	Extra coarse/P 60–80	13	2,400–2,700	4,000	2	-	-		203		
-	-	-	-	-	-	-	1	6				101
-	-	-	-	-	-	-	2	8				102

43803 POLICLEAN® shaft tools

SIC

PFERD

Design
Coarse, abrasive cleaning fleece made of a special combination of synthetic fibres and abrasive grain.

Applications
For universal circumferential grinding. Flexible shafts, electric and pneumatic straight grinders can be used as drive machines.
Quality
Abrasive grain silicon carbide (SIC).

43803

Ø x Width mm	Shaft Ø mm	Recommended rotation speed rpm	Max. permitted rotation speed rpm	43803	...
50 x 13	6	6,000–7,000	15,000		**101**
50 x 26	6	6,000–7,000	15,000		**102**
75 x 13	6	4,000–5,100	10,000		**103**
75 x 26	6	4,000–5,100	10,000		**104**
100 x 13	6	3,000–3,800	7,500		**105**

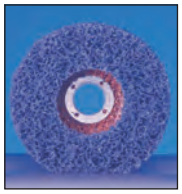
43805 Scotch-Brite™ coarse cleaning discs

SIC

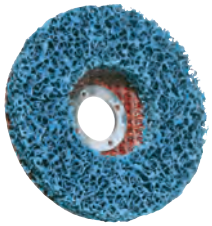
3M
Quality
Abrasive grain silicon carbide (SIC).

43805 201
XT-RD
Design
Fibre fleece with extremely hard **silicon carbide abrasive mineral.** The open structure means the disc hardly ever clogs. With strong fibre underlay. **Can be used on angle grinders without a support plate.**

43805 202
CG-RD
Design
Fibre fleece with **resin-bonded abrasive, fibre-glass underlay.** No clogging due to open structure. Long service life for all applications. Can be used on angle grinders without a support plate.
Applications
For coarse cleaning of surfaces and removing rust, corrosion, old coatings, sealant residue and discolouration. Helpful when de-rusting and removing paint from sheet metal parts and when cleaning metal surfaces and welding seams.



43805 201



43805 202

Type	Ø mm	Grain	Hole Ø mm	Recommended rotation speed rpm	Max. permitted rotation speed rpm		43805	...
XT-RD	115	Extra coarse/P 60–80	22	5,000–7,000	11,000	10 pcs.		**201**
CG-RD	115	Extra coarse/P 60–80	22	5,000–7,000	11,000	-		**202**

43813 Scotch-Brite™ discs Roloc™ SC-DR and SE-DR

AO

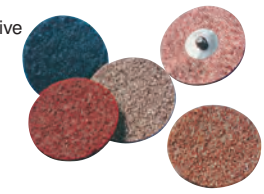
3M
Design
The 3M™ Roloc™ quick-change system allows the product to be changed quickly in one turn. This dramatically reduces downtime. It was specifically designed for multi-step work processes.
Quality
Abrasive grain synthetic corundum (AO).

Note:
Support plate/clamping mandrel for use on angle grinders and drills, see art. no. 43825.

43813 101-103
Roloc™ SC-DR
Applications
For cleaning and final processing of metal surfaces. For use in multi-step work processes for further surface processing after treatment with fibre discs. For creating a glossy finish on stainless steel or a clean, burr-free finish before painting or coating ferrous and non-ferrous metals.

43813 104
Roloc™ SE-DR
Design
Significantly more aggressive than Roloc™ SC-DR.
Applications
Primarily recommended for blending after grinding.

43813



Type	Ø mm	Grain	Abrasive mineral	Recommended rotation speed rpm	Max. permitted rotation speed rpm	Colour	43813	...
Roloc™ SC-DR	75	Coarse/P 100–120	Corundum	10,000–15,000	18,000	Brown		**101**
Roloc™ SC-DR	75	Medium/P 180–220	Corundum	10,000–15,000	18,000	Red		**102**
Roloc™ SC-DR	75	Very Fine/P 320–360	Corundum	10,000–15,000	18,000	Blue		**103**
Roloc™ SE-DR	75	Coarse/P 100–120	Corundum	10,000–15,000	18,000	Brown/Blue		**104**

43817 Scotch-Brite™ Bristle Disc Roloc™

CER

3M
RD-ZB
design
The **product is made from a single cast piece, meaning individual components cannot be lost and that the** Bristle Disc is significantly safer than conventional products. The 3M™ Roloc™ quick-change system allows the product to be changed quickly in one turn. This dramatically reduces downtime. It was specifically designed for multi-step work processes.

Applications
Universal cleaning product. It facilitates blending, finishing, deburring and polishing. Particularly suitable for removing stubborn contaminants (paint and glue residue, sealants, coatings).
Quality
Ceramic abrasive grain (CER) Cubitron™.

Note:
Support plate (grinding plate) for use on angle grinders see art. no. 43825 101.

43817

Ø mm	Grain	Bristle length (tapered) mm	Recommended rotation speed rpm	Max. permitted rotation speed rpm	Colour	43817	...
75	P 50	16	10,000	18,000	Green		**101**
75	P 80	16	10,000	18,000	Yellow		**102**
75	P 120	16	10,000	18,000	White		**103**

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43821 Scotch Bristle Disc

3M

BD-ZB
design
The **product is made from a single cast piece, meaning individual components cannot be lost and that the** Bristle Disc is significantly safer than conventional products. **Can be fitted directly on any angle grinder with an M14 thread.**

Applications
Universal cleaning product. It facilitates blending, finishing, deburring and polishing. Particularly suitable for removing stubborn contaminants (paint and glue residue, sealants, coatings).
Quality
Ceramic abrasive grain (CER) CubitronTM.

43821

Ø mm	Grain	Bristle length (tapered) mm	Recommended rotation speed rpm	Max. permitted rotation speed rpm	Colour	43821	...
115	P 50	19	6,000–10,000	12,000	Green		101
115	P 80	19	6,000–10,000	12,000	Yellow		102
115	P 120	19	6,000–10,000	12,000	White		103

43825 3M™ support plate (abrasive plate) and clamping mandrel Roloc™

3M

43825 101
Support plate
Applications
On **angle grinders** with **art. no. 43813** Scotch-Brite™ discs Roloc™ SC-DR and SE-DR and **art. no. 43817** Scotch-Brite™ Bristle Disc Roloc™ RD-ZB.

43825 102
Clamping mandrel
Applications
On **drills** with **art. no. 43813** Scotch-Brite™ discs Roloc™ SC-DR and SE-DR.

43825 101 43825 102

	Ø mm	Thread	Shaft Ø mm	Max. permitted rotation speed rpm	43825	...
Support plate	75	M 14	-	20,000		101
Clamping mandrel	75	-	6	20,000		102

Info 43841-43854 COMBIDISC® grinding tools

PFERD

43841	COMBIDISC® holders
43854	COMBIDISC® clamping bolts
43842-43846	COMBIDISC® grinding discs
43850-43852	COMBIDISC® Mini POLIFAN®
43847-43849	COMBIDISC® discs
43853	COMBIDISC® fleece discs
43851	COMBIDISC® felt discs

Functional principle:
Clamp the grinding disc or fleece disc in place by turning it in a clockwise direction; turn it anti-clockwise to remove it easily by hand. The thread remains easy to turn even after hard use.

Benefits
- Easy to handle
- Quick disc changes
- Does not stick, slip or loosen due to heat
- Vibration-free spinning, grinding disc is central.

Areas of application:
For coarse to fine sanding in tool and mould construction, modelling, mechanical engineering, automotive engineering, aerospace industry, construction and repair of jet engines, container and plant construction.

Drive machines used:
- Pneumatic straight or angle grinders
- Flexible shaft machines with straight or angled handle.

43841 COMBIDISC® holder system CD

PFERD

Design
Metal screw fitting for optimum connection between reusable holder and grinding disc or felt round. Colour-coded and available in three different hardness grades.

- Soft – grey
for machining radii and contours, adapts perfectly to the surface being processed
- Medium – blue
for universal use
- Hard – red
specifically for surface grinding

Advantage
Screw connection with internal thread (metal/plastic) also fits systems on the market: PSG, Power Lock type II „turn on", SocAtt, Turn-On.

Note:
Fits PFERD COMBIDISC® system, mount CD 43842-43851.

43841 003-005 43841 102-105 43841 303-305

			Soft		Medium		Hard	
Ø mm	Shaft Ø mm	Max. permitted rotation speed rpm	43841	...	43841	...	43841	...
25	6	38,000				102		
38	6	25,000		003 NEW		103		303 NEW
50	6	19,000		004 NEW		104		304 NEW
75	6	12,500		005 NEW		105		305 NEW

COMBIDISC® grinding tools

43854 COMBIDISC® clamping bolts

PFERD

43854

43854 101
Applications
For COMBIDISC®-Mini-POLIFAN® **50 mm Ø**
(art. no. 43850).

43854 102
Applications
For COMBIDISC®-Mini-POLIFAN® **75 mm Ø**
(art. no. 43852).

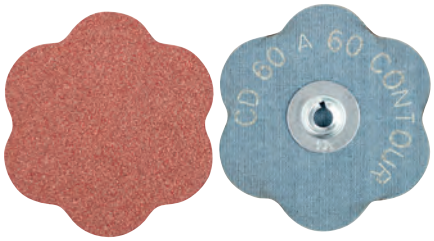
For Disc Ø mm	Shaft Ø mm	Highest working speed m/s	43854 ...
50	6	50	**101**
75	6	50	**102**

43842 COMBIDISC® grinding discs

AO

PFERD

43842



Design
- Very flexible and adaptable due to its outer contour
- Prevents cutting into the workpiece

Advantage
- Easy to use
- Rapid tool changes
- Does not stick or slip
- Does not come loose due to heat
- Vibration-free running
- Tool is always centred

Example applications:
- Tool and mould making, model-making
- Mechanical engineering, automotive
- Aerospace industry
- Jet engine construction and repair
- Container and equipment construction (e.g. for food and chemical industry)
- Fettling of small parts

Quality
Abrasive grain synthetic corundum (AO).

Corundum A-CONTOUR

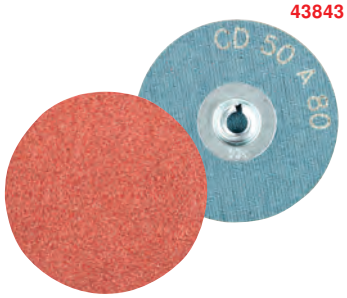
Grain mm	Ø mm	Recommended rotation speed rpm	43842 ...
60	60	7,500–11,000	**101,**
80	60	7,500–11,000	**102**
120	60	7,500–11,000	**103**
180	60	7,500–11,000	**104**

43843 COMBIDISC® grinding discs, synthetic corundum

AO

PFERD

43843



Applications
For grinding tasks on ferrous metals and other materials. For pneumatic straight and angle grinders (art. nos. 92425–92430) as well as flexible shaft machines.

Quality
Abrasive grain synthetic corundum (AO), dark brown.

Note:
These tools are approved for use in the European nuclear industry (class 1).

Ø mm	Grain	Recommended rotation speed rpm	43843 ...
25	60	15,000–26,000	**202**
25	80	15,000–26,000	**203**
25	120	15,000–26,000	**204**
25	180	15,000–26,000	**205**
25	320	15,000–26,000	**206**
38	36	10,000–16,000	**301**
38	60	10,000–16,000	**302**
38	80	10,000–16,000	**303**
38	120	10,000–16,000	**304**
38	180	10,000–16,000	**305**
38	320	10,000–16,000	**306**
50	36	8,000–13,000	**401**

Ø mm	Grain	Recommended rotation speed rpm	43843 ...
50	60	8,000–13,000	**402**
50	80	8,000–13,000	**403**
50	120	8,000–13,000	**404**
50	180	8,000–13,000	**405**
50	320	8,000–13,000	**406**
75	36	5,000–9,000	**501**
75	60	5,000–9,000	**502**
75	80	5,000–9,000	**503**
75	120	5,000–9,000	**504**
75	180	5,000–9,000	**505**
75	320	5,000–9,000	**506**

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43844 COMBIDISC® grinding discs, synthetic corundum

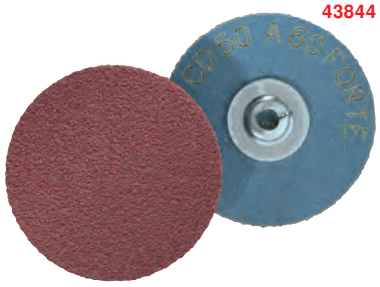
AO

PFERD

Applications
For universal use on all metals, particularly on tough materials such as stainless steel, aluminium. High grinding performance, low-temperature grinding, good service life. For pneumatic straight and angle grinders (art. nos. 92425–92430) as well as flexible shaft machines.

Quality
Abrasive grain synthetic corundum (AO), light brown.

43844



Ø mm	Grain	Recommended rotation speed rpm	43844 ...
25	60	15,000–26,000	202
25	80	15,000–26,000	203
25	120	15,000–26,000	204
38	36	10,000–16,000	301
38	60	10,000–16,000	302
38	80	10,000–16,000	303
38	120	10,000–16,000	304
50	36	8,000–13,000	401

Ø mm	Grain	Recommended rotation speed rpm	43844 ...
50	60	8,000–13,000	402
50	80	8,000–13,000	403
50	120	8,000–13,000	404
75	36	5,000–9,000	501
75	60	5,000–9,000	502
75	80	5,000–9,000	503
75	120	5,000–9,000	504

43845 COMBIDISC® grinding discs, ceramic abrasive grain

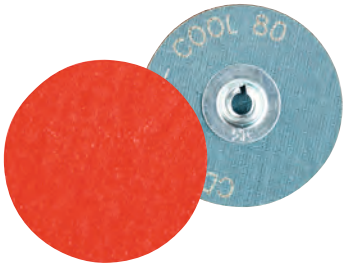
CER

PFERD

Applications
For machining alloyed and non-alloyed steels. Cast iron, stainless steel (INOX), titanium, nickel-based alloys and extremely hard materials. Self-sharpening ceramic abrasive grain for continual maximum performance. Active grinding additives in the coating noticeably increase the removal rate, prevent clogging and facilitate cooler grinding. For pneumatic straight and angle grinders (art. nos. 92425–92430) as well as flexible shaft machines.

Quality
Ceramic abrasive grain (CER).

43845



Ø mm	Grain	Recommended rotation speed rpm	43845 ...
38	24	5,000–16,000	300
38	36	5,000–16,000	301
38	60	5,000–16,000	302
38	80	5,000–16,000	303
38	120	5,000–16,000	304
50	24	3,800–13,000	400
50	36	3,800–13,000	401
50	60	3,800–13,000	402

Ø mm	Grain	Recommended rotation speed rpm	43845 ...
50	80	3,800–13,000	403
50	120	3,800–13,000	404
75	24	2,500–9,000	500
75	36	2,500–9,000	501
75	60	2,500–9,000	502
75	80	2,500–9,000	503
75	120	2,500–9,000	504

43846 COMBIDISC® grinding discs, silicon carbide

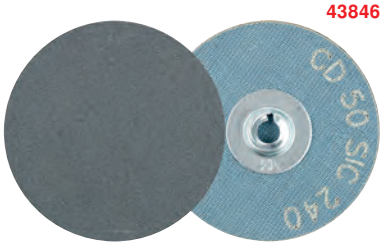
SIC

PFERD

Applications
Suitable for machining aluminium, copper, bronze, titanium, high-alloy steels and fibre-reinforced plastics. Particularly recommended for use on titanium alloys. Ideal for the aerospace industry, for applications where only SiC is permitted for processing e.g. drive parts. For pneumatic straight and angle grinders (art. nos. 92425–92430) as well as flexible shaft machines.

Quality
Silicon carbide abrasive grain (SiC).

43846



Ø mm	Grain	Recommended rotation speed rpm	43846 ...
50	36	3,800–13,000	401
50	60	3,800–13,000	402
50	80	3,800–13,000	403
50	120	3,800–13,000	404
50	240	3,800–13,000	405

Ø mm	Grain	Recommended rotation speed rpm	43846 ...
75	36	2,500–9,000	501
75	60	2,500–9,000	502
75	80	2,500–9,000	503
75	120	2,500–9,000	504
75	240	2,500–9,000	505

COMBIDISC® grinding tools

43850 - 43852 COMBIDISC®-Mini POLIFAN®

PFERD

Note:
For suitable clamping bolts, see art. no. 43854.
Alternative COMBIDISC® holder, art. no. 43841.

43850 101–104 + 43852 101–104
Design
- Max. permitted working speed acc. to EN 13743 50 m/s

Applications
For universal coarse grinding tasks with good cutting performance. Ideal for finishing welding seams in difficult-to-reach areas. Increased service life and removal rate compared to grinding discs.
Quality
Abrasive grain synthetic corundum (AO).

43850 201–204 + 43852 201–204
Advantage
- Easy to use
- Rapid tool changes
- Does not stick or slip
- Does not come loose due to heat
- Low-vibration running
- Tool is always centred

Applications
For coarse grinding tasks with high cutting performance and good service life. The high performance zirconia alumina abrasive achieves the best cutting performance with increased contact pressure.
Example applications:
- Tool and mould making, model-making
- Mechanical engineering, automotive
- Aerospace industry
- Jet engine construction and repair
- Container and equipment construction (e.g. for food and chemical industry)
- Fettling of small parts

Quality
Abrasive grain, zirconia alumina (ZA).

AO

43850 101–104 + 43852 101–104

ZA

43850 201–204 + 43852 201–204

Abrasive	Grain	Recommended rotation speed rpm art. no. 43850	Recommended rotation speed rpm art. no. 43852		50 mm Ø 43850 ...	75 mm Ø 43852 ...
Synthetic corundum (A)	40	12,000–14,000	8,000–10,000	10 pcs.	101	101
Synthetic corundum (A)	60	12,000–14,000	8,000–10,000	10 pcs.	102	102
Synthetic corundum (A)	80	12,000–14,000	8,000–10,000	10 pcs.	103	103
Synthetic corundum (A)	120	12,000–14,000	8,000–10,000	10 pcs.	104	104
Zirconia alumina (Z)	40	12,000–14,000	8,000–10,000	10 pcs.	201	201
Zirconia alumina (Z)	60	12,000–14,000	8,000–10,000	10 pcs.	202	202
Zirconia alumina (Z)	80	12,000–14,000	8,000–10,000	10 pcs.	203	203
Zirconia alumina (Z)	120	12,000–14,000	8,000–10,000	10 pcs.	204	204

43847 - 43849 COMBIDISC® discs

PFERD

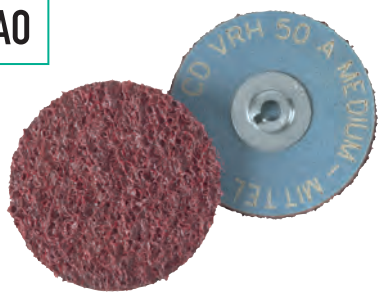
43847
Applications
For universal surface machining of metals, e.g. removal of pre-grinding traces, removal of oxidation and for light de-burring work. Open structure.
Quality
Abrasive grain synthetic corundum (AO), hard version.

43848
Applications
For the finest sanding work on flat areas, contours and for cleaning work on metals and varnishes. Very open structure.
Quality
Abrasive grain synthetic corundum (AO), soft version.

43849
Applications
For coarse cleaning tasks, removal of varnish, scale, discolouration, rust and plastic residue in front grinding. With long service life, low working pressure and very good adaptability.
Quality
Abrasive grain silicon carbide (SIC).

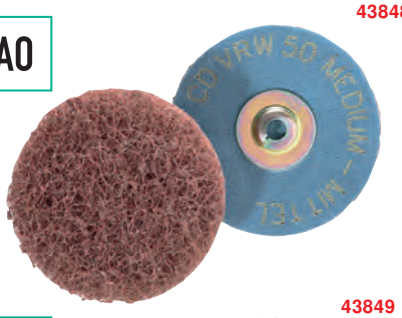
AO

43847



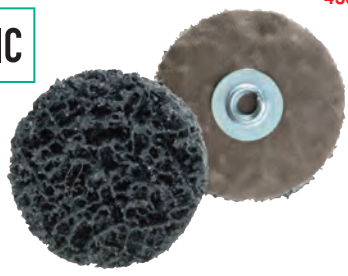
AO

43848



SIC

43849



Ø mm	Grain	Colour	Recommended rotation speed rpm	Hard 43847 ...	Soft 43848 ...	Policlean 43849 ...
25	Coarse	Brown	11,000–15,000	201		
25	Medium	Red-Brown	11,000–15,000	202		
25	Very Fine	Blue	11,000–15,000	203		
38	Coarse	Brown	7,000–10,000	301		
38	Medium	Red-Brown	7,000–10,000	302		
38	Very Fine	Blue	7,000–10,000	303		
50	-	-	5,500–8,000			103
50	Coarse	Brown	6,000–8,000	401		
50	Medium	Red-Brown	5,500–8,000	402	402	
50	Fine	Red-Brown	5,500–8,000		403	
50	Very Fine	Blue	6,000–8,000	403		
50	Very Fine	Red-Brown	5,500–8,000		404	
75	-	-	3,800–5,000			105

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

43853 COMBIDISC® fleece discs

PFERD

Advantage
- Easy to use
- Rapid tool changes
- Does not stick or slip
- Does not come loose due to heat
- Low-vibration running
- Tool is always centred

Applications
For face grinding on angle grinders. Particularly suitable for machining small and medium-sized areas on stainless steel (INOX) components.

Example applications:
- Tool and mould making, model-making
- Mechanical engineering, automotive
- Aerospace industry
- Jet engine construction and repair
- Container and equipment construction (e.g. for food and chemical industry)
- Fettling of small parts

43853

Ø mm	Grain	Abrasive	Recommended rotation speed rpm	Soft 43853	...	Medium 43853	...	Hard 43853	...
50	Coarse	Synthetic corundum	19,100		101				103
50	Fine	Synthetic corundum	19,100				112		113
50	Fine	Silicon carbide	19,100		311		312		
75	Coarse	Synthetic corundum	12,500		201				203
75	Fine	Synthetic corundum	12,500				212		213
75	Fine	Silicon carbide	12,500		411		412		

43851 COMBIDISC® felt discs

PFERD

Advantage
- Easy to use
- Rapid tool changes
- Does not stick or slip
- Does not come loose due to heat
- Low-vibration running
- Tool is always centred

Applications
Suitable for polishing with polishing paste bars, grinding paste or diamond polishing paste over medium-large areas in face grinding.

Example applications:
- Tool and mould making, model-making
- Mechanical engineering, automotive
- Aerospace industry
- Jet engine construction and repair
- Container and equipment construction (e.g. for food and chemical industry)
- Fettling of small parts

Use in conjunction with special grinding paste art. no. 43141 and polishing paste art. nos. 44380 and 44381.

43851

Ø mm	Shaft Ø mm	Recommended rotation speed rpm	43851	...
50	6	2,000–4,000		101
75	6	1,200–2,000		201

44001 HSS milling bit set

HSS

44001

Applications
For steel and steel casting, alloyed and unalloyed.
Quality
HSS.

Note:
For types of milling bit, see art. no. 44002.

	Set contents
2	**milling bits cylindrical** 6 x 16/12 x 25 mm
1	**milling bit helical** 12 x 25 mm
2	**milling bits spherical** 4 x 3/12 x 10 mm
1	**milling bit teardrop** 12 x 20 mm
1	**milling bit pointed arc** 12 x 30 mm
1	**milling bit flame-shaped** 12 x 30 mm
1	**milling bit lobed** 6 x 20 mm
1	**milling bit pointed taper** 6 x 18 mm

	Serration	Shank Ø mm	Cutting speed m/min	Design	44001	...
10 pieces	3	6	60–180	in case		201

44002 HSS milling bits

HSS

Design
Serration 3.
Applications
For steel and steel casting, alloyed and unalloyed.
Recommended cutting speed v_c = 60–180 m/min.

Quality
HSS.

Note:
Available with the following upon request:
***Serration 1** = for light metals (long-chipping), light metal alloys, lead, tin, plastics (thermoplastics and duroplastics), fibre, rubber, wood.*

***Serration 2** = for light metals (short-chipping), brass, copper, electrolytic copper, gunmetal, bronze, zinc, magnesium alloys (electron).*
***Serration 5** = for fine machining of steel and steel casting, alloyed and unalloyed and non-lubricating non-ferrous metals.*

ZYA (6 x 16) ZYA (10 x 13) ZYA (12 x 25) ZYA (16 x 25) WRC (6 x 20) WRC (12 x 25)

KUD (4.5 x 4) KUD (8 x 7) KUD (12 x 10) KUD (16 x 14) TRE (16 x 25) SPG (6 x 18)

SPG (12 x 30) SPG (16 x 30) B (12 x 30) Lobed (6 x 20) KEL (10 x 20) SKM (10 x 20) SKM (12 x 30)

Serration 1

Serration 2
With chip breaker

44002

Serration 3
With chip breaker

Serration 5

Shape	Head Ø x length mm	Total length mm	Shank Ø mm	44002	...
Cylindrical (ZYA)	6 x 16	56	6		103
Cylindrical (ZYA)	10 x 13	53	6		105
Cylindrical (ZYA)	12 x 25	65	6		106
Cylindrical (ZYA)	16 x 25	65	6		107
Helical (WRC)	6 x 20	60	6		116
Helical (WRC)	12 x 25	65	6		119
Spherical (KUD)	4.5 x 4	60	6		123
Spherical (KUD)	8 x 7	60	6		126
Spherical (KUD)	12 x 10	60	6		128
Spherical (KUD)	16 x 14	60	6		129

Shape	Head Ø x length mm	Total length mm	Shank Ø mm	44002	...
Teardrop (TRE)	16 x 25	60	6		132
Pointed arc (SPG)	6 x 18	58	6		133
Pointed arc (SPG)	12 x 30	70	6		136
Pointed arc (SPG)	16 x 30	70	6		137
Flame-shaped (B)	12 x 30	70	6		140
Lobed	6 x 20	60	6		143
Round taper (KEL)	10 x 20	60	6		145
Pointed taper (SKM)	10 x 20	60	6		152
Pointed taper (SKM)	12 x 30	70	6		154

Info — HSS milling bits, art. no. 44007 - 44044

PFERD

Recommended uses

- HSS milling bits must be used at comparatively lower speeds than carbide milling bits.
- For application situations where high speeds are not an option.
- HSS milling bits are the economical alternative to carbide milling bits for soft materials.
- The toughness of the high-speed steel (HSS) results in high-strength cutting teeth.

Aluminium toothing	Toothing 1 without chip breaker	Toothing 2 with chip breaker	Toothing 3 with chip breaker	Toothing 5 without chip breaker

Material groups			Machining task	Toothing	Cutting speed
Steel and steel cast materials	Unhardened, non-tempered steels up to 1200 N/mm² (< 38 HRC)	Structural steels, carbon steels, tool steels, unalloyed steels, case-hardening steels, steel casting	Rough machining = high material removal	2	60 - 80 m/min
			Fine machining, e.g. deburring	3 3 5	60 - 80 m/min 80 - 100 m/min 60 - 80 m/min
	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	Rough machining = high material removal	1	60 - 80 m/min
			Fine machining, e.g. deburring	1	80 - 100 m/min
				2	60 - 80 m/min
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys, brass, copper, zinc	Rough machining = high material removal	Alu 1	200 - 300 m/min 200 - 300 m/min
			Fine machining, e.g. deburring	2	200 - 250 m/min
Cast iron materials		Grey cast iron, spheroidal graphite iron	Rough machining = high material removal	2	60 - 80 m/min
				3	60 - 80 m/min
			Fine machining, e.g. deburring	3	80 - 100 m/min
				5	80 - 100 m/min
Other/plastics		Fibre-reinforced thermoplastic and thermosetting plastics, rubber, wood	Rough machining = high material removal	Aluminium	200 - 300 m/min
				1	200 - 300 m/min
			Fine machining, e.g. deburring	1	250 - 300 m/min
				2	200 - 250 m/min

Example:
HSS milling bit, toothing 2, tool diameter 12 mm.
Rough machining of unhardened, non-tempered steels.
Cutting speed: 60 - 80 m/min
Speed range: 1600 - 2200 rpm

	Cutting speeds m/min					
dia. mm	60	80	100	200	250	300
	Speeds rpm					
1.6	12.000	16.000	19.900	39.800	49.800	59.700
2.3	8.400	11.100	13.900	27.700	34.600	41.600
3.2	6.000	8.000	10.000	19.900	24.900	29.900
4.0	4.800	6.400	8.000	16.000	19.900	23.900
5.0	3.900	5.100	6.400	12.800	16.000	19.100
6.0	3.200	4.300	5.400	10.700	13.300	16.000
7.0	2.800	3.700	4.600	9.100	11.400	13.700
8.0	2.400	3.200	4.000	8.000	10.000	12.000
10.0	2.000	2.600	3.200	6.400	8.000	9.600
12.0	1.600	2.200	2.700	5.400	6.700	8.000
14.0	1.400	1.900	2.300	4.600	5.700	6.900
16.0	1.200	1.600	2.000	4.000	5.000	6.000

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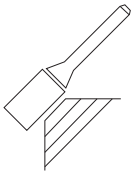
44007 - 44009 HSS milling bits cylindrical (ZYAS)

HSS

PFERD

Design
- With spur cut



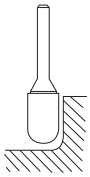
44007 - 44009

Head Ø x length mm	Total length mm	Shank Ø mm	Serration 1 44007	...	Serration 2 44008	...	Serration 3 44009	...
6 x 16	60	6		202		202		202
10 x 13	53	6		204		204		204
12 x 25	65	6		206		206		206
16 x 25	65	6				207		207

44012 - 44014 HSS milling bits helical (WRC)

HSS

PFERD



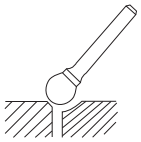
44012 - 44014

Head Ø x length mm	Total length mm	Shank Ø mm	Serration 1 44012	...	Serration 2 44013	...	Serration 3 44014	...
6 x 16	60	6		202		202		202
8 x 20	60	6						203
12 x 25	65	6		205		205		205

44019 HSS milling bits spherical (KUD)

HSS

PFERD



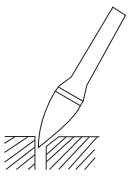
44019

Head Ø x length mm	Total length mm	Shank Ø mm	Serration 3 44019	...
8 x 7	55	6		203
12 x 10	51	6		205
16 x 14	54	6		206

44027 - 44029 HSS milling bits pointed arc (SPG)

HSS

PFERD



44027 - 44029

Head Ø x length mm	Total length mm	Shank Ø mm	Serration 1 44027	...	Serration 2 44028	...	Serration 3 44029	...
6 x 18	60	6				201		201
12 x 30	70	6		204		204		204
16 x 30	70	6						205

44034 HSS milling bit flame-shaped (B)

HSS

PFERD

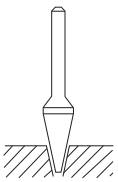
44034

Head Ø x length mm	Total length mm	Shank Ø mm	Serration 3 44034	...
12 x 30	70	6		202

44043 - 44044 HSS milling bits pointed taper (SKM)

HSS

PFERD



44043 - 44044

Head Ø x length mm	Total length mm	Shank Ø mm		Serration 2 44043	...	Serration 3 44044	...
10 x 20	60	6			202		202
12 x 25	65	6			203		203

Info (Solid) carbide milling bits art. no. 44093 - 44226

VHM

ATORN®

Version
With straight shank, right-hand spiral, right-hand cutting.

Toothing 2
Recommended cutting speed
Vc = 400–800 m/min.

Toothing 3 (aluminium)
Recommended cutting speed
Vc = 600–960 m/min.

Toothing 5
Increased tooth angle especially for rough work, e.g. in foundries, shipyards and heavy industry.
Recommended cutting speed
Vc = 500–960 m/min.
Advantage over toothing 6: 40% longer service life.

Toothing 6
Universal use, highest machining performance. Recommended cutting speed
Vc = 500–960 m/min.

Toothing 6 (TiAlN)
Like toothing 6 but with longer service life thanks to TiAlN coating.

Note:
Further dimensions, toothing types (e.g. diamond teeth) and versions (e.g. double end or milling bit with extra-long shank) are available on request.

Caution:
Always observe the recommended **cutting speed or working speed** (the rotation speed being too low is the most common cause of tooth breakage). Selecting the **right shape** (see application sketches, art. no. 44102 et seq.) and the **right milling bit size** is equally important. To avoid significant vibration, **no more than 33%** of the cutting edges should remove material at once.

Head dia. mm	Working speed max.	recommended
2	100.000	50.000 - 80.000
3	100.000	50.000 - 75.000
4	100.000	50.000 - 75.000
6	70.000	35.000 - 53.000
8	55.000	28.000 - 42.000
10	50.000	25.000 - 38.000
12	40.000	20.000 - 30.000
15	30.000	15.000 - 23.000
20	20.000	10.000 - 15.000
25	15.000	7.000 - 11.000

Toothing	2	3 (Alu)	5	6	6 (TiAlN)	STEEL	INOX
Area of application							
Aluminium, aluminium alloys	-	x	-	-	-	-	-
Bronze, copper, brass	x	-	-	-	-	-	-
Carbon	-	-	-	-	-	-	-
Fibreglass	-	x	-	-	-	-	-
Cast iron	x	-	x	x	x	-	-
Hard rubber	-	x	-	-	-	-	-
HSS-E (Co)	x	-	-	x	x	-	-
Plastics	-	x	-	-	-	-	-
Magnesium, alloys	-	-	-	-	-	-	-
Stainless steels	x	-	-	x	x	-	x
Welding seams	x	-	x	x	x	x	-
High-strength steels	x	-	-	x	x	x	-
Steel, nickel chromium	x	-	-	x	x	x	-
Titanium alloys	x	-	-	x	x	-	x
Zinc alloys	-	x	-	-	-	-	-

Milling bits with extra-long shaft available on request

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

44093 Solid carbide milling bit sets

VHM

ATORN®

Design
Dimensions = Head Ø x head length mm.

	Set contents 44093 101
	Serration 2
1	**milling bit cylindrical** 3 x 12 mm
1	**milling bit helical**3 x 12 mm
1	**milling bit spherical** 3 x 3 mm
1	**milling bit teardrop** 3 x 6 mm
1	**milling bit round arc** 3 x 12 mm
1	**milling bit pointed arc** 3 x 12 mm
1	**milling bit flame-shaped** 3 x 6 mm
1	**milling bit round taper** 3 x 12 mm
1	**milling bit pointed taper** 3 x 11 mm
1	**milling bit angled** 3 x 3 mm

	Set contents 44093 102
	Serration 2
2	**milling bits cylindrical** 3 x 12 mm
2	**milling bits helical** 3 x 12 mm
2	**milling bits spherical** 3 x 3 mm
2	**milling bits teardrop** 3 x 6 mm
2	**milling bits round arc** 3 x 12 mm
	Serration 6
2	**milling bits cylindrical** 3 x 12 mm
2	**milling bits helical** 3 x 12 mm
2	**milling bits spherical** 3 x 3 mm
2	**milling bits teardrop** 3 x 6 mm
2	**milling bits round arc** 3 x 12 mm

Contents	Serration	Shank Ø mm	Design	44093	...
10 pieces	2	3	in case		101
20 pieces	2 and 6	3	in case		102

44093 101

44096 Solid carbide/CC milling bit sets

VHM

ATORN®

Design
Dimensions = Head Ø x head-length mm.

	Set contents 44096 101
	Serration 3 (alu)
1	**milling bit cylindrical** 12 x 25 mm
1	**milling bit helical** 12 x 25 mm
1	**milling bit round arc** 12 x 25 mm
1	**milling bit round taper** 12 x 28 mm

	Set contents 44096 104
	Serration 6
1	**milling bit cylindrical** 6 x 18 mm
1	**milling bit helical**6 x 18 mm
1	**milling bit spherical** 6 x 6 mm
1	**milling bit teardrop** 6 x 10 mm
1	**milling bit round arc** 6 x 18 mm
1	**milling bit pointed arc** 6 x 18 mm

	Set contents 44096 107
	Serration 5
1	**milling bit cylindrical** 12 x 25 mm
1	**milling bit helical** 12 x 25 mm
1	**milling bit round arc** 12 x 25 mm
1	**milling bit pointed arc** 12 x 25 mm
1	**milling bit round taper** 12 x 28 mm

	Set contents 44096 105
	Serration 6
1	**milling bit cylindrical** 12 x 25 mm
2	**milling bits helical** 10 x 20/12 x 25 mm
1	**milling bit spherical** 12 x 12 mm
1	**milling bit teardrop** 10 x 15 mm
2	**milling bits round arc** 10 x 20/12 x 25 mm
1	**milling bit pointed arc** 10 x 20 mm

	Set contents 44096 102
	Serration 6
1	**milling bit cylindrical** 10 x 20 mm
1	**milling bit helical** 10 x 20 mm
1	**milling bit round arc** 10 x 20 mm
1	**milling bit pointed arc** 10 x 20 mm

	Set contents 44096 108
	Serration 6
2	**milling bits cylindrical 10 x 20/12 x 25 mm**
2	**milling bits helical 10 x 20/12 x 25 mm**
1	**milling bit spherical 12 x 10 mm**
1	**milling bit teardrop 10 x 16 mm**
1	**milling bit round arc 12 x 25 mm**
2	**milling bits pointed arc 10 x 20/12 x 25 m**
1	**milling bit round taper 12 x 30 mm**

	Set contents 44096 103
	Serration 6
1	**milling bit cylindrical** 12 x 25 mm
1	**milling bit helical** 12 x 25 mm
1	**milling bit round arc** 12 x 25 mm
1	**milling bit pointed arc** 12 x 25 mm

	Set contents 44096 106
	Serration 6 TiAlN
1	**milling bit cylindrical** 10 x 20 mm
1	**milling bit helical** 12 x 25 mm
1	**milling bit round arc** 12 x 25 mm
1	**milling bit pointed arc** 10 x 20 mm
1	**milling bit round taper** 12 x 28 mm

Contents	Serration	Coating	Shank Ø mm	Design	44096	...
4 pieces	(alu) 3	-	6	in case		101
5 pieces	5	-	6	in case		107
4 pieces	6	-	6	in case		102
4 pieces	6	-	6	in case		103
6 pieces	6	-	6	in case		104
8 pieces	6	-	6	in case		105
10 pieces	6	-	6	in case		108
5 pieces	6	TiAlN	6	in case		106

44096 101

44096 107

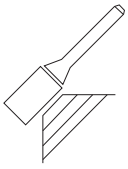
44096 105

44096 106

44102 - 44108 Solid carbide/CC milling bits cylindrical (ZYA)

VHM

ATORN®



44102 - 44108

		Serration 2		Serration 3 (alu)		Serration 6		STEEL		INOX	
Head Ø x length mm	Shank Ø mm	44102	...	44103	...	44106	...	44107	...	44108	...
3 x 14	3		102				102				
6 x 5	3		103				103				
6 x 12	3		104				104				
6 x 18	6		106		106		106		106		106
8 x 20	6		107		107		107		107		107
10 x 20	6		109		109		109		109		109
12 x 25	6		113		113		113		113		113
15 x 25	6		114		114		114				
15 x 25	8		121		121		121				

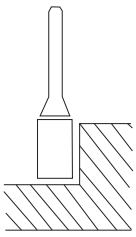
44115 - 44117 Solid carbide/CC milling bits cylindrical (ZYA-S)

VHM

ATORN®

Design
- With spur cut

44115 - 44117



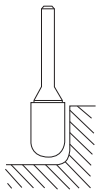
		Serration 5		Serration 6		Serration 6/TiAlN	
Head Ø x length mm	Shank Ø mm	44115	...	44116	...	44117	...
6 x 18	6				106		
8 x 20	6				107		
10 x 20	6				109		109
12 x 25	6		112		112		

44122 - 44130 Solid carbide/CC milling bits helical (WRC)

VHM

ATORN®

44122 - 44130



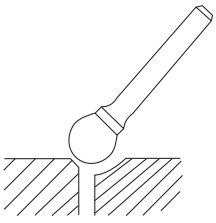
	Serration	2		3 (alu)		5		6		6/TiAlN		STEEL		INOX	
Head Ø x length mm	Shank Ø mm	44122	...	44123	...	44125	...	44126	...	44127	...	44128	...	44130	...
2 x 11	3		101						101						
3 x 12	3		102						102						
6 x 12	3		104						104						
6 x 18	6		106		106				106				106		106
8 x 20	6		107						107				107		107
10 x 20	6		108		108				108				108		108
12 x 25	6		111		111		111		111		111		111		111
15 x 25	6								113						
12 x 25	8								118						
15 x 25	8								120						

44132 - 44136 Solid carbide/CC milling bits spherical (KUD)

VHM

ATORN®

44132 - 44136



		Serration 2		Serration 3 (alu)		Serration 6	
Head Ø x length mm	Shank Ø mm	44132	...	44133	...	44136	...
3 x 3	3		102				102
4 x 4	3		103				103
6 x 6	3		104				104
6 x 6	6		106				106
8 x 8	6		107				107
10 x 10	6		108		108		108
12 x 12	6		109		109		109
15 x 15	6		110		110		110

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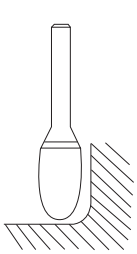
44142 - 44146 Solid carbide/CC milling bits teardrop-shaped (TRE)

VHM

ATORN®

44142 - 44146



Head Ø x length mm	Shank Ø mm	Serration 2 44142	...	Serration 3 (alu) 44143	...	Serration 6 44146	...
3 x 6	3		101				101
6 x 10	3		102				102
6 x 10	6		103				103
8 x 15	6		104				104
10 x 15	6		105				105
12 x 20	6		106		106		106
15 x 25	6		107				107
15 x 25	8		111		111		

44152 - 44159 Solid carbide/CC milling bits round arc (RBF)

VHM

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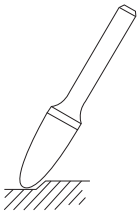
44152 - 44159



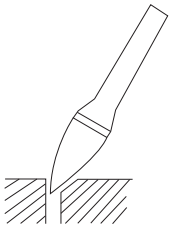
Head Ø x length mm	Serration / Shank Ø mm	2 44152	...	3 (alu) 44153	...	5 44155	...	6 44156	...	6/TiAlN 44157	...	STEEL 44158	...	INOX 44159	...
3 x 8	3		101						101						
3 x 12	3		102						102						
6 x 12	3		103						103						
6 x 18	6		104						104				104		104
8 x 20	6		105		105				105				105		105
10 x 20	6		106		106				106				106		106
12 x 25	6		108		108		108		108		108		108		108
15 x 25	6		110		110				110						
12 x 25	8		116		116				116						

44162 - 44167 Solid carbide/CC milling bits pointed arc (SPG)

VHM

ATORN®

44162 - 44167



Head Ø x length mm	Shank Ø mm	Serration 2 44162	...	Serration 5 44165	...	Serration 6 44166	...	Serration 6/TiAlN 44167	...
3 x 6	3		101				101		
3 x 12	3		102				102		
6 x 12	3		103				103		
6 x 18	6		104				104		
8 x 20	6		105				105		
10 x 20	6		106				106		106
12 x 25	6		108		108		108		
15 x 25	6		110				110		
12 x 25	8						116		

44172 - 44176 Solid carbide/CC milling bits flame-shaped (H)

VHM

ATORN®

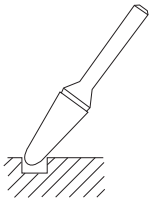
44172 - 44176

Head Ø x length mm	Shank Ø mm	Serration 2 44172	...	Serration 6 44176	...
3 x 6	3		101		101
8 x 20	6		102		102
12 x 32	6		103		103
15 x 35	8		107		107

44182 - 44187 Solid carbide/CC milling bits round taper (KEL)

VHM

ATORN®



44182 - 44187

Head Ø x length mm	Shank Ø mm	Serration 2 44182	...	Serration 3 (alu) 44183	...	Serration 5 44185	...	Serration 6 44186	...	Serration 6/TiAlN 44187	...
3 x 12	3		101						101		
6 x 18	6		103						103		
10 x 26	6		105		105				105		
12 x 32	6		106		106		106		106		106
15 x 33	6		107		107				107		

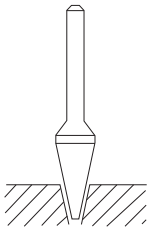
44192 - 44196 Solid carbide/CC milling bits pointed taper (SKM)

VHM

ATORN®

44192 - 44196

Head Ø x length mm	Shank Ø mm	Serration 2 44192	...	Serration 6 44196	...
3 x 8	3		101		101
3 x 11	3		102		102
3 x 15	3		103		103
6 x 12	3		104		104
6 x 20	6		105		105
10 x 20	6		106		106
12 x 25	6		107		107
16 x 25	6		108		108



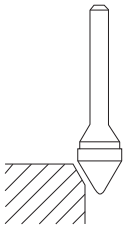
44202 - 44206 Solid carbide/CC milling bits conical countersink 60° (KSJ)

VHM

ATORN®

44202 - 44206

Head Ø x length mm	Shank Ø mm	Serration 2 44202	...	Serration 6 44206	...
3 x 2.5	3		101		101
6 x 4	6		102		102
10 x 8	6		103		103
12 x 11	6		104		104
15 x 14	6		105		105



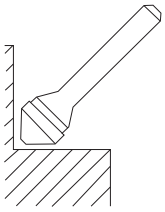
44212 - 44216 Solid carbide/CC milling bits conical countersink 90° (KSK)

VHM

ATORN®

44212 - 44216

Head Ø x length mm	Shank Ø mm	Serration 2 44212	...	Serration 6 44216	...
3 x 1.5	3		101		101
6 x 3	6		102		102
10 x 5	6		103		103
12 x 6	6		104		104
15 x 8	6		105		105



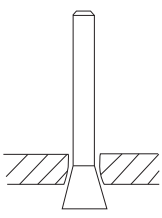
44222 - 44226 Solid/cemented angled milling bits (WKN)

VHM

ATORN®

44222 - 44226

Head Ø x length mm	Shank Ø mm	Serration 2 44222	...	Serration 6 44226	...
3 x 4	3		101		101
6 x 6	3		102		102
10 x 10	6				104
12 x 12	6		105		



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Carbide milling bits for universal use

PFERD

PFERD carbide milling bits can machine materials of almost any strength. This is possible through the optimal coordination of tooth shape, number of teeth, twist angle, chip angle and concentricity. The precise concentricity of PFERD carbide milling bits

- Protects the health of the person during the work process,
- Reduces wear on the drive machine,
- Enables impact-free working,
- Prevents chatter marks.

The high profile accuracy of the carbide milling bits enables

- Use on robots and
- Repeated regrinding.

Principle of use:
The harder the material, the finer the toothing.

Note:
Further dimensions and toothing types, as well as carbide milling bits with special shaft shapes/ lengths and special toothing, are available on request.

3 PLUS toothing
With chip breaker
(MX in accordance with DIN 8033)

Toothing 4
With chip breaker
(MX in accordance with DIN 8033)

Toothing 5
Without chip breaker
(F in acc. with DIN 8033)

Material groups			Machining task	Toothing	Cutting speed
Steel, steel casting	Unhardened, non-tempered steels up to 1200 N/mm² (<38 HRC)	Structural steels, carbon steels, tool steels, unalloyed steels, case-hardening steels, steel casting	Roughing	3 PLUS	450 - 600 m/min
	Hardened, tempered steels above 1200 N/mm² (>38 HRC)	Tool steels, heat-treated steels, alloyed steels, steel casting	Roughing	3 PLUS	250 - 350 m/min
				4	
			Fine machining	5	350 - 450 m/min
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	Roughing	3 PLUS	250 - 350 m/min
				4	250 - 450 m/min
			Fine machining	5	350 - 450 m/min
Non-ferrous metals	Hard non-ferrous metals	Bronze, titanium/titanium alloys, hard aluminium alloys (high Si content)	Roughing	4	250 - 350 m/min
	Highly heat-resistant materials	Nickel-based and cobalt-based alloys (engine and turbine construction)	Roughing	3 PLUS	250 - 450 m/min
				4	
			Fine machining	5	350 - 600 m/min
Cast iron	Grey cast iron, white cast iron	Cast iron with lamellar graphite, with spheroidal graphite/spheroidal graphite iron, white malleable iron, black malleable iron	Roughing	3 PLUS	450 - 600 m/min

Example:
Carbide milling bit, 3 PLUS toothing,
milling bit dia. 12 mm.
Roughing of unhardened, non-tempered steels.
Cutting speed: 450 - 600 m/min
Speed range: 12.000 - 16.000 rpm

	Cutting speeds m/min				
Milling bit dia. mm	**250**	**350**	**450**	**600**	**900**
			Speeds rpm		
1,5	53.000	74.000	95.000	127.000	191.000
2	40.000	56.000	72.000	95.000	143.000
3	27.000	37.000	48.000	64.000	95.000
4	20.000	28.000	36.000	48.000	72.000
6	13.000	19.000	24.000	32.000	48.000
8	10.000	14.000	18.000	24.000	36.000
10	8.000	11.000	14.000	19.000	29.000
12	7.000	9.000	12.000	16.000	24.000
16	5.000	7.000	9.000	12.000	18.000
20	4.000	6.000	7.000	10.000	14.000
25	3.000	4.000	6.000	8.000	11.000

Continued

Info — Carbide milling bits art. no. 44233 - 44285

HM

PFERD

Carbide milling bits for high-performance applications

STEEL toothing with chip breaker

Material groups			Machining task	Toothing	Cutting speed
Steel, steel casting	Unhardened, non-tempered steels up to 1200 N/mm² (<38 HRC)	Structural steels, carbon steels, tool steels, unalloyed steels, case-hardening steels, steel casting	Roughing	STEEL	450 - 750 m/min
	Hardened, tempered steels above 1200 N/mm² (>38 HRC)	Tool steels, tempered steels, alloyed steels, steel casting			

Example:
Carbide milling bit, STEEL toothing,
Milling bit dia. 12 mm.
Cutting speed: 450 - 750 m/min
Speed range: 12.000 - 20.000 rpm
With chip breaker

	Cutting speeds m/min	
Milling bit dia. mm	450	750
	Speeds rpm	
6	24.000	40.000
8	18.000	30.000
10	14.000	24.000
12	12.000	20.000
16	9.000	15.000

INOX toothing

Material groups			Machining task	Toothing	Cutting speed
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	Roughing	INOX	450 - 600 m/min

Example:
SC milling bit, INOX toothing,
Milling bit dia. 12 mm.
Cutting speed: 450 - 600 m/min
Speed range: 12.000 - 16.000 rpm

	Cutting speeds m/min	
Milling bit dia. mm	450	600
	Speeds rpm	
3	48.000	64.000
6	24.000	32.000
8	18.000	24.000
10	14.000	19.000
12	12.000	16.000

ALU toothing

Material groups			Machining task	Toothing	Cutting speed
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys	Roughing	ALU	600 - 1.100 m/min
			Fine machining		900 - 1.100 m/min
		Brass, copper, zinc	Roughing		600 - 1.100 m/min
			Fine machining		900 - 1.100 m/min
	Hard non-ferrous metals	Hard aluminium alloys (high Si content)	Roughing		600 - 1.100 m/min
			Fine machining		900 - 1.100 m/min
		Titanium and titanium alloys	Roughing		450 - 600 m/min
			Fine machining		600 - 900 m/min
		Bronze	Roughing		600 - 1.100 m/min
			Fine machining		600 - 900 m/min
Plastics, other materials	Fibre-reinforced plastics (GFRP/CFRP), thermoplastics		Roughing	ALU	600 - 900 m/min
			Fine machining		600 - 1.100 m/min

Example:
SC milling bit, ALU toothing,
Milling bit dia. 12 mm. Roughing of hard non-ferrous metals, e.g. bronze.
Cutting speed: 600 - 1100 m/min
Speed range: 16.000 - 30.000 rpm

	Cutting speeds m/min			
Milling bit dia. mm	450	600	900	1100
	Speeds rpm			
3	48.000	64.000	95.000	117.000
6	24.000	32.000	48.000	59.000
8	18.000	24.000	36.000	44.000
10	14.000	19.000	29.000	35.000
12	12.000	16.000	24.000	30.000
16	9.000	12.000	18.000	22.000

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44233 CC milling bit set

HM

PFERD

Design
Dimensions = Head Ø x head length mm.

	Set contents
4	**milling bits cylindrical** 2 x 10/3 x 13/6 x 7/6 x 13 mm
1	**milling bit flame-shaped** 3 x 7 mm
2	**milling bits helical** 2 x 10/3 x 13 mm
1	**milling bit angled** 3 x 7 mm
2	**milling bits teardrop** 3 x 7/6 x 10 mm
1	**milling bit spherical** 4 x 3 mm
1	**milling bit pointed taper** 6 x 13 mm
2	**milling bits round arc** 3 x 7/6 x 13 mm
1	**milling bit pointed arc** 3 x 7

44233

Contents	Serration	Shank Ø mm	Design	44233	...
15 pieces	5	3	in clear view box		101

44234 CC milling bit set

HM

PFERD

Design
Aggressive serration for high cutting performance, long service life.
Dimensions = Head Ø x head length mm.
Applications
For structural steel, stainless steel, non-ferrous metals. For fast, aggressive machining on surfaces and in solid material. Especially non-slip when used on edges; for example, when deburring. Ideal for welding seam machining.

	Set contents
2	**milling bits cylindrical** 6 x 16/12 x 25 mm
2	**milling bits spherical** 10 x 9/12 x 10 mm
2	**milling bits helical** 6 x 18/12 x 25 mm
2	**milling bits pointed arc** 6 x 18/12 x 25 mm
1	**milling bit round arc** 6 x 18 mm
1	**milling bit round taper** 12 x 30 mm

44234

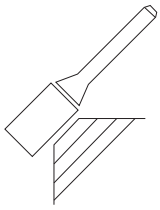
Contents	Serration	Shank Ø mm	Cutting speed m/min	Design	44234	...
10 pieces	Combicut	6	450–700	in plastic box		101

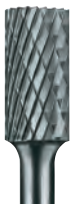
44238 - 44242 CC milling bits cylindrical (ZYA)

HM

PFERD

Design
- DIN 8032





44238 - 44242

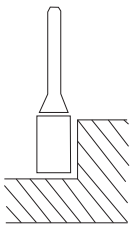
			Serration 3 Plus		Serration 4		Serration 5		INOX	
Head Ø x length mm	Shank Ø mm	Total length mm	44238	...	44239	...	44240	...	44242	...
6 x 16	6	55		106		106		106		106
8 x 20	6	60		107		107				107
10 x 20	6	60		109		109				109
12 x 25	6	65		111		111				111
16 x 25	6	65		113		113				

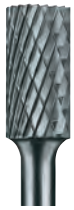
44243 - 44248 Cemented carbide milling bits cylindrical (ZYA-S)

HM

PFERD

Design
- DIN 8033
- With spur cut





44243 - 44248

			Serration 3 Plus		Serration 5		STEEL		ALU	
Head Ø x length mm	Shank Ø mm	Total length mm	44243	...	44245	...	44246	...	44248	...
2 x 10	3	40		101		101				
3 x 13	3	43		102		102				
4 x 13	6	55		103		103				
6 x 13	3	43		105		105				
6 x 16	6	55		106		106		206		106
8 x 20	6	60		107				207		107
10 x 20	6	60		109				209		109
12 x 25	6	65		111				211		111

CC milling bits

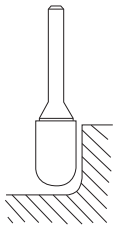
44250 - 44255 CC milling bits helical (WRC)

HM

PFERD

Design
- DIN 8032

44250 - 44255



			Serration 3 Plus		Serration 4		Serration 5		STEEL		INOX		ALU	
Head Ø x length mm	Shank Ø mm	Total length mm	44250	...	44251	...	44252	...	44253	...	44254	...	44255	...
2 x 10	3	40		101		101								
3 x 13	3	43		102		102		102						
6 x 13	3	43		104		104		104						
6 x 16	6	55		105		105		105		105		105		105
8 x 20	6	60		107		107				107		107		107
10 x 20	6	60		109		109				109		109		109
12 x 25	6	65		113		113				113		113		113

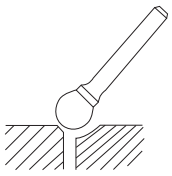
44257 - 44262 CC milling bits spherical (KUD)

HM

PFERD

Design
- DIN 8032

44257 - 44262



			Serration 3 Plus		Serration 4		Serration 5		STEEL		INOX		ALU	
Head Ø x length mm	Shank Ø mm	Total length mm	44257	...	44258	...	44259	...	44260	...	44261	...	44262	...
3 x 2	3	33		101		101		101						
4 x 3	3	34		102		102		102						
6 x 5	3	35		104		104		104						
6 x 5	6	45		105		105		105		205		105		
8 x 7	6	47		106		106		106		206		106		106
10 x 9	6	49		107		107				207		107		107
12 x 10	6	51		108		108				208		108		108

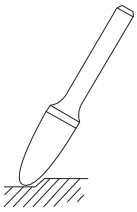
44263 - 44267 Cemented carbide milling bits round arc (RBF)

HM

PFERD

Design
- DIN 8032

44263 - 44267



			Serration 3 Plus		Serration 5		STEEL		INOX		ALU	
Head Ø x length mm	Shank Ø mm	Total length mm	44263	...	44265	...	44266	...	44267	...	44267	...
6 x 13	3	43			102	102						
6 x 18	6	55						203		103		203
8 x 20	6	60						207		107		207
10 x 20	6	60						209		109		209
12 x 25	6	65						213		113		213

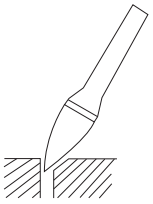
44268 - 44272 CC milling bits pointed arc (SPG)

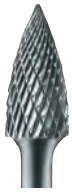
HM

PFERD

Design
- DIN 8032

44268 - 44272





			Serration 3 Plus	Serration 4		Serration 5		STEEL		INOX		ALU	
Head Ø x length mm	Shank Ø mm	Total length mm	44268	...	44269	...	44270	...	44272	...	44272	...	44272	...
3 x 13	3	43		102		102		102						
6 x 13	3	43		103		103		103						
6 x 18	6	55		104		104		104		204		304		404
10 x 20	6	60								205		305		405
12 x 25	6	65								207		307		407

44272 - 44273 CC milling bits flame-shaped (B)

HM

PFERD

Design
- ISO 7755/8

44272 - 44273

			Serration 3 Plus		Serration 5	
Head Ø x length mm	Shank Ø mm	Total length mm	44272	...	44273	...
6 x 13	3	43				102
12 x 30	6	70		104		

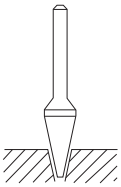
44283 - 44285 CC milling bits pointed taper (SKM)

HM

PFERD

Design
- DIN 8032

44283 - 44285



			Serration 3 Plus		Serration 5	
Head Ø x length mm	Shank Ø mm	Total length mm	44283	...	44285	...
6 x 13	3	43		103		103
6 x 18	6	55		104		104
10 x 20	6	60		105		
12 x 25	6	65		106		

44293 - 44294 CC milling bits for GFRP and CRP

HM

PFERD

Applications
For processing
- GFRP (glass fibre reinforced plastics)
- CRP (carbon fibre reinforced plastics)

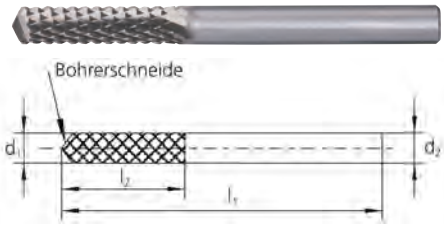
FRP serration
Coarse machining = high degree of material removal
Intended for trimming and contour milling of GFRP and CRP fibre-reinforced plastics, hard rubber and thermoplastics. Suitable for use with machine tools and manual use due to the high degree of concentricity.

FRPS serration
Fine machining = low degree of material removal
Similar to FRP serration. Designed for use with machines and robots with high feed rates due to special serration, smooth milling behaviour, creates a smooth cutting edge.

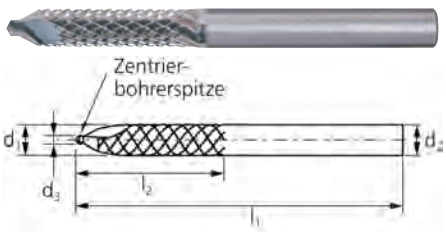
44293
Applications
The special **drill cutting edge (BS)** can be inserted into solid material, allowing drilling and milling in a single step.

44294
Applications
The **centre drill tip (ZBS)** can be inserted into solid material, allowing drilling and milling in a single step. Designed specifically for manual use. The centre drill tip permits reliable spot drilling on almost all surfaces.

44293



44294



Serration	d_2 mm	d_3 mm	$d_1 \times l_2$ mm	l_1 mm	Rotation speed rpm at 500 m/min*	Rotation speed rpm at 900 m/min*	With BS 44293 ...	With ZBS 44294 ...
FRP	6	-	6 x 25	65	27,000	48,000	101	
FRP	6	2.5	6 x 30	65	27,000	48,000		101
FRP	8	-	8 x 25	65	20,000	36,000	102	
FRP	8	3.0	8 x 30	65	20,000	36,000		102
FRPS	6	-	6 x 25	65	27,000	48,000	201	
FRPS	6	2.5	6 x 30	65	27,000	48,000		201
FRPS	8	-	8 x 25	65	20,000	36,000	202	

*Cutting speed

44299 Extensions for milling bits/sanding tips

PFERD

Applications
- Spindle extensions can be used to extend the shanks of sanding and milling tools
- These permit use in hard-to-reach areas
- The extension for drive spindles is clamped into the machine's collet chuck (pneumatic or electric drive) or in the handpiece of the flexible shaft
- Spindle extensions are an economical alternative to custom milling bits and sanding tips with a long shank

Safety instructions:
Note: The valid safety and accident prevention regulations must be observed when using spindle extensions.
When working with a long shanks, the tool must be inserted into the workpiece (e.g. holes, pipes, ducts or grooves) before switching on the drive machine. When not in the workpiece, the tool and extension must never be allowed to run freely.

Failure to observe this instruction results in an increased risk of accident! Under unfavourable conditions, the extension with the clamped tool may snap off. **The extension is only intended for manual use** in conjunction with suitable pneumatic, electric drives or flexible shaft handpieces for tools with standard **shanks.** It is clamped into the true-running collet chuck of the devices in conjunction with a tool that is duly approved for the rotation speed. It should never be clamped on the transition radius.
Clamping of a second extension or tools with over-long shanks is prohibited.

44299 101

44299 102

44299 103

44299 104

44299 105

44299 106

44299 107

Max. permissible rotation speed rpm	Mounting spigots (motor/handpiece) Ø mm	Tool chuck mm	Total length mm	Mounting spigots length mm	Spindle Ø max. mm	Incl. collet chuck Ø mm	44299 ...
44,000	8	3	78	30	9.5	3	101
20,000	SPG 6	6	104	Special	12.0	6	102
20,000	8	6	120	30	12.0	6	103
20,000	SPG 6	6	129	Special	12.0	6	104
20,000	8	6	144	30	12.0	6	105
10,000	6	3	150	30	11.5	-	106
10,000	8	6	150	30	13.5	-	107

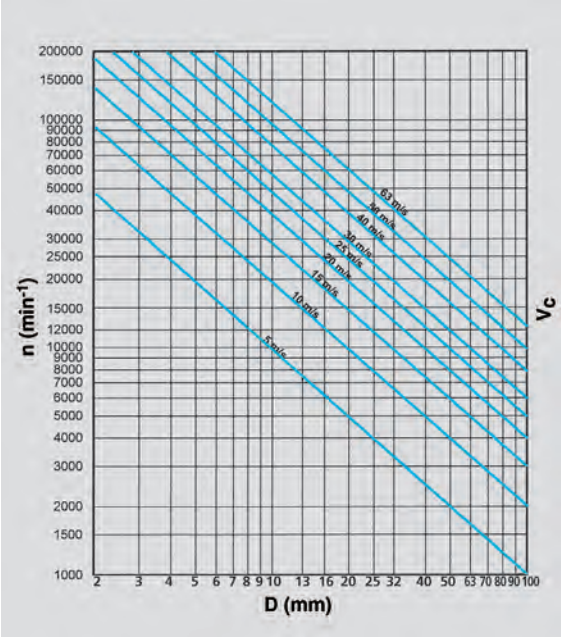
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Sanding tips EN 12413 art. no. 44300 - 44355

The sanding tips are characterised by a consistent, superior removal rate and a long service life while achieving a high surface quality on the workpiece. The precise concentricity prevents chatter marks, enables quiet work, protects the drive machines and takes the health of the user into account. The sanding tips are specifically designed for the listed applications (see table) in terms of grain type, grain size, hardness and binding. The sanding tips can be used universally **for edge and surface grinding**.

Abrasive	**Special corundum (NDW)**	**Corundum (EK)**	**Mix-corundum (HK)**
For material	**Hardened Tool steel**	**steel, cast**	**steel, cast iron, non-ferrous metals, Plastics (hard), GFRP**
Grain (from - to)	fine (grain 100)	fine (grain 46-100) to	
		coarse (grain 24-60)*	coarse (grain 24-46)
Degree of hardness	hard/very hard	medium	soft/medium
Binding	ceramic	ceramic	ceramic/synthetic resin
V = m/sec. (edge grinding)	approx. 10-30	approx. 25-40	approx. 30-50
V = m/sec. (surface grinding)	approx. 10-30	approx. 15-25	approx. 25-35
Applications	Grinding	Grinding	Grinding
Art. no.	44300 - 44304	44305 - 44342	44350 - 44355

*the larger the sanding tip, the coarser the grain
V = m/sec.: Recommended peripheral speed in m/sec.



Recommended peripheral speeds
In the diagram, the peripheral speeds are represented by blue diagonal lines. The vertical line corresponding to the tool diameter meets the specified peripheral speed (diagonal). From there, the rotation speed for the grinding tool and machine is read horizontally from the left-hand edge in rpm.

Example:
- Sanding tip dia. 20 mm,
- Recommended peripheral speed 15-40 m/s,
- Rotation speed: 14.000-38.000 rpm.

For materials that are difficult to machine, **lower peripheral speeds** are recommended, as this increases the grinding ability of the sanding tip.

n = rotation speed
D= tool diameter
Vc = peripheral speed

44300 Sanding tip set NDW

LUKAS

Design
Dimensions = Ø x height. Excellent dimensional stability, high edge strength, optimum machining results and long service life.
Applications
For forming and tool construction, especially for finishing and deburring work, edge machining, hardened steels.

Quality
Composition:
N = synthetic corundum,
D = dark red corundum,
W = white monocrystalline corundum.

44300

	Set contents
4	**sanding tips cylindrical** 4 x 8/6 x 10/8 x 10/10 x 13 mm
2	**sanding tips pointed arc** 5 x 10/8 x 10 mm
3	**sanding tips spherical** 4 x 4/6 x 6/8 x 8 mm
1	**sanding tip helical** 10 x 13 mm

Contents	Shank Ø mm	Shank length mm	Cutting speed m/sec	Design	44300	...
10 pieces	3	50	10–30	in case		**101**

Grinding points

44301 - 44304 Sanding tips NDW (shank Ø 3 mm)

LUKAS

Design
Excellent dimensional stability, high edge strength, optimum machining results and long service life, recommended cutting speed 10–30 m/sec, shank length 50 mm.
Applications
For forming and tool construction, especially for finishing and deburring work, edge machining, hardened steels.

Quality
Composition:
N = synthetic corundum
D = dark red corundum
W = white monocrystalline corundum

44301
Cylindrical.

44303
Spherical.

44302
Pointed arc.

44304
Helical.

44301 44303

44302 44304

Ø x height mm	Cylindrical 44301	...	Pointed arc 44302	...	Spherical 44303	...	Helical 44304	...
4 x 4						101		
4 x 8		102						
5 x 10				101				
6 x 6						102		
6 x 10		103						
8 x 8						103		
8 x 10		105		102				
10 x 13		108						101

44305 Sanding tip set EK

PFERD

Design
Dimensions = Ø x height.
Quality
Pink fused corundum.

	Set contents
11	**sanding tips cylindrical** 4 x 8/5 x 10/ 5 x 10/6 x 13/8 x 2/8 x 10/8 x 10/ 10 x 13/13 x 3/16 x 4/16 x 4 mm
2	**sanding tips pointed arc** 3 x 6/8 x 16 mm
1	**sanding tip helical** 5 x 10 mm
1	**sanding tip spherical** Ø 5 mm

44305

Contents	Grain	Shank Ø mm	Design	44305	...
15 pieces	Fine	3	in box		101

44310 - 44315 Sanding tips EK

LUKAS

Quality
Pink fused corundum.

44310
Cylindrical.

44315
Spherical.

44310 44315

Ø x height mm	Ø mm	Shank Ø mm	Cylindrical 44310	...	Spherical 44315	...
4 x 8	-	3		105		
5 x 10	-	3		106		
6 x 10	-	3		107		
8 x 16	-	3		109		
-	6	3				101
-	8	3				102
-	13	3				104

44317 Cylindrical sanding tips EK

PFERD

Quality
Pink fused corundum.

44317

Ø x height mm	Grain	Shank Ø mm		44317	...
4 x 8	coarse 60	3	10 pcs.		104
4 x 8	fine 100	3	10 pcs.		105
5 x 10	coarse 60	3	10 pcs.		106
5 x 10	fine 100	3	10 pcs.		107
6 x 13	coarse 60	3	10 pcs.		109
6 x 13	fine 100	3	10 pcs.		110
8 x 16	coarse 46	3	10 pcs.		115
8 x 16	fine 80	3	10 pcs.		116

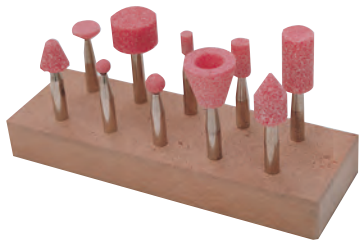
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

44320 Sanding tip set EK

LUKAS

Design
Dimensions = Ø x height.
Quality
Pink fused corundum.

	Set contents
5	**sanding tips cylindrical** 5 x 10/8 x 16/ 13 x 3/13 x 25/20 x 13 mm
1	**sanding tip taper** 13 x 13 mm
2	**sanding tips spherical** Ø 6/8 mm
1	**sanding tip cup, conical** 20 x 19.5 mm
1	**sanding tip centre 60°** 13 x 20 mm



44320

Contents	Shank Ø mm	Design	44320	...
10 pieces	6	in wooden holder		101

44322 Sanding tip set EK

PFERD

Design
Dimensions = Ø x height.
Quality
Pink fused corundum.

	Set contents
5	**sanding tips cylindrical** 10 x 13/13 x 20/ 20 x 6/20 x 13/20 x 25 mm
1	**sanding tip spherical** Ø 16 mm
1	**sanding tip helical** 20 x 25 mm
1	**sanding tip pointed arc** 13 x 20 mm
2	**sanding tips taper** 20 x 20/20 x 32 mm

44322

Contents	Grain	Shank Ø mm	Design	44322	...
10 pieces	coarse	6	in box		101

44325 Cylindrical sanding tips EK

LUKAS

Quality
Pink fused corundum.

44325

Ø x height mm	Shank Ø mm	44325	...
4 x 8	6		103
5 x 10	6		104
6 x 10	6		105
8 x 16	6		107
10 x 20	6		111
10 x 32	6		112
13 x 3	6		114
13 x 20	6		116

Ø x height mm	Shank Ø mm	44325	...
13 x 25	6		117
16 x 4	6		119
16 x 20	6		121
16 x 32	6		122
16 x 40	6		123
20 x 6	6		124
20 x 40	6		129
25 x 10	6		131

Ø x height mm	Shank Ø mm	44325	...
25 x 32	6		134
32 x 8	6		135
32 x 20	6		136
32 x 40	6		138
40 x 10	6		139
40 x 20	6		140
50 x 10	6		142
50 x 20	6		143

44326 Cylindrical sanding tips SiC-Alu

LUKAS

Applications
Specifically for machining non-ferrous metals.
For deburring, dressing, post-machining and surface finishing. Through its special micro-structure design, maximum service life is achieved and pores are prevented from clogging.

The sanding tips have a special impregnation which promotes self-sharpening.
Quality
Silicon carbide, green.

44326

Ø x height mm	Grain	Shank Ø mm	44326	...
10 x 13	80	6		106
10 x 20	80	6		107

Ø x height mm	Grain	Shank Ø mm	44326	...
13 x 32	80	6		109
16 x 32	80	6		111

Ø x height mm	Grain	Shank Ø mm	44326	...
20 x 20	80	6		112
20 x 40	80	6		114

44327 Cylindrical sanding tips EK

PFERD

Quality
Pink fused corundum.

44327

Ø x height mm	Grain	Shank Ø mm	44327	...
4 x 8	coarse 60	6		103
4 x 8	fine 100	6		104
5 x 10	coarse 60	6		105
5 x 10	fine 100	6		106
6 x 13	coarse 60	6		107
6 x 13	fine 100	6		108
8 x 16	coarse 46	6		114
8 x 16	fine 80	6		115

Ø x height mm	Grain	Shank Ø mm	44327	...
10 x 20	coarse 46	6		120
10 x 20	fine 80	6		121
10 x 32	coarse 46	6		124
10 x 32	fine 80	6		125
13 x 3	coarse 60	6		126
13 x 20	coarse 46	6		131
13 x 20	fine 80	6		132
13 x 25	coarse 46	6		133

Ø x height mm	Grain	Shank Ø mm	44327	...
13 x 25	fine 80	6		134
16 x 4	coarse 46	6		138
16 x 4	fine 80	6		139
16 x 20	coarse 30	6		143
16 x 20	fine 60	6		144
16 x 32	coarse 30	6		145
16 x 32	fine 60	6		146

Grinding points

44330 Tapered sanding tips EK

LUKAS

Quality
Pink fused corundum.

44330

Ø x height mm	Shank Ø mm	44330	...
16 x 32	6		102
20 x 32	6		105

Ø x height mm	Shank Ø mm	44330	...
20 x 40	6		106
25 x 70	6		107

44331 Tapered sanding tips SiC-Alu

LUKAS

Usage
Specifically for machining non-ferrous metals.
For deburring, dressing, post-machining and surface finishing. Through its special micro-structure design, maximum service life is achieved and pores are prevented from clogging. The sanding tips have a special impregnation which promotes self-sharpening.

Quality
Silicon carbide, green.

44331

Ø x height mm	Grain 44331	Shank Ø mm	...
16 x 32	80	6	102

Ø x height mm	Grain 44331	Shank Ø mm	...
20 x 40	80	6	106

44332 Tapered sanding tips EK

PFERD

Quality
Pink fused corundum.

44332

Ø x height mm	Grain	Shank Ø mm	44332	...
16 x 45	coarse 46	6		108
16 x 45	fine 80	6		109
20 x 32	coarse 30	6		112
20 x 32	fine 60	6		113

Ø x height mm	Grain	Shank Ø mm	44332	...
20 x 40	coarse 30	6		114
20 x 40	fine 60	6		115
25 x 70	coarse 30	6		120

44335 Spherical sanding tips EK

LUKAS

Quality
Pink fused corundum.

44335

Ø mm	Shank Ø mm	44335	...
6	6		101
8	6		102
13	6		104

Ø mm	Shank Ø mm	44335	...
20	6		106
25	6		107
32	6		108

44337 Spherical sanding tips EK

PFERD

Quality
Pink fused corundum.

44337

Ø mm	Grain	Shank Ø mm	44337	...
5	coarse 60	6		102
5	fine 100	6		103
8	coarse 46	6		104
8	fine 80	6		105
13	coarse 46	6		108
13	fine 80	6		109

Ø mm	Grain	Shank Ø mm	44337	...
20	coarse 30	6		112
20	fine 60	6		113
25	coarse 30	6		114
25	fine 60	6		115
32	coarse 24	6		116
32	fine 46	6		117

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44340 Conical cup sanding tips EK

LUKAS

Quality
Pink fused corundum.

44340

Largest Ø x height mm	Shank Ø mm	44340	...
20 x 20	6		101
25 x 24	6		102

Largest Ø x height mm	Shank Ø mm	44340	...
32 x 29	6		103
40 x 36	6		104

44342 Conical cup sanding tips EK

PFERD

Quality
Pink fused corundum.

44342

Ø x height mm	Grain	Shank Ø mm	44342	...
20 x 16	coarse 30	6		101
20 x 16	fine 60	6		102
25 x 20	coarse 30	6		103

Ø x height mm	Grain	Shank Ø mm	44342	...
32 x 25	coarse 24	6		105
32 x 25	fine 46	6		106

44355 Cylindrical sanding tips INOX (ADW) hardness L

PFERD

Design
INOX is specifically designed for use on stainless steel (INOX) and suitable for universal use on non-ferrous base metals and bronze. These tools are used for coarse grinding of stainless steel (INOX) cast parts and for sanding moulded parts made of heat-resistant alloys.
Advantage
- Ideal for temperature-sensitive materials due to low-temperature sanding
- High grinding comfort due to low-vibration cutting

Machinable materials:
- Stainless steel/INOX
- Bronze
- Hard non-ferrous metals

Design
- Synthetic resin bond
- Mix of dark red and white corundum

Recommended use:
INOX sanding tips achieve their best performance at a cutting speed of 35 to 50 m/s.
Suitable tool drives:
- Flexible shaft drive
- Straight grinder

Note:
The maximum permissible rotation speed refers to the open shank length of 10 mm.

44355

					ADW/L medium	
Head Ø x head height mm	Grain	Shank Ø rotation speed rpm	Max. permitted rotation speed rpm	Recommended	44355	...
8 x 16	coarse 46	6	119,300	100,000		150
10 x 32	coarse 46	6	62,800	62,800		168
16 x 32	coarse 30	6	51,200	51,200		199
20 x 40	coarse 30	6	72,400	32,400		222
25 x 32	coarse 30	6	32,900	32,900		237
32 x 16	coarse 24	6	29,800	29,000		244
40 x 20	coarse 24	6	23,800	23,000		253
50 x 25	coarse 24	6	19,000	19,000		258

44356 Sanding tip sets TOUGH

PFERD

Design
The TOUGH design is specially intended for use on titanium materials, nickel and cobalt-based alloys and for the machining of hardened steel components and surface-layer welding. Machining tasks include, amongst others, smoothing repair welds and finishing turbine blades during aircraft maintenance and re-grinding repair welds in tool construction and forming.

Machinable materials
- Hardened, tempered steels over 1200 N/mm² (more than 38 HRC)
- Nickel-based alloys Inconell and Hastelloy
- Highly heat-resistant materials
- Cobalt-based alloys
- Other non-ferrous metals
- Hard non-ferrous metal
- Titanium alloys
- Titanium

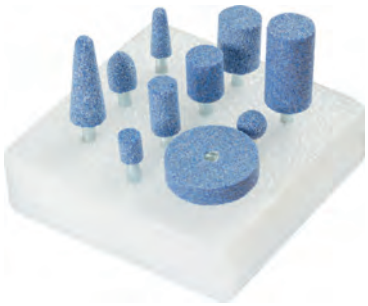
Applications
Grouting, gouging, grinding, deburring, surface conditioning, edge finishing (chamfering, rounding), edge finishing, finishing, welding seam machining.

Quality
White corundum abrasive grain and ceramic abrasive grain.

NEW

44356 101

44356 102



	Set contents 44356 101 (shank Ø 3 mm)
8	**sanding tips cylindrical** 2 x 5/3 x 6/4 x 8/5 x 10/6 x 13/8 x 16/13 x 3/20 x 6 mm
3	**sanding tips spherical Ø** 3/6/8 mm
4	**sanding tips pointed arc** 3 x 6/4 x 8/6 x 13/8 x 16 mm
4	**sanding tips pointed arc** 3 x 6/4 x 8/6 x 13/8 x 16 mm

	Set contents 44356 102 (shank Ø 6 mm)
6	**sanding tips cylindrical** 10 x 13/13 x 25/16 x 20/20 x 25/20 x 40/40 x 10 mm
1	**sanding tip spherical Ø** 13 mm
1	**sanding tip pointed arc** 13 x 20 mm
2	**sanding tips tapered** 10 x 25/16 x 45 mm
2	**sanding tips tapered** 10 x 25/16 x 45 mm

Contents	Grain	Shank Ø mm	44356	...
15 pieces	fine	3		101
10 pieces	coarse	6		102

44357 - 44358 Cylindrical sanding tips TOUGH (AWCO) hardness J (shank Ø 3 and 6 mm)

PFERD

Quality
White corundum and ceramic abrasive grain.

44357 - 44358

Shank Ø 3 mm

Head Ø x head height mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	44357	...
3 x 6	80	3 x 30	206,100	150,000		101
3 x 6	100	3 x 30	206,100	150,000		102
4 x 8	80	3 x 30	175,100	150,000		103
4 x 8	100	3 x 30	175,100	150,000		104
5 x 10	80	3 x 30	130,700	130,700		105
5 x 10	100	3 x 30	130,700	130,700		106
6 x 13	60	3 x 30	93,600	33,600		107
6 x 13	80	3 x 30	93,600	33,600		108
6 x 13	100	3 x 30	93,600	33,600		109

Shank Ø 6 mm

Head Ø x head height mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	44358	...
8 x 16	46	6 x 40	119,300	100,000		101
8 x 16	80	6 x 40	119,300	100,000		102
10 x 13	46	6 x 40	95,400	85,000		103
10 x 13	80	6 x 40	95,400	85,000		104
13 x 25	46	6 x 40	73,400	65,000		105
13 x 25	80	6 x 40	73,400	65,000		106
16 x 20	46	6 x 40	59,600	55,000		107
16 x 20	60	6 x 40	59,600	55,000		108
16 x 32	46	6 x 40	51,200	51,200		109
16 x 32	60	6 x 40	51,200	51,200		110
20 x 25	46	6 x 40	47,700	45,000		111
20 x 25	60	6 x 40	47,700	45,000		112
32 x 32	46	6 x 40	25,700	25,700		113
40 x 20	46	6 x 40	23,800	22,000		114

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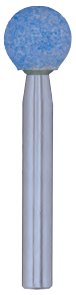
44359 - 44360 Spherical sanding tips TOUGH (AWCO) hardness J

PFERD

Quality
White corundum and ceramic abrasive grain.

44359 - 44360



Head Ø mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shank Ø 3 mm 44359	...
6	80	3 x 30	159,100	140,000		101
6	100	3 x 30	159,100	140,000		102
8	80	3 x 30	116,200	100,000		103
8	100	3 x 30	116,200	100,000		104

Head Ø mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shank Ø 6 mm 44360	...
13	46	6 x 40	73,400	65,000		101
13	60	6 x 40	73,400	65,000		102
13	80	6 x 40	73,400	65,000		103

44361 - 44362 Pointed arc sanding tips TOUGH (AWCO) hardness J

PFERD

Quality
White corundum and ceramic abrasive grain.

44361 - 44362

Head Ø x head height mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shank Ø 3 mm 44361	...
6 x 13	80	3 x 30	108,100	108,100		101
6 x 13	100	3 x 30	108,100	108,100		102
8 x 16	60	3 x 30	72,800	72,800		103
8 x 16	80	3 x 30	72,800	72,800		104
8 x 16	100	3 x 30	72,800	72,800		105

Head Ø x head height mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shank Ø 6 mm 44362	...
13 x 20	46	6 x 40	73,400	65,000		101
13 x 20	60	6 x 40	73,400	65,000		102
13 x 20	80	6 x 40	73,400	65,000		103

44363 Tapered sanding tips TOUGH (AWCO) hardness J

PFERD

Quality
White corundum and ceramic abrasive grain.

44363

Head Ø x head height mm	Grain	Shank Ø x shank length mm	Max. permitted rotation speed rpm	Recommended rotation speed rpm	Shank Ø 6 mm 44363	...
10 x 25	46	6 x 40	95,400	85,000		101
10 x 25	60	6 x 40	95,400	85,000		102
16 x 45	46	6 x 40	52,000	52,000		103
16 x 45	60	6 x 40	52,000	52,000		104

Info Sanding tips TOUGH (AWCO) hardness J art. no. 44356 - 44363

PFERD

The TOUGH (AWCO) version in **hardness J** is specifically intended for use on titanium materials, nickel- and cobalt-based alloys and for the machining of hardened steel components and surface-layer welding.

Machining tasks include smoothing repair welds and finishing turbine blades during aircraft maintenance and re-grinding repair welds in tool construction and forming.

Advantage
- Cool grinding due to the tendency of the grain mixture to splinter
- High removal rates and excellent service life
- Consistent removal rates thanks to the self-sharpening effect of the ceramic abrasive grain

Machinable materials:
- Hardened, tempered steels above 1200 N/mm² (> 38 HRC)
- Titanium alloys
- Titanium
- Highly heat-resistant materials
- Nickel- and cobalt-based alloys

Version
- Ceramic binding
- Corundum mixture of ceramic abrasive grain and white corundum

Application recommendations:
- TOUGH sanding tips provide optimum performance at a cutting speed of 30 to 50 m/s.

Suitable tool drives:
Flexible shaft drive, straight grinder

44364 - 44366 Poliflex® cylindrical finishing tips

PFERD

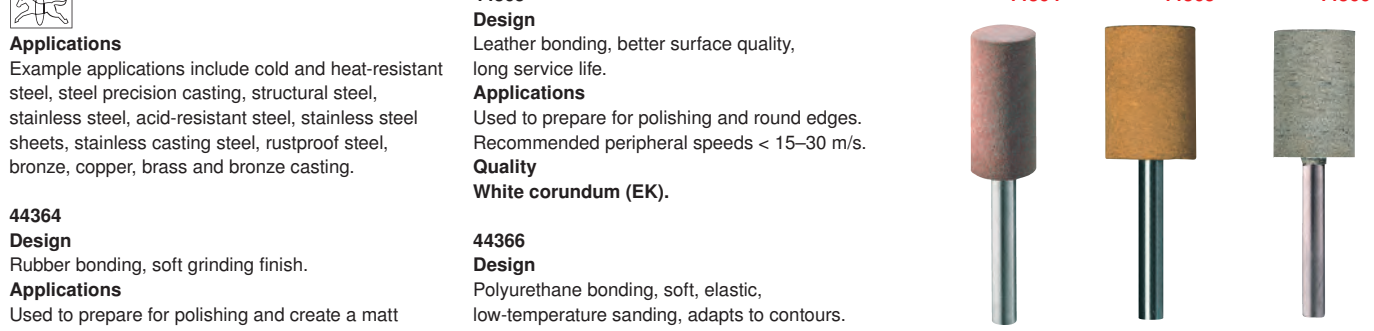
Applications
Example applications include cold and heat-resistant steel, steel precision casting, structural steel, stainless steel, acid-resistant steel, stainless steel sheets, stainless casting steel, rustproof steel, bronze, copper, brass and bronze casting.

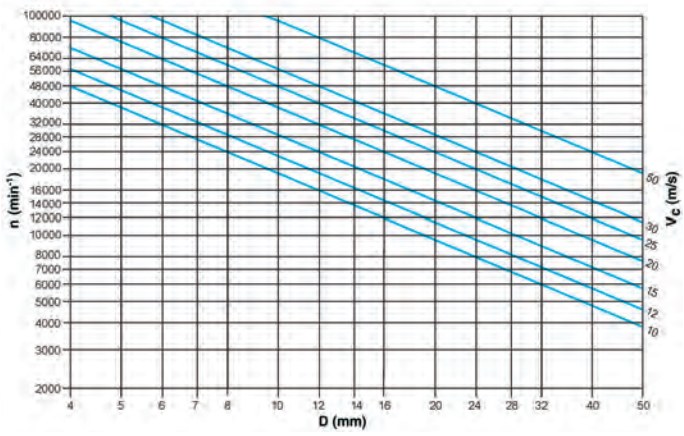
44364
Design
Rubber bonding, soft grinding finish.
Applications
Used to prepare for polishing and create a matt finish for non-ferrous base metals. Also for aluminium, aluminium wrought alloys, cast aluminium. Recommended peripheral speeds < 12–20 m/s
Quality
Pink fused corundum (EK).

44365
Design
Leather bonding, better surface quality, long service life.
Applications
Used to prepare for polishing and round edges. Recommended peripheral speeds < 15–30 m/s.
Quality
White corundum (EK).

44366
Design
Polyurethane bonding, soft, elastic, low-temperature sanding, adapts to contours.
Applications
For gentle machining of surfaces, line matting, cleaning, preliminary work for cleaning, de-oxidising, light duty deburring. Recommended peripheral speeds < 10–15 m/s
Quality
Silicon carbide green (SIC)

44364 44365 44366





Operating speeds for Poliflex® tools
In the diagram, the cutting speeds are represented by diagonal lines.

The perpendicular tool diameter line intersects the specified cutting speed (the diagonal line). The recommended speed for the selected diameter of the Poliflex®tool in RPM is read out at the left edge where it intersects with the horizontal.

Example:
Poliflex®finishing tip, pink fused corundum, 15 mm Ø,
recommended peripheral speed = < 12–20 m/s,
recommended rotational speed range = < 15,500–26,000 rpm.

n = rotation speed
D = tool diameter
Vc = peripheral speed

				Pink fused corundum		White corundum		SIC green	
Head Ø x head height mm	Grain	Shank Ø mm	Shank length mm	44364	...	44365	...	44366	...
8 x 12	80	3	30						107
8 x 12	120	3	30		112		109		
10 x 15	120	6	40		118		114		
15 x 25	120	6	40		128		123		
20 x 30	80	6	40						111
20 x 30	120	6	40		132		127		
25 x 25	120	6	40		134		129		
30 x 30	120	6	40		136		131		

Info Polishing tips art. no. 44375 - 44377

Owing to their excellent elasticity, the felt polishing tips in combination with the grinding paste (art. no. 43141) and polishing pastes (art. nos. 44380 - 44381) are also suitable for polishing particularly complicated shapes, such as die-casting moulds and injection moulds, drawing tools, pressing tools and cutting tools, cold heading dies, bending dies, bearings, spindles, rollers, calibres, etc.

Abrasive	**Felt with abrasive paste**
For material made of	**steel, cast iron, non-ferrous metals**
Grain (from – to)	Microfine (with paste grain 1200) to very coarse (with paste grain 90)
Degree of hardness	Very soft
V = m/sec.	approx. 5-10
Applications	Polishing
Art. no.	44375 - 44377

V = m/sec.: Recommended peripheral speed in m/sec.

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44375 Felt polishing tips (shank Ø 6 mm)

LUKAS

Applications
For surface honing of pre-sanded workpieces. Used in conjunction with special grinding paste art. no. 43141 and polishing paste art. no. 44380–44381.

Note:
Art. no. 44375 120 with hole 6 mm Ø, without mandrel.

44375 101-105 | 44375 107-109 | 44375 111 | 44375 118 | 44375 120 | 44375 126

Shape	Head Ø x length approx. mm	44375 ...
Cylindrical	10 x 15	101
Cylindrical	25 x 30	105
Spherical	Ø 10	107
Spherical	Ø 12	108
Spherical	Ø 20	109

Shape	Head Ø x length approx. mm	44375 ...
Pointed arc	12 x 20	111
Round taper	25 x 30	118
Disc	40 x 10	120
Mandrel	-	126

43141

44376 Felt polishing tips

PFERD

Applications
Used in conjunction with special grinding paste art. no. 43141 and polishing pastes art. no. 44380–44381 primarily for **high-gloss polishing**.

The different diameters and shapes mean that workpieces with complex geometries can also be polished.
Easy to profile.

44376 101-103 | 44376 104-106

44376 107-108

Shape	Head Ø x length mm	Shank Ø mm	Shank length mm	Recommended rotation speed rpm	44376 ...
Cylindrical	6 x 10	3	40	16,000–32,000	101
Cylindrical	8 x 10	3	40	12,000–24,000	102
Cylindrical	10 x 14	3	40	10,000–20,000	103
Pointed arc	8 x 12	3	40	12,000–24,000	104
Pointed arc	10 x 18	3	40	10,000–20,000	105
Pointed arc	12 x 18	3	40	8,000–16,000	106
Helical	8 x 12	3	40	12,000–24,000	107
Helical	10 x 14	3	40	10,000–20,000	108

44377 Felt polishing tips

PFERD

Applications
Used in conjunction with special grinding paste art. no. 43141 and polishing pastes art. no. 44380–44381 primarily for **high-gloss polishing**. The broad diversity of shapes and diameters also permits the polishing of complex workpiece geometries. Easy to profile.

44377 102-104
Design
With centre hole, making it ideal for face grinding. The centre hole prevents the accumulation of machining residue.

44377 101 | 44377 102-104

44377 105-108 | 44377 109-111

44377 112-115 | 44377 116

44377 117

Shape	Head Ø x length mm	Shank Ø mm	Shank length mm	Recommended rotation speed rpm	44377 ...
Cylindrical	10 x 14	6	40	10,000–20,000	101
Cylindrical	15 x 20	6	40	6,000–12,000	102
Cylindrical	20 x 25	6	40	5,000–10,000	103
Cylindrical	25 x 30	6	40	4,000–8,000	104
Pointed arc	10 x 18	6	40	10,000–20,000	105
Pointed arc	15 x 20	6	40	6,000–12,000	106
Pointed arc	15 x 30	6	40	6,000–12,000	107
Pointed arc	20 x 25	6	40	5,000–10,000	108
Helical	15 x 20	6	40	6,000–12,000	109
Helical	20 x 25	6	40	5,000–10,000	110
Helical	25 x 30	6	40	4,000–8,000	111
Round taper	15 x 20	6	40	6000–12,000	112
Round taper	20 x 25	6	40	5000–10,000	113
Round taper	25 x 30	6	40	4,000–8,000	114
Round taper	30 x 35	6	40	3,000–6,000	115
Teardrop	10 x 14	6	40	10,000–20,000	116
Angled	20 x 16	6	40	5,000–10,000	117

44380 Polishing paste bars

PFERD

Applications
Use in conjunction with felt polishing tips (art. no. 44375–44377).

44380

Design	Use	Colour	W x D x H mm	44380	...
Pre-polishing paste	Steel + stainless steel	Green	70 x 50 x 140		101
Pre-polishing paste	Aluminium + brass	Grey	70 x 50 x 140		102
Pre-polishing paste	Non-ferrous metals	Brown	70 x 50 x 140		103
High gloss polishing paste	All metals	Pink	70 x 50 x 140		104
High gloss polishing paste	Plastics	Beige	70 x 50 x 140		105

44381 Diamond polishing pastes

HW

Design
- Concentrated paste in practical dosing syringe with scale
- **High diamond content**
- Can also be applied in concentrated form
- Grain mix, providing better abrasion than pure grain
- Distinctive paste colour avoids mix-ups
- Soluble in oil
- No hazardous substances

Applications
Suitable for polishing
- Cemented carbides
- Hard case-hardening and chrome steels
- Coatings that protect against wear

44381

Grain µ	Contents ml	Colour	44381	...
1–3	5	red		201
1–3	20	red		401
4–6	5	yellow		202
4–6	20	yellow		402
12–17	5	green		203
12–17	20	green		403
30–40	5	blue		204
30–40	20	blue		404
40–50	5	orange		205
40–50	20	orange		405

44385 - 44390 Diamond and CBN sanding tips

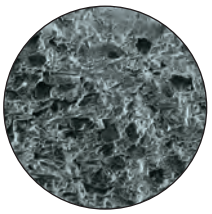
PFERD

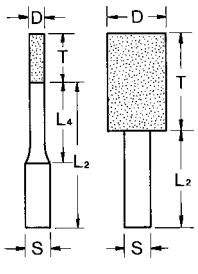
Design
Cylindrical, A = offset shank, N = non-offset shank.
Advantages: Excellent service life and good retention of profile. Short machining times. Reduced auxiliary process times. Avoidance of thermal damage to the workpiece due to lower sanding temperatures. Uniform level of quality across a multitude of workpieces.

44385
Diamond sanding tips
Applications
For the machining of cemented carbide (sintered, green compact), glass, ceramics (including engineered ceramics), porcelain, coatings that protect against wear, ferrite, silicon, graphite, electro-carbons, thermosetting plastics, glass fibre-reinforced plastics, natural and artificial stone, fire-resistant materials on internal cylindrical grinding machines and co-ordinate grinding machines amongst others.
Recommended peripheral speeds:
wet 20 m/sec, dry 15 m/sec.
Quality
Grain D 126.

44390
CBN sanding tips
Cubic boron nitride (cubic crystalline boron nitride).
Applications
For the machining of high-speed steels, tool steels, case-hardening steels, ball bearing steels, chrome steels on internal cylindrical grinding machines and co-ordinate grinding machines amongst others.
Recommended peripheral speeds:
wet 30 m/sec, dry 20 m/sec.
Quality
Grain B 126.

44385 - 44390





Type A **Type N**

D x T mm	S mm	Shank shape	L2 mm	L4 mm	Diamond 44385	...	CBN 44390	...
1.0 x 4	3	A	36	9		103		103
1.6 x 4	3	A	36	10		107		107
2.0 x 4	3	A	36	10		109		109
2.6 x 4	3	A	36	14		113		113
3.0 x 4	3	A	36	19		115		115
3.5 x 5	3	N	45	-		116		116
4.0 x 5	3	N	45	-		117		117
4.5 x 5	3	N	45	-		118		118
5.0 x 5	3	N	45	-		119		119

D x T mm	S mm	Shank shape	L2 mm	L4 mm	Diamond 44385	...	CBN 44390	...
5.5 x 6	3	N	44	-		120		120
6.0 x 6	6	A	54	19		121		121
7.0 x 8	6	N	52	-		123		123
8.0 x 8	6	N	52	-		125		125
10.0 x 8	6	N	52	-		127		127
12.0 x 8	6	N	52	-		129		129
15.0 x 10	6	N	50	-		132		132
20.0 x 10	6	N	50	-		136		136

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44501 Diamond and CBN cup wheels

ATORN®

Design
- High-quality cup wheels in synthetic resin bond with maximum service life and equally high removal rate
- Premium wheel with vibration-absorbing basic body
- Universal grain for most grinding tasks

Applications
Universal use for dry and wet grinding on all common grinding machines; wet grinding is generally recommended (service life, temperature, performance).

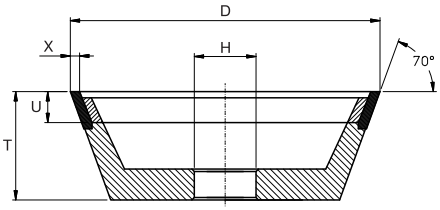
Diamond (D126)
Applications
For grinding cemented carbide and Cermet as well as materials made of stone, glass, porcelain, graphite, GFP etc.
Recommended peripheral speeds:
wet 25–30 m/s; dry 15–20 m/s

CBN (B126)
Applications
For grinding high alloy (HSS) tool and case-hardening steels, hard cast, stellite, Ni and Co-based alloys.
Recommended peripheral speeds:
wet 30–40 m/s; dry 20–25 m/s

Note:
Cup wheels can be made to order.

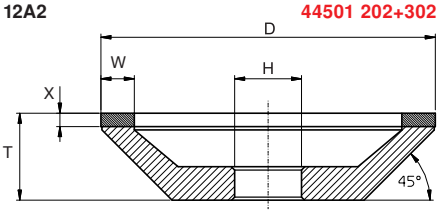
44501

11V9 — 44501 201+301



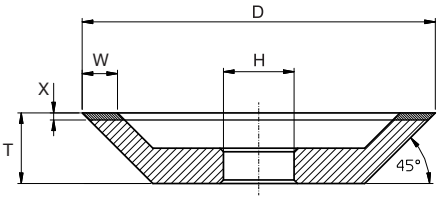
Type	D mm	H H6 mm	T mm	X mm	U mm	D126 44501 ...	B126 44501 ...
11V9	100	20	35	3	10	201	301

12A2 — 44501 202+302



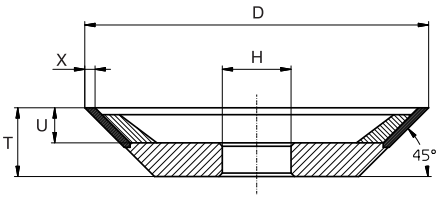
Type	D mm	H H6 mm	T mm	X mm	W mm	D126 44501 ...	B126 44501 ...
12A2	100	20	26	4	10	202	302

12V2 — 44501 203+303



Type	D mm	H H6 mm	T mm	X mm	W mm	D126 44501 ...	B126 44501 ...
12V2	100	20	20	2	10	203	303

12V9 — 44501 204+304



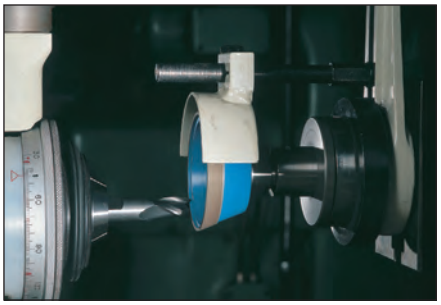
Type	D mm	H H6 mm	T mm	X mm	U mm	D126 44501 ...	B126 44501 ...
12V9	100	20	20	3	10	204	304

44502 Diamond cup wheels

PFERD

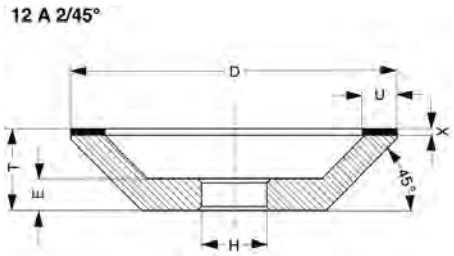
Design
Synthetic resin bond.
Applications
Intended in particular for grinding (sharpening) of cemented carbide tools on all common grinding machines. Universally suitable for dry and wet grinding (wet grinding is recommended).
Grain D 126: For finishing
Grain D 64: For fine-grinding.
Bonding PHT:
Specially designed for **high-performance dry grinding,** i.e. lower-temperature grinding even without coolant.

Note:
Grain concentration refers to the amount of grain in carats (ct) per volume unit (cm^3) of the abrasive coating.



44502

12 A 2/45°



12 A 2/45°

D x X x U x H mm	T mm	E mm	Grain	Bonding	Grain concentration	Wet grinding approx. m/sec	Dry grinding approx. m/sec	44502 ...
125 x 2 x 10 x 20	25	10	D 64	PHT	C 50 (2.2 ct/cm^3)	20 - 35	15 - 20	114
125 x 2 x 10 x 20	25	10	D 126	PHT	C 75 (3.3 ct/cm^3)	20 - 35	15 - 20	115

44540 Sanding block deburring wheel Scotch-Brite™ DB-WL

3M

Design
This wheel is made of wound fibre fleece. This guarantees a permanent release of the abrasive grain. **Extremely long service life.** High cutting performance.

Applications
Ideal for deburring and rounding edges and holes, milling or punching edges and deburring taps. Suitable for all metals, including hard and ductile materials such as stainless steel and titanium.

Note:
Reducer flange for compact wheels, see art. no. 44545.

44540

Type	External Ø x width x internal Ø mm	Rotation speed max. rpm	44540 ...
DB-WL	203 x 50.8 x 76.2	4,500	101

44541 Sanding block finishing wheel Scotch-Brite™ FS-WL

3M

Design
Wound fibre fleece wheel guarantees a permanent release of abrasive grain. The impregnation ensures a longer service life. Uniform grain distribution, no deviations in the surface. Gentle, adaptive application, quick cutting at low temperatures.

Applications
For fine machining of stainless steel, copper, brass and aluminium.

Note:
Reducer flange for compact wheels, see art. no. 44545.

44541

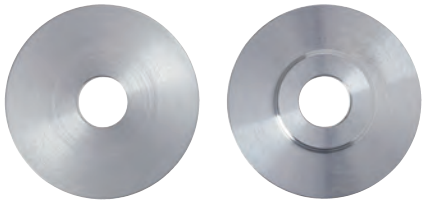
Type	External Ø x width x internal Ø mm	Rotation speed max. rpm	44541 ...
FS-WL	203 x 50.8 x 76.2	4,500	101

44545 Reducer flange for compact wheels

Design
In pairs.
Applications
This flange pair is used to mount compact wheels. They are suitable for all standard shank diameters. The hole can be drilled out for other shank diameters.

Note:
For compatible compact wheels, see art. no. 44540–44541.

44545



Can be used for internal Ø mm	Flange hole mm	44545 ...
76.2	13	101

44550 Sanding discs for roughing

AO

Design
Straight, ceramic bond, bonding type V 42, hardness 36 P.
Applications
For general workshop use. For roughing of normal steel, iron etc.
Quality
Abrasive grain synthetic corundum (AO).

Note:
Other sanding disc dimensions available on request. To reduce the hole Ø with reducing rings, see art. no. 44560.

44550

NK/grain 36			NK/grain 36			NK/grain 36		
Disc Ø x width x hole mm	44550	...	Disc Ø x width x hole mm	44550	...	Disc Ø x width x hole mm	44550	...
150 x 20 x 15		101	200 x 20 x 32		105	200 x 25 x 51		109
150 x 20 x 32		102	200 x 25 x 15		106	200 x 32 x 51		110
175 x 25 x 32		103	200 x 25 x 20		107	300 x 40 x 76		113
175 x 25 x 51		104	200 x 25 x 32		108			

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

44552 - 44556 Bench grinder wheels

Design
- Straight
- Ceramic bond
- Bonding type V 42

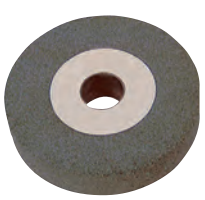
Note:
Other sanding disc dimensions available on request. To reduce the hole Ø with reducing rings, see art. no. 44560.

44552
Applications
Hardness M. For general workshop use.
Materials to be processed:
Unalloyed and low-alloy steel, unhardened, iron etc.
Quality
Synthetic corundum (NK).

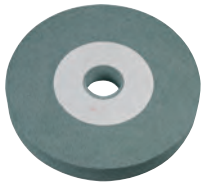
44554
Applications
Hardness K. For finish-grinding of alloyed steel, HSS and workshop steel.
Materials to be processed:
High-alloy steel (hardened), low-alloy steel (hardened), tool steel, HSS.
Quality
Pink fused corundum (EK).

44556
Applications
Hardness J. For finishing cast iron, cemented carbide and high-alloy steel.
Materials to be processed:
Cast iron, cemented carbide, high-alloy steel.
Quality
Green silicon carbide (SIC).

44552 44554



44556



	Synthetic corundum medium/K60		Corundum medium/K60		Silicon carbide green/K80	
Disc Ø x width x hole mm	44552	...	44554	...	44556	...
150 x 20 x 15		301		101		101
150 x 20 x 32		302		102		102
175 x 25 x 32		303		103		103
175 x 25 x 51		304		104		104
200 x 20 x 32		305		105		105
200 x 25 x 15		306		106		106
200 x 25 x 20		307		107		107
200 x 25 x 32		308		108		108
200 x 25 x 51		309		109		109
200 x 32 x 51		310		110		110
250 x 32 x 51		311		111		111
300 x 40 x 25		312		112		112
300 x 40 x 76		313		113		113

44560 Reducing rings for sanding discs

Design
In pairs.

Applications
For reducing the hole diameter of sanding discs (art. no. 44550-44556).
2 reducing rings are required per disc.

44560

		Pair			Pair			Pair	
External Ø mm	Internal Ø mm	44560	...	External Ø mm	Internal Ø mm	44560	...	External Ø mm	Internal Ø mm	44560	...
20	12		101	32	15		103	51	32		106
20	16		102	32	16		104	76	51		107
				32	20		105				

44902 - 44903 Visual grinding wheels

Design
Horizontally rotating. Elongated holes arranged radially on the break-resistant sanding disc ensure a see-through effect during sanding to allow the workpiece below to be observed. Abrasive covering with synthetic resin bonding – both sides can be used.
Quality
Corundum abrasive with silicon carbide.

44902
Type ER
Applications
For structural steels, malleable iron, steel casting, grey cast iron and non-metallic materials.

44903
Type EF
Applications
For high-speed steels (alloyed tool steels).

44902 - 44903

		Type ER		Type EF	
Grain	Ø x thickness x hole mm	44902	...	44903	...
60	210 x 5 x 12		202		202
120	210 x 4 x 12		205		205
150	210 x 4 x 12		206		206

91403 FIXTEC quick-action clamping nut

Design
Designed to permit practical, ergonomic working at all times: The patented FIXTEC quick-action nut for tool-free disc changes with integrated safety slip clutch for all angle grinders up to 150 mm Ø/thread M 14.

Thread	91403 ...
M 14	101

91403

91431 SDS quick-action clamping nut

BOSCH
Applications
Fast, tool-free clamping and releasing of plug-in tools without auxiliary tool for all angle grinders with thread M14.

Thread	91431 ...
M 14	101

91431

44601 Rough grinding discs (metal)

AO

ATORN®
Hard disc
Design
Offset, glass fibre-reinforced, open structure. Hard disc with high machining performance and edge strength.

Applications
For use on high-high-speed angle grinders. For machining structural and construction steels.
Quality
Abrasive grain synthetic corundum (AO).

44601

Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44601 ...
115 x 7	22.2	13,285	80	25 pcs.	201
125 x 7	22.2	12,200	80	25 pcs.	202
180 x 7	22.2	8,600	80	10 pcs.	203
230 x 7	22.2	6,600	80	10 pcs.	204

44606 - 44609 Rough grinding discs (metal)

AO

RHODIUS
Design
Offset, glass fibre-reinforced, open structure.
Applications
For machining steel on high-speed angle grinders.
Quality
Abrasive grain synthetic corundum (AO).

44606
Medium-hard disc type RS 2
Design
With high machining performance and edge strength.

Applications
For the machining of high-strength and high-alloy steels, structural steels, tool steels, hardened steels and Hardox.

44609
Standard universal type KSM
Design
Hard design with a long service life.
Applications
For general metalworking and universal use.

44606

44609

Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		Medium-hard 44606 ...	Standard 44609 ...
115 x 7	22.2	13,285	80	25 pcs.	101	101
125 x 7	22.2	12,200	80	25 pcs.	102	102
150 x 7	22.2	10,185	80	10 pcs.	103	
180 x 7	22.2	8,600	80	10 pcs.	104	104
180 x 10	22.2	8,600	80	10 pcs.	106	
230 x 7	22.2	6,600	80	10 pcs.		107

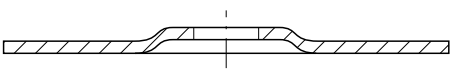
44615 Rough grinding discs (metal)

AO

PFERD
Universal line PSF STEEL
Advantage
- Fast progress and high efficiency due to considerable ease of grinding.
- Good service life
- Also suitable for low-performance angle grinders. Soft grinding characteristics, highly efficient machining even at low contact pressures.

Applications
For surface grinding, welding seam machining, fillet weld machining, gouging, chamfering and deburring. Can be used on steel and cast iron.
Quality
Abrasive grain synthetic corundum (AO).

44615



Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44615 ...
115 x 7	22.23	13,300	80	10 pcs.	101
125 x 7	22.23	12,200	80	10 pcs.	102
178 x 7	22.23	8,600	80	10 pcs.	103
178 x 8	22.23	8,600	80	10 pcs.	104
230 x 7	22.23	6,600	80	10 pcs.	105

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44617 Rough grinding discs (metal)

AO

PFERD

Performance line SG STEEL
Advantage
- Fast progress and maximum efficiency due to considerable ease of grinding
- Long service life, meaning fewer tool changes

Applications
For surface grinding, welding seam machining, fillet weld machining, gouging, chamfering and deburring. Can be used on steel.
Quality
Abrasive grain, special corundum (AO).

44617

Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44617	...
115 x 7.0	22.23	13,300	80	10 pcs.		102
125 x 7.0	22.23	12,200	80	10 pcs.		104
178 x 7.0	22.23	8,600	80	10 pcs.		106
178 x 8.0	22.23	8,600	80	10 pcs.		107
230 x 7.0	22.23	6,600	80	10 pcs.		108

44610 Rough grinding disc (metal)

VICTO GRAIN CER

PFERD

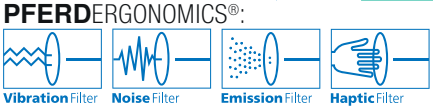
44610 104-105
CC-GRIND-SOLID STEEL VICTOGRAIN
Design
CC-GRIND-SOLID from PFERD is a modern, powerful and ergonomic alternative to conventional rough grinding discs. The abrasive grain cutting edges of the uniformly shaped and sized triangles of the **VICTOGRAIN** abrasive grain hit the workpiece at an optimal angle, meaning that the individual abrasive grains therefore require very little energy to penetrate the workpiece.
Advantage
- Ultimate, constant maximum performance at low temperatures and an extremely long service life
- Extremely fast work progress
- Requires less heat to be applied to the workpiece
- Less vibration, extremely quiet operation

Machining tasks
- Deburring
- Surface grinding
- Surface machining
- Chamfering
- Edge machining
- Welding seam machining
- Staged finishing

Machinable materials
Steel.
Quality
Ceramic abrasive grain (CER).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
For optimum performance, use with a shallow contact angle and the SFS CC-GRIND clamping flange set. For surface grinding only, not suitable for peripheral grinding.

PFERDERGONOMICS®:



PFERDEFICIENCY®:

44610

Ø mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec	Compatible clamping flange set		44610	...
115	22.23	13,300	80	44610 201	10 pcs.		104
125	22.23	12,200	80	44610 201	10 pcs.		105

44610 201-202
Clamping flange sets
Applications
The CC-GRIND clamping flange set is used to optimally position the CC-GRIND-SOLID and CC-GRIND-FILEX in the angle grinder protective cover, enabling extremely flat, efficient use of the sanding discs.The black support plate is placed on the original mounting flange of the angle grinder.
The silver flange nut replaces the original flange nut.

44610 201-202

Thread	Suitable for machine types	44610	...
M14	Angle grinder 115/125, mount M14		201
M14	Angle grinder 150/180, mount M14		202

Rough grinding discs

44630 Rough grinding discs (stainless steel)

AO

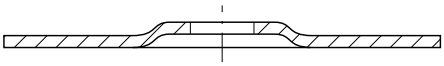
RHODIUS

Medium-hard disc
Type RS 38
Design
Offset, glass fibre-reinforced, open structure. Grinds easily, with exceptional machining performance and a long service life.

Applications
For rust and acid-resistant steels such as Inox, V2A, Coracid, Nirosta, heat-resistant steel casting (GX steels), spring steels, all structural and tool steels. For grinding edges, deburring, dressing weld seams.
Quality
Abrasive grain synthetic corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

44630

PROLINE ●●○



Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44630	...
115 x 6	22.2	13,285	80	25 pcs.		101
125 x 6	22.2	12,200	80	25 pcs.		102
180 x 6	22.2	8,600	80	10 pcs.		103
230 x 6	22.2	6,600	80	10 pcs.		105

44621 Rough grinding discs (stainless steel)

AO

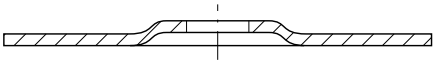
PFERD

Performance line SG INOX
Advantage
- Soft grinding characteristics for low-temperature grinding on stainless steel (INOX)
- Fast progress and maximum efficiency due to considerable ease of grinding
- Long service life, meaning fewer tool changes

Applications
For surface grinding, welding seam machining, fillet weld machining, gouging, chamfering and deburring. For use on stainless steel (INOX).
Quality
Abrasive grain, special corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
Widths of 4.1 and 5.0 mm are ideal for root seams. Does not contain iron, sulphur or chlorine fillers.

44621



Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44621	...
115 x 4.1	22.23	13,300	80	10 pcs.		101
115 x 7.0	22.23	13,300	80	10 pcs.		103
125 x 5.0	22.23	12,200	80	10 pcs.		105
125 x 7.0	22.23	12,200	80	10 pcs.		106

44632 Rough grinding discs (stainless steel)

CER

LUKAS

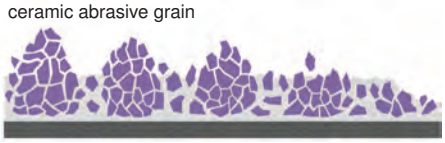
PurpleGrain Single
Design
- PurpleGrain Single offers a high abrasion rate with application of force
- The integrated support plate made from eco-friendly recycled fibre ensures high stability and durability
- Its innovative design ensures even wear without overheating, brittleness or chips
- The deep offset zone permits flat work. Thanks to its special tool geometry, PurpleGrain Single is perfect even for hard-to-reach areas and offers greater versatility than a conventional tool
- Self-sharpening ceramic abrasive grain ensures sustained aggressive low-temperature grinding at a low contact force. The tools therefore offer aggressive grinding down to the last grain

Applications
For machining stainless steel, steel.
Quality
Ceramic abrasive grain (CER).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

44632

Ceramic abrasive grain structure

Illustration of self-sharpening effect of ceramic abrasive grain



Ø mm	Grain	Hole Ø mm	Rotation speed max. rpm		44632	...
115	36	22.2	13,300	10 pcs.		101
125	36	22.2	12,200	10 pcs.		201

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44603 Rough grinding discs (stainless steel)

CER

ATORN®

Design

Innovative rough grinding discs with latest-generation ceramic abrasive grain with permanently ultra-sharp cutting edges.

Advantage

- Increased productivity, removing up to three times more material than commercially available discs
- Maximum aggressiveness combined with comfortable handling
- More cost effective thanks to extremely long service life
- Superior performance at low contact pressure
- Low-temperature grinding with no heat-induced blue discolouration minimises rework
- Free grind function reduces twisting at the beginning of the roughing process

Applications

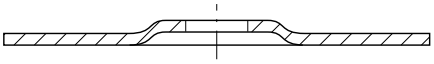
Ideal for users from pipe and pipeline construction, shipyards, metal construction, foundries, commercial vehicle construction, steel construction, plant construction, crane construction, construction vehicle manufacturing. Preparation and removal of welding seams, weld spatter removal, descaling, rough deburring and abrasive grinding on stainless steel or steel.

Quality

Ceramic abrasive grain (CER).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

NEW

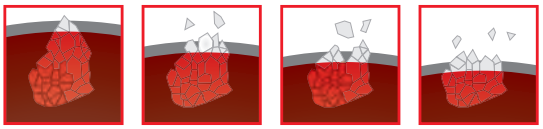
44603



Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/s		44603	...
115 x 7	22.23	13,280	80	10 pcs.		201
125 x 7	22.23	12,200	80	10 pcs.		202
180 x 7	22.23	8,600	80	10 pcs.		203
230 x 7	22.23	6,600	80	10 pcs.		204

Info Ceramic abrasive grain: Permanently sharp edges for a sustained bite

The new binding technology and microcrystalline structure of the ceramic abrasive grain guarantees a sustained and targeted release of new, ultra-sharp cutting edges. The ATORN rough grinding disc offers continued peak performance at all times – from start to finish. ATORN quality for maximum cutting speed, removal rate and service life.



44604 Rough grinding discs (stainless steel)

CER

3M

CubitronTM II

Design

- Up to three times the removal rate of conventional rough grinding discs
- Immediate engagement in solid material
- Up to 70% reduction in force required with the same removal rates
- Fast, low temperature grinding and optimised grinding processes

Applications

Ideal for structural steelwork applications (side grinding with frequent edge stress), chamfering, grinding of fillet welds, dressing, gouging, coarse grinding tasks and welding seam removal.

Quality

Ceramic abrasive grain (CER).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

44604

Ø x width mm	Hole Ø mm	Working speed max. m/s		44604	...
115 x 7	22.2	80	10 pcs.		101
125 x 7	22.2	80	10 pcs.		102
178 x 7	22.2	80	10 pcs.		103
230 x 7	22.2	80	10 pcs.		104

Rough grinding discs

44631 Rough grinding discs (stainless steel)

VICTO GRAIN CER

PFERD

44631 104-105
CC-GRIND-SOLID INOX VICTOGRAIN
Design
CC-GRIND-SOLID from PFERD is a modern, powerful and ergonomic alternative to conventional rough grinding discs. The abrasive grain cutting edges of the uniformly shaped and sized triangles of the **VICTOGRAIN** abrasive grain hit the workpiece at an optimal angle, meaning that the individual abrasive grains therefore require very little energy to penetrate the workpiece.
Advantage
- Ultimate, constant maximum performance at low temperatures and an extremely long service life
- Extremely fast work progress
- Requires less heat to be applied to the workpiece
- Less vibration, extremely quiet operation

Machining tasks
- Deburring
- Surface grinding
- Surface machining
- Chamfering
- Edge machining
- Welding seam machining

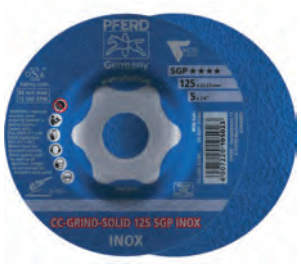
Machinable materials
Stainless steel.
Quality
Ceramic abrasive grain (CER).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
For optimum performance, use with a shallow contact angle and the SFS CC GRIND clamping flange set. For surface grinding only, not suitable for peripheral grinding.

PFERDERGONOMICS®:
Vibration Filter | Noise Filter | Emission Filter | Haptic Filter

PFERDEFICIENCY®:
Energy Saving | Waste Saving | Time Saving | Resource Saving

44631



Ø mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec	Compatible clamping flange set		44631 ...
115	22.23	13,300	80	44610 201	10 pcs.	104
125	22.23	12,200	80	44610 201	10 pcs.	105

44610 201-202
Clamping flange sets
Applications
The CC-GRIND clamping flange set is used to optimally position the CC-GRIND-SOLID and CC-GRIND-FILEX in the angle grinder protective cover, enabling extremely flat, efficient use of the sanding discs.

The black support plate is placed on the original mounting flange of the angle grinder.
The silver flange nut replaces the original flange nut.

44610 201-202

Thread	Suitable for machine types	44610 ...
M14	Angle grinder 115/125, mount M14	201
M14	Angle grinder 150/180, mount M14	202

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44611 Rough grinding discs (alu)

RHODIUS

Medium-hard disc
Type RS 24
Design
Offset, glass fibre-reinforced, open structure. Grinds easily, with an exceptional removal rate and long service life. Special filler materials to prevent clogging of the disc.

Applications
For all lubricating non-ferrous metals such as aluminium, copper, zinc, lead and tin and alloys such as bronze, brass and gunmetal. For grinding sprues, casting skin, weld seams, burrs and edges.
Quality
Abrasive grain synthetic corundum (AO).

44611

TOPLINE

Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44611	...
115 x 7	22.2	13,285	80	25 pcs.		101
125 x 7	22.2	12,200	80	25 pcs.		102
180 x 7	22.2	8,600	80	10 pcs.		104

44612 Rough grinding discs High Speed ALUMASTER set

PFERD

44612 100
High Speed ALUMASTER rough grinding disc
Design
- Extremely high cutting performance
- Protects health as no hazardous or explosive dusts are generated
- Maximum safety thanks to innovative cutting edge geometry and integrated depth limiter
- Extremely lightweight and robust tool due to innovative GFRP disc
- Can be used on all standard angle grinders (Ø 115/125 mm)
- Can be used anywhere as does not require suction
- Extremely durable due to innovative disc geometry and specially developed rotating and replaceable carbide indexable inserts
- No clogging of the tool even on lubricating materials
- Economic and environmentally friendly alternative to roughing and serrated lock washers

Applications
Ideal for aluminium machining.
The set includes:
- High Speed ALUMASTER rough grinding disc
- Indexable insert set
- Screw set for indexable inserts
- TX wrenches

44612 201
Indexable insert set

44612 200
Screw set for indexable inserts

44612 100

Designation	Ø mm	Rotation speed max. rpm	44612	...
HSD-F 115/125 ALUMASTER	115/125	13,300/12,300		100

Designation	Ø mm	Set contents	Compatible with	44612	...
WSP-A-12R ALUMASTER	12	10	HSD-F 115/125 ALUMASTER		201

Designation	Set contents	Compatible with Indexable inserts	44612	...
WSP-S-M4S	5	HSD-F 115/125 ALUMASTER		200

44660 - 44661 Cup wheels (metal/stone)

AO SIC

RHODIUS

Design
Conical, medium hard.
Applications
For pre-sanding to final sanding.
On commercially available angle grinders.

Note:
Use special protective cover!

44660
Applications
For sanding surfaces, constructions and welding seams. For levelling of joined parts by face mounting. For structural steels, unalloyed and alloyed steels, spring steels and heat-treated steels.
Quality
Abrasive grain synthetic corundum (AO).

44661
Applications
For sanding natural and artificial stone, edge chamfering, fettling of grey cast iron parts, sanding formwork panels. For concrete, flame-proof stone, tiles, glazed tiles, clinker, moulding sand.
Quality
Abrasive grain silicon carbide (SIC).

44660 44661

PROLINE ●●○ PROLINE ●●○

Grain	Maximum Ø x height mm	Hardness	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec	Metal 44660	...	Stone 44661	...
24 (coarse)	110/90 x 55	Q	22.2	8680	50		201		201
36 (medium)	110/90 x 55	Q	22.2	8680	50		202		
60 (fine)	110/90 x 55	Q	22.2	8680	50		203		

44705 Combination grinding discs

AO

RHODIUS

Type XT 35 Cross
Design
Extra-thin combination disc (1.9 mm), offset. Enables pleasantly straightforward and rapid cutting and rough grinding with a good service life. Three full fabric layers guarantee very high stability and maximum occupational safety. Free from iron and sulphur. HydroProtect formula offers effective protection against age-related loss of performance. For longer-lasting retention and cutting performance.
Applications
Extra-fine cutting, deburring, chamfering and sanding with a disc. For stainless and acid-resistant steels, Hardox, hardened, high alloy and high strength steels, zinc-plated parts, steels, tool steels.
Quality
Abrasive grain synthetic corundum (AO).

44705

BRAINTOOLS by Rhodius

Ø x Thickness mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44705	...
115 x 1.9	22.23	13,285	80	25 pcs.		101
125 x 1.9	22.23	12,200	80	25 pcs.		102

44710 Combination grinding discs

AO

PFERD

Universal line PSF DUO STEELOX
Design
- To EN 12413
- With high cutting performance and a long service life
- Robust, dimensionally and laterally stable disc design
- Reduces labour costs by reducing setup times
- Aggressive abrasive and high-grade abrasive grain bond

Applications
For cutting, deburring, surface grinding, fillet weld machining, gouging and welding seam machining. Suitable for use on steel and stainless steel (INOX). Suitable for angle grinders in all performance classes.
Quality
Abrasive grain corundum (AO).

Note:
Does not contain iron, sulphur or chlorine fillers.

44710

Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm		44710	...
115 x 1.9	offset	22.23	13,300	10 pcs.		100
115 x 2.8	offset	22.23	13,300	10 pcs.		101
125 x 1.9	offset	22.23	12,200	10 pcs.		103
125 x 2.8	offset	22.23	12,200	10 pcs.		102

Info Combination grinding discs DUODISC®

PFERD

Combination grinding discs are the solution for safe cutting and grinding with a single tool. They meet all the requirements of EN 12413 for cutting and rough grinding discs.

Advantage
- Safe, standard-compliant solution for cutting and lateral grinding with a single tool
- Save time thanks to fewer disc changes
- For universal use on steel and stainless steel (INOX)
- Widths 1.4 and 1.9 mm, also ideal for cordless angle grinders
- Solves issues relating to scale grinding

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44800 - 44801 Small free-hand cutting discs

AO

PFERD

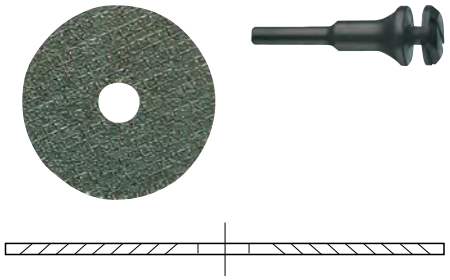
44800
Medium-hard disc
Design
To EN 12413. Straight, fibre-reinforced synthetic resin bond. Does not contain iron, sulphur or chlorine fillers.
Applications
Universal implementation for cutting steel, stainless steel, cast iron and non-ferrous metals. Ideal for highly heat-resistant materials, e.g. for engine repair in turbine construction. Also in bodywork construction for cutting sheet metal in hard-to-reach areas.
Quality
Abrasive grain synthetic corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
With the clamping bolt mounted on straight grinders, can be used up to the maximum permissible rotation speed of the clamping bolt.
For (pneumatic) straight grinders, see art. no. 91500–91503, 92425, 92430.

44801
Clamping bolts
Design
Shank Ø 6 or 10 mm.

Note:
When using the clamping bolt, comply with the maximum permissible rotation speed specified on the package insert.

44800 44801



Ø x width mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec	Cutting disc 44800	...	Clamping bolt 44801	...
30 x 1.1	6	51,000	80		**101**		**101**
40 x 1.1	6	38,200	80		**103**		**101**
50 x 2.1	6	30,600	80		**107**		**101**
65 x 2.1	10	23,500	80		**112**		**103**
70 x 2.1	10	21,800	80		**116**		**103**
76 x 2.1	10	20,100	80		**121**		**103**

44804 Free-hand cutting discs (metal)

AO

ATORN®

Hard disc
Design
Straight, thin design. Very hard cutting disc for extremely short cutting times. Smooth sides for chatter-free and virtually burr-free cutting.

Applications
For cutting thin-walled pipes, thin sheet steel and profiles.
Quality
Abrasive grain synthetic corundum (AO).

44804

Ø x Thickness mm	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44804	...
115 x 1.0	22.2	13,285	80	50 pcs.		**101**
115 x 1.5	22.2	13,285	80	50 pcs.		**102**
125 x 1.0	22.2	12,200	80	50 pcs.		**103**
125 x 1.5	22.2	12,200	80	50 pcs.		**104**
180 x 1.5	22.2	8,600	80	25 pcs.		**106**
230 x 1.9	22.2	8,600	80	25 pcs.		**107**

44805 Cutting discs (metal/cast iron)

AO

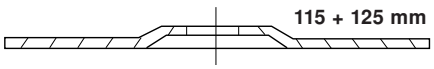
ATORN®

Medium-hard disc
Applications
For cutting high-strength structural and construction steels. For machining all types of construction steels, alloyed and high-alloy steels, stainless steels and cast iron as well as for cutting larger cross-sections of solid material.

Quality
Abrasive grain synthetic corundum (AO).

NEW

44805



Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44805	...
115 x 3	offset	22.2	13,285	80	25 pcs.		**201**
125 x 3	offset	22.2	12,200	80	25 pcs.		**202**
180 x 3	straight	22.2	8,600	80	25 pcs.		**203**
230 x 3	straight	22.2	6,600	80	25 pcs.		**204**

44809 - 44816 Free-hand cutting discs (metal)

AO

Sanding/cutting tools

RHODIUS

Design
Glass-fibre reinforced, open structure,
hole Ø 22.2 mm, max. working speed 80 m/sec.
Quality
Abrasive grain synthetic corundum (AO).

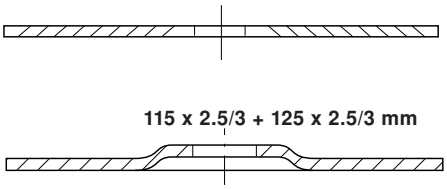
44809
Extra-thin high-performance cutting disc
Type XT20
Design
Very hard, ultra-fast cutting, extremely thin, millimetre precision, chatter free, burr free, quiet, cool, with an extremely long service life.
Applications
For cutting solid steel materials, pipes, profiles, plates, spring steels and tool steels.

44810
High-performance cutting disc
Type XT/FT/FTK 67
Design
With an extremely long service life, cuts at particularly low temperatures. HydroProtect formula offers effective protection against age-related loss of performance. For longer-lasting retention and cutting performance.
Applications
For cutting sheet metal, pipes, profiles and solid steel material. Easily cuts all ferrous materials.

44814
Medium-hard disc
Type KSM/KSMK
Design
Good performance and cutting properties.
Applications
For universal use in metalworking.

44815
Special medium-hard
Type FT/FTK 33
Design
Cool and fast cutting with a long service life.
Applications
For cutting high-strength structural and construction steels.

44816
Medium-hard cutting disc
Type XT/FT/FTK 24
Design
Even cuts heavy-duty materials easily, long service life. HydroProtect formula offers effective protection against age-related loss of performance.
For longer-lasting retention and cutting performance.
Applications
Ideally suited for cutting aluminium, aluminium alloys, copper, brass, bronze and other lubricating non-ferrous metals.



44809

44810

44814

44815

44816

Ø x thickness mm	Type	Rotation speed max. rpm.		XT20 44809	...	XT/FT/FTK 67 44810	...	KSM/KSMK 44814	...	FT/FTK 33 44815	...	XT/FT/FTK 24 44816	...
115 x 1.0	straight	13,285	-		101		201						
115 x 1.5	straight	13,285	-		102		203						103
115 x 2.5	offset	13,285	-										108
115 x 3.0	offset	13,285	25 pcs.						108		208		
115 x 3.0	offset	13,285	-				208						
125 x 1.0	straight	12,200	-		103		209						
125 x 1.5	straight	12,200	-		104		211						111
125 x 2.5	offset	12,200	25 pcs.										116
125 x 3.0	offset	12,200	25 pcs.				216		116		216		
150 x 1.5	straight	10,185	25 pcs.		108								
150 x 3.0	straight	10,185	-						223				
180 x 1.5	straight	8,600	25 pcs.		105		229						
180 x 1.5	straight	8,600	-										128
180 x 3.0	straight	8,600	25 pcs.				231		131		231		
180 x 3.0	straight	8,600	-										131
230 x 1.9	straight	6,600	25 pcs.		106		237						137
230 x 3.0	straight	6,600	25 pcs.				239		139				139
230 x 3.0	straight	6,600	-								239		

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44806 Free-hand cutting discs (metal)

AO

PFERD

44806

Universal line PSF STEEL

Design

- **Thickness: 1.9/1.6/1.0 mm:** for fast, comfortable and burr-free cutting.
- **Thickness: 2.4 mm:** for universal cutting tasks.
- **Thickness: 3.2 mm:** for an extremely long service life and high degree of lateral stability. Suitable for angle grinders in all performance classes.

Advantage

- Fast progress owing to high cutting efficiency
- Very cost effective thanks to long service life

Applications

For cutting sheet metal, profiles and solid material, creating openings.

Quality

Abrasive grain synthetic corundum (AO).

115 x 2.4 + 125 x 2.4 mm

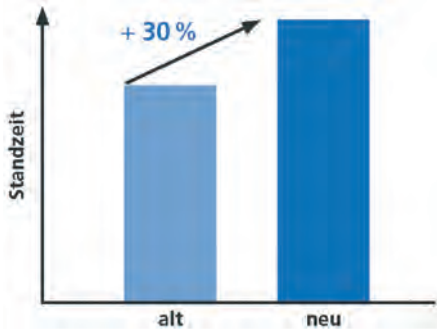
Ø x thickness mm	Type	Grain size	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44806	...
115 x 1.0	straight	60	22.23	13,300	80	25 pcs.		**105**
115 x 1.6	straight	46	22.23	13,300	80	25 pcs.		**106**
115 x 2.4	offset	46/30	22.23	13,300	80	25 pcs.		**107**
125 x 1.0	straight	60	22.23	12,200	80	25 pcs.		**109**
125 x 1.6	straight	46	22.23	12,200	80	25 pcs.		**110**
125 x 2.4	offset	46/30	22.23	12,200	80	25 pcs.		**111**
178 x 1.6	straight	46	22.23	8,600	80	25 pcs.		**112**
178 x 3.2	straight	24	22.23	8,600	80	25 pcs.		**113**
230 x 1.9	straight	46	22.23	6,600	80	25 pcs.		**114**
230 x 3.0	straight	24	22.23	6,600	80	25 pcs.		**115**

44807 Free-hand cutting discs (metal)

AO

PFERD

44807



Performance line SG STEEL

Design

- **Thickness: 1.9/1.6/1.0 mm:** for fast, comfortable and burr-free cutting.
- **Thickness: 2.4 mm:** for universal cutting tasks.
- **Thickness: 3.2 mm:** for an extremely long service life and high degree of lateral stability. Suitable for angle grinders in all performance classes.

Advantage

- Fast progress owing to high cutting efficiency
- Highly cost-effective thanks to extremely long service life

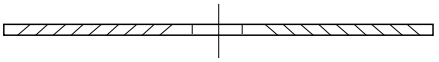
Applications

For cutting sheet metal, profiles and solid material, creating openings.

Quality

Abrasive grain high-performance corundum (AO).

* Thickness 1.0 has been optimised for a longer service life and improved handling (art. no. 44807 104 and 109). The SSG cutting discs offer an up to 30% longer service life than cutting discs for steel and stainless steel (INOX)! SSG therefore represents the best solution for users who only machine steel.



115 x 2.4 + 125 x 2.4 mm

Ø x thickness mm	Type	Grain size	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44807	...
*** 115 x 1.0**	straight	60	22.23	13,300	80	25 pcs.		**104**
115 x 1.6	straight	46	22.23	13,300	80	25 pcs.		**105**
115 x 2.4	straight	30	22.23	13,300	80	25 pcs.		**106**
115 x 2.4	offset	46/30	22.23	13,300	80	25 pcs.		**107**
*** 125 x 1.0**	straight	60	22.23	12,200	80	25 pcs.		**109**
125 x 1.6	straight	46	22.23	12,200	80	25 pcs.		**110**
125 x 2.4	straight	30	22.23	12,200	80	25 pcs.		**111**
125 x 2.4	offset	46/30	22.23	12,200	80	25 pcs.		**112**
178 x 1.6	straight	46	22.23	8,600	80	25 pcs.		**115**
178 x 3.2	straight	24	22.23	8,600	80	25 pcs.		**116**
230 x 1.9	straight	46	22.23	6,600	80	25 pcs.		**119**
230 x 2.9	straight	24	22.23	6,600	80	25 pcs.		**120**

Cutting discs

44824 Free-hand extra thin cutting discs (stainless steel)

AO

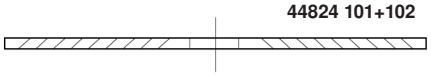
ATORN®

Design
- The latest generation of extra thin high-performance cutting discs
- Longer service life and improved cutting performance
- Clean, almost burr-free cuts requiring minimum application of force
- Minimises post-machining work, such as cleaning and deburring
- Reduces heat-induced blue discolouration
- No tendency to kick back or risk of jamming
- 30% less dust production
- Noise reducing and vibration damping
- Improved performance and significantly lower tool wear
- Short cutting times thanks to exceptional cutting performance and rough lateral surfaces

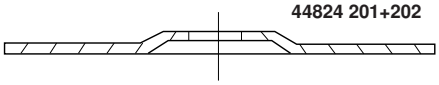
Applications
Super thin cutting discs are particularly suitable for thin-walled sheet steel, profiles and pipes, but can also cut through small cross-sections, bars and iron reinforcements quickly and easily.
Quality
Abrasive grain synthetic corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

44824

44824 101+102



44824 201+202



Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44824 ...
115 x 0.75	straight	22.23	13,300	80	25 pcs.	**101**
115 x 0.75	offset	22.23	13,300	80	25 pcs.	**201**
125 x 0.75	straight	22.23	12,250	80	25 pcs.	**102**
125 x 0.75	offset	22.23	12,250	80	25 pcs.	**202**

44802 Free-hand cutting discs (metal and stainless steel)

AO

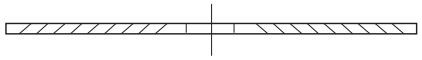
HHW

Design
High-performance cutting disc for steel and stainless steel with high cutting performance and minimal expenditure of force. The disc offers an exceptionally clean cut and high cutting speed. This disc is ideal for use with cordless angle grinders.
Advantage
- Longer service life
- High cutting speed
- Fast, low-temperature cutting
- Minimal expenditure of force
- Burr-free edges

Applications
Cutting disc for cutting thin-walled profiles, tubes and plates made of non-ferrous metals, steel, stainless steel and composite materials (GFRP).
Quality
Abrasive grain high-performance corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

NEW

44802



Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44802 ...
115 x 1.0	straight	22.23	13,300	80	50 pcs.	**201**
125 x 1.0	straight	22.23	12,250	80	50 pcs.	**202**
180 x 1.6	straight	22.23	8,500	80	25 pcs.	**203**
230 x 1.9	straight	22.23	6,650	80	25 pcs.	**204**

NEW

44802 200

44802 200
Design
Practical storage box with 10 cutting discs (125 x 1 mm) and carrier core for safe transport.

Ø x thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		Pack= pcs.	44802 ...
125 x 1.0	straight	22.23	12,250	80	1 pcs.	10	**200**

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44825 Free-hand cutting discs (stainless steel)

AO

ATORN®

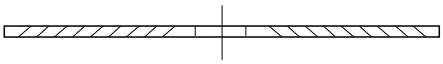
Very hard disc

Design
- Highly durable cutting disc with good cutting properties
- Minimal burr formation, sparking and odour
- High cutting speed and a long service life

Applications
Iron and sulphur-free cutting disc for cutting alloyed, high-alloy and non-rusting stainless steels, sheet metal, pipes, flat bars, profiles and solid material.

Quality
Abrasive grain synthetic corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

44825



Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44825 ...
115 x 1.0	straight	22.2	13,300	80	50 pcs.	**101**
115 x 1.5	straight	22.2	13,300	80	50 pcs.	**102**
125 x 1.0	straight	22.2	12,250	80	50 pcs.	**103**
125 x 1.5	straight	22.2	12,250	80	50 pcs.	**104**
180 x 1.5	straight	22.2	8,500	80	25 pcs.	**106**
230 x 1.9	straight	22.2	6,650	80	25 pcs.	**107**

44825 303

44825 303
Design
10x cutting discs in sheet steel box with viewing window for safe storage of the cutting discs.

Ø x thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		Pack= pcs.	44825 ...
125 x 1.0	straight	22.2	12,250	80	1 pcs.	10	**303**

44826 Free-hand cutting discs X-Lock (metal and stainless steel)

AO

ATORN®

Design
High-performance cutting disc with the innovative Bosch X-LOCK clamping system. For extremely rapid cutting of steel and stainless steel with millimetre precision and minimal force. The disc offers an exceptionally clean cut and high cutting speed.This disc is ideal for use with cordless angle grinders.

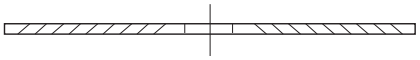
Advantage
- Innovative quick-action clamping system X-Lock
- Extremely long service life
- High cutting speed
- Fast, low-temperature cutting
- Burr-free edges

Applications
Cutting disc for cutting thin-walled profiles, tubes and plates made of non-ferrous metals, steel, stainless steel and composite materials (GFRP).

Quality
Abrasive grain high-performance corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

NEW

44826



Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44826 ...
125 x 1.0	straight	22.23	12,250	80	50 pcs.	**101**

NEW

44826 100

44826 100
Design
Practical storage box with 10 cutting discs (125 x 1 mm) and carrier core for safe transport.

Ø x thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		Pack= pcs.	44826 ...
125 x 1.0	straight	22.23	12,250	80	1 pcs.	10	**100**

Cutting discs

44820 Free-hand cutting discs (stainless steel)

AO

RHODIUS

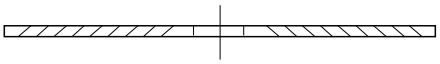
Type XT/FT/FTK 38
Design
Highly durable cutting disc with good cutting properties. **Free from iron and sulphur.** HydroProtect formula offers effective protection against age-related loss of performance. For longer-lasting retention and cutting performance.

Applications
For cutting alloyed, high-alloy and non-rusting stainless steels, sheet metal, pipes, profiles and solid material.
Quality
Abrasive grain synthetic corundum (AO). FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

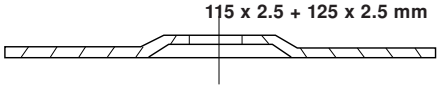
Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44820	...
115 x 1.0	straight	22.2	13,300	80	50 pcs.		301
115 x 1.5	straight	22.2	13,300	80	50 pcs.		302
115 x 2.5	offset	22.2	13,300	80	25 pcs.		303
125 x 1.0	straight	22.2	12,250	80	50 pcs.		304
125 x 1.5	straight	22.2	12,250	80	50 pcs.		305
125 x 2.5	offset	22.2	12,250	80	25 pcs.		306
* 180 x 1.5	straight	22.2	8,500	80	25 pcs.		307
180 x 3.0	straight	22.2	8,500	80	25 pcs.		308
* 230 x 1.9	straight	22.2	6,650	80	25 pcs.		309
230 x 3.0	straight	22.2	6,650	80	25 pcs.		310

* Up to 30% more cuts.

44820 304 | 44820



115 x 2.5 + 125 x 2.5 mm



44823 Free-hand cutting discs (stainless steel)

AO

RHODIUS

Quality
Abrasive grain synthetic corundum (AO). FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

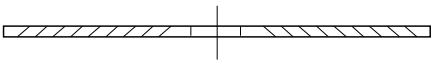
44823 100 + 107
Type XTK8
Design
Very hard, iron and sulphur-free, extremely fast cutting, millimetre thin, millimetre precision, chatter free, burr free, quiet, low temperature. HydroProtect formula offers effective protection against age-related loss of performance. For longer-lasting retention and cutting performance.
Applications
0.8 mm precision cutting disc for thin sheet metal.

44823 101-106 + 109
Type XT10
Design
Very hard, iron and sulphur-free. Extremely long service life meaning fewer disc changes and maximum cost effectiveness. Low-temperature, burr-free cutting. HydroProtect formula offers effective protection against age-related loss of performance. For longer-lasting retention and cutting performance.
Applications
For cutting solid material, pipes, profiles and stainless steel sheet metal. Ideal for all stainless and acid-resistant steels, spring steels, tool steels.

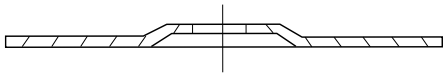
Ø x thickness mm	Type	Hole Ø mm	Rotation speed max. rpm		44823	...
115 x 0.8	offset	22.23	13,285	50 pcs.		100
115 x 1.0	straight	22.23	13,285	50 pcs.		101
115 x 1.5	straight	22.23	13,285	50 pcs.		102
125 x 0.8	offset	22.23	12,200	50 pcs.		107
125 x 1.0	straight	22.23	12,200	50 pcs.		103
125 x 1.5	straight	22.23	12,200	50 pcs.		104
* 150 x 1.5	straight	22.23	10,185	25 pcs.		109
* 180 x 1.5	straight	22.23	8,600	25 pcs.		105
* 230 x 1.9	straight	22.23	6,600	25 pcs.		106

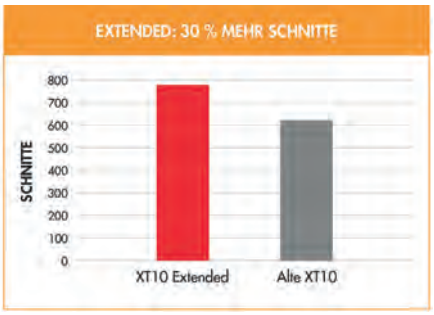
* Up to 30% more cuts.

44823 100 + 107 | 44823



115 x 0.8 + 125 x 0.8 mm





44830 Free-hand cutting discs (stainless steel)

AO

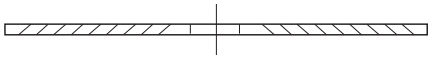
PFERD

Universal line PSF STEELOX
Advantage
- Fast progress owing to high cutting efficiency
- Very cost effective thanks to long service life
- Thin cutting discs are ideal for cordless angle grinders

Applications
For cutting sheet metal, profiles and solid material, creating openings. For universal use on steel and stainless steel (INOX).
Quality
Abrasive grain synthetic corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
Does not contain iron, sulphur or chlorine fillers.

44830



Ø x thickness mm	Type	Grain size	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44830	...
115 x 1.0	straight	60	22.23	13,300	80	25 pcs.		**105**
115 x 1.6	straight	46	22.23	13,300	80	25 pcs.		**106**
115 x 2.4	straight	46	22.23	13,300	80	25 pcs.		**107**
125 x 1.0	straight	60	22.23	12,200	80	25 pcs.		**109**
125 x 1.6	straight	46	22.23	12,200	80	25 pcs.		**110**
125 x 2.4	straight	46	22.23	12,200	80	25 pcs.		**111**
178 x 1.6	straight	46	22.23	8,600	80	25 pcs.		**112**
178 x 2.5	straight	24	22.23	8,600	80	25 pcs.		**113**
230 x 1.9	straight	46	22.23	6,600	80	25 pcs.		**114**
230 x 2.5	straight	24	22.23	6,600	80	25 pcs.		**115**

44832 Free-hand cutting discs (stainless steel)

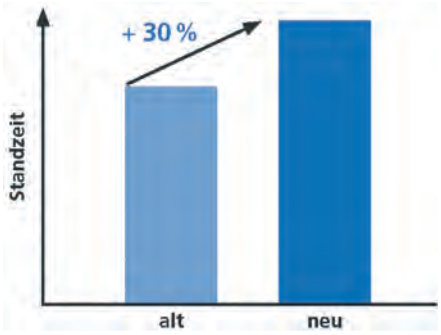
AO

PFERD

Power line SG STEELOX
Advantage
- Fast progress owing to high cutting efficiency
- Highly cost-effective thanks to extremely long service life

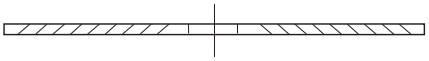
Applications
For cutting sheet metal, profiles and solid material, creating openings. For universal use on steel and stainless steel (INOX).
Quality
Abrasive grain high-performance corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
Does not contain iron, sulphur or chlorine fillers.



* Following systematic further development, the 1.0 mm disc R SG-INOX (art. no. 44832 102 and 106) sets new standards in performance. This intensive development has improved performance by up to 30%.

44832



Ø x thickness mm	Type	Grain size	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44832	...
*** 115 x 1.0**	straight	60	22.23	13,300	80	25 pcs.		**102**
115 x 1.6	straight	46	22.23	13,300	80	25 pcs.		**103**
115 x 2.4	straight	46	22.23	13,300	80	25 pcs.		**104**
*** 125 x 1.0**	straight	60	22.23	12,200	80	25 pcs.		**106**
125 x 1.6	straight	46	22.23	12,200	80	25 pcs.		**107**
125 x 2.4	straight	46	22.23	12,200	80	25 pcs.		**108**
178 x 1.6	straight	46	22.23	8,600	80	25 pcs.		**109**
178 x 2.5	straight	24	22.23	8,600	80	25 pcs.		**110**
230 x 1.9	straight	46	22.23	6,600	80	25 pcs.		**111**
230 x 2.5	straight	24	22.23	6,600	80	25 pcs.		**112**

Cutting discs

44833 Free-hand cutting discs (stainless steel)

AO

PFERD

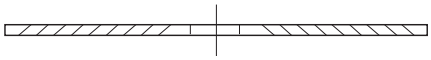
Special line SGP STEELOX
Advantage
- Exceptional service life on thin sheet metal and profiles due to wear-resistant binding system
- Fast progress owing to high cutting efficiency

Applications
For cutting sheet metal, profiles and solid material, creating openings.
For universal use on steel and stainless steel (INOX).

Quality
Abrasive grain high-performance corundum (AO).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

Note:
Does not contain iron, sulphur or chlorine fillers.

44833



Ø x thickness mm	Type	Grain size	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		44833	...
115 x 1.0	straight	60	22.23	13,300	80	25 pcs.		**102**
115 x 1.6	straight	46	22.23	13,300	80	25 pcs.		**103**
125 x 0.8	straight	60	22.23	12,200	80	25 pcs.		**155**
125 x 1.0	straight	60	22.23	12,200	80	25 pcs.		**106**
125 x 1.6	straight	46	22.23	12,200	80	25 pcs.		**107**
178 x 1.6	straight	46	22.23	8,600	80	25 pcs.		**110**
230 x 1.9	straight	46	22.23	6,600	80	25 pcs.		**115**

44811 Free-hand cutting discs (stainless steel)

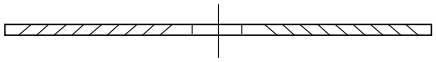
CER

3M

CubitronTM II
Design
- Faster cutting and a longer service life
- Minimal discolouration
- Ultra thin cut with minimal burr formation
- Fast, low temperature grinding and optimised grinding processes

Applications
Fast, convenient cutting of profiles, bars and pipes as well as stainless steel, structural steel and non-ferrous base metal sheet metal.
Quality
Ceramic abrasive grain (CER).
FE/S/Cl <= 0.1% free from iron, chlorine and sulphur.

44811



Ø x thickness mm	Type	Hole Ø mm	Working speed max. m/s		44811	...
76 x 1.0	straight	6.35	80	25 pcs.		**101**
76 x 1.0	straight	9.53	80	25 pcs.		**102**
115 x 1.0	straight	22.20	80	25 pcs.		**103**
115 x 1.6	straight	22.20	80	25 pcs.		**104**
115 x 2.5	straight	22.20	80	25 pcs.		**105**
125 x 1.0	straight	22.20	80	25 pcs.		**106**
125 x 1.6	straight	22.20	80	25 pcs.		**107**
125 x 2.0	straight	22.20	80	25 pcs.		**108**
125 x 2.5	straight	22.20	80	25 pcs.		**109**
180 x 1.6	straight	22.20	80	25 pcs.		**110**
180 x 2.0	straight	22.20	80	25 pcs.		**111**
180 x 2.5	straight	22.20	80	25 pcs.		**112**
230 x 2.5	straight	22.20	80	25 pcs.		**113**

44834 Free-hand cutting discs (aluminium)

AO

PFERD

Design
Cutting disc for aluminium and other non-ferrous metals with high cutting performance and maximum service life.
Advantage
- Special abrasive mixture and binding technology prevent the cutting disc clogging, even on soft, tough aluminium
- Fast progress owing to high cutting efficiency
- Highly cost-effective thanks to extremely long service life
- Contains no fillers to leave unwanted residue on the workpiece.
- **The surface can therefore be welded directly**

Applications
Creating openings. Cutting solid material, sheet metal and profiles.
Machinable materials:
- Aluminium
- Other non-ferrous metals

Quality
Abrasive grain synthetic corundum (AO).

NEW

44834 101 44834 201

Ø x Thickness mm	Type	Hole Ø mm	Rotation speed max. rpm		44834	...
115 x 1.0	straight	22.23	13,300	25 pcs.		**101**
125 x 1.0	straight	22.23	12,200	25 pcs.		**201**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

44818 - 44819 Free-hand cutting discs (stone)

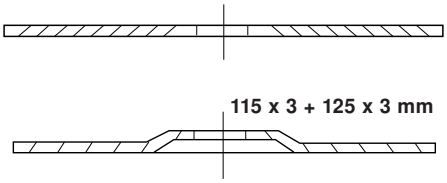
RHODIUS

Design
Glass-fibre reinforced, open structure.
Quality
Abrasive grain synthetic corundum (AO).

44818
Special hard type FT/FTK 44
Design
Long service life and a broad range of applications.
Applications
For cutting concrete, natural and artificial stone as well as roof tiles, granite, ceramics and clinker etc.

44819
Special hard type XT 66
Design
Very hard cutting disc. Good cutting performance with a long service life. Smooth, precise cutting edges. Up to 50% less dust.
Applications
For glazed tiles, tiles, marble, window sills, stairs, slate roof etc.
Special application: titanium.

44818 44819



Ø x thickness mm	Type	Hole Ø mm	Rotation speed max. rpm	Working speed max. m/sec		FT/FTK 44 44818	...	XT 66 44819	...
115 x 1.5	straight	22.2	13,285	80	50 pcs.				201
115 x 3.0	offset	22.2	13,285	80	25 pcs.		101		
125 x 1.5	straight	22.2	12,200	80	50 pcs.				202
125 x 3.0	offset	22.2	12,200	80	25 pcs.		102		
180 x 1.9	straight	22.2	8,600	80	25 pcs.				204
180 x 3.0	straight	22.2	8,600	80	25 pcs.		104		
230 x 1.9	straight	22.2	6,600	80	25 pcs.				205

44821 - 44822 Diamond cutting discs

Applications
For dry cutting with angle grinders. Especially for concrete, hard artificial stone, roof tiles, clinker High-fired, stoneware pipes, exposed aggregate concrete etc.

44821
Design
Slotted edge with diamond segments. High performance series.

44822
Design
Smooth closed edge.
Applications
For glazed tiles, glazed clinker, natural stone, tiles.

44821

44822

Ø mm	Segment height mm	Segment width mm	Hole mm	44821	...	44822	...
125	5	1.9	22.23				102
115	10	2.2	22.23		101		
125	10	2.2	22.23		102		
180	10	2.4	22.23		103		
230	10	2.4	22.23		104		

44828 Diamond cutting discs (Allcut)

RHODIUS

Type DG210 Allcut
Design
The diamonds are applied directly onto the carrier blade and constantly provide a good cutting capacity until they are completely worn. Its long service life means that it is very cost effective when used for cutting stone. Its performance on steel makes it the ideal all-rounder. Fast, reliable, low-temperature cutting of a wide range of materials. High cutting speed, high cutting performance, short cutting times, comfortable cutting behaviour.

Applications
For wet and dry cutting. Suitable for concrete products, reinforced concrete, natural stone, construction materials, steel, tiles, glazed tiles, wood, plastics, GFRP.

44828

Ø mm	Segment height mm	Segment width mm	Hole mm	44828	...
115	3	2.5	22.23		101
125	3	2.5	22.23		102
150	3	2.5	22.23		103
180	3	2.8	22.23		104
230	3	2.8	22.23		105

46015 - 46016 Sanding disc dressing tools

46015
Hand grip with sanding roller
Design
- Rotating, replaceable quality steel abrasive rollers with U-shaped teeth
- High stability and strength due to crimped support washers between the serrated washers
- Axle with nipple for pressure lubrication
- Support lugs for consistent roller application
- Panel to protect against sparks
- High-grade wooden handle

Applications
For dressing and sharpening medium-sized and large sanding discs.

46016
Replacement sanding rollers

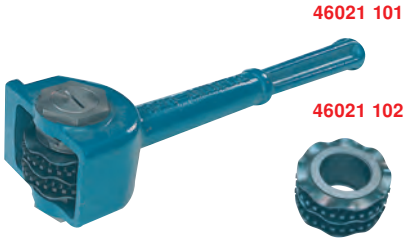
				For sanding discs			Hand grip	Replacement sanding roller		
Roller width mm	Roller Ø mm	Grip length mm	Number of serrated washers	Ø x width max. mm	Grain	Surface speed max. m/s	46015	...	46016	...
12	36	285	3	200 x 38	24 - 80	30		101		101
24	55	435	4	200–500 x 63	24 - 80	50		102		102
50	55	435	8	200–500 x 102	24 - 80	50		103		103

46020 - 46021 Sanding disc dressing tools

Design
- With combined ball and plain bearings, for clockwise/anti-clockwise rotation
- Hammering dressing cutter manufactured from hardened steel, low wear since any sanding effect is eliminated by adjusted surface speed

Sanding disc dressing tool	For sanding disc Ø mm	Length mm	46020	...	46021	...
including hammer cutter	250–400	315		101		
including normal cutter	over 400 *	360				101

* in particular rough grinding discs



Replacement cutter	External Ø mm	Internal Ø mm	Hole Ø mm	46020	...	46021	...
Hammer cutter	49	23	18		102		
Normal cutter	71	38	35				102

46210 - 46211 Sanding disc dressing tools

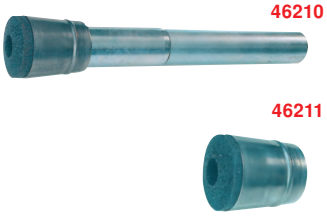
46210
Design
- Rotating silicon carbide dresser rotator
- On ball bearings
- Interchangeable
- Size 0 and 1 with fracture guard sleeve

Applications
For precise turning, shaping and sharpening of even the smallest, thinnest-walled sanding discs with edge thicknesses for peripheral edge and face from 0.5 mm without chipping of the edges.

Size 00:
Discs up to approx. 100 mm Ø, small sanding block, sanding tips.
Size 0:
Tool sanding discs up to approx. 200 mm Ø.
Size 1:
Tool sanding discs up to approx. 250 mm Ø, profile sanding discs up to approx. 300 mm Ø.

Note:
The prescribed profile angle of the rotator must be maintained. Dressing action superior to that of diamonds!

46211
Replacement rotator



			Dressing tool	Replacement rotator		
Size	Rotator Ø mm	Grip length mm	46210	...	46211	...
00	35	100		101		101
0	45	230		102		102
1	55	230		103		103

46201 Sanding disc dressing stick (diamond saving dresser)

Design
- With handle

Applications
For dressing, profiling, roughening and sharpening fine-grained sanding discs.

46201

Material	Length approx. mm	Stick Ø approx. mm	46201 ...
Silicon carbide	400	20	101

46402 - 46406 Single dressing diamonds

46402
Dressing diamond
Design
- Mounted in Morse taper shank 1

Applications
For dressing and profiling sanding discs.

Note:
An ample, uninterrupted supply of coolant is required at all times during disc dressing. There is a danger of cracking if dressing is performed dry. Diamonds are sensitive to sudden fluctuations in temperature, impact and shock.

46406
Hand grip
Design
- MK 1
- With plastic grip
- Size 17 x 235 mm

Applications
For manual honing. Also suitable for multi-grain dressing diamonds cat. no. 46420.

46402

46406

		Dressing diamond		Hand grip	
Diamond weight Carat	For sanding disc Ø approx. mm	46402	...	46406	...
1/3	200		102		
1/2	300		103		
3/4	400		104		
1	500		105		
-	-				101

46420 Multi-grain dressing diamonds

Design
- Diamond cylinder mounted in Morse taper shank 1

Applications
For straight dressing of the peripheral edges and faces of medium and course-grain sanding discs with large chip volumes.

Note:
A strong, continuous supply of coolant extends the service life. Grip for manual honing, see cat. no. 46406.

46420

Carat	For sanding disc grains	Diamond cylinder Ø x height mm	Diamond-studded mm	46420 ...
1.0	80–120	8 x 12	8 Ø x 4	101
1.0	46–80	8 x 12	8 Ø x 4	102
1.0	36–46	8 x 12	8 Ø x 4	103
2.5	80–120	8 x 12	8 Ø x 11	104
2.5	46–80	8 x 12	8 Ø x 11	105

46425 Diamond multi-grain hand dressing tool

Applications
For dressing sanding discs, grain size 60 and finer, on grinding machines without a diamond honing device.

Note:
Dressing is also possible without cooling thanks to the selected natural diamonds enclosed in sintered metal.

46425 101

46425 102

Applications	Diamond coating	Coating area mm	Total length approx. mm	46425 ...
For peripheral wheels	front face	30 x 10	220	101
For cup wheels	side	30 x 10	220	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

47005 - 47007 Wire hand brushes

ATORN®

47005
Design
- Smooth, hardened **cast steel wire**
- Wire Ø 0.35 mm

47006
Design
- Crimped, rust and acid-resistant **V2A steel wire**
- Wire Ø 0.30 mm

47007
Design
- Crimped, fine **brass wire**
- Wire Ø 0.15 mm

47005

47006

47007

Trim	Trim height mm	Working length mm	Total length mm	Cast steel 47005 ...	V2A 47006 ...	Brass 47007 ...
2-row	25	145	295	101	101	101
3-row	25	145	295	102	102	102
4-row	25	145	295	103	103	103
5-row	25	145	295	104	104	104

47008 Fillet weld brushes

ATORN®

47008 102
Design
- Smooth, hardened **cast steel wire**
- Tapered

47008 202
Design
- Rust and acid-resistant **V2A steel wire**
- Tapered

47008

Trim	Wire Ø mm	Trim height mm	Working length mm	Total length mm	Cast steel 47008 ...	V2A 47008 ...
3-row	0.35	35	145	295	102	202

47015 Thread brush

HHW

Design
Horse hair, bristle.
Applications
For gentle cleaning of threaded parts.

47015

Trim	Trim height mm	Working length mm	Total length mm	47015 ...
4-row	18	105	220	101

47016 Maintenance hand brush

HHW

Design
- Korfil-D trim
- Extremely kink-resistant
- **Insensitive to fats and light acids,** e.g. coolants and cutting fluids

Applications
Machine cleaning.

47016

Trim	Trim height mm	Working length mm	Total length mm	47016 ...
4-row	60	150	310	101

47017 Spark plug brush

HHW

Design
Crimped brass wire.

47017

Trim	Wire Ø mm	Trim height mm	Total length mm	47017 ...
3-row	0.20	15	180	101

47020 Brake calliper/universal brushes

Design
2-component plastic handle.
Applications
For derusting and cleaning brake callipers and other components.

47020 101
Smooth **steel wire.**

47020 102
Crimped **steel wire.**

47020 103
Crimped **brass wire.**

Trim	Wire Ø mm	Trim height mm	Working length mm	Total length mm	47020	...
2-row	0.30	23	95	245		101
2-row	0.35	23	95	245		102
2-row	0.30	23	95	245		103

47070 File brush

ATORN®

Design
- Robust wooden handle with steel wire trim
Applications
For cleaning clogged files.

Work surface approx. mm	Total length mm	47070	...
110 x 40	250		102

47170 Shaft-mounted cylinder wire brushes / miniature brushes

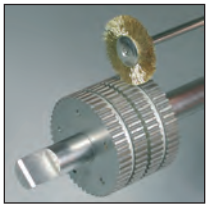
ATORN®

Applications
For cleaning and polishing as well as for light deburring work in holes and cavities. The narrow trim width permits targeted application in hard-to-reach areas.

47170 401-406
Applications
Brushes with natural bristle trim can be used with polishing pastes for a better result.

47170 502-503
Design
- Nylon diamond
- Flexible trim
- Restoration and breakage resistance even under heavy load and deformation

Applications
Suitable for processing very hard parts such as ceramic parts, hardened parts, precision components.



Steel

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm		47170	...
16	2.34	0.1	12 pcs.		101
16	3.00	0.1	12 pcs.		105
22	2.34	0.1	12 pcs.		103
22	3.00	0.1	12 pcs.		106
32	2.34	0.1	12 pcs.		104
32	3.00	0.1	12 pcs.		107

V2A

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm		47170	...
16	2.34	0.1	12 pcs.		201
16	3.00	0.1	12 pcs.		205
22	2.34	0.1	12 pcs.		203
22	3.00	0.1	12 pcs.		206

Brass

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm		47170	...
16	2.34	0.1	12 pcs.		301
16	3.00	0.1	12 pcs.		305
22	2.34	0.1	12 pcs.		303
22	3.00	0.1	12 pcs.		306

Natural bristle

Brush Ø mm	Shaft Ø mm	Trimming material		47170	...
16	2.34	Goat hair	12 pcs.		401
16	3.00	Goat hair	12 pcs.		405
22	2.34	Goat hair	12 pcs.		403
22	3.00	Goat hair	12 pcs.		406

Nylon diamond

Brush Ø mm	Shaft Ø mm	Trimming material		47170	...
17	2.34	K400	2 pcs.		502
22	2.34	K400	2 pcs.		503

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Shaft-mounted cylinder wire brushes

PFERD

Design
With cylindrical clamping shaft 6 mm Ø.

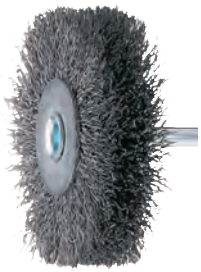
Applications
For cleaning, derusting, smoothing, descaling, cleaning of cast welds, light-duty deburring and removing corrosion and paints.
For use on straight grinders, flexible shafts and drills with at least 300 Watt drive output.

47190
Design
Steel wire.

47191
Design
INOX wire.

47192
Design
Brass wire.

47193
Design
Plastic (SiC).



Steel

Brush Ø mm	Trim width mm	Trimming material Ø mm	Trim length mm	Total length mm	Recommended rotation speed rpm	Maximum rotation speed rpm	47190	...
20	4	0.20	3	37	10,000-15,000	20,000		101
30	6	0.20	7	40	10,000-15,000	20,000		102
40	9	0.20	9	46	9,000-13,500	18,000		103
50	15	0.20	13	50	8,000-12,500	15,000		104
60	15	0.20	15	50	7,500-11,300	15,000		105
70	10	0.30	19	50	7,500-11,300	15,000		106
70	15	0.30	19	50	7,500-11,300	15,000		108
80	15	0.30	19	50	6,000-9,000	12,000		111

INOX

Brush Ø mm	Trim width mm	Trimming material Ø mm	Trim length mm	Total length mm	Recommended rotation speed rpm	Maximum rotation speed rpm	47191	...
20	4	0.20	3	37	8,000-13,000	20,000		101
30	6	0.20	7	40	8,000-13,000	20,000		102
40	9	0.20	9	46	7,200-11,700	18,000		103
50	15	0.20	13	50	6,000-9,800	15,000		104
60	15	0.20	15	50	6,000-9,800	15,000		105
70	10	0.20	19	50	6,000-9,800	15,000		106
70	15	0.15	19	50	6,000-9,800	15,000		107
70	15	0.30	19	50	6,000-9,800	15,000		108
80	15	0.15	19	50	4,800-7,800	12,000		110
80	15	0.30	19	50	4,800-7,800	12,000		111

Brass

Brush Ø mm	Trim width mm	Trimming material Ø mm	Trim length mm	Total length mm	Recommended rotation speed rpm	Maximum rotation speed rpm	47192	...
30	6	0.20	7	40	8,000-13,000	20,000		102
40	9	0.20	9	46	7,200-11,700	18,000		103
50	15	0.20	13	50	6,000-9,800	15,000		104
70	15	0.30	19	50	6,000-9,800	15,000		108

Plastic (SiC)

Brush Ø mm	Trim width mm	Trimming material Ø mm	Trim length mm	Total length mm	Recommended rotation speed rpm	Maximum rotation speed rpm	47193	...
50	15	0.90	13	50	6,000-9,800	15,000		104
70	15	0.90	19	50	6,000-9,800	15,000		108

47233 - 47235 Shaft-mounted cylinder wire brushes

ATORN®

Design
Steel body with cylindrical clamping shaft
6 mm Ø.
Applications
For clamping in hand-held sanders or flexible shafts.

47233
Design
Wire quality **Special steel wire, fine.**
Applications
For fine brushing etc.

47234
Design
Wire quality **Special steel wire, coarse.**
Applications
For cleaning, derusting etc.

47235
Design
Wire quality **V2A.**
Applications
For processing Nirosta stainless steels.

47233 - 47235

Ø mm	Wire thickness Ø mm	Working width mm	Maximum rotation speed approx. rpm	Fine steel 47233 ...	Coarse steel 47234 ...	V2A 47235 ...
20	0.15	4	20,000	100		
30	0.15	6	20,000	101		
40	0.20	11	18,000	102		
50	0.20	17	15,000	103		
50	0.30	17	15,000		103	
60	0.20	18	15,000	104		104
60	0.30	18	15,000		104	
70	0.20	18	15,000	105		
70	0.30	18	15,000		105	105

47172 Wire end brushes / miniature brushes with shaft

ATORN®

Applications
For cleaning and polishing as well as for light deburring work in holes and cavities. Due to the low trim width, targeted processing is possible in hard-to-reach spots.

47172 401-402
Applications
Brushes with natural bristle trim can be used with polishing pastes for a better result.

47172 501
Design
- Nylon diamond
- Flexible trim
- Restoration and breakage resistance even under heavy load and deformation

Applications
Suitable for processing very hard parts such as ceramic parts, hardened parts, precision components.

47172 101-102

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm	Maximum rotation speed approx. rpm		Steel 47172 ...
5	2.34	0.1	5,000	12 pcs.	101
5	3.00	0.1	5,000	12 pcs.	102

47172 201-202

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm	Maximum rotation speed approx. rpm		V2A 47172 ...
5	2.34	0.1	5,000	12 pcs.	201
5	3.00	0.1	5,000	12 pcs.	202

47172 301-302

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm	Maximum rotation speed approx. rpm		Brass 47172 ...
5	2.34	0.1	5,000	12 pcs.	301
5	3.00	0.1	5,000	12 pcs.	302

47172 401-402

Brush Ø mm	Shaft Ø mm	Trimming material	Maximum rotation speed approx. rpm		Natural bristle 47172 ...
5	2.34	Goat hair	5,000	12 pcs.	401
5	3.00	Goat hair	5,000	12 pcs.	402

47172 501

Brush Ø mm	Shaft Ø mm	Trimming material	Maximum rotation speed approx. rpm		Nylon diamond 47172 ...
5	2.34	K400	5,000	2 pcs.	501

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47250 - 47252 Wire end brushes with shaft

PFERD

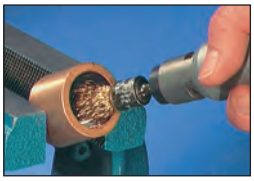
Design
Crimped with clamping shaft 6 mm Ø.
The wires spread open during rotation.
Applications
For clamping in straight grinders, flexible shafts and drills. Suitable for all light-duty brushing work. Perfect for deburring, cleaning and derusting in holes and hard-to-reach places and cavities.

47250
Design
Steel wire.

47251
Design
INOX wire with plastic-coated brush body.
All INOX brushes are degreased.

47252
Design
Brass wire.

47250 - 47252



Ø mm	Wire thickness Ø mm	Wire effective length mm	Maximum rotation speed approx. rpm	Steel 47250	...	INOX 47251	...	Brass 47252	...
10	0.30	20	20,000						103
10	0.35	20	20,000		103		103		
13	0.30	20	20,000						106
13	0.35	20	20,000		106		106		
15	0.20	22	18,000				108		
15	0.30	22	18,000						109
15	0.35	22	18,000		109				
15	0.35	22	18,000				109		
20	0.20	25	18,000		111		111		
20	0.50	25	18,000		112		112		112
30	0.20	25	15,000		114		114		
30	0.50	25	15,000		115		115		115

47253 - 47256 Wire end brushes with shaft

PFERD

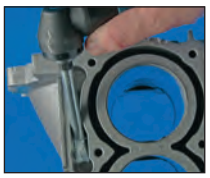
47253 - 47254
Design
- Crimped
- Long design
- With cylindrical 6 mm clamping shaft
- Total length 120 mm
Applications
Its particularly long design makes it perfect for use in hard-to-reach places.

47255 - 47256
Design
- SINGLETWIST; twist runs counter to the brush direction of rotation
- Brush does not spread out during use
- Flexible single twist brush
- With cylindrical 6 mm clamping shaft
- Total length 65 mm
Applications
Mainly for application on internal corners. Suitable for straight grinders and drive shafts.

47253 - 47254

47255 - 47256

(SINGLETWIST)



Wire thickness mm	Wire effective length mm	Brush Ø mm	Maximum rotation speed approx. rpm	Steel 47253	...	INOX 47254	...	Steel 47255	...	INOX 47256	...
0.20	20	10	20,000	102		102					
0.20	25	10	10,000					102		102	
0.30	20	10	20,000	103		103					
0.35	25	10	10,000					103		103	

47257 Wire end brushes with shaft

ATORN®

Design
- Twisted wire
Advantage
- A variable external diameter can be achieved by changing the working speed and resulting centrifugal forces
- High flexibility and high cleaning efficiency
Applications
For precise application in hard-to-reach places and on interior surfaces. Particularly suitable for cleaning the inside of cylindrical holes. For use on fast-running machines.

47257 101-103
Design
- Trimming material: **Steel**
Applications
Material to be processed: Steel, steel casting.

47257 201-203
Design
- Trimming material: **Stainless steel**
Applications
Material to be processed: Stainless steel, non-ferrous metal, aluminium.

NEW

47257

Head Ø mm	Wire thickness mm	Wire effective length mm	Number of twists pieces	Shaft Ø mm	Total length mm	Maximum rotation speed approx. rpm	Steel 47257	...	Stainless steel 47257	...
20	0.25	29	6	6	44	20,000		101		201
23	0.35	29	8	6	44	20,000		102		202
30	0.35	29	12	6	44	20,000		103		203

47260 - 47262 Wire end brushes (decarbonising brushes) with shaft

Design
With cylindrical clamping shaft 6 mm Ø.
Applications
For clamping in hand-held sanders or flexible shafts; for use in corners and hard-to-reach areas.

47260 102-104
Design
Short, **steel wire.**

47260 202-204
Design
Short, **V2A wire**.

47261
Design
Long, **steel wire**.

47262
Design
Spread to 70 mm, **steel wire**.

47260

47261

47262

Design	Wire	Wire effective length approx. mm	Wire Ø mm	Body Ø approx. mm	Maximum rotation speed approx. rpm	47260 ...	47261 ...	47262 ...
Short	Steel	25	0.3	15	18,000	102		
Short	Steel	25	0.3	22	18,000	103		
Short	Steel	25	0.3	28	15,000	104		
Short	V2A	25	0.3	17	18,000	202		
Short	V2A	25	0.3	22	18,000	203		
Short	V2A	25	0.3	28	15,000	204		
Long	Steel	18	0.3	10	9,000		101	
Spread	Steel	25	0.3	28	15,000			101

47171 Wire cup brushes / miniature brushes with shaft

ATORN®

Applications
For cleaning and polishing as well as for light deburring work in holes and cavities.
Due to the low trim width, targeted processing is possible in hard-to-reach spots.

47171 401-402
Applications
Brushes with natural bristle trim can be used with polishing pastes for a better result.

47171 501
Design
- Nylon diamond
- Flexible trim
- Restoration and breakage resistance even under heavy load and deformation

Applications
Suitable for processing very hard parts such as ceramic parts, hardened parts, precision components.

47171 101-102

47171 201-202

47171 301-302

47171 401-402

47171 501

Steel

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm		47171 ...
18	2.34	0.1	12 pcs.	101
18	3.00	0.1	12 pcs.	102

VA

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm		47171 ...
18	2.34	0.1	12 pcs.	201
18	3.00	0.1	12 pcs.	202

Brass

Brush Ø mm	Shaft Ø mm	Trimming material Ø mm		47171 ...
18	2.34	0.1	12 pcs.	301
18	3.00	0.1	12 pcs.	302

Natural bristle

Brush Ø mm	Shaft Ø mm	Trimming material		47171 ...
18	2.34	Goat hair	12 pcs.	401
18	3.00	Goat hair	12 pcs.	402

Nylon diamond

Brush Ø mm	Shaft Ø mm	Trimming material		47171 ...
10	2.34	K400	2 pcs.	501

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47263 - 47264 Wire cup brushes with shaft

PFERD

Design
- Crimped
- With cylindrical clamping shaft 6 mm Ø

Applications
Universal for cleaning, derusting, smoothing, descaling and for removing corrosion and paints. Use on the front side with entire trim surface. Mainly for use on large flat, easily accessible surfaces.

47263
Design
Steel wire.

47264
Design
INOX wire.
Plastic coated brush body.

47263 47264

Brush Ø approx. mm	Wire effective length approx. mm	Wire Ø mm	Rec. drive output min. Watt	Maximum rotation speed approx. rpm	Steel 47263	...	INOX 47264	...
50	20	0.3	300	10,500		101		101
60	20	0.3	300	4,500		102		102

47265 Steel wire cup brush with shaft

Design
Crimped steel wire, coarse.

Applications
For cleaning work, such as removing paint, rust, scale, encrusted dirt or ridges.

47265

Ø mm	Wire effective length mm	Wire Ø mm	Shaft Ø mm	Maximum rotation speed approx. rpm	47265	...
50	17	0.3	6	4,500		101

47310 Roller brushes with hole

PFERD

Design
Crimped. Hole with 4 keyways.

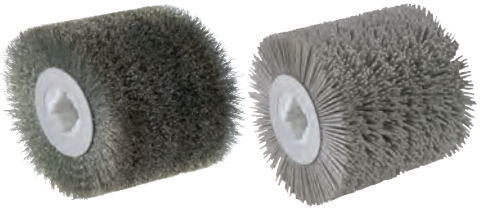
47310 101
Design
Steel wire (stranded wire).
Applications
Suitable for very heavy-duty brushing work. The special arrangement of the wires produces a highly aggressive brushing effect.

47310 102
Design
INOX wire.
Applications
For texturing INOX workpieces.
Provides optimum corrosion protection.

47310 103
Design
With plastic (SiC) trim.
Applications
Suitable for texturing steel, INOX and wood. Also for fine deburring of holes and openings in large parts.

47310 101

47310 102 47310 103



Trim	Ø mm	Hole Ø mm	Trim thickness Ø mm	Trim length mm	Trim width mm	Rec. rotation speed approx. rpm	Max. rotation speed approx. rpm	47310	...
Steel wire	100	19	0.27	26	100	3,000–4,500	6000		101
INOX wire	100	19	0,20	26	100	2,400–3,900	6000		102
Plastic (SiC)	100	19	1.27	26	100	2,400–3,900	6000		103

47400 Bristle Brush™ polishing and deburring brushes

3M

Design
The radial Bristle Brush consists of 8 individual segments that are held with a flange (25.4 mm inner diameter). The product is cast from a single piece, which prevents individual components from coming loose – a common occurrence with wire brushes or scrapers. The brush is delivered complete **including 4 adapters (13, 16, 19 and 22 mm)** for reducing the inner diameter. Long cleaning life.

Applications
For cleaning, blending, deburring and polishing.
For use on sanding blocks, straight grinders or flexible shafts.
Use clamping mandrel art. no. 43801 for use with straight grinders.

47400

Grain	Ø x width mm	Maximum rotation speed approx. rpm	Colour	47400	...
36	150 x 13	10,000	brown		101
50	150 x 13	10,000	green		102
80	150 x 13	10,000	yellow		103

47403 Cylinder wire brushes with hole

ATORN®

Design
- Aggressive cylinder wire brush
- Multi-row
- Crimped trim
- All-steel body

Applications
Universal brush for all medium-duty brushing work. Most suitable for brushing wide surfaces. Suitable for cleaning and roughing work on flat (uncontoured) surfaces.

Note:
Ø 100 mm: *Reduction using steel core Ø 30 mm to 20 mm + 10 mm, 1/2 inch, 5/8 inch adapters*
Ø 150–200 mm: *Reduction using steel core Ø 50.8 mm to 31.75 mm + 13 mm, 15 mm, 16 mm, 19 mm, 20 mm, 7/8 inch, 1 inch adapters*

47403 301-306
Design
- Steel wire 0.3 mm
Applications
For machining iron and steel.

47403 401-406
Design
- VA wire 0.3 mm
Applications
For processing Nirosta stainless steels.

NEW

47403 401-405

Ø mm	Hole Ø mm	Working width mm	Wire effective length mm	Wire Ø mm	Maximum rotation speed approx. rpm.	Steel 47403 ...	VA 47403 ...
80	10.0	18	20	0.3	10,000	301	
100	30.0	20	17	0.3	8,000	302	
150	50.8	25	30	0.3	6,000	303	
178	50.8	25	38	0.3	6,000	304	
200	50.8	25	38	0.3	4,500	305	
80	10.0	18	20	0.3	10,000		401
100	30.0	20	23	0.3	8,000		402
150	50.8	30	30	0.3	6,000		403
178	50.8	32	38	0.3	6,000		404
200	80.0	30	38	0.3	4,500		405

47601 Twisted steel cylinder wire brush with shaft

ATORN®

Design
Twisted high-performance steel wire.

Applications
For machining welding seams, removing hard scale, slag, underbody seal, sand residues and for deburring.

47601

Ø mm	Working width mm	Wire effective length mm	Wire Ø mm	Shaft Ø mm	Maximum rotation speed approx. rpm	47601 ...
75	12	18	0.50	6	20,000	101

47595 - 47596 Pipeline twisted cylinder wire brushes with hole or thread

PFERD

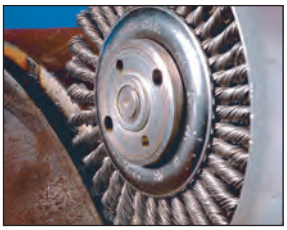
Design
With hole or thread, twisted.
Aggressive and stable brush that withstands high mechanical load.

Applications
For heavy-duty brushing applications in pipeline and tank construction. Thanks to its extremely narrow design, this brush is perfect for applications in hard-to-reach areas.

47595
Design
Steel wire.

47596
Design
INOX wire.
All brushes are degreased.

47595 - 47596



Ø mm	Hole Ø mm	Thread	Working width mm	Wire effective length mm	Wire Ø mm	Maximum rotation speed approx. rpm	Steel 47595 ...	INOX 47596 ...
115	22.2	-	6	19	0.5	12,500	101	
125	22.2	-	6	19	0.5	11,000	102	
125	-	M14	6	19	0.5	11,000	103	103

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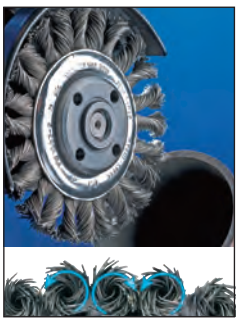
47598 - 47599 Twisted cylinder wire brushes COMBITWIST® with hole

PFERD

Design
With COMBITWIST® for quiet operation even on corners and edges. No recoil when brushing edges. Increased service life and removal of material. Minimal unravelling of twists during use.
Applications
For heavy-duty application with angle grinders and with higher speeds (to 80 rpm).

47598
Design
Steel wire 0.5 mm Ø.

47599
Design
INOX wire 0.35 mm Ø.



47598 - 47599

Ø mm	Hole Ø mm	Working width mm	Wire effective length mm	Maximum rotation speed approx. rpm	Steel 47598 ...	INOX 47599 ...
115	22.2	12	28	12,500	101	101
125	22.2	12	33	11,000	102	102
178	22.2	13	42	9,000	103	103

47603 Twisted cylinder wire brushes with hole

ATORN®

Design
- Excellent durability, even with diagonal application
Applications
For preparatory and finishing work on welding seams, for removing rust, scale, varnish, slag, rubber residue and for deburring. Ideal for use in hard-to-reach places.

Note:
Particularly suitable for single-hand angle grinders and straight grinders.

47603

Ø mm	Hole Ø mm	Working width mm	Wire effective length mm	Wire Ø mm	Maximum rotation speed approx. rpm	Steel 47603 ...	VA 47603 ...
115	22.2	12	23	0.5	12,500	201	301 NEW
125	22.2	13	28	0.5	12,500	202	302 NEW
178	22.2	13	42	0.5	12,000	203	303 NEW

47620 - 47621 Twisted tapered brushes COMBITWIST® with thread

PFERD

Design
With COMBITWIST®.
Applications
For derusting, descaling, cleaning welding seams and deburring.
The tapered shape makes it ideal for machining hard to reach areas. Suitable for extreme use on angle grinders with higher rotation speeds (up to 80 rpm).

47620
Design
Steel wire 0.5 mm Ø.

47621
Design
INOX wire 0.35 mm Ø.

47620 - 47621

Ø mm	Thread	Number of twists	Working width mm	Wire effective length mm	Maximum rotation speed approx. rpm	Steel 47620 ...	INOX 47621 ...
100	M14	22	13	22	20,000	101	101
115	M14	22	15	26	15,000	102	102
125	M14	28	15	19	15,000	103	103

47605 Offset twisted cylinder wire brushes with thread

ATORN®

Applications
For aggressive brushing in hard-to-reach places, such as welding seams, on angle plates. For all commercially available single-hand angle grinders.

47605 101-102
Design
Smooth **cast steel wire.**

47605 301–302
Design
V2A wire.

47605

Ø mm	Thread	Working width mm	Wire effective length mm	Wire Ø mm	Maximum rotation speed approx. rpm	Steel 47605 ...	V2A 47605 ...
100	M14 x 2.0	13	22	0.5	12,500	101	301
115	M14 x 2.0	15	20	0.5	12,500	102	302

47610 - 47612 Twisted wire cup brushes (surface brushes) with thread

ATORN®

Design
With twisted wire.
Applications
Specially designed for high-speed angle grinders.
With thread insert M14.
For extremely heavy-duty surface brushing.

Note:
Wire cup brushes have a support ring to prevent flaring or unwinding of the twists. When the wire has worn down, the ring can be removed so that the brush can be used up completely.
65 mm Ø without support ring.

47610
Design
Wire quality **special steel wire**.

47612
Design
Wire quality **V2A wire**.

47610 201

47612 201

Ø 80 x 100 mm
With support ring

Ø mm	Thread	Wire Ø mm	Maximum rotation speed approx. rpm	Steel 47610 ...	V2A 47612 ...
65	M14	0.5	12,500	201	201
80	M14	0.5	8,500	202	
100	M14	0.5	8,500	203	203

47606 - 47607 Twisted wire cup brushes with thread

PFERD

Design
With twisted wire.
Applications
Specially designed for high-speed angle grinders.
With thread insert M14.
For extremely heavy-duty surface brushing.
For cleaning applications such as derusting, deburring and cleaning.

Note:
Steel wire cup brushes with a Ø 80 mm have a support ring to prevent flaring or unwinding of the twists. When the wire has worn down, the ring can be removed so that the brush can be used up completely.

47606
Design
Wire quality **Steel wire.**

47607
Design
Wire quality **INOX wire,**
all brushes are degreased.

47606

47607

Ø mm	Thread	Wire thickness mm	Trim length mm	Number of twists	Maximum rotation speed approx. rpm	Steel 47606 ...	INOX 47607 ...
65	M14	0.35	22	18	12,500	101	101
65	M14	0.50	22	18	12,500	105	105
80	M14	0.50	25	22	8,500	110	

47613 - 47614 Wire cup brushes with thread

PFERD

Design
With crimped wire.
Applications
Ideal for medium-duty brushing work mainly on large surfaces, for deburring, cleaning and derusting.
For angle grinders with thread insert M14.

47613
Design
Steel wire.

47614
Design
INOX wire, brushes degreased.

47613

47614

Ø mm	Thread	Wire effective length mm	Wire Ø mm	Maximum rotation speed approx. rpm	Steel 47613 ...	INOX 47614 ...
60	M14	20	0.3	12,500	101	
75	M14	40	0.3	12,500	104	104

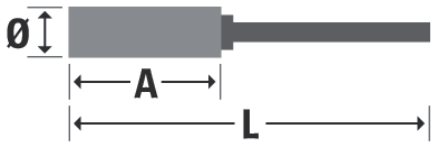
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

47624 - 47627 Nozzle brushes

ATORN®

Design
- Crimped wire or nylon trim
- With double wire core and eyelets

Applications
For cleaning, removing dust, deburring and paint stripping. Ideal for cleaning nozzles, pipes, hoses and glass bottles.



47624

47625

47626

47627

Ø mm	Trim length (A) mm	Total length (L) mm		Crimped steel wire 47624 ...	Crimped brass 47625 ...	Crimped stainless steel 47626 ...	Nylon 47627 ...
4	100	300	20 pcs.	101		101	101
5	100	300	20 pcs.	102	102		102
6	100	300	20 pcs.	103	103	103	103
8	100	300	20 pcs.	104	104		104
10	100	300	20 pcs.	105	105	105	105
12	100	300	20 pcs.	106	106	106	106
15	100	300	20 pcs.	107	107	107	107
18	100	300	20 pcs.	108	108		108
20	100	300	20 pcs.	109	109	109	109
25	100	300	20 pcs.	110	110		110

47628 Pipe brushes

ATORN®

Design
- Flexible, highly efficient brush tools
- Zinc-plated twisted wire with a basic spiral trim

Applications
Micro-abrasive pipe brushes are also flexible in smaller diameter ranges and can be used for a wider range of diameters than conventional deburring tools. Use in CNC and NC machines and machining centres. Perfect for deburring cross-drilled holes, control parts, O-ring grooves and cylindrical workpieces, cleaning condensers and smoke tubes as well as roughening surface coatings.

Typical areas of application are:
- Microelectronics
- Aerospace
- Medical-technical devices
- Textile industry
- Hydraulics, pneumatics
- Precision tools

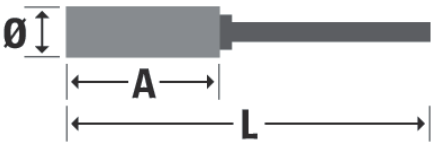
Note:
The brushes should be used with an excess length of 5–10% compared to the bore diameter.

47628 101-107
Design
Plastic trim silicon carbide (SiC) 1000

47628 201-213
Design
Plastic trim aluminium oxide (AO) 600

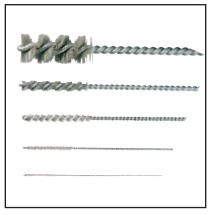
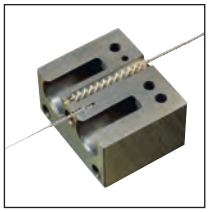
47628 101-107

47628 201-213



Ø mm	Trim length (A) mm	Total length (L) mm	Shaft Ø (S) mm	Grain/wire		47628 ...
0.7	12	100	0.42	NHS 1000 (SIC)	12 pcs.	101
1.2	12	100	0.47	NHS 1000 (SIC)	12 pcs.	102
1.9	18	100	0.74	NHS 1000 (SIC)	12 pcs.	103
2.2	18	100	0.93	NHS 1000 (SIC)	12 pcs.	104
2.6	25	100	1.08	NHS 1000 (SIC)	12 pcs.	105
3.2	25	100	1.66	NHS 1000 (SIC)	12 pcs.	106
3.5	25	100	1.66	NHS 1000 (SIC)	12 pcs.	107

Ø mm	Trim length (A) mm	Total length (L) mm	Shaft Ø (S) mm	Grain/wire		47628 ...
4.2	25	125	2.20	NHA 600 (AO)	12 pcs.	201
4.8	25	125	2.20	NHA 600 (AO)	12 pcs.	202
5.5	25	125	2.20	NHA 600 (AO)	12 pcs.	203
6.6	25	125	3.00	NHA 600 (AO)	12 pcs.	204
8.2	25	125	3.00	NHA 600 (AO)	12 pcs.	205
9.8	25	125	3.40	NHA 600 (AO)	12 pcs.	206
11.5	25	125	3.40	NHA 600 (AO)	12 pcs.	207
13.0	25	125	4.20	NHA 600 (AO)	12 pcs.	208
16.0	25	125	4.20	NHA 600 (AO)	12 pcs.	209
17.5	25	125	4.20	NHA 600 (AO)	12 pcs.	210
19.4	25	125	5.60	NHA 600 (AO)	12 pcs.	211
22.6	25	125	5.60	NHA 600 (AO)	12 pcs.	212
25.8	25	125	6.20	NHA 600 (AO)	12 pcs.	213

47636 - 47641 Helituf® internal cleaning brushes

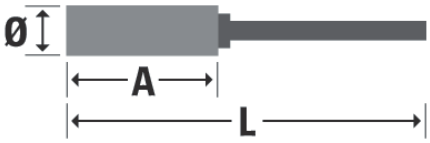
ATORN®

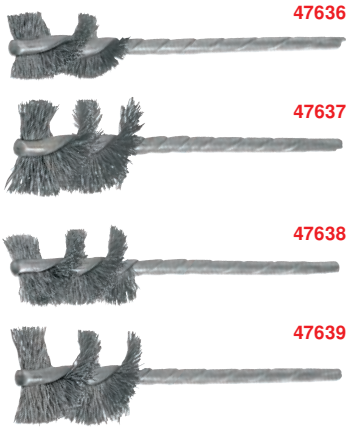
47636 - 47639
Helituf® internal cleaning brushes
Design
- Helically fastened crimped original Osborn wire
- Double wire core

Applications
Densely filled internal cleaning brushes for mechanical or manual use. For use in drill chucks and tool spindles.The helically arranged bristles simulate a lifting movement.

Optional Helituf® holders also enable mounting in chucks. The optional holders (47640 110–111) can either be used individually or screwed together up to a total length of 225 mm (including brush).

Helituf® internal cleaning brushes are ideal for cleaning threaded holes, brushing edges and elongated slots such as keyways.





Hole Ø mm	Brush Ø (Ø) mm	Trim length (A) mm	Total length (L) mm	Shaft Ø mm		Steel wire 0.13 mm 47636	...	Steel wire 0.20 mm 47637	...	Stainless steel wire 0.13 mm 47638	...	Stainless steel wire 0.20 mm 47639	...
6	6.4	25	89	3.18	12 pcs.		100				100		
8	8.3	25	89	3.18	12 pcs.		101						
10	11.0	25	89	3.18	12 pcs.		102			102		102	102
13	14.3	25	89	3.18	12 pcs.		103			103		103	103
16	17.5	25	89	3.18	12 pcs.		104			104		104	104
19	21.0	25	89	3.18	12 pcs.		105			105			105
22	23.8	25	89	3.18	12 pcs.		106			106		106	
25	27.0	25	89	3.18	12 pcs.		107			107		107	107
29	30.0	25	89	3.18	12 pcs.		108						
32	33.4	25	89	3.18	12 pcs.					109			109

47640
Helituf® holder
Applications
For ideal mounting in chucks or extending the total length.

The holders can either be used individually or screwed together up to a total length of 225 mm (including brush).

Helituf® holder with	Shaft Ø mm	Total length mm	47640	...
Male thread	5	90		110
Female thread	6	90		111

47641
Helituf® internal cleaning brush set with 2 holders
Scope of delivery:
- 1 internal cleaning brush of each size (Ø mm): 10/11/13/14/16/18/19/21/22/24/25/29
- 1 holder Ø 5 x 90 mm
- 1 holder Ø 6 x 90 mm
- Supplied in a tool roll

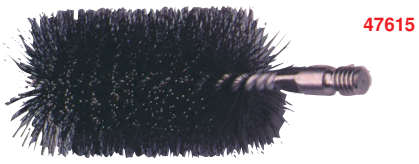
Applications
Helituf® internal cleaning brush set for cleaning threaded holes or brushing edges and elongated slots such as keyways.

Content	47641	...
14teilig		100

47615 Boiler pipe brushes

Design
- Pressed-on threaded connecting piece Ww. 1/2 inch
- Cast steel wire trim
- Double spiral

Note:
For pipe cleaning shafts, see art. no. 61322.



Ø mm	Ø inch	Working length mm	Total length mm	47615	...
38	1.1/2	100	160		101
50	2.	100	160		102
63	2.1/2	100	160		103
101	4.	100	160		105

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

47630 - 47635 Internal cleaning brushes with thread

PFERD

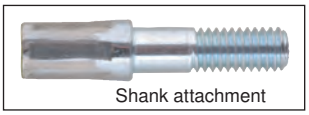
Design
Crimped.
Applications
Ideal for deburring and cleaning pipes, threads, sleeves and cylinders. Suitable drive machines include straight grinders, flexible shafts and drills. For use with low rotation speeds up to 1000 rpm.

47630
Design
Wire quality **steel.**

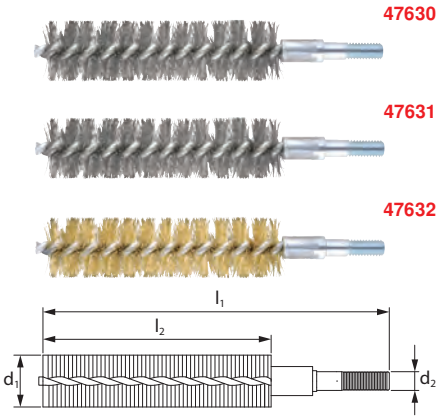
47631
Design
Wire quality **INOX.**

47632
Design
Wire quality **brass.**

Note:
In addition to the thread, internal cleaning brushes up to Ø 20 mm have a shank attachment that enables clamping in 6-mm collet chucks. Internal brushes with 3/8-inch threads also have a 10-mm shank attachment.

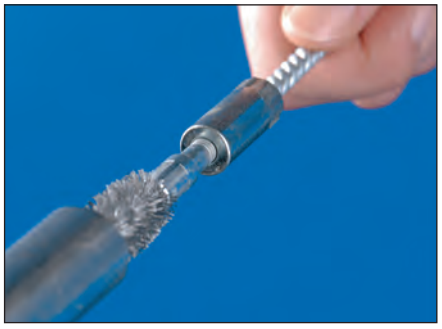

Shank attachment

				Steel		INOX		Brass	
Ø d_1 mm	Thread d_2	Trim length l_2 mm	Total length l_1 mm	47630	...	47631	...	47632	...
8	M6	80	120		101		101		101
10	M6	80	120		102		102		102
12	M6	80	120		103		103		103
15	M6	80	120		105		105		105
18	M6	80	120		107		107		107
20	M6	80	120		108		108		108
22	3/8 inch BSW	100	170		109		109		109
25	3/8 inch BSW	100	170		110		110		110
30	3/8 inch BSW	100	170		111		111		111



Extension, wire stem, quick-change handles:
The extension, wire stem and quick-change handles are used to also access difficult-to-reach areas with internal cleaning brushes.

The **extensions and wire stems** offer various combination options to achieve the desired total length.
Several **extensions** can be connected together.

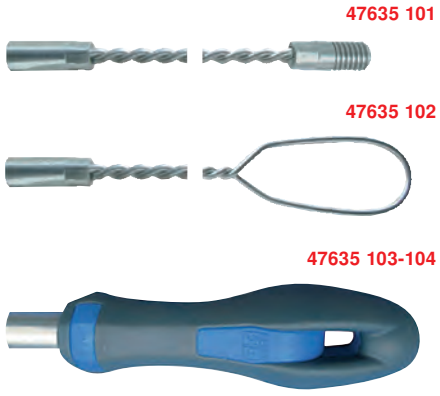


47635 101
Extension
Applications
For internal cleaning brushes with **M6 thread,** Art. no. 47630–47632.

47635 102
Wire stem
Applications
For internal cleaning brushes with **M6 thread,** Art. no. 47630–47632.

47635 103
Quick-change handle
Applications
For internal cleaning brushes with **M6 thread,** Art. no. 47630–47632 101–108.
The quick-change handle can also be combined and extended with extension 47635 101.

47635 104
Quick-change handle
Applications
For internal cleaning brushes with **3/8 inch thread,** Art. no. 47630–47632 109–111.



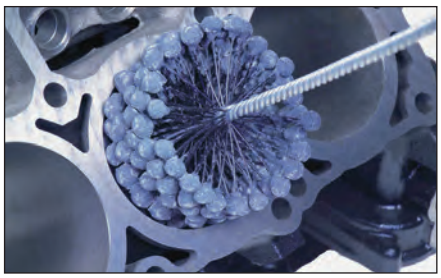
	Thread	Length mm	External Ø of threaded sleeve	47635	...
Extension	M6	1000	12		101
Wire stem	M6	1000	12		102
Quick-change handle	M6	135	12		103
Quick-change handle	3/8 inch	135	12		104

47700 - 47702 Honing tool Novoflex-B

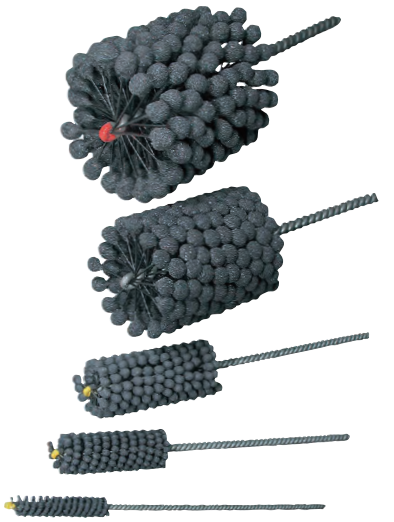
osborn

Design
Robust, **self-centring** honing tool for gentle sanding process.
SiC trim.
Due to their flexible design, the abrasive beads adapt to the surface and can therefore be used for edge breaking, final surface finishing and also in irregular holes.
Recommended rotation speed 350–700 rpm.
Total length 200 mm.
Applications
The perfect tool for creating a uniform precision-ground surface with a high contact ratio, or plateau finish. For the automotive, aerospace, hydraulics and heat exchanger industries. Suitable for hand drills, honing machines and automated machines.
Quality
Silicon carbide.

Note:
For use with honing oil or can be used dry.



47700 - 47702



Ø mm	For hole Ø up to mm	Working width mm	Shaft Ø mm	SiC/K 120 47700	...	SiC/K 180 47702	...
9	8	50	3.7	109		109	
10	9	50	3.7	110		110	
11	10	60	3.7	111		111	
12	11	60	3.7	112		112	
13	12	60	3.7	113		113	
15.5	14	60	3.7	116		116	
18	16	60	4.6	118		118	
20	18	60	4.6	120		120	
22	20	70	4.6	122		122	
25	22	70	4.6	125		125	
27	24	70	5.1	127		127	
28	25	70	5.1	128		128	

Ø mm	For hole Ø up to mm	Working width mm	Shaft Ø mm	SiC/K 120 47700	...	SiC/K 180 47702	...
30	27	70	5.1	130		130	
32	29	70	5.1	132		132	
35	32	70	5.1	135		135	
38	35	70	5.7	138		138	
41	38	70	5.7	141		141	
45	41	70	5.7	145		145	
48	45	70	5.7	148		148	
51	48	70	6.5	151		151	
54	51	70	6.5	154		154	
57	54	70	6.5	157		157	
60	57	70	7.3	160		160	
64	60	70	7.3	164		164	

47800 - 47801 Disc brushes

ATORN®

Design
- Disc brushes with dense sanding bristle trim (full trim) fully encapsulated in the plastic disc
- 4x higher trim density produced than in conventional process (stamped)
- With longitudinal slot for clamping on face mill arbors (DIN 6357) and combi mill arbors (DIN 6358)

Advantage
- Post-machining directly after the cutting process
- Continuously released abrasive grain ensures reproducible results
- Very high dimensional stability and accuracy

Applications
On CNC machining centres and with the use of robots, preferably in wet sanding with coolant. Machining flat components: precise deburring, edge rounding, fine machining after cutting, surface finishing of sealing and contact surfaces for example.

Note:
Disc brushes without keyway (combi mill arbor). Other designs deliverable on request.

47800
Design
- Nylon bristles with an extremely high proportion of silicon carbide grain for universal use

Quality
Nylon bristle with silicon carbide.

47801
Design
- Nylon bristles with an extremely high proportion of ceramic abrasive grain for universal use

Quality
Nylon bristle with ceramic abrasive grain.

NEW

47800

47801

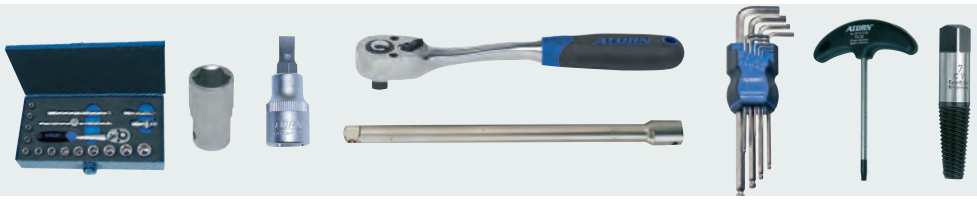
Ø mm	Total height mm	Hole mm	Grain	SiC 47800	...	Ceramic 47801	...
50	35	16	80	101		101	
50	35	16	120	102		102	
50	35	16	180	103			
76	35	22	80	201		201	
76	35	22	120	202		202	
76	35	22	180	203			
106	35	22	80	301		301	
106	35	22	120	302		302	

Ø mm	Total height mm	Hole mm	Grain	SiC 47800	...	Ceramic 47801	...
106	35	22	180	303			
125	35	27	80	401		401	
125	35	27	120	402		402	
125	35	27	180	403			
150	35	32	80	501		501	
150	35	32	120	502		502	
150	35	32	180	503			

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

- Open-end and box wrenches
- Ratchet wrenches
- Hook wrenches
- Socket wrenches

50
50.3 – 50.32



- Plug-in and drive tools
- Power screwdriver plug-in tools and drive tools
- Pin wrenches
- Screw extractors

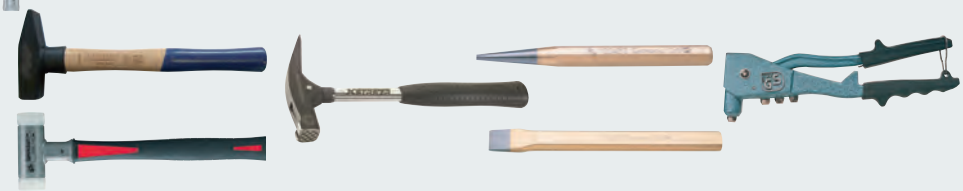
51
51.1 – 51.88

- Screwdrivers
- Bits and operating tools
- Impact screwdrivers

52
52.1 – 52.62

- Clamps
- Hand vices
- Parallel vices
- Height adjustment devices
- Protective jaws

53
53.1 – 53.14



- Hammers • Mallets
- Centre punches
- Drifts
- Pin punches
- Chisels
- Blind rivet tool

54
54.1 – 54.28

Torque-
- Screwdrivers
- Wrenches
- Power multipliers
- Plug-in tools
- Testers
- Calibration system

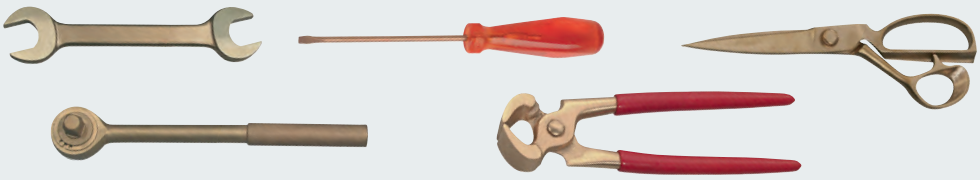
55
55.1 – 55.36

- Gripping pliers
- Circlip pliers
- Water pump pliers
- Pipe wrenches
- Welding pliers
- Locking pliers

56
56.1 – 56.30

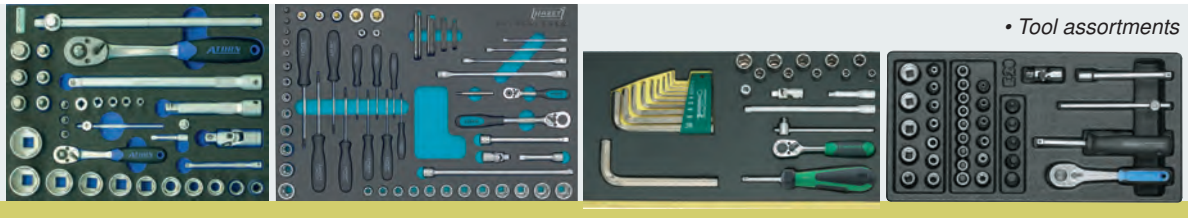
- Pincers
- Long-handled pincers
- End cutting nippers
- Centre cutters
- Side cutters
- Bolt cutters

57
57.1 – 57.12



- Safety range Non-sparking tools

58
58.1 – 58.4



- Tool assortments

59
59.1 – 59.36

Our suppliers for HAND TOOLS:

ATORN®
GESIPA®
HHW
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ALARM
HAZET®
amf
KANON
ASW
KNIPEX
BAHCO
LEINEN
BESSEY Einfach besser.
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ako
VBW
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GEDORE WERKZEUGE FÜRS LEBEN
wiha Tools that work for you

50004 - 50009 Adjustable wrench DIN 3117

50004

ATORN®

Design
- Ergonomically shaped comfort handle
- Extremely large clamping range
- Smooth, ground jaws
- Practical suspension hole in handle
- Polished head and with metric adjustment scale

Quality
Chromium-vanadium steel, forged.

50005

ATORN®

Design
- Jaw angle 22°
- Right-handed
- Nickel and chrome-plated, high-gloss polished

Quality
Chrome-alloy steel.

50006

HHW

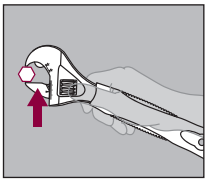
Design
- Jaw angle 22°
- Right-handed
- With measuring scale and plastic handle
- Nickel and chrome-plated, high-gloss polished

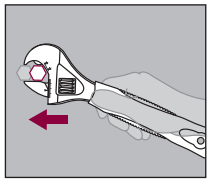
Quality
Chromium-vanadium steel.

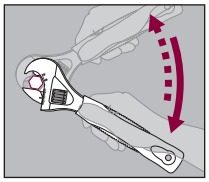
50009

Design
- Ratchet function
- Rubberised grip cover for safe handling
- Rugged design

Applications
For fast and effective tightening and loosening of screws and nuts.







ATORN®

Length mm	Clamping width mm	50004	...
150	24.0		201
200	29.0		202
250	33.0		203

ATORN®

Length mm	Clamping width mm	50005	...
110	13.0		201
162	20.0		202
211	24.0		203
260	29.0		204
310	34.0		205

HHW

Length mm	Clamping width mm	50006	...
110	13.0		101
150	19.5		102
200	24.5		103
250	29.0		104
300	34.0		105

Length mm	Clamping width mm	50009	...
200	24.0		102

50101 Single open-end wrench DIN 894

Design
Profile shaft, jaw angle 15°, bronzed.

Quality
Special steel.

Size mm	Length approx. mm	50101	...
6	75		301
7	80		302
8	95		303
9	100		304
10	105		305
11	115		306
12	125		307
13	135		308
14	140		309

Size mm	Length approx. mm	50101	...
15	145		310
16	145		311
17	151		312
18	151		313
19	170		314
21	195		315
22	195		316
24	215		317
27	240		318

Size mm	Length approx. mm	50101	...
30	260		319
32	275		320
34	275		321
36	305		322
41	340		323
46	380		324
50	410		325
55	440		326
60	477		327

Size mm	Length approx. mm	50101	...
65	510		328
70	575		329
75	610		330
80	650		331
85	695		332
90	695		333
95	845		334
100	850		335

50102 Double open-end wrench DIN 895

Design
Profile shaft, jaw angle 15°, bronzed.

Quality
Special steel.

Size mm	Length approx. mm	50102	...
6 x 7	95		101
7 x 8	110		102
8 x 9	110		104
8 x 10	115		105
10 x 11	125		108
10 x 13	115		110
12 x 13	140		114
12 x 14	140		115
13 x 14	145		116

Size mm	Length approx. mm	50102	...
13 x 15	150		117
13 x 17	155		119
14 x 17	160		121
16 x 17	160		122
16 x 18	160		123
17 x 19	170		124
18 x 19	170		126
19 x 22	195		128
19 x 24	215		129

Size mm	Length approx. mm	50102	...
20 x 22	195		130
22 x 24	220		133
24 x 27	245		136
24 x 30	265		137
27 x 32	270		140
30 x 32	275		141
30 x 36	305		143
34 x 36	305		145
36 x 41	345		146

Size mm	Length approx. mm	50102	...
41 x 46	390		147
46 x 50	420		148
50 x 55	440		149
55 x 60	480		150
65 x 70	580		151
75 x 80	665		152

Double open-end wrenches

50106 Double open-end wrench sets DIN 3110, ISO 10102

ATORN®

Design
- Jaw angle 15° at both ends
- Slim design
- New surface for maximum resistance against contact corrosion
- **15 x greater corrosion protection** against exposure to temperature, road salt and environmental influences compared to conventionally coated wrenches
- **Up to 720 hours in the salt spray test in accordance with DIN EN ISO 9227**
- Environmentally friendly chromium-VI-free coating system
- Extremely durable and robust industrial design

Quality
Chromium-vanadium steel, die-forged and hardened, corrosion coating.

NEW

50106

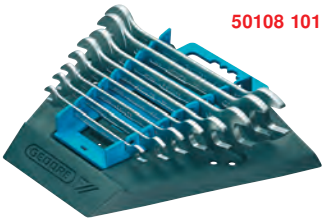
	Set contents Size mm	Design	50106	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in box		199
10 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/24 x 27/30 x 32	in box		200
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in box		204

50108 Double open-end wrench sets DIN 3110, ISO 10102

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Jaw angle 15°, chrome-plated, with flat, precision-ground heads.
Quality
Vanadium 31 CrV3.

50108 101



50108 102

	Set contents Size mm/inch	Design	50108	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in holder		101
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in holder		102

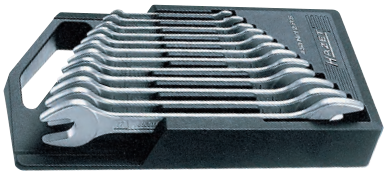
50110 Double open-end wrench sets DIN 3110, ISO 10102

HAZET®

Design
Jaw angle 15°, chrome-plated, slim design.
Quality
Chromium-vanadium steel.

50110 100

50110 106



	Set contents Size mm	Design	50110	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/21 x 22	in plastic clamp holder		100
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in plastic clamp holder		106

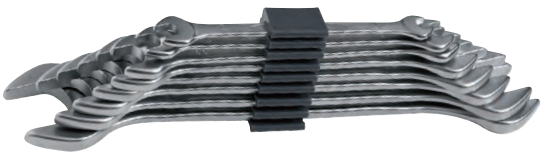
50112 Double open-end wrench sets ISO 691, ISO 1085, ISO 10102

BAHCO

Design
Jaw angle 15°, chrome-plated micro-matt design with high-quality surface, U-shaped shank, extremely compact heads.

Quality
Vanadium extra.

50112



	Set contents Size mm	Design	50112	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in holder		101
10 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/24 x 27/30 x 32	in holder		102
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in holder		103

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Double open-end wrench

50113 - 50118 Double open-end wrench DIN 3110, ISO 10102

Design
Jaw angle 15°, chrome-plated, with flat heads, slim design.
Quality
Chromium-vanadium steel.

50113
ATORN®
Design
- **Bi-hexagon with energy profile** increases the force application area for optimum load distribution
- New surface for maximum resistance against contact corrosion
- **15 x greater corrosion protection** against exposure to temperature, road salt and environmental influences compared to conventionally coated wrenches
- **Up to 720 hours in the salt spray test in accordance with DIN EN ISO 9227**
- Environmentally friendly chromium-VI-free coating system
- Extremely durable and robust industrial design

Quality
Chromium-vanadium steel, die-forged and hardened, corrosion coating.

50115
GEDORE
Design
- Jaw end precision ground to exact nominal dimensions for optimal contact surfaces
- Slim profile for a secure grip
- Hot drop forged
- Matt chrome plating for anti-glare design
- High level of flexural strength: does not break or splinter when overloaded, minimising the risk of injury
- Overload indicated by deformation

Quality
GEDORE vanadium steel CrV3.

50116
STAHLWILLE
Design
Extremely high load-bearing capacity due to double T-profile. Chrome-plated over nickel. Rounded finish for non-slip surface.
Quality
Chrome alloy steel.

50117
HAZET
Design
Slim heads, shank with extra-sturdy double-T-profile.

50118
BAHCO
Design
Chrome-plated micro-matt design with high-quality surface, U-shaped shank, extremely compact heads.

50113

50115

50116

50117

50118

	ATORN®		GEDORE		STAHLWILLE		HAZET		BAHCO	
Size mm	50113	...	50115	...	50116	...	50117	...	50118	...
4 x 5				101		101		401		401
5 x 5.5				102				402		403
5.5 x 7		302 NEW		103		103				404
6 x 7		304 NEW		104		104		404		405
7 x 8				105		105				406
8 x 9		306 NEW		106		106		406		407
8 x 10		307 NEW		107		107		407		408
10 x 11		308 NEW		108		108		408		409
10 x 13		309 NEW		109		109		409		411
11 x 13		310 NEW		110		110				
12 x 13		311 NEW		111		111		411		413
12 x 14		312 NEW		112		112				414
13 x 14		313 NEW		113		113				415
13 x 15		314 NEW		114		114				416
13 x 16				115						
13 x 17		316 NEW		116		116		416		418
14 x 15		317 NEW		117		117		417		419
14 x 17		318 NEW		118		118				420
16 x 17		319 NEW		119		119		419		421
16 x 18		320 NEW		120		120		420		422
17 x 19		321 NEW		121		121		421		423
18 x 19		322 NEW		122		122		422		424
18 x 21				123		123				
19 x 22		324 NEW		124		124				426
19 x 24		325 NEW		125						427
20 x 22		326 NEW		126		126		426		428
21 x 22								427		
21 x 23		328 NEW		128		128		428		429
21 x 24				129						
22 x 24		330 NEW		130		130		430		431
24 x 26		331 NEW		131		131		431		
24 x 27		332 NEW		132		132		432		433
24 x 30				133						434
25 x 28		335 NEW		135		135		435		435

Continued

50113 - 50118 Double open-end wrench DIN 3110, ISO 10102

Continued ▶

Size mm	ATORN 50113 ...	GEDORE 50115 ...	STAHLWILLE 50116 ...	HAZET 50117 ...	BAHCO 50118 ...
27 x 30	336 NEW	136	136		436
27 x 32	337 NEW	137	137	437	437
30 x 32	338 NEW	138	138	438	438
30 x 34		139			
30 x 36		141			
32 x 36	342 NEW	142	142	442	441
34 x 36	343 NEW	143	143	443	
36 x 41	344 NEW	144	144	444	443
41 x 46	345 NEW	145	145	445	445
46 x 50		146		446	446

50119 Double open-end wrench DIN 3110, ISO 10102 (inch)

GEDORE

Design
American inch sizes, jaw angle 15°, chrome-plated, with flat, precision-ground heads.

Quality
Vanadium 31 CrV 3.

50119

Size Inch	Length approx. mm	50119 ...
1/4 x 5/16	122	101
5/16 x 3/8	140	102
3/8 x 7/16	157	103
7/16 x 1/2	172	104
1/2 x 9/16	190	105

Size Inch	Length approx. mm	50119 ...
9/16 x 5/8	190	106
19/32 x 11/16	205	107
5/8 x 11/16	205	108
5/8 x 3/4	222	109
7/8 x 15/16	250	112

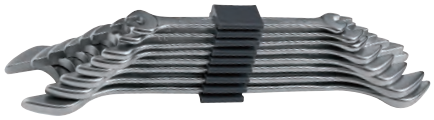
Size Inch	Length approx. mm	50119 ...
15/16 x 1	266	113
1 x 1.1/8	280	114
1.1/16 x 1.1/4	302	115
1.5/16 x 1.1/2	328	116

50125 Double open-end wrench ISO 691, ISO 1085, ISO 10102 (inch)

BAHCO

Design
American inch sizes, jaw angle 15°, chrome-plated micro matt design with high-quality surface, with extremely flat heads.

50125 101



	Set contents Size inch	Design	50125 ...
8 pieces	1/4 x 5/16, 5/16 x 11/32, 3/8 x 7/16, 1/2 x 9/16, 19/32 x 11/16, 5/8 x 3/4, 13/16 x 7/8, 15/16 x 1	in plastic clip	101

50125 201-217

Size Inch	Length mm	Head size mm	50125 ...
1/4 x 5/16	130	3.4	201
5/16 x 11/32	140	3.7	202
3/8 x 7/16	157	4.0	203
7/16 x 1/2	172	4.3	204
1/2 x 9/16	180	4.5	205

Size Inch	Length mm	Head size mm	50125 ...
9/16 x 5/8	190	5.0	206
19/32 x 11/16	205	5.3	207
5/8 x 3/4	205	5.8	208
3/4 x 7/8	236	6.3	210
25/32 x 13/16	236	6.3	211

Size Inch	Length mm	Head size mm	50125 ...
7/8 x 15/16	266	7.4	213
15/16 x 1	266	7.4	214
1 x 1.1/8	280	8.0	215
1.1/16 x 1.1/4	300	8.6	216
1.1/4 x 1.3/8	345	10.0	217

50134 - 50135 Small double open-end wrench

GEDORE

Design
Jaw angle 15° and 75°, chrome-plated, with flat, precision-ground heads.

Quality
Vanadium 34 CrMo 4.

50134 101

	Set contents Size mm	Design	50134 ...
10 pieces	5/5.5/6/7/8/9/10/11/12/13	in plastic pouch	101

Size mm	Length approx. mm	Head size mm	50135 ...
4 x 4	70	1.8	101
4.5 x 4.5	70	1.8	102
5 x 5	78	1.8	103
5.5 x 5.5	78	1.8	104
6 x 6	78	1.8	105

Size mm	Length approx. mm	Head size mm	50135 ...
7 x 7	91	1.8	106
8 x 8	96	2.8	107
9 x 9	103	2.8	108
10 x 10	105	2.8	109
11 x 11	116	2.8	110

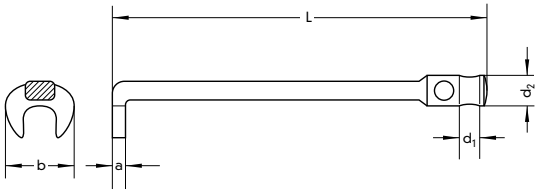
Size mm	Length approx. mm	Head size mm	50135 ...
12 x 12	116	2.8	111
13 x 13	131	2.8	112
14 x 14	131	2.8	113

50150 Crow-foot wrench

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Angled open-end wrench, chrome-plated.
Applications
For work in poorly accessible places.
Quality
Vanadium 31 CrV 3.

Note:
Tommy bars, see art. no. 50749 - 50750.



Size mm	L mm	a mm	b mm	d_1 mm	d_2 mm	Tommy bar Ø mm	50150	...
13	160	5.5	28	8.5	14	8		101
14	160	5.5	28	8.5	14	8		102
17	200	6.0	33	10.5	17	10		103
19	200	7.0	37	12.5	20	12		104
22	200	8.0	42	12.5	20	12		105
24	250	9.0	46	14.5	24	14		106
27	250	10.0	52	14.5	24	14		107
30	250	11.0	57	16.5	28	16		108
32	250	12.0	61	16.5	28	16		109
36	315	13.0	68	19.0	31	18		110

50150

50170 Open-end slugging wrench DIN 133

ATORN®

Design
- Open-end slugging wrench to DIN 133
- Jaw angle 15°
Applications
Forged heat-treated steel with high impact strength for especially heavy screwing applications.

Quality
Size 24–46 mm (art. no. 50170 401-409)
Chromium-vanadium steel 50 CR-V,
from size 50 mm (art. no. 50170 410-417)
Chromium steel 40 CR.

Note:
Other dimensions available on request.

50170

Size mm	50170	...
24		401
27		402
30		403
32		404
34		405
36		406

Size mm	50170	...
41		408
46		409
50		410
55		411
60		412
65		413

Size mm	50170	...
70		414
75		415
80		416
85		417

Info The latest generation of wrenches

The open-end, box and socket wrenches feature a profile that increases the force application areas on the screw heads. A tangential force is transmitted to the edges of the screw heads and nuts. This ensures maximum load distribution, and avoids damage to the tool and workpiece as far as possible. Even older and inaccurate screws can still be screwed using the new profiles.

- **Can also be used for screws outside the tolerance range.**
- **Protects the screw heads with – no edge crimping by applying force to the surface**
- **Maximum power transmission due to a larger contact surface**
- **Also loosens damaged screw heads**

ATORN®	**Energy profile**
BAHCO	**Dynamic drive profile**
FACOM	**OGV® profile**
GEDORE	**Unit drive profile**
HAZET	**Traction profile**
STAHLWILLE	**Anti-slip drive profile**

50295 Combination wrench sets DIN 3113 A, ISO 7738 A

ATORN®

Design
- Jaw angle 15°
- **Ring side angled at 15°**
- **Offset with energy profile**
- **Bi-hexagon with energy profile** increases the force application area for optimum load distribution
- New surface for maximum resistance against contact corrosion
- **15 x greater corrosion protection** against exposure to temperature, road salt and environmental influences compared to conventionally coated wrenches
- **Up to 720 hours in the salt spray test in accordance with DIN EN ISO 9227**
- Environmentally friendly chromium-VI-free coating system
- Extremely durable and robust industrial design

Quality
Chromium-vanadium steel, die-forged and hardened, corrosion coating.

NEW

50295

	Set contents Size mm	Design	50295	...
9 pieces	8/10/13/14/15/16/17/18/19	in box		201
12 pieces	6/7/8/9/10/11/12/13/14/15/16/17	in box		202
12 pieces	10/11/12/13/14/17/19/22/24/27/30/32	in box		205
18 pieces	6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22 /24	in box		206

50298 Combination wrench sets DIN 3113 A, ISO 7738 A

AS-drive

STAHLWILLE

Design
Ring head with AS drive profile and angled at 15°, extremely high load-bearing capacity due to double T-profile. Chrome-plated over nickel. Rounded finish for non-slip surface.
Quality
Chrome alloy steel.

50298

	Set contents Size mm	Design	50298	...
6 pieces	7/8/10/13/17/19	in clamp holder		101
16 pieces	7/8/9/10/11/12/13/14/15/16/17/18/19/21/22/24	in box		107

50300 Combination wrench sets DIN 3113 A, ISO 7738 A

TR

HAZET

Design
Ring head angled at 15°, with traction profile, chrome-plated, polished heads, slim and thin walled.
Quality
Chromium-vanadium steel.

50300

	Set contents Size mm	Design	50300	...
12 pieces	10/11/12/13/14/15/16/17/18/19/21/22	in box		102
17 pieces	7/8/9/10/11/12/13/14/15/16/17/18/19/21/22/24/27	in box		103

50302 Combination wrench sets DIN 3113 A, ISO 7738, ISO 3318

DYNAMIC-DRIVE™

BAHCO

Design
Ring head with dynamic drive profile and angled at 15°. Chrome-plated micro matt design with high-quality surface.

50302 197
Design
In a practical black plastic wall holder with carry handle and locking mechanism.

50302 197

50302 201-202

	Set contents Size mm	Design	50302	...
12 pieces	8/9/10/11/12/13/14/15/16/17/18/19	in plastic wall holder		197
17 pieces	6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22	in plastic pouch		201
26 pieces	6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/32	in plastic pouch		202

Combination wrenches

50296 Combination wrench sets DIN 3113 B, ISO 7738 B

ATORN®

Design
Ring head with energy profile, angled at 10° and offset, slim and thin-walled, chrome-plated.

Quality
Chromium-vanadium steel.

50296

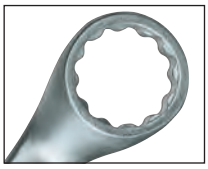
	Set contents Size mm	Design	50296	...
10 pieces	8/9/10/11/12/13/14/15/16/17	in box		**104**
12 pieces	10/11/12/13/14/17/19/22/24/27/30/32	in box		**105**
18 pieces	6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/24	in box		**106**

50297 Combination wrench sets DIN 3113 B, ISO 7738 B

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Ring head with UD profile, angled at 10° and offset, slim and thin-walled, chrome-plated, polished rings.

Quality
Vanadium 31 CrV 3.



50297

	Set contents Size mm	Design	50297	...
8 pieces	8/9/10/11/13/14/17/19	in box		**100**
8 pieces	10/12/13/14/17/19/22/24	in box		**101**
17 pieces	6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22	in box		**102**
26 pieces	6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/32	in box		**111**

50299 Combination wrench set DIN 3113 B, ISO 7738 B

HAZET®

Design
Ring head with bi-hexagon, **angled at 10° and offset,** slim and thin-walled, chrome-plated.

Quality
Chromium-vanadium steel.

50299

	Set contents Size mm	Design	50299	...
17 pieces	7/8/9/10/11/12/13/14/15/16/17/18/19/21/22/24/27	in box		**201**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Combination wrench DIN 3113 A/B, ISO 7738 A/B

Design
Chrome-plated, slim and thin walled.
Quality
Chromium-vanadium steel.

50305-50306
ATORN®
Design
- **Jaw angle 15°, offset**
- **Bi-hex with energy profile** increases force application area
- New surface for maximum resistance against contact corrosion
- **15 x greater corrosion protection** against exposure to temperature, road salt and environmental influences compared to conventionally coated wrenches
- **Up to 720 hours in the salt spray test in accordance with DIN EN ISO 9227**
- Environmentally friendly chromium-VI-free coating system
- Extremely durable and robust industrial design

Quality
Chromium-vanadium steel, die-forged and hardened, corrosion coating

50306
Design
Ring side angled at 10°

50305
Design
Ring side angled down 15°

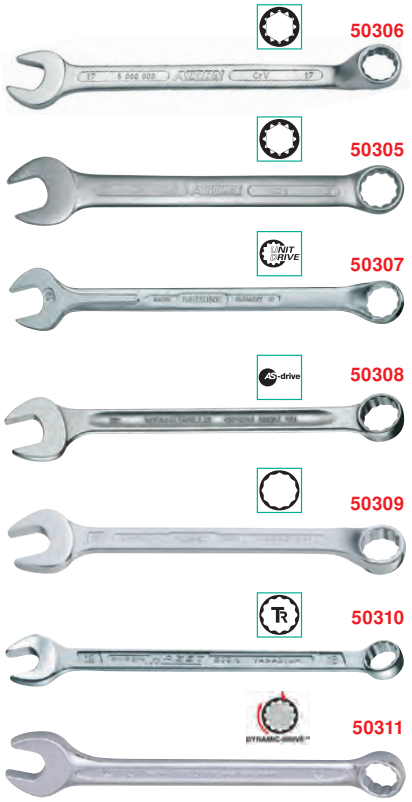
50307
GEDORE
Design
Ring head with UD profile, angled at 10° and offset.
Quality
Vanadium 31 CrV 3.

50308
STAHLWILLE
Design
Ring head with AS drive profile, angled at 15°, extremely high load-bearing capacity due to double T-profile. Chrome-plated over nickel. Rounded finish for non-slip surface.
Quality
Chrome alloy steel.

50309
HAZET
Design
Short, ring head angled at 10° and offset.

50310
HAZET
Design
Long, ring head angled at 15°, slim, **with traction profile.** With extra stable double-T-profile.

50311
BAHCO
Design
Ring head with dynamic drive profile, angled at 15°. Chrome-plated micro matt design with high-quality surface.



	ATORN®	ATORN®	GEDORE	STAHLWILLE	HAZET	HAZET	BAHCO
Size mm	50306 ...	50305 ...	50307 ...	50308 ...	50309 ...	50310 ...	50311 ...
5 x 5		199 NEW	299 NEW				
5.5 x 5.5		200 NEW	300 NEW		100	400	101 401
6 x 6		201 NEW	301 NEW	101	101	401	102 402
7 x 7		202 NEW	302 NEW	102	102	402	103 403
8 x 8		203 NEW	303 NEW	103	103	403	104 404
9 x 9		204 NEW	304 NEW	104	104	404	105 405
10 x 10		205 NEW	305 NEW	105	105	405	106 406
11 x 11		206 NEW	306 NEW	106	106	406	107 407
12 x 12		207 NEW	307 NEW	107	107	407	108 408
13 x 13		208 NEW	308 NEW	108	108	408	109 409
14 x 14		209 NEW	309 NEW	109	109	409	110 410
15 x 15		210 NEW	310 NEW	110	110	410	111 411
16 x 16		211 NEW	311 NEW	111	111	411	112 412
17 x 17		212 NEW	312 NEW	112	112	412	113 413
18 x 18		213 NEW	313 NEW	113	113	413	114 414
19 x 19		214 NEW	314 NEW	114	114	414	115 415
20 x 20		215 NEW	315 NEW	115	115		116 416
21 x 21		216 NEW	316 NEW	116	116	416	117 417
22 x 22		217 NEW	317 NEW	117	117	417	118 418
23 x 23			318 NEW		118		119 421
24 x 24		218 NEW	319 NEW	118	119	418	120 419
25 x 25			320 NEW		120		121 422
26 x 26			321 NEW				122 429
27 x 27		219 NEW	322 NEW	119	122	419	123 420
28 x 28			323 NEW				124 430
29 x 29							125 431
30 x 30		220 NEW	324 NEW	120	125	420	126 423
32 x 32		221 NEW	325 NEW	121	126	421	127 424
34 x 34			326 NEW	122	128		128 425
36 x 36		222 NEW	327 NEW	123	130		129 426
41 x 41			328 NEW	124	132		130 427
46 x 46			329 NEW	125	133		131 428

50314 - 50315 Combination wrench (long design)

GEDORE

Design
Ring head with UD profile, angled at 15° and polished. Extremely long lever arm, chrome-plated.

Quality
Vanadium 31 CrV 3.

50314

	Set contents Size mm	Design	50314	...
12 pieces	10/11/12/13/14/17/19/22/24/27/30/32	in box		101

Size mm	Length approx. mm	50315	...
8 x 8	170		103
9 x 9	180		104
10 x 10	190		105
11 x 11	200		106
12 x 12	210		107
13 x 13	225		108
14 x 14	235		109

Size mm	Length approx. mm	50315	...
15 x 15	250		110
16 x 16	265		111
17 x 17	280		112
18 x 18	295		113
19 x 19	310		114
21 x 21	340		116
22 x 22	350		117

Size mm	Length approx. mm	50315	...
24 x 24	400		119
27 x 27	450		122
30 x 30	480		124
32 x 32	500		125
34 x 34	520		126
36 x 36	550		127
41 x 41	600		128

50330 Combination wrench

BAHCO

Design
Chrome-plated micro matt design with high-quality surface. **Extremely compact dimensions. Hexagon ring head angled at 15°.** 22.5° jaw angle.

Applications
For radio, telecommunications, electronics, precision engineering, carburettors etc.
Quality
Vanadium extra steel.

50330

Size mm	Total length approx. mm	50330	...
3.2 x 3.2	70		202
3.5 x 3.5	70		203

Size mm	Total length approx. mm	50330	...
4.0 x 4.0	70		204
4.5 x 4.5	80		205

Size mm	Total length approx. mm	50330	...
5.0 x 5.0	80		206
5.5 x 5.5	80		207

50345 Combination wrenches DIN 3113 A, ISO 7738 A (inch)

DYNAMIC-DRIVE™

BAHCO

Design
American inch sizes, ring head with dynamic drive profile and angled at 15°, jaw angle 15°. Chrome-plated micro matt design with high-quality surface.
Quality
Vanadium extra.

50345 101

50345 102

	Set contents Size inch	Design	50345	...
8 pieces	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 7/8	in plastic pouch		101
11 pieces	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1	in plastic pouch		102

50345 201-217

Size Inch	Length mm	50345	...
1/4	95		201
5/16	115		202
3/8	125		203
7/16	145		204
1/2	170		205
9/16	185		206

Size Inch	Length mm	50345	...
5/8	205		207
11/16	220		208
3/4	245		209
13/16	265		210
7/8	265		211
15/16	300		212

Size Inch	Length mm	50345	...
1	330		213
1.1/16	330		214
1.1/8	370		215
1.1/4	390		216
1.5/16	415		217

Info — ATORN combination wrenches with ratchet

ATORN®

Combination wrenches with ratchets are available in 4 designs:

- Straight with ring ratchet and open-end ratchet
- Straight with ring ratchet
- Angled with reversible ring ratchet
- Movable swivel head with ring ratchet

- Slim heads
- Chromium-plated
- Bi-hexagon ring side
- Robust ratchet mechanism (72 teeth, 5° return angle)

Note:
Adapters to accommodate bits and socket wrench inserts, see art. no. 50392 + 50394.

Adapters for socket wrench inserts are available for 3 sizes: 1/4, 3/8 and 1/2 inch.

The **ratchet mechanism on the jaw end** prevents the wrench from having to be disengaged from the nut or screw head.

The **bit adapter** is simply connected to the ring side.

50388 — Combination wrenches with ring and open-end ratchet, straight

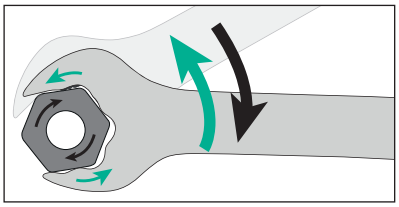
ATORN®

Design
- Straight
- Slim heads
- Chromium-plated
- Bi-hexagon ring side
- Double sided with a robust ratchet mechanism

Quality
Chromium-vanadium steel.

Note:
Adapters to accommodate bits and socket wrench inserts, see art. no. 50392 + 50394.

The ratchet mechanism on the jaw end prevents the wrench from having to be disengaged from the nut or screw head.



	Set contents Size mm	Design	50388	...
5 pieces	8/10/13/17/19	in tool roll		201

50388

Size mm	Length mm	50388	...
8	140		101
10	158		103

Size mm	Length mm	50388	...
13	175		106
17	220		110

Size mm	Length mm	50388	...
19	245		112

50395 — Combination wrench with ring ratchet, straight

ATORN®

Design
- Straight
- Slim heads
- Chromium-plated
- Bi-hexagon ring side
- Robust ratchet mechanism (72 teeth, 5° return angle)

Quality
Chromium-vanadium steel.

Note:
Adapters to accommodate bits and socket wrench inserts, see art. no. 50392 + 50394.

	Set contents Size mm	Design	50395	...
5 pieces	8/10/13/17/19	in tool roll		100

50395

Size mm	Length mm	50395	...
6	125		098 NEW
7	130		099 NEW
8	140		101
9	149		102
10	159		103
11	165		104

Size mm	Length mm	50395	...
12	171		105
13	178		106
14	190		107
15	199		108
16	208		109
17	225		110

Size mm	Length mm	50395	...
18	236		111
19	248		112
21	291		113
22	291		114
24	333		115
27	357		116

Size mm	Length mm	50395	...
30	402		117
32	426		118
34	430		119 NEW
36	460		120 NEW
38	480		121 NEW
41	520		122 NEW

50340 — Combination wrench with ring ratchet, straight

Design
- Straight
- Slim heads
- Chromium-plated
- Bi-hexagon ring side
- Robust ratchet mechanism (72 teeth, 5° return angle)

Quality
Chromium-vanadium steel.

NEW

50340

Size mm	Length mm	50340	...
46	645		201
50	665		202

Combination wrenches with ratchet

50390 Combination wrench with ring ratchet, angled

ATORN®

Design
- Reversible
- Ring side angled at 15°
- Slim heads

- Chromium-plated
- Bi-hexagon ring side
- Robust ratchet mechanism (72 teeth, 5° return angle)

Quality
Chromium-vanadium steel.

Note:
Adapters to accommodate bits and socket wrench inserts, see art. no. 50392 + 50394.

50390

	Set contents Size mm	Design	50390	...
5 pieces	8/10/13/17/19	in tool roll		100

Size mm	Length mm	50390	...
6	125		098 NEW
7	130		099 NEW
8	140		101
9	149		102
10	159		103
11	165		104
12	171		105

Size mm	Length mm	50390	...
13	178		106
14	190		107
15	199		108
16	208		109
17	225		110
18	236		111
19	248		112

Size mm	Length mm	50390	...
21	285		113 NEW
22	285		114 NEW
24	325		115 NEW
27	360		116 NEW
30	425		117 NEW
32	425		118 NEW
36	425		119 NEW

50391 Combination wrench with ring ratchet, movable

ATORN®

Design
- With movable swivel head
- Slim heads
- Chromium-plated

- Bi-hexagon ring side
- Robust ratchet mechanism (72 teeth, 5° return angle)

Quality
Chromium-vanadium steel.

Note:
Adapters to accommodate bits and socket wrench inserts, see art. no. 50392 + 50394.

50391

	Set contents Size mm	Design	50391	...
5 pieces	8/10/13/17/19	in tool roll		100

Size mm	Length mm	50391	...
8	140		101
9	149		102
10	159		103
11	165		104

Size mm	Length mm	50391	...
12	171		105
13	178		106
14	190		107
15	199		108

Size mm	Length mm	50391	...
16	208		109
17	225		110
18	236		111
19	248		112

50394 Adapter set for ATORN combination wrenches with ratchet

1/4" 3/8" 1/2"

Applications
Suitable for combination wrenches
- **Straight** (art. no. 50388 + 50395)
- **Angled** (art. no. 50390) and
- **With movable swivel head** (art. no. 50391).

To accommodate
- **Bits,** 1/4 inch and
- **Socket wrench inserts** 1/4, 3/8 and 1/2 inch.

Quality
Chromium-vanadium steel.

50394

	Set contents
1	**Adapter for 1/4-inch bits** (for size 10 mm)
1	**Adapter for 1/4-inch socket spanner inserts** (for size 10 mm)
1	**Adapter for 3/8-inch socket wrench inserts** (for size 13 mm)
1	**Adapter for 1/2-inch socket wrench inserts** (for size 19 mm)

Set contents	50394	...
4 pieces		201

50392 Adapters for ATORN combination wrenches with ratchet

1/4" 3/8" 1/2"

ATORN®

Applications
Suitable for combination wrenches
- **Straight** (art. no. 50388 + 50395)
- **Angled** (art. no. 50390) and
- **With movable swivel head** (art. no. 50391).

To accommodate
- **Bits** (art. no. 50392 102) and
- **Socket wrench inserts** (art. no. 50392 101+103+104).

Quality
Chromium-vanadium steel.

50392 101

50392 102

Square Inch	Adapter suitable for box wrench Size mm	50392	...
1/4	10		101
Bit 1/4	10		102
3/8	13		103
1/2	19		104

50392 103

50392 104

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

50401 - 50402 Combination wrench with Joker ring ratchet

TAKE IT EASY TOOL FINDER

Wera

Design

- At the jaw end:

1. **Practical hold function** courtesy of an innovative metal plate in the jaw:
   Screws and nuts no longer get lost when applying to the component.
   The screw or nut can be screwed on immediately after putting in place.
   No time-consuming switching of gripping tool required, e.g. from long-nose pliers to open-end wrench.

2. **The integrated end stop** ensures straightforward placement and prevents slipping or falling.
   Nut does not have to be held in place with thumb.

3. **Reliable screw action** even at high torques:
   The extra-hard, toothed gripping plate in the jaw supports high torque application without risking potentially painful side slippage.

4. **No need to turn the wrench:**
   thanks to the 30° return angle, you can continue screwing in without tiring yourself out turning the wrench.
   When screwing in, the Joker does not have to be removed from the screw and then turned; it always remains aligned with the screw, saving time.
   The Joker allows you to screw in components in confined installation spaces where a traditional open-end wrench would be unsuitable.

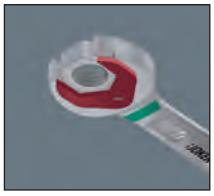
- **Ratchet mechanism on ring side:**
  Exceptionally high fine toothing with 80 teeth provides flexibility even in confined spaces.
  Extremely long product life even at high torques.

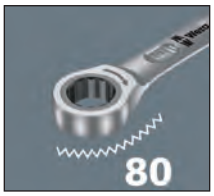
Quality
Premium chromium-molybdenum steel.
Nickel-chromium coating for a high level of corrosion protection.

50401 101

50401 103

50402





	Set contents Size mm	Design	50401	...
4 pieces	10/13/17/19	in pouch		101
11 pieces	8/10/11/12/13/14/15/16/17/18/19	in pouch		103

Size mm	Length mm	Jaw head size mm	Ring head size mm	50402	...
10	159	5.5	7.2		101
13	177	7.0	8.6		104
17	224	8.5	10.5		108
19	246	9.5	11.0		110

50396 - 50397 Combination wrenches with ring ratchet

DYNAMIC-DRIVE™

BAHCO

Design

Bi-hexagon, with reversing ring. Changing direction is easy thanks to convenient reversing button. Reversing ring with 72 teeth. Slim design **with 15° angled head** for easy access to hard-to-reach areas. 5° return angle. **Dynamic drive profile. 15° jaw angle.** Chrome-plated micro matt design with high-quality surface. Complies with ISO 1711-1 and DIN 3113.

Quality
Chromium vanadium.

50396 101

50396 102

50397

	Set contents Size mm	Design	50396	...
6 pieces	8/10/12/13/14/17	in clamp holder		101
12 pieces	8/9/10/11/12/13/14/15/16/17/18/19	in clamp holder		102

Size mm	50397	...
6		099
7		100
8		101
9		102
10		103

Size mm	50397	...
11		104
12		105
13		106
14		107
15		108

Size mm	50397	...
16		109
17		110
18		111
19		112
22		113

Size mm	50397	...
24		114
27		115
30		116
32		117

50403 Combination wrench with ring ratchet (inch)

BAHCO

Design
- Bi-hexagon
- With reversing ring
- Changing direction is easy thanks to convenient reversing button
- Reversing ring with 72 teeth
- Slim design **with 15° angled head** for easy access to hard-to-reach areas
- 5° return angle
- **Dynamic drive profile**
- **Jaw angle 15°**
- Chrome-plated micro matt design with high-quality surface.
- Complies with ISO 1711-1 and DIN 3113

Quality
Chromium vanadium.

DYNAMIC-DRIVE™

NEW

50403 200

50403 301-309

	Set contents Size inch	Design	50403	...
8 pieces	1/2, 3/4, 3/8, 5/16, 5/8, 7/16, 9/16, 11/16	in clamp holder		200

Size Inch	50403	...
1/4		301
5/16		302
3/8		303

Size Inch	50403	...
7/16		304
1/2		305
9/16		306

Size Inch	50403	...
5/8		307
11/16		308
3/4		309

50399 Combination wrenches with ring ratchet

HAZET

Design
- Box wrench with reversible ratchet function
- Finely toothed, 72 teeth, **5° rotating angle**
- Ring side angled at 13°
- Chrome-plated surface

Applications
For screwing in fittings in confined, poorly accessible spaces without having to move the wrench, thanks to the ratchet function.
Quality
Chromium vanadium.

50399

	Set contents Size mm	Design	50399	...
6 pieces	8/10/12/13/17/19	in SmartCase with soft foam insert		103
12 pieces	8/9/10/11/12/13/14/15/16/17/18/19	in SmartCase with soft foam insert		104

Size mm	Length mm	Jaw head size mm	Ring head size mm	50399	...
8	129.9	6.8	4.9		201
9	143.0	7.2	5.2		202
10	154.5	7.6	5.6		203
11	168.6	8.0	6.0		204
12	180.3	8.5	6.4		205
13	193.2	8.9	6.7		206
14	204.6	9.3	7.1		207
15	218.0	9.7	7.4		208
16	230.2	10.2	7.7		209

Size mm	Length mm	Jaw head size mm	Ring head size mm	50399	...
17	242.2	10.6	8.1		210
18	255.0	11.0	8.5		211
19	268.3	11.5	9.1		212
21	291.5	13.3	12.0		213
22	291.5	13.3	12.0		214
24	333.1	14.8	12.5		215
27	359.2	15.8	14.7		216
30	402.5	17.3	15.2		217
32	425.8	17.8	15.7		218

50400 Open-end and socket wrenches

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Narrow design, chrome-plated, precision-ground heads. Freely moveable socket wrench end **with UD profile.** Hole for tommy bar.

Quality
Vanadium 31 CrV 3.

Note:
Tommy bars, see art. no. 50749 - 50750.

UNIT DRIVE

50400

Size mm	Length approx. mm	External Ø of head mm	Tommy bar hole mm	50400	...
10	179	4.7/15.5	5		101
11	189	5.0/16.7	5		102
12	198	5.5/18.0	5		103
13	208	6.0/19.2	5		104
14	218	6.3/20.5	6		105

Size mm	Length approx. mm	External Ø of head mm	Tommy bar hole mm	50400	...
15	231	6.7/21.7	6		106
16	244	7.0/22.8	6		107
17	255	7.5/24.2	8		108
18	269	7.7/25.5	8		110
19	283	8.0/26.7	8		109

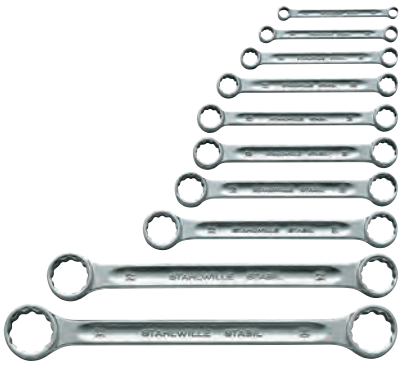
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

50502 - 50503 Straight box wrenches DIN 837, ISO 10103

STAHLWILLE

Design
Double-sided, **with AS drive profile,** extremely high load-bearing capacity due to double T-profile. Chrome-plated over nickel. Rounded finish for non-slip surface.

Quality
Chrome alloy steel.



50502

	Set contents Size mm	Design	50502	...
7 pieces	8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in box		**101**
10 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/24 x 27/30 x 32	in box		**102**

Size mm	Length mm	50503	...
6 x 7	100		**101**
8 x 9	115		**102**
10 x 11	130		**104**
12 x 13	150		**105**
13 x 17	170		**107**

Size mm	Length mm	50503	...
14 x 15	165		**108**
16 x 17	170		**109**
17 x 19	185		**111**
18 x 19	185		**112**
19 x 22	210		**114**

Size mm	Length mm	50503	...
20 x 22	210		**115**
24 x 27	290		**117**
30 x 32	325		**119**

50504 - 50505 Straight box wrenches DIN 837, ISO 10103

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Thin-walled, polished rings **with UD profile,** chromium-plated.

Quality
Vanadium 31 CrV 3.

50504

	Set contents Size mm	Design	50504	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in box		**111**
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in box		**112**

Size mm	Length approx. mm	50505	...
6 x 7	98		**203**
8 x 9	113		**204**
8 x 10	115		**205**
10 x 11	130		**207**
12 x 13	148		**211**
13 x 15	160		**213**

Size mm	Length approx. mm	50505	...
13 x 17	168		**214**
14 x 15	160		**215**
14 x 17	170		**216**
16 x 17	170		**217**
18 x 19	185		**219**
20 x 22	208		**221**

Size mm	Length approx. mm	50505	...
21 x 23	233		**222**
22 x 24	233		**223**
24 x 27	260		**225**
30 x 32	320		**228**

50506 Straight box wrench (inch)

BAHCO

Design
American inch sizes.
Thin-walled heads angled at 15°.
Bi-hexagon **with dynamic drive profile.** Chrome-plated micro matt design with high-quality surface.

Quality
Vanadium extra.

DYNAMIC-DRIVE™

50506

Size Inch	Length mm	50506	...
1/4 x 5/16	156		**101**
3/8 x 7/16	193		**102**
1/2 x 9/16	220		**103**

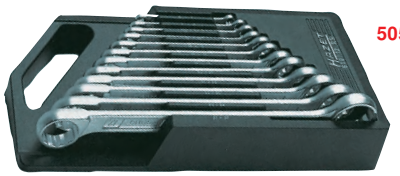
Size Inch	Length mm	50506	...
19/32 x 11/16	258		**104**
5/8 x 3/4	268		**105**
25/32 x 13/16	300		**106**

Size Inch	Length mm	50506	...
7/8 x 15/16	334		**107**
15/16 x 1	352		**108**
1 x 1.1/8	404		**109**

50511 Straight box wrench sets DIN 837, ISO 10103

HAZET

Design
New design, ergonomically shaped.
Polished heads, chrome-plated, bi-hexagon.
Quality
Chromium-vanadium steel.



50511

	Set contents Size mm	Design	50511	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/21 x 22	in plastic clamp holder		**101**
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 26/25 x 28/27 x 32	in plastic clamp holder		**102**

50512 Offset box wrench sets DIN 838, ISO 10104

ATORN®

Design
- Double sided **deep offset**
- **Bi-hexagon with energy profile** increases the force application area for optimum load distribution
- New surface for maximum resistance against contact corrosion
- **15 x greater corrosion protection** against exposure to temperature, road salt and environmental influences compared to conventionally coated wrenches
- **Up to 720 hours in the salt spray test in accordance with DIN EN ISO 9227**
- Environmentally friendly chromium-VI-free coating system
- Extremely durable and robust industrial design

Quality
Chromium-vanadium steel, die-forged and hardened, corrosion coating.

NEW

50512

	Set contents Size mm	Design	50512	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in box		**104**
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21x23/24 x 27/25x28/30 x 32	in box		**105**

50513 Offset box wrench sets DIN 838, ISO 10104

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Double sided **deep offset.** Thin-walled, polished rings **with UD profile,** chrome-plated.
Quality
Vanadium 31 CrV 3.

50513

	Set contents Size mm	Design	50513	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in box		**101**
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in box		**102**

50514 Offset box wrench set DIN 838, ISO 10104

HAZET

Design
Double-sided **deep offset,** bi-hexagon, thin-walled and polished rings, chrome-plated.
Quality
Chromium-vanadium steel.

50514

	Set contents Size mm	Design	50514	...
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 26/25 x 28/27 x 32	in box		**204**

50518 - 50522 Offset box wrenches DIN 838, ISO 10104

Design
Double-sided **deep offset,** bi-hexagon, thin-walled and polished rings, chrome-plated.
Quality
Chromium-vanadium steel.

50518
ATORN®
Design
- **With energy profile** to increase the force application area for optimum load distribution
- New surface for maximum resistance against contact corrosion
- **15 x greater corrosion protection** against exposure to temperature, road salt and environmental influences compared to conventionally coated wrenches
- **Up to 720 hours in the salt spray test in accordance with DIN EN ISO 9227**
- Environmentally friendly chromium-VI-free coating system
- Extremely durable and robust industrial design

Quality
Die-forged and hardened, corrosion coating.

50520
GEDORE
Design
With UD profile.

50521
STAHLWILLE
Design
With AS drive profile.
Quality
Chrome alloy steel.

50522
HAZET
Design
With AS drive profile.
Quality
Chrome alloy steel.

50518

50520

50521

50522

Size mm	ATORN 50518	...	GEDORE 50520	...	STAHLWILLE 50521	...	HAZET 50522	...
6 x 7		402 NEW		202		101		402
8 x 9		403 NEW		203		103		403
8 x 10		404 NEW		204				
10 x 11		405 NEW		205		105		405
10 x 13		406 NEW		206		107		
12 x 13		407 NEW		207		108		407
12 x 14		408 NEW		208				
13 x 14		409 NEW		209				
13 x 15		410 NEW		210				
13 x 17		412 NEW		212		113		
14 x 15		413 NEW		213		114		413
14 x 17		414 NEW		214				
16 x 17		415 NEW		215		116		415
16 x 18		416 NEW		216				
17 x 19		417 NEW		217		118		417
18 x 19		418 NEW		218		119		418
18 x 21				219				
19 x 22		420 NEW		220		121		
19 x 24		421 NEW		221				
20 x 22		422 NEW		222		123		422
21 x 23		424 NEW		224		124		424
22 x 24		426 NEW		226		126		
24 x 26		427 NEW		227		127		427
24 x 27		428 NEW		228		128		428
24 x 30				229				
25 x 28		431 NEW		231				
27 x 30				232				
27 x 32		433 NEW		233		131		433
30 x 32		434 NEW		234		132		434
30 x 34				235				
30 x 36				236				
32 x 36		438 NEW		238				
36 x 41		440 NEW		240		135		440
41 x 46				241				
46 x 50				242				

50527 TX® box wrench

HAZET

Design
Straight, chrome-plated, polished.

Applications
For external TX® screws.
Quality
Chromium-vanadium steel.

50527

Size E	d mm	Length approx. mm	50527	...
6 x 8	5.74 x 7.52	113		101
10 x 12	9.42 x 11.17	140		102

50530 Bi-hexagon ratchet box wrench

Design
Straight, slim heads, high-gloss chrome plated, with bi-hexagon and robust ratchet mechanism (72 teeth, 5° return angle).

Quality
Chromium-vanadium steel.

50530 200

	Set contents Size mm	Design	50530 ...
6 pieces	8 x 9/10 x 11/12 x 13/14 x 15/16 x 18/17 x 19	in synthetic leather pouch	200

Size mm	Length mm	50530 ...
8 x 9	130	201
10 x 11	150	202
12 x 13	170	203

Size mm	Length mm	50530 ...
14 x 15	190	204
16 x 18	210	205
17 x 19	230	206

50530 201-206

50532 Bi-hexagon ratchet box wrench

FACOM

Design
Chrome-plated and satin finish. Reversible ratchet with bi-hexagon ring head, 5° angle of rotation, therefore minimal space requirements.

Applications
The wrench permits very fast work even in confined, poorly accessible spaces with limited room for turning. The wrenches are designed to meet the highest requirements.

50532 301

	Set contents Size mm	Design	50532 ...
4 pieces	10 x 11/12 x 13/16 x 18/17 x 19	in box	301

Size mm	50532 ...
6 x 7	401
8 x 9	402
10 x 11	403

Size mm	50532 ...
12 x 13	404
14 x 15	405
16 x 18	406

Size mm	50532 ...
17 x 19	407

50532 401-407

50534 Universal ratchet set

bilz

Design
With replaceable square inserts. Reversible ratchet for right- and left-handed threads. The inserts are locked with the reversing lever in the central position.

Applications
For work in poorly accessible places.

50534

Inserts mm	Design	50534 ...
3.4 / 4.9 / 5.5 / 6.2 / 7 / 8 / 9 / 11	in metal case	102

50535 Universal ratchets

bilz

Design
Reversible for right- and left-handed threads, the inserts are locked with the reversing lever in the central position. **Inserts not included.**

Applications
For replaceable square inserts (art. no. 50538).
For work in poorly accessible places.

Note:
Hexagonal inserts available on request.

50535

Size	Ø of inserts mm	For square mm	Length of lever arm up to hole centre mm	50535 ...
00	16	2.1–8.0	115	201
0	22	3.4–11.0	155	202
1	29	4.9–14.5	175	203
2	36	10.0–18.0	220	204
3	45	14.0–22.0	300	205
4	60	18.0–30.0	380	206

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

50538 Square inserts for universal ratchets

bilz

Applications
For universal ratchets, art. no. 50535.

Note:
Additional inserts, including hexagon or special designs, available on request.

50538

For size	square mm	50538 ...
00	2.7	203
00	3.4	205
00	4.9	209
00	6.2	212
00	8.0	214
0	4.9	219
0	5.5	221
0	6.2	222
0	9.0	225

For size	square mm	50538 ...
0	10.0	226
1	5.5	230
1	6.2	231
1	7.0	232
1	8.0	233
1	9.0	234
1	10.0	235
1	11.0	236
1	12.0	237

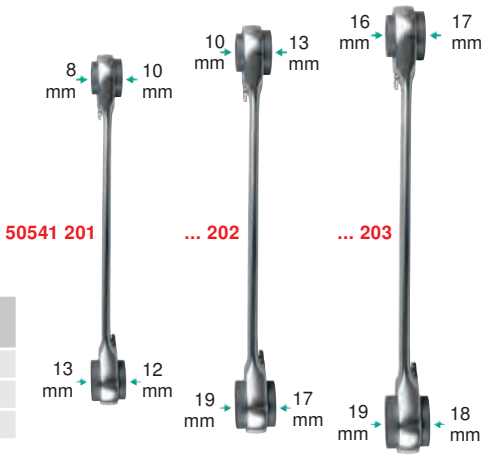
For size	square mm	50538 ...
1	13.0	238
1	14.0	239
2	10.0	240
2	11.0	241
2	12.0	242
2	13.0	243
2	14.0	244
2	14.5	245
2	16.0	246

For size	square mm	50538 ...
2	17.0	247
3	16.0	251
3	17.0	252
3	18.0	253
3	19.0	254
3	22.0	256
4	20.0	259
4	24.0	261

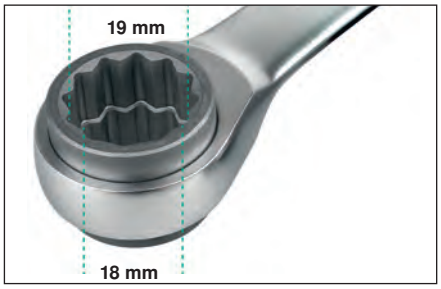
50541 4-in-1 reversible ratchet box wrenches

Design
- Bi-hexagon
- Straight design
- Precisely toothed with 72 teeth
- 4 different widths
- With reversing lever
- Chrome-plated (50541 201-202)
- Very fine satin finish (50541 203)

Quality
Chromium-vanadium steel.



50541



Size mm	50541 ...
8 x 10/12 x 13	201
10 x 13/17 x 19	202
16 x 17/18 x 19	203

50550 Bi-hexagon articulated socket wrench

HAZET

Design
Chrome plated, polished heads, can be swivelled 90° on both sides.

Quality
Chromium-vanadium steel.

50550

Size mm	Length approx. mm	50550 ...
8 x 9	179.4	102
10 x 11	198.5	103
12 x 13	214.4	105

Size mm	Length approx. mm	50550 ...
14 x 15	232.0	109
16 x 17	243.2	111

50560 Straight bi-hexagon single ring wrench DIN 3111

ATORN®

Design
- **Special profile** in the ring for a better grip and to avoid damage to the screw connection

Applications
Ideal for securing screw connections.

Quality
Size 13–47 mm (art. no. 50560 001-028)
Chromium-vanadium steel 50 CR-V,
from size 50 mm (art. no. 50560 029-036)
Chromium steel 40 CR.

Note:
Additional dimensions available on request.

NEW

50560

Size mm	50560 ...
13	001
14	002
15	003
16	004
17	005
18	006
19	007
20	008
21	009

Size mm	50560 ...
22	010
24	011
25	012
26	013
27	014
28	015
29	016
30	017
32	018

Size mm	50560 ...
33	019
34	020
36	021
38	022
39	023
41	024
43	025
44	026
46	027

Size mm	50560 ...
47	028
50	029
52	030
55	031
56	032
57	033
58	034
60	035
65	036

50561 Heavy bi-hexagon deep box wrench

ATORN®

Design
- **Special profile** in the ring for a better grip and to avoid damage to the screw connection
- Offset ring side

Applications
Forged with high durability for especially heavy screwing applications.

Quality
Size 24–46 mm (art. no. 50561 101-108)
Chromium-vanadium steel 50 CR-V,
From size 50 mm (art. no. 50561 109-116)
Chromium steel 40 CR.

Note:
For compatible extension tubes, see art. no. 50562.
Additional dimensions available on request.

NEW

50561

Size mm	50561 ...
24	101
27	102
30	103
32	104
34	105
36	106
41	107
46	108

Size mm	50561 ...
50	109
55	110
60	111
65	112
70	113
75	114
80	115
85	116

50562 Extension tubes for deep box wrenches

ATORN®

Design
- Heavy-duty design for high torque transmission
- Premium industrial quality for the highest torques
- High bending rigidity for reliability in case of overload

Quality
Steel tube, chrome-plated.

Note:
For compatible deep box wrenches, see art. no. 50561 and 50565.
Additional dimensions available on request.

NEW

50562

For size mm	Length approx. mm	50562 ...
22–30	460	101
32 - 41	610	102

For size mm	Length approx. mm	50562 ...
46 - 55	760	103
60 - 105	860	104

50565 Heavy bi-hexagon deep box wrench

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Deep offset, chrome-plated, spring-loaded locking pin for extension tubes (art. no. 50566) at wrench end.

Applications
For heavy-duty work.
Quality
Vanadium 31 CrV 3.

50565

Size mm	Length approx. mm	Head height mm	Outer ring Ø mm	50565 ...
24	180	16.0	38	201
27	190	17.0	42	202
30	200	18.0	46	203
32	235	19.0	52	204
34	235	19.0	52	205
36	245	20.0	58	206
41	265	22.0	62	208
46	280	24.0	69	209
50	290	25.5	76	210

Size mm	Length approx. mm	Head height mm	Outer ring Ø mm	50565 ...
55	300	28.0	82	211
60	345	30.5	90	212
65	355	33.0	98	213
70	365	35.5	106	214
75	375	38.0	114	215
80	385	40.0	122	216
85	385	40.0	130	217
90	410	45.0	142	218
95	410	45.0	142	219

50566 Extension tubes for deep box wrench

GEDORE
WERKZEUGE FÜRS LEBEN

Quality
Steel tube, chrome-plated.

50566

For size mm	Length approx. mm	Internal tube Ø mm	50566 ...
24 - 30	460	19	201
32 - 41	610	22	202

For size mm	Length approx. mm	Internal tube Ø mm	50566 ...
46 - 55	760	25	203
60 - 95	860	30	204

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

50568 Starter and block wrench

GEDORE

Design
Thin-walled rings **with UD profile,** chrome-plated.
Applications
For work on the engine block.

Quality
Vanadium 31 CrV 3.

50568

Size mm	Length approx. mm	Head size mm	Outer ring Ø mm	50568	...
11 x 13	150	7.0/8.5	17.0/20.5		101
14 x 16	185	8.7/10.3	21.5/24.5		102
15 x 17	185	8.7/10.3	23.0/25.5		103

Size mm	Length approx. mm	Head size mm	Outer ring Ø mm	50568	...
16 x 18	185	8.7/10.3	24.5/27.0		104
19 x 22	230	10.0/11.5	28.0/32.5		105

50570 Bi-hexagon slugging box wrench DIN 7444

ATORN®

Design
- **Special profile** in the ring for a better grip and to avoid damage to the screw connection

Applications
Forged heat-treated steel with high impact strength for especially heavy screwing applications.

Quality
Size 24–46 mm (art. no. 50570 301-308)
Chromium-vanadium steel 50 CR-V,
From size 50 mm (art. no. 50570 309-316)
Chromium steel 40 CR.

NEW

Note:
Additional dimensions available on request.

50570

Size mm	50570	...
24		301
27		302
30		303
32		304

Size mm	50570	...
34		305
36		306
41		307
46		308

Size mm	50570	...
50		309
55		310
60		311
65		312

Size mm	50570	...
70		313
75		314
80		315
85		316

50571 Bi-hexagon slugging box wrench with higher sidewall

ATORN®

Design
- XL design with higher sidewall for even better grip
- **Special profile** in the ring for a better grip and to avoid damage to the screw connection

Applications
Forged heat-treated steel with high impact strength for especially heavy screwing applications.

Quality
Size 36–46 mm (art. no. 50571 101-103)
Chromium-vanadium steel 50 CR-V,
From size 50 mm (art. no. 50571 104-111)
Chromium steel 40 CR.

NEW

Note:
Additional dimensions available on request.

50571

Size mm	50571	...
36		101
41		102
46		103

Size mm	50571	...
50		104
55		105
60		106

Size mm	50571	...
65		107
70		108
75		109

Size mm	50571	...
80		110
85		111

50582 Union nut wrench DIN 3118

GEDORE

Design
Open box wrench **with UD profile,** chrome-plated.
Heads angled at 15°, with reinforced ring shoulder.
Opening offset by 15°.
Applications
For union nuts on pipes.

Quality
Vanadium 31 CrV 3.

Note:
50582 101-104 with hexagon. Opening offset by 30°.

50582

Size mm	Length approx. mm	Ring size mm	Outer ring-Ø mm	50582	...
8 x 10	140	6.5/8.0	18/20		101
10 x 11	150	8.0/8.5	20/22		102
11 x 13	160	8.5/10.5	22/26		103
12 x 14	170	9.5/11.5	24/28		104
13 x 15	180	10.5/11.8	26/29		105
14 x 17	195	11.5/12.2	28/32		106

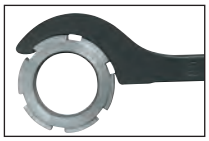
Size mm	Length approx. mm	Ring size mm	Outer ring-Ø mm	50582	...
17 x 19	210	12.2/13.2	32/35		107
19 x 22	230	13.2/15.2	35/41		108
22 x 24	250	15.2/16.2	41/45		109
24 x 27	270	16.2/17.2	45/48		110
30 x 32	300	20.2/22.2	50/52		111

50650 Hook wrench DIN 1810 A

Design
With nose.
Applications
For DIN 1804 slotted nuts and DIN 981 roller bearing nuts.

Quality
Hardened special steel, with bronzed finish.

Note:
( ) = DIN extended.
** = Thickness deviates from DIN.*



For nut external Ø mm	Total length mm	Material thickness mm	50650	...
12 - 14	110	3		101
16 - 20	110	3		102
25 - 28	136	4		103
30 - 32	136	4		104
34 - 36	170	5		105
(38–45)	170	5		127
40 - 42	170	5		106
45 - 50	206	6		107
52 - 55	206	6		108
58 - 62	240	7		109

For nut external Ø mm	Total length mm	Material thickness mm	50650	...
(65–70)	240	7		128
68 - 75	240	7		110
80 - 90	280	8		111
(85–92)	280	8		129
95 - 100	280	8		112
(98–105)	290	8		130
110 - 115	335	10		113
120 - 130	335	10		114
135–145	385	*10		115
155–165	385	*10		116

50653 Hook wrench DIN 1810 B

Design
With pin.
Applications
For DIN 1816 capstan nuts.

Quality
Hardened special steel, with bronzed finish.

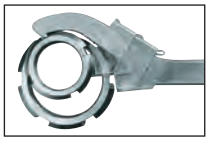
For nut external Ø mm	Pin Ø mm	Total length mm	Material thickness mm	50653	...
12 - 14	2.0	110	3		101
16 - 18	2.5	110	3		102
20 - 22	2.5	110	3		103
25 - 28	3.0	136	4		104
30 - 32	4.0	136	4		105
34 - 36	4.0	170	5		106
40 - 42	4.0	170	5		107
45 - 50	5.0	206	6		108
52 - 55	5.0	206	6		109

For nut external Ø mm	Pin Ø mm	Total length mm	Material thickness mm	50653	...
58 - 62	5.0	240	7		110
68–75	6.0	240	7		111
80 - 90	6.0	280	8		112
95 - 100	8.0	280	8		113
110 - 115	8.0	335	8		114
120 - 130	8.0	335	8		115
135 - 145	8.0	380	8		116
155 - 165	8.0	380	8		117

50656 Adjustable hook wrench

Design
With nose and teeth.
Applications
For DIN 1804 slotted nuts and DIN 981 roller bearing nuts.

Quality
Ground, hardened special steel, with bronzed finish.



For nut external Ø mm	Total length mm	Material thickness mm	50656	...
20 - 42	180	4		101
45 - 90	250	6		102
95 - 165	335	10		103

50659 Articulated hook wrench

Design
With nose and suspension hole.
Applications
For DIN 1804 slotted nuts and DIN 981 roller bearing nuts.

Quality
Hardened special steel, with bronzed finish.

For nut external Ø mm	Total length mm	Material thickness mm	50659	...
20 - 35	165	4		101
35 - 60	210	5		102
60 - 90	280	6		103

For nut external Ø mm	Total length mm	Material thickness mm	50659	...
90 - 155	335	7		104
155 - 230	460	8		105

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50662 Articulated hook wrench

Design
With a fixed pin and suspension hole. Hook and pin made from one piece.
Applications
For DIN 1816 capstan nuts.

Quality
Hardened special steel, with bronzed finish.

For nut external Ø mm	Total length mm	Nominal pin Ø mm	50662	...
22 - 35	165	3.0		102
35 - 60	205	4.0		104
60 - 90	280	6.0		106

For nut external Ø mm	Total length mm	Nominal pin Ø mm	50662	...
95 - 155	335	6.0		108
165 - 230	460	10.0		110

50665 Articulated face wrench

Design
With electrically welded pin and suspension hole.
Applications
For two-hole nuts.

Quality
Special steel, bronzed.

Pin distance mm	Pin Ø mm	Length mm	Material thickness mm	50665	...
18 - 40	3	150	5		101
18 - 40	4	150	5		102
40 - 80	4	220	6		103
40 - 80	6	220	6		105

Pin distance mm	Pin Ø mm	Length mm	Material thickness mm	50665	...
80 - 125	6	295	8		106
80 - 125	8	295	8		108
125 - 200	8	405	10		109
125 - 200	10	405	10		110

50668 Adjustable face wrench

Design
With riveted and, from a pin distance of 11–60 mm, with electrically welded pin.
Applications
For two-hole nuts.

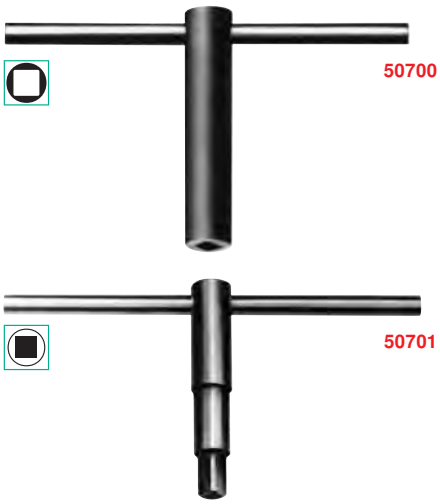
Quality
Special steel, bronzed.

Pin distance mm	Total length mm	Nominal pin Ø mm	50668	...
7 - 40	115	1.5		101
7 - 40	115	2.0		102
7 - 40	115	2.5		103
11 - 60	160	3.0		104
11 - 60	160	4.0		105

Pin distance mm	Total length mm	Nominal pin Ø mm	50668	...
11 - 60	160	5.0		106
14 - 100	215	5.0		107
14 - 100	215	6.0		108
22 - 125	260	8.0		110
22 - 125	260	10.0		111

50700 - 50701 Square socket wrench DIN 904/905

Quality
Special steel, hardened and bronzed.



Socket wrench DIN 904

Size mm	Shank length x Ø mm	50700	...
4	50 x 8		201
5	60 x 12		202
6	80 x 12		203
7	80 x 16		204
8	80 x 16		205
9	85 x 17		206
10	100 x 20		207
12	100 x 24		208
13	100 x 24		209
14	120 x 28		210
17	160 x 33		211
19	200 x 35		212
22	200 x 40		213

Pin wrench DIN 905

Size mm	Shank length x Ø mm	50701	...
4	55 x 8		201
5	60 x 12		202
6	80 x 12		203
7	80 x 12		204
8	80 x 16		205
9	80 x 16		206
10	100 x 20		207
11	100 x 20		208
12	100 x 24		209
13	100 x 24		210
14	120 x 28		211
17	160 x 34		212
19	200 x 36		213

50704 Triangular socket wrench DIN 22417

Design
Hot forged, heat treated, zinc-plated, with movable t-handle.
Applications
For DIN 22424 triangular screws and DIN 22425 triangular nuts.

Quality
Seamless precision steel tube.

50704

For triangular screws	Wrench length mm	T-handle length x Ø mm	50704	...
M 4	90	50 x 4		101
M 5	100	63 x 5		102
M 6	112	80 x 6		103

For triangular screws	Wrench length mm	T-handle length x Ø mm	50704	...
M 8	125	100 x 6		104
M 10	140	125 x 8		105
M 12	160	160 x 10		106

62325 Universal switch cabinet key

62325 203
Functions:
1.–2. Female square drive 6, 7–8 mm
3. Triangular socket drive 9 mm
4. Keyhole insert 3–5 mm
5. Double bit on chain, slotted 1 x 7 mm + Phillips PH2
6. Plastic adapter 1/4 inch

62325 201
Functions:
1.–2. Female square drive 6, 7–8 mm
3. Triangular socket drive 8 mm
4. Keyhole insert 3–5 mm
5. Double bit on chain, slotted 1 x 7 mm + Phillips PH2
6. Plastic adapter 1/4 inch

62325 202
Functions:
1. Male square drive 4–10 mm
2.–4. Female square drive 5, 7, 8 mm
5. Triangular socket drive 8 mm
6. Double bit on chain, slotted 1 x 7 mm + Phillips PH2
7. Plastic adapter 1/4 inch

62325 206
For almost all technical locking systems; for example, in gas and water supplies, air-conditioning and ventilation systems, for access panels and for locks on street lamps, waste and refuse containers etc.
Functions:
1.–4. Female square drive 5, 6, 7–8, 9–10 mm
5.–7. Female triangular drive 7, 8–9, 10–11 mm
8. Keyhole insert 3–5 mm
9. Half moon 6 mm

62325 203

62325 201

62325 202

62325 206

Size mm	Weight g	62325	...
45 x 45	50		203
72 x 72	70		201
90 x 60	79		202
96 x 92	204		206

62326 Universal switch cabinet key TwinKey

KNIPEX

Design
- 8-leg version: two four-way socket wrenches, connected with magnets to save space
- Reversible bit: Slotted 1.0 x 7 mm and Phillips PH 2
- Wrench and reversible bit connected with robust stainless steel wire cable
- Weight-optimised die-cast zinc combination
- High-quality surface coating.

Applications
Multifunctional key for actuating closures in building technology (heating and plumbing, air-conditioning and ventilation technology, electro-technology), gas and water supplies and shut-off systems.

Functions:
1.–4. Square: 5/6–7/8–9/10–11 mm
5.–7. Triangular: 7–8/9–10/11–12 mm
8. Double bit: 3–5 mm
9. Half moon: 6 mm
10. Stepped square: 6-9 mm

62326

Length mm	Weight g	62326	...
95	135		101

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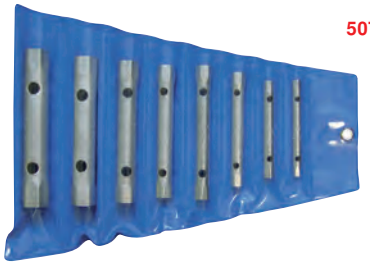
50707 - 50708 Hexagon socket wrench DIN 896 B

Design
Double-sided, heat treated.
Quality
Hardened, chrome-plated.

50707
Design
Set with stepped tommy bar.

50707 102


50707 101

50708

	Set contents Size mm	Design	50707	...
8 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22	in plastic pouch		101
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in plastic pouch		102

Size mm	Length approx. mm	Tommy bar hole mm	50708	...
6 x 7	110	5.3		301
8 x 9	110	6.3		302
8 x 10	120	6.3		303
10 x 11	120	6.3		304
10 x 13	140	6.3		328
12 x 13	140	8.5		305
14 x 15	140	8.5		306
14 x 17	150	10.5		307
16 x 17	150	10.5		308
17 x 19	160	12.5		310
18 x 19	160	12.5		311

Size mm	Length approx. mm	Tommy bar hole mm	50708	...
19 x 22	170	12.5		313
20 x 22	170	12.5		314
21 x 23	170	14.5		315
22 x 24	190	14.5		317
24 x 26	190	14.5		318
24 x 27	190	14.5		319
25 x 28	200	16.5		320
27 x 30	200	16.5		321
30 x 32	200	16.5		322
32 x 36	220	18.5		324
36 x 41	220	18.5		325

50738 - 50739 Solid hexagon socket wrench DIN 896 A, ISO 2236/1085

Design
Titacrom chrome-plated, with hexagon shank for attaching to open-end wrenches. Tommy bar hole, drilled end to end.
Quality
Chromium-vanadium steel.

50738
Design
Set with stepped tommy bars for size 6–15 mm and 16–32mm.

50739

	Set contents Size mm	Design	50738	...
12 pieces	6 x 7/8 x 9/10 x 11/12 x 13/14 x 15/16 x 17/18 x 19/20 x 22/21 x 23/24 x 27/25 x 28/30 x 32	in box		115

Size mm	Length approx. mm	Head external Ø mm	Tommy bar hole mm	50739	...
6 x 7	105	10/11	4		201
8 x 9	110	13/14	4		202
10 x 11	120	15/16	5		203
12 x 13	140	18/19	5.5		204
14 x 15	145	20/22	6		207
16 x 17	155	23/24	7		209

Size mm	Length approx. mm	Head external Ø mm	Tommy bar hole mm	50739	...
18 x 19	165	25/26	8		211
20 x 22	170	28/30	9		213
21 x 23	185	29/31	10		214
24 x 27	190	33/35	12		217
25 x 28	205	34/37	12		218
30 x 32	210	40/42	14		219

50749 - 50750 Tommy bars for socket wrenches

Design
Solid, cylindrical.
Quality
Hardened, zinc-plated.

50749

50750 101

50750 102

Smooth DIN 900

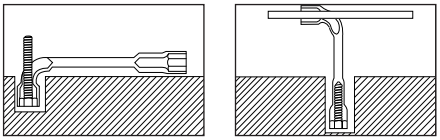
Ø mm	Length approx. mm	50749	...
5	125		201
6	160		202
8	180		203
10	200		204
12	250		205
14	320		206
16	400		207
18	500		208

Stepped

Ø mm	Length approx. mm	50750	...
5 / 6 / 8 / 10 / 12	180		101
5 / 6 / 8 / 10 / 12 / 14 / 16	245		102

50760 Heavy curved socket wrench ISO 2236

Design
Hexagon, specific hole for pushing through bolts or tommy bars. Hollow shape and drilled socket wrench head for protruding bolts, including very long ones. Chrome-plated, polished.
Quality
Chromium-vanadium steel.



50760

Size mm	Length approx. mm	50760	...
6	102		101
7	106		102
8	114		103
9	122		104
10	129		105
11	136		106
12	144		107
13	152		108

Size mm	Length approx. mm	50760	...
14	160		109
15	169		110
16	178		111
17	187		112
18	195		113
19	204		114
21	221		116
22	230		117

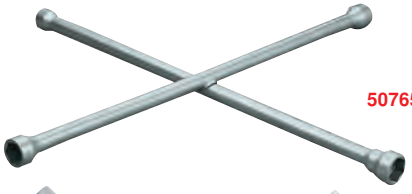
Size mm	Length approx. mm	50760	...
24	250		119
27	280		122
30	310		125
32	330		127
34	350		129
36	370		131

50765 - 50766 Four-way socket wrenches DIN 3119

50765 201
GEDORE
Design
With protective reinforcement, silver.
Applications
For car wheel nuts in metric and inch sizes.
Quality
Vanadium 31CrV3.

50765 202
GEDORE
Design
With 3/4-inch square, to accommodate socket wrench inserts, silver.
Applications
For **trucks,** agricultural machines, tractors and industrial applications.
Quality
Vanadium 31CrV3.

50766
HAZET
Design
With 1/2-inch square, to accommodate socket wrench inserts, silver. Chrome-plated, polished heads, forged heads and middle section, hardened heads and arms, all up to 500 Nm, long lever arms.
Applications
For cars, light commercial vehicles and construction machinery.
Quality
Chromium-vanadium steel.



50765

50766

Width across flats mm	Length mm	GEDORE 50765	...	HAZET 50766	...
17 x 19 (3/4 inch) x 21 x 11/16 inch	420		201		
24 x 27 x 32 x 3/4 inch	750		202		
17 x 19 x 22 x 1/2-inch connecting square	420				201

50769 Tyre irons

50769 102-108
HAZET
Quality
Chromium-vanadium steel.

50769 102
Double T-profile, chrome-plated.
For cars and light commercial vehicles.

50769 107
Silver grey. Especially for tyres without inner tubes.

50769 108
Silver grey. Heavy-duty design for commercial vehicles.

50769 203-206
Design
Double-T profile, chrome-plated, profiled, die-forged.
Quality
Chromium-vanadium steel.

50769 102

50769 107

50769 108

50769 203-206

Total length approx. mm	HAZET 50769	...	50769	...
199		102		
303				203
396				204
456		107		
500				205
598		108		206

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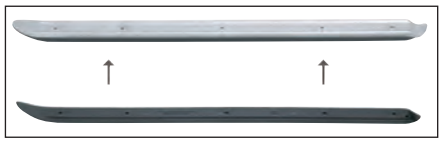
50770 Tyre irons

Design
Double-T profile for high stability.
With screwed-on, replaceable plastic casing.
Applications
For mounting and dismounting tyres on steel and, in particular, aluminium rims.

Quality
Chromium-vanadium steel.

50770



Length mm	50770 ...
500	104

50771 Angular assembly bars

RENNSTEIG

Design
- Forged
- Hardened
- Powder-coated
- Made in Germany

Quality
Special tool steel

50771

Arm length mm	Material thickness mm	50771 ...
350 x 110	12	100
400 x 120	14	101
450 x 130	16	102
500 x 150	20	103

50772 Lever bars

mob PEDDINGHAUS

Design
Chrome-plated.
Applications
For levering out the cheese head, loosening seized parts, driving bearings and bearing shells in and out, and for installing and removing springs, bolts, gearwheels etc.

Quality
Chromium vanadium.

50772 201

50772 202

50772 203

Total length mm	50772 ...
400	201
400	202
600	203

50774 Lever bar set

mob PEDDINGHAUS

Design
Chrome-plated. With a strong 2-component handle for a secure grip and comfort.
With suspension hole.

Quality
Chromium-vanadium steel.

50774

Set contents	Length mm	Design	50774 ...
4 pieces	200/300/450/600	in plastic box	101

50773 Lever bars

mob PEDDINGHAUS

Design
With curved cutting edge and handle.

50773

Length mm	50773 ...
400	101
500	102
600	103
800	104

50776 Adjustable lever bars

BAHCO

Design
- The lever position can be adjusted using a button on the handle, which controls the locking and unlocking mechanism of the lever
- The lever can be adjusted to one of 14 positions

Applications
For removal and adjustment of seals, bearings and elbows, as well as drive shafts, axles and injection nozzles.

50776

Total length mm	50776 ...
250	101
300	102
375	103

80004 Nail puller GORILLA BAR!

mob PEDDINGHAUS

Design
- Extremely robust nail puller – GORILLA BAR!
- The oval shape withstands maximum loads
- With polished working ends on claw and cutting edge
- The wide footprint and claw position effectively prevent tilting to the side under load

80004

Length mm	Length inch	80004 ...
600	24	201
900	36	202

80006 Crowbars

mob PEDDINGHAUS

Design
- With curved cutting edge and tip
- Special steel

80006

Length mm	Ø mm	80006 ...
1250	30	101
1500	30	102

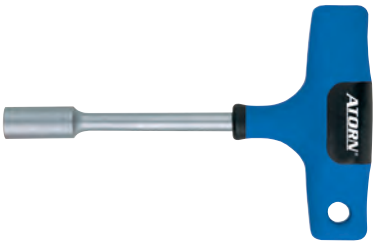
50807 Hexagon socket wrench with 2-component T-handle

ATORN®

Design
- 2-component T-handle for better power transmission
- Soft coating reduces pressure points
- Cross-hole for hanging tools
- Hard core for lasting blade/handle connection even under maximum load
- Matt chrome-plated blade

Quality
Blade made of a special chromium-vanadium and chromium-vanadium-molybdenum alloy.

50807



Size mm	Blade length mm	50807 ...
7	125	301
8	125	302
9	125	303
10	125	304
11	125	305
12	125	306
13	125	307
14	125	308
15	125	309
16	125	310
17	125	311

Long

Size mm	Blade length mm	50807 ...
L 8	230	402
L 9	230	403
L 10	230	404
L 11	230	405
L 12	230	406
L 13	230	407

Extra long

Size mm	Blade length mm	50807 ...
XL 8	350	502
XL 10	350	504
XL 13	350	507

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50787 Hexagon socket wrench

ATORN®

Design
- Hexagon socket with large head depth for protruding bolts
- 2-component handle with roll-off protection
- Continuous impact-resistant hard core
- Cross-hole for hanging tools
- Made in Germany

Quality
Chromium-vanadium steel.
Circular blade chromium-vanadium-molybdenum alloy.
Fully hardened.

50787

Size mm	50787 ...
4	203
5	205
5.5	206
6	207

Size mm	50787 ...
7	208
8	209
9	210
10	211

Size mm	50787 ...
11	212
12	213
13	214

50788 Hexagon socket wrench with flexible shank

ATORN®

Design
- Hexagon socket wrench with flexible shank
- 2-component handle with comfortable soft zone for a secure grip

Applications
For use in confined spaces.

NEW

50788

Size mm	Total length mm	50788 ...
5	170	201
6	170	202

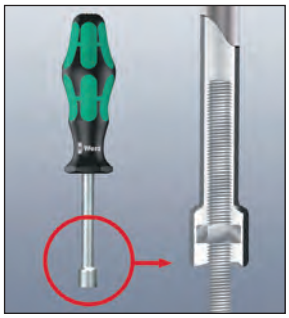
Size mm	Total length mm	50788 ...
7	170	203
8	170	204

Size mm	Total length mm	50788 ...
10	170	205
1/4 inch	170	206

50795 Hexagon socket wrench set

Wera

Design
Round blade with hollow shank, micro matt.
Kraftform handle with hard and soft zones, and roll-off protection.
Applications
For hexagon head screws to DIN 475/2. Perfect for all threaded rod screw connections thanks to hollow shaft.



50795

	Set contents Size mm	Design	50795 ...
7 pieces	5 x 70/5.5 x 70/6 x 70/7 x 80/8 x 80/10 x 80/13 x 80	in box	101

50802 VDE hexagon socket wrench DIN 3125

wiha
Tools that work for you

Design
- Manufactured in accordance with **IEC 60900:2004**
- Blade fully hardened, bronzed
- Inner bore for protruding threaded shanks
- Blade insulation sprayed directly onto blade
- **Wiha SoftFinish® multi-component handle**

Applications
Particularly suitable for cap nuts and nuts on longer bolts or threaded rods, as well as for working in poorly accessible places.
Quality
Chromium-vanadium steel blade.

1000V

50802

Size mm	50802 ...
4.0	303
5.0	305
5.5	306
6.0	307
7.0	309

Size mm	50802 ...
8.0	311
9.0	312
10.0	313
11.0	314
12.0	315

Size mm	50802 ...
13.0	316
14.0	317
17.0	320

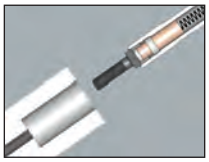
Socket wrench sets

50775 Socket wrench set M-Tec

felo

Design
The SmartGriff replaceable blade system is a screwdriver and T-handle in one. Socket wrench with M-Tec function: A spring-loaded magnetic body holds the screw or nut and can also be securely placed in poorly accessible areas. The magnetic body can be removed for long threads so that the generously sized socket wrench tube can also be used to pick up long stud bolts.
Quality
Chromium-vanadium steel.

50775



	Set contents
○ 7	**M-Tec socket wrench** Size 5.5/6/7/8/10/13/17 mm
1 each of	**bit holder** 1/4 inch x 58 mm, **bit holder** 1/4 inch x 155 mm
⊕ 2	**bits for Phillips-head screws** C 6.3 x 25 mm PH 1/2
⊕ 2	**bits for Phillips-head screws** C 6.3 x 25 mm PZ 1/2
⊖ 2	**bits for slotted screws** C 6.3 x 25 mm 3.5 x 0.6/5.0 x 0.8 mm
✱ 4	**bits for TX® screws** C 6.3 x 25 mm, TX 15/20/25/30
1	**handle** 105 x 39 mm

Set contents	Design	50775	...
20 pieces	in StrongBox (230 x 130 x 56 mm)		201

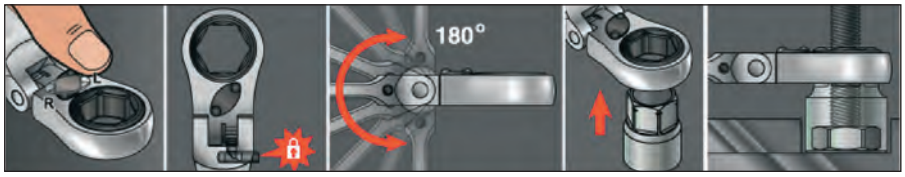
50804 Pass-through socket wrench set

BAHCO

Design
- Pass-through ratchet with flexible head for large thread
- 72 teeth
- 5° action angle
- Matt chrome-plated

Quality
High-performance high-speed steel.

50804



	Set contents
12	**pass-through sockets** 10/11/12/13/14/15/16/17/19/21/22/24
1	**pass-through ratchet with flexible head,** 72 teeth, 5° action angle and 2-component handle
1	**pass-through extension** 75 mm

Set contents	Design	50804	...
14 pieces	in HDPE case		101

51001 Hexagon socket wrench set

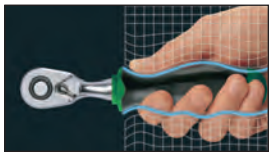
1/4"

HHW

Design
The new benchmark for ergonomics, power transmission and sensitivity!

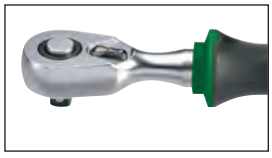
HHW-**ERGONIC** high-performance lever reversible ratchet:
- With patented **ERGONIC** three-component handle with soft zone for increased comfort
- Fine toothing (72 teeth)
- 5° return angle for confined spaces
- Increased switching mechanism via DIN (> 100 Nm)
- Socket wrench with pushbutton release safety lock
- Robust and extremely slip resistant StrongBox for daily use
- Organisation system: Hard foam insert for a secure hold of the tools
- Incl. bit holder and connector 1/4 inch x E 6.3 for using the socket wrench with a cordless screwdriver (not suitable for impact!)

... Perfect and reliable without compromise!



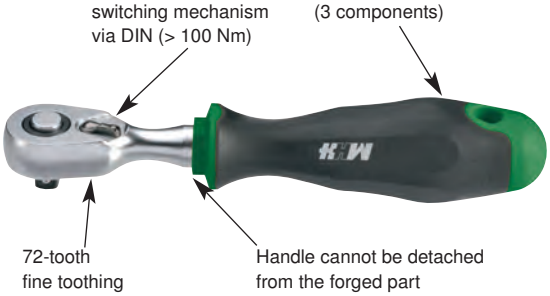
Ergonomic handle with 3 components

Patented soft zone



Increased switching mechanism with 72-tooth fine toothing

51001



	Set contents
13	**hex inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 mm
5	**bits for TX® screws** T 10/15/20/25/30
3	**bits for hexagon socket screws** Sizes 4/5/6 mm
2	**bits for slotted screws** 4.5 x 0.6/5.5 x 1.0 mm
3	**bits for Phillips-head screws** PH 1/2/3
2	**bits for Phillips-head screws** PZ 1/2
1	**ERGONIC reversible ratchet** 150 mm, three-component handle (art. no. 51124 100)
1	**ERGONIC Stubby** with three-component handle
2	**extensions** 50/100 mm
1	**cardan joint**
1	**adapter** E 6.3 x 1/4-inch (50 mm)
1	**adapter** 1/4 inch SQ x 1/4 inch hex
1	**bit holder** E 6.3 x 58 mm

Set contents	Design	51001	...
36 pieces	in shock-resistant, non-slip plastic storage boxes (230 x 130 x 56 mm) with foam inserts		101

51002 Hexagon socket wrench set

1/4"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51002

	Set contents
13	**hexagonal inserts with energy profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 mm
1 of each	**reversible ratchet, handle with sliding piece, cardan joint**
2	**extensions** 50/105 mm

Set contents	Design	51002	...
18 pieces	in a sheet steel box with foam inserts		101

51022 Socket wrench set TRIPLEplus

1/4"

ATORN®

Design
High-gloss, chrome-plated.

Applications
Universal screw system for hexagon, bi-hexagon and E-TX screws and nuts.
Also fits on all common inch sizes.
Quality
Chromium-vanadium steel.

TRIPLE plus mm	○ hex	○ bi-hex	○ inch	✱ E-TX
4.0	x	x	5/32	E 5
4.5	x	x	-	E 6
5.0	x	x	3/16	-
5.5	x	x	-	-
6.0	x	x	-	E 8
7.0	x	x	9/32	-
8.0	x	x	5/16	E 10
9.0	x	x	11/32	-
10.0	x	x	3/8	E 12
11.0	x	x	7/16	E 14
12.0	x	x	15/32	E 16
13.0	x	x	1/2	-
14.0	x	x	9/16	E 18

51022

	Set contents
13	**inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 mm
7	**bits for TX® screws** T 10/15/20/25/27/30/40
2	**bits for Phillips-head screws PZ** 1/2
2	**bits for Phillips-head screws PH** 1/2
6	**bits for hexagon socket screws** Sizes 3/4/5/6/7/8 mm
5	**bits for XZN multi-point screws** M 4/5/6/8/10
1	**reversible ratchet** (140 mm)
1	**drive handle** with plastic handle
1	**extension** 100 mm
1	**cardan joint**
1	**adapter** 1/4 inch □ / 1/4 inch ○ (art. no. 52938 101)

Set contents	Design	51022	...
40 pieces	in the ABS plastic storage boxes		101

51023 Hexagon socket wrench sets

1/4"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51023 101

	Set contents 51023 101
12	**hexagon inserts with energy profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
5	**inserts for hexagon socket screws** Sizes 3/4/5/6/8 mm
2	**inserts for Phillips-head screws PH** 1/2
2	**inserts for Phillips-head screws PZ** 1/2
3	**inserts for slotted screws** 0.8 x 4/1.0 x 5.5/1.2 x 6.5 mm
1 of each	**reversible ratchet, handle with sliding piece, cardan joint**
1	**extension** 50 mm

51023 102

	Set contents 51023 102
13	**hex inserts with energy profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
4	**hex inserts long version with energy profile,** Sizes 8/10/11/13 mm
5	**inserts for hexagon socket screws** Sizes 8/10/11/13 mm
3	**inserts for Phillips-head screws PH** 1/2/3
3	**inserts for Phillips-head screws PZ** 1/2/3
3	**inserts for slotted screws** 4/5.5/6.5 mm
6	**inserts for internal TX® screws** T 10/15/20/25/30/40
1 of each	**reversible ratchet, handle with sliding piece, cardan joint**
2	**extensions** 50/105 mm

Set contents	Design	51023	...
28 pieces	in a sheet steel box with foam insert		101
42 pieces	in a sheet steel box with foam insert		102

51025 Hexagon socket wrench set

1/4"

Quality
Chromium-vanadium steel.

51025

	Set contents
11	**hex inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/13 mm
6	**inserts for hexagon socket screws** Sizes 3/4/5/6/8/10 mm
3	**inserts for slotted screws** 4/4.5/5 mm
4	**inserts for Phillips-head screws PH** 1/2/3/4
3	**hexagon pin wrenches for hexagon socket screws** Sizes 1.5/2/2.5 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**drive handle** with plastic handle
1	**cardan joint**
2	**extensions** 50/100 mm
1	**quick turn wheel**

Set contents	Design	51025 ...
34 pieces	in a plastic storage box	301

51029 Hexagon socket wrench set

1/4"

BAHCO

Quality
Chromium vanadium.

Design
Matt chrome-plated Plastic case made from impact-resistant, oil- and heat-resistant polyethylene (HDPE), 35 x 165 x 85 mm.

51029 101

	Set contents 51029 101
12	**hex inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
2	**inserts for hexagon socket screws** Sizes 5/6 mm
2	**inserts for Phillips-head screws PH** 2/2
6	**inserts for TX® screws** T 10/15/20/25/30/40
1	**reversible ratchet**
1	**swivelling extension** 100 mm
1	**bit holder with clip** 1/4 inch mount

51029 102

	Set contents 51029 102
12	**hex inserts** Sizes 1/8/5/32/3/16/7/32/1/4/9/32/5/16/11/32/3/8/7/16/1/2/9/16 inch
2	**inserts for hexagon socket screws** Sizes 5/6 mm
2	**inserts for Phillips-head screws PH** 2/2
6	**inserts for TX® screws** T 10/15/20/25/30/40
1	**reversible ratchet**
1	**swivelling extension** 100 mm
1	**bit holder with clip** 1/4 inch mount

		mm		inch	
Set contents	Design	51029	...	51029	...
25 pieces	in plastic case		101		
25 pieces	in plastic case				102 NEW

Socket wrench sets

51038 Hexagon socket wrench sets

1/4" | AS-drive | HPQ

STAHLWILLE

Design
Chrome-plated.

Quality
Chrome alloy steel.

51038 101

	Set contents 51038 101
13	**hex inserts with AS drive profile** Sizes 3.5/4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
4	**inserts for hexagon socket screws** Sizes 3/4/5/6 mm
1	**reversible ratchet**
1	**drive handle with plastic handle**
1	**handle with sliding piece**
1	**extension** 150 mm
1	**cardan joint**

51038 104

	Set contents 51038 104
11	**hex inserts with AS drive profile** Sizes 5/5.5/6/7/8/9/10/11/12/13/14 mm
5	**inserts for hexagon socket screws** Sizes 3/4/5/6/8 mm
3	**inserts for slotted screws** 0.6 x 3.5/1.0 x 5.5/1.2 x 8.0 mm
4	**inserts for Phillips-head screws PH** 1/2/3/4
1	**reversible ratchet**
1	**drive handle with plastic handle**
1	**handle with sliding piece**
2	**extensions** 54/150 mm
1	**cardan joint**

51038 107

	Set contents 51038 107
10	**hex inserts with AS drive profile** Sizes 5/5.5/6/7/8/9/10/11/12/13 mm
5	**inserts for hexagon socket screws** Sizes 3/4/5/6/8 mm
9	**inserts for internal TX® screws** T8/9/10/15/20/25/27/30/40
6	**inserts for external TX® screws** E4/5/6/7/8/10
1	**reversible ratchet**
1	**drive handle with plastic handle**
1	**handle with sliding piece**
2	**extensions** 54/150 mm
1	**cardan joint**

Set contents	Design	51038	...
22 pieces	in a robust, stackable ABS plastic box		101
29 pieces	in a robust, stackable ABS plastic box		104
36 pieces	in a robust, stackable ABS plastic box		107

51039 Hex and bi-hex socket wrench set

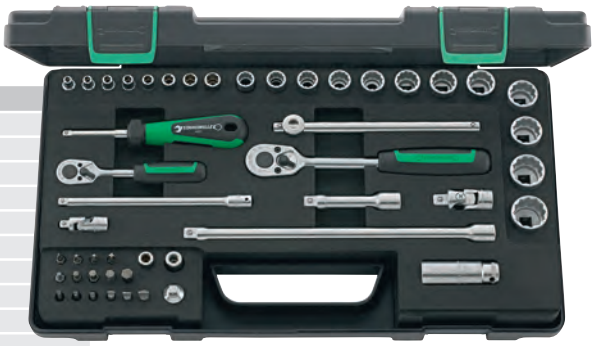
1/4" | 3/8" | AS-drive | HPQ

STAHLWILLE

Design
Chrome-plated.

Quality
Chrome alloy steel.

51039



	Set contents
1/4" 8	**hex inserts with AS drive profile** Sizes 4/4.5/5/5.5/6/7/8/9 mm
5	**bits for hexagon socket screws** Sizes 3/4/5/6/8 mm
6	**bits for slotted screws** 0.5x3/0.6x3.5/0.8x4/1x5.5/1.2x6.5/1.6x8 mm
3	**bits for Phillips-head screws PH** 1/2/3
1	**bit for Phillips-head screws PZ** 2
1	**reversible ratchet**
1	**drive handle with plastic handle**
1	**extension** 150 mm
1	**cardan joint**
1	**bit holder** with hexagon socket 1/4 inch
3/8" 12	**bi-hex inserts with AS drive profile** Sizes 10/11/12/13/14/15/16/17/18/19/21/22 mm
1	**hex insert with AS drive profile** Sizes 16 mm 5/8 inch with rubber insert for spark plugs
1	**reversible ratchet**
1	**handle with sliding piece**
2	**extensions** 76/240 mm
1	**cardan joint**
1	**adapter** 3/8 inch □ x 1/4 inch ■
1	**bit holder** with hexagon socket 5/16 inch

Set contents	Design	51039	...
48 pieces	in a robust, stackable ABS plastic box		201

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51045 Hexagon socket wrench set HINOX

HAZET

Design
All tools are packed tightly so they cannot move around. Up to 20% higher torque values in the HINOX range (static load). Stainless steel with the same hardness provides higher strength values than standard material (31 CrV 3). Higher safety when using, reduced risk of injury.
Up to three times longer service life in dynamic continuous load comparisons.

Eco-friendly production without surface coating.
No allergic reactions from chemical coatings.
Much longer service life than comparable competitive products (stainless steel rather than coating).
Weather-resistant use in outdoor areas.
Quality
Stainless steel/HINOX.

	Set contents
13	**hex inserts with traction profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 mm
5	**inserts for hexagon socket screws** Sizes 3/4/5/6/8 mm
1 of each	**reversible ratchet, handle with sliding piece, drive handle, cardan joint**
2	**extensions** 55/147 mm

51045

Set contents	Design	51045	...
24 pieces	in SmartCase		101

51040 Hexagon socket wrench set

HAZET

Design
In SmartCase 185 x 153 x 52 mm. In Safety insert system, 2-component soft foam insert. All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.
Screwdriver socket wrench inserts
CVD-TiN-coated.

	Set contents
12	**hex inserts with traction profile** Sizes 4/5/5.5/6/7/8/9/10/11/12/13/14 mm
5	**inserts for hexagon socket screws** Sizes 3/4/5/6/8 mm
3	**inserts for slotted screws** 0.6x3.5/1.0x5.5/1.2x8.0 mm
2	**inserts for Phillips-head screws PH** 1/2
2	**inserts for Phillips-head screws PZ** 1/2
1 of each	**reversible ratchet, handle with sliding piece, drive handle, cardan joint**
2	**extensions** 55/147 mm

51040

Set contents	Design	51040	...
30 pieces	in SmartCase		201

51041 Hexagon socket wrench set

HAZET

Design
In SmartCase 185 x 153 x 52 mm. In Safety insert system, 2-component soft foam insert. All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.
Screwdriver socket wrench inserts
CVD-TiN-coated.

	Set contents
11	**hex inserts with traction profile** Sizes 5/5.5/6/7/8/9/10/11/12/13/14 mm
5	**inserts for external TX® screws** E 5/6/7/8/10
4	**inserts for hexagon socket screws** Sizes 3/4/5/6 mm
5	**inserts for internal TX® screws** T 10/15/20/25/30
1	**insert for slotted screws** 1.0x5.5 mm
1	**insert for Phillips-head screws PH** 2
1	**reversible ratchet, drive handle, cardan joint**
3	**extensions** 55/101.5 (swivel)/147 mm

51041

Set contents	Design	51041	...
33 pieces	in **SmartCase**		101

51035 Hexagon socket wrench set

HAZET

Design
In SmartCase 185 x 153 x 52 mm. In safety insert system, 2-component soft foam insert. All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

	Set contents
10	**hex inserts with traction profile** Sizes 5.5/6/7/8/9/10/11/12/13/14 mm
5	**bits for hexagon socket screws** Sizes 3/4/5/6/7 mm
3	**bits for slotted screws** 0.6x4.5/1.2x6.5/1.2x8 mm
3	**bits for Phillips-head screws PH** 1/2/3
3	**bits for Phillips-head screws PZ** 1/2/3
7	**bits for RESIS TX® with bore** T 10/15/20/25/27/30/40
1	**reversible ratchet, drive handle**
1	**adapter** 1/4 inch □ x 1/4 inch ○
2	**extensions** 55/101.5 mm

51035

Set contents	Design	51035	...
36 pieces	in SmartCase		101

Socket wrench sets

51036 Hexagon socket wrench set

1/4"

HAZET

Quality
Chromium-vanadium steel.

51036

Design
- Ergonomic design
- Comfortable handling thanks to ready-to-use operating tools

	Set contents
10	**hex inserts with traction profile** sizes 5.5 x 6/7/8/9/10/11/12/13/14 mm
5	**bits for hexagon socket screws** Sizes 3/4/5/6/7 mm
3	**bits for slotted screws** 0.6x4.5/1.2x6.5/1.2x8 mm
3	**bits for Phillips-head screws PH** 1/2/3
3	**bits for Phillips-head screws PZ** 1/2/3
7	**bits for RESIS TX® with bore** T 10/15/20/25/27/30/40
1 of each	**reversible ratchet, drive handle, cardan joint**
2	**extensions** 55 mm/101.5 mm
2	**adapters** 1/4 inch □ x 1/4 inch ○ and 1/4 inch ■ x 1/4 inch ⬢

Set contents	Design	51036	...
38 pieces	in SmartCase (52 x 98 x 180 mm)		101

51043 Hexagon socket wrench set

1/4"

FACOM

Quality
Chromium-vanadium steel.

51043

Design
In plastic box with two-colour foam insert. Tools positioned firmly and safely in the foam insert. Prevents individual parts from falling out and being lost.

	Set contents
10	**hex inserts** Sizes 5.5/6/7/8/9/10/11/12/13/14 mm
1	**reversible ratchet**
2	**extensions** 55/100 mm
1	**drive handle**
1	**cardan joint**
1	**adapter** 1/4 inch square drive x 1/4 inch hexagon socket
5	**bits for hexagon socket screws** Sizes 3/4/5/6/7 mm
3	**bits for slotted screws** 4.5/6.5/8.0 mm
3	**bits for Phillips-head screws PH** 1/2/3
3	**bits for Phillips-head screws PZ** 1/2/3
7	**bits for RESIS TX® with bore** T 10/15/20/25/27/30/40

Set contents	Design	51043	...
37 pieces	in a plastic storage box		201

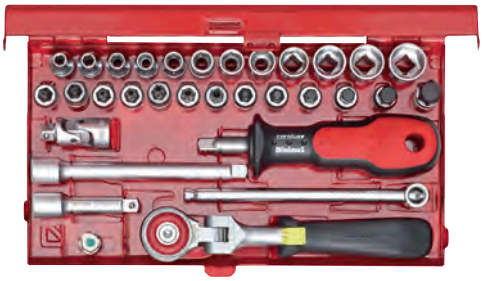
51052 Hexagon socket wrench set

1/4"

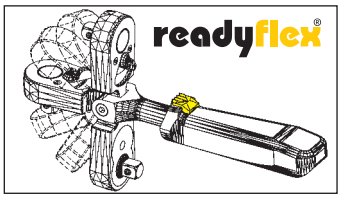
carolus by GEDORE

Design
With lever reversible ratchet, steerable
7 switching levels using flex-stop variomatic.

51052



	Set contents
1	**lever reversible ratchet**
12	**hex inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
7	**TX® inserts with bore** T 10/15/20/25/27/30/40
1	**insert for slotted screws** 5.5 mm
1	**insert for Phillips-head screws PH** 2
1	**insert for Phillips-head screws PZ** 2
3	**inserts for hexagon socket screws** Sizes 4/5/6 mm
1	**cardan joint**
1	**magnet seeker**
2	**extensions** 50/100 mm
1	**Minimus tube for double blades**
1	**Minimus double blade for slotted screws** 2.5/3.5 mm
1	**Minimus double blade for Phillips-head screws PH** 0/1
1	**1/4 inch bit coupling** with magnetic mount
1	**machine adapter** 1/4 inch ■ x 1/4 inch ⬢ length 50 mm
1	**Minimus removable handle**



Set contents	Design	51052	...
36 pieces	in all-steel cassette		401

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Wera

51137 099

Design
- Zyklop Mini 1 bit ratchet tool, die-forged steel version
- Zyklop Mini 2 nut ratchet tool, die-forged steel version

Applications
For extremely rapid screwing even in very cramped spaces.

51137 099

		Set contents 51137 099
	1	**Zyklop Mini 1 bit ratchet tool**
	1	**Zyklop Mini 2 ratchet tool**
○	9	**Zyklop socket wrench inserts** Sizes 4/5/5.5/6/7/8/10/12/13 x 18 mm
	1	**bit holder** 1/4 inch x 78 mm
⬢	4	**bits for hex socket screws Hex-Plus** 3/4/5/6 x 25 mm
⊕	2	**bits for Phillips-head screws PH** 1/2 x 25 mm
⊕	2	**bits for Phillips-head screws PZ** 1/2 x 25 mm
✱	6	**bits for TX® screws** T 10/15/20/25/30/40 x 25 mm
○○	1	**connector** 1/4 inch hex x 1/4 inch square

51137 100

Design
- With forged solid metal ratchet with 72 teeth for extremely high robustness and long service life
- Ultra-slim design for work even in very tight spaces

Quality
Chrome molybdenum ratchet.

51137 100

TAKE IT EASY TOOL FINDER

		Set contents 51137 100
	1	**Zyklop metal reversible ratchet**
○	9	**Zyklop socket wrench inserts** Sizes 5/5.5/6/7/8/10/11/12/13 x 23 mm
	1	**Zyklop extension with rapid-turning sleeve** 150 mm
	1	**Zyklop wobble extension** 52 mm
⬢	4	**bits for hex socket screws Hex-Plus** 3/4/5/6 x 25 mm
⊕	3	**bits for Phillips-head screws PH** 1/2/3 x 25 mm
⊕	2	**bits for Phillips-head screws PZ** 1/2 x 25 mm
✱	6	**bits for TX® screws** T 10/15/20/25/27/30 x 25 mm
○○	1	**connector with quick-change chuck** 1/4 inch hex x 1/4 inch square

51137 102

Design
The Wera Zyklop ratchet gives you 6 tools in one:

1. Fine-tooth ratchet
2. Joint ratchet
3. Angled ratchet
4. Ratchet with safety lock
5. Power ratchet
6. Screwdriver.

Wera Zyklop

51137 102

TAKE IT EASY TOOL FINDER

		Set contents 51137 102
	1	**Zyklop Speed ratchet**
○	9	**Zyklop socket wrench inserts** Sizes 5/5.5/6/7/8/10/11/12/13 x 23 mm
	1	**Zyklop extension with rapid-turning sleeve** 150 mm
	1	**Zyklop wobble extension** 52 mm
⬢	4	**bits for hex socket screws Hex-Plus** 3/4/5/6 x 25 mm
⊕	3	**bits for Phillips-head screws PH** 1/2/3 x 25 mm
⊕	2	**bits for Phillips-head screws PZ** 1/2 x 25 mm
✱	6	**bits for TX® screws** T 10/15/20/25/27/30 x 25 mm
○○	1	**connector with quick-change chuck** 1/4 inch hex x 1/4 inch square

51137 103

Design
- All-in Zyklop Speed ratchet set, with holding function, 1/4-inch drive, metric
- 42 pieces 1/4-inch socket wrench set in a rugged fabric box
- Zyklop Speed ratchet with freely movable ratchet head with 5 defined positions
- Fine toothing with 72 teeth and 5° return angle
- Take it Easy tool finder: end-to-end colour coding by size

51137 103

HOLDING FUNCTION

TAKE IT EASY TOOL FINDER

		Set contents 51137 103
	1	**Zyklop Speed ratchet**
○	13	**Zyklop socket wrench inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 x 23 mm
	1	**Zyklop extension with rapid-turning sleeve** 150 mm
	1	**Zyklop wobble extension** 56 mm
⬢	2	**bits for hexagon socket screws Hex-Plus** 2/2.5 x 28 mm
⬢	2	**bits for hexagon socket screws with holding function Hex-Plus** 3/4/5/6/7/8 x 28 mm
⊖	2	**bits for slotted screws** 0.8 x 5.5/1.2 x 6.5 mm
⊕	3	**bits for Phillips-head screws PH** 1/2/3 x 28 mm
⊕	3	**bits for Phillips-head screws PZ** 1/2/3 x 28 mm
✱	9	**bits for TX® screws** T 8/9/10/15/20/25/27/30/40 x 28 mm
	1	**nut removal tool** 14 x 43 mm

Set contents	Design	51137 ...
27 pieces	in a rugged fabric box	099
28 pieces	in a rugged fabric box	100
28 pieces	in a rugged fabric box	102
42 pieces	in a rugged fabric box	103 NEW

51054 Zyklop hexagon socket wrench set

1/4"

Wera

Design
- Fitting diagram and practical foam insert makes it easier to sort missing tools
- Zyklop Speed ratchet with freely movable ratchet head with 5 defined positions (0°/15°/90°)
- Fine toothing with 72 teeth and 5° return angle
- 0° position can be used as a conventional screwdriver
- Socket wrench with **Take it Easy tool finder**
- Minimal weight and volume for improved mobility

NEW

		Set contents
	1	**Zyklop Speed ratchet**
○	13	**Zyklop socket wrench inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 x 23 mm
	1	**Zyklop T-handle** 110 mm
	1	**Zyklop wobble extension** 56 mm
	1	**Zyklop cardan joint** 35.5 mm
	1	**Zyklop connector** 37 mm
	1	**Zyklop extension flexible-lock with rapid-turning sleeve, short** 75 mm
	1	**Zyklop extension flexible-lock with rapid-turning sleeve, long** 150 mm
⬢	5	**bits for hexagon socket screws Hex-Plus** 3/4/5/6/8 x 25 mm
⊖	3	**bits for slotted screws** 0.6 x 4.5/1.0 x 5.5/1.2 x 8.0 mm
⊕	3	**bits for Phillips-head screws PH** 1/2/3 x 25 mm
⊕	3	**bits for Phillips-head screws PZ** 1/2/3 x 25 mm
✡	8	**bits for TX® screws with hole** T 8/9/10/15/20/25/30/40 x 25 mm

Set contents	Design	51054	...
42 pieces	in a sturdy tool case		101

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51056 Connector strip, magnetic (empty)

1/4"

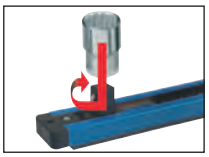
GEDORE

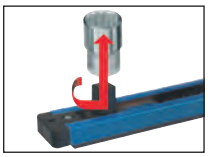
Design

Square drive suitable for 13 socket wrench inserts nominal size of 6.3 (1/4 inch). **2 additional square drive adapters for ratchets, sliding handles, extensions etc.** Strong magnet allows secure attachment of the strip to metal objects. Additional holes in the strip allow mounting on non-metallic objects and walls.

By turning through 90°, the inserts on the square are securely locked by the ball.
Turning by 90° in the opposite direction unlocks the inserts so they can be removed.
Supplied without tools.

51056





For inserts Units	Length mm	Width mm	Weight g	51056	...
13	380	33	350		101

51059 - 51063 Hexagon socket wrench inserts DIN 3124/ISO 2725

1/4"

Design
- Chromium-plated
- Die-forged

Quality
Chromium-vanadium steel.

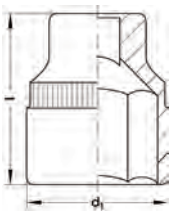
51059
ATORN®
- With side hole
- **With energy profile**

51061
GEDORE

51062
STAHLWILLE
- **With AS drive profile**

Quality
HPQ steel.

51063
HAZET
- **With traction profile**



51059

51061

51062

51063

51063 L

Sizes mm	l approx. mm	d_1 approx. mm	ATORN 51059	...	GEDORE 51061	...	STAHLWILLE 51062	...	HAZET 51063	...
3.5	25	6.0						102		
4	25	6.8		103		103		103		403
L 4	50	6,7		104						
4.5	25	7.2		105		105				405
L 4.5	50	7.0		106		106				
5	25	8.1		107		107		107		407
L 5	50	7,9		108						
5.5	25	8.6		109		109		109		409
L 5.5	50	8,5		110						
6	25	9.2		111		111		111		411
L 6	50	9.2		112						412
7	25	10.8		113		113		113		413
L 7	50	11.0		114		114				414
8	25	11.7		115		115		115		415
L 8	50	12.0		116		116				416
9	25	13.0		117		117		117		417
L 9	50	13.0		118						418
10	25	14.3		119		119		119		419
L 10	50	14.5		120		120				420
11	25	15.8		121		121		121		421
L 11	50	15.5		122		122				422
12	25	17.0		123		123		123		423
L 12	50	17.0		124		124				424
13	25	17.9		125		125		125		425
L 13	50	18.0		126		126				426
14	25	19.3		127		127		127		427
L 14	50	19,5		128						

51064 Hexagon socket wrench inserts

1/4"

TAKE IT EASY TOOL FINDER

Wera

51064 200-201
Design
- Nut set on a robust textile belt
- Smooth rotation mechanism for secure fit and easy removal of the tools
- With **Take it Easy tool finder**: Colour coding by size

Usage
Suitable for mounting on a wall, shelf, workshop trolley and Wera 2go system.

51064 200
Design
- Nuts with holding function for screws/nuts

NEW

51064 200 with holding function

HOLDING FUNCTION

51064 201 without holding function

Set contents 51064 200	
○ 9	**Zyklop socket wrench inserts** Sizes 4/ 4.5/5/5.5/6/7/8/10/13 x 23 mm
1	**nut removal tool 14 x 43 mm**

Set contents 51064 201	
○ 9	**Zyklop socket wrench inserts** Sizes 4/ 4.5/5/5.5/6/7/8/10/13 x 23 mm

Set contents	Design	51064 ...
10 pieces	with holding function	200
9 pieces	without holding function	201

51064 101 **51064 102** **51064 103** **51064 104** **51064 105** **51064 106** **51064 107** **51064 109** **51064 112**

with holding function

Size mm	51064 ...
4	101
4.5	102
5	103
5.5	104
6	105
7	106
8	107

with holding function

Size mm	51064 ...
9	108
10	109
11	110
12	111
13	112
14	113

HOLDING FUNCTION

51064 001-013
Design
- Knurling at the rear end for strong grip during manual operation
- With ball-securing groove

Applications
For manual and machine operation, not suitable for impact.

51064 001 **51064 002** **51064 003** **51064 004** **51064 005** **51064 006** **51064 007** **51064 008** **51064 009** **51064 010**

without holding function

Size mm	51064 ...
4	001
4.5	002
5	003
5.5	004
6	005
7	006
8	007

without holding function

Size mm	51064 ...
9	008
10	009
11	010
12	011
13	012
14	013

51064 011 **51064 012** **51064 013**

51073 Bi-hex socket wrench inserts (inch) DIN 3124/ISO 2725

1/4" DYNAMIC-DRIVE™

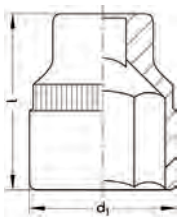
BAHCO

Quality
Chromo extra.

51073

Design
American inch sizes. High-performance inserts, thin-walled, **with dynamic drive profile.**
Nickel and chrome plated, mirror polished.

Width Inch	l mm	d_1 mm	51073 ...
3/16	22.2	7.7	101
7/32	22.2	8.5	102
1/4	22.2	9.3	103
9/32	22.2	10.5	104
5/16	22.2	11.5	105
11/32	22.2	12.6	106
3/8	22.2	13.8	107
7/16	22.2	15.4	108
1/2	22.2	17.5	109
9/16	23.0	18.8	110



51079 Long bi-hex socket wrench inserts (inch) ISO 2725-1

1/4" DYNAMIC-DRIVE™

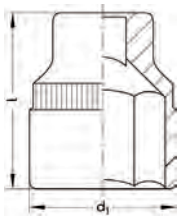
BAHCO

Quality
Chromo extra.

51079

Design
Long, American inch dimensions. High-performance inserts, thin-walled, **with dynamic drive profile.** Nickel and chrome plated, mirror polished.

Width Inch	l mm	d_1 mm	51079 ...
3/16	50.6	7.7	101
7/32	50.6	8.5	102
1/4	50.6	9.3	103
9/32	50.6	10.5	104
5/16	50.6	11.5	105
11/32	50.6	12.6	106
3/8	50.6	14.1	107
7/16	50.6	15.4	108
1/2	50.6	17.5	109
9/16	50.6	18.8	110

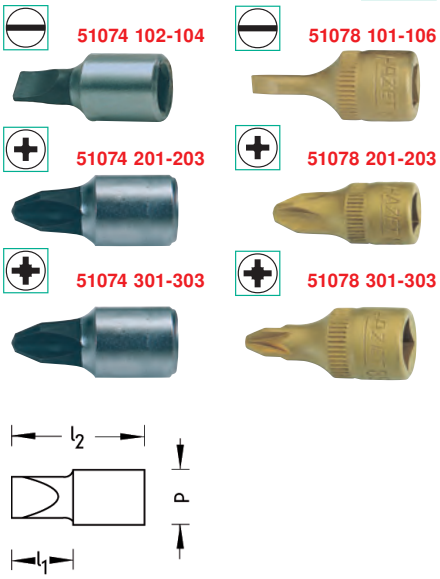


51074 - 51078 Screwdriver bits

1/4"

51074
ATORN®
Design
Chrome-plated sleeves, blades made of special steel, bronzed.
Quality
Chromium-vanadium steel.

51078
HAZET
Quality
CVD-TiN coating for longer service life.



Blade thickness x width mm	Size PH	Size PZ	l_1 mm	l_2 mm	d mm	ATORN 51074	...	HAZET 51078	...
0.8 x 4.0			18	37	12.0		102		
1.0 x 5.5			18	37	12.0		103		
1.2 x 6.5			18	37	12.0		104		
0.6 x 3.5			16	28	12.0				101
0.8 x 4.0			16	28	12.0				102
1.0 x 5.5			16	28	12.0				103
1.2 x 8.0			16	28	12.0				105
1.6 x 10.0			16	28	12.0				106
	PH 1		18	37	12.0		201		
	PH 2		18	37	12.0		202		
	PH 3		18	37	12.0		203		
	PH 1		16	28	12.0				201
	PH 2		16	28	12.0				202
	PH 3		16	28	12.0				203
		PZ 1	18	37	12.0		301		
		PZ 2	18	37	12.0		302		
		PZ 3	18	37	12.0		303		
		PZ 1	16	28	12.0				301
		PZ 2	16	28	12.0				302
		PZ 3	16	28	12.0				303

51075 Screwdriver bits

1/4"

Wera
Design
- With ball-securing groove
- Knurling at the rear end for strong grip during manual operation
- **Take it Easy** tool finder:
  With output colour-coding
  yellow = slot
  red = PH
  black = PZ

Applications
For manual and machine operation (not suitable for impact)
Quality
Chromium-vanadium steel, brushed chromium-plated.

NEW

51075 103

51075 202

51075 302

Blade thickness x width mm	Size PH	Size PZ	51075	...
0.8 x 5.5				101
1.0 x 5.5				103
1.2 x 6.5				104
	PH 1			201
	PH 2			202
	PH 3			203
		PZ 1		301
		PZ 2		302
		PZ 3		303

51082 - 51090 Hexagon screwdriver bits

1/4"

Design
Chrome-plated, die-forged.

51082
ATORN®
Quality
Chromium-vanadium steel.

51086
GEDORE
Quality
Vanadium special steel.

51088
STAHLWILLE
Quality
Chrome alloy steel.

51090
HAZET
Quality
CVD-TiN coating for longer service life.

Size mm	Length mm	ATORN 51082	...	GEDORE 51086	...	STAHLWILLE 51088	...	HAZET 51090	...
3	28				101		102		201
3	37		101						
L 3	55						103		
4	28				102		104		202
4	37		102						
L 4	55						105		
5	28				103		106		203
5	37		103						
L 5	55						107		
6	28				104		108		204
6	37		104						
L 6	55						109		
8	28				105		110		205
8	37		105						

51082

51086

51088

51090

51088 L

51098 Hex and TX® screwdriver set

1/4"

ATORN®

Design
All tools are packed tightly so they cannot move around.

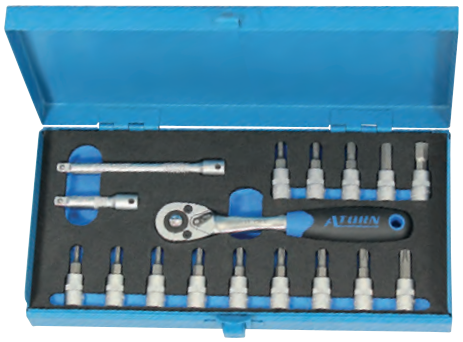
Quality
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

	Set contents
5	**inserts for hexagon socket screws** Sizes 3/4/5/6/8 mm
9	**inserts for internal TX® screws** T 8/9/10/15/20/25/27/30/40
1	**lever reversible ratchet, with 2-component handle** 150 mm
2	**extensions** 50/105 mm

Set contents	Design	51098	...
17 pieces	in a sheet steel box with foam insert		201

51098



51099 TX® set

1/4"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

	Set contents
6	**inserts for external TX® screws** E 4/5/6/7/8/10
9	**inserts for internal TX® screws** T 8/9/10/15/20/25/27/30/40
1	**lever reversible ratchet, with 2-component handle** 150 mm
2	**extensions** 50/105 mm

Set contents	Design	51099	...
18 pieces	in a sheet steel box with foam inserts		101

51099

51097 TX® set

1/4"

GEDORE
WERKZEUGE FÜRS LEBEN

Quality
Vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.

51097

	Set contents
6	**inserts for external TX®** E 4/5/6/7/8/10
9	**inserts for internal TX®** T 8/9/10/15/20/25/27/30/40

Set contents	Design	51097 ...
15 pieces	in a plastic storage box	101

51100 TX® screwdriver bits

1/4"

TAKE IT EASY TOOL FINDER

HOLDING FUNCTION

Wera
Be a Tool Fan!

51100 400
Design
- Bit nut set on a robust textile belt
- Bit nuts with the benefits of Wera bit technology
- Bit nuts with holding function for screws
- Smooth rotation mechanism for secure fit and easy removal of the tools

Applications
Suitable for mounting on a wall, shelf, workshop trolley and Wera 2go system.

51100 401
Design
- Compact and highly robust fabric box.
- Low weight, low volume
- Bit nuts (non-impact) for manual or machine operation
- The function holds screws securely on the tool
- With **Take it Easy** tool finder colour coding by size
- Knurling on the rear nut end for strong grip during manual operation

NEW

51100 400

51100 401

	Set contents 51100 400
9	**inserts for internal TX®** T 8/9/10/15/20/25/27/30/40

	Set contents 51100 401
4	**inserts for internal TX®** T 25/27/30/40

Set contents	Design	51100 ...
9 pieces	in textile belt	400
4 pieces	in fabric box	401

51100 205

Individual Size T	short 51100 ...
8	201
9	202
10	203
15	204
20	205

Individual Size T	short 51100 ...
25	206
27	207
30	208
40	209

51100 302

Individual Size T	long 51100 ...
25	301
27	302

Individual Size T	long 51100 ...
30	303
40	304

51093 - 51096 TX® screwdriver bits

1/4"

Applications
For internal TX® screws.

Note:
TX® profile gauge, see art. no. 37930.

51093
ATORN®
Design
Chrome-plated.
Quality
Chromium-vanadium steel.

51094
GEDORE
Design
Chrome-plated.
Quality
Vanadium special steel.

51096
HAZET
Quality
CVD-TiN coating for longer service life.

51093

51094

51096

Size T	ATORN 51093	...	GEDORE 51094	...	HAZET 51096	...
8		101		101		101
9		102		102		102
10		103		103		103
15		104		104		104
20		105		105		105

Size T	ATORN 51093	...	GEDORE 51094	...	HAZET 51096	...
25		106		106		106
27		107		107		107
30		108		108		108
40		109		109		109

51104 - 51105 TX® socket wrench inserts

1/4"

Design
Chrome-plated.
Applications
For external TX® screws.
Quality
Vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

51104
ATORN®

51105
HAZET

51104

51105

Size E	Length approx. mm	ATORN 51104	...	HAZET 51105	...
4	25		101		101
5	25		102		102
6	25		103		103
7	25		104		104

Size E	Length approx. mm	ATORN 51104	...	HAZET 51105	...
8	25		105		105
10	25		106		106
11	25				107

51114 - 51120 Reversible ratchets DIN 3122/ISO 3315

1/4"

Design
Chrome-plated and polished. Extremely robust ratchet **with rotary head for clockwise/anti-clockwise rotation** and ergonomic plastic handle.
Quality
Chromium-vanadium steel.

51114
GEDORE
Finely toothed (72 teeth, 5° rotating angle),
with ball lock.

51116
STAHLWILLE
Finely toothed (60 teeth, 6° rotating angle).
Fast switching with one-handed operation.
With 2-component handle.
Quality
Chrome alloy steel.

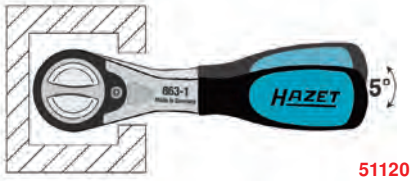
51117
HAZET
Finely toothed (72 teeth, 5° angle of rotation),
allows even extremely obscured screwed connections to be manipulated. Large, reversal knob on the top makes it easier to reverse the ratchet. Deep-seated reversal knob protects against unintentional reversal. Coated fine-cast cover plate and reversal knob for tough operating conditions. Inductively hardened internal toothing ensures high stress resistance and long service life. Robust housing with forged, ergonomic handle. Anti-slip 2-component grip for optimal handling.

51120
FACOM
Finely toothed (72 teeth, 5° rotating angle).
The contact surface makes it possible to press on the ratchet head, without having to use the switch. Fast switching with one-handed operation.

51114

51116

51117



51120

Total length mm	GEDORE 51114	...	STAHLWILLE 51116	...	HAZET 51117	...	FACOM 51120	...
117								201
118				201				
119						101		
129			101					

Hand tools

( ) = Items with prices in brackets partly available from stock.

Reversible ratchets

51124 Reversible ratchet DIN 3122/ISO 3315 — 1/4"

Design
- The new standard for ergonomics, power transmission and sensitivity
- Patented three-component grip technology **ERGONIC®** flexibly adapts to the user's hand
- The grip and hand interlock, the force required decreases and higher torques are achieved
- The flexibility of the material also increases sensitivity and thus enables the precise use of force

Advantage
- Fine toothing, 72 teeth
- 5° return angle for confined spaces
- Short design
- Pushbutton release
- Three-component grip technology **ERGONIC®**

Total length mm	51124 ...
150	100

51124

51126 - 51133 Reversible ratchets DIN 3122/ISO 3315 — 1/4"

Design
Chrome-plated, extremely robust ratchet with switchable clockwise/anti-clockwise rotation and ergonomic plastic handle.
Quality
Chromium-vanadium steel.

51126 201
ATORN®
With lever reverse and quick release pushbutton. Finely toothed, 72 teeth. Anti-slip 2-component handle with hanging hole.

51129 101
GEDORE
With lever reverse, lock-in centre position and ball lock. Oval head. 24 teeth, 15° angle of rotation.

51129 102
GEDORE
With lever reverse, pushbutton release and ball lock. Finely toothed, 40 teeth, 9° angle of rotation. Anti-slip 2-component handle with hanging hole.

51130 201
STAHLWILLE
With lever reverse, 22 teeth.
With 2-component handle.
Quality
Chrome alloy steel.

51130 203
STAHLWILLE
With lever reverse, quick release safety lock and 2-component handle, 80 teeth, working angle of just 4.5°.
Quality
Chrome alloy steel.

51130 205
STAHLWILLE
With lever reverse, quick release safety lock and 2-component handle, 80 teeth, working angle of just 4.5°.
Quality
Chrome-alloy steel, chrome-plated.

51132 100
HAZET
With lever reverse, 2-component handle, especially compact design, 20 teeth.
Quality
Chrome-plated surface, polished.

51132 101
HAZET
With lever reverse.

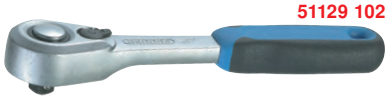
51132 102
HAZET
With lever reverse, safety connection and quick release pushbutton, 20 teeth.

51133 101
BAHCO
With lever reverse. 72 teeth, 5° return angle. Nickel and chrome plated, mirror polished. With 2-component handle

51126

51129 101

51129 102



51130 201

51130 203

51130 205

51132 100

51132 101

51132 102

51133 101

Total length mm	ATORN® 51126 ...	GEDORE 51129 ...	STAHLWILLE 51130 ...	HAZET 51132 ...	BAHCO 51133 ...
95				100	
115				101	
115				102	
117			201		
117			203		
127			101		
129			102		
130					101
145		201			
153			205 NEW		

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51136 Zyklop metal ratchet

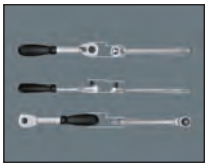
1/4"

Wera

Design
- Forged **solid metal ratchet** for extremely high robustness and long service life
- With ball lock
- Slim design for work even in very tight spaces
- Fine toothing with 72 teeth for a return angle of just 5°
- Reversing lever for easy switching of direction
- With secure nut locking function

Quality
Chrome molybdenum.

Extremely slim.
Long lever.



51136 100

The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing.

The finely toothed reversible ratchet with 72 teeth has a small return angle of just 5°.
The small stroke enables fast and precise working in all installation positions.

Thanks to the reversing lever, it is possible to change direction quickly and easily.

Total length mm	51136	...
141		100

51136 Zyklop Speed ratchet

Wera Zyklop

1/4"

Wera

Design
- Flywheel mass design and handy rapid-turning sleeve for high working speed
- Freely tilting ratchet head
- Defined position at 0°, 90° to the left and right as well as 15° from 90° inwards
- Can be used in 0° position like a conventional screwdriver
- Pushbutton release
- Anti-clockwise/clockwise switch
- Finely toothed
- Small return angle of 5°
- Multi-component power grip for effortless work

The ratchet head can be swivelled freely and can be unlocked in any position using the slide switch on both sides.

The nut locking accelerates the insertion or removal of the inserts and extensions. The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing. A short press on the release button and the tool can be moved to all defined positions.

51136 101

The flywheel mass construction speeds up the screwing process.

The Zyklop ratchet can be switched quickly and easily to left/right motion in any position using the knurling wheel.

Total length mm	51136	...
152		101

51138 Removable reversible ratchet

1/4"

ATORN®

Design
- Ratcheting/clamping function
- Finely toothed, 72 teeth
- 5° return angle for confined spaces
- Anti-clockwise/clockwise direction switching using lever with pushbutton release

Applications
Lever reversible ratchet for manually operated socket wrench inserts and connectors

Quality
Chromium-vanadium steel, matt chromium-plated.

NEW

51138

Adjustment range mm	51138 ...
150 - 250	201

51134 T-handle reversible ratchet

1/4"

HAZET

Design
With quickly-detachable safety connector.

Applications
Combined the advantages of a T-handle socket wrench and a reversible ratchet. Both powerful and precision work possible.

51134

Total length mm	51134 ...
100	101

51140 - 51145 Drive elements

1/4"

Design
Chrome-plated, die-forged.

Quality
Chromium-vanadium steel.

51140

ATORN®

51140 302

ATORN®

Drive handle

Design
With ball lock and 2-component handle.

Applications
For hand-operated socket wrench inserts with 1/4-inch square drive in accordance with DIN 3120, ISO 1174.

51143

STAHLWILLE

51143 102

STAHLWILLE

Drive handle

Design
With 2-component handle.

Quality
Chrome alloy steel.

51145

STAHLWILLE

Design
With quick release safety lock.

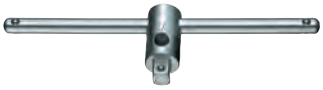
Quality
Chrome alloy steel.

51144

HAZET

51140 201

51145 101



51140 302

51143 102

51140 204

51143 104

51145 104

51144 104

51143 105

51144 105

51143 106

51143 107

	51140 ...	51143 ...	51145 ...	51144 ...
Handle with sliding piece	201		101	101
Drive handle	302	102		
Cardan joint	204	104	104	104
Adapter 1/4 inch □ x 3/8 inch ■	205	105		105
Adapter 1/4 inch □ x 1/2 inch ■		106		
FixGRIP adapter 1/4 inch □ x 3/8 inch ■		107		

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51153 - 51164 Extensions

1/4"

Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51153
ATORN®

51156
GEDORE

51157
STAHLWILLE
Quality
Chrome alloy steel.

51157 105
STAHLWILLE
Flexible extension
Loads of up to 5 Nm. Only for clockwise tightening.

51159
HAZET

51162
FACOM

51164
STAHLWILLE
With quick release safety lock.
Quality
Chrome alloy steel.

Length mm	ATORN 51153	...	GEDORE 51156	...	STAHLWILLE 51157	...	HAZET 51159	...	FACOM 51162	...	STAHLWILLE 51164	...
25								100				
55		101		201		101		101				101
100		102				102				102		
150		103		202		103		102				102
250										104		
356												103
402								105				
152						105						

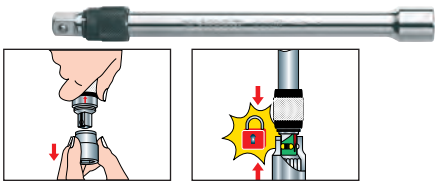
51165 Extensions with lock

1/4"

FACOM

Design
Chrome-plated, polished.
Applications
The locking mechanism prevents the socket wrench from accidentally falling out.
Quality
Vanadium steel.

Length mm	51165	...
100		201
250		203



51167 Cardan extensions

1/4"

GEDORE

Design
With ball lock.
Applications
The extension enables swivelling up to 15°.

Length mm	51167	...
55		101
97		102
148		103

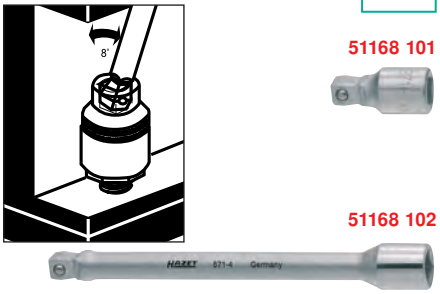
51168 Swivel extensions

1/4"

HAZET

Design
Chrome-plated, polished.
Applications
With ball-shaped, conical square drive.
Allows a swivel angle of 8° to each side.
Quality
Chromium-vanadium steel.

Length mm	51168	...
25.0		101
101.5		102



Socket wrench sets

51173 Hexagon socket wrench set

3/8"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51173

		Set contents
○	17	**hex inserts with energy profile** Sizes 6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22 mm
	1	**adapter** 1/2 inch x 3/8 inch
	1	**reversible ratchet**
	1	**cardan joint**
	3	**extensions** 50/75/150 mm

Set contents	Design	51173	...
23 pieces	in a sheet steel box with foam insert		101

51178 Hexagon socket wrench set

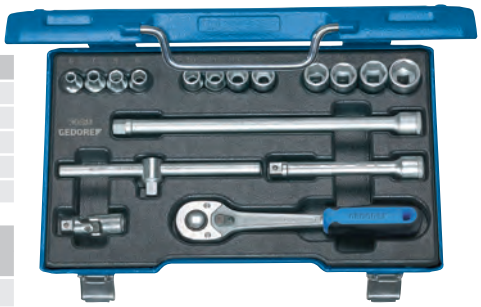
3/8" UNIT DRIVE

GEDORE
WERKZEUGE FÜRS LEBEN

Design
With tempered hex UD inserts.

Quality
Vanadium 31CrV3.

51178



		Set contents
○	12	**hex inserts with UD profile** Sizes 6/7/8/9/10/11/13/14/15/16/17/19 mm
	1	**lever reversible ratchet**
	1	**handle with sliding piece**
	1	**cardan joint**
	2	**extensions** 125/250 mm

Set contents	Design	51178	...
17 pieces	in a sheet steel box		101

51184 Hexagon socket wrench sets

3/8" DYNAMIC-DRIVE™

BAHCO

Quality
Chromium vanadium.

51184 102

		Set contents 51184 102
○	12	**hex inserts with dynamic drive profile** Sizes 10/11/12/13/14/15/16/17/18/19/20/22 mm
○	2	**hex inserts with dynamic drive profile for spark plugs** Sizes 16/21 mm
	1	**reversible ratchet,** 60 teeth
	1	**cardan joint**
	2	**extensions** 75/150 mm
	1	**bit holder** 3/8 inch x 1/4 inch
⊖	3	**bits for slotted screws** 4/5.5/7 mm
⊕	4	**bits for Phillips-head screws PH** 1/2/3/4
⬢	6	**bits for hexagon socket screws** Sizes 3/4/5/6/7/8 mm
	1	**drive handle**
	1	**bit holder,** 1/4 inch x 1/4 inch

51184 103

		Set contents 51184 103
○	12	**hex inserts with dynamic drive profile** Sizes 1/4/5/16/11/32/3/8/7/16/1/2/9/16/5/8/11/16 / 3/4 / 13/16 / 7/8 inch
○	2	**hex inserts with dynamic drive profile for spark plugs** Sizes 16/21 mm (5/8 and 13/16 inch)
	1	**reversible ratchet,** 60 teeth
	1	**cardan joint**
	2	**extensions** 75/150 mm
	1	**bit holder** 3/8 inch x 1/4 inch
⊖	3	**bits for slotted screws** 4/5.5/7 mm
⊕	4	**bits for Phillips-head screws** PH 1/2/3/4
⬢	6	**bits for hexagon socket screws** Sizes 3/4/5/6/7/8 mm
	1	**drive handle**
	1	**bit holder** 1/4 inch x 1/4 inch

		mm		inch	
Set contents	Design	51184	...	51184	...
34 pieces	in plastic case		102		
34 pieces	in plastic case				103 NEW

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51174 Zyklop metal hexagon socket wrench set

3/8"

Wera

Design
- With forged solid metal ratchet with 72 teeth for extremely high robustness and long service life
- Ultra-slim design for work even in very tight spaces
- In a robust, foldable fabric bag for safe storage

Quality
Chrome molybdenum.

51174 100

TAKE IT EASY TOOL FINDER

Set contents	
9	**hex inserts** Sizes 8/10/12/13/15/16/17/18/19 mm
5	**bits for hexagon socket screws Hex-Plus** Sizes 3/4/5/6/8 mm
3	**bits for Phillips-head screws PH** 1/2/3
2	**bits for Phillips-head screws PZ** 1/2
6	**bits for internal TX® screws T** 15/20/25/27/30/40
1	**Zyklop metal ratchet** with reversing lever
1	**Zyklop connector** 1/4 inch hex x 3/8 inch square
1	**Zyklop extension** with rapid-turning sleeve 200 mm
1	**Zyklop wobble extension** 76 mm

Set contents	Design	51174	...
29 pieces	in a robust, foldable fabric bag		100

51174 Zyklop metal hexagon socket wrench set

3/8"

Wera

Design
- Zyklop metal ratchet with reversing lever
- Extremely slim, long handle for optimum power transmission
- Fine toothing with 72 teeth and 5° return angle
- Hexagon head nuts with holding function for screws and nuts
- With **Take it Easy** tool finder colour coding by size
- Compact set arrangement ensures that a large number of tools takes up a minimum amount of space
- High degree of robustness and durability thanks to the innovative textile box
- Additional surface protection from textile outer material
- Minimal weight and volume for improved mobility

51174 101

NEW

HOLDING FUNCTION

TAKE IT EASY TOOL FINDER

Set contents	
9	**hex inserts** Sizes 8/10/12/13/15/16/17/18/19 x 29 mm
1	**Zyklop metal ratchet** with reversing lever
1	**Zyklop extension** with rapid-turning sleeve 200 mm
1	**Zyklop wobble extension** 76 mm
1	**nut removal tool** 43 x 14 mm

Set contents	Design	51174	...
13 pieces	in a robust fabric box		101

51176 Zyklop Speed socket wrench set

3/8"

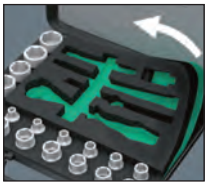
Wera

Design
- Zyklop Speed ratchet with freely movable ratchet head with 5 defined fixed positions (0°/15°/90°)
- Fine toothing with 72 teeth and 5° return angle
- 0° position can be used as a conventional screwdriver
- Socket wrench with **Take it Easy tool finder**
- The fitting diagram in the lid and the practical foam insert make it easier to sort the missing tools
- Minimal weight and volume for improved mobility

51176

NEW

TAKE IT EASY TOOL FINDER



Set contents	
1	**Zyklop Speed ratchet**
18	**Zyklop socket wrench inserts** Sizes 6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/24 mm
1	**Zyklop T-handle** 165 mm
1	**Zyklop wobble extension** 76 mm
1	**Zyklop cardan joint** 50 mm
1	**Zyklop connector** 44 mm
1	**Zyklop flexible-lock extension with rapid-turning sleeve, short** 125 mm
1	**Zyklop flexible-lock extension with rapid-turning sleeve, long** 200 mm
6	**bits for hexagon socket screws Hex-Plus** 3/4/5/6/8/10 x 25 mm
1	**bit for slotted screws** 1.0x 5.5x25 mm
2	**bits for Phillips-head screws PH** 2/3 x 25 mm
2	**bits for Phillips-head screws PZ** 2/3 x 25 mm
7	**bits for TX® screws with hole** T 10/15/20/25/27/30/40 x 25 mm

Set contents	Design	51176	...
43 pieces	in a sturdy tool case		100

51180 Hexagon socket wrench set

3/8" | AS-drive | HPQ

STAHLWILLE

Design
Chrome-plated.

Quality
Chrome-alloy steel.

51180

	Set contents
14	**inserts with AS drive profile** Sizes 8/9/10/11/12/13/14/15/16/17/18/19/21/22 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 76/240 mm

Set contents	Design	51180	...
19 pieces	in a robust, stackable ABS plastic box		102

51187 Hexagon socket wrench set

3/8" | TR

HAZET

Design
In SmartCase 355 x 235 x 65 mm. In Safety insert system, 2-component soft foam insert. All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.
Screwdriver socket wrench inserts
CVD-TiN-coated.

51187

	Set contents
16	**hex inserts with traction profile** Sizes 6/7/8/9/10/11/12/13/14/15/16/17/18/19/21/22 mm
3	**inserts for slotted screws** 1.0 x 5.5/1.2 x 8.0/1.6 x 10.0 mm
3	**inserts for Phillips-head screws PH** 1/2/3
4	**inserts for hexagon socket screws** Sizes 4/5/6/8 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
3	**extensions** 74/126/254 mm

Set contents	Design	51187	...
32 pieces	in the Smart Case with soft foam		101

51175 Hexagon socket wrench set

1/4" | 3/8" | TR

HAZET

Design
In SmartCase 355 x 235 x 65 mm. In Safety insert system, 2-component soft foam insert. All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51175

	Set contents
1/4" TR 12	**hex inserts with traction profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
5	**bits for hexagon socket screws** Sizes 3/4/5/6/8 mm
4	**bits for slotted screws** 0.5 x 4/0.6 x 4.5/0.8 x 5.5/1.0 x 6 mm
2	**bits for Phillips-head screws PH** 1/2
2	**bits for Phillips-head screws PZ** 1/2
1	**adapter** 1/4 inch (hollow) x 1/4 inch hex (hollow)
1	**reversible ratchet**
1	**drive handle** with plastic handle
1	**cardan joint**
1	**extension** 101.5 mm
3/8" TR 12	**hex inserts with traction profile** Sizes 10/11/12/13/14/15/16/17/18/19/21/22 mm
1	**adapter** 3/8 inch (hollow) x 1/4 inch hex (hollow)
1	**reversible ratchet**
1	**cardan joint**
1	**extension** 150 mm

Set contents	Design	51175	...
46 pieces	in SmartCase with soft foam insert		201

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51186 Bi-hexagon socket wrench set

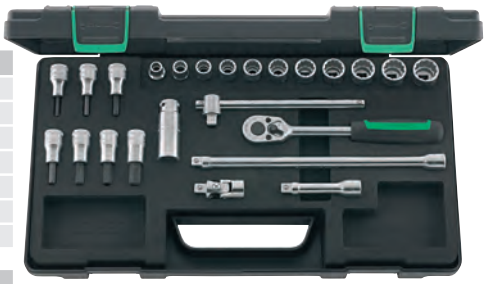
3/8" | AS-drive | HPQ

STAHLWILLE

Design
Chrome-plated.

Quality
Chrome alloy steel.

51186



	Set contents
11	**bi-hex inserts with AS drive profile** Sizes 8/10/11/12/13/14/15/16/17/18/19 mm
1	**bi-hex insert with AS drive profile** Sizes 16 mm 5/8 inch with rubber insert for spark plugs
7	**inserts for hexagon socket screws** Sizes 3/4/5/6/7/8/10 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 76/240 mm

Set contents	Design	51186	...
24 pieces	in a robust, stackable ABS plastic box		101

51189 Hex and bi-hex socket wrench set

3/8" | TR | TR

HAZET

Design
Metal case 578 x 235 x 88 mm.
In plastic insert.

Quality
Chromium-vanadium steel.
Screwdriver socket wrench inserts
CVD-TiN-coated.

51189

	Set contents
3	**hex inserts with traction profile** Sizes 6/7/8 mm
14	**bi-hex inserts with traction profile** Sizes 9/10/11/12/13/14/15/16/17/18/19/20/21/22 mm
14	**bi-hex inserts with long traction profile** Sizes 9/10/11/12/13/14/15/16/17/18/19/20/21/22 mm
3	**inserts for slotted screws** 1.0 x 5.5/1.2 x 8.0/1.6 x 10.0 mm
3	**inserts for Phillips-head screws PH** 2/3/4
9	**inserts for hexagon socket screws** Sizes 3/4/5/6/7/8/9/10/12 mm
1	**reversible ratchet**
1	**multi-angle ratchet**
1	**drive handle**
1	**handle with sliding piece**
1	**cardan joint**
4	**extensions** 74/150/202/304 mm
1	**flexible extension** 210 mm
1	**adapter** 1/4 inch ■ x 3/8 inch □

Set contents	Design	51189	...
57 pieces	in metal case with plastic insert		201

51218 Connector strip, magnetic (empty)

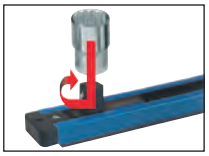
3/8"

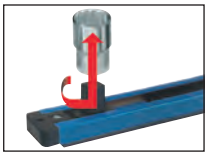
GEDORE
WERKZEUGE FÜRS LEBEN

Design
Square drive suitable for 14 socket wrench inserts nominal size of 10 (3/8 inch). **2 additional square drive adapters for ratchets, sliding handles, extensions etc.** Strong magnet allows secure attachment of the strip to metal objects. Additional holes in the strip allow mounting on non-metallic objects and walls.

By turning through 90°, the inserts on the square are securely locked by the ball.
Turning by 90° in the opposite direction unlocks the inserts so they can be removed.
Supplied without tools.

51218





For inserts Units	Length mm	Width mm	Weight g	51218	...
14	480	33	450		101

Socket wrench inserts

51222 - 51226 Hexagon socket wrench inserts DIN 3124/ISO 2725

3/8"

Design
- Chromium-plated
- Die-forged

Quality
Chromium-vanadium steel.

51222
ATORN®
- With side hole
- With energy profile

51223
GEDORE
- With UD profile
Quality
31 Cr V3.

51224
STAHLWILLE
- With AS drive profile
Quality
Chrome alloy steel.

51226
HAZET
- With traction profile

51222

51223

51224

51226

Sizes mm	l approx. mm	d_1 approx. mm	ATORN 51222	...	GEDORE 51223	...	STAHLWILLE 51224	...	HAZET 51226	...
6	26	9.7			101		201			301
7	26	10.5			102		202			302
8	26	12.0			103		203		203	303
9	26	13.2			104		204			304
10	27	14.5			105		205		205	305
11	27	15.8			106		206		206	306
12	28	17.0			107		207		207	307
13	29	18.3			108		208		208	308
14	29	19.5			109		209		209	309
15	30	20.8			110		210		210	310
16	30	22.0			111		211		211	311
17	30	23.3			112		212		212	312
18	31	24.5			113		213		213	313
19	31	26.0			114		214		214	314
20	32	27.0			115					315
21	32	28.5			116		216			316
22	33	29.5			117		217		217	317

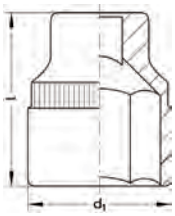
51229 - 51232 Bi-hexagon socket wrench inserts DIN 3124/ISO 2725

3/8"

Design
Chrome-plated, die-forged.

51229
GEDORE
With UD profile.
Quality
31 Cr V3.

51232
HAZET
With traction profile
Quality
Chromium-vanadium steel.



51229

51232

Sizes mm	l approx. mm	d_1 approx. mm	GEDORE 51229	...	HAZET 51232	...
6	28	9.7		098		
7	28	11.0		099		
8	28	12.1		100		
9	24	13.0		101		101
10	25	14.5		102		102
11	27	16.0		103		103
12	27	17.0		104		104
13	28	18.5		105		105
14	28	19.5		106		106

Sizes mm	l approx. mm	d_1 approx. mm	GEDORE 51229	...	HAZET 51232	...
15	29	21.0		107		107
16	29	28.0		108		108
17	30	23.5		109		109
18	30	24.5		110		110
19	31	26.5		111		111
20	31	27.0				112
21	31	28.5				113
22	32	29.5		114		114

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51234 - 51235 Long bi-hex socket wrench inserts

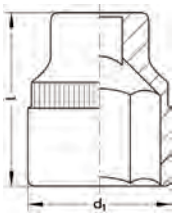
3/8"

Applications
For deep-seated screws and protruding pins.

Note:
Art. no. 51235 214-215 correspond to DIN 3124/ISO 2725.

51234
STAHLWILLE
Design
Chrome-plated, **with AS drive profile**
Quality
HPQ steel.

51235
HAZET
Design
Chrome plated, die-forged and polished.
With traction profile
Quality
Chromium-vanadium steel.



51234 51235

Sizes mm	l approx. mm	d_1 approx. mm	STAHLWILLE 51234 ...	HAZET 51235 ...
10	54	14.4	202	202
11	54	15.7	203	203
12	54	17.0	204	204
13	54	18.3	205	205
14	57	19.5	206	206
15	60	20.6	207	207
16	60	21.8	208	208

Sizes mm	l approx. mm	d_1 approx. mm	STAHLWILLE 51234 ...	HAZET 51235 ...
17	62	23.0	209	209
18	65	24.3	210	210
19	65	25.5	211	211
20	68	26.6		212
21	68	28.0		214
22	68	29.4		215

51238 Universal socket wrench insert gripper

3/8"

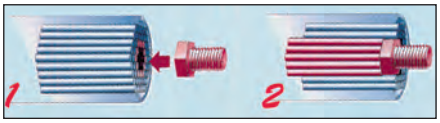
Design
Replaces all hexagonal socket wrench inserts between sizes 7 and 19 mm.
The 54 steel pins automatically adapt to every nut or external-headed screw.
An exclusive round pin design protects screw heads from damage.
Each pin has a spring with a solid back stop to give the screw or nut a precise hold.

Applications
This universal tool handles the following connections reliably:
- **Triangular profiles**
- **Square profiles**
- **Hex profiles**
- **TX® profiles**
- **Wing nuts**
- **Hook screws**
- **Eyelet screws**
- **Other polygon screws and nuts**
- **Imperial connectors**

Quality
Alloyed steel housing.

The problem solver

51238



Length mm	Ø mm	51238 €	...
53.5	25.4	44.50	401

51241 Jointed socket wrench inserts

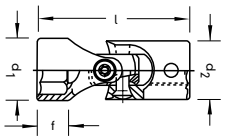
3/8"

HAZET

Design
Short, chrome-plated. **With traction profile**
Applications
For hard-to-reach screw connections.

Quality
Chromium-vanadium steel.

Note:
Also available as a set.
Please contact us for information!



51241

Sizes mm	l mm	d_1 mm	d_2 mm	f mm	51241 ...
10	43	13.8	19	6.8	201
11	43	15.0	19	6.8	202
12	44	16.6	19	7.3	203
13	44	17.8	19	7.3	204
14	45	19.0	19	9.3	205

Sizes mm	l mm	d_1 mm	d_2 mm	f mm	51241 ...
15	45	20.4	19	9.3	206
16	46	22.0	19	9.2	207
17	46	22.8	19	9.2	208
18	47	24.5	19	10.2	209
19	48	25.2	19	11.2	210

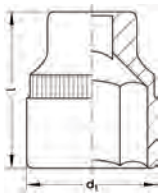
51236 Bi-hex socket wrench inserts (inch) ISO 2725-1

3/8" DYNAMIC-DRIVE™

BAHCO

Design
American inch sizes. High-performance inserts, thin-walled, **with dynamic drive profile.**
Nickel and chrome plated, mirror polished.

Quality
Chromo extra.



51236

Width Inch	l mm	d_1 mm	51236 ...
1/4	25.8	10.0	101
5/16	25.8	11.4	102
3/8	25.8	14.3	103
7/16	25.8	15.7	104
1/2	25.8	18.0	105
17/32	25.8	18.8	106
9/16	27.4	19.6	107

Sizes Inch	l mm	d_1 mm	51236 ...
19/32	27.8	20.4	108
5/8	28.3	21.1	109
11/16	28.8	23.6	110
3/4	30.2	25.1	111
13/16	31.3	26.7	112
7/8	32.5	29.1	113

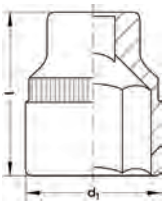
51237 Long bi-hex socket wrench inserts (inch) ISO 2725-1

3/8" DYNAMIC-DRIVE™

BAHCO

Design
Long, American inch dimensions. High-performance inserts, thin-walled, **with dynamic drive profile.** Nickel and chrome plated, mirror polished.

Quality
Chromo extra.



51237

Width Inch	l mm	d_1 mm	51237 ...
1/4	56	10.0	101
5/16	56	11.4	102
3/8	56	14.3	104
7/16	56	15.7	105
1/2	60	18.0	106
9/16	60	19.6	107

Sizes Inch	l mm	d_1 mm	51237 ...
19/32	60	20.4	108
5/8	60	21.1	109
11/16	60	23.6	110
3/4	60	25.2	111
13/16	60	26.7	112

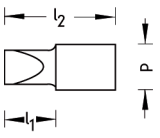
51244 Screwdriver bits

3/8"

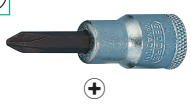
GEDORE WERKZEUGE FÜRS LEBEN

Design
Chrome-plated sleeves, blades made of special steel, bronzed. Square drive C10 **DIN 3120, ISO 1174.** With ball-securing groove.
Quality
Vanadium special steel.

51244 201-203



51244 301-303



Blade thickness x width mm	l_1 mm	l_2 mm	d mm	51244 ...
1.0 x 5.5	27	55	17.5	201
1.2 x 8.0	27	55	17.5	202
1.6 x 10.0	23	55	17.5	203

Size	l_1 mm	l_2 mm	d mm	51244 ...
PH 1	27	55	17.5	301
PH 2	23	55	17.5	302
PH 3	23	55	17.5	303

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51246 - 51250 Hexagon screwdriver bits DIN 3120/ISO 1174

3/8"

Design
Chrome-plated.
Quality
Made of chrome-vanadium special steel.

51246
ATORN®
With ball retaining groove and side hole.

51247
GEDORE
With ball-securing groove.

51248
STAHLWILLE
Chrome alloy steel.

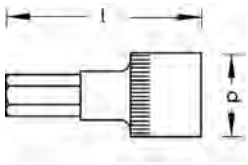
51250
HAZET
Long version.
Chrome-plated sleeve,
CVD-TiN-coated blade.

51246

51247

51248

51250



Sizes mm	l approx. mm	d approx. mm	ATORN 51246	...	GEDORE 51247	...	STAHLWILLE 51248	...	HAZET 51250	...
3	43.5	17.5		101				101		
L 3	50.0	17.0								301
4	52.0	17.5		102		202		102		
L 4	55.0	17.0								302
5	52.0	17.5		103		203		103		
L 5	60.0	17.0								303
6	52.0	17.5		104		204		104		
L 6	65.0	17.0								304
7	52.0	18.0		105				105		
L 7	70.0	19.0								305
8	52.0	18.0		106		206		106		
L 8	75.0	19.0								306
9	52.0	19.0		107						
L 9	80.0	19.0								307
10	52.0	19.0		108		208		108		
L 10	85.0	19.0								308
12	52.0	19.0		109						
L 12	90.0	19.0								309

51256 Hex screwdriver bits (inch)

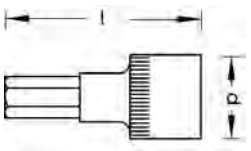
3/8"

HAZET

Design
Chrome-plated sleeve, CVD-TiN coated blade.

Quality
Chromium-vanadium steel sleeve.

51256



Sizes Inch	l mm	d mm	51256	...
1/8	50	17		301
5/32	55	17		302
3/16	60	17		303
7/32	65	17		304

Sizes Inch	l mm	d mm	51256	...
1/4	70	19		305
5/16	75	19		306
3/8	80	19		307

51254 Long hex ball-head screwdriver bits

3/8"

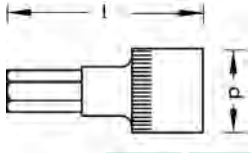
GEDORE

Design
Chrome-plated, with ball retaining groove. Allows a swivel angle of approximately 15–20°.

Quality
Chrome vanadium special steel, bronzed.

51254

51254 105



Sizes mm	l mm	d mm	51254	...
4 L	132	17.5		100
5 L	132	17.5		101
6 L	132	17.5		102

Sizes mm	l mm	d mm	51254	...
8 L	134	17.5		104
10 L	134	19.0		105

51253 Hex ball-head screwdriver bits

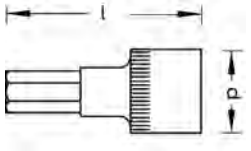
3/8"

HAZET

Design
Chrome-plated sleeve, CVD-TiN coated blade.
Allows a swivel angle of 20°.

Quality
Chromium-vanadium steel sleeve.

51253



Sizes mm	l mm	d mm	51253	...
5	116	17		201
6	116	17		202
7	116	19		203

Sizes mm	l mm	d mm	51253	...
8	116	19		204
10	116	19		205

51257 TX® set

3/8"

GEDORE
WERKZEUGE FÜRS LEBEN

Quality
Vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.

Set contents
- **8 inserts for external TX®** E 5/6/7/8/10/11/12/14
- **7 inserts for internal TX®** T 20/25/27/30/40/45/50

Set contents	Design	51257 ...
15 pieces	in a plastic storage box	101

51258 - 51261 TX® screwdriver bits

3/8"

Design
Chrome-plated.
Applications
For internal TX® screws.

Note:
TX® profile gauge, see art. no. 37930.

51258
ATORN®

51259
GEDORE
WERKZEUGE FÜRS LEBEN
Vanadium special steel.

51261
HAZET
CVD-TiN-coated blade.
Chromium-vanadium steel sleeve.

Size T	Length approx. mm	ATORN 51258 ...	GEDORE 51259 ...	HAZET 51261 ...
15	43.5			101
20	43.5			102
20	47.0	101		
20	49.0		201	
25	43.5			103
25	47.0	102		
25	49.0		202	
27	43.5			104
27	47.0	103		
27	49.0		203	
30	43.5			105

Size T	Length approx. mm	ATORN 51258 ...	GEDORE 51259 ...	HAZET 51261 ...
30	47.0	104		
30	49.0		204	
40	43.5			106
40	47.0	105		
40	49.0		205	
45	43.5			107
45	47.0	106		
45	49.0		206	
50	44.5			108
50	47.0	107		
50	49.0		207	

51263 - 51264 TX® socket wrench inserts

3/8"

Design
Chrome-plated.
Applications
For external TX® screws.

Note:
TX® profile gauge, see art. no. 37930.

51264
ATORN®
Chromium-vanadium steel.

51263
HAZET
Chromium-vanadium steel.

Size E	Length approx. mm	ATORN 51264 ...	HAZET 51263 ...
5	28	101	201
6	28	102	202
7	28	103	203
8	28	104	204

Size E	Length approx. mm	ATORN 51264 ...	HAZET 51263 ...
10	28	105	205
11	28	106	206
12	28	107	207
14	28	108	208

51265 XZN screwdriver bits

3/8"

HAZET

Design
Chrome-plated sleeve, CVD-TiN coated blade.

Applications
For serrated socket screws (XZN).
Quality
Chromium-vanadium steel sleeve.

Size M	Length mm	51265 ...
5	40	201
6	40	202
8	41	203

Size M	Length mm	51265 ...
L 8	88	204
10	42	205
L 10	89	206

51275 - 51279 Reversible ratchets DIN 3122/ISO 3315

3/8"

Design
- Chromium-plated
- Extremely robust ratchet **with rotary head for clockwise/anti-clockwise rotation**
- Ergonomic plastic handle

Quality
Chromium-vanadium steel.

51275
GEDORE
Design
- **Fine toothing (72 teeth, 5° angle of rotation)**
- Ground
- Ball lock

51276
STAHLWILLE
Design
- **Finely toothed (60 teeth, 6° angle of rotation)**
- Ideal for working in confined spaces
- With 2-component handle

Quality
Chrome alloy steel.

51277
HAZET
Design
- **Finely toothed (72 teeth, 5° angle of rotation)**
- Deep-seated reversal knob protects against unintentional reversal
- Inductively hardened inner toothing for long service life
- With 2-component handle

Quality
Chrome-plated, polished head

51279
FACOM
Design
- **Finely toothed (72 teeth, 5° angle of rotation)**
- The contact surface makes it possible to press on the ratchet head without having to use the switch
- Fast switching with one-handed operation

Total length mm	GEDORE 51275	...	STAHLWILLE 51276	...	HAZET 51277	...	FACOM 51279	...
175								101
186							102	
194					101			
200			101					

51284 - 51288 Reversible ratchets DIN 3122/ISO 3315

3/8"

Design
Chrome-plated, extremely robust ratchet with reversible clockwise/anti-clockwise rotation and ergonomic plastic handle.

Quality
Chromium-vanadium steel.

51286 101
ATORN®
With lever reverse and quick release pushbutton. Finely toothed, 72 teeth. Anti-slip 2-component handle with hanging hole.

51284 102
GEDORE
With lever reverse and pushbutton release, teardrop-shaped head for the narrowest screw positions, slip-resistant 2-component handle with hanging hole. Fine toothing with 60 teeth.

Quality
31 Cr V3.

51285 101
STAHLWILLE
With lever reverse, 30 teeth.

Quality
Chrome alloy steel.

51285 103
STAHLWILLE
Design
With lever reverse, quick-release safety lock and 2-component handle, 80 teeth.

Quality
Chrome alloy steel.

51287 101
HAZET
With lever reverse, polished, with 30 teeth.

51287 102
HAZET
With lever reverse, polished, with 30 teeth. Also with safety connection and quick release pushbutton.

51288 201
BAHCO
With lever reverse, nickel and chrome plated. Rounded and highly polished surfaces without any sharp edges. 80 teeth, 4.5° return angle. 2 claws that retain 7 teeth in contact with the gear at all times for maximum strength. Exceeds the torque requirements pursuant to ISO and ASME. With warm, comfortable 2-component handle, slip-resistant and with larger grip width.

Quality
Vanadium extra, precision forged and heat treated.

Total length mm	ATORN 51286	...	GEDORE 51284	...	STAHLWILLE 51285	...	HAZET 51287	...	BAHCO 51288	...
190		101								
193						101				
193						103				
199								101		
199								102		
200					102					
205										201

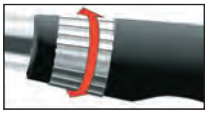
51289 One-handed reversible ratchet DIN 3120/ISO 1174

3/8"

BAHCO

Design
Nickel and chrome plated, mirror polished. Smooth one-handed switching ring on the ratchet handle changes the direction of rotation with a short turn (clockwise/anti-clockwise). Integrated quick-action rotary disc on the square makes it easier to loosen and tighten screw connections. Unlocking device of the ball catch ensures easier and faster changing of socket wrench inserts at the push of a button without effort. **Small tooth pitch (72 teeth),** 5° return angle. Two-component plastic handle with hanging hole.
Quality
Vanadium extra.

51289 101



Total length mm	51289	...
215		101

51290 Jointed reversible ratchet

3/8"

HAZET

Design
With lever reverse.
Chrome-plated and polished.

Extremely robust ratchet with switchable clockwise and anti-clockwise rotation, movable ratchet head and ergonomic plastic handle.
Quality
Chromium-vanadium steel.

51290

Total length mm	51290	...
218		101

51293 Zyklop metal ratchet

3/8"

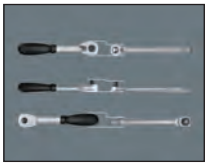
Wera

Design
- Forged **solid metal ratchet** for extremely high robustness and long service life
- With ball lock
- Slim design for work even in very tight spaces
- Fine toothing with 72 teeth for a return angle of just 5°
- Reversing lever for easy switching of direction
- With secure nut locking function

Quality
Chrome molybdenum.

Extremely slim.
Long lever.

51293



The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing.

The finely toothed reversible ratchet with 72 teeth has a small return angle of just 5°. The small stroke enables fast and precise working in all installation positions.

Thanks to the reversing lever, it is possible to change direction quickly and easily.

Total length mm	51293	...
222		100

51294 Zyklop Speed ratchet

Wera Zyklop 3/8"

Wera

Design
- Flywheel mass design and handy rapid-turning sleeve for high working speed
- Freely tilting ratchet head
- Defined position at 0°, 90° to the left and right as well as 15° from 90° inwards
- Can be used in 0° position like a conventional screwdriver
- Pushbutton release
- Anti-clockwise/clockwise switch
- Finely toothed
- Small return angle of 5°
- Multi-component power grip for effortless work

51294

The ratchet head can be swivelled freely and can be unlocked in any position using the slide switch on both sides.

The nut locking accelerates the insertion or removal of the inserts and extensions. The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing. A short press on the release button and the tool can be moved to all defined positions.

The flywheel mass construction speeds up the screwing process.

The Zyklop ratchet can be switched quickly and easily to left/right motion in any position using the knurling wheel.

Total length mm	51294	...
199		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51299 - 51304 Drive elements

3/8"

Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51299
ATORN®

51300
GEDORE

51301
STAHLWILLE
Quality
Chrome alloy steel.

51302
STAHLWILLE
With quick release safety lock.
Quality
Chrome alloy steel.

51303
HAZET

51304
Drive handle

51300 201

51302 101

51304 102

51300 203

51301 103

51302 103

51299 104

51300 204

51301 104

51301 106

	ATORN 51299	...	GEDORE 51300	...	STAHLWILLE 51301	...	STAHLWILLE 51302	...	HAZET 51303	...	51304	...
Handle with sliding piece		101		201				101		101		
Drive handle												102
Cardan joint		103		203		103		103		103		
Adapter 3/8 inch □ x 1/4 inch ■		104		204		104				204		
Adapter 3/8 inch □ x 1/2 inch ■		105		205		105				205		
FixGRIP adapter 3/8 inch □ x 1/2 inch ■						106						

51308 - 51314 Extensions

3/8"

Design
Chrome-plated, die-forged.

51308
ATORN®
Chromium-vanadium steel.

51309
GEDORE
Vanadium 31CrV3.

51310
STAHLWILLE
Chrome alloy steel.

51312
HAZET
Chromium-vanadium steel.

51312 201
HAZET
Flexible extension
Shaft bronzed.

51314
STAHLWILLE
With quick release safety lock.
Chrome alloy steel.

Length mm	ATORN 51308	...	GEDORE 51309	...	STAHLWILLE 51310	...	HAZET 51312	...	STAHLWILLE 51314	...
36								101		
50		100								
75		101		101		102		102		101
125		103		102		103		103		
150		104						104		
160										102
180				110						
202								105		
210								201		
240						105				103
250		105		103				106		
304								107		
508								108		
711								109		

51310 102

51314 101

51308 104

51312 104

51312 201

51309 103

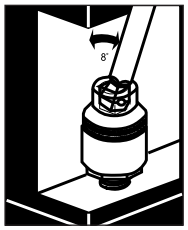
51315 Swivel extensions

3/8"

HAZET

Design
Chrome-plated, polished.
Applications
With ball-shaped, conical square drive. Allows a swivel angle of 8° to each side.

Quality
Chromium-vanadium steel.



51315 201

51315 202

51315 203

Overall length mm	51315 ...
36	201
74	202
254	203

51316 Cardan extensions

3/8"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
With ball lock.

Applications
The extension enables swivelling up to 15°.

51316

Length mm	51316 ...
76	101
125	102
250	103

51318 Open bi-hex box wrench (crowfoot wrench)

3/8"

HAZET

Design
Chrome-plated, with square drive.

Applications
Specially designed for working in hard-to-reach places.
Quality
Chromium-vanadium steel.

51318

Size mm	51318 ...
16	101
17	102
18	103
19	104

Size mm	51318 ...
21	105
22	106
24	107
27	109

51319 Adjustable wrench (crowfoot wrench)

BAHCO

Design
- Opening width adjustable up to 29 mm (1 1/8 inch)
- Adjustment of the back width by simple movement of the side adjusting nut
- Lasered measuring scale in mm and inches
- Significantly exceeds the torque requirements for 3/8 inch turning tools adjustable wrenches of the same opening sizes
- ISO 1174 and DIN 3120
- Chrome-plated and high-gloss polished, high-quality surface

Quality
High-performance alloy steel.

51319

Span width mm	Span width inch	51319 ...
29	1,1/8	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51320 Hexagon socket wrench set

1/2"

ATORN®

Design
In a sheet steel box with foam insert.
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

Set contents	Design	51320	...
19 pieces	in a sheet steel box		101

51320

		Set contents
○	14	**hex inserts with energy profile** Sizes 10/11/12/13/14/15/16/17/19/22/24/27/30/32 mm
	1	**reversible ratchet**
	1	**handle with sliding piece**
	1	**cardan joint**
	2	**extensions** 125/250 mm

51321 Hexagon socket wrench set

1/2"

ATORN®

Design
In a sheet steel box with foam insert. All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

Set contents	Design	51321	...
22 pieces	in a sheet steel box		101

51321

		Set contents
○	15	**hex inserts with energy profile** Sizes 10/11/12/13/14/15/16/17/18/19/22/24/27/30/32 mm
○	2	**hex inserts with energy profile** for spark plugs Sizes 16/21 mm
	1	**reversible ratchet**
	1	**cardan joint**
	1	**adapter** 1/2 x 3/8 inch
	2	**extensions** 125/250 mm

51328 Hexagon socket wrench set

1/2" UNIT DRIVE

GEDORE
WERKZEUGE FÜRS LEBEN

Design
- Forged, tempered, hand-operated **hex UD profile** socket wrench inserts
- Robust lever reversible ratchet with pushbutton release
- In GEDORIT blue sheet steel box (290 x 132 x 55 mm)

Quality
Actuating tools made from GEDORE vanadium steel 31CrV3

Set contents	Design	51328	...
13 pieces	in a sheet steel box		201

51328

		Set contents
○	11	**inserts with UD profile** Sizes 10/12/13/14/15/16/17/18/19/22/24 mm
	1	**reversible ratchet**
	1	**extension** 125 mm

51327 Hexagon socket wrench sets

1/2" DYNAMIC-DRIVE™

BAHCO

Design
- With dynamic drive profile
- Plastic case made from impact-resistant, oil- and heat-resistant polyethylene (HDPE), 35 x 165 x 85 mm

Quality
High-performance alloy steel, matt chrome-plated. Chromium vanadium.

Set contents	Design	51327	...
24 pieces, mm	in plastic case		101
24 pieces, inch	in plastic case		102

NEW

51327 101

		Set contents 51327 101
○	18	**hex inserts with dynamic drive profile** Sizes 10/11/12/13/14/15/16/17/18/ 19/20/21/22/23/24/27/30/32 mm
	1	**reversible ratchet,** 60 teeth, 6° return angle
	1	**cardan joint**
	2	**extensions** 125/250 mm
	1	**T-sliding adapter**
	1	**multi-angle ratchet,** 250 mm

51327 102

		Set contents 51327 102
○	15	**hex inserts with dynamic drive profile** Sizes 3/8/7/16/1/2/9/16/5/8/11/16/3/4/13/16/ 7/8/15/16/1/1. 1/16/1. 1/8/1. 3/16 / 1. 1/4 inch
○	2	**hex inserts with dynamic drive profile for spark plugs** Sizes 16/21 mm (5/8 and 13/16 inch)
	1	**reversible ratchet,** 60 teeth, 6° return angle
	1	**cardan joint**
	2	**extensions** 125/250 mm (5 and 10 inches)
	1	**T-sliding adapter**
	1	**multi-angle ratchet 250 mm** (10 inches)
	1	**removable plastic sorting box with three compartments and lid**

Socket wrench sets

51341 Hex socket wrench set

1/2" | AS-drive | QR | HPQ

STAHLWILLE

Design
With quick-release system
(single-handed safety lock).

Quality
Chrome alloy steel.

51341

	Set contents
○ 16	**inserts with AS drive profile** Sizes 10/11/12/13/14/15/16/17/18/19/21/22/24/27/30/32 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
3	**extensions** 75/130/255 mm

Set contents	Design	51341 ...
22 pieces	in a robust, stackable ABS plastic box	201

51337 Bi-hexagon socket wrench sets

1/2" | AS-drive | HPQ

STAHLWILLE

Design
Chrome-plated.
Quality
Chrome alloy steel.

51337 107

	Set contents 51337 107
16	**inserts with AS drive profile** Sizes 10/11/12/13/14/15/16/17/18/19/21/22/24/27/30/32 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
3	**extensions** 75/130/255 mm

51337 109

	Set contents 51337 109
22	**inserts with AS drive profile** Sizes 8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/26/27/28/30/32 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
3	**extensions** 75/130/255 mm

Set contents	Design	51337 ...
22 pieces	in a robust, stackable ABS plastic box	107
28 pieces	in a robust, stackable ABS plastic box	109

51338 - 51339 Hex and bi-hex socket wrench sets

1/2"

HAZET

Design
In SmartCase 355 x 235 x 65 mm. In safety insert system. 2-component soft foam insert.
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

TR 51338 TR 51339

	Set contents
20	**inserts with traction profile** Sizes 10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/26/27/28/30/32 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 123/248 mm

Set contents	Deisgn	Hex 51338 ...	Bi-hex 51339 ...
25 pieces	in SmartCase with soft foam insert	101	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51348 Hexagon socket wrench set

1/2"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51348

	Set contents
18	**hex inserts with energy profile** Sizes 10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/27/30/32 mm
5	**inserts for hexagon socket screws** Sizes 7/8/10/12/14 mm
2	**inserts for Phillips-head screws PH** 3/4
5	**inserts for internal TX® screws** T 30/40/45/55/60
1	**adapter** 3/8 inch x 1/2 inch
1	**reversible ratchet**
1	**cardan joint**

Set contents	Design	51348	...
35 pieces	in a sheet steel box with foam inserts		101

51349 Hexagon socket wrench set

1/4" 1/2"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51349

		Set contents
1/4"	5	**hex inserts with energy profile** Sizes 5.5/7/8/10/13 mm
	3	**inserts for hexagon socket screws** Sizes 3/4/5 mm
	1 of each	**reversible ratchet, handle with sliding piece, cardan joint**
	2	**extensions** 50/105 mm
1/2"	11	**hex inserts with energy profile** Sizes 10/13/16/17/18/19/22/24/27/30/32 mm
	6	**inserts for hexagon socket screws** Sizes 6/8/10/12/14/17 mm
	1 of each	**reversible ratchet, handle with sliding piece, cardan joint**
	2	**extensions** 125/250 mm

Set contents	Design	51349	...
35 pieces	in a sheet steel box with foam insert		201

51357 Socket wrench set

1/4" 1/2"

Applications
For opening hex, bi-hex, inch and E-TX profiles.

Quality
Chromium-vanadium steel.

51357

		Set contents
1/4"	13	**inserts** Sizes 4/4.5/5/5.5/6/7/8/9/10/ 11 / 12 / 13 / 14 mm
	4	**bits for hexagon socket screws** Sizes 3/4/5/6 mm
	3	**bits for slotted screws** 4/5.5/7 mm
	2	**bits for Phillips-head screws PH** 1/2
	2	**bits for Phillips-head screws PZ** 1/2
	6	**bits for TX® screws** T 8/10/15/20/25/30
	1	**reversible ratchet**
	1	**handle with sliding piece**
	1	**drive handle** with plastic handle
	1	**cardan joint**
	1	**flexible extension** 150 mm
	2	**extensions** 50/100 mm
	1	**adapter square drive x hexagon head**

1/2"	18	**inserts** Sizes 10/11/12/13/14/15/16/17/18/ 19/20/21/22/23/24/27/30/32 mm
	2	**spark plug inserts** Sizes 16/21 mm
	1	**reversible ratchet**
	1	**cardan joint**
	2	**extensions** 125/250 mm
	1	**adapter** 1/2 inch x 8 mm/bit adapter
	1	**sliding handle adapter** 3/8 inner x 1/2 outer
		bits with bit holder 8 mm:
	3	**bits for slotted screws** 8/10/12 mm
	2	**bits for Phillips-head screws PH** 3/4
	2	**bits for Phillips-head screws PZ** 3/4
	4	**bits for TX® screws** T 40/45/50/55
	4	**bits for hexagon socket screws** Sizes 8/10/12/14 mm
	3	**hex pin wrenches** Sizes 1.5/2.0/2.5 mm

Set contents	Design	51357	...
82 pieces	in aluminium case with removable tool insert		101

Socket wrench sets

51352 Hexagon socket wrench set

1/4" 1/2" UNIT DRIVE

GEDORE WERKZEUGE FÜRS LEBEN

Design
With forged, tempered hex UD inserts and actuating tools.

Quality
Vanadium 31CrV3.

51352

Set contents	
1/4" ○ 11	**hex inserts with UD profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/13 mm
⬢ 4	**inserts for hexagon socket screws** Sizes 3/4/5/6 mm
⊖ 3	**inserts for slotted screws** 0.8 x 4/1.0 x 5.5/1.2 x 6.5 mm
⊕ 2	**inserts for Phillips-head screws PH** 1/2
2	**extensions** 55/97 mm
1	**cardan joint**
1	**handle with sliding piece**
1	**drive handle** with plastic handle
1	**reversible ratchet with shift lever**

1/2" ○ 12	**hex inserts with UD profile** Sizes 10/11/12/13/14/15/17/19/22 / 24 / 27 / 30 mm
⬢ 5	**inserts for hexagon socket screws** Sizes 7/8/10/12/14 mm
⊖ 2	**inserts for slotted screws** 1.2 x 8/1.6 x 10 mm
⊕ 1	**insert for Phillips-head screws**
2	**extensions** 125/250 mm
1	**cardan joint**
1	**reversible ratchet with shift lever**

Set contents	Design	51352	...
50 pieces	in a sheet steel box		101

51359 Hexagon socket wrench set

1/4" 1/2" 5/16"

BAHCO

Design
With dynamic drive profile. Matt chrome-plated
Plastic case made from impact-resistant, oil- and temperature-resistant polyethylene (HDPE), 375 x 320 x 110 mm.

Quality
Chromium vanadium.

DYNAMIC-DRIVE™

51359

		Set contents
1/4" ○	12	**hex inserts with dynamic drive profile** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
○	10	**long hex inserts with dynamic drive profile** Sizes 4/5/6/7/8/9/10/11/12/13 mm
⬢	6	**bits for hexagon socket screws** Sizes 3/4/5/6/8/10 mm
⊖	3	**bits for slotted screws** 4/5.5/7 mm
⊕	5	**bits for Phillips-head screws PH** size 0/1/2/3/4
⊕	3	**bits for Phillips-head screws PZ** Sizes 1/2/3
✱	8	**bits for TX® screws** T 8/10/15/20/25/27/30/40
	1 of each	**reversible ratchet** 60 teeth, **T-sliding handle** (t-handle) 105 mm, **drive handle**
	1 of each	**cardan joint, extension** 50/100 mm
	1 of each	**magnet holder, connector**1/4 inch, **bit holder**
1/2" ○	13	**hex inserts with dynamic drive profile** Sizes 10/11/12/13/14/15/17/19/22/24/27/30/32 mm
○	1	**spark plug socket wrench insert** Size 21 mm (13/16 inch)
	1 of each	**reversible ratchet** 60 teeth, **cardan joint, T-sliding adapter**
	1 of each	**extension** 125/250 mm **5/16 inch bit holder .**
5/16 ✱	3	**bits for TX® screws** T 45/50/55
	6	**combination spanners** Sizes 8/10/12/13/14/17 mm
	4	**joint socket wrenches** Sizes 8x9/10x11/12x13/14x15 mm
⬢	3	**hexagon socket Allen keys** Sizes 1.5/2/2.5 mm

Set contents	Design	51359	...
92 pieces	in plastic case		201

51351 Hexagon socket wrench set

1/4" 1/2" AS-drive HPQ

STAHLWILLE

Design
Chrome-plated.

Quality
Chrome alloy steel.

51351

Set contents	
1/4" ○ 9	**hex inserts with AS drive profile** Sizes 4/5/5.5/6/7/8/9/10/11 mm
⬢ 3	**inserts for hexagon socket screws** Sizes 3/4/5 mm
1	**reversible ratchet**
1	**drive handle** with plastic handle
1	**handle with sliding piece**
2	**extensions**
1	**cardan joint**

1/2" ○ 10	**hex inserts with AS drive profile** Sizes 13/16/17/18/19/21/22/24/27/30 mm
⬢ 5	**inserts for hexagon socket screws** Sizes 6/8/10/12/14 mm
1	**reversible ratchet**
1	**handle with sliding piece**
2	**extensions** 130/255 mm
1	**cardan joint**

Set contents	Design	51351	...
38 pieces	in a robust, stackable ABS plastic box		101

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51355 Hexagon socket wrench set

1/2" | TR | hexagon | Phillips | Phillips | TX

HAZET

Quality
Chromium-vanadium steel.

51355

	Set contents
18	**hex inserts with traction profile** Sizes 10/11/12/13/14/15/17/19/20/21/22/23/24/26/27/28/30/32 mm
7	**short inserts for hexagon socket screws** Sizes 5/6/7/8/10/12/14 mm
4	**bits for Phillips-head screws PH** 1/2/3/4
4	**bits for Phillips-head screws PZ** 1/2/3/ 4
5	**bits for internal TX® screws** T 27/30/40/45/50
1 of each	**connector** for 3/8 inch bits, **reversible ratchet, handle with sliding piece, cardan joint**
2	**extensions** 123/248 mm

Set contents	Design	51355	...
44 pieces	in Smart Case with soft foam insert		101

51340 Zyklop ratchet sets

1/2" | TAKE IT EASY TOOL FINDER

Wera Be a Tool Rebel

51340 100
Design
- Zyklop metal ratchet set with forged **solid metal ratchet** with 72 teeth for outstanding robustness over a long service life
- Ultra-slim design for work even in very tight spaces
- In a robust, foldable fabric bag for safe storage

Quality
Chrome molybdenum.

hexagon | Phillips | TX | hexagon

51340 100

	Set contents 51340 100
1	**Zyklop metal ratchet**
10	**Zyklop hex inserts** Sizes 10/11/12/13/14/15/16/17/18/19 mm
1	**Zyklop extension with rapid-turning sleeve** 250 mm
1	**Zyklop wobble extension** 52 mm
1	**Zyklop connector with quick-change chuck** 5/16 inch hex x 1/2 inch square
2	**bits for Phillips-head screws PH** 2/3
8	**bits for TX® screws** T 20/25/27/30/40/45/50/55
4	**bits for hexagon socket screws** Hex-Plus 5/6/8/10 x 30 mm

51340 101
Design
Zyklop socket wrench set in a robust, foldable fabric bag for safe storage with a Zyklop Speed ratchet. With the Zyklop Speed ratchet, you get 6 tools in one:

1. Fine-tooth ratchet
2. Jointed ratchet
3. Angled ratchet
4. Ratchet with safety lock
5. Power ratchet
6. Screwdriver.

Wera Zyklop

hexagon | Phillips | Phillips | TX | hexagon

51340 101

	Set contents 51340 101
1	**Zyklop Speed ratchet**
10	**Zyklop hex inserts** Sizes 10/11/12/13/14/15/16/17/18/19 mm
1	**Zyklop extension with rapid-turning sleeve** 250 mm
1	**Zyklop wobble extension** 52 mm
1	**Zyklop connector with quick-change chuck** 5/16 inch hex x 1/2 inch square
2	**bits for Phillips-head screws PH** 2/3
2	**bits for Phillips-head screws PZ** 2/3
6	**bits for TX® screws** T 20/25/30/40/45/50
4	**bits for hexagon socket screws** Hex-Plus 5/6/8/10 x 30 mm

51340 102
Design
- Zyklop hybrid ratchet with reversing lever with 1/2 drive, low weight, ergonomic Kraftform handle, slim head geometry, a long lever and extension option
- In a robust, foldable fabric bag for safe storage

hexagon

51340 102

	Set contents 51340 102
1	**Zyklop hybrid ratchet**
10	**Zyklop hex inserts** Sizes 10/11/12/13/14/15/16/17/18/19 mm
1	**Zyklop hybrid extension with release pin** 271 mm
1	**Zyklop extension with rapid-turning sleeve** 250 mm

Set contents	Design	51340	...
28 pieces	in a robust, foldable fabric bag		100
28 pieces	in a robust, foldable fabric bag		101
13 pieces	in a robust, foldable fabric bag		102

Socket wrench sets

51343 Zyklop Speed ratchet set

1/2"

Wera

Design
- Fitting diagram and practical foam insert makes it easier to sort missing tools
- Zyklop Speed ratchet with freely movable ratchet head with 5 defined fixed positions (0°/15°/90°)
- Fine toothing with 72 teeth and 5° return angle
- 0° position can be used as a conventional screwdriver
- Socket wrench with **Take it Easy tool finder**

NEW

51343

		Set contents
	1	**Zyklop Speed ratchet**
○	17	**Zyklop hex inserts** Sizes 10/11/12/13/14/15/16/17/18/19/20/21/22/24/27/30/32 mm
	1	**Zyklop t-handle** 250 mm
	1	**Zyklop wobble extension** 52 mm
	1	**Zyklop cardan joint** 69 mm
	1	**Zyklop connector** 50 mm
	1	**Zyklop flexible-lock extension with rapid-turning sleeve, short** 125 mm
	1	**Zyklop flexible-lock extension with rapid-turning sleeve, long** 250 mm
⊕	1	**bit for Phillips-head screws PH** 3 x 32 mm
⊕	1	**bit for Phillips-head screws PZ** 3 x 32 mm
✱	7	**bits for TX® screws** T 20/25/30/40/45/50/55 x 35 mm
⬢	4	**bits for hexagon socket screws Hex-Plus** 5/6/8/10 x 30 mm

Set contents	Design	51343	...
37 pieces	in a sturdy tool case		100

51353 - 51354 Hex and bi-hex socket wrench sets

1/2" AS-drive HPQ

STAHLWILLE

Design
Chrome-plated.
Quality
Chrome alloy steel.

51353 102

51354 201

		Set contents 51353 102 + 51354 201
	17	**inserts with AS drive profile** Sizes 8/10/11/12/13/14/15/16/17/18/19/21/22/24/27/30/32 mm
⬢	8	**inserts for hexagon socket screws** Sizes 4/5/6/7/8/10/12/14 mm
	1 of each	**reversible ratchet, handle with sliding piece, cardan joint**
	3	**extensions** 75/130/255 mm

		Set contents 51354 110
	19	**inserts with AS drive profile** Sizes 8/9/10/11/12/13/14/15/16/17/18/19/21/22/24/27/30/32/34 mm
○	2	**bi-hex inserts with AS drive profile** Sizes 20.8 mm 13/16 inch and 16 mm 5/8 inch with rubber insert for spark plugs
⬢	7	**inserts for hexagon socket screws** Sizes 4/5/6/7/8/10/12 mm
	13	**combination spanners** Sizes 10/11/12/13/14/15/16/17/18/19/21/22/24 mm
	1 of each	**reversible ratchet, handle with sliding piece, 1 x cardan joint**
	3	**extensions** 75/130/255 mm

51354 110

		Hexagon		Bi-Hexagon	
Set contents	Deisgn	51353	...	51354	...
31 pieces	in a robust, stackable ABS plastic box		102		201
47 pieces	in a robust, stackable ABS plastic box				110

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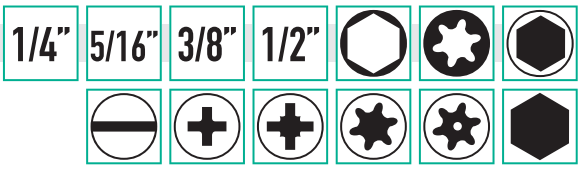
59362 Hexagon socket wrench set



Design

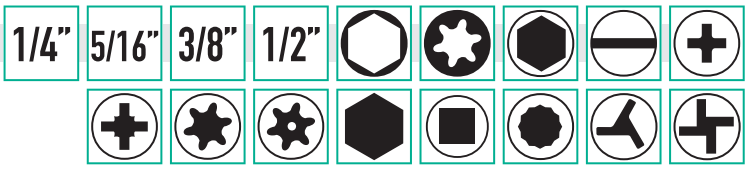
- Robust plastic case protects tool from dirt
- All tools are securely held in a plastic insert
- Plastic insert prevents tools from falling out and any missing tools are noticed immediately
- Includes 3 fine-tooth reversible ratchets 1/4, 3/8, 1/2 inch
- All ratchets have 72 teeth and a rotation angle of 5°
- Ergonomic shape of the ratchet allows work even in confined spaces
- Plastic coating provides approximately 33% weight saving compared to conventional reversible ratchets
- The release button is used to release the socket wrench insert easily

59362 201

Set contents	Design	59362	...
172 pieces	in plastic case		201

		Set contents 59362 201
13		**hex socket wrench inserts,** length 25 mm, Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 mm
7		**hex socket wrench inserts, long,** length 50 mm, Sizes 4/5/6/7/8/9/10 mm
5		**TX® socket wrench inserts,** length 24.8 mm, E 4/5/6/7/8
4		**hexagon socket screwdriver bits,** length 38 mm, Sizes 3/4/5/6 mm
4		**slotted screwdriver inserts,** length 38 mm, Sizes 0.8 x 4/1 x 5.5/1.2 x 6.5/1.2 x 7 mm
3		**Phillips screwdriver bits,** length 38 mm, **PH** 0/1/2
3		**Phillips screwdriver bits,** length 38 mm, **PZ** 0/1/2
8		**TX® screwdriver bits, length 38 mm,** T 8 (length 37 mm)/9/10/15/20/25/27 (length 37 mm) 30
8		**TX® screwdriver bits with hole,** length 37 mm, T 8H/9H (length 38 mm)/10H/15H/20H/25H/27H/30H
1		**fine tooth reversible ratchet,** 150 mm
2		**extensions,** 50 mm/100 mm
1		**drive handle,** 150 mm
1		**slide handle,** 110 mm
1		**universal joint,** 40 mm
1		**adapter** 1/4 inch **hex** x 1/4 inch **square,** 30 mm
7		**Allen keys,** Sizes 1.27/1.5/2/2.5/3/4/5 mm
3		**TX® sockets,** T 5/6/7
9		**TX® sockets with hole,** T 7H/10H/15H/20H/25H/27H/30H/40H/45H
5		**HexPlus bit inserts,** R 5/6/7/8/9
3		**triple square bit inserts,** M 5/6/8
5		**hex bit screwdriver bits,** Sizes 7/8/10/12/14 mm
3		**slotted bit screwdriver bits,** Sizes 8/10/12 mm
2		**slotted bit screwdriver bits, PH** 3/4
2		**slotted bit screwdriver bits, PZ** 3/4
6		**TX® bit screwdriver bits,** T 40/45/50/55/60/70
6		**TX® bit screwdriver bits with hole,** T 40H/45H/50H/55H/60H/70H
10		**hex socket wrench inserts,** length 28 mm, Sizes 10/11/12/13/14/15/16/17 (length 30 mm)/18 (length 30 mm)/19 mm (length 30 mm)
6		**hex socket wrench inserts, long,** length 63 mm, Sizes 10/11/12/13/14/15 mm
1		**hex spark plug insert, long,** length 66 mm, Size 18 mm
6		**TX® socket wrench inserts,** length 28 mm, E 10/11/12/14/16/18
1		**fine tooth reversible ratchet,** 198 mm
1		**extension,** 125 mm
1		**universal joint,** 56 mm
1		**bit adapter,** 5/16 inch hex x 3/8 inch square, 30 mm
17		**hex socket wrench inserts,** length 38 mm, Sizes 10/11/12/13/14/15/16/17/18/19/20/21/22/24/ 27 (length 42 mm)/30 (length 44 mm)/32 mm (length 44 mm)
5		**hex socket wrench inserts, long,** length 77 mm, Sizes 16/17/18/19/22 mm
2		**hex spark plug inserts,** length 66 mm, Sizes 16/21 mm
2		**TX® screwdriver bits,** length 38 mm, E 20/22
1		**fine tooth reversible ratchet,** 250 mm
2		**extensions,** 125 mm/250 mm
1		**sliding piece,** 1/2 inch square x 3/8 inch square
1		**universal joint,** 75 mm
1		**adapter,** 5/16 inch hex x 1/2 inch square

59362 Hexagon socket wrench set



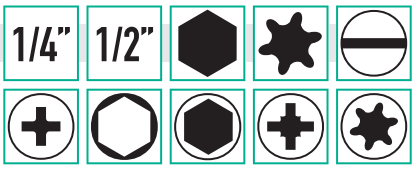
Design
- Robust plastic case protects tool from dirt
- All tools are securely held in a plastic insert
- Plastic insert prevents tools from falling out and any missing tools are noticed immediately
- Includes 3 fine-tooth reversible ratchets 1/4, 3/8, 1/2 inch
- All ratchets have 72 teeth and a rotation angle of 5°
- Ergonomic shape of the ratchet allows work even in confined spaces
- Plastic coating provides approximately 33% weight saving compared to conventional reversible ratchets
- The release button is used to release the socket wrench insert easily
- Complete professional set including all important actuating tools, extensions, swivel joints, adapter, drive handle, etc.

59362 202

Set contents	Design	59362	...
212 pieces	in plastic case		202

		Set contents 59362 202
	12	**combination spanners,** Sizes 8/9/10/11/12/13/14/15/16/17/18/19/22 mm
1/4"	13	**hex socket wrench inserts,** length 25 mm, Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14 mm
	7	**hex socket wrench inserts,** long, length 50 mm, Sizes 4/5/6/7/8/9/10 mm
	5	**TX® socket wrench inserts,** length 24.8 mm, E 4/5/6/7/8
	4	**hexagon socket screwdriver bits,** length 38 mm, Sizes 3/4/5/6 mm
	4	**slotted screwdriver bits,** length 38 mm, Sizes 0.8 x 4/1 x 5.5/1.2 x 6.5/1.2 x 7 mm
	3	**Phillips screwdriver bits,** length 38 mm, **PH** 0/1/2
	3	**Phillips screwdriver bits,** length 38 mm, **PZ** 0/1/2
	8	**TX® screwdriver bits,** length 37 mm, T 8/9/10/15/20/25/27/30
	8	**TX® screwdriver bits with hole,** length 37 mm, T 8H/9H (length 38 mm)/10H/15H/20H/25H/27H/30H
	1	**fine tooth reversible ratchet,** 150 mm
	2	**extensions,** 50 mm/100 mm
	2	**drive handles,** 150 mm/205 mm
	1	**slide handle,** 110 mm
	1	**universal joint,** 40 mm
	1	**adapter,** 1/4 inch hex x 1/4 inch square, 30 mm
	7	**Allen keys,** Sizes 1.27/1.5/2/2.5/3/4/5 mm
	6	**hexagon socket bit inserts with pin,** Sizes 2/2.5/3/4/5/6 mm
	4	**square socket bit inserts,** Sizes 0/1/2/3 mm
	3	**TX® sockets,** T 5/6/7
	9	**TX® sockets with hole,** T 7H/10H/15H/20H/25H/27H/30H/40H/45H
	5	**HexPlus bit inserts,** R 5/6/7/8/9
	3	**triple square bit inserts,** M 5/6/8
	3	**open-end bit inserts,** Sizes 6/8/10 mm
	3	**butterfly bit inserts,** # 1/2/3
	4	**TRI-WING® bit inserts,** # 1/2/3/4
	4	**TORQ® set bit inserts,** # 4/6/8/10
5/16"	4	**hexagon socket screwdriver bits** Sizes 7/8/10/12 mm
	3	**slotted bit screwdriver bits,** Sizes 8/10/12 mm
	3	**slotted bit screwdriver bits, PH** 2/3/4
	3	**slotted bit screwdriver bits, PZ** 2/3/4
	5	**TX® bit screwdriver bits,** T 40/45/50/55/60
	5	**TX® bit screwdriver bits with hole,** T 40H/45H/50H/55H/60H
	4	**HexPlus bit screwdriver bits,** R 10/11/12/13
	2	**triple square bit screwdriver bits,** M 10/12
	1	**bit screwdriver bit,** Size 50 mm
3/8"	10	**hex socket wrench inserts,** length 28 mm, Sizes 10/11/12/13/14/15/16/17 (length 30 mm)/18 (length 30 mm)/19 mm (length 30 mm)
	6	**hex socket wrench inserts,** long, length 63 mm, Sizes 10/11/12/13/14/15 mm
	6	**TX® socket wrench inserts,** length 28 mm, E 10/11/12/14/16/18
	1	**fine tooth reversible ratchet,** 198 mm
	1	**extension,** 125 mm
	2	**universal joints,** 30 mm/56 mm
	1	**adapter,** 5/16 inch hex x 1/4 inch square, 30 mm
1/2"	14	**hex socket wrench inserts,** length 38 mm, Sizes 13/14/15/16/17/18/19/20/21/22/24/ 27 (length 42 mm)/30 (length 44 mm)/32 mm (length 44 mm)
	5	**hex socket wrench inserts,** long, length 77 mm, Sizes 16/17/18/19/22 mm
	3	**TX® screwdriver bits,** length 38 mm, E 20/22/24
	1	**fine tooth reversible ratchet,** 250 mm
	2	**extensions,** 125 mm/250 mm
	1	**sliding piece,** 1/2 inch square x 3/8 inch square
	1	**universal joint,** 75 mm
	1	**adapter,** 5/16 inch hex x 1/2 inch square

59362 Universal tool case



Design
- Robust plastic case protects tool from dirt
- All tools are securely held in a plastic insert
- Plastic insert prevents tools from falling out and any missing tools are noticed immediately
- Includes 2 fine-toothed reversible ratchets 1/4, 1/2 inch
- All ratchets have 72 teeth and a rotation angle of 5°
- Ergonomic shape of the ratchet allows work even in confined spaces
- Plastic coating provides approximately 33% weight saving compared to conventional reversible ratchets
- The release button is used to release the socket wrench insert easily

59362 203

Set contents	Design	59362	...
95 pieces	in plastic case		203

		Set contents 59362 203
	12	**combination spanners,** Sizes 8/9/10/11/12/13/14/15/16/17/18/19 mm
⬢	9	**hex Allen keys (set in the clip),** 1.5/2/2.5/3/4/5/6/8/10 mm
✱	9	**TX® Allen keys (set in the clip),** T 10/15/20/25/27/30/40/45/50
⊖	4	**screwdrivers for slotted screws,** 3 x 75/4 x 80/5.5 x 125/6.5 x 150 mm
⊕	3	**screwdrivers for Phillips-head screws, PH** 0 x 75/1 x 80/2 x 100 mm
	1	**round pan pliers,** length 200 mm
	1	**side cutters,** length 160 mm
	1	**machinist's hammer,** 300 g, length 300 mm
	1	**universal knife**
¼" ○	12	**hexagon socket wrench inserts,** Sizes 4/4.5/5/5.5/6/7/8/9/10/11/12/13 mm
◉	4	**hexagon socket screwdriver bits,** Sizes 3/4/5/6 mm
⊖	3	**slotted screwdriver bits,** 0.8 x 4/1 x 5.5/1.2 x 6.5 mm
⊕	3	**Phillips screwdriver bits, PH** 1/2 3
⊕	3	**Phillips screwdriver bits, PZ** 1/2 3
✱	7	**TX® screwdriver bits,** T 10/15/20/25/27/30/40
	1	**fine tooth reversible ratchet,** 150 mm
	1	**extension,** 100 mm
	1	**cardan joint,** 40 mm
½" ○	16	**hex socket wrench inserts,** Sizes 10/11/12/13/14/15/16/17/19/20/21/22/24/27/30/32 mm
	1	**fine tooth reversible ratchet,** 250 mm
	1	**extension,** 125 mm
	1	**cardan joint,** 75 mm

51374 Connector strip, magnetic (empty)

1/2"

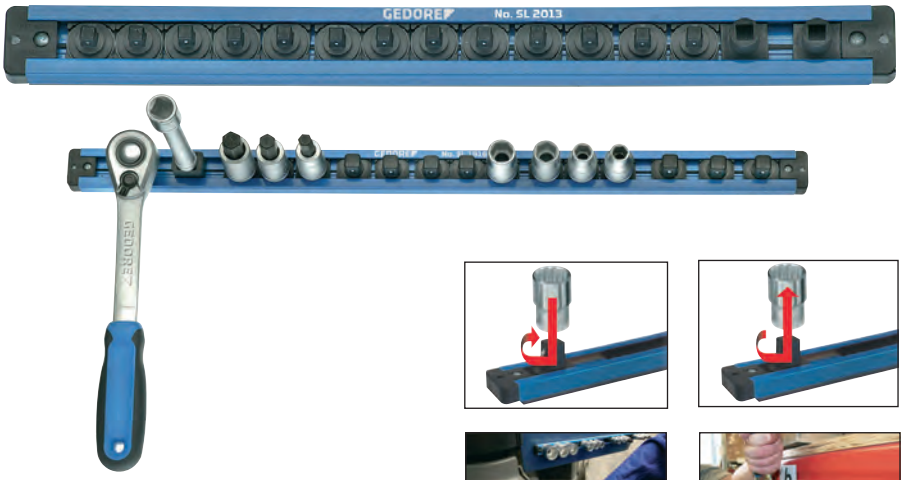
GEDORE

Design

Square drives suitable for socket wrench inserts nominal size 12.5 (1/2 inch). **2 additional square drive adapters for ratchets, sliding handles, extensions etc.** Strong magnet allows secure attachment of the strip to metal objects. Additional holes in the strip allow mounting on non-metallic objects and walls.

By turning through 90°, the inserts on the square are securely locked by the ball.
Turning by 90° in the opposite direction unlocks the inserts so they can be removed.
Supplied without tools.

51374



For inserts Units	Length mm	Width mm	Weight g		51374	...
16	580	33	550			101

51375 - 51379 Hexagon socket wrench inserts DIN 3124/ISO 2725

1/2"

Design
- Chromium-plated
- Die-forged

Quality
Chromium-vanadium steel.

51375
ATORN®
- With side hole
- With energy profile

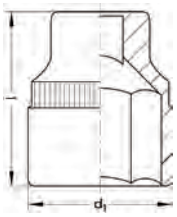
51377
GEDORE
- With UD profile

Quality
31 Cr V3.

51378
STAHLWILLE
- With AS drive profile

Quality
HPQ steel.

51379
HAZET
- With traction profile



51375

51377

51378

51379

Sizes mm	l approx. mm	d_1 approx. mm	ATORN® 51375	...	GEDORE 51377	...	STAHLWILLE 51378	...	HAZET 51379	...
8	36	13.0		201				101		101
9	36	14.0		202				102		102
10	38	15.0		203		103		103		103
11	38	16.5		204		104		104		104
12	38	18.0		205		105		105		105
13	38	19.0		206		106		106		106
14	38	20.5		207		107		107		107
15	38	21.5		208		108		108		108
16	38	22.5		209		109		109		109
17	38	24.0		210		110		110		110
18	38	25.5		211		111		111		111
19	38	26.5		212		112		112		112
20	38	28.0		213		113		113		113
21	38	29.0		214		114		114		114
22	41	30.5		215		115		115		115
23	41	31.5		216		116		116		116
24	41	33.0		217		117		117		117
25	41	34.0				118				118
26	41	35.5		219		119				119
27	44	36.5		220		120				120
28	44	38.0		221		121				121
29	44	39.0								122
30	44	40.5		223		123				123
32	45	42.5		225		125				125
34	45	45.5				126				126
36	44.5	48.0				127				127

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

1/2"

TAKE IT EASY TOOL FINDER

Wera

51381 400 - 401
Design
- With **Take it Easy tool finder:** Colour coding by size
- With holding function to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece

Applications
For manual and machine operation (non impact).
Quality
In brushed chromium-plated vanadium.

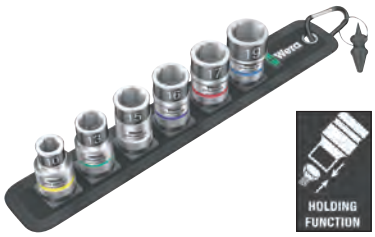
51381 400
Design
- Set comprising 10 pieces
- Compact and highly robust fabric box, low weight, low volume
- Knurling at the rear end for strong grip during manual operation

51381 400

HOLDING FUNCTION

51381 401
Design
- Set comprising 6 pieces
- Nut set on a robust textile belt
- Smooth rotary mechanism ensures both secure and rattle-free storage as well as easy removal of the tool
- The fleece backing and adhesive strip enable the textile belt to be attached to a wall, shelf, workshop trolley and the Wera 2go tool transport system, for example
- The robust textile belt can be fixed to belt loops or pockets using the snap hook
- The nut removal tool makes it easy to remove screw nuts from socket wrench inserts with the holding function

51381 401



HOLDING FUNCTION

Hand tools

Contents	Set contents Sizes		Design	Set 51381	...
10 pieces	10/11/12/13/14/15/16/17/18/19	with holding function	in fabric bag		400
6 pieces	10/13/15/16/17/19	with holding function	in a robust textile belt		401 NEW

Safe and easy removal
The new smooth rotary mechanism ensures both secure and rattle-free storage as well as easy removal of the tool.

Socket wrench insert with holding function for hexagon head screws
The hexagon head screw in held securely in the socket wrench insert by two spring-loaded balls and permanently elastic, high-strength heat-shrink tubing. This is protected effectively against mechanical damage by a front steel band. Especially useful in hard-to-reach areas where you cannot use your other hand to hold the screw.

without holding function

Sizes mm	l mm	d_1 mm	51381	...
10	37	15.5		201
11	37	16.5		202
12	37	17.5		203
13	37	19.0		204
14	37	20.0		205
15	37	21.0		206
16	37	22.5		207
17	37	24.0		208
18	37	25.0		209
19	37	26.5		210

with holding function

Sizes mm	l mm	d_1 mm	51381	...
10	37	17.8		301
11	37	18.8		302
12	37	20.4		303
13	37	21.4		304
14	37	22.6		305
15	37	23.6		306
16	37	25.0		307
17	37	26.8		308
18	37	28.0		309
19	37	29.2		310

51381 201-210 + 301-310
Design
- With ball-securing groove
- Knurling at the rear end for strong grip during manual operation
- With **Take it Easy tool finder:** Colour coding by size

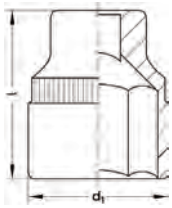
Applications
For manual and machine operation (non impact).
For hexagon head screws and nuts.
Quality
In brushed chromium-plated vanadium.

51381 201-210
Design
- Without holding function

51381 301-310
Design
- With holding function to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece

51381 201-210

51381 301-310



51394 - 51396 Bi-hexagon socket wrench inserts DIN 3124/ISO 2725

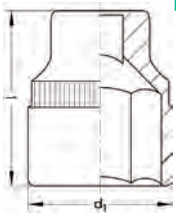
1/2"

Design
Chrome-plated, die-forged.

51394
GEDORE
With UD profile.
Quality
31 Cr V3.

51395
STAHLWILLE
With AS drive profile.
Quality
HPQ steel.

51396
HAZET
With traction profile
Quality
Chromium-vanadium steel.



51394

51395

51396

Sizes	l	d_1	GEDORE 51394	...	STAHLWILLE 51395	...	HAZET 51396	...
mm	approx. mm	approx. mm						
8	38.0	13.0					101	101
9	38.0	14.0					102	102
10	38.0	15.5		103			103	103
11	38.0	16.5		104			104	104
12	38.0	18.0		105			105	105
13	38.0	19.0		106				106
14	38.0	20.5		107			107	107
15	38.0	21.5		108			108	108
16	38.0	22.5		109			109	109
17	38.0	24.0		110			110	110
18	38.0	25.5		111			111	111
19	38.0	26.5		112			112	112

Sizes	l	d_1	GEDORE 51394	...	STAHLWILLE 51395	...	HAZET 51396	...
mm	approx. mm	approx. mm						
20	38.0	28.0				113		113
21	38.0	29.0		114		114		114
22	41.5	30.5		115		115		115
23	41.5	31.5						116
24	41.5	33.0		117		117		117
25	41.5	34.0						118
26	41.5	35.5						119
27	44.0	36.5		120		120		120
28	44.0	38.0						121
30	44.0	40.5		123		123		123
32	44.0	42.5		125		125		125
34	44.0	45.0				126		126

51401 - 51405 Long bi-hex socket wrench inserts DIN 3124/ISO 2725

1/2"

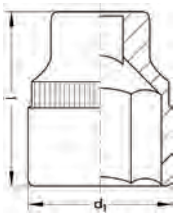
Design
Long, chrome-plated, die-forged and polished.
Applications
For deep-seated screws and protruding pins.
Quality
Chromium-vanadium steel.

51401
ATORN®
With energy profile.
Note:
End no. 112 hex spark plugs insert with rubber insert for spark plugs.

51402
GEDORE
With UD profile.

51403
STAHLWILLE
With AS drive profile.
Quality
HPQ steel.

51405
HAZET
With traction profile
Note:
End no. 109 with rubber insert for spark plugs.



51401

51402

51403

51405

Sizes	l	d_1	ATORN 51401	...	GEDORE 51402	...	STAHLWILLE 51403	...	HAZET 51405	...
mm	mm	approx. mm								
10	82	15.5		101		101				101
11	82	16.5		102						117
12	82	17.5		103						102
13	82	19.0		104		103		103		103
14	82	20.0		105		104		104		104
15	82	21.5		106						118
16	82	23.0		107		105		106		105
17	82	24.0		108		106		108		106
18	82	24.5		109		107		109		107
19	82	27.0		110		108		110		108
20	82	28.0		111						
20.8	82	28.5								109
21	65	27.7		112						
21	82	28.5		113		110		113		110
22	82	30.0		114		111		114		111
23	82	31.5		115						
24	82	32.5		116		112		115		112
26	82	35.0		117						
27	82	36.5		118		113		117		113
30	82	40.0		119		114		119		114
32	82	43.0		120		115		120		
34	82	45.0				116				

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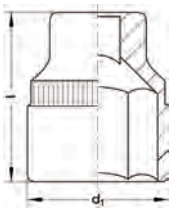
51409 Bi-hex socket wrench inserts (inch) DIN 3124/ISO 2725

1/2" DYNAMIC-DRIVE™

BAHCO

Design
American inch sizes. With dynamic drive profile.
Nickel and chrome plated, mirror polished.

Quality
Chromo extra.



51409

Width Inch	l mm	d_1 mm	51409 ...
3/8	38	14.5	101
7/16	38	16.6	102
1/2	38	18.8	103
9/16	38	20.8	104
19/32	38	21.6	105
5/8	38	22.9	106
11/16	38	24.7	107
3/4	38	26.6	108
25/32	38	27.9	109

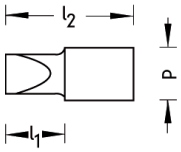
Sizes Inch	l mm	d_1 mm	51409 ...
13/16	39	28.7	110
7/8	39	30.7	111
15/16	41	32.7	112
1.	42	34.7	113
1.1/16	44	36.6	114
1.1/8	46	38.6	115
1.3/16	47	40.4	116
1.1/4	47	42.3	117

51410 Screwdriver bits

1/2"

ATORN®

Design
Chrome-plated, bronzed blades.
Quality
Vanadium special steel.



51410 102-106

51410 201-203

51410 301-303

Blade thickness x width mm	Size PH	Size PZ	l_1 approx. mm	l_2 approx. mm	d approx. mm	51410 ...
⊖ 1.2 x 8			22	60	22.5	102
⊖ 1.6 x 10			22	60	22.5	104
⊖ 2.0 x 12			22	60	22.5	105
⊖ 2.5 x 14			20	60	22.5	106
	⊕ PH 2		22	60	22.5	201
	⊕ PH 3		22	60	22.5	202
	⊕ PH 4		22	60	22.5	203
		⊕ PZ 2	22	60	22.5	301
		⊕ PZ 3	22	60	22.5	302
		⊕ PZ 4	22	60	22.5	303

51414 Hexagon screwdriver set

1/2"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

51414

Set contents	
⬢ 9	**inserts for hexagon socket screws** Sizes 5/6/7/8/9/10/12/14/17 mm

Set contents	Design	51414 ...
9 pieces	in a sheet steel box with foam insert	101

51415 - 51416 Hexagon screwdriver sets

1/2"

GEDORE
WERKZEUGE FÜRS LEBEN

Quality
Vanadium special steel.

51415

Art. no.			Kit contents
51415 101	⬢	9	Sizes 5/6/7/8/9/10/12/14/17 mm
51416 101	⬢	9	Sizes 3/16/7/32/1/4/9/32/5/16/3/8/1/2/9/16/5/8 inch

Kit contents	Design	mm 51415 ...	inch 51416 ...
9 pieces	in a sheet steel box	101	101

51419 Hexagon screwdriver set

1/2"

ATORN®

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steed.

51419

		Set contents
⬢	9	**inserts for hexagon socket screws** Sizes 5/6/7/8/9/10/12/14/17 mm
	1	**lever reversible ratchet, with 2-component handle** 255 mm
	1	**extension** 250 mm

Set contents	Design	51419	...
11 pieces	in a sheet steel box with foam insert		101

51420 Hexagon screwdriver set

1/2"

HAZET

Quality
Chromium-vanadium steel.

51420

		Set contents
⬢	8	**inserts** Sizes 5/6/8/10/12/14/17/19 mm
	1	**reversible ratchet**
	1	**handle** with sliding piece
	2	**extensions** 123/248 mm

Set contents	Design	51420	...
12 pieces	in metal case		101

51424 - 51428 Hexagon screwdriver bits

1/2"

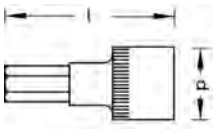
Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51424
ATORN®

51426
GEDORE

51427
STAHLWILLE
Quality
Chrome alloy steel.

51428
HAZET
CVD-TiN-coated blade.



Sizes	ATORN l	GEDORE l	STAHLWILLE l	HAZET l	ATORN d	ATORN 51424 ...	GEDORE 51426 ...	STAHLWILLE 51427 ...	HAZET 51428 ...
mm	mm	mm	mm	mm	approx. mm				
4	57	-	60	60	22.5	101		101	101
5	57	60	60	60	22.5	102	102	102	102
L 5	-	180	120	180	22.5		104	104	104
6	57	60	60	60	22.5	105	105	105	105
L 6	-	140	120	137	22.5		107	107	107
7	57	60	60	60	22.5	109	109	109	109
L 7	-	-	120	100	22.5			110	110
8	57	60	60	60	22.5	111	111	111	111
L 8	-	120	120	119	22.5		113	113	113
10	57	60	60	60	23.0	115	115	115	115
L 10	-	140	140	141	23.0		116	116	116
12	57	60	60	60	23.5	118	118	118	118
L 12	-	-	140	-	23.5			119	
14	57	60	60	60	25.0	120	120	120	120
L 14	-	-	140	-	23.5			121	
17	57	60	60	60	28.0	122	122	122	122
19	57	60	60	60	30.0	124	123	123	123

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51433 Zyklop hexagon screwdriver bits

1/2" | TAKE IT EASY TOOL FINDER | HOLDING FUNCTION

Wera

51433 300
Design
- With ball catch groove
- Knurling at the rear end for strong grip during manual operation
- **With holding function** to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece
- With **Take it Easy** tool finder colour coding by size – to help you identify the tool you need quickly and easily
- In a robust, foldable fabric bag for safe storage

Applications
For hexagon socket screws. For manual and machine operation (non impact).
Quality
Brushed chromium-plated vanadium.

51433 301
Design
- Robust textile belt in the typical Wera design with 6 hex screwdriver bits in a compact space
- **With holding function** to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece
- With **Take it easy** tool finder colour coding by size
- Especially short, stable bit nuts with the benefits of Wera bit technology
- Snap hook for attaching to belt loops or pockets
- Smooth rotation mechanism ensures the secure fit and easy removal of nuts
- With fleece backing and adhesive strip for easy attachment to a wall, shelf, workshop trolley and the Wera 2go tool transport system, for example

Applications
For hexagon socket screws. For manual and machine operation (non impact).
Quality
Brushed chromium-plated vanadium.

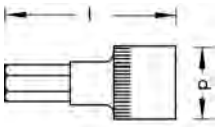
51433 300

51433 301

Secure hold and easy removal
The new smooth rotary mechanism ensures both secure and rattle-free storage as well as easy removal of the tool.

Contents	Set contents Sizes mm	l mm	Design	Set 51433	...
9 pieces	4/5/6/7/8/10/12/14/17	60	in fabric bag		300
6 pieces	4/5/6/7/8/10	60	in a robust textile belt		301 NEW

51433 101-110



51433 201-206

Sizes mm	l mm	d mm	Short 51433	...
4	60	23.5		101
5	60	23.5		102
6	60	23.5		103
7	60	23.5		104
8	60	23.5		105
10	60	23.5		106
12	60	23.5		107
14	60	23.5		108
17	60	23.5		109
19	60	23.5		110

Sizes mm	l mm	d mm	Long 51433	...
4	140	23.5		201
5	140	23.5		202
6	140	23.5		203
7	140	23.5		204
8	140	23.5		205
10	140	23.5		206

51431 - 51432 Long hex ball-head screwdriver bits

1/2"

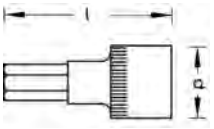
51431
GEDORE
Design
With ball retaining groove and handy circumferential knurls. Sleeve chrome plated, bronzed blade.
Applications
Total swivel angle of approx. 15–20°.
Quality
Tip made from vanadium special steel.

51432
HAZET
Design
Chrome-plated sleeve, CVD-TiN coated blade.
Applications
For bolted connections in a confined space, swivel angle of 25°.
Quality
Chromium-vanadium steel, special steel blade.

51431

51432

Sizes mm	l mm	GEDORE 51431	...	HAZET 51432	...
5	140				101
6	140		101		102
7	140		102		103
8	140		103		104
10	140		104		105
12	140		105		106



TX® screwdriver bits

51444 - 51447 TX® screwdriver bits

1/2"

Design
Chrome-plated, die-forged, bronzed blade.
Applications
For internal TX® screws.
Quality
Chromium-vanadium steel.

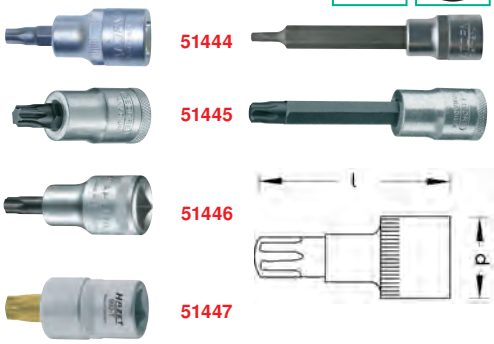
Note:
TX® profile gauge, see art. no. 37930.

51444
ATORN®

51445
GEDORE

51446
STAHLWILLE
Quality
Chrome alloy steel.

51447
HAZET
CVD-TiN-coated blade.



Size T	l approx. mm	d approx. mm	ATORN 51444 ...	GEDORE 51445 ...	STAHLWILLE 51446 ...	HAZET 51447 ...
20	55	23	101	101	101	101
L 20	100	23	102	102		
25	55	23	103	103	103	103
L 25	100	23	104	104		
27	55	23	105	105	105	105
L 27	100	23	106	106		
30	55	23	107	107	107	107
L 30	100	23	108	108		
40	55	23	109	109	109	109
L 40	100	23	110	110		
45	55	23	111	111	111	111
L 45	100	23	112	112		
50	55	23	113	113	113	113
L 50	100	23	114	114		
55	55	24.6	115	115	115	115
L 55	100	23	116	116		
60	55	24.6	117	117	117	117
L 60	100	23	118	118		
70	60	25.7			119	

51449 Zyklop-TX® screwdriver bits

1/2"

TAKE IT EASY TOOL FINDER

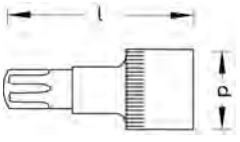
HOLDING FUNCTION

Wera
Be a Tool Rebel

Design
- With ball-securing groove
- Knurling at the rear end for strong grip during manual operation
- **With holding function** to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece
- With **Take it easy** tool finder colour coding by size – to help you identify the tool you need quickly and easily.

Applications
For internal TX® screws.
For manual and machine operation (non impact).
Quality
Brushed chromium-plated vanadium.

Note:
TX® profile gauge, see art. no. 37930.



51449 100-109

Short

Size T	l mm	d mm	51449 ...
20	60	23.5	100
25	60	23.5	102
27	60	23.5	103
30	60	23.5	104
40	60	23.5	105
45	60	23.5	106
50	60	23.5	107
55	60	23.5	108
60	60	23.5	109

51449 201-209

Long

Size T	l mm	d mm	51449 ...
20	140	23.5	201
25	140	23.5	202
27	140	23.5	203
30	140	23.5	204
40	140	23.5	205
45	140	23.5	206
50	140	23.5	207
55	140	23.5	208
60	140	23.5	209

51451 ResisTORX® screwdriver bits

1/2"

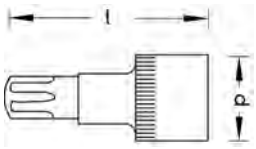
HAZET

Design
Chrome-plated sleeve, CVD-TiN coated blade.
Applications
For internal TX® screws **with pin.**

Quality
Chromium-vanadium steel, special steel blade.

Note:
TX® profile gauge, see art. no. 37930.

51451



Size T	l mm	d mm	51451 ...
30	55	23	101
40	55	23	102
45	55	23	103
50	55	23	104
55	56	23	105

51455 TX® set

1/2"

GEDORE
WERKZEUGE FÜRS LEBEN

Applications
For internal **and** external TX® screws.

Quality
Vanadium 31CrV3.

Note:
TX® profile gauge, see art. no. 37930.

51455

Set contents	
9	**inserts for internal TX® screws** T20/25/27/30/40/45/50/55/60
8	**inserts for external TX® screws** E10/11/12/14/16/18/20/24

Set contents	Design	51455 ...
17 pieces	in a sheet steel box	301

51436 - 51437 TX® screwdriver sets

1/2"

GEDORE
WERKZEUGE FÜRS LEBEN

Applications
For internal TX® screws.

Quality
Vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.

51436

51437

Art. no.		Kit contents
51436 101	9	short format (55 mm): T 20/25/27/30/40/45/50/55/60
51437 101	18	1 of each x short (55 mm) and long (100 mm) format: T 20/25/27/30/40/45/50/55/60

Set contents	Design	51436 ...	51437 ...
9 pieces	in a sheet steel box	101	
18 pieces	in a sheet steel box		101

51441 TX® screwdriver set

1/4" 3/8" 1/2"

HAZET

Design
In SmartCase 185 x 153 x 52 mm. In safety insert system, 2-component soft foam insert.
Applications
For internal TX® screws.

Quality
Chromium-vanadium steel.
CVD-TiN-coated blades.

Note:
TX® profile gauge, see art. no. 37930.

51441

Set contents	
3	**inserts 1/4-inch** T 8/T 10/T 15
3	**inserts 3/8-inch** T 20/T 25/T 30
4	**inserts 1/2-inch** T 40/T 50/T 55/T 60

Set contents	Design	51441 ...
10 pieces	in SmartCase with soft foam insert	101

51456 Zyklop-TX® screwdriver bits

1/2" | TAKE IT EASY TOOL FINDER | HOLDING FUNCTION

51456 100

Design
- 9 pieces, in surface-protecting, compact and highly robust fabric box
- Adhesive area for convenient mounting on walls, shelves, workshop trolley etc.
- Incl. hook and loop strips with adhesive backing
- Low volume and weight for ease of mobility
- **With holding function** to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece
- With **Take it easy** tool finder colour coding by size – to help you identify the tool you need quickly and easily.
- In a robust, foldable fabric bag for safe storage

Applications
For internal TX® screws.

Quality
Brushed chromium-plated vanadium.

Note:
TX® profile gauge, see art. no. 37930.

51456 101

Design
- 6 pieces, robust textile belt in the typical Wera design with 6 Zyklop TX® screwdriver bits in a compact space
- **With holding function** to facilitate screwing by reducing the risk of dropping and losing the screw when positioning it into the workpiece
- With **Take it easy** tool finder colour coding by size
- Especially short, stable bit nuts with the benefits of Wera bit technology
- Snap hook for attaching to belt loops or pockets
- Smooth rotation mechanism ensures the secure fit and easy removal of nuts
- With fleece backing and adhesive strip for easy attachment to a wall, shelf, workshop trolley and the Wera 2go tool transport system, for example

Applications
For internal TX® screws.

Quality
Brushed chromium-plated vanadium.

51456 100

51456 101

Safe and easy removal
The new smooth rotary mechanism ensures both secure and rattle-free storage as well as easy removal of the tool.

Set contents	Size T	Design	51456	...
9 pieces	20/25/27/30/40/45/50/55/60	in fabric bag		100
6 pieces	25/30/40/45/50/55	in a robust textile belt		101 NEW

51450 TX® set

1/2"

Design
All tools are packed tightly so they cannot move around.

Quality
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

51450

	Set contents
9	**inserts for internal TX® screws** T 20/25/27/30/40/45/50/55/60
9	**inserts for external TX® screws** E 10/11/12/14/16/18/20/22/24
1	**lever reversible ratchet, with 2-component handle** 255 mm
2	**extensions** 125/250 mm

Set contents	Design	51450	...
21 pieces	in a sheet steel box with foam insert		101

51457 TX® socket wrench set

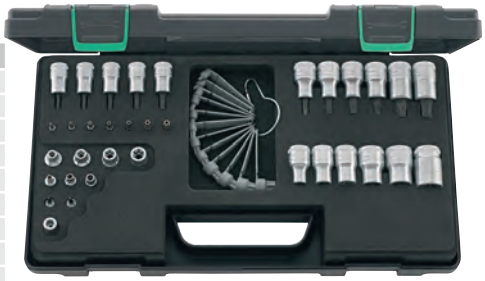
1/4" 3/8" 1/2"

STAHLWILLE

Design
Chrome-plated.

Quality
Chrome alloy steel.
Note:
TX® profile gauge, see art. no. 37930.

51457



		Set contents
1/4"	2	**inserts for internal TX® screws** T8/9
	3	**inserts for external TX® screws** E4/5/6
	7	**TX® bits with bore** T10/15/20/25/27/30/40
3/8"	5	**inserts for internal TX® screws** T10/15/20/25/27
	4	**inserts for external TX® screws** E7/8/10/12
	1	**bit holder** with hexagon socket 1/4 inch
1/4"	6	**inserts for internal TX® screws** T30/40/45/50/55/60
	6	**inserts for external TX® screws** E11/14/16/18/20/24
	1	**TX® guide** for internal TX® screws T10–60 and external TX® screws E6–16

Set contents	Design	51457	...
35 pieces	in a robust, stackable ABS plastic box		301

51458 TX® screw tool set

1/4" 5/16" 3/8" 1/2"

HAZET

Design
In SmartCase 355 x 235 x 65 mm. In safety insert system, 2-component soft foam insert.

Quality
Chromium-vanadium steel.
Note:
TX® profile gauge, see art. no. 37930.

51458

		Set contents
	4	**box wrenches for external TX® screws** E6 x 8/10 x 12/14 x 18/20 x 24
	1	**connecting piece** ⬢ 5/16 inch x ■ 3/8 inch
	1	**connecting piece** ⬢ 5/16 inch x ■ 1/2 inch
	1	**connecting piece** ⬢ 1/4 inch x ■ 1/4 inch
1/4"	4	**socket wrench inserts for external TX® screws** E5/6/7/8
	7	**bits for internal TX® screws** T 10/20/25/27/30 (length 26 mm) T 25 (length 65 mm) T 30 with hole (length 26 mm)
5/16"	3	**bits for internal TX® screws** T40/45/50
3/8"	3	**socket wrench inserts for external TX® screws** E10/12/14
1/2"	3	**socket wrench inserts for external TX® screws** E10/12/14
	2	**screwdriver bits for internal TX® screws** T55/60

Set contents	Design	51458	...
29 pieces	in SmartCase with soft foam insert		101

51459 TX® screw tool set

1/4" 3/8" 1/2"

HAZET

Design
In SmartCase 355 x 235 x 65 mm. In safety insert system, 2-component soft foam insert.

Quality
Chromium-vanadium steel.
Note:
TX® profile gauge, see art. no. 37930.

51459

		Set contents
	4	**box wrenches for external TX® screws** E 6 x 8/10 x 12/14 x 18/20 x 24
	10	**screwdrivers for internal TX® screws** T 6/7/8/9/10/15/20/25/27/30
	11	**Allen keys for internal TX® screws** T 6/7/8/9/10/15/20/25/27/30/40
1/4"	5	**socket wrench inserts for external TX® screws** E 4/5/6/7/8
	12	**ResisTORX®** bits **with hole** 26 mm (T 6 without hole) T 6/7/8/9/10/15/20/25/25 (110 mm)/27/30/40
	1	**connecting piece** ⬢ 1/4 inch on ■ 1/4 inch
	1	**connecting piece** ⬢ 1/4 inch on ■ 3/8 inch
	1	**bit reversible ratchet** 115 mm (20 teeth)
3/8"	4	**socket wrench inserts for external TX® screws** E 10/11/12/14
	2	**screwdriver bits for internal TX® screws** T 40/45
1/2"	4	**socket wrench inserts for external TX® screws** E 16/18/20/24
	3	**screwdriver bits for internal TX® screws** T 50/55/60

Set contents	Design	51459	...
58 pieces	in SmartCase with soft foam insert		101

51463 TX® socket wrench set

1/4" 3/8" 1/2"

HAZET

Design
In SmartCase 185 x 153 x 52 mm. In safety insert system, 2-component soft foam insert.
Applications
For external TX® screws.

Quality
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

Set contents	
3	**1/4 inch inserts,** E 4/E 5/E 6
3	**3/8 inch inserts,** E 8/E 10/E 12
3	**1/2 inch inserts,** E 14/E 18/E 20

Set contents	Design	51463	...
9 pieces	in SmartCase with soft foam insert		301

51465 - 51473 TX® socket wrench inserts

1/2"

Applications
For external TX® screws.

Note:
TX® profile gauge, see art. no. 37930.

51465
ATORN®

51473
HAZET

Design
Chrome-plated, polished.
Quality
Chromium-vanadium steel.

Size E	Length mm	ATORN® 51465	...	HAZET 51473	...
10	38.0		101		301
11	38.0		102		302
12	38.0		103		303
14	38.0		104		304
16	38.0		105		305

Size E	Length mm	ATORN® 51465	...	HAZET 51473	...
18	38.0		106		306
20	38.0		107		307
22	38.0		108		
24	38.0		109		
24	41.2				308

51476 XZN screwdriver set

1/2"

HAZET

Design
- Non-slip, knurled
- In SmartCase
- In safety insert system, 2-component soft foam insert

Applications
For triple square socket screws (XZN).
Quality
CVD-TiN coating for longer service life.

Set contents	
6	**XZN short inserts** M 8/10/12/14/16/18
2	**XZN long inserts** M 8/14
2	**XZN extra long inserts** M 10/12

Set contents	Design	51476	...
10 pieces	in SmartCase with soft foam insert		101

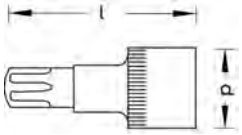
51480 XZN screwdriver bits

1/2"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Chrome-plated, bronzed blade.
Applications
Multipoint socket screws (Allen XZN).

Quality
Chromium-vanadium steel.



Size XZN	l mm	d mm	51480	...
5	55	23		301
6	55	23		302
L 6	100	23		303
8	55	23		304
L 8	100	23		305

Size XZN	l mm	d mm	51480	...
10	55	23		306
L 10	100	23		307
12	55	23		308
L 12	100	23		309

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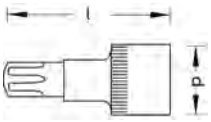
51484 RIBE CV screwdriver bits

1/2"

HAZET

Design
Chrome plated, die-forged CVD-TiN coated blade.

Applications
For internal wedge profile screws (RIBE CV).
Quality
Chromium-vanadium steel.



51484

Size RIBE CV	l mm	d mm	51484 ...
6	63	23	102
8	63	23	103
10	63	23	104

Size RIBE CV	l mm	d mm	51484 ...
12	63	23	105
14	63	24.6	106

51542 Plug-on ratchet

1/2"

STAHLWILLE

Design
Very solid construction, **can be switched between clockwise and anticlockwise rotation.**

Applications
Intended as ratchet attachment for the drive elements art. no. 51535–51541, but also as a ratchet for torque wrenches with 1/2 inch connecting square.

Quality
Chrome alloy steel, flake-proof with nickel plating.

51542

Total length mm	Ø mm	Number of teeth	51542 ...
67.5	40	20	101

51503 Reversible toothed ratchet DIN 3122/ISO 3315

1/2"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Fine-running and robust with double-pawl, **with push-through square.**

Quality
31 Cr V3.

51503 101

51503 102

51503 102
Push-through square

	Total length mm	51503 ...
Ratchet	270	101
Push-through square	38	102

51506 - 51510 Reversible ratchets DIN 3122/ISO 3315

1/2"

Design
Chrome-plated, extremely robust ratchets **with rotary knob for clockwise/anti-clockwise rotation** and ergonomic plastic handle.
Quality
Chromium-vanadium steel.

51506
GEDORE
WERKZEUGE FÜRS LEBEN
Finely toothed (72 teeth, 5° rotating angle), with ball lock.
Quality
31 Cr V3.

51507
STAHLWILLE
Finely toothed (60 teeth, 6° rotating angle).
Quality
Chrome alloy steel.

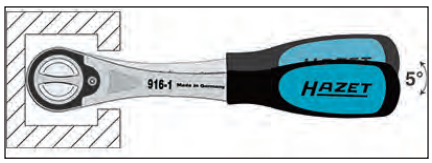
51508
HAZET
Finely toothed (72 teeth, 5° angle of rotation), allows even extremely obscured screwed connections to be manipulated. Large, reversal knob on the top makes it easier to reverse the ratchet. Deep-seated reversal knob protects against unintentional reversal. Coated fine-cast cover plate and reversal knob for tough operating conditions. Inductively hardened internal toothing ensures high stress resistance and long service life. Robust housing with forged, ergonomic handle. Anti-slip 2-component grip for optimal handling.

51510
FACOM
Extra long ratchet 400 mm.
Finely toothed (72 teeth, 5° rotating angle).
The contact surface makes it possible to press on the ratchet head, without having to use the switch. Fast switching with one-handed operation.

51506

51507

51508



51510

	GEDORE	STAHLWILLE	HAZET	FACOM
Total length mm	51506 ...	51507 ...	51508 ...	51510 ...
245				101
265			201	
270		101		
XL 400				102

Reversible ratchets

51515 - 51520 Reversible ratchets DIN 3122/ISO 3315

1/2"

Design
- Chromium-plated
- Extremely robust ratchet with switchable clockwise/anti-clockwise rotation
- Ergonomic plastic handle

Quality
Chromium-vanadium steel.

51515 201
ATORN®
- With lever reverse
- With quick release pushbutton
- Finely toothed
- 72 teeth
- Anti-slip 2-component handle with hanging hole

51517 101
GEDORE
- Particularly suitable for robust use in industry and for commercial vehicles
- Design in accordance with DIN 3122, ISO 3315
- With lowered reversing lever
- With pushbutton release
- 7.5° return angle
- Anti-slip 2-component handle with hanging hole
- Ratchet lock in centre position. When switching, the lever automatically locks in for clockwise or anticlockwise turning
- For hand-operated socket wrench inserts and connectors with square drive in accordance with DIN 3120 C– 12.5, ISO 1174, with ball lock

Quality
GEDORE vanadium steel 31CrV3, chrome-plated.

51518 101
STAHLWILLE
- With lever reverse
- 36 teeth

Quality
Chrome alloy steel.

51518 102
STAHLWILLE
- With lever reverse
- With QuickRelease safety lock
- With 2-component handle
- 80 teeth
- 6° working angle ideal for working in confined spaces

Quality
Chrome alloy steel.

51519 200
HAZET
- The lever snap-in function guards against accidental switching
- Use of the latest lubricants increases the service life
- Strict manufacturing tolerances guarantee protection against invasive contamination
- HAZET internal quality standards guarantee durability far beyond standard VPA tested, static torque in accordance with DIN 3122: 1000 Nm
- Chrome-plated surface is easy to clean, corrosion-resistant
- Integrated hanging option in the handle
- HAZET 2-component handle

Applications
- Angle of 4°/90 teeth allows use in the tightest spaces, for example, on engines, in mechanical engineering, agricultural vehicles and equipment, renewable energy (solar, wind turbines)

Quality
Chromium-vanadium steel.

51519 201
HAZET
- With lever reverse
- Polished
- 32 teeth

51519 202
HAZET
- With lever reverse
- Polished
- 32 teeth
- With safety connection
- With quick release pushbutton

51519 204
HAZET
- With lever reverse
- 32 teeth
- 12° angle of rotation
- Shank Ø 15 mm
- Minimal effort required thanks to longer lever
- Slip-proof 2-component handle

Applications
Particularly suitable for commercial vehicles and agricultural machines and industrial plants.

Quality
Hardened and tempered special steel.

51520 201
BAHCO
- With lever reverse
- Nickel-plated and chrome-plated
- Rounded and highly-polished surfaces without any sharp edges
- 80 teeth
- 4.5° return angle
- 2 claws that retain 7 teeth in contact with the gear at all times for maximum strength
- Exceeds the torque requirements pursuant to ISO and ASME
- With warm, comfortable 2-component handle, slip-resistant and with larger grip width.

Quality
Vanadium extra, precision forged and heat treated.

51519 200

51515

51517

51518 101

51518 102

51519 200

51519 201

51519 202

51519 204

51520 201

51519 202

51519 204

	ATORN		GEDORE		STAHLWILLE		HAZET		BAHCO	
Total length mm	51515	...	51517	...	51518	...	51519	...	51520	...
255		201								
265.5						101				
265.5						102				
270				101						201
275								200 NEW		
275								201		
275								202		
389								204		

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51512 Reversible ratchet DIN 3122/ISO 3315

1/2"

GEDORE

Design
With lever reverse.
Finely toothed, 6° angle of rotation, slip-resistant 2-component handle with hanging hole.
Ball locking mechanism, with pushbutton release.

Quality
Vanadium steel 31CrV3

51512

Total length mm	51512 ...
270	101

51522 One-handed reversible ratchet DIN 3120/ISO 1174

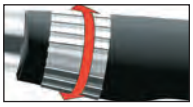
1/2"

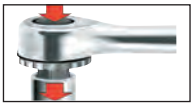
BAHCO

Design
Nickel and chrome plated, mirror polished. Smooth one-handed switching ring on the ratchet handle changes the direction of rotation with a short turn (clockwise/anti-clockwise). Integrated quick-action rotary disc on the square makes it easier to loosen and tighten screw connections. Unlocking device of the ball catch ensures easier and faster changing of socket wrench inserts at the push of a button without effort. **Small tooth pitch (60 teeth),** 6° return angle. Plastic handle with hanging hole.

Quality
Vanadium extra.

51522





Total length mm	51522 ...
260	301

51523 Removable reversible ratchet

1/2"

ATORN®

Design
- Ratcheting/clamping function
- Finely toothed, 72 teeth
- 5° return angle for confined spaces
- Anti-clockwise/clockwise direction switching using lever with pushbutton release

Applications
Lever reversible ratchet for manually operated socket wrench inserts and connectors.

Quality
Chromium-vanadium steel, matt chromium-plated.

NEW

51523

Adjustment range mm	51523 ...
305 - 445	301
457–600	302

51524 Removable reversible ratchet

1/2"

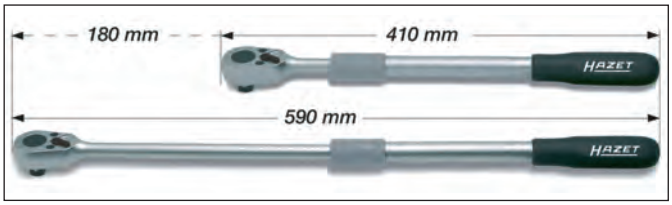
HAZET

Design
- Infinitely extendable from 410 to 590 mm
- Minimal effort required thanks to longer lever
- Maximum torque of 600 Nm
- Easy fixing with non-slip locking ring
- Ratchet wheel with 32 teeth
- Surface: chrome-plated, polished heads.

Applications
Particularly suitable in commercial vehicles and agricultural machinery areas as well as in industrial plants.

Quality
Chromium vanadium.

51524



Adjustment range mm	51524 ...
410 - 590	101

51527 Jointed reversible ratchet

1/2"

HAZET

Design
With lever reverse.
Chrome-plated and polished.

Extremely robust ratchet with switchable clockwise and anti-clockwise rotation, movable ratchet head and ergonomic plastic handle.

Quality
Chromium-vanadium steel.

51527

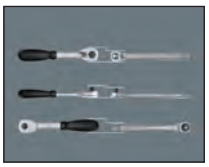
Total length mm	51527 ...
270	201

51534 Zyklop metal ratchet

1/2"

Wera

Design
- Forged **solid metal ratchet** (chromium-molybdenum) for extremely high robustness over a long service life
- With ball lock
- Slim design for work even in very tight spaces
- Fine toothing with 72 teeth for a return angle of just 5°
- Reversing lever for easy switching of direction
- With secure nut locking function



Extremely slim.
Long lever.

The finely toothed reversible ratchet with 72 teeth has a small return angle of just 5°.
The small stroke enables fast and precise working in all installation positions.

The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing.

Thanks to the reversing lever, it is possible to change direction quickly and easily.

51534 100

Total length mm	51534	...
281		100

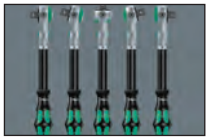
51534 Zyklop Speed ratchet

1/2"

Wera Zyklop

Wera

Design
- Flywheel mass design and handy rapid-turning sleeve for high working speed
- Freely tilting ratchet head
- Defined position at 0°, 90° to the left and right as well as 15° from 90° inwards
- Can be used in 0° position like a conventional screwdriver
- Pushbutton release
- Anti-clockwise/clockwise switch
- Finely toothed
- Small return angle of 5°
- Multi-component power grip for effortless work



The ratchet head can be swivelled freely and can be unlocked in any position using the slide switch on both sides.

The nut locking accelerates the insertion or removal of the inserts and extensions. The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing. A short press on the release button and the tool can be moved to all defined positions.

The flywheel mass construction speeds up the screwing process.

The Zyklop ratchet can be switched quickly and easily to left/right motion in any position using the knurling wheel.

51534 101

Total length mm	51534	...
277		101

51534 Zyklop hybrid ratchet set (with extension)

1/2"

Wera

Design
- With ball lock
- Fine toothing with 72 teeth for a return angle of just 5°
- Reversing lever for easy switching of direction
- With secure nut locking function
- Multi-component Kraftform handle for optimum pressure and tensile load
- Mount for Zyklop hybrid extension on handle end
- Total length of extension 271 mm

The finely toothed reversible ratchet with 72 teeth has a small return hollow angle of just 5°.
The small stroke enables fast and precise working in all installation positions.

The ball locking mechanism ensures the nuts and accessories fit securely, thus ensuring reliable safety during screwing. A short press on the release button and the tool can be moved to all defined positions.

51534 102

Total length mm	51534	...
281		102

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51535 - 51541 Drive elements

1/2"

Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51535
ATORN®

51537
DBGM
GEDORE
Design
Ground. Simple locking and unlocking by turning the handle.
Applications
Protection against unintentional loosening.

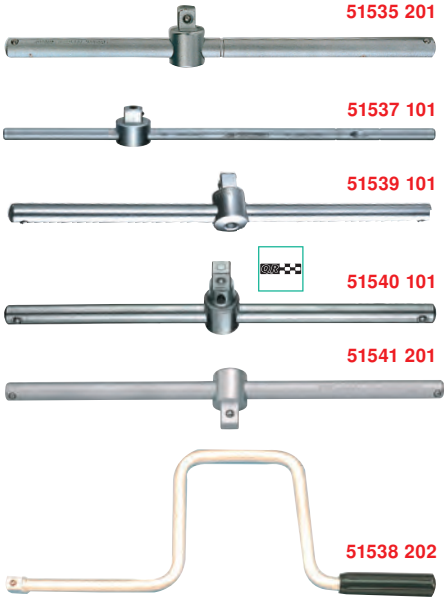
51538
GEDORE

51538 202
GEDORE
Crank
Design
With rotatable, ergonomic handle.

51539
STAHLWILLE
Quality
Chrome alloy steel.

51540
STAHLWILLE
Design
With quick release safety lock.
Quality
Chrome alloy steel.

51541
HAZET



	ATORN® 51535	...	GEDORE 51537	...	GEDORE 51538	...	STAHLWILLE 51539	...	STAHLWILLE 51540	...	HAZET 51541	...
Handle with sliding piece		201		101		201		101		101		201
Crank						202						
Cardan joint		203				203		103		103		203
1/2 inch adapter □ 3/8 inch ■		204				204		104				204
1/2 inch adapter □ 3/4 inch ■		205				205		105				205
FixGRIP adapter 1/2 inch □ 3/4 inch ■								106				

51550 - 51560 Extensions

1/2"

Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51550
ATORN®

51551
GEDORE
With release button. Safety ring to prevent unintentional loosening of the socket wrench insert.

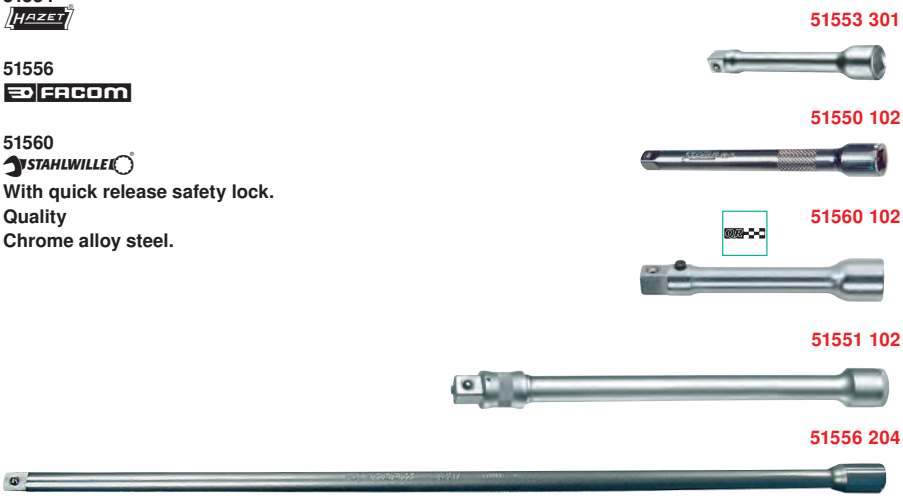
51552
GEDORE

51553
STAHLWILLE
Quality
Chrome alloy steel.

51554
HAZET

51556
FACOM

51560
STAHLWILLE
With quick release safety lock.
Quality
Chrome alloy steel.



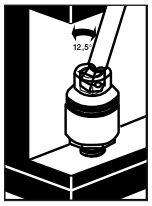
Length approx. mm	ATORN® 51550	...	GEDORE 51551	...	GEDORE 51552	...	STAHLWILLE 51553	...	HAZET 51554	...	FACOM 51556	...	STAHLWILLE 51560	...
52								300						101
75		101				201		301		201				
125		102		101		202		302		202		202		
130														102
250		103		102		203		303		203		203		
255														103
500												204		

51562 Swivel extensions

1/2"

Design
Chrome-plated, polished.
Applications
With ball-shaped, conical square drive. Allows a swivel angle of 12.5° to each side.

Quality
Chromium-vanadium steel.



Length mm	51562 ...
46	201
123	202
248	203

51562 201

51562 202

51562 203

51565 Adapter set

1/4" 3/8" 1/2" 3/4"

Design
In SmartCase 185 x 153 x 52 mm,
safety insert system,
2-component soft foam insert.

Quality
Chromium-vanadium steel.

Set contents
1/4 inch ☐ x 3/8 inch ■
3/8 inch ☐ x 1/4 inch ■
3/8 inch ☐ x 1/2 inch ■
1/2 inch ☐ x 3/8 inch ■
1/2 inch ☐ x 3/4 inch ■
3/4 inch ☐ x 1/2 inch ■

Set contents	Design	51565 ...
6 pieces	in SmartCase with soft foam insert	201

51565

51568 Open bi-hex box wrench (crowfoot wrench)

1/2"

Design
Chrome-plated, with square drive.
Applications
Specially designed for working in hard-to-reach places.

Quality
Chromium-vanadium steel.

51568

Size mm	51568 ...
30	101
32	102
36	103

Size mm	51568 ...
41	104
46	105

51569 Hexagon socket wrench set

3/4"

ATORN®

Quality
Chromium-vanadium steel.

Design
Inserts with energy profile, hole and knurling.

51569

	Set contents
○ 12	**hex inserts with energy profile** Sizes 22/24/27/30/32/36/38/41/46/50/55/60 mm
1	**reversible ratchet** 2000 Nm torque
1	**handle with sliding piece** 500 mm
2	**extensions** 200/400 mm

Set contents	Design	51569	...
16 pieces	in a sheet steel box		101

51570 Hexagon socket wrench set

3/4" UNIT DRIVE

GEDORE
WERKZEUGE FÜRS LEBEN

Quality
Vanadium 31CrV3.

Design
Chrome-plated, hot forged, with pin locking device.

51570

	Set contents
○ 10	**hex inserts with UD-profile** Sizes 22/24/27/30/32/36/38/41/46/50 mm
1	**reversible ratchet**
1	**handle with sliding piece**
2	**extensions** 200/400 mm

Set contents	Design	51570	...
14 pieces	in a sheet steel box		201

51571 Hexagon socket wrench set

3/4" AS-drive QR HPQ

STAHLWILLE

Quality
HPQ steel.

Design
Chrome-plated.
With **AS drive profile and quick-release system**
(single-handed safety lock).

51571

	Set contents
○ 9	**hex inserts with AS drive profile** Sizes 32/34/36/38/41/46/50/55/60 mm
1	**reversible ratchet**
1	**handle**
1	**sliding piece**
1	**angle joint**
2	**extensions** 200/400 mm

Set contents	Design	51571	...
15 pieces	in a sheet steel box		202

51573 - 51575 Hexagon socket wrench inserts DIN 3124/ISO 2725

3/4"

Design
Chrome-plated, die-forged.

51573
GEDORE
With UD profile, circumferential knurls and pin lock.
Quality
31 Cr V3.

51575
STAHLWILLE
With AS drive profile.
Quality
HPQ steel.

51574
HAZET
Quality
Chromium-vanadium steel.

51573

51575

51574

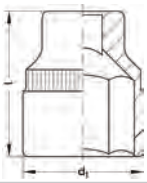
Size mm	l approx. mm	d_1 approx. mm	GEDORE 51573	...	STAHLWILLE 51575	...	HAZET 51574	...
19	50	28.0				302		
21	51	28.0				303		303
22	51	33.0		304		304		304
24	51	35.0		305		305		305
27	55	39.0		306		306		306
30	59	42.5		308		308		308
32	59	45.0		309		309		309
34	59	48.0		311		311		311

Size mm	l approx. mm	d_1 approx. mm	GEDORE 51573	...	STAHLWILLE 51575	...	HAZET 51574	...
36	62	50.0		313		313		313
38	62	52.5		314				314
41	68	56.5		315		315		315
46	73	63.0		317		317		317
50	75	68.0		318		318		318
55	82	74.0		319		319		319
60	88	80.5		320				320

51577 Bi-hexagon socket wrench inserts DIN 3124/ISO 2725

3/4"

GEDORE
Design
With UD profile. Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.



51577

Size mm	l mm	d_1 mm	51577	...
21	51.5	32.0		203
22	51.5	33.3		204
24	51.5	35.8		206
27	54.5	39.6		209
30	57.5	43.3		212

Size mm	l mm	d_1 mm	51577	...
32	57.5	45.8		213
36	59.5	50.8		217
41	62.5	57.1		219
46	65.5	63.3		221
50	68.5	68.3		222

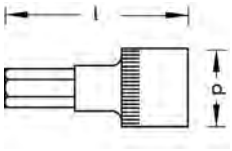
51581 - 51582 Hexagon screwdriver bits

3/4"

Applications
For hexagon socket screws, for high load, tight tolerances.

51581
GEDORE
Design
Chrome-plated, bronzed tips, with knurled grip.
Quality
Vanadium special steel.

51582
STAHLWILLE
Design
Chrome-plated.
Quality
Chrome alloy steel.



51581

51582

Size mm	l mm	d approx. mm	GEDORE 51581	...	STAHLWILLE 51582	...
14	80	36		201		101
17	80	36		202		102

Size mm	l mm	d approx. mm	GEDORE 51581	...	STAHLWILLE 51582	...
19	80	36		203		103
22	80	39		204		104

51583 TX® screwdriver bits

3/4"

HAZET
Applications
For internal TX® screws.

Quality
CVD-TiN coating for longer service life.

Note:
TX® profile gauge, see art. no. 37930.

51583

Size T	Length mm	51583	...
60	80		101
70	80		102
80	80		103

Size T	Length mm	51583	...
90	80		104
100	80		105

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51584 Reversible toothed ratchet DIN 3122/ISO 3315 — 3/4"

GEDORE

Design
Chrome-plated, with pin protection and internal gearing (10° angle of rotation). **With push-through square.**

Quality
Vanadium 31CrV3.

	Total length mm	51584 ...
Ratchet	510.0	201
Push-through square	51.5	202

51584 201

51584 202
Push-through square

51586 Reversible ratchet DIN 3122/ISO 3315 — 3/4"

GEDORE

Design
Chrome-plated, extremely robust ratchet **with rotary head for clockwise/anti-clockwise rotation,** pin retention and inner splines (7.2° angle of rotation).

Quality
Vanadium 31CrV3.

Total length mm	51586 ...
510	201

51586

51588 - 51589 Reversible ratchets DIN 3122/ISO 3315 — 3/4"

Design
Chrome-plated, extremely robust ratchet with switchable clockwise/anti-clockwise rotation and pin locking device.
Quality
Chromium-vanadium steel.

51588
GEDORE
Design
With a rotary head.
Finely toothed (5° angle of rotation).

51588

51589
HAZET
Design
With lever reverse. Ratchet (32 teeth) with pin locking device. Shaft with release pin for pin locking device.

51589

	GEDORE		HAZET	
Total length mm	51588	...	51589	...
620		201		101

51587 Removable reversible ratchet — 3/4"

Design
- With lever reverse
- Extra-wide corded handle
- Length can be adjusted to 6 positions (610/690/770/850/930/1010 mm).

51587

Adjustment range mm	Max. load capacity Nm	51587 ...
615 - 1015	1800	101

51592 - 51595 Drive elements — 3/4"

Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51592
GEDORE

51593
HAZET

51595
STAHLWILLE
Quality
Chrome alloy steel.

51592 102

51593 101

51595 203

	GEDORE 51592	...	HAZET 51593	...	STAHLWILLE 51595	...
Handle with sliding piece				101		
Cardan joint		102				
3/4 inch adapter □ x 1/2 inch ■		103		103		203
3/4 inch adapter □ x 1 inch ■		104				204

51596 - 51598 Extensions — 3/4"

Design
Chrome-plated, die-forged.
Quality
Chromium-vanadium steel.

51596
GEDORE

51597
HAZET

51598
STAHLWILLE
Quality
Chrome alloy steel.

51596

51597

51598

	GEDORE 51596	...	HAZET 51597	...	STAHLWILLE 51598	...
Total length mm						
200		101		101		102
400		102		102		103

51600 Bi-hexagon socket wrench set

1" | UNIT DRIVE

GEDORE
WERKZEUGE FÜRS LEBEN

Quality
Vanadium 31CrV3.

51600

	Set contents
○ 10	**bi-hex inserts with UD profile** Sizes 36/41/46/50/55/60/65/70/75/80 mm
1	**reversible ratchet**
1	**handle bar**
1	**sliding piece**
2	**extensions** 200/400 mm

Set contents	Design	51600 ...
15 pieces	in a sheet steel box	101

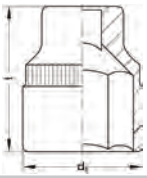
51603 Bi-hexagon socket wrench inserts DIN 3124/ISO 2725

1" | UNIT DRIVE

GEDORE
WERKZEUGE FÜRS LEBEN

Design
With UD profile. Chrome-plated, die-forged, with pin lock.

Quality
Vanadium 31CrV3.



51603

Sizes mm	l mm	d_1 mm	51603 ...
36	70	53.9	203
41	70	60.1	204
46	75	66.4	205
50	75	71.4	206
55	78	77.6	207

Width mm	l mm	d_1 mm	51603 ...
60	83	83.9	208
65	86	90.1	209
70	90	96.4	210
75	93	102.6	211
80	95	108.9	212

51606 Reversible ratchet with handle bar DIN 3124/ISO 2725

1"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Chrome-plated, head finely sanded. Extremely robust ratchet **with lever reverse** for clockwise/anti-clockwise rotation, pin lock and locking in a central position. Angle of rotation 11.25°.

Quality
Vanadium 31CrV3.

51606

Total length mm	51606 ...
810	201

51609 Drive elements

1"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Chrome-plated, die-forged.
Quality
Vanadium 31CrV3.

51609 101
Handle bar with sliding piece
Sliding piece with retaining ball.

51609 101

51609 102

	Length mm	51609 ...
Handle bar	700	101
1 inch adapter □ x 3/4 inch ■	75	102

51612 Extensions

1"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
Chrome-plated, die-forged.

Quality
Vanadium 31CrV3.

51612

Total length mm	51612 ...
200	101
400	102

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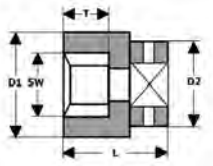
51614 Hexagon power screwdriver bits

1/4"

ASW

Design
Drive: 1/4 inch square DIN 3121 – G 6.3
Output: Hexagon socket DIN 475/2.

Quality
Made of chrome-vanadium special steel.



51614

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51614 ...
6	23	10.0	13	2.4	106
7	23	11.3	13	2.8	107
8	23	12.5	13	3.5	108
10	23	15.0	13	4.2	110

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51614 ...
11	23	16.3	13	4.9	111
12	23	17.0	13	5.6	112
13	23	18.8	13	5.6	113

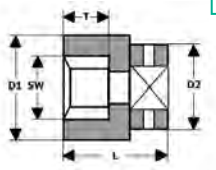
51616 Hex power screwdriver inserts, with magnet

1/4"

ASW

Design
With strong permanent magnet.
Drive: 1/4 inch square DIN 3121 – G 6.3
Output: Hexagon socket DIN 475/2.

Quality
Made of chrome-vanadium special steel.



51616

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51616 ...
5	23	8.8	13	1.7	101
5.5	23	9.5	13	2.1	102
6	23	10.0	13	2.4	103
7	23	11.3	13	2.8	104
8	23	12.5	13	3.5	105

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51616 ...
9	23	13.8	13	3.5	106
10	23	15.0	13	4.2	107
11	23	16.3	13	4.9	108
13	23	18.8	13	5.6	109

51617 Hex power screwdriver inserts, long with magnet

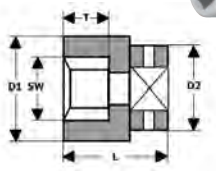
1/4"

ASW

Design
Long design, with sprung magnet.
Drive: 1/4 inch square DIN 3121 – G 6.3
Output: Hexagon socket DIN 475/2

Quality
Made of chrome-vanadium special steel.

51617



Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51617 ...
7	50	11.3	13	2.8	101
8	50	12.5	13	3.5	102
10	50	15.0	13	4.2	103
13	50	18.8	13	5.6	104

51613 Power screwdriver joining tools

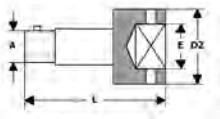
1/4"

ASW

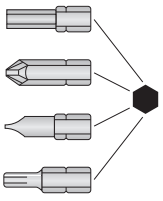
Quality
Made of chrome-vanadium special steel.

51613 301-302
Design
Drive: 1/4 inch square DIN 3121 – G 6.3
Output: 1/4-inch square drive DIN 3121 – E – with spring-loaded pin.

51613 401
Design
With strong permanent magnet.
Drive: 1/4 inch square DIN 3121 – G
Output: 1/4 inch hexagon socket DIN 3126 – D 6.3.



51613 301-302



51613 401

	E Inch	A Inch	D_2 mm	L mm	51613 ...
Extension	1/4	1/4	13	50	301
Extension	1/4	1/4	13	150	302
Bit holder	1/4	D 6.3	13	62	401

51627 Power screwdriver connector

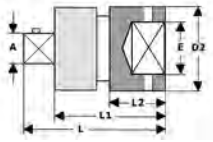
1/4"

ASW

Design
With quick-change holder.
Drive: 1/4 inch square DIN 3121 – G 6.3, Output: Square drive DIN 3121 – with ball lock.

Quality
Made of chrome-vanadium special steel.

51627



E Inch	A Inch	D_2 mm	L mm	L_1 mm	L_2 mm	51627 ...
1/4	1/4	13	35	28	10	101

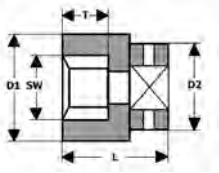
51615 Hexagon power screwdriver bits

3/8"

ASW

Design
Drive: 3/8 inch square DIN 3121 – G 10
Output: Hexagon socket DIN 475/2.

Quality
Made of chrome-vanadium special steel.



51615

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51615 ...
8	30	14.0	19	3.5	203
10	30	16.0	19	4.2	205
11	30	17.5	19	4.9	206
12	30	19.0	19	5.6	207
13	30	20.0	22	5.6	208

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51615 ...
14	30	21.0	22	7.0	209
15	30	22.0	22	7.0	210
16	30	24.0	22	7.0	211
17	30	25.0	22	7.0	212

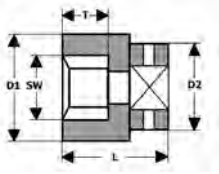
51619 Hex power screwdriver inserts, with magnet

3/8"

ASW

Design
With strong permanent magnet.
Drive: 3/8 inch square DIN 3121 – G 10
Output: Hexagon socket DIN 475/2.

Quality
Made of chrome-vanadium special steel.



51619

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51619 ...
8	30	14.0	19	3.0	101
9	30	15.0	19	3.5	102
10	30	16.0	19	4.2	103
11	30	17.5	19	4.9	104
13	30	20.0	22	5.6	106

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51619 ...
14	30	21.0	22	6.0	107
15	30	22.0	22	6.0	108
16	30	24.0	22	6.0	109
17	30	25.0	22	6.0	110

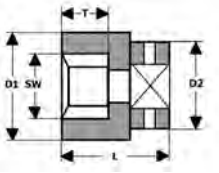
51620 Hexagon socket power screwdriver bits

3/8"

ASW

Design
Drive: 3/8 inch square DIN 3121 – G 10
Output: Hexagon head DIN/ISO 2963

Quality
Made of chrome-vanadium special steel.



51620

Size mm	L mm	D_2 mm	51620 ...
5	50	19	101
6	50	19	102
8	50	19	103

Size mm	L mm	D_2 mm	51620 ...
10	50	19	104
12	50	19	105
14	50	19	106

51628 Internal TX® power screwdriver inserts

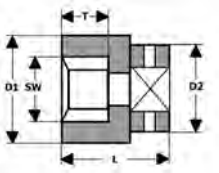
3/8"

ASW

Design
Drive: 3/8 inch square DIN 3121 – G 10
Output: TX for internal TX® screws.

Quality
Made of chrome-vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.



51628

Size T	L mm	D_2 mm	51628 ...
20	50	19	101
25	50	19	102
27	50	19	103

Size T	L mm	D_2 mm	51628 ...
30	50	19	104
40	50	19	105

51618 External TX® power screwdriver inserts

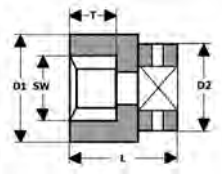
3/8"

ASW

Design
Drive: 3/8 inch square DIN 3121 – G 10
Output: E-profile for all external TX® screws.

Quality
Made of chrome-vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.



51618

Size E	L mm	D_1 mm	D_2 mm	T mm	51618 ...
5	32	9.0	19	4.0	201
6	32	10.2	19	4.0	202
7	32	10.2	19	5.0	203
8	32	10.5	19	5.0	204

Size E	L mm	D_1 mm	D_2 mm	T mm	51618 ...
10	32	12.5	19	6.0	205
12	32	14.9	19	8.0	206
14	32	17.2	19	9.0	207

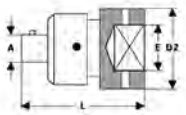
51621 Power screwdriver joining tools

3/8"

ASW

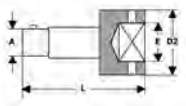
Quality
Made of chrome-vanadium special steel.

51621 101-302
Design
Drive: 3/8 inch square, DIN 3121 – G 10
Output: Square drive, DIN 3121 – E – with spring-loaded pin.



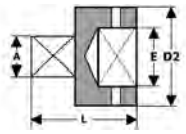
51621 101

51621 303
Design
Drive: 3/8 inch square, DIN 3121 – G 10
Output: 5/16 inch hexagon socket DIN 3126 – D 8.

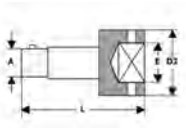


51621 201-203

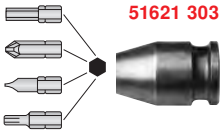
51621 304
Design
Drive: 3/8 inch square, DIN 3121 – G 10
Output: 1/4 inch hexagon socket DIN 3126 – D 6.3.



51621 301-302



51621 303



	E Inch	A Inch	D_2 mm	L mm		51621 ...
Ball joint	3/8	3/8	22	60	-	101
Extension	3/8	3/8	19	75	-	201
Extension	3/8	3/8	19	150	-	202
Extension	3/8	3/8	22	300	-	203
Adapter	3/8	1/4	19	32	-	301
Adapter	3/8	1/2	22	36	-	302
Bit holder	3/8	D 8	19	38	-	303
Bit holder with quick-change chuck	3/8	1/4	19	45	-	304
Rubber ring	-	-	19	-	10 pcs.	401
Rubber ring	-	-	22	-	10 pcs.	402
Locking pin	-	-	19	-	10 pcs.	501
Locking pin	-	-	22	-	10 pcs.	502

51621 304

51621 401-402

51621 501-502

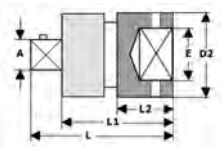
51622 Power screwdriver connector

3/8"

ASW

Design
With quick-change holder.
Drive: 3/8 inch square DIN 3121– G 10,
Output: Square drive, DIN 3121 – with ball lock.

Quality
Made of chrome-vanadium special steel.



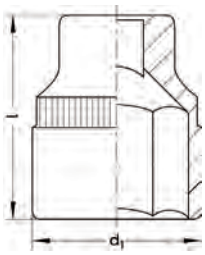
51622

E Inch	A Inch	D_2 mm	L mm	L_1 mm	L_2 mm	51622 ...
3/8	3/8	20	46	35	17	101

51623 Hex power screwdriver inserts, plastic-coated

1/2"

Design
Plastic-coated to prevent damage when working on aluminium rims.
Plastic sleeve can be removed if necessary (small distance between wheel nut or bolt and rim bore).
The different colours enables rapid differentiation of the width across flats.



51623 101

Set contents	Size mm	Design	51623	...
3 pieces	17/19/21	in plastic box		101

Size mm	d_1 mm	l mm	Torque max. Nm	Colour	51623	...
17	27	85	450	blue		201
19	29	85	550	yellow		202
21	31	85	550	red		203

51623 201 51623 202 51623 203

51623 Hex power screwdriver insert set, plastic-coated

1/2"

HAZET

Design
- With plastic insert to protect the surfaces of the wheel bolts
- Plastic sleeve (replaceable) on the outside to protect the rims when attaching the wheel bolts
- Plastic sleeves are colour coded, for quick identification of the wrench size
- Long design
- With hole for locking pin or locking spring and groove for O-rings

Applications
Specially designed for wheel assembly and disassembly of aluminium rims.

51623 301

Set contents	Size mm	51623	...
3 pieces	17/19/21		301

Info Pneumatic tools

Suitable pneumatic tools can be found starting on page 9.143

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51624 - 51626 Hexagon power screwdriver bits

1/2"

ASW

Design
Drive: 1/2 inch square DIN 3121 – G 12.5
Output: Hexagon socket, DIN/ISO 691

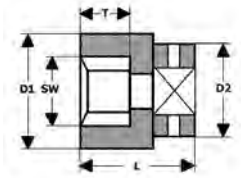
Quality
Made of chrome-vanadium special steel.

51624 300

51626 400

	Set contents 51624 300	
○ 10	**short hex inserts**	Sizes 9/10/11/13/14/17/19/22/24/27 mm
1	**extension** 1/2 inch x 175 mm	
1	**ball joint** 1/2 inch x 74 mm	

	Set contents 51626 400	
○ 11	**short hex inserts**	Sizes 10/13/14/16/17/18/19/21/22/24/27 mm
○ 9	**long hex inserts**	Sizes 13/16/17/18/19/21/22/24/27 mm
1	**wobble extension** 1/2 inch x 150 mm	



51624 203-220

51626 103-120

Set contents	Design	51624 ...	51626 ...
12 pieces	in plastic case	300	
21 pieces	in plastic case		400

Short

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51624 ...
10	38	17.0	25	4.2	203
11	38	18.5	25	4.9	204
12	38	19.5	25	5.6	205
13	38	21.0	25	5.6	206
14	38	22.0	25	7.0	207
15	38	23.5	30	7.0	208
16	38	25.0	30	7.0	209
17	38	26.0	30	7.0	210
18	38	27.0	30	8.4	212
19	38	28.0	30	8.4	213
21	38	31.0	30	9.8	216
22	38	32.5	30	9.8	217
24	45	35.0	30	11.2	219
27	50	39.0	30	12.6	220

Long

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51626 ...
10	78	17.5	25	4.2	103
13	78	21.0	25	5.6	106
14	78	22.5	25	7.0	107
15	78	23.5	30	7.0	108
16	78	25.0	30	7.0	109
17	78	26.0	30	7.0	110
18	78	27.5	30	8.4	112
19	78	28.7	30	8.4	113
21	78	31.0	30	9.8	116
22	78	32.0	30	9.8	117
24	78	35.0	30	11.2	119
27	78	38.5	30	12.6	120

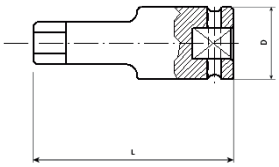
51629 Hexagon socket power screwdriver bits

1/2"

ASW

Design
Drive: 1/2 inch square DIN 3121 – G 12.5
Output: Hexagon head DIN/ISO 2963

Quality
Made of chrome-vanadium special steel.



51629

Size mm	L mm	D_2 mm	51629 ...
5	55	25	101
6	55	25	102
8	55	25	103
10	55	25	104

Size mm	L mm	D_2 mm	51629 ...
12	55	25	105
14	55	25	106
17	55	25	107

51632 Internal TX® power screwdriver inserts

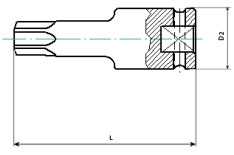
1/2"

ASW

Design
Drive: 1/2 inch square DIN 3121 – G 12.5
Output: TX for internal TX® screws.

Quality
Made of chrome-vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.



51632

Size T	L mm	D_2 mm	51632 ...
30	55	25	201
40	55	25	202
50	55	25	203

Size T	L mm	D_2 mm	51632 ...
55	55	25	204
60	55	25	205

51635 TX® power screwdriver inserts

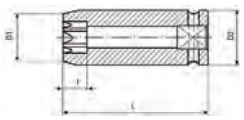
1/2"

ASW

Design
Drive: 1/2 inch square DIN 3121 – G 12.5
Output: E-profile for external TX® screws.

Quality
Made of chrome-vanadium special steel.

Note:
TX® profile gauge, see art. no. 37930.



Size E	L mm	D_1 mm	D_2 mm	T mm	51635	...
10	38	15.0	25	7.0		101
12	38	16.0	25	8.0		102
14	38	18.5	25	9.0		103
16	38	20.0	25	10.0		104

Size E	L mm	D_1 mm	D_2 mm	T mm	51635	...
18	38	22.0	25	11.0		105
20	38	25.0	30	12.5		106
24	45	30.0	30	14.0		107

51638 Power screwdriver joining tools

1/2"

ASW

Quality
Made of chrome-vanadium special steel.

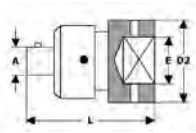
51638 201-304
Design
Drive: 1/2 inch square, DIN 3121 – G 12.5
Output: Square drive, DIN 3121 – E – with spring-loaded pin.

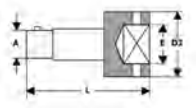
51638 401
Design
Drive: 1/2 inch square, DIN 3121 – G 12.5
Output: 1/4 inch hexagon socket DIN 3126 – D 6.3.

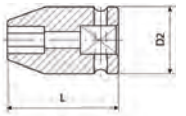
51638 402
Design
Drive: 1/2 inch square, DIN 3121 – G 12.5
Output: 5/16 inch hexagon socket DIN 3126 – D 8.

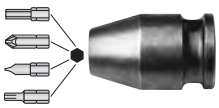
51638 403
Design
Drive: 1/2 inch square, DIN 3121 – G 12.5
Output: Square drive, DIN 3121 – E – with spring-loaded pin.

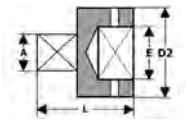
51638 404
Design
Drive: 1/2 inch square, DIN 3121 – G 12.5
Drive: Square drive, DIN 3121 – F – with full length pin hole.











	E Inch	A Inch	D_2 mm	L mm		51638	...
Ball joint	1/2	1/2	25	68	-		201
Extension	1/2	1/2	25	75	-		301
Extension	1/2	1/2	25	125	-		302
Extension	1/2	1/2	25	250	-		304
Bit holder	1/2	D 6.3	25	40	-		401
Bit holder	1/2	D 8	25	40	-		402
Adapter	1/2	3/8	25	38	-		403
Adapter	1/2	3/4	30	48	-		404
Rubber ring	-	-	25	-	10 pcs.		501
Rubber ring	-	-	30	-	10 pcs.		502
Locking pin	-	-	25	-	10 pcs.		601
Locking pin	-	-	30	-	10 pcs.		602

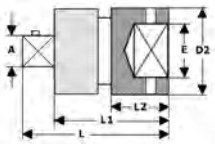
51639 Power screwdriver connector

1/2"

ASW

Design
With quick-change holder
Drive: 1/2 inch square, DIN 3121 – G 12.5
Output: Square drive, DIN 3121 – with ball lock.

Quality
Made of chrome-vanadium special steel.



E Inch	A Inch	D_2 mm	L mm	L_1 mm	L_2 mm	51639	...
1/2	1/2	25	60	44	24		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

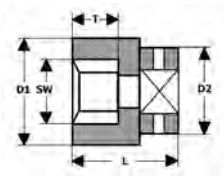
51641 - 51643 Hexagon power screwdriver bits

3/4"

ASW

Design
Drive: 3/4 inch square DIN 3121 – H 20
Output: Hexagon socket, DIN/ISO 691

Quality
Made of chrome-vanadium special steel.



51641

51643

Short

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51641	...
17	50	31.0	44	7.0		202
18	50	32.0	44	8.4		203
19	50	33.0	44	8.4		204
22	50	37.0	44	9.8		207
24	50	39.0	44	11.2		209
27	54	43.0	44	12.6		212
30	54	47.0	44	14.0		215
32	56	49.0	44	15.4		216
33	56	51.0	44	15.4		217
34	56	52.0	44	15.4		218
36	56	54.0	44	16.8		220
38	58	57.0	44	18.9		221
41	58	60.0	44	18.9		223
46	63	67.0	44	21.0		224

Long

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51643	...
17	95	31	44	7.0		102
18	95	32	44	8.4		103
19	95	33	44	8.4		104
22	95	37	44	9.8		107
24	95	39	44	11.2		109
27	95	43	44	12.6		112
30	95	47	44	14.0		115
32	95	49	44	15.4		116
33	95	51	44	15.4		117
34	95	52	44	15.4		118
36	95	54	44	16.8		120

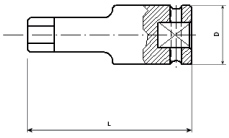
51644 Hexagon socket power screwdriver bits

3/4"

ASW

Design
Drive: 3/4 inch square DIN 3121 – H 20
Output: Hexagon head DIN/ISO 2963

Quality
Made of chrome-vanadium special steel.



51644

Size mm	L mm	D_2 mm	51644	...
14	62	44		101
17	62	44		102
19	62	44		103

Size mm	L mm	D_2 mm	51644	...
22	62	44		104
24	62	44		105
27	62	44		106

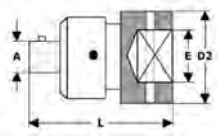
51646 Power screwdriver joining tools

3/4"

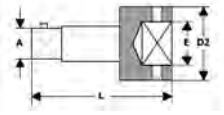
ASW

Design
Drive: 3/4 inch square, DIN 3121 – H 20
Output: Square drive, DIN 3121 – F – with full length pin hole.

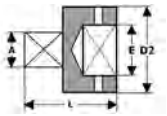
Quality
Made of chrome-vanadium special steel.



51646 201



51646 301-303



51646 401-403

51646 501

51646 601

	E Inch	A Inch	D_2 mm	L mm		51646	...
Ball joint	3/4	3/4	44	90	-		201
Extension	3/4	3/4	44	175	-		301
Extension	3/4	3/4	44	250	-		302
Extension	3/4	3/4	44	330	-		303
Adapter	3/4	1/2	44	57	-		401
Adapter	3/4	1	44	63	-		403
Rubber ring	-	-	44	-	10 pcs.		501
Locking pin	-	-	44	-	10 pcs.		601

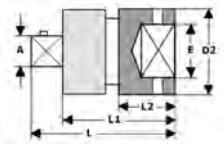
51647 Power screwdriver connector

3/4"

ASW

Design
With quick-change holder.
Drive: 3/4 inch square DIN 3121 – H 20,
Output: Square drive DIN 3121 – with ball lock.

Quality
Made of chrome-vanadium special steel.



51647

E Inch	A Inch	D_2 mm	L mm	L_1 mm	L_2 mm	51647	...
3/4	3/4	44	78	56	30		101

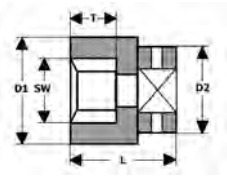
51649 - 51651 Hexagon power screwdriver bits

1"

ASW

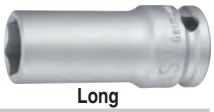
Design
Drive: 1 inch square DIN 3121 – H 25
Output: Hexagon socket, DIN/ISO 691

Quality
Made of chrome-vanadium special steel.



51649

51651



Short

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51649 ...
22	58	40	54	9.8	103
24	58	42	54	11.2	105
27	58	46	54	12.6	106
30	60	50	54	14.0	109
32	60	52	54	15.4	110
33	60	53	54	15.4	111
34	62	55	54	15.4	112
36	65	56	54	16.8	113
38	65	59	54	18.9	114
41	67	63	54	18.9	116
46	74	69.5	54	21.0	118
50	80	74	54	23.1	119
55	84	81	54	25.2	120
60	87	87	54	27.3	121
65	90	93	54	29.4	122
70	96	100	54	31.5	123
75	98	104	86	33.6	124
80	100	109	86	36.4	125

Long

Sizes mm	L mm	D_1 mm	D_2 mm	T min. mm	51651 ...
22	100	40	54	9.8	103
24	100	42	54	11.2	105
27	100	46	54	12.6	106
30	100	50	54	14.0	109
32	100	52	54	15.4	110
33	100	53	54	15.4	111
34	100	55	54	15.4	112
36	100	57	54	16.8	113
38	100	59.5	54	18.9	114
41	100	64	54	18.9	116
46	100	69.5	54	21.0	118

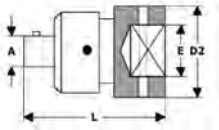
51652 Power screwdriver joining tools

1"

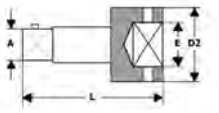
ASW

Design
Drive: 1 inch square, DIN 3121 – H 25
Output: Square drive, DIN 3121 – F – with full length pin hole.

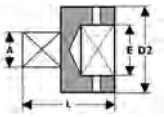
Quality
Made of chrome-vanadium special steel.



51652 101



51652 201-203



51652 301

51652 401

51652 501

	E Inch	A Inch	D_2 mm	L mm		51652 ...
Ball joint	1	1	54	110	-	101
Extension	1	1	54	175	-	201
Extension	1	1	54	250	-	202
Extension	1	1	54	330	-	203
Adapter	1	3/4	54	75	-	301
Rubber ring	-	-	54	-	10 pcs.	401
Locking pin	-	-	54	-	10 pcs.	501

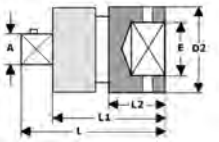
51653 Power screwdriver connector

1"

ASW

Design
With quick-change holder.
Drive: 1 inch square DIN 3121 – H 25,
Output: Square drive DIN 3121 – with ball lock.

Quality
Made of chrome-vanadium special steel.



51653

E Inch	A Inch	D_2 mm	L mm	L_1 mm	L_2 mm	51653 ...
1	1	54	100	74	40	101

Info Special tools according to drawings, samples or sketches

ASW

ASW offers one of the most extensive ranges of impact socket wrenches in Europe. It also offers special solutions for special customer requirements. These are also produced by ASW in very small quantities according to drawings, samples or sketches.

ASW represents
- Excellent quality
- Long service life
- Excellent value for money

ASW – Driven by Quality

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51805 Allen® wrench sets ISO 2936

ATORN®

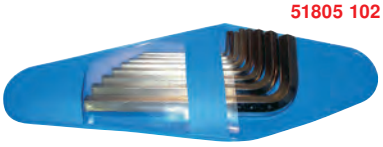
Quality
59 chrome-molybdenum-vanadium 4, nickel-plated.

51805 103

51805 104

51805 101

51805 102



51805 106

Number of wrenches	Size mm	Design	51805 ...
6	2/2.5/3/4/5/6	in plastic pouch	101
8	2/2.5/3/4/5/6/8/10	in plastic pouch	102
8	2/2.5/3/4/5/6/8/10	on keyring	103
8	2/2.5/3/4/5/6/8/10	in plastic sliding box	104
10	2/2.5/3/4/5/6/8/10/12/14	in plastic pouch	106

51808 - 51809 Allen® wrench ISO 2936

51808
Black.
Quality
Tool steel C 60/C45.

51809
ATORN®
Nickel-plated.
Quality
59 chrome-molybdenum-vanadium 4.

51809

Size mm	Arm length mm	black 51808 ...	nickel-plated 51809 ...
0.7	33 x 7	101	
0.9	33 x 11	102	
1.3	40 x 12	103	103
1.5	46.5 x 15.5	104	104
2	52 x 18	105	105
2.5	58.5 x 20.5	106	106
3	66 x 23	107	107
3.5	69.5 x 25.5	108	108
4	74 x 29	109	109
5	85 x 33	111	111
6	96 x 38	113	113
7	102 x 41	114	114
8	108 x 44	115	115

Size mm	Arm length mm	black 51808 ...	nickel-plated 51809 ...
9	114 x 47	116	116
10	122 x 50	117	117
11	129 x 53	118	118
12	137 x 57	119	119
14	154 x 70	120	120
17	177 x 80	121	121
19	199 x 89	122	122
22	222 x 102	123	123
24	248 x 114	124	124
27	277 x 127	125	125
30	315 x 142		126
32	347 x 157	127	127
36	391 x 176		128

51811 - 51812 Allen wrenches ISO 2936

AMF

Quality
Chromium-vanadium steel, hardened and nickel-plated.

51811 101-102
Design
In impact-resistant plastic sliding box.

51811 103
Design
In workshop stand made from impact-resistant plastic. With connector clip to attach to further workshop stands.

51811 101

51811 103

51811 102

51812

Number of wrenches	Size mm	Design	51811 ...
7	2/2.5/3/4/5/6/8	in plastic sliding box	101
8	2/2.5/3/4/5/6/8/10	in plastic sliding box	102
9	2.5/3/4/5/6/8/10/12/14	in workshop stand	103

Size mm	Arm length mm	51812 ...
1.5	46.5 x 15.5	102
2	52 x 18	103
2.5	58.5 x 20.5	104
3	66 x 23	105
4	74 x 29	106

Size mm	Arm length mm	51812 ...
5	85 x 33	107
6	96 x 38	108
7	102 x 41	109
8	108 x 44	110
9	114 x 47	111

Size mm	Arm length mm	51812 ...
10	122 x 50	112
12	137 x 57	114
14	154 x 70	115
17	177 x 80	116
19	199 x 89	117

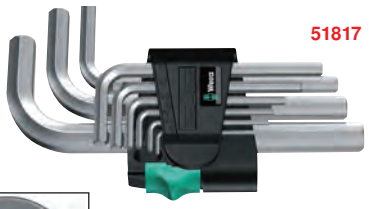
51817 - 51818 Allen wrenches ISO 2936

Hex Plus

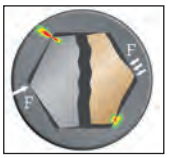
Wera

Design
Hex-Plus system, chrome-plated frame.

Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.



51817



51818

Number of wrenches	Size mm	Design	51817	...
9	1.5/2.0/2.5/3/4/5/6/8/10	in plastic clip		103

Size mm	Arm length mm	51818	...
1.5	45 x 14		101
2	50 x 16		102
2.5	56 x 18		103
3	63 x 20		104
4	70 x 25		105

Size mm	Arm length mm	51818	...
5	80 x 28		106
6	90 x 32		107
8	100 x 36		108
10	112 x 40		109
11	120 x 43		110

Size mm	Arm length mm	51818	...
12	125 x 40		111
13	132 x 50		112
14	140 x 56		113
17	160 x 63		114
19	180 x 70		115

51829 - 51830 Pin wrench sets similar to ISO 2936

ATORN®

51829
Design
In the flap holder, each individual pin wrench can be adjusted to any angle up to 180°.
Quality
59 chrome-molybdenum-vanadium 4.

51829 101

51829 103

51829 107

51830
Design
In the 2-component flap holder, each individual pin wrench can be adjusted to any angle up to 180°.
Quality
Chromium-vanadium steel.

51830 201

51830 202

51830 204

		Unit of measure	Number of wrenches	Wrench dimensions	51829	...	51830	...
⬢	hexagon socket	mm	7	1.5/2/2.5/3/4/5/6		101		201
⬢	hexagon socket	mm	7	2.5/3/4/5/6/8/10		103		202
✱	TX®	T	8	9/10/15/20/25/27/30/40		107		204

51832 Bike tool

AMF

Design
Pocket format. Blade hardened and bronzed. Housing made of two-component body.
Applications
Specially designed for quickly resolve any problems while out cycling.

		Set contents
◯	3	**socket wrench inserts** 8/9/10 mm
⬢	7	**Allen keys** Sizes 2/2.5/3/4/5/6/8 mm
⊖	1	**slotted screwdriver** 1 x 5
⊕	1	**Phillips screwdriver PH** 2
	3	**single open-end wrenches** 8/10/15 mm
	1	**spokes tensioner** 14 GE

51832

Content	H x W x D mm	Weight g	51832	...
16 pieces	90 x 50 x 32	260		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51834 Pin wrench sets (mixed)

wiha Tools that work for you

PocketStar®

Design
Pin wrench holder with eject button for quick and easy selection of individual wrenches.
Case made from fibreglass-reinforced plastic.

51834 098

51834 099

Set contents 51834 098	
7	**wrenches for hexagon socket screws** Sizes 2/2.5/3/4/5/6/8 mm

Set contents 51834 099	
8	**wrenches for internal TX® screws with pin** T 9/10/15/20/25/27/30/40

Set contents 51834 102	
4	**wrenches for hexagon socket screws** Sizes 3/4/5/6 mm
1	**wrench for slotted screws** 4.5 mm
1	**wrench for Phillips-head screws PH** 2
3	**wrench for TX® screws** T 10/15/20

51834 102

Design	Number of wrenches	51834	...
Hex	7		098
TX® with hole	8		099
Slotted/Phillips/hex/TX®	9		102

51835 Pin wrench set (mixed)

wiha Tools that work for you

Mini PocketStar®

Design
Pin wrench holder with eject button for quick and easy selection of individual wrenches.
Case made from fibreglass-reinforced plastic.
Hanging hole with matching snap hook.

51835 101

Set contents	
5	**wrenches for hexagon socket screws** Sizes 0.7/0.9/1.3/1.5/2.0 mm
2	**wrenches for slotted screws** 1.5/2.0 mm
1	**wrench for Phillips-head screws PH** 00

Number of wrenches	51835	...
8		101

51836 - 51837 Allen® wrench (inch) similar to ISO 2936

ATORN®

Quality
59 chrome-molybdenum-vanadium 4, nickel-plated.

51836

Number of wrenches	Size inch	Design	51836	...
8	5/64/3/32/1/8/5/32/3/16/1/4/5/16/3/8	in plastic sliding box		101

Size Inch	Size mm	Arm length mm	51837	...
3/64	1.19	41 x 13		100
0.05	1.27	41 x 13		101
1/16	1.59	47 x 16		102
5/64	1.98	52 x 18		103
3/32	2.38	58 x 20		104
7/64	2.77	66 x 23		121
1/8	3.18	66 x 23		105
9/64	3.57	72 x 26		106
5/32	3.97	74 x 29		107
3/16	4.76	85 x 33		108
7/32	5.56	91 x 36		109

Size Inch	Size mm	Arm length mm	51837	...
1/4	6.35	96 x 38		110
9/32	7.14	102 x 42		111
5/16	7.94	108 x 44		112
3/8	9.53	122 x 50		113
7/16	11.11	130 x 53		114
1/2	12.70	145 x 63		115
9/16	14.29	154 x 69		116
5/8	15.88	176 x 76		117
3/4	19.05	199 x 89		118
7/8	22.20	222 x 102		119
1.	25.40	275 x 125		120

51837

Pin wrenches

51848 - 51851 Long Allen® wrench ISO 2936L

51848
ATORN®
Design
Nickel-plated.
Quality
59 chrome-molybdenum-vanadium 4.

51850
Design
Black.
Quality
C60/C45.

51851
ATORN®
Design
Nickel-plated.
Quality
59 chrome molybdenum vanadium 4.

51848

51850

51851

Number of wrenches	Size mm	Design	nickel-plated 51848	...
8	2/2.5/3/4/5/6/8/10	in plastic sliding box		101

Size mm	Arm length mm	black 51850	...	nickel-plated 51851	...
1.5	91.5 x 15.5		101		101
2	102 x 18		102		102
2.5	114.5 x 20.5		103		103
3	129 x 23		104		104
4	144 x 29		105		105
5	165 x 33		106		106
6	186 x 38		107		107

Size mm	Arm length mm	black 51850	...	nickel-plated 51851	...
8	208 x 44		108		108
10	234 x 50		109		109
12	262 x 57		110		110
14	294 x 70		111		111
17	337 x 80		112		112
19	379 x 89		113		113

51852 Allen wrench set SCREW-SAVER

HHW
Design
- **SCREW-SAVER** with unique special profile for loosening damaged screws

Quality
Chromium-vanadium steel.

51852

Number of wrenches	Size mm	Design	51852	...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip		101

51854 - 51855 Long Allen wrench ISO 2936L

AMF
Quality
Chromium-vanadium steel, hardened and nickel-plated.

51854 101
Design
In impact-resistant plastic sliding box.

51854 102
Design
In workshop stand made from impact-resistant plastic. With connector clip to attach to further workshop stands.

51854 101

51854 102

Number of wrenches	Size mm	Design	51854	...
8	2/2.5/3/4/5/6/8/10	in plastic sliding box		101
9	2.5/3/4/5/6/8/10/12/14	in workshop stand		102

Size mm	Arm length mm	51855	...
2	102 x 18		102
2.5	114.5 x 20.5		103
3	129 x 23		104
4	144 x 29		105
5	165 x 33		106
6	186 x 38		107
7	197 x 41		108

Size mm	Arm length mm	51855	...
8	208 x 44		109
10	234 x 50		110
12	262 x 57		112
14	294 x 70		113
17	337 x 80		114
19	379 x 89		115

51855

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51856 Long Allen wrench similar to ISO 2936L

wiha
Tools that work for you

Quality
Chromium-vanadium steel blade, hardened throughout, bronzed.

51856 100
Design
- Set comprising 5 pieces
- Common wrench sizes are clearly stored in the classic holder
- Simple and fast operation with fixed attachment point for pin wrenches

51856 100

Number of wrenches	Size mm	Design	51856	...
5	0.7/0.9/1.3/1.5/2.0	in classic holder		100

51856 200-204

Size mm	Arm length mm	51856	...
0.7	67 x 6		200
0.9	70 x 9		201
1.3	80 x 13		202

Size mm	Arm length mm	51856	...
1.5	91 x 15		203
2.0	101 x 18		204

51864 - 51865 Long Allen wrench ISO 2936L

Hex Plus

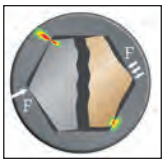
Wera
Be a Tool Fiend

Design
Hex-Plus system, chrome-plated frame.

Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.

51864

51865



Number of wrenches	Size mm	Design	51864	...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip	18.30	102

Size mm	Arm length mm	51865	...
1.5	90 x 14		101
2	100 x 16		102
2.5	112 x 18		103
3	126 x 20		104
4	140 x 25		105
5	160 x 28		106

Size mm	Arm length mm	51865	...
6	180 x 32		107
7	190 x 30		108
8	200 x 36		109
10	219 x 40		110
12	250 x 45		111

51870 - 51872 Allen wrench with handle ISO 2936

HHW

Design
With plastic square handle.

Quality
Chromium-vanadium steel blade, hardened and tempered throughout and nickel plated.

51870 201

Number of wrenches	Design	Size mm	Design	51870	...
6	Straight	3/4/5/6/8/10	in box		201
6	Curved	3/4/5/6/8/10	in box		202

51870 202

Size mm	Total length straight mm	Total length curved mm	Straight 51871	...	Curved 51872	...
2	120	-		201		
2.5	150	-		202		
3	150	110 x 20		203		203
4	160	120 x 25		204		204
5	170	130 x 28		205		205
6	205	145 x 32		206		206
8	205	165 x 36		207		207
10	215	190 x 40		208		208

Pin wrenches

51876 - 51877 Allen® wrench with T-handle

ATORN®

Design
With plastic T-handle
Quality
59 chrome-molybdenum-vanadium 4, nickel-plated.

51876 100

Number of wrenches	Size mm	Design	51876	...
7	2/2.5/3/4/5/6/8	in box		100
7	2/2.5/3/4/5/6/8	in workshop stand		101
9	2.5/3/4/5/6/8/10/12/14	in workshop stand		102

Size mm	Blade length mm	51877	...
2	100		101
2.5	100		103
S 3	50		104
3	100		105
L 3	150		106
XL 3	200		107
4	100		108
L 4	150		109
XL 4	200		110
5	100		111
L 5	150		112

Size mm	Blade length mm	51877	...
XL 5	200		113
6	100		114
L 6	150		115
XL 6	200		116
8	100		117
L 8	150		118
XL 8	200		119
10	100		120
L 10	200		121
12	200		122
14	300		123

51876 101

51877

51878 Allen wrench with 2-component T-handle (set + individual)

ATORN®

Design
- 2-component T-grip handle for better power transmission
- Soft coating reduces pressure points
- Cross-hole for hanging tools
- Hard core for lasting blade/handle connection even under maximum load
- Matt chrome-plated blade with black tip

Quality
Blade made of special chrome vanadium and chrome-molybdenum-vanadium alloy.

51878 201-220

Number of wrenches	Size mm	Design	51878	...
7	2/2.5/3/4/5/6/8	in box		100

Size mm	Blade length mm	51878	...
2	100		201
2.5	100		202
S 3	50		203
3	100		204
L 3	150		205
XL 3	200		206
4	100		207
L 4	150		208
XL 4	200		209
5	100		210

Size mm	Blade length mm	51878	...
L 5	150		211
XL 5	200		212
6	100		213
L 6	150		214
XL 6	200		215
8	100		216
L 8	150		217
XL 8	200		218
10	100		219
L 10	200		220

51879 - 51880 Allen wrench with T-handle (ComfortGrip)

wiha Tools that work for you

Design

Wiha ComfortGrip, the comfortable multi-component T-handle with soft zones, makes work a pleasure. With side drive. ChromTop® blade tip for the highest dimensional accuracy on both outputs.

Quality

End-to-end chrome blade, fully hardened. Chromium-vanadium steel.

51879

Number of wrenches	Sizes mm	Design	51879	...
6	2.5/3/4/5/6/8	in box		101

Size mm	Length mm	51880	...
2	100		101
2.5	100		102
3	100		103
4	150		104

Size mm	Length mm	51880	...
5	150		105
6	150		106
8	200		107
10	200		108

51880

51882 Allen wrench with 2-component T-handle

FACOM

Design

- Silicon carbon-steel for a longer service life
- Soft 2-component grip for more comfort and better torque transmission
- Short end for higher rotational and tightening torque

Quality

Silicon carbon-steel, polished, phosphated.

51882

Size Size mm	Arm length mm	51882	...
2.5	133 x 63		201
3	133 x 63		202
4	183 x 77		203
5	183 x 77		204
6	240 x 95		205
8	240 x 95		206
10	240 x 95		207

51883 Allen wrench with 2-component T-handle (inch)

FACOM

Design

- Silicon carbon-steel for a longer service life
- Soft 2-component grip for more comfort and better torque transmission
- Short end for higher rotational and tightening torque

Quality

Silicon carbon-steel, polished, phosphated

51883

Size Inch	Arm length mm	51883	...
5/32	183 x 77		203
3/16	183 x 77		204
7/32	240 x 95		205
1/4	240 x 95		206
3/8	240 x 95		208

51875 Allen wrench with key grip

wiha Tools that work for you

Design

- With Wiha wrench grip

Applications

For high torque with small screws dimensions, especially when changing indexable inserts on the blade heads.

Quality

Chromium-vanadium steel blade, hardened throughout, bronzed.

51875

Size mm	Blade length mm	Total length mm	Grip width mm	51875	...
1.5	60	95	40		101
2.0	60	95	40		102
2.5	60	95	40		103
3.0	60	95	40		104

Pin wrenches

51884 Hex (ball head) pin wrench with T-handle

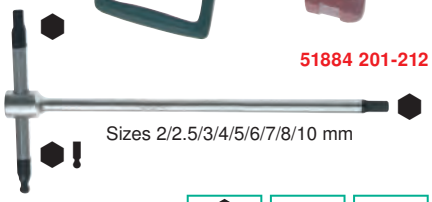
Design
- 2 ends with hexagonal profile
- 1 end with hexagonal ball head profile

51884 102

Number of wrenches	Size mm	Design	51884	...
9	2/2.5/3/4/5/6/7/8/10	in case		102

Size mm	Arm length mm	51884	...
2	126 x 65		201
2.5	126 x 65		202
3	126 x 65		203
4	180 x 90		205
5	180 x 90		207

Size mm	Arm length mm	51884	...
6	210 x 105		208
7	210 x 105		209
8	250 x 125		210
10	300 x 145		212



51884 201-212

Sizes 2/2.5/3/4/5/6/7/8/10 mm

51885 Long Allen® hex ball head pin wrench set

ATORN®

Design
- Nickel-plated
- Short arm, **bent 100°**

Applications
For screwing concealed hexagon socket screws up to an angle of 30°.
Quality
Chromium-vanadium steel.

51885

Number of wrenches	Size mm	Design	51885	...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip		101

51888 - 51889 Long Allen® hex ball head pin wrench similar to ISO 2936L

ATORN®

Applications
For screwing concealed hexagon socket screws up to an angle of 30°.

Quality
59 chrome-molybdenum-vanadium 4, nickel-plated.

51888

Number of wrenches	Size mm	Design	51888	...
8	2/2.5/3/4/5/6/8/10	in plastic sliding box		101

Size mm	Arm length mm	51889	...
1.5	91.5 x 15.5		101
2	102 x 18		102
2.5	114.5 x 20.5		103
3	129 x 23		104
4	144 x 29		105

Size mm	Arm length mm	51889	...
5	165 x 33		106
6	186 x 38		107
8	208 x 44		108
10	234 x 50		109
12	262 x 57		110

51889

51892 Long Allen® hex ball head pin wrench set

ATORN®

Design
In an ergonomically shaped 2-component hand holder.

Applications
For screwing concealed hexagon socket screws up to an angle of 30°.
Quality
59 chrome-molybdenum-vanadium 4, nickel-plated.

51892

Number of wrenches	Size mm	Design	51892	...
9	1.5/2/2.5/3/4/5/6/8/10	in hand-held holder		101

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51893 Long Allen® hex ball head pin wrench

ATORN®

Design
Nickel-plated, colour-coded.

Applications
For screwing concealed hexagon socket screws up to an angle of 30°.
Quality
Chromium-vanadium steel.

51893 101

51893 201-209

Number of wrenches	Size mm	Design	51893 ...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip	101

Size mm	Colour coding	51893 ...
1.5	red	201
2.0	dark blue	202
2.5	blue	203
3.0	light blue	204
4.0	green	205

Size mm	Colour coding	51893 ...
5.0	light green	206
6.0	yellow	207
8.0	yellow-orange	208
10.0	orange	209

51895 - 51896 Long hex ball head pin wrench

Hex Plus

Wera

Design
Hex-Plus system, chrome-plated frame.
Applications
For screwing concealed hexagon socket screws up to an angle of 25°.

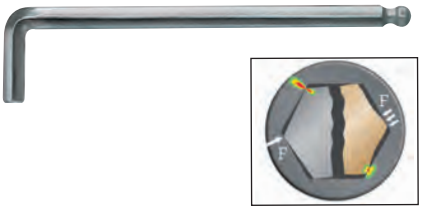
Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.

51895 101

51895 102

Number of wrenches	Size mm	Design	51895 ...
7	1.5/2/2.5/3/4/5/6	in plastic clip	101
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip	102

51896



Size mm	Arm length mm	51896 ...
1.5	90 x 14	101
2	100 x 16	102
2.5	112 x 18	103
3	126 x 20	104
4	140 x 25	105

Size mm	Arm length mm	51896 ...
5	160 x 28	106
6	180 x 32	107
8	200 x 36	108
10	219 x 40	109

Info Wera Stainless – The tool for better work results

Edelstahl Rostfrei

Wera

Using stainless steel tools prevents extraneous rust.
Stainless steel requires tools made from stainless steel.
This is the only way to prevent extraneous rust-causing abrasion of conventional tools.
Moreover: Stainless steel has an incredibly beautiful product design.

51897 Long hex ball head pin wrench set, rustproof

Hex Plus

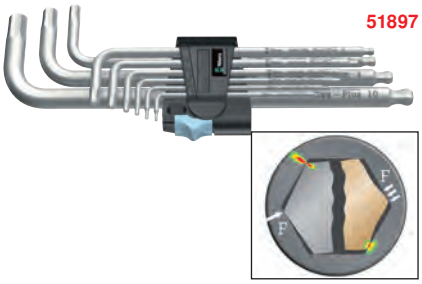
Edelstahl Rostfrei

Wera

Design
Hex-Plus system.
Applications
For screwing concealed hexagon socket screws up to an angle of 25°.
Quality
Blade made from stainless steel.

Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.

51897



Number of wrenches	Size mm	Design	51897 ...
9	1.5/2/2.5/3/4/5/6/8/10	in a solid rubber clip	101

51898 Long hex ball head pin wrench, rustproof

Wera

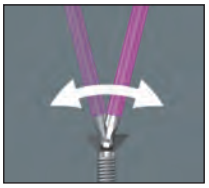
Design
- High quality angle wrench set made of stainless steel for hexagon socket screws
- Stainless steel prevents the transfer of extraneous rust
- The notch effect is thus reduced to a minimum and the destruction of the screw head virtually eliminated
- With hexagonal ball head on the long arm: With the ball-shaped output profiles, the tool axis can be deflected or swivelled to the screw axis, allowing screwing around the corner
- **Take it easy** tool finder colour coding by size
- With virtually wear-free angle key clip

Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.

NEW

51898 200

51898 101



Number of wrenches	Size mm	Design	51898	...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip		200

Size mm	Arm length mm	Colour coding	51898	...
1.5	90 x 14	light blue		101
2	101 x 16	green		102
2.5	112 x 19	bright green		103
3	123 x 21	light pink		104
4	137 x 24	yellow		105

Size mm	Arm length mm	Colour coding	51898	...
5	154 x 27	light orange		106
6	172 x 31	red		107
8	195 x 37	pink		108
10	224 x 42	blue		109

51901 Long hex ball head pin wrench

Wera

Design
BlackLaser surface. With colour-coded, convenient hose sheath, the tool can be found quickly and easily and the ergonomic and convenient handle protects the hands even at low temperatures. The Hex-Plus profile offers larger contact surfaces in the screw head. The geometry allows up to 35% more static torque and reduces the damaging notch effect in the screw head by approx. 80%. Destruction of the screw head is almost eliminated.

Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.

51901 200

51901 201-209

Number of wrenches	Size mm	Design	51901	...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip		200

Size mm	Arm length mm	Colour coding	51901	...
1.5	90 x 14	light blue		201
2	101 x 16	green		202
2.5	112 x 19	bright green		203
3	123 x 21	light pink		204
4	137 x 24	yellow		205

Size mm	Arm length mm	Colour coding	51901	...
5	154 x 27	light orange		206
6	172 x 31	red		207
8	195 x 37	pink		208
10	224 x 42	blue		209

51902 Long hex ball head pin wrench

Wera

Design
- Hex ball head pin wrench set with colour-coded, convenient hose sheath
- **With holding function** (Sizes 3–10) to hold screws securely on the tool
- Ball on the long arm allows safe working even in difficult mounting positions
- Wear-free clip material for permanently secure hold of the Allen key with similarly easy removal
- BlackLaser surface treatment ensures excellent surface protection

Sizes 1.5/2.0/2.5 = **without hold function**

Note:
The Hex-Plus system allows a much larger contact surface compared to the existing hexagon system. This improves the life of the tool and the screw, reduces the notch effect and increases the torque, meaning a significantly higher number of screwing operations is possible.

Hex Plus | HOLDING FUNCTION | TAKE IT EASY TOOL FINDER

NEW

51902 300

51902 404

Number of wrenches	Size mm	Design	51902	...
9	1.5/2/2.5/3/4/5/6/8/10	in plastic clip		300

Size mm	Arm length mm	Colour coding	51902	...
3	123 x 21	light pink		404
4	137 x 24	yellow		405
5	154 x 27	light orange		406

Size mm	Arm length mm	Colour coding	51902	...
6	172 x 31	red		407
8	195 x 37	pink		408
10	224 x 42	blue		409

51907 - 51908 Long hex ball head pin wrench (MagicRing®) ISO 2936L

wiha Tools that work for you

Design
From Sizes 3 mm with **MagicRing®** made of spring steel.
Applications
Holds hexagonal bolts conforming to DIN 912 perfectly in any position thanks to the high-quality spring steel ring. For example, for inserting screws into horizontal, oblique or very deep blind holes. No longer necessary to magnetise the pin wrench tip! For screwing up to an angle of 25°. New geometry: Increased retention force, 10% more torque.

Quality
Chromium-vanadium steel, fully hardened, bright nickel-plated.

51907 202
Design
Kit in a space-saving ErgoStar holder (the mechanical operation makes it extremely easy to remove each pin wrench without disturbing others)

51907 202

51908

Number of wrenches	Size mm	Design	51907	...
9	1.5/2/2.5/3/4/5/6/8/10	in ErgoStar holder		202

Size mm	Arm length mm	51908	...
3	128 x 23		204
4	142 x 29		205
5	163 x 33		206

Size mm	Arm length mm	51908	...
6	184 x 38		207
8	206 x 44		208
10	231 x 50		209

51911 - 51912 Allen® ball head wrench with T-handle

ATORN®

Design
With ergonomic T-handle

Quality
Chromium-vanadium steel, nickel-plated.

Note:
Sizes 2 and 2.5 mm without ball head.

51911

Number of wrenches	Size mm	Design	51911	...
7	2/2.5/3/4/5/6/8	in workshop stand		101

51912

Size mm	Blade length mm	51912	...
3	100		101
4	100		102
L 4	150		103
5	100		104
L 5	150		105

Size mm	Blade length mm	51912	...
6	150		106
L 6	200		107
8	150		108
L 8	200		109
10	200		110

51913 - 51914 Hex ball head pin wrench with T-handle

HHW

Design
With rubberised T-handle for maximum load.
Applications
For screwing concealed hexagon socket screws up to an angle of 25°.

Quality
Specially hardened blade.

51913

Number of wrenches	Size mm	51913	...
5	4/5/6/8/10		101

Size mm	Total length mm	51914	...
4	200		101
5	225		102
6	240		103
8	260		104
10	280		105

51919 Hex ball head pin wrench with T-handle (ComfortGrip)

wiha
Tools that work for you

Design
- **Wiha ComfortGrip,** the comfortable multi-component T-handle with soft zones makes work a pleasure
- Side output with end-to-end blade withstands the highest loads
- The ball head enables screws to be tightened at angles of up to 25°.

Applications
Comfortable transmission of high torques. Ideal for loosening particularly stuck screws and for tightening screws extra tight. Specially designed for hard-to-reach spots.

Quality
Blade made from chromium-vanadium steel, fully hardened and brushed chromium-plated.

51919

Size mm	Blade length mm	Blade length side output mm	Handle width mm	Handle height mm	51919	...
3	150	13	80	26		201
4	150	13	80	26		202
5	150	17	100	32		207
6	150	17	100	32		204
8	200	17	100	32		205
10	200	22	120	38		206

51920 Hex ball head pin wrench with two-component T-handle

FACOM

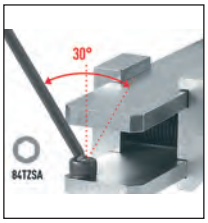
Design
- Silicon carbon-steel for a longer service life
- Soft 2-component grip for more comfort and better torque transmission
- Short end for higher rotational and tightening torque

Quality
Silicon carbon-steel, polished, phosphated

NEW

51920

Size mm	Arm length mm	51920	...
4	183 x 77		203
5	183 x 77		204
6	240 x 95		205
8	240 x 95		206
10	240 x 95		207



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51924 TX® pin wrench sets

ATORN®

Quality
Chromium-vanadium steel (59 Cr-Mo-V4), steel grey.

Note:
TX® profile gauge, see art. no. 37930.

51924 101
Design
With hole for TX® screws with safety pin.

51924 102
Design
Extra long, without hole.

51924 101

51924 102

Number of wrenches	Size T	Design	51924 ...
8	9/10/15/20/25/27/30/40	in plastic clip	101
13	5/6/7/8/9/10/15/20/25/27/30/40/50	in plastic clip	102

51925 - 51926 TX® pin wrenches

ATORN®

Quality
59 chrome-molybdenum-vanadium 4, steel grey.

Note:
TX® profile gauge, see art. no. 37930.

51925

51926

Number of wrenches	Size T	Design	51925 ...
8	9/10/15/20/25/27/30/40	in plastic sliding box	201

Size T	Arm length mm	51926 ...
6	44.5 x 18.5	201
7	50.5 x 18.5	202
8	51 x 19	203
9	51 x 19	204
10	54 x 20	205
15	57.5 x 21.5	206
20	61 x 23	207
25	64.5 x 24.5	208

Size T	Arm length mm	51926 ...
27	69.5 x 26.5	209
30	76 x 30	210
40	83 x 33	211
45	91 x 37	212
50	104 x 41	213
55	120 x 47	214
60	134 x 52	215

51927 TX® pin wrench set (MagicSpring®)

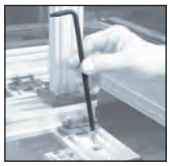
wiha Tools that work for you

Design
In a space-saving **ErgoStar holder** (the mechanical operation makes it extremely easy to remove each pin wrench without disturbing others).
MagicSpring® made of stainless steel holds TX® screws tight in any position (from size T6).
Quality
Chrome vanadium steel, hardened throughout, bronzed.

Note:
TX® profile gauge, see art. no. 37930.

The restraining spring is welded together with a thin cover plate on the blade tip by means of a laser.

The MagicSpring retaining spring clamps the tool and the TX® or TX PLUS® screw to ensure that it is held securely.



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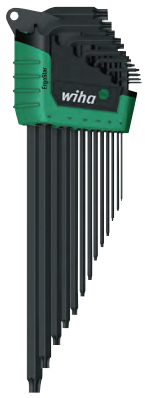

Number of wrenches	Size T	Design	51927 ...
13	5/6/7/8/9/10/15/20/25/27/30/40/45	in ErgoStar holder	103

51928 TX®/ball head pin wrench set

wiha Tools that work for you

Design
The mechanical operation of the space-saving **ErgoStar holder** makes it extremely easy to remove each pin wrench without disturbing others. TX® ball head (from size T9) allows screwing at angles of up to 25°. With elongated TX® profile behind the ball head.
Quality
Chrome vanadium steel, hardened throughout, bronzed.

Note:
TX® profile gauge, see art. no. 37930.

51928

Number of wrenches	Size T	Design	51928 ...
13	5/6/7/8/9/10/15/20/25/27/30/40/45	in ErgoStar holder	102

Pin wrenches

51931 TX® pin wrench with T-handle

ATORN®

Design
With plastic T-handle,
short and long versions.

Quality
Chromium-vanadium steel (59 Cr-Mo-V4), chrome-plated, with black tip.

Note:
TX® profile gauge, see art. no. 37930.

Size T	Blade length mm	51931 ...
8	100	101
9	100	103
10	100	105
15	100	107
L 15	200	108
20	100	109
L 20	200	110
25	100	111
L 25	200	112
27	100	113
L 27	200	114

Size T	Blade length mm	51931 ...
30	100	115
L 30	200	116
40	100	117
L 40	200	118
45	150	119
L 45	250	120
50	150	121
L 50	250	122
55	150	123
60	150	125

51931

51933 TX® pin wrench, with 2-component T-handle (set + individual)

ATORN®

Design
- 2-component T-grip handle for better power transmission
- Soft coating reduces pressure points
- Cross-hole for hanging tools
- Hard core for lasting blade/handle connection even under maximum load
- Matt chrome-plated blade with black tip

Quality
Blade made of special chrome vanadium and chrome-molybdenum-vanadium alloy.

Note:
TX® profile gauge, see art. no. 37930.

Number of wrenches	Size T	Design	51933 ...
6	10/15/20/25/30/40	in box	100

Size T	Blade length mm	51933 ...
8	100	201
9	100	202
10	100	203
15	100	204
20	100	205

Size T	Blade length mm	51933 ...
25	100	206
27	100	207
30	100	208
40	100	209
45	140	210

51933 201-210

51932 TX®/TX PLUS® pin wrench

ATORN®

Quality
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

51932 101
Design
TX® profile, bronzed blade.
Set comprising 7 pieces.

51932 201-208
Design
TX® profile, bronzed blade.
Individual wrench.

51932 301
Design
TX PLUS® profile, bronzed blade.
7 pieces in set.

51932 401-408
Design
TX PLUS® profile, bronzed blade.
Individual wrench.

51932 101

Profile	Number of wrenches	Size T/IP	Design	51932 ...
TX®	7	6/7/8/10/15/20	in workbench stand	101
TX PLUS®	7	6/7/8/10/15/20	in bench stand	301

				TX®		TX PLUS®	
Size T/IP	Blade length mm	Blade diameter mm	Handle mm	51932	...	51932	...
5	33	2.5	19		201		401
6	33	2.5	19		202		402
7	33	2.5	19		203		403
8	33	2.5	19		204		404
9	37	3.0	24		205		405
10	37	3.0	24		206		406
15	43	4.0	28		207		407
20	43	4.0	28		208		408

51932 201-208

51932 401-408

51937 TX® pin wrench, with 2-component T-handle

FACOM

Design
- Silicon carbon-steel for a longer service life
- Soft 2-component grip for more comfort and better torque transmission
- Short end for higher rotational and tightening torque

Quality
Silicon carbon-steel, polished, phosphated.

NEW

51937

Size T	Arm length mm	51937 ...
6	133 x 63	201
7	133 x 63	202
8	133 x 63	203
9	133 x 63	204
10	133 x 63	205
15	133 x 63	206
20	183 x 77	207

Size T	Arm length mm	51937 ...
25	183 x 77	208
27	183 x 77	209
30	240 x 95	210
40	240 x 95	211
45	240 x 95	212
50	240 x 95	213

51938 - 51939 TX® pin wrench with T-handle (ComfortGrip)

wiha
Tools that work for you

Design
Wiha ComfortGrip, the comfortable multi-component T-handle with soft zones, makes work a pleasure. With side drive. ChromTop® blade tip for the highest dimensional accuracy on both outputs.

Quality
End-to-end chrome blade, fully hardened.
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

51938

51939

Number of wrenches	Size T	Design	51938 ...
6	10/15/20/25/30/40	in box	101

Size T	Blade length mm	51939 ...
10	100	101
15	100	102
20	100	103
25	150	104

Size T	Blade length mm	51939 ...
27	150	105
30	150	106
40	150	107

51940 - 51941 TX® pin wrench with T-handle

Design
- 3 ends with TX® profile

Note:
TX® profile gauge, see art. no. 37930.

51940

51941

Number of wrenches	Size T	Design	51940 ...
9	10/15/20/25/27/30/40/45/50	in case	101

Size T	Arm length mm	51941 ...
10	125 x 65	101
15	125 x 65	102
20	125 x 65	103
25	182 x 90	104
27	182 x 90	105

Size T	Arm length mm	51941 ...
30	182 x 90	106
40	210 x 105	107
45	210 x 105	108
50	215 x 105	109

51942 - 51943 TX® ball head pin wrench

ATORN®

Applications
For screwing concealed TX® screws up to an angle of 20°.

Quality
Blade made of special alloy steel, hardened, steel grey.

Note:
TX® profile gauge, see art. no. 37930.

51942

51943

Number of wrenches	Size T	Design	51942 ...
8	9/10/15/20/25/27/30/40	in plastic hand-held holder	101

Size T	Arm length mm	51943 ...
9	67 x 19	101
10	76 x 20	102
15	86.5 x 20.5	103
20	98 x 22	104
25	100.5 x 22.5	105
27	111.5 x 25.5	106

Size T	Arm length mm	51943 ...
30	125 x 30	107
40	139 x 33	108
45	145 x 37	109
50	149 x 41	110
55	157 x 47	111

51944 TX® ball head pin wrench set

ATORN®

Design
Nickel-plated, colour-coded.
Applications
For screwing concealed TX® screws up to an angle of 20°.

Quality
Chromium-vanadium steel.

Note:
TX® profile gauge, see art. no. 37930.

51944

Number of wrenches	Size T	Design	51944 ...
8	9/10/15/20/25/27/30/40	in plastic clip	101

51954 ResisTORX® pin wrench

Wera

Design
- With hole
- With plastic sheath (SPKL) made from grip-friendly round material
- The coating makes the work a pleasure even at low temperatures and protects fingers
- All of the pin wrenches can be quickly identified thanks to their colour coding and size markings

Applications
For TX® and TX® BO/Resis fittings (with hole).

Note:
T8 and T9 without bore and ball head, T10 without ball head. TX® profile gauge, see art. no. 37930.

51954 200
Design
- Set in the clip made from wear-free material which guarantees a secure hold and simple removal

TAKE IT EASY TOOL FINDER

51954 200

51954 301-309

Number of wrenches	Size T	Design	51954 ...
9	8/9/10/15/20/25/27/30/40	in plastic clip	200

Size T	Arm length mm	Colour coding	51954 ...
8	76 x 16	ice blue	301
9	79 x 16	green	302
10	85 x 17	light green	303
15	90 x 18	light yellow	304
20	96 x 19	pink	305

Size T	Arm length mm	Colour coding	51954 ...
25	104 x 21	yellow	306
27	112 x 22	blue	307
30	122 x 24	light orange	308
40	132 x 27	red	309

51960 - 51961 Allen® wrench with pin DIN 6911

ATORN®

Applications
For hexagon socket screws DIN 6912

Quality
59 chrome-molybdenum-vanadium 4, nickel-plated.

51960

Number of wrenches	Size mm	Design	51960 ...
5	3/4/5/6/8	in plastic pouch	101

Sizes mm	Arm length mm	Pin diameter mm	Pin length mm	51961 ...
3	66 x 23	2.0	1.1	101
4	74 x 29	2.5	1.3	102
5	85 x 33	3.0	1.6	103
6	96 x 38	4.0	2.6	104
8	108 x 44	5.0	2.8	105

Sizes mm	Arm length mm	Pin diameter mm	Pin length mm	51961 ...
10	122 x 50	6.0	3.2	106
12	137 x 57	7.0	3.5	107
14	154 x 70	8.0	3.6	108
17	177 x 80	10.0	4.5	109

51966 Triple square pin wrench, DIN 65253

ATORN®

Design
Nickel-plated.

Applications
For XZN triple square socket screws.
Quality
Chromium-vanadium steel.

51966

For Screws	Arm length mm	51966 ...
M 5	75 x 30	102
M 6	86 x 34	103
M 8	98 x 40	104
M 10	110 x 46	105

For Screws	Arm length mm	51966 ...
M 12	124 x 52	106
M 14	139 x 59	107
M 16	156 x 72	108

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51995 Universal thread repair tool

HAZET

Design
Rapid attachment using adjusting screw. Automatic adjustment of the blade on any thread pitch.
Applications
For cutting right and left-handthreads.
For all metric and non-metric types of thread (60°-edge dimension).

51995 103

51995 101

For thread diameter mm	For thread diameter inch	51995 ...
4 - 13	5/32 - 1/2	101
16 - 38	5/8 - 1,1/2	103

Info Nut splitters and stud bold turners, see art. no. 78010 - 78030

51985 - 51986 Screw extractor, double-edged

HHW

Design
Non-slip double-edged engagement with the screw or stud bolt to be loosened. With punch tip. Bronzed surface, cutting surface polished.
Applications
For extracting broken screws or stud bolts from threaded holes without causing damage.
For right-hand and left-hand threads.
For a safe and secure hold, the extractor is fed into the hole.

Quality
Chromium-vanadium steel, hardened.

51985

51986

Set

Number of extractors	Set contents Size	Design	51985 ...
5	1–5	in metal box	101

Individual

Size	Size mm	Hole diameter min. mm	Hole diameter max. mm	Screw size min.	Screw size max.	Design	51986 ...
1	6.35	3.2	4.8	M 5	M 6	in plastic box	101
2	9.50	4.8	7.1	M 8	M 10	in plastic box	102
3	12.70	6.4	9.5	M 10	M 12	in plastic box	103
4	15.90	8.7	12.7	M 12	M 16	in plastic box	104
5	19.00	11.1	15.9	M 16	M 20	in plastic box	105
6	22.00	14.3	19.1	M 20	M 24	in plastic box	106
7	25.40	19.1	23.8	-	M 30	in plastic box	107

51993 Screw and bolt extractor set

Design
- Fits through 1/4 inch hexagon socket in every cordless screwdriver or drill with clockwise and anti-clockwise rotation function

Quality
Special tool steel.

51993

Number of extractors	Screw size mm	Design	51993	...
2	3–10	in plastic box		100

51990 - 51992 Screw extractors

schröder

Design
Rolled thread, ground shaft.
Applications
Maximum user torque in Nm with a test element with a material strength of 1147 N/mm² and a hardness of 35 HRc. For extracting broken screws with a right-hand thread and removing torn off pipe ends from fittings.
Quality
59 chrome vanadium steel, hardened to 54–56 HRc.

51991
Screw extractor HITRAC
Design
Also with milled groove.
The optimised geometry and thread length reduces the extraction force considerably.
Available in two different set sizes.

51990 101

51990 102

Set					HITRAC	
Number of extractors	Set contents Size	Design	51990	...	51991	...
5	1–5	in plastic box		100		
6	1–6	in plastic box		101		101
8	1–8	in plastic box		102		

51991 101

Individual

Size	Tip Ø mm	Shaft Ø mm	Total length mm	Recommended drill Ø mm	For screws	51992	...
1	1.4	3.6	50	1.8	M 3–4		101
2	2.1	4.9	57	3.2	M 5–7		102
3	3.1	6.5	64	4.5	M 8–10		103
4	4.8	8.8	71	6.5	M 11–14		104
5	6.2	11.0	79	8.5	M 16–18		105
6	9.4	15.0	85	11.8	M 18–24		106
7	12.7	19.0	92	15.3	M 24–33		107
8	17.5	24.0	100	20.0	M 33–45		108

51992

14933 Bolt extractor set

Applications
Enables broken bolts and stud bolts to be professionally extracted.
Quality
HSS steel.

14933

	Set contents:
5	HSS drills 3.2/4.8/6.4/8.0/8.7 mm
10	drill guide bushes
5	extractor pins
5	extractor adapters

Set contents	for stud bolt Ø mm	Design	14933	...
25 pieces	5–16	in box		201

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ATORN®

Blade made from chromium-vanadium-molybdenum steel, fully hardened, blackened tip, hexagonal shoulder for wrenches. **Multi-component handle with extra large soft zone** and suspension hole.

ATORN®

With striking cap.
Blade made from chromium-vanadium steel with a one-piece hexagonal blade and hexagonal shoulder for wrenches. The striking cap and torque adjustment meant that higher torques can be transferred.
Black tip for a precise fit of the screw heads. **Multi-component handle with extra large soft zone** and suspension hole. Handle top with anti-roll protection. Performance values up to 100% above DIN values!

ATORN®

Individually tested in accordance with DIN EN 60900 (IEC 900).
ATORN slim blade made from chromium-vanadium-molybdenum-steel, fully hardened, bronzed, insulated, black tip, multi-component handle with extra large soft zone and suspension hole. Handle marking (screw symbol).

BAHCO

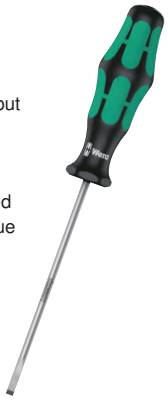
Blade made from vanadium-extra-steel, brushed chromium-plated, fully hardened, bronzed tip. Ergonomic **three-component handle,** impact-resistant. Captive colour coding system on both ends of the handle.

BAHCO

Individually tested, DIN EN 60900 (IEC 900). Blade made from vanadium-extra-steel, brushed chromium-plated, fully hardened, tip bronzed. Ergonomic **three-component handle,** impact-resistant. Captive colour-coding system on both ends of the handle.

Wera

Blade made from high-alloy special steel, nicromatt, output **laser tip black point tip.** Ergonomically optimised Kraftform handle with hard zones for high working speed and soft zones for high torque transmission, handle with anti-roll protection.



Wera

The screw chisel
With striking cap and one-piece blade. Extra tough. **Blade** made from high-alloy special steel, brushed nickel-chrome, from 0.8 x 4.5 with **torque adjustment.** Output **black point tip.** Ergonomically optimised **Kraftform handle** with hard and soft zones for maximum torque transmission, handle with anti-roll protection.

Wera

Individually tested
Standard: IEC 60900

Wera

Note:
Kraftform screwdriver with laser tip blade to prevent it from slipping out of the screw
Better work results due to
Improved safety
More power
More speed

wiha

Tools that work for you

Blade made from high-quality chromium-vanadium-molybdenum steel, fully hardened, brushed chromium-plated. **ChromTop® tip.** Ergonomic **SoftFinish® handle** for the highest torques, with anti-roll protection.

wiha

Tools that work for you

Blade made from high quality chromium-vanadium-molybdenum steel, fully hardened, bronzed. Ergonomic **SoftFinish® handle** for the highest torques, with anti-roll protection. **Manufactured in accordance with IEC 60900:2004.**

wiha

Tools that work for you

Blade made from high-quality chromium-vanadium steel, fully hardened, bright nickel-plated. **ChromTop® tip.** Wooden handle made from sealed beech wood. Impact head with **leather cap** protects the end of the handle against damage. From 5.5 mm with one-piece blade, hexagonal shoulder for wrenches and cutting edge with slip guard.

52002 Magnetic storage tray

Design
Round, made from stainless steel. Due to the double-sided magnetic effect, the tray can be secured to all iron surfaces, such as workshop trolleys, tool racks or lifting platforms. To protect the surface, the magnetic surface is covered with rubber.
Applications
Universal magnetic storage tray with strong magnets that hold small parts, such as screws or wheel bolts, securely.

52002

Diameter mm	52002 ...
150	101

52000 Permanent magnetising and demagnetising device

wiha Tools that work for you

52000

Design
Housing made from shatterproof plastic, cadmium-free.
Applications
Used to magnetise or demagnetise screwdriver blades, tweezers and similar steel tools.

W x H x D mm	52000 ...
52 x 50 x 29	101

67160 Pricking awl

Design
- With round blade and plastic handle
- Blade made from tool steel

67160

Diameter x length mm	67160 ...
6 x 100	101

52004 Watchmaker's screwdriver sets

Design
DIN 8320 BS1. Handles made from impact-resistant plastic, handle ends can be rotated.
Quality
Blade made from chromium-vanadium steel, hardened and bronzed.

52004 101

Set contents	Cutting edge width x total length mm	Design	52004 ...
5 pieces	1.0 x 104/1.4 x 104/1.8 x 104/2.3 x 104/3.0 x 104	in plastic case	101
7 pieces	0.6 x 104/0.8 x 104/1.0 x 104/1.2 x 104/1.4 x 104/1.8 x 104/2.3 x 104	in wooden box	102

52015 Watchmaker's screwdriver with interchangeable blades

Design
4 blades, hardened, interchangeable, in the handle, shaft made of nickel-plated brass, fluted handle.
Quality
Chromium-vanadium steel blade.

52015

Cutting edge width x cutting edge thickness mm	Handle diameter mm	Total length mm	52015 ...
1.5 x 0.23/2.0 x 0.4/2.5 x 0.4/3.0 x 0.5	8.5	115	101

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52009 Watchmaker's screwdriver

NEW

Design
- Watchmaker's screwdriver with handle made from corrosion-resistant aluminium with high strength and inserted blade
- Rotating hexagon head made from black plastic

Advantage
- Aluminium handle, no nickel content (allergy sufferers)

Quality
Blades made from molybdenum-vanadium steel, hardened and bronzed.

52009 400

Set contents	Size x blade length mm	Design	52009	...
4 pieces ⊕	0000/000/00/0	in practical wooden box		400

52009 401

Set contents	Cutting edge width x total length mm	Design	52009	...
6 pieces ⊖	1.0/1.5/2.0/2.5/3.0/3.5	in practical wooden box		401

52009 402

Set contents	1 piece each	Design	52009	...
6 pieces ⊖	1.0/1.5/2.0/3.0	in practical wooden box		402
⊕	0/00			

52009 201-208

Cutting edge width x cutting edge thickness mm	Handle diameter mm	Total length mm	52009	...
1.0 x 0.20	5	80		201
1.5 x 0.23	5	84		202
1.8 x 0.30	6	100		203
2.0 x 0.40	6	100		204

Cutting edge width x cutting edge thickness mm	Handle diameter mm	Total length mm	52009	...
2.3 x 0.30	6	100		205
2.5 x 0.40	6	100		206
3.0 x 0.50	8	112		207
3.5 x 0.60	8	112		208

52009 301-305

Insert diameter mm	Size	Handle diameter mm	Total length mm	52009	...
1.5	0000	5	84		301
2.0	000	6	100		302
2.5	00	6	100		303

Insert diameter mm	Size	Handle diameter mm	Total length mm	52009	...
3.0	0	8	112		304
3.5	1	8	112		305

52065 - 52066 Workshop screwdriver

ATORN®

Design
Round blade, fully hardened, bright nickel-plated.
Multi-component handle with extra large soft zone and suspension hole. Handle top with anti-roll protection.
Quality
Chromium-vanadium steel blade.

Note:
Cutting edge width 3.0 and 4.0 mm with the same cutting edge and shaft diameter.

52065

Set contents	Cutting edge width x blade length mm	Design	52065	...
6 pieces	3.0 x 80/4.0 x 100/5.5 x 125/6.5 x 150/8.0 x 175/10.0 x 200	in cardboard box		201

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52066	...
4.5 x 0.8	100	207		201
5.5 x 1.0	125	232		202
6.5 x 1.2	150	269		203

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52066	...
8.0 x 1.2	175	294		204
10.0 x 1.6	200	319		205

52120 Workshop screwdriver

wiha
Tools that work for you

Design
Output: **DIN 5265, ISO 2380. Round blade,** fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection.
Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52120 208-221

52120 230-233

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52120	...
4.0 x 0.8	100	211		208
5.5 x 1.0	125	236		213
6.5 x 1.2	150	268		218
L 8.0 x 1.2	175	299		221

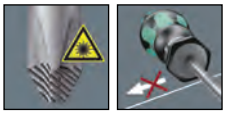
Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52120	...
4.0 x 0.8	25	81		230
5.5 x 1.0	25	81		231
6.5 x 1.2	25	81		232
8.0 x 1.2	25	81		233

52123 Workshop screwdriver

Wera
Be a Tool Rebel

Design
Output: **DIN 5264 A, ISO 2380. Round blade,** brushed nickel-chrome, with **laser tip** to prevent it from slipping out of the screw and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.
Quality
Blade made from 73 Mo V 5 2.

52123



Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52123	...
5.0 x 0.8	100	198		101
6.0 x 1.0	125	230		102
6.5 x 1.2	150	255		103

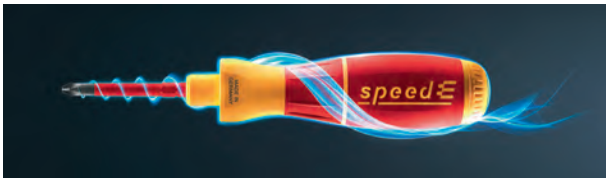
Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52123	...
7.0 x 1.2	150	255		104
8.0 x 1.2	175	287		105
10.0 x 1.6	200	312		106

Info VDE battery screwdriver speedE®

wiha
Tools that work for you

- The first electric screwdriver from Wiha
- An electric screwing aid that eliminates tiresome screwing work for professionals, yet still leaves them the sensitive manual tightening of the screw

- See art. no. 52502 001-205, page 52.28



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52125 Workshop screwdriver

Design
Output: **DIN 5264 A, ISO 2380-1 A.**
Round blade, brushed chromium-plated, fully hardened, bronzed tip. Ergonomic three-component handle, impact-resistant. Captive colour-coding system on both ends of the handle (slot = yellow).
Quality
Blade made from vanadium-extra steel.

52125 201-206

52125 207

52125 208-209

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52125	...
2.5 x 0.4	75	197		201
3.0 x 0.5	75	197		202
L 3.0 x 0.5	**125**	**247**		203
3.5 x 0.6	75	197		204
L 3.5 x 0.6	**125**	**247**		205

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52125	...
4.0 x 0.8	100	222		206
5.5 x 1.0	150	272		207
6.5 x 1.2	150	272		208
8.0 x 1.6	175	297		209

52376 Short screwdriver (carburettor screwdriver)

Design
Output: **DIN 5264 A, ISO 2380-1 A.**
Round blade, brushed chromium-plated, fully hardened, bronzed tip. Ergonomic three-component handle, impact-resistant. Captive colour-coding system on both ends of the handle (slot = yellow).
Quality
Blade made from vanadium-extra steel.

52376

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52376	...
3.5 x 0.6	25	83		201
4.0 x 0.8	25	83		202
5.5 x 1.0	25	83		203

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52376	...
6.5 x 1.2	25	83		205
8.0 x 1.2	25	83		207

Workshop screwdriver

52140 Workshop screwdriver

wiha Tools that work for you

Design
Round blade, bright nickel-plated, fully hardened, with hardwood handle, natural beech, painted. Impact head with leather cap protects the end of the handle against damage.
Quality
Chromium-vanadium steel blade.

Note:
From 5.5 mm cutting edge width with one-piece blade, hexagonal shoulder for wrenches and slip guard to stop slippage.

52140

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52140	...
3.5 x 0.6	75	175		101
4.5 x 0.8	90	190		102
5.5 x 0.95	100	205		103
7.0 x 0.95	125	230		104

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52140	...
9.0 x 1.1	150	270		105
10.0 x 1.2	175	295		106
12.0 x 1.4	200	325		107
14.0 x 1.75	250	380		108

52152 Workshop screwdriver

ATORN®

Design
Output: **DIN 5625, ISO 2380.**
Hexagonal blade with hexagonal shoulder for wrenches, fully hardened, brushed chromium-plated, tip blackened. **Multi-component handle with extra large soft zone** and suspension hole. Handle top with anti-roll protection.

Quality
Blade made from chromium-vanadium-molybdenum steel.

52152

Set contents	Cutting edge width x blade length mm	Design	52152	...
6 pieces	3.5 x 75/4.5 x 90/5.5 x 100/6.5 x 125/8.0 x 150/10.0 x 175	in cardboard box		201

Cutting edge width x blade length mm	Total length mm	52152	...
3.5 x 75	165		301
4.5 x 90	190		302
5.5 x 100	212		303
6.5 x 125	237		304

Cutting edge width x blade length mm	Total length mm	52152	...
8.0 x 150	262		305
10.0 x 175	287		306
12.0 x 200	312		307

52155 Workshop screwdriver with striking cap

ATORN®

Design
- Output: **DIN 5625, ISO 2380**
- One-piece hexagonal blade with hexagonal shoulder for wrenches
- Striking cap and torque adjustment to transfer higher torques

- Brushed chromium-plated blades made from special chromium-molybdenum-vanadium alloy
- Black tip for precise fit
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection

Quality
Chromium-vanadium steel blade.

NEW

52155

Cutting edge width x blade length mm	52155	...
4.5 x 100		101
5.5 x 100		102
7.0 x 115		103

Cutting edge width x blade length mm	52155	...
9.0 x 150		104
10.0 x 175		105
12.0 x 200		106

52151 Workshop screwdriver

wiha Tools that work for you

Design
Output: **DIN 5265, ISO 2380.**
Hexagonal blade fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection. From 5.5 x 1.0 mm with hexagonal shoulder for wrenches.

Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52151

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52151	...
3.5 x 0.6	75	186		101
4.5 x 0.8	90	201		102
5.5 x 1.0	100	213		103
6.5 x 1.2	125	238		104
7.0 x 1.1	125	238		105

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52151	...
8.0 x 1.2	150	268		106
9.0 x 1.4	150	268		107
10.0 x 1.6	175	293		108
12.0 x 2.0	200	318		109
14.0 x 2.5	250	368		110

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52153 Workshop screwdriver with striking cap

wiha
Tools that work for you

Design
Output: **DIN 5265, ISO 2380.**
Hexagonal blade fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection and **solid steel cap.** From 5.5 x 1.0 mm with hexagonal shoulder for wrenches.

Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52153

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52153	...
3.5 x 0.6	75	186		201
4.5 x 0.8	90	201		202
5.5 x 1.0	100	213		203
6.5 x 1.2	125	238		204

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52153	...
8.0 x 1.2	150	271		205
10.0 x 1.6	175	296		206
12.0 x 2.0	200	321		207
14.0 x 2.5	250	371		208

52154 Workshop screwdriver/The screw chisel with striking cap

Wera
Be a Tool Rebel

Design
Output: **DIN 5264 A, ISO 2380.**
One-piece hexagonal blade with striking cap and hexagonal shoulder for wrenches (from 4.5 x 0.8 mm). Black point tip, tempered to be particularly impact-resistant. **Kraftform handle** with hard and soft zones, and roll-off protection.
Applications
For screwing, chiselling and mortising.

Quality
Blade made from 73 Mo V 5 2.

Note:
For blade lengths 200 and 250 mm, handle made from single-component material.

52154

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52154	...
3.5 x 0.6	80	161		101
4.5 x 0.8	90	188		102
5.5 x 1.0	100	205		103
7.0 x 1.2	125	230		104

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52154	...
9.0 x 1.6	150	262		105
10.0 x 1.6	175	287		106
12.0 x 2.0	200	317		107
14.0 x 2.5	250	319		108

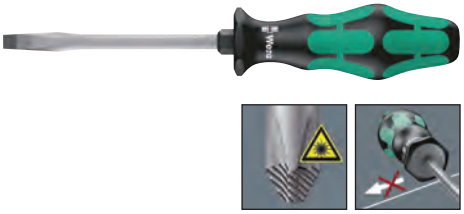
52156 Workshop screwdriver

Wera
Be a Tool Rebel

Design
Output: **DIN 5264 A, ISO 2380.**
With laser tip to prevent it from slipping out of the screw. **Hexagonal blade,** brushed nickel-chrome, hexagonal shoulder for wrenches (from 4.5 x 0.8 mm) and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Quality
Blade made from 73 Mo V 5 2.

52156



Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52156	...
3.5 x 0.6	75	156		101
4.0 x 0.8	90	171		102
4.5 x 0.8	90	188		103
5.5 x 1.0	100	198		104

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52156	...
6.5 x 1.2	125	230		105
7.0 x 1.2	125	230		106
9.0 x 1.6	150	262		107
10.0 x 1.6	175	287		108

52157 Workshop screwdriver

BAHCO

Design
Output: **DIN 5264-A ISO 2380-1-A.**
Hexagonal blade, brushed chromium-plated, fully hardened, bronzed tip. Hexagonal shoulder for wrenches. Ergonomic three-component handle, impact-resistant. Captive colour-coding system on both ends of the handle (slot = yellow).

Quality
Blade made from vanadium-extra steel.

52157 201-203

52157 204-205

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52157	...
5.5 x 1.0	125	247		201
6.5 x 1.2	150	272		202
8.0 x 1.6	175	297		203

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52157	...
10.0 x 1.6	175	336		204
12.0 x 2.0	200	361		205

Electrician's screwdriver

52162 Electrician's screwdriver

ATORN®

Design
Round blade, fully hardened, bright nickel-plated.
Multi-component handle with extra large soft zone and suspension hole. Handle top with anti-roll protection. With the same cutting edge width and shaft diameter.

Quality
Chromium-vanadium steel blade.

52162

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52162	...
2.5 x 0.4	75	161		201
3.0 x 0.5	80	166		202
3.5 x 0.6	100	197		203
4.0 x 0.8	100	207		204

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52162	...
5.0 x 0.8	100	207		205
5.5 x 1.0	200	269		207 NEW
6.0 x 1.1	150	269		206

52168 Electrician's screwdriver

Wera

Design
Output: **DIN 5264 A, ISO 2380.**
Round blade, brushed nickel-chrome, **with laser tip** (3.5–5.5 mm cutting edge width) to prevent it from slipping out of the screw and **Kraftform handle** with hard and soft zones, as well as anti-roll protection. With the same cutting edge width and shaft diameter.

Quality
Blade made from 73 Mo V 5 2.

Note:
Blade length 300 mm without laser tip.

52168

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52168	...
2.0 x 0.4	60	141		100
2.5 x 0.4	60	141		101
L 2.5 x 0.4	**75**	**156**		102
3.0 x 0.5	80	161		103
3.5 x 0.6	100	181		104
L 3.5 x 0.6	**125**	**206**		105
XL 3.5 x 0.6	**200**	**281**		106

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52168	...
4.0 x 0.8	100	198		107
L 4.0 x 0.8	**150**	**248**		108
XXL 4.0 x 0.8	**300**	**398**		110
5.5 x 1.0	125	223		111
L 5.5 x 1.0	**150**	**248**		112
XXL 5.5 x 1.0	**300**	**398**		114

52180 - 52181 VDE electrician's screwdriver

ATORN®

Design
Output: **DIN 5264, ISO 2380. Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7437.**
Multi-component handle with extra large soft zone and suspension hole.
Handle top with anti-roll protection.

Quality
Blade bronzed, insulated.

52180

Set contents	Cutting edge width x blade length mm	Design	52180	...
5 pieces	2.5 x 75/4.0 x 100/5.5 x 125/6.5 x 150/8.0 x 175	in cardboard box		201

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52181	...
2.5 x 0.4	75	161		201
3.0 x 0.5	100	186		202
3.5 x 0.6	100	197		203
4.0 x 0.8	100	207		204

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52181	...
5.5 x 1.0	125	244		205
6.5 x 1.2	150	269		206
8.0 x 1.2	175	294		207
10.0 x 1.6	200	319		208

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52182 VDE electrician's screwdriver slim

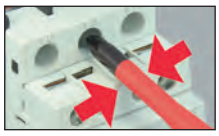
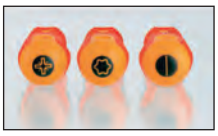
ATORN®

Design
- Output: **DIN 5264, ISO 2380**
- **Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7437**
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Handle marking (screw symbol) makes it easier to find the right tool
- Black tip to retain precision and fit
- **ATORN slim blade** facilitates access to deep-seated screw fittings

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52182

Cutting edge width x cutting edge thickness mm	Blade length mm	52182 ...
3.5 x 0.6	100	101
4.0 x 0.8	100	102
5.5 x 1.0	125	103
6.5 x 1.2	125	104

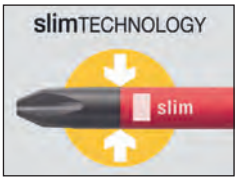
52320 VDE electrician's screwdriver slimFix

wiha Tools that work for you

Design
Output: **DIN 5264, ISO 2380.**
Manufactured in accordance with **IEC 60900:2004.**
SoftFinish® handle with anti-roll protection.
Protective insulation in the front area is fully integrated in the blade. **38 mm constant thin diameter:** Deep-seated screw fittings/spring elements can be reached easily.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52320



Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52320 ...
3.5 x 0.6	100	204	101
4.0 x 0.8	100	211	102
5.5 x 1.0	125	243	103
6.5 x 1.2	150	268	104

52323 - 52324 VDE electrician's screwdriver

wiha Tools that work for you

Design
Output: **DIN 5264, ISO 2380.**
Manufactured in accordance with **IEC 60900:2004.**
Protective insulation sprayed directly onto the blade.
SoftFinish® handle with anti-roll protection.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52324

Set contents	Cutting edge width x blade length mm	Design	52323 ...
5 pieces	2.5 x 75/4.0 x 100/5.5 x 125/6.5 x 150/8.0 x 175	in cardboard box	101

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52324 ...
2.5 x 0.4	75	179	102
3.5 x 0.6	100	204	104
4.0 x 0.8	100	211	105
4.5 x 1.0	125	236	106

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52324 ...
5.5 x 1.0	125	243	108
L 5.5 x 1.0	175	293	109
6.5 x 1.2	150	268	111
8.0 x 1.2	175	299	112

52326 VDE electrician's screwdriver

Wera Be a Tool Rebel

Design
Output: **DIN 5264 A, ISO 2380.**
Blade bronzed, insulated. Conical cutting edge **with laser tip** (3.5–10 mm cutting edge width) to prevent it from slipping out of the screw.
Individually tested, standard: IEC 60900: 2004.

Soft zone Kraftform handle with hard and soft zones, as well as anti-roll protection.

Quality
Blade made from 73 Mo V 5 2.

52326

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52326 ...
2.5 x 0.4	80	161	101
3.0 x 0.5	100	181	102
3.5 x 0.6	100	181	103
4.0 x 0.8	100	198	104

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52326 ...
5.5 x 1.0	125	223	105
6.5 x 1.2	150	255	106
8.0 x 1.2	175	287	107
10.0 x 1.6	200	312	109

52328 VDE electrician's screwdriver

BAHCO

Design
Output: **DIN 5264 A, ISO 2380-1. Individually tested, DIN EN 60900 (IEC 900),** standard DIN 7437. Blade brushed chromium-plated, fully hardened, bronzed tip. Ergonomic three-component handle, impact-resistant. Captive colour-coding system on both ends of the handle (slot = yellow).

Quality
Blade made from vanadium-extra steel.

52328 201-204

52328 205-207

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52328	...
2.5 x 0.4	75	177		201
3.0 x 0.5	100	202		202
3.5 x 0.6	100	222		203
4.0 x 0.8	100	222		204

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52328	...
5.5 x 1.0	125	247		205
6.5 x 1.2	150	272		206
8.0 x 1.2	175	297		207

52371 Screwdriver (grub screw screwdriver)

BAHCO

Design
Blade coated up to the cutting edge, hardened. Tapered, slim plastic handle.

Applications
For set screws (grub screws) M 2.3 to M 5.

Quality
Blade made from vanadium-extra steel.

52371

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52371	...
2.0 x 0.4	63	143		201
2.5 x 0.4	75	155		202

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52371	...
3.0 x 0.5	80	165		203

52391 - 52392 Phillips screwdrivers PH

ATORN®

Design
Round blade, fully hardened, bright nickel-plated. **Multi-component handle with extra large soft zone** and suspension hole. Handle top with anti-roll protection.

Quality
Chromium-vanadium steel blade.

52391

Set contents	Size x blade length mm	Design	52391	...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box		201

Size	Blade length mm	Total length mm	52392	...
0	60	146		201
1	80	187		202

Size	Blade length mm	Total length mm	52392	...
2	100	219		203
3	150	269		204

52398 Phillips screwdrivers PH

wiha
Tools that work for you

Design
Output: **DIN 5260 PH, ISO 8764 PH. Round blade,** fully hardened, brushed chromium-plated. Chrom-Top® tip. **SoftFinish® handle** with anti-roll protection.

Applications
For Phillips cross recess head screws.

Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52398 201-208

52398 301-303

Size	Blade length mm	Total length mm	52398	...
0	60	164		201
1	80	191		202
2	100	218		205
3	150	274		208

Size	Blade length mm	Total length mm	52398	...
01	25	81		301
02	25	81		302
03	25	81		303

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52405 Phillips screwdrivers PH

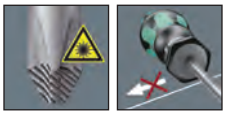
Wera

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
Round blade, brushed nickel-chrome, **with laser tip** (size 1–3 up to 200 mm blade length) to prevent it from slipping out of the screw and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For Phillips cross recess head screws.
Quality
Blade made from 73 Mo V 5 2.

Note:
For blade length 25 mm, handle made from single-component material.

52405 101-109



52405 110-111

Size	Blade length mm	Total length mm	52405	...
0	60	141		101
1	80	178		102
L 1	200	298		103
XL1	300	398		104
2	100	205		105
L 2	200	305		106

Size	Blade length mm	Total length mm	52405	...
XL 2	300	398		107
3	150	262		108
4	200	312		109
01	25	79		110
02	25	79		111

52419 - 52420 Phillips screwdrivers PH

BAHCO

Design
Output: **DIN/ISO 8764-1.**
Round blade, brushed chromium-plated, fully hardened,bronzed tip. Ergonomic three-component handle, impact-resistant.

Captive colour-coding system on both ends of the handle (PH = red).
Applications
For Phillips cross recess head screws.
Quality
Blade made from vanadium-extra steel.

52419 301

52419 302-303

52419 304-306

52420

Size	Blade length mm	Total length mm	52419	...	52420	...
0	60	182		301		
1	75	197		302		
L 1	200	322		303		
2	100	222		304		
L 2	200	322		305		
3	150	272		306		
01	25	83				201
02	25	83				202

52421 Phillips screwdrivers PH

wiha
Tools that work for you

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
Round blade, one-piece, bright nickel-plated, fully hardened, **with hexagonal shoulder** for wrenches.

Wooden handle made from sealed beech wood. Impact head with leather cap protects the end of the handle against damage.
Applications
For Phillips cross recess head screws.
Quality
Chromium-vanadium steel blade.

52421

Size	Blade length mm	Total length mm	52421	...
1	80	180		101
2	100	205		102

Size	Blade length mm	Total length mm	52421	...
3	150	270		103
4	200	330		104

52437 Phillips screwdrivers PH

ATORN®

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
Hexagonal blade with hexagonal shoulder for wrenches, fully hardened, brushed chromium-plated, tip blackened.

Multi-component handle with extra large soft zone and suspension hole.
Handle top with anti-roll protection.
Quality
Blade made from chromium-vanadium-molybdenum steel.

52437

Set contents	Size x blade length mm	Design	52437	...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box		200

Size	Blade length mm	Total length mm	52437	...
1	80	180		201
2	100	212		202

Size	Blade length mm	Total length mm	52437	...
3	150	262		203

52435 Phillips screwdriver PH with striking cap

ATORN®

Design
- Output: **DIN 5260 PH, ISO 8764 PH**
- One-piece hexagonal blade with hexagonal shoulder for wrenches
- Striking cap and torque adjustment to transfer higher torques
- Brushed chromium-plated blades made from special chromium-molybdenum-vanadium alloy
- Black tip for precise fit
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection

Quality
Chromium-vanadium steel blade.

NEW

52435

Size	Blade length mm	52435 ...
1	70	101
2	90	102

Size	Blade length mm	52435 ...
3	150	103

52438 Phillips screwdrivers PH

wiha Tools that work for you

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
Hexagonal blade with hexagonal shoulder for wrenches, fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection.

Applications
For Phillips cross recess head screws.

Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52438

Size	Blade length mm	Total length mm	52438 ...
1	80	186	101
2	100	213	102

Size	Blade length mm	Total length mm	52438 ...
3	150	268	103

52443 Phillips screwdriver PH with striking cap

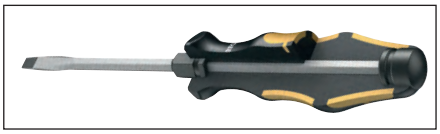
Wera Be a Tool Rebel

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
One-piece hexagonal blade, striking cap and hexagonal shoulder for wrenches. Black point tip, tempered to be particularly impact-resistant.
Kraftform handle with hard and soft zones, as well as anti-roll protection.

Applications
For Phillips cross recess head screws.

Quality
Blade made from 73 Mo V 5 2.

52443



Size	Blade length mm	Total length mm	52443 ...
1	80	178	102
2	100	205	103

Size	Blade length mm	Total length mm	52443 ...
3	150	262	104
4	200	317	105

52444 Phillips screwdrivers PH

Wera Be a Tool Rebel

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
With laser tip (size 1–3) to prevent it from slipping out of the screw, **hexagonal blade,** brushed nickel-chrome, hexagonal shoulder for wrenches for size 1–3 and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For Phillips cross recess head screws.

Quality
Blade made from 73 Mo V 5 2.

52444

Size	Blade length mm	Total length mm	52444 ...
0	60	141	101
1	80	178	102

Size	Blade length mm	Total length mm	52444 ...
2	100	205	103
3	150	262	104

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52445 ESD/EGB Phillips screwdrivers PH

Wera

Design
Output: **DIN 5260 PH, ISO 8764 PH. Round blade,** black point tip, handle with anti-roll protection. With rotating cap for lightning-fast twisting.

Applications
For Phillips cross recess head screws.
For working on electrostatically sensitive electronic components.
Complies with standard EN 100-015 Part 1.
Quality
Blade made from high-alloy special steel.

52445

Size	Blade length mm	Total length mm	52445	...
0	60	157		101
1	80	177		102

52451 VDE electrician's screwdriver PH

ATORN®

Design
Output: **DIN 5260 PH, ISO 8764 PH. Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7438.**
Multi-component handle with extra large soft zone and suspension hole.
Handle top with anti-roll protection.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52451

Set contents	Size x blade length mm	Design	52451	...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box		301

Size	Blade length mm	Total length mm	52451	...
0	60	146		401
1	80	187		402

Size	Blade length mm	Total length mm	52451	...
2	100	219		403
3	150	269		404

52456 VDE electrician's screwdriver PH slim

ATORN®

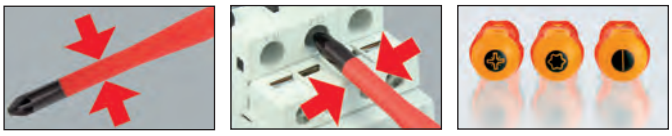
Design
- Output: **DIN 5260 PH, ISO 8764 PH**
- **Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7438**
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection

- Handle marking (screw symbol) makes it easier to find the right tool
- Black tip to retain precision and fit
- **ATORN slim blade** facilitates access to deep-seated screw fittings

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52456

Size	Blade length mm	52456	...
1	80		101
2	100		102



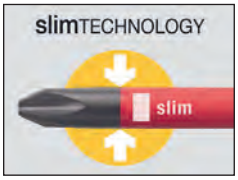
52440 VDE electrician's screwdriver PH slimFix

wiha
Tools that work for you

Design
Output: **DIN 7438, DIN ISO 8764.**
Manufactured in accordance with **IEC 60900:2004.**
SoftFinish® handle with anti-roll protection.
Protective insulation in the front area is fully integrated in the blade. **38 mm constant thin diameter:** Deep-seated screw fittings/spring elements can be reached easily.

Applications
For Phillips cross recess head screws.
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52440



Size	Blade length mm	Total length mm	52440	...
1	80	191		101
2	100	218		102

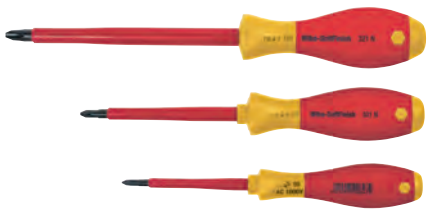
52449 - 52450 VDE electrician's screwdriver PH

wiha Tools that work for you

Design
Output: **DIN 7438, ISO 8764 PH.**
Manufactured in accordance with **IEC 60900:2004.**
Protective insulation sprayed directly onto the blade.
SoftFinish® handle with anti-roll protection.

Applications
For Phillips cross recess head screws.
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52449



Set contents	Size x blade length mm	Design	52449 ...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box	101

Size	Blade length mm	Total length mm	52450 ...
0	60	164	100
1	80	191	101

Size	Blade length mm	Total length mm	52450 ...
2	100	218	102
3	150	268	103

52452 VDE electrician's screwdriver PH

Wera Be a Tool Rebel

Design
Output: **DIN 5260 PH, ISO 8764 PH.**
Blade bronzed, insulated. **With laser tip** (size 1–3) to prevent it from slipping out of the screw. **Individually tested, standard: IEC 60900: 2004.**
Ergonomically optimised **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For Phillips cross recess head screws.
Quality
Blade made from 73 Mo V 5 2.

52452

Size	Blade length mm	Total length mm	52452 ...
0	80	161	101
1	80	178	102
2	100	205	103

Size	Blade length mm	Total length mm	52452 ...
3	150	262	104
4	200	312	105

52453 VDE electrician's screwdriver PH

BAHCO

Design
Output: **DIN/ISO 8764-1.**
Individually tested, DIN EN 60900 (IEC 900), standard DIN 7438. Blade brushed chromium-plated, fully hardened, bronzed tip. Ergonomic three-component handle, impact-resistant. Captive colour-coding system on both ends of the handle (PH = red).

Applications
For Phillips cross recess head screws.
Quality
Blade made from vanadium-extra steel.

52453 201

52453 202-204

52453 205

Size	Blade length mm	Total length mm	52453 ...
0	75	162	201
1	80	202	202
2	100	222	203

Size	Blade length mm	Total length mm	52453 ...
3	150	272	204
4	200	361	205

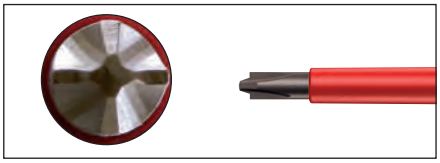
52436 VDE electrician's screwdriver combined PH/slotted

Wera Be a Tool Rebel

Design
Output: **Combination profile Phillips/slotted.**
Blade insulated. **Individually tested, standard: IEC 60900:2004.** Ergonomically optimised **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For PlusMinus screws Phillips/slotted.
Quality
Blade made from 73 Mo V 5 2.

52436



Size	Blade length mm	Total length mm	52436 ...
1	80	178	101
2	100	205	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52481 - 52482 Phillips screwdrivers PZ

ATORN®

Design
Round blade, fully hardened, bright nickel-plated. **Multi-component handle with extra large soft zone** and suspension hole. Handle top with anti-roll protection.

Quality
Chromium-vanadium steel blade.

52481

Set contents	Size x blade length mm	Design	52481	...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box		201

Size	Blade length mm	Total length mm	52482	...
0	60	146		201
1	80	187		202
2	100	219		203
3	150	269		204

52459 Phillips screwdrivers PZ

wiha
Tools that work for you

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
Round blade, fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection.

Applications
For Pozidriv/Supadriv/Phillips screws.
Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52459 201-204

52459 301-303

Size	Blade length mm	Total length mm	52459	...
0	60	164		201
1	80	191		202
2	100	218		203
3	150	274		204
01	25	81		301
02	25	81		302
03	25	81		303

52460 Phillips screwdrivers PZ

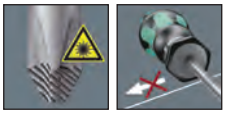
Wera
Be a Tool Rebel

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
Round blade, brushed nickel-chrome, **with laser tip** (size 1–3) to prevent it from slipping out of the screw and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For Pozidriv Phillips-head screws.
Quality
Blade made from 73 Mo V 5 2.

Note:
For blade length 25 mm, handle made from single-component material.

52460



52460 204-205

Size	Blade length mm	Total length mm	52460	...
0	60	141		200
1	80	178		201
L 1	200	298		208
XL 1	300	398		206
2	100	205		202
L 2	200	305		209
XL 2	300	405		207
3	150	262		203
01	25	79		204
02	25	79		205

52480 Phillips screwdrivers PZ

wiha
Tools that work for you

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
Round blade, one-piece, brushed chromium-plated, liberally bright nickel-plated, fully hardened, with **hexagonal shoulder** for wrenches. Wooden handle made from sealed beech wood. Impact head with leather cap protects the end of the handle against damage.

Applications
For Pozidriv/Supadriv/Phillips screws.
Quality
Chromium-vanadium steel blade.

52480

Size	Blade length mm	Total length mm	52480	...
1	80	180		201
2	100	205		202
3	150	270		203

52454 Phillips screwdrivers PZ

ATORN®

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
Hexagonal blade with hexagonal shoulder for wrenches, fully hardened, brushed chromium-plated, tip blackened. **Multi-component handle with extra large soft zone** and suspension hole. Handle top with anti-roll protection.

Quality
Blade made from chromium-vanadium-molybdenum steel.

52454

Set contents	Size x blade length mm	Design	52454	...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box		200

Size	Blade length mm	Total length mm	52454	...
1	80	180		201
2	100	212		202

Size	Blade length mm	Total length mm	52454	...
3	150	262		203

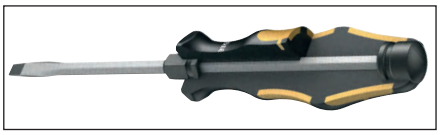
52461 Phillips screwdriver PZ with striking cap

Wera

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
One-piece hexagonal blade with striking cap and hexagonal shoulder for wrenches. Black point tip, tempered to be particularly impact-resistant.
Kraftform handle with hard and soft zones, and roll-off protection.

Applications
For Pozidriv Phillips-head screws.
Quality
Blade made from 73 Mo V 5 2.

52461



Size	Blade length mm	Total length mm	52461	...
1	80	178		202
2	100	205		203

Size	Blade length mm	Total length mm	52461	...
3	150	262		204
4	200	317		205

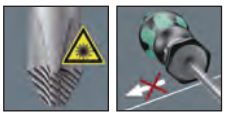
52462 Phillips screwdrivers PZ

Wera

Design
Output: **DIN 5260 PZ, ISO 8764 PZ. With laser tip** (size 1–3) to prevent it from slipping out of the screw, **hexagonal blade,** brushed nickel-chrome, hexagonal shoulder for wrenches (size 1–3) and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For Pozidriv Phillips-head screws.
Quality
Blade made from 73 Mo V 5 2.

52462



Size	Blade length mm	Total length mm	52462	...
0	60	141		100
1	80	178		101

Size	Blade length mm	Total length mm	52462	...
2	100	205		102
3	150	262		103

52478 - 52479 VDE electrician's screwdriver PZ

ATORN®

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7438.
Multi-component handle with extra large soft zone and suspension hole.
Handle top with anti-roll protection.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52478

Set contents	Size x blade length mm	Design	52478	...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box		201

Size	Blade length mm	Total length mm	52479	...
0	60	146		201
1	80	187		202

Size	Blade length mm	Total length mm	52479	...
2	100	219		203
3	150	269		204

52466 VDE electrician's screwdriver PZ slim

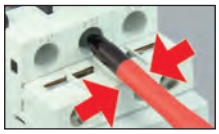
ATORN®

Design
- Output: **DIN 5260 PZ, ISO 8764 PZ**
- **Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7438**
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Handle marking (screw symbol) makes it easier to find the right tool
- Black tip to retain precision and fit
- **ATORN slim blade** facilitates access to deep-seated screw fittings

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52466

Size	Blade length mm	52466 ...
1	80	201
2	100	202



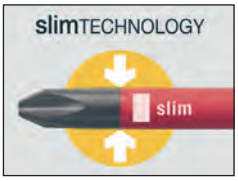
52495 VDE electrician's screwdriver PZ slimFix

wiha Tools that work for you

Design
Output: **DIN 7438, DIN ISO 8764.**
Manufactured in accordance with **IEC 60900:2004.**
SoftFinish® handle with anti-roll protection.
Protective insulation in the front area is fully integrated in the blade. **38 mm constant thin diameter:** Deep-seated screw fittings/spring elements can be reached easily.

Applications
For Pozidriv/Supadriv/Phillips screws.
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52495



Size	Blade length mm	Total length mm	52495 ...
1	80	191	101
2	100	218	102

52465 VDE electrician's screwdriver PZ

wiha Tools that work for you

Design
Output: **DIN 7438, ISO 8764 PZ.**
Manufactured in accordance with **IEC 60900:2004.**
Protective insulation sprayed directly onto the blade.
SoftFinish® handle with anti-roll protection.

Applications
For Pozidriv/Supadriv/Phillips screws.
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52465

Set contents	Size x blade length mm	Design	52465 ...
3 pieces	1 x 80/2 x 100/3 x 150	in cardboard box	101

Size	Blade length mm	Total length mm	52465 ...
0	60	164	201
1	80	191	202

Size	Blade length mm	Total length mm	52465 ...
2	100	218	203
3	150	324	204

52468 VDE electrician's screwdriver PZ

Wera Be a Tool Rebel

Design
Output: **DIN 5260 PZ, ISO 8764 PZ.**
Blade bronzed, insulated. **With laser tip** (size 1–3) to prevent it from slipping out of the screw.
Individually tested, standard: IEC 60900:2004.
Kraftform handle with hard and soft zones, and roll-off protection.

Applications
For Pozidriv Phillips-head screws.
Quality
Blade made from 73 Mo V 5 2.

52468

Size	Blade length mm	Total length mm	52468 ...
0	80	161	201
1	80	178	202
2	100	205	203

Size	Blade length mm	Total length mm	52468 ...
3	150	262	204
4	200	312	205

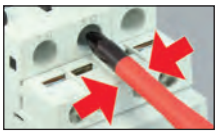
52327 VDE electrician's screwdriver combined PZ/slotted slim

ATORN®

Design
- Output: **Combination profile Pozidriv/slotted**
- **Individually tested in accordance with DIN EN 60900 (IEC 900)**
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Handle marking (screw symbol) makes it easier to find the right tool
- Black tip to retain precision and fit
- **ATORN slim blade** facilitates access to deep-seated screw fittings

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52327



Size	Blade length mm	52327 ...
1	80	101
2	100	102

52457 VDE electrician's screwdriver combined PZ/slotted

wiha
Tools that work for you

Design
Output: **Combination profile Pozidriv/slotted.** Manufactured in accordance with **IEC 60900:2004. SoftFinish® handle** with anti-roll protection. Protective insulation sprayed directly onto the blade. Protective insulation in the front area is fully integrated in the blade. **38 mm constant thin diameter:** Deep-seated screw fittings/spring elements can be reached easily.

Applications
For PlusMinus screws Pozidriv/slotted.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52457

Size	Blade length mm	Total length mm	52457 ...
1	80	191	101
2	100	218	102

52491 VDE electrician's screwdriver combined PZ/slotted

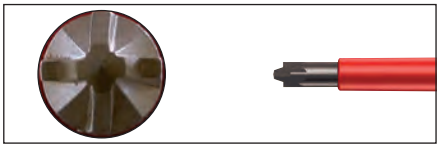
Wera
Be a Tool Rebel

Design
Output: **Combination profile Pozidriv/slotted.** Blade insulated. **Individually tested, standard: IEC 60900:2004.** Ergonomically optimised **Kraft-form handle** with hard and soft zones, as well as anti-roll protection.

Applications
For PlusMinus screws Pozidriv/slotted.

Quality
Blade made from 73 Mo V 5 2.

52491



Size	Blade length mm	Total length mm	52491 ...
1	80	178	101
2	100	205	102

52472 Screwdriver sets, mixed

ATORN®

Design
Output:
⊖ **DIN 5264 A, ISO 2380.**
⊕ **DIN 5260 PH, ISO 8740 PH.**
⊕ **DIN 5260 PZ, ISO 8740 PZ.**
Blade fully hardened. **Multi-component handle with extra large soft zone** and suspension hole. Handle top with anti-roll protection.

Quality
Chromium-vanadium steel blade.

52472 199-200
Design
Round blade, bright nickel-plated.

52472 201-202
Design
Hexagonal blade with hexagonal shoulder for wrenches, brushed chromium-plated, tip blackened.

52472 199

52472 200

52472 201

52472 202

Contents 1 piece each	Design	52472 ...
⊖ 4.0 x 100/5.5 x 125/6.5 x 150/8.0 x 175, ⊕ PH 1/80/PH 2/100	in cardboard box	199
⊖ 4.0 x 100/5.5 x 125/6.5 x 150/8.0 x 175, ⊕ PZ 1/80/PZ 2/100	in cardboard box	200
⊖ 4.5 x 90 mm/5.5 x 100 mm/6.5 x 125 mm/8.0 x 150 mm, ⊕ PH 1/80/PH 2/100	in cardboard box	201
⊖ 5.5 x 100 mm/6.5 x 125 mm/8.0 x 150 mm, ⊕ PH 1/80/PH 2/100/PH 3/150, ⊕ PZ 1/80/PZ 2/100	in cardboard box	202

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52472 Mixed screwdriver set (5 pieces) with striking cap

ATORN®

Design
- One-piece hexagonal blade with hexagonal shoulder for wrenches
- Striking cap and torque adjustment to transfer higher torques
- Brushed chromium-plated blades made from special chromium-molybdenum-vanadium alloy
- Black tip for precise fit
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection

Quality
Chromium-vanadium steel blade.

NEW

52472

	Contents 1 piece each	Design	52472	...
⊖	4.5/5.5/6.5	in cardboard box		203
⊕	PH 1/2			

52476 Mixed screwdriver set (6 pieces)

wiha Tools that work for you

Design
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8740 PH.**
Round blade, bright nickel-plated, fully hardened. Wooden handle made from sealed beech wood**.** Impact head with leather cap protects the end of the handle against damage.
Quality
Chromium-vanadium steel blade.

Note:
From 5.5 mm cutting edge width with one-piece blade, hexagonal shoulder for wrenches and slip guard to stop slippage.

52476

	Contents 1 piece each	Design	52476	...
⊖	3.5 x 75 mm/4.5 x 90 mm/5.5 x 100 mm/7.0 x 125 mm	in cardboard box		201
⊕	PH 1/80/PH 2/100			

52477 Screwdriver sets, mixed

wiha Tools that work for you

Design
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8740 PH,**
⊕ **DIN 5260 PZ, ISO 8740 PZ,**
Blade fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection.
Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

52477 101-103 + 105
Design
Round blade.

52477 104
Design
Hexagonal blade with hexagonal shoulder for wrenches and **solid steel cap**.

52477 101

52477 102

52477 103

52477 105

52477 104

	Contents 1 piece each	Design	52477	...
⊖	3.5 x 100 mm/4.5 x 125 mm/5.5 x 150 mm/6.5 x 150 mm,	6 pieces in cardboard box		101
⊕	PH 1/80/PH 2/100			
⊖	4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm,	6 pieces in cardboard box		102
⊕	PH 1/80/PH 2/100,			
⊕	PZ 2/100			
⊕	PH 1/80/PH 2/100/PH 3/150,	6 pieces in cardboard box		103
⊕	PZ 1/80/PZ 2/100/PZ 3/150			
⊖	3.5 x 100 mm/4.0 x 100 mm/6.5 x 100 mm,	12 pieces in cardboard box		105
⊕	PH 1/80/PH 2/100/PH 3/150,			
⊕	PZ 1/80/PZ 2/100,			
✱	TX® T 15/20/25/30			
⊖	3.5 x 75 mm/4.5 x 90 mm/5.5 x 100 mm/6.5 x 125 mm,	6 pieces in cardboard box		104
⊕	PH 1/80/PH 2/100	with striking cap		

52492 Mixed screwdriver sets (6 pieces)

Design
Round blade, brushed nickel-chrome, **with laser tip** to prevent it from slipping out of the screw and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.
Quality
Blade made from 73 Mo V 5 2.

52492 101
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8764 PH.**

52492 102
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8764 PH,**
⊕ **ISO 8764 PZ.**

52492 101 52492 102

	Contents 1 piece each	Design	52492 ...
⊖ ⊕	3.0 x 80 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm, PH 1/80/PH 2/100	in rack	101
⊖ ⊕ ⊕	4.0 x 100 mm/5.5 x 125 mm, PH 1/80/PH 2/100, PZ 1/80/PZ 2/100	in rack	102

52470 - 52471 Mixed screwdriver sets (6 pieces)

Design
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8740 PH,**
⊕ **DIN 5260 PZ, ISO 8740 PZ.**
One-piece hexagonal blade and hexagonal shoulder for wrenches. **Kraftform handle** with hard and soft zones, and roll-off protection.
Quality
Blade made from 73 Mo V 5 2.

52470
Design
The screw chisel.
With striking cap and black point tip, tempered to be particularly impact-resistant.

52471
Design
Kraftform. **With laser tip** to prevent it from slipping out of the screw**,** brushed nickel-chrome.

52470 101 52470 102

52471 201 52471 202

	Contents 1 piece each	Design	52470 ...	52471 ...
⊖ ⊕	3.5 x 75 mm/4.5 x 90 mm/ 5.5 x 100 mm/7.0 x 125 mm, PH 1/80/PH 2/100	in rack	101	201
⊖ ⊕	3.5 x 75 mm/4.5 x 90 mm/ 5.5 x 100 mm/7.0 x 125 mm, PZ 1/80/PZ 2/100	in rack	102	202

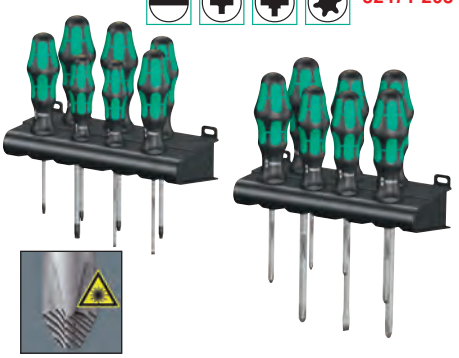
52470 - 52471 Mixed screwdriver sets (13 pieces/14 pieces)

52470 103
Design
- The screw chisel for screwing, chiselling, mortising
- One-piece hexagonal blade
- Handle identification to make it easy to find and sort tools
- Striking cap and torque adjustment to transfer higher torques
- The Wera black point tip provides a precise fit and optimised corrosion protection

52471 203
Design
- Screwdrivers for slotted, Phillips-head, Phillips recess and Pozidriv and TX® screws
- Multi-component Kraftform handle for high working speeds and ergonomic screwing
- Handle identification to make it easy to find and sort tools
- Hexagonal anti-roll protection
- Laser tip for better grip in the screw head

52470 103

52471 203



	Contents 1 piece each	Design	13 pieces 52470 ...	14 pieces 52471 ...
⊖ ⊕ ⊕ ✱	3.5 x 80 mm/4.5 x 90 mm/5.5 x 100 mm/ 7.0 x 125 mm/9.0 x 150 mm PH 1 x 80/PH 2 x 100/PH 3 x 150 PZ 1 x 80/PZ 2 x 100/PZ 3 x 150 TX 20 x 90/TX 25 x 100	in 2 racks with striking cap	103	
⊖ ⊕ ⊕ ✱	3.5 x 100 mm/4.0 x 100 mm/6.5 x 150 mm PH 1 x 80/PH 2 x 100/PH 3 x 150 PZ 1 x 80/PZ 2 x 100/PZ 3 x 150 TX 10 x 80/TX 15 x 80/TX 20 x 100/ TX 25 x 100/TX 30 x 115	in 2 racks		203

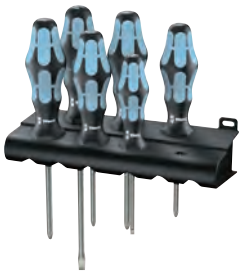
52493 Mixed stainless steel screwdriver set (6 pieces)

Wera

Design
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8764 PH.**
⊕ **ISO 8764 PZ.**
Round blade, stainless steel, with laser tip to prevent it from slipping out of the screw and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Quality
Blade made from stainless steel.

52493



	Contents 1 piece each	Design	52493	...
⊖	3.0 x 80 mm/6.5 x 150 mm,	in rack		103
⊕	PH 1/80/PH 2/100,			
⊕	PZ 1/80/PZ 2/100 in cardboard box + rack			

52490 Mixed screwdriver sets (6 pieces)

BAHCO

Design
Output:
⊖ **DIN 5264 A, ISO 2380-1 A.**
⊕ **DIN/ISO 8764-1.**
⊕ **DIN/ISO 8764-1.**
Round blade, brushed chromium-plated, fully hardened, bronzed tip. Ergonomic three-component handle, impact-resistant. Captive colour-coding system on both ends of the handle.
Quality
Blade made from vanadium-extra steel.

52490 101

52490 102

52490 103

	Contents 1 piece each	Design	52490	...
⊖	3.0 x 60 mm/4.0 x 100 mm/5.5 x 100 mm/6.5 x 125 mm,	in cardboard box		101
⊕	PH 1/75/PH 2/100			
⊖	3.0 x 60 mm/4.0 x 100 mm/5.0 x 100 mm/5.0 x 125 mm,	in cardboard box		102
⊕	PZ 1/75/PZ 2/100			
⊖	3.5 x 75 mm/5.5 x 100 mm,	in cardboard box		103
⊕	PH 1/75/PH 2/100,			
⊕	PZ 1/75/PZ 2/100			

63077 Electronics screwdriver sets, PicoFinish (6 pieces)

wiha
Tools that work for you

Design
- Slim handle shape and rotary cap for sensitive work
- Screwdriver handle size concept for an optimum balance between precision and control
- With a practical plastic holder for hanging or positioning

Applications
Ideal for fine and delicate screwdriving work in electronics, precision engineering, model construction and hobby applications.

63077 100

	Contents 1 piece each	Design	63077	...
⊖	0.25 x 2.0/0.4 x 2.0/0.4 x 2.5/0.5 x 3.0 mm,	in rack		100
⊕	PH 00/PH 0			
✱	TX 4/5/6/7/8/9	in rack		200
⬢	Sizes 2.5/3.0/3.5/4.0/5.0/5.5 mm	in rack		300

63095 ESD precision screwdrivers

ATORN®

Design
- High quality ESD precision screwdriver with rotating cap and two-component handle with soft casing
- Integrated anti-roll protection at the transition to the blade, prevents unintended rolling away of the screwdriver
- Black tip for a precise fit and secure grip
- Blade made from chrome-molybdenum-vanadium enables performance data up to 100% above DIN
- Hanging hole for convenient tool storage
- Anti-static, electrically conductive and dissipative to protect electrostatically sensitive components

Quality
Chrome-molybdenum-vanadium alloy.

63095 100
Design
- Set in a special ESD plastic box for safe tool storage

63095 100

Contents 1 piece each	Design	63095 ...
0.23 x 1.5/0.40 x 2.0/0.40 x 2.5/0.50 x 3.0 mm, PH 00x60/PH 0x60	in ESD plastic box	100

63095 101-104

Blade thickness x Width mm	Blade length mm	Total length mm	63095 ...
0.23 x 1.5	60	162	101
0.40 x 2.0	60	162	102
0.40 x 2.5	60	162	103
0.50 x 3.0	60	162	104

63095 105-107

Size	Blade length mm	Total length mm	63095 ...
PH 00	60	162	105
PH 0	60	162	106
PH 1	75	177	107

63095 108-111

Size mm	Blade length mm	Total length mm	63095 ...
1.5	60	162	108
2.0	60	162	109
2.5	75	177	110
3.0	75	177	111

63078 Precision engineering/electronics screwdriver sets (6 pieces)

Wera

Design
Kraftform micro with anti-roll protection and rotating cap for lightning-fast twisting, multi-component.
Blade: Round, nicro matt, black point.

63078

Contents 1 piece each	Design	63078 ...
0.3 x 1.8/0.4 x 2.0/0.4 x 2.5/0.5 x 3.0 mm, PH 00/PH 0	in rack	101
0.4 x 2.5/0.5 x 3.0/0.6 x 3.5/0.8 x 4.0 mm, PH 0/PH 1	in rack	102
TX 7/8/9/10/15/20	in rack	103
Sizes 0.9/1.3 mm,	in rack	104
Sizes 1.5/2.0/2.5/3.0 mm		
Sizes 2.0/2.5/3.0/3.5/4.0/5.0 mm	in rack	105

63099 ESD/EGB screwdriver set (6 pieces)

Wera

Design
Kraftform micro with anti-roll protection and rotating cap for lightning-fast twisting, multi-component.
Blade: Round, nicro matt, black point.

63099

Contents 1 piece each	Design	63099 ...
0.23 x 1.5/0.25 x 1.2/0.3 x 1.8/0.4 x 2.5 mm, PH 0x60/PH 1x80	in rack	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52483 VDE mixed screwdriver set

ATORN®

Design
Output:
⊖ **DIN 5264 A, ISO 2380.**
⊕ **DIN 5260 PH, ISO 8740 PH.**
Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7438.

Multi-component handle with extra large soft zone and suspension hole.
Handle top with anti-roll protection.
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

52483 201

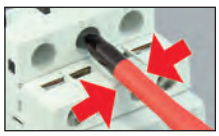
	Contents 1 piece each	Design	52483 ...
⊖	2.5 x 75/3.5 x 100/4.0 x 100/5.5 x 125	in cardboard box	200
⊕	PH 1/80/PH 2/100	6 pieces	
⊖	2.5 x 75/4.0 x 100/5.5 x 125/6.5 x 150,	in cardboard box	201
⊖	Voltage tester 3 x 140 mm, 150–250 volts,	7 pieces	
⊕	PH 1/80/PH 2/100		

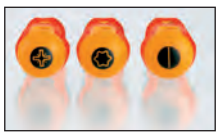
52501 VDE mixed screwdriver sets slim (6 pieces)

ATORN®

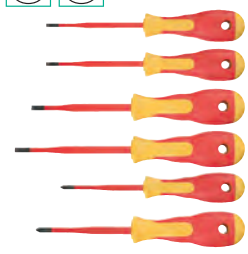
Design
Output:
⊖ **DIN 5264 A, ISO 2380**
⊕ **DIN 5260 PH, ISO 8740 PH**
⊕ **DIN 5260 PZ, ISO 8740 PZ**
- **Individually tested in accordance with DIN EN 60900 (IEC 900), standard DIN 7438**
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Handle marking (screw symbol) makes it easier to find the right tool
- Black tip to retain precision and fit
- **ATORN slim blade** facilitates access to deep-seated screw fittings

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.

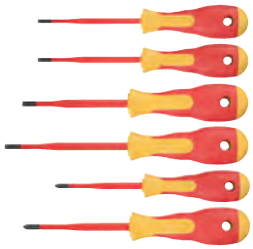




52501 101



52501 102



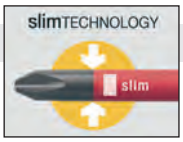
	Contents 1 piece each	52501 ...
⊖	3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm	101
⊕	PH 1 x 80/PH 2 x 100	
⊖	3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm	102
⊕	PZ 1 x 80/PZ 2 x 100	

52498 VDE mixed screwdriver set slimFix

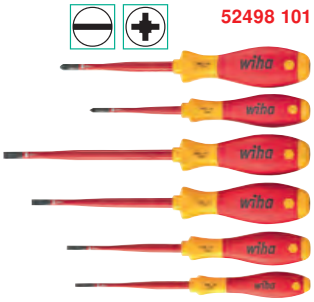
wiha
Tools that work for you

Design
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PZ, ISO 8740 PZ,**
⊕ **DIN 5260 PH, ISO 8740 PH.**
Manufactured in accordance with IEC 60900:2004.
SoftFinish® handle with anti-roll protection.
Protective insulation sprayed directly onto the blade.
Protective insulation in the front area is fully integrated in the blade.
38 mm constant thin diameter: Deep-seated screw fittings/spring elements can be reached easily.

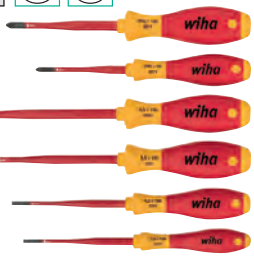
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.



52498 101



52498 102



52498 103

	Contents 1 piece each	Design	52498 ...
⊖	3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm,	in cardboard box	101
⊕	PZ 1 x 80/PZ 2 x 100		
⊖	3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm,	in cardboard box	102
⊕	PH 1 x 80/PH 2 x 100		
⊖	3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm,	in cardboard box	103
⊕	PH 1/80/PH 2/100,		
⊕	PZ 1/80/PZ 2/100,		
⊕	SL/PZ 2,		
✱	TX® T 15/20/25		

Screwdriver sets

52474 VDE mixed screwdriver set (6 pieces)

wiha Tools that work for you

Design
Output:
⊖ **DIN 5264 A, ISO 2380.**
⊕ **DIN 5260 PH, ISO 8740 PH.**
Manufactured in accordance with ICE 60900:2004. Protective insulation sprayed directly onto the blade. **SoftFinish® handle** with anti-roll protection.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

52474

	Contents 1 piece each	Design	52474 ...
⊖ ⊕	3.0 x 100 mm/4.0 x 100 mm/5.5 x 125 mm/6.5 x 150 mm, PH 1/80/PH 2/100	in cardboard box	101

52500 ESD mixed screwdriver set (5 pieces)

wiha Tools that work for you

Design
Output:
⊖ **DIN 5264 A, ISO 2380.**
⊕ **DIN 5260 PH, ISO 8740 PH.**
Ergonomic **Wiha SoftFinish® multi-component handle** with anti-roll protection. Surface resistance 10^6–10^9 ohms. Standards: **IEC 61340-5-1.**
Applications
For all work on electrostatically sensitive components.

Quality
Blade made from high-quality chromium-vanadium-molybdenum steel, fully hardened, brushed chromium-plated. Wiha ChromTop® blade tip guarantees highest degree of dimensional accuracy.

52500

	Contents 1 piece each	Design	52500 ...
⊖ ⊕	3.0 x 100 mm/4.0 x 100 mm, PH 0/60/PH 1/80/PH 2/100	in cardboard box	100

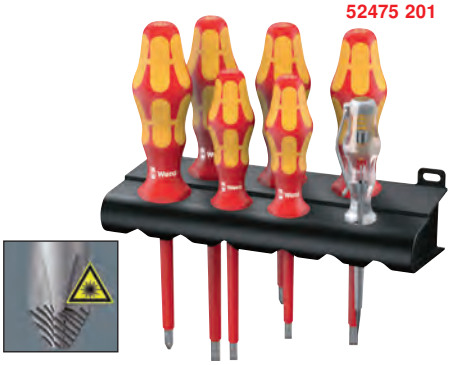
52475 VDE mixed screwdriver set (7 pieces)

Wera Be a Tool Rebel

Design
Output:
⊖ **DIN 5264 A, ISO 2380,**
⊕ **DIN 5260 PH, ISO 8740 PH.**
Individually tested, standard: IEC 60900:2004.

Blade bronzed, insulated. **With laser tip** (2.5 x 80 mm without) to prevent it from slipping out of the screw. **Kraftform handle** with hard and soft zones, and roll-off protection. Supplied with rack.
Quality
Blade made from 73 Mo V 5 2.

52475 201

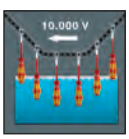


	Contents 1 piece each	Design	52475 ...
⊖ ⊕ ⊖	2.5 x 80 mm/3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm, PH 1/80/PH 2/100, Voltage tester 3.0 x 70 mm	in rack	201

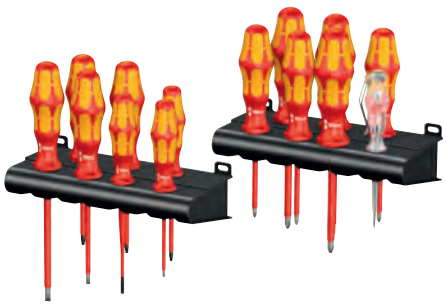
52475 VDE mixed screwdriver set (14 pieces)

Wera Be a Tool Rebel

Design
- VDE screwdriver set with 14 individually tested, insulated screwdrivers in accordance with IEC 60900
- Individual testing in a water bath at 10,000 volts to ensure safe working at the approved voltage of 1000 volts
- Multi-component Kraftform handle for high working speeds and ergonomic screwing
- With handle identification to make it easy to find and sort tools
- With hexagonal anti-roll protection
- With laser tip for more grip in the screw head



52475 202



	Contents 1 piece each	Design	52475 ...
⊖ ⊕ ⊕ ⊕ ✱ ⊖	2.5 x 80 mm/3.5 x 100 mm/4.0 x 100 mm/5.5 x 125 mm, PH 1x80/PH 2x100, PZ 1x80/PZ 2x100, # 1x80/# 2x100, TX 10x80/TX 15x80/TX 20x80, Voltage tester 3.0 x 70 mm	in 2 racks	202

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52488 VDE reversible screwdriver set (15 pieces)

felo

Design

Individually tested in accordance with DIN/ISO 60900:2004. With 12 IEC interchangeable blades, two-component handle and rotating cap, in robust and non-slip two-component strongbox (230 x 130 x 56 mm). Secure hold of the blades in the handle, automatic locking mechanism to prevent against inadvertent removal. Clip-on rotating cap and soft grip zone for use as a precision tool.

52488

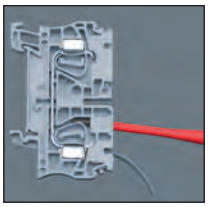
		Contents 1 piece each	Design	52488	...
	6	2.5 x 0.4/3.0 x 0.5/3.5 x 0.6/4.0 x 0.8/5.5 x 1.0/6.5 x 1.2 mm,	in strongbox		101
	3	**PH** 1x80/**PH** 2x100,			
	2	**PZ** 100,			
	3	**T** 10/**T** 15/**T** 20,			
	1	**Handle** 105 x 39 mm, rotating cap.			

52494 VDE reversible screwdriver set (16 pieces)

Wera

Design

- 14 VDE interchangeable blades with reduced blade diameter extra SLIM for deep-seated screw fittings and spring elements
- VDE Kraftform hand-held holder 817 with hard and soft zones, as well as anti-roll protection
- Voltage tester
- Individually tested in accordance with IEC 60900.



NEW

52494 100

		Contents	Design	52494	...
	1	**VDE Kraftform hand-held holder** 102 mm	in a sturdy folding pouch		100
	1	**Voltage tester** 3.0 x 0.5 x 70 mm			
	4	2.5 x 0.4 mm/3.5 x 0.6 mm/4.0 x 0.8 mm/5.5 x 1.0 mm			
	2	**PH** 1/**PH** 2			
	2	**PZ** 1/**PZ** 2			
	2	**#** 1/**#** 2			
	4	**T** 10/**T** 15/**T** 20/**T** 25			

52494 VDE reversible screwdriver set (18 pieces)

Wera

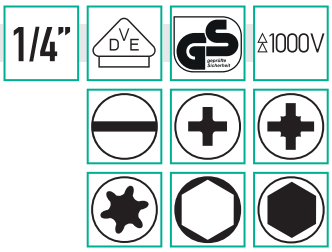
Design

- With 4 switch cabinet keys, length 89 mm.
- **Individually tested**
- **Standard: IEC 60900**
- Blades bronzed and insulated
- Blade length 154 mm
- Drive 9 mm hexagonal
- With lead-in chamfer
- VDE hand-held holder with **Kraftform handle** with hard and soft zones, as well as anti-roll protection
- Holder length 102 mm

52494

		Contents 1 piece each	Design	52494	...
	1	**Handle** 102 mm	in case		102
	1	**Voltage tester** 3.0 x 0.5 x 70 mm			
	4	2.5 x 0.4 mm/3.5 x 0.6 mm/4.0 x 0.8 mm/5.5 x 1.0 mm			
	2	**PH** 1/**PH** 2			
	2	**#** 1/**#** 2			
	2	**PZ** 1/**PZ** 2			
	2	**#** 1/**#** 2			
	1	6.3 x 89 mm			
	1	8.1 x 89 mm			
	1	89 mm			
	1	89 mm			

52494 VDE reversible screwdriver set (35 pieces)



Wera

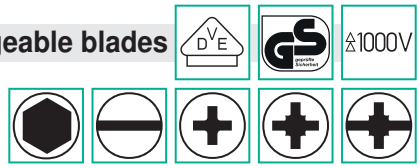
Design
- Incredibly fast 1/4 inch Zyklop Speed ratchet with swivel ratchet head and 5 defined fixed positions
- Manual and machine sockets (non impact) with ball catch groove and knurling at the rear end for high level of grip
- Joker double open-end wrench with holding function, end stop, small return angle and gripping teeth
- VDE insulated Kraftform hand-held holder and interchangeable blades with reduced blade diameter
- Assortment in a robust textile box

Applications
Compact tool set with the 35 most important screwdriving tools for maintenance work indoors and outdoors.

		Contents	Design	52494	...
	1	**VDE hand-held holder** 102 mm	in textile box		103
	1	**JOKER double open-end wrench** 10 x 13 mm			
⊖	1	**Voltage tester** 3.0 x 0.5 x 70 mm			
	1	**screw claw for holding screws**			
⊖	4	2.5 x 0.4 mm/3.5 x 0.6 mm/4.0 x 0.8 mm/5.5 x 1.0 mm			
⊕	2	**PH** 1/**PH** 2			
⊕	2	**PZ** 1/**PZ** 2			
✱	4	**T** 10/**T** 15/**T** 20/**T** 25			
¼"	1	**Zyklop Speed ratchet** 152 mm			
○	8	**manual and machine sockets** 5.5/6/7/8/10/11/12/13 mm			
⬢	4	**Hex-Plus bits for hexagon socket screws** Sizes 3/4/5/6 mm			
⊕	2	**bits for Phillips-head screws** PZ 1/PZ 2			
✱	1	**bits for TX® screws** T 25			
	1	**Zyklop extension with quick-release sleeve, short**			
	1	Zyklop connector			
	1	universal holder			

52494 103

52503 VDE hand-held holder Kraftform with VDE interchangeable blades



Wera

52503 100
Design
- High quality VDE hand-held holder exclusively for Wera VDE interchangeable blades.
- Handle/interchangeable blade system to replace the required blades in seconds
- Kraftform Plus handle for comfortable ergonomic work to prevent blisters and calluses
- Hard grip zones for high working speed, while soft grip zones guarantee high torque transmission.

	Total length mm	52503	...
○	102		100

52503 100

52503 201-211
Design
- VDE interchangeable blades with reduced blade diameter slim
- Wera black point tip provides a precise fit and optimised corrosion protection
- 9 mm hexagonal drive with lead-in chamfer
- Insulated, individually tested in accordance with IEC 60900

	Cutting edge width x cutting edge thickness mm	Total length mm	52503	...
⊖	2.5 x 0.4	154		201
⊖	3.0 x 0.5	154		202
⊖	3.5 x 0.6	154		203
⊖	4.0 x 0.8	154		204
⊖	5.5 x 1.0	154		205

	Size PH	Total length mm	52503	...
⊕	1	154		206
⊕	2	154		207

	Size PH/S	Total length mm	52503	...
⊕	1	154		208
⊕	2	154		209

	Size PZ	Total length mm	52503	...
⊕	1	154		210
⊕	2	154		211

52503 201

52503 202

52503 204

52503 203

52503 205

52503 206

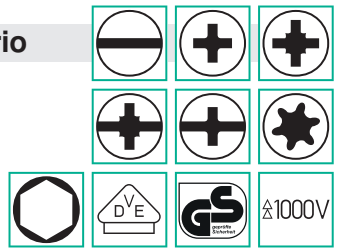
52503 207

52503 210

52503 211

wiha
Tools that work for you

52496 102
Design
Clearly arranged in high-quality and durable case.
Comprising
- **14 interchangeable bits** (art. no. 52497 101–104, 108–112, 116–119) and
- **1 hand-held holder** (art no. 52497 201)
- **1 SoftFinish® voltage tester** 110–250 volts



	Contents 1 piece each	Design	52496 ...
⊖	2.5 x 0.4/3.0 x 0.5/4.0 x 0.8/5.5 x 1.0 mm,	in case	102
⊕ ⊕ ⊕	PH 1x75 / PH 2x75 / PZ 1x75 / PZ 2x75 / SL/PZ 1x75 / SL/PZ 2x75,		
✱	TX® T 10/15/20/25,		
⊖	Voltage tester 3.0 x 0.5 mm, 110–250 volts,		
○	Hand-held holder 6 x 160 mm.		

52497 101-126
Interchangeable bits
Design
- High quality **chromium-vanadium steel**, fully hardened, bronzed
- Protective insulation sprayed directly onto the bit, which is fully integrated in the blade in the front section (not for end no. 120–121)
- **Manufactured in accordance with IEC 60900:2012**
- The integrated protective insulation enables deep-seated screw fittings and spring elements to be reached and operated
- The slim shape of the bit makes it easy to reach the screws underneath the finger and back of hand protection
- **Caution**: 6 mm slimBits can only be used in the slimVario bit holder (art. no. 52497 201) and slimTorque VDE bit holder (art. no. 55526 101–103)

Note:
Art. no. 52497 101–102 and 52497 120–121 are not slim versions.

52497 101-102

52497 103-105

	Cutting width x Thickness mm	Total length mm	52497 ...
⊖	2.5 x 0.4	75	101
⊖	3.0 x 0.5	75	102
⊖	4.0 x 0.8	75	103
⊖	5.5 x 1.0	75	104
⊖	6.5 x 1.2	75	105

52497 108-109

	Size PH	Total length mm	52497 ...
⊕	1	75	108
⊕	2	75	109

52497 111-112

	Size SL/PZ	Total length mm	52497 ...
⊕	1	75	111
⊕	2	75	112

52497 113-114

	Size SL/PH	Total length mm	52497 ...
⊕	1	75	113
⊕	2	75	114

52497 115-119

	Size T	Total length mm	52497 ...
✱	8	75	115
✱	10	75	116
✱	15	75	117
✱	20	75	118
✱	25	75	119

52497 120-121

52497 122-126

	Size mm	Total length mm	52497 ...
⬢	1.5	75	120
⬢	2.0	75	121
⬢	2.5	75	122
⬢	3.0	75	123
⬢	4.0	75	124
⬢	5.0	75	125
⬢	6.0	75	126

52497 201
Hand grip
Design
- Blade made from **chromium-vanadium steel**, fully hardened
- Protective insulation sprayed directly onto the blade
- **SoftFinish® electric multi-component handle**with anti-roll protection
- **Bit chuck**: ClicFix quick-change holder locks bits securely
- Only for 6 mm VDE interchangeable bits (art. no. 52497 101–126)
- **Caution**: Not to be used for C 6.3 and E 6.3 type bits

52497 201

	Total length mm	Blade length mm	52497 ...
○	160	50	201

52502 VDE battery screwdriver speedE®

wiha Tools that work for you

52502 001-003
SpeedE® sets
Design
- The first electric screwdriver from Wiha
- An electric screwing aid that eliminates tiresome screwing work for professionals, yet still leaves them the sensitive manual tightening of the screw

Advantage
- Work twice as fast with the 3-step process:
  1. Fast, electric inserting of screws
  2. Automatic material protection function at 0.4 Nm
  3. Manual fixing option for full tactile sensation
- slimBits tested at 10,000 volts AC and approved for 1000 volts AC
- 100% compatible with the Wiha slimBit system
- Electronic ratchet tool for quick fixing without repositioning
- 800 screw fittings with one battery charge
- Open system with standard battery
- Recommended by doctors and therapists of the AGR (German Action Group for Healthy Backs)

Applications
Ideal tool for all screwdriving work, e.g. socket assembly, work in the switch cabinet, industrial maintenance and assembly, maintenance and repair of power tools, household appliances and white goods, window and door assembly, heating, air conditioning and sanitary installations and repair of bicycles, motorcycles and lawn mowers. Also ideal for household use for building furniture, carrying out repairs and other screwdriving tasks in the hobby sector.

52502 001

	Set contents
1	**speedE® electric screwdriver handle**
2	**slimBit electric** bit slotted 3.5/5.5 mm
2	**slimBit electric bit** PH1/PH2
2	**slimBit electric bit** SL/PZ1/SL/PZ2
1	**L-Boxx Mini** for speedE®
1	**spare battery** 18500 Li-Ion
1	**charger** for battery type 18500 Li-Ion
1	speedE® **operating instructions**

52502 002

	Set contents
1	**speedE® electric screwdriver handle**
2	**slimBit electric bit** slotted 3.5/5.5 mm
2	**slimBit electric bit** PH1/PH2
2	**slimBit electric bit** PZ1/PZ2
2	**slimBit electric bit** SL/PZ1/SL/PZ2
1	**easyTorque electric torque adapter** 2.8 Nm
1	**L-Boxx Mini** for speedE®
1	**spare battery** 18500 Li-Ion
1	**charger** for battery type 18500 Li-Ion
1	speedE® **operating instructions**

52502 003

	Set contents
1	**speedE® electric screwdriver handle**
2	**slimBit electric bit** slotted 3.5/5.5 mm
2	**slimBit electric bit** PH1/PH2
2	**slimBit electric bit** PZ1/PZ2
2	**slimBit electric bit** SL/PZ1/SL/PZ2
4	**slimBit electric bit** TX® T10*/15/20/25
4	**slimBit electric bit** hexagonal Sizes 3/4/5/6 mm
1	**easyTorque torque adapter** 0.8 Nm
1	**easyTorque torque adapter** 2.0 Nm
1	**easyTorque torque adapter** 2.5 Nm
1	**easyTorque torque adapter** 2.8 Nm
1	**easyTorque torque adapter** 4.0 Nm
1	**L-Boxx Mini** for speedE®
1	**spare battery** 18500 Li-Ion
1	**charger** for battery type 18500 Li-Ion
1	speedE® **operating instructions**

* No slim version

Bit length mm	Torque adapter tolerance %	Spare battery weight g	Charger weight g	52502 ...
75	-	75	285	001
75	10	75	285	002
75	10	75	285	003

Continued

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Continued

52502 101
easyTorque adapter VDE set 5 pieces
Applications
For speedE® electric screwdrivers
art. no. 52502 001–003.

Set contents
1 **easyTorque torque adapter** 0.8 Nm
1 **easyTorque torque adapter** 2.0 Nm
1 **easyTorque torque adapter** 2.5 Nm
1 **easyTorque torque adapter** 2.8 Nm
1 **easyTorque torque adapter** 4.0 Nm

Set contents	52502 ...
5 pieces	101

NEW

52502 101

52502 201-205
easyTorque adapter VDE individual
Applications
For speedE® electric screwdrivers
art. no. 52502 001–003.

Torque Nm	52502 ...
0.8	201
2.0	202
2.5	203
2.8	204
4.0	205

52502 201

52502 202

52502 203

52502 204

52502 205

TX® screwdrivers

52529 TX® screwdriver sets

ATORN®

Design
- T6 to T9 and end no. 303 **without hole**
- T10 to T30 **with hole** (except end no. 303)
- **Round blade,** fully hardened
- Blackened tip
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Output marking on the screwdriver head

Advantage
- Multi-component handle with extra large soft zone for more comfortable handling and effortless work
- Better accuracy of fit with longer service life
- The new output marking on the screwdriver head saves you time and guarantees that you will find the right tool

Applications
T6 to T30: For internal TX® screws.
T10 to T30: Also for TX® safety screws (with pin in the screw head). Not for end no. 303.

Quality
Blade made from chromium-vanadium-molybdenum steel.

Note:
TX® profile gauge, see art. no. 37930.

52529 302

Set contents		Size T	Design	52529	...
3 pieces	with hole	10/15/20	in cardboard box		299
5 pieces	mixed	6/7/8/9/10	in cardboard box		300
5 pieces	without hole	10/15/20/25/30	in cardboard box		303 NEW
5 pieces	with hole	10/15/20/25/30	in cardboard box		301
7 pieces	mixed	8/9/10/15/20/25/30	in cardboard box		302

52529 TX® screwdrivers

ATORN®

Design
- **Round blade,** fully hardened
- Blackened tip
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Output marking on the screwdriver head

Advantage
- Multi-component handle with extra large soft zone for more comfortable handling and effortless work
- Better accuracy of fit with longer service life
- The new output marking on the screwdriver head saves you time and guarantees that you will find the right tool

Applications
For internal TX® screws.

Quality
Blade made from chromium-vanadium-molybdenum steel.

Note:
TX® profile gauge, see art. no. 37930.

52529 401-511

Size T	Blade length mm	Total length mm	52529	...
6	60	146		401
7	60	146		402
8	60	146		403
9	60	157		404
10	100	170		505 NEW
15	100	180		506 NEW

Size T	Blade length mm	Total length mm	52529	...
20	100	200		507 NEW
25	100	200		508 NEW
27	115	227		509 NEW
30	115	227		510 NEW
40	130	242		511 NEW

52529 TX® screwdriver with hole

ATORN®

Design
- **With hole**
- **Round blade,** fully hardened
- Blackened tip
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Output marking on the screwdriver head

Advantage
- Multi-component handle with extra large soft zone for more comfortable handling and effortless work
- Better accuracy of fit with longer service life
- The new output marking on the screwdriver head saves you time and guarantees that you will find the right tool

Applications
For internal TX® screws and TX® safety screws (with pin in the screw head).

Quality
Blade made from chromium-vanadium-molybdenum steel.

Note:
TX® profile gauge, see art. no. 37930.

52529 405-411

Size T	Blade length mm	Total length mm	52529	...
10	100	170		405
15	100	180		406
20	100	200		407
25	100	200		408

Size T	Blade length mm	Total length mm	52529	...
27	115	227		409
30	115	227		410
40	130	242		411

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52530 TX® screwdrivers

wiha Tools that work for you

Design
Round blade, fully hardened, brushed chromium-plated. ChromTop® tip. **SoftFinish® handle** with anti-roll protection.
Applications
For internal TX® screws.

Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

Note:
TX® profile gauge, see art. no. 37930.

52530

Set contents	Size T	Design	52530	...
6 pieces	10/15/20/25/30/40	in cardboard box		100

Size T	Blade length mm	Total length mm	52530	...
3	60	164		201
4	60	164		202
5	60	164		203
6	60	164		204
7	60	164		205
8	60	164		206
9	60	171		207
10	80	191		208

Size T	Blade length mm	Total length mm	52530	...
15	80	191		209
20	100	218		210
25	100	218		211
27	115	233		212
30	115	233		213
40	130	254		214
45	130	254		215

52531 TX® screwdrivers

Wera Be a Tool Rebel

Design
Round blade, brushed nickel-chrome, black point tip and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.
Applications
For internal TX® screws.

Quality
Blade made from 73 Mo V 5 2.

Note:
TX® profile gauge, see art. no. 37930.

52531

Size T	Blade length mm	Total length mm	52531	...
5	60	141		101
6	60	141		102
7	60	141		103
8	60	141		104
9	60	141		105
10	80	161		106
15	80	178		107

Size T	Blade length mm	Total length mm	52531	...
20	100	198		108
25	100	205		109
27	115	220		110
30	115	220		111
40	130	242		112
45	130	242		113

52534 TX® screwdriver with hole

BAHCO

Design
Round blade, brushed chromium-plated, fully hardened,bronzed tip. **With hole,** enabling the screwing of both TX® and TX® safety screws (with pin in the screw head). Ergonomic three-component handle, impact-resistant. Captive colour coding system on both ends of the handle (TX® = green).
Applications
For internal TX® screws.

Quality
Blade made from vanadium-extra steel.

Note:
TX® profile gauge, see art. no. 37930.

52534 201-205

52534 206-208

52534 209

52534 210

Size T	Blade length mm	Total length mm	52534	...
7	75	197		201
8	75	197		202
9	75	197		203
10	75	197		204
15	100	222		205

Size T	Blade length mm	Total length mm	52534	...
20	100	222		206
25	125	247		207
27	125	247		208
30	150	272		209
40	150	311		210

TX® screwdrivers

52532 TX® screwdriver (MagicSpring®)

wiha
Tools that work for you

Design
Round blade, fully hardened, brushed chromium-plated, ChromTop® tip. **With MagicSpring® retaining spring, SoftFinish® handle** with anti-roll protection.
Applications
For internal TX® screws.
Quality
Blade made from high-quality, chromium-vanadium-molybdenum steel.

The MagicSpring retaining spring clamps the tool and the TX® or TX PLUS® screw to ensure that it is held securely.

52532

Note:
TX® profile gauge, see art. no. 37930.

Size T	Blade length mm	Total length mm	52532	...
6	60	164		201
7	60	164		202
8	60	164		203
9	60	171		204

Size T	Blade length mm	Total length mm	52532	...
10	80	191		205
15	80	191		206
20	100	218		207
25	100	218		208

52539 TX® screwdriver with holding function

Wera
Be a Tool Rebel

Round blade, brushed nickel-chrome. **With holding function. Kraftform handle** with hard and soft zones, and roll-off protection.
Applications
Internal TX® screws in accordance with the Camcar Textron specification.
Quality
Blade made from 73 Mo V 5 2.

Note:
TX® profile gauge, see art. no. 37930.

TX® with holding function:
Due to the production of the driving flanks, which run conically to the tool tip, due to the additional optimisation of the flank base and due to the interaction with the ideal engagement depth, the tool profile with the drive profile manufactured in accordance with the CAMCAR TEXTRON specification is pressed against the screw.

52539 101

Set contents	Size T	Design	52539	...
6 pieces	10/15/20/25/30/40	in rack		101

52539 199-207

Size T	Blade length mm	Total length mm	52539	...
8	60	141		199
9	60	141		200
10	80	161		201
15	80	178		202
20	100	198		203

Size T	Blade length mm	Total length mm	52539	...
25	100	205		204
27	115	220		205
30	115	220		206
40	130	242		207

52537 VDE TX® screwdriver slim

ATORN®

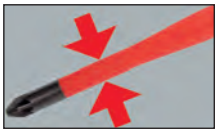
Design
- **Individually tested in accordance with DIN EN 60900 (IEC 900)**
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Handle marking (screw symbol) makes it easier to find the right tool
- Black tip to retain precision and fit
- **ATORN slim blade** facilitates access to deep-seated screw fittings

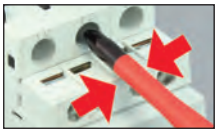
Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed, insulated.
Applications
For internal TX® screws.

Note:
TX® profile gauge, see art. no. 37930.

52537

Size T	Blade length mm	52537	...
15	100		101
20	125		102
25	125		103





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52533 VDE TX® screwdriver slimFix

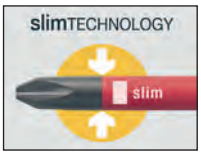
wiha Tools that work for you

Design
Manufactured in accordance with **IEC 60900:2004.** **SoftFinish® handle** with anti-roll protection. Protective insulation sprayed directly onto the blade. Protective insulation in the front area is fully integrated in the blade. **38 mm constant thin diameter**: Deep-seated screw fittings/spring elements can be reached easily.

Applications
For internal TX® screws.

Quality
Blade made from chromium-vanadium-molybdenum steel, fully hardened, bronzed.

Note:
Sizes T8 and T9 are not the slim version.
TX® profile gauge, see art. no. 37930.



52533 101

Set contents	Size T	Design	52533 ...
6 pieces	8/9/10/15/20/25	in cardboard box	101

52533 201-207

Size T	Blade length mm	Total length mm	52533 ...
10	100	204	201
15	100	211	202
20	100	211	203
25	125	243	204

Size T	Blade length mm	Total length mm	52533 ...
27	125	243	205
30	125	243	206
40	150	268	207

52536 ESD TX® screwdriver set (5 pieces)

wiha Tools that work for you

Design
Standards: **IEC 61340-5-1.**
Ergonomic **Wiha SoftFinish® multi-component handle** with anti-roll protection. Surface resistance 10^6–10^9 ohms.

Applications
For all work on electrostatically sensitive components.

Quality
Blade made from high-quality chromium-vanadium-molybdenum steel, fully hardened, brushed chromium-plated. Wiha ChromTop® blade tip guarantees highest degree of dimensional accuracy.

Note:
TX® profile gauge, see art. no. 37930.

52536 100

Set contents	Size T	Design	52536 ...
5 pieces	6/8/9/10/15	in cardboard box	100

52535 VDE TX® screwdriver

Wera Be a Tool Rebel

Design
- With **multi-component Kraftform Plus handle** for fast and gentle work
- Hard grip zones for high working speed, while soft grip zones guarantee high torque transmissions
- Individual testing in a water bath at 10,000 volts to ensure safe working at the approved voltage of 1000 volts
- **Take it easy** tool finder with colour coding according to profiles and size stamping to find the required tool quickly and easily
- The hexagonal anti-roll protection prevents annoying rolling away in the workplace
- **With black point tip for high corrosion protection and fitting accuracy**

Applications
For internal TX® screws.

Quality
Blade made from 73 Mo V 5 2.

Note:
TX® profile gauge, see art. no. 37930.

52535 100

52535 101-105

Set contents	Size T	Design	52535 ...
6 pieces	8/9/10/15/20/25	in cardboard box	100 NEW

Size T	Blade length mm	Total length mm	52535 ...
10	80	161	101
15	80	178	102
20	80	178	103

Size T	Blade length mm	Total length mm	52535 ...
25	100	205	104
30	100	205	105

52538 TX® ball head screwdriver

Wera

Design
Round blade, brushed nickel-chrome, black point tip and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.
Applications
For internal TX® screws. Ball head for an angle of up to 30°.

Quality
Blade made from 73 Mo V 5 2.

Note:
TX® profile gauge, see art. no. 37930.

52538

Size T	Blade length mm	Total length mm	52538	...
15	80	178		101
20	100	198		102
25	100	205		103

Size T	Blade length mm	Total length mm	52538	...
27	115	220		104
30	115	220		105

52550 - 52551 Ball head screwdriver

ATORN®

Design
Hexagonal blade, fully hardened, brushed chromium-plated, tip blackened.
Multi-component handle with extra large soft zone and suspension hole.
Handle top with anti-roll protection.

Applications
Allows screwing in hard-to-reach places up to an angle of 25°.
Quality
Chromium-vanadium steel blade.

52550

Set contents	Size mm	Design	52550	...
5 pieces	3/4/5/6/8	in cardboard box		201

Size mm	Blade length mm	Total length mm	52551	...
2	100	186		201
2.5	100	186		202
3	100	186		203
4	100	197		204

Size mm	Blade length mm	Total length mm	52551	...
5	100	197		205
6	125	232		206
8	150	257		207
10	150	269		208

52546 Ball head screwdriver

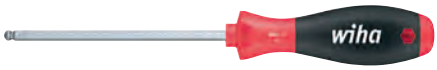
wiha
Tools that work for you

Design
Hexagonal blade, fully hardened, brushed chromium-plated. **SoftFinish® handle** with anti-roll protection.

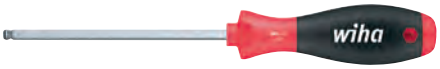
Applications
Allows screwing in hard-to-reach places up to an angle of 25°.
Quality
Chromium-vanadium steel blade.

Note:
Sizes 3–8 mm with MagicRing.

52546 201-203



52546 204-208



Size mm	Blade length mm	Total length mm	52546	...
1.5	75	179		201
2	100	204		202
2.5	100	204		203
3	100	204		204

Size mm	Blade length mm	Total length mm	52546	...
4	100	211		205
5	100	211		206
6	125	243		207
8	150	268		208

52548 Ball head screwdriver

Wera

Design
Hexagonal blade, brushed nickel-chrome, black point tip and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
Allows screwing in hard-to-reach places up to an angle of 30°.
Quality
Blade made from 73 Mo V 5 2.

52548

Size mm	Blade length mm	Total length mm	52548	...
1.5	60	130		100
2.0	100	170		101
2.5	100	181		102
3.0	100	181		103
4.0	100	198		104

Size mm	Blade length mm	Total length mm	52548	...
5.0	100	205		105
6.0	125	230		106
8.0	150	262		107
10.0	150	262		108
12.0	150	267		109

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52558 Retaining screwdriver

wiha Tools that work for you

Design
Ergonomic SoftFinish® multi-component handle with anti-roll protection.

Applications
For positioning and tightening screws in hard-to-reach places. Clamping sleeve holds the screw.
Quality
Blade made from chromium-vanadium steel, fully hardened, bronzed.

52558

Cutting edge width x cutting edge thickness mm	Blade length mm	Total length mm	52558	...
2.5 x 0.4	75	186		201
3.0 x 0.5	100	211		202
4.0 x 0.8	125	243		203
5.0 x 1.0	150	268		204

52565 ScrewGrab screwing aid

Design
- Improves the grip between the tool and the screw by over 400%
- No slipping of the screwdriver on worn or rounded screws
- Can be washed away without leaving residue, gentle on the skin and non-toxic
- Very economical and can be stored for an unlimited time

Applications
- On stripped screw heads
- Suitable for all types of screws

52565

Content ml	52565	...
15		101

52576 Slotted Allen keys

BAHCO

Design
- Double angled
- Cutting edge position 0° or 90°
- DIN 5200

Applications
For slotted screws.
For working in very cramped conditions.
Quality
Nickel-plated and chrome-plated, Polypropylene handle.

NEW

52576

Cutting edge width x cutting edge thickness mm	Total length mm	52576	...
4.0 x 0.8	100		202
5.5 x 1.0	125		203
8.0 x 1.2	150		205
10.0 x 1.6	175		206

52581 Phillips Allen keys PH

BAHCO

Design
- Double angled
- DIN 5208

Applications
For Phillips cross recess head screws.
For working in very cramped conditions.
Quality
Nickel-plated and chrome-plated, Polypropylene handle.

NEW

52581

Size PH	Total length mm	52581	...
1 + 2	100		201
3 + 4	200		203

Interchangeable blade screwdriver

52583 SMART reversible screwdriver set (13 pieces)

felo

Design
- Screwdriver and T-handle in one
- Replaces 48 individual tools
- Black tip for precise fit
- Ergonomically engineered design
- Two-component handle with comfortable non-slip soft casing for the highest torque
- Handle top with anti-roll protection
- GS-tested safety
- 15-year warranty

Applications
Suitable for the complete 1/4 inch standard range.
Quality
Blades made from high-performance bit steel. Hardness/torque up to 100% above DIN values.

52583

		Set contents
	1	**handle** 105 x 39 mm
	12	**blades** 1/4 inch x 160 mm:
⊕⊖	1	**blade for Phillips-head screws PH and slotted screws PH 1** – 4.0x0.8 mm
⊕⊕	1	**blade for Phillips-head screws PH** 2–3
⊕⊖	3	**blades for Phillips-head screws PZ and slotted screws**
		PZ 1 – 5.0x0.8/PZ 2 – 6.0x1.0/PZ 3 – 7.0x12 mm,
✱✱	5	**blades for TX® screws** T 6–7/8–9/10–15/20–25/30–40
⬢⬢	2	**blades for hexagonal screws** Sizes 3–4/5–6 mm

Set contents	Design	52583	...
13 pieces	in strong box (230 x 130 x 56 mm)		101

52582 SYSTEM 6 combination blade set (11 pieces)

wiha Tools that work for you

Design
SYSTEM 6 SoftFinish® telescopic handle for variably adjustable blade lengths of 42–114 mm. Double-sided interchangeable blades with colour coding.
Applications
Ideal for dry and general applications.
Quality
Blades made from chromium-vanadium-molybdenum steel, fully hardened, brushed chromium-plated. Wiha ChromTop® blade tips.

52582

The **SoftFinish® telescopic handle** with Click-Stop ball clamp guarantees a secure hold and rapid blade changes. Variably adjustable blade lengths from 42–114 mm.

		Set contents
	1	**SYSTEM 6 SoftFinish® telescopic handle**
⊖⊖	2	**blades for slotted screws** 4.0–6.0/5.5–6.5 mm
⊕⊕	1	**blade for Phillips-head screws PH** 1–2
⊕⊕	1	**blade for Phillips-head screws PZ** 1–2
✱✱	3	**blades for TX® screws** T 10–15/20–25/30–40
⬢⬢	3	**blades for hexagonal screws** Sizes 4–4/5–5/6–6 mm

Set contents	Design	52582	...
11 pieces	in metal box		202

52586 Vario screwdriver set (11 pieces)

Wera Be a Tool Rebel

Design
Master's set.
Quality
High-alloy, chromium-vanadium-molybdenum steel blade.

	Set contents
1	**Kraftform handle**
10	**combination blades Length 175 mm:**
⊖⊖	0.6 x 4–1.0 x 6/0.8 x 5–1.2 x 7 mm
⬢⬢	Sizes 4–4/5–5/6–6 mm
⊕⊕	PH 1–2
⊕⊕	PZ 1–2
✱✱	T 10–15/20–25/30–40

52586

Set contents	Design	52586	...
11 pieces	in folding pouch		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52595 Vario screwdriver handle

Design
With 6 mm hexagonal mount and 10 mm torque adjustment. **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

52595

Length mm	52595 ...
98	101

52597 Combination screwdriver T-handle

Design
With 6 mm hexagonal mount.
Applications
For increased torques when tightening and loosening seized screws.

52597

Length mm	52597 ...
56	101

52600 Combination blade extension

Design
Blade: 6 mm hexagonal material.
Applications
For combination and adapter blades (art. no. 52605 and 52612).

Quality
Chromium-vanadium steel.

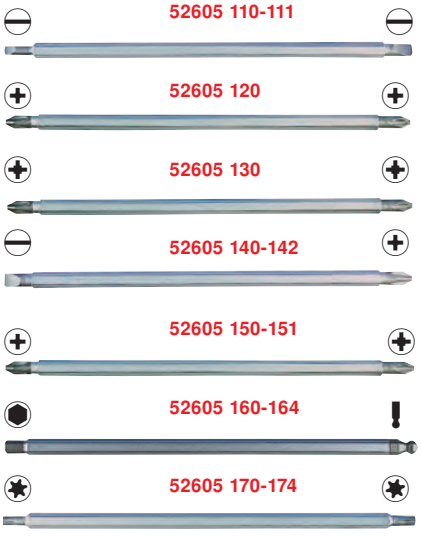
52600

Length mm	52600 ...
175	201

52605 Combination blades

Design
Blade: 6 mm hexagonal material, fully hardened, brushed nickel-chrome. **Length 175 mm.**

Quality
Chromium-vanadium-molybdenum steel.


52605 110-111
52605 120
52605 130
52605 140-142
52605 150-151
52605 160-164
52605 170-174

Shape	Size	52605 ...
⊖ ⊖	4 x 0.6/6 x 1.0	110
⊖ ⊖	5 x 0.8/7 x 1.2	111
⊕ ⊕	PH 1/PH 2	120
⊕ ⊕	PZ 1/PZ 2	130
⊖ ⊕	4 x 0.6/PH 1	140
⊖ ⊕	6 x 1.0/PH 2	141
⊖ ⊕	7 x 1.2/PH 3	142
⊕ ⊕	PH 1/PZ 1	150
⊕ ⊕	PH 2/PZ 2	151
⬢ !	Sizes 2.5/2.5	160

Shape	Size	52605 ...
⬢ !	Sizes 3.0/3.0	161
⬢ !	Sizes 4.0/4.0	162
⬢ !	Sizes 5.0/5.0	163
⬢ !	Sizes 6.0/6.0	164
✱ ✱	T 6/T 8	170
✱ ✱	T 7/T 9	171
✱ ✱	T 10/T 15	172
✱ ✱	T 20/T 25	173
✱ ✱	T 30/T 40	174

52612 Adapter blades

Design
Blade: 6 mm hexagonal material.
Quality
Chromium-vanadium steel.

52612 102
Design
With 1/4 inch quick-change chuck and strong permanent magnet.
Applications
For 1/4 inch screwdriver bits.

52612 102

52612 103
Design
With 1/4 inch external square head output.
Applications
For 1/4 inch internal square socket wrench insert.

52612 103

Length mm	52612 ...
165	102
175	103

Bit assortments

52630 Bit assortment (32 pieces)

1/4"

Wera

Kraftform compact 70 Allround
Design
In space-saving, light and robust plastic box.

Applications
Suitable both for manual screwing using the **Kraftform handle,** as well as for mechanical screwing with the included bits.

52630

	Set contents
1	**hand-held bit holder Kraftform** with Rapidaptor quick-change chuck
3 each of	**bits for Phillips-head screws PH** Size 1-25/2-25/3-25 mm
3 each of	**bits for Phillips-head screws PZ** Size 1-25/2-25/3-25 mm
6	**bits for ResisTORX® screws** TX 10/15/20/25/30/40
3	**Hex-Plus bits for hexagon socket screws** Sizes 4/5/6 mm
3	**bits for slotted screws** 0.6 x 4.5/1.0 x 5.5/1.2 x 6.5 mm
1	**universal holder** with Rapidaptor quick-change chuck ◯ 1/4 inch/⬢ 1/4 inch

	Set contents	Design	52630	...
Kraftform compact 70 Allround	32 pieces	in plastic box		101

52640 Bit assortment (52 pieces)

1/4"

Wera

Kraftform compact 100
Design
- Compact tool set with 52 screwdriving tools
- In compact textile box with a high degree of robustness and providing surface protection
- Low volume and weight for ease of mobility
- With Wera Take it easy tool finder

Contents:
- **1 Rapidaptor hand-held bit holder** with quick-change chuck
- **1 Rapidaptor bit holder** with quick-change chuck
- **30 BiTorsion bits** with 25 mm length for a long service life, tough (BTZ), for universal use, extra hard (BTH)
- **12 impactor bits** with 50 mm length for extremely high requirements
- **8 Allen keys** with Hex-Plus profile (prevents hexagon socket screws from spinning) and hexagonal ball head on the long arm for work at an angle

52640

	Set contents
◯ 1	**Rapidaptor hand-held bit holder** with quick-change chuck
◯ 1	**Rapidaptor bit holder** with quick-change chuck
30	**BiTorsion bits,** length 25 mm, tough (BTZ) and extra hard (BTH)
12	**impactor bits,** length 50 mm
! 8	**Allen keys** with Hex-Plus profile and hexagonal ball head

	Set contents	Design	52640	...
Kraftform compact 100	52 pieces	in textile box		200

52642 Bit assortments (bit length 89 mm)

1/4"

Wera

Kraftform compact 60/62
Design
With hand-held holder and 89 mm long bits in folding pouch to attach to a belt.

52642 101

	Set contents 52642 101
1	**Kraftform one-handed bit ratchet tool 1/4 inch** with Rapidaptor quick-change chuck
5	**bits for ResisTORX® screws** TX 10/15/20/25/30
4	**Hex-Plus bits for hexagon socket screws** Sizes 3/4/5/6 mm
3	**bits for Phillips-head screws PH** Size 1–89/2–89/3–89 mm
3	**bits for Phillips-head screws PZ** Size 1–89/2–89/3–89 mm
1	**bit for slotted screws** 1.0 x 5.5 mm

52642 103

	Set contents 52642 103
1	**Kraftform one-handed bit ratchet tool 1/4 inch** with Rapidaptor quick-change chuck
8	**bits for ResisTORX® screws** TX 8/10/15/20/25/27/30/40
6	**Hex-Plus bits with hole for hexagon socket screws** Sizes 2/2.5/3/4/5/6 mm
3	**bits for Phillips-head screws PH** Size 1–89/2–89/3–89 mm
3	**bits for Phillips-head screws PZ** Size 1–89/2–89/3–89 mm
1	**bit for slotted screws** 1.2 x 6.5 mm
4	**bits for tensioning screws** 1/2/3/4
3	**bits for TORQ-SET® screws** 6/8/10 mm
4	**bits for TRI-WING® screws** 1/2/3/4

	Set contents	Design	52642	...
Kraftform compact 60	17 pieces	in folding pouch		101
Kraftform compact 62	33 pieces	in folding pouch		103

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1/4"

Wera

52643 101

52643 101
Twist drill bit set C 6.3
Design
- Metal twist drill bit and bit set with 19 pieces in a robust belt pouch
- High quality metal twist drill bits C 6.3 made from high-speed steel (HSS) for precise drilling in metal
- Very good concentricity and power transmission due to hexagonal shaft
- 1/4 inch C 6.3 drive suitable for all standard bit holders, quick-change bit holders and drill chucks

52643 102

52643 102
Conical countersink bit set C 6.3
Design
- Conical countersink bit set with 8 pieces in a sturdy plastic box for deburring, chamfering and countersinking
- Perfect chip removal and low risk of tilting ensure pleasant working
- Cutting edge part in accordance with DIN 335-C, 90° with 3 cutting edges
- With high-quality, ergonomic hand-held bit holder, fitted with a magnet
- 1/4 inch C 6.3 conical countersink drive suitable for all standard bit holders/quick-change bit holders and drill chucks

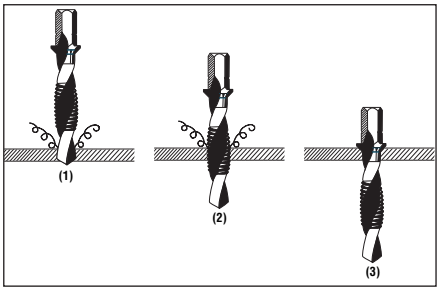
52643 103

52643 101
Combination screw tap bit set
Design
- Combination screw tap bit set with 7 pieces in a sturdy plastic box
- Core drilling, thread cutting and deburring in a single action
- 1/4 inch C 6.3 drive suitable for all standard bit holders/quick-change bit holders
- Very good power transmission due to hexagonal shaft, good centring characteristics and problem-free cutting in metal
- Perfect chip removal and low risk of tilting

		Set contents 52643 101
	1	**Rapidaptor universal holder** ◯ 1/4 inch/⬢ 1/4 inch
⊠	6	**metal twist drill bits** 3.0 x 38/4.0 x 44/4.2 x 45/5.0 x 50/6.0 x 50/8.0 x 51 mm
⊕	6	**bits for Phillips-head screws PH** 2 x Size 1–25/3 x Size 2–25/1 x Size 3–25
✱	6	**bits for TX® screws** T 10/15/20/25/30/40

		Set contents 52643 102
	1	**Kraftform hand-held bit holder** with quick-change chuck
	1	**Rapidaptor universal holder** ◯ 1/4 inch/⬢ 1/4 inch
◔	6	**conical countersink bits** 6.3 x 31/8.3 x 31/10.4 x 34/12.4 x 35/16.5 x 40/20.5 x 41 mm

		Set contents 52643 103
	1	**Rapidaptor universal holder** ◯ 1/4 inch/⬢ 1/4 inch
⊠	6	**combination screw taps** M3 x 36/M4 x 39/M5 x 41/M6 x 41/M8 x 51/M10 x 59

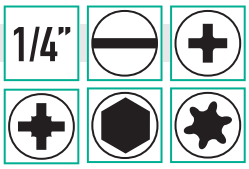


	Set contents	Design	52643 ...
Metal twist drill bits and bits set	19 pieces	in pouch	101
Conical countersink bit set	8 pieces	in plastic box	102
Combination screw tap bit set	7 pieces	in plastic box	103

52922 Socket wrench bit assortment with bit ratchet (26 pieces)

BAHCO

Design
Using the patented bit ratchet (US pat. 6860175), screws and nuts can be loosened and tightened easily in tight spaces.

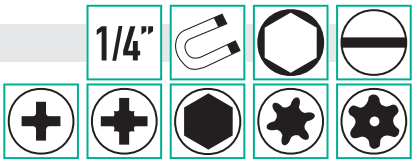


52922

	Set contents
1	**bit ratchet tool** 1/4 inch hexagonal drive with 8 mm box wrench (patented)
5	**socket wrench inserts** Sizes 6/7/8/10/13 mm
3	**bits for slotted screws** 4/5/6 mm
3	**bits for Phillips-head screws PH** 1/2/3
3	**bits for Phillips-head screws PZ** 1/2/3
4	**bits for hexagon socket screws** Sizes 3/4/5/6 mm
5	**bits for TX® screws** T 10/15/20/25/30
1	**adapter** 1/4 inch square drive x 1/4 inch hexagonal output
1	**quick release adapter**

Set contents	Design	52922 ...
26 pieces	in plastic box	101

52923 Socket wrench bit assortments with bit ratchet



Wera

Tool Check PLUS

Design
- Tool combination made up of Wera 1/4 inch bit ratchet, bits, sockets, adapters and a hand-held holder in a confined space
- Universal companion with a wide variety of screwing applications
- Hand-held bit holder with Kraftform Plus handle for comfortable ergonomic working
- Due to the direct bit holder in the ratchet head, the tool has been designed to be as small as possible for low working heights.
- Small return angle of 6° for precision work
- Robust die-forged-solid steel design (torques of above 65 Nm)
- The Rapidaptor bit holder with quick-release sleeve: Can be used as an extension, for lightning-fast bit changes without additional tools; even the smallest bit sizes can be changed using just one hand
- Tough bits, for universal use
- Manual and machine sockets for almost every application

Applications
For working in confined spaces. For bits and sockets. Mount directly in the ratchet head.

	Set contents 52923 101
1	**bit ratchet tool** 1/4 inch
1	**Rapidaptor universal holder**
1	**connector** 1/4 inch
1	**bit for slotted screws,** length 25.0 mm, 1.0 x 5.5 mm
6	**bits for Phillips-head screws,** length 25.0 mm, 2x**PH**1/3x**PH**2/1x**PH**3
5	**bits for Phillips-head screws,** length 25.0 mm, 1x**PZ**1/3x **PZ**2/1x**PZ**3
5	**Hex-Plus bits for hexagon socket screws,** length 25 mm, Sizes 3/4/5/6/8 mm
6	**bits for TX® screws,** length 25.0 mm, TX 10/15/20/25/30/40
5	**bits for TX® screws with hole,** length 25.0 mm, TX BO 10/15/20/25/30

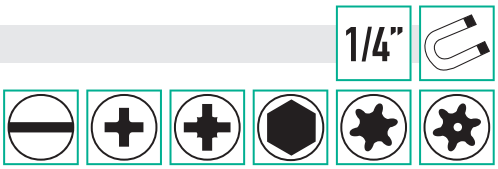
52923 101

	Set contents 52923 102
1	**bit ratchet tool** 1/4 inch
1	**hand-held bit holder**
1	**Rapidaptor universal holder**
1	**connector** 1/4 inch
7	**sockets,** length 23.0 mm, 5.5/6/7/8/10/12/13 mm
1	**bit for slotted screws,** length 25.0 mm, 1.0 x 5.5 mm
6	**bits for Phillips-head screws,** length 25.0 mm, 2x**PH**1/3x**PH**2/1x**PH**3
5	**bits for Phillips-head screws,** length 25.0 mm, 1x**PZ**1/3x **PZ**2/1x**PZ**3
5	**Hex-Plus bits for hexagon socket screws,** length 25 mm, Sizes 3/4/5/6/8 mm
6	**bits for TX® screws,** length 25.0 mm, TX 10/15/20/25/30/40
5	**bits for TX® screws with hole,** length 25.0 mm, TX BO 10/15/20/25/30

52923 102

Set contents	Design	52923 ...
31 pieces	in plastic box	101
39 pieces	in plastic box	102

52713 Bit assortment (32 pieces)



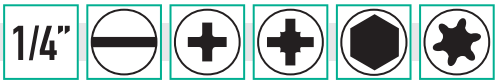
Design
- Bits made from high-quality S2 bit steel
- Sandblasted, matt, including corrosion protection paint
- With colour ring and magnetic quick-change holder with ejector function

52713

	Set contents
1	**Magnetic quick-change holder** with automatic ejection
1	**HSS conical countersink** with C 6.3 mount
2	**bits for slotted screws** 4.5/6.5 mm
4	**bits for Phillips-head screws** 1x**PH**1/2x**PH**2/1x**PH**3
4	**bits for Phillips-head screws** 1x**PZ**1/2x**PZ**2/1x**PZ**3
4	**Hex-Plus bits for hexagon socket screws** Sizes 3/4/5/6 mm
10	**bits for TX® screws** 1xT10/2xT15/2xT20/2xT25/1xT27/1xT30/1xT40
6	**ResisTORX® bits with hole** T 10/15/20/25/30/40

Contents	Design	52713	...
32 pieces	in plastic box		**100**

52715 StrongBox



Design
- Splash-proof and extremely non-slip StrongBox for daily use
- Robust bit box for the highest requirements in terms of hardness and torque values – well above DIN and ISO standards

52715 201
Design
- 40 pieces Bit assortment including magnetic holder E 6.3 x 58 mm
- Combined bit box with 33 bits C 6.3 x 25 mm and 6 bits E 6.3 x 50mm

52715 202
Design
- 30 pieces Bit assortment including stubby hand-held and magnetic bit holder E 6.3

NEW

52715 201

52715 202

	Set contents 52715 201
1	**magnetic bit holder** E 6.3 x 58 mm
3	**bits C 6.3 for slotted screws** 4.5 x 0.6/5.5 x 0.8/6.5 x 1.2 mm
6	**bits C 6.3 for Phillips-head screws** 1x**PH**02x**PH**1/2x**PH**2/1x**PH**3
6	**bits C 6.3 for Phillips-head screws** 2x**PZ**1/3x**PZ**2/1x**PZ**3
10	**bits C 6.3 for TX® screws** T 5/6/7/8/10/15/20/25/30/40
3	**bits C 6.3 for hexagon socket screws** Sizes 3/4/5 mm
1	**bit E 6.3 50 mm for Phillips-head screws PH** 2
2	**bits E 6.3 50 mm for Phillips-head screws PZ** 1/2
3	**bits E 6.3 50 mm for TX® screws** T 20/25/30

	Set contents 52715 202
1	**ERGONIC Stubby**
1	**magnetic bit holder** E 6.3 x 58 mm
2	**bits for safety screwed connections** tensioner bits
4	**bits for slotted screws** 3.0 x 0.5/4.5 x 0.6/5.5 x 0.8/6.5 x 1.2 mm
4	**bits for Phillips-head screws PH** 0/1/2/3
3	**bits for slotted screws PZ** 1/2/3
10	**bits for TX® screws** T 5/6/7/8/10/15/20/25/30/40
5	**bits for hexagon socket screws** Sizes 2/3/4/5/6 mm

Contents	Design	52715	...
35 pieces	in strongbox		**201**
30 pieces	in strongbox		**202**

52711 Bit assortments (10 pieces)

NEW

1/4"

ATORN®

Design
- Bit assortment including 10 bits and magnetic holder 1/4 inch E 6.3 for bits with drive C 6.3
- In a robust plastic box for practical and space-saving storage. Owing to the small size, this box can be stowed away in a space-saving way.

52711 101

		Set contents 52711 101
	1	**magnetic holder** C 6.3
⊖	3	**bits for slotted screws** 4.5/5.5/6.5 mm
⊕	3	**bits for Phillips-head screws PH** 1/2/3
⊕	3	**bits for Phillips-head screws PZ** 1/2/3

52711 102

		Set contents 52711 102
	1	**magnetic holder** C 6.3
✱	9	**bits for TX® screws** 1xT10/1xT15/1xT20/2xT25/1xT27/2xT30/1xT40

52711 103

		Set contents 52711 103
	1	**magnetic holder** C 6.3
⊕	2	**bits for Phillips-head screws PH** 1/2
⊕	2	**bits for Phillips-head screws PZ** 1/2
✱	5	**bits for TX® screws** T 10/15/20/25/30

52711 104

52711 104
Design
- TORSION bits for particularly tough conditions with a special torsion zone to cushion load peaks
- The torsion zone acts as a shock absorber and prevents the bits from abruptly breaking off

		Set contents 52711 104
	1	**magnetic holder** C 6.3
⊕	2	**bits for Phillips-head screws PH** 1/2
⊕	2	**bits for Phillips-head screws PZ** 1/2
✱	5	**bits for TX® screws** T 10/15/20/25/30

	Contents	Design	52711 ...
Basic	10 pieces	in plastic box	101
TX	10 pieces	in plastic box	102
Allround	10 pieces	in plastic box	103
TORSION	10 pieces	in plastic box	104

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52714 Bit assortments (31 pieces)

1/4"

ATORN®

Design
- Bit assortment including 31 bits and quick-change holder 1/4 inch for bits with drive C 6.3 and E 6.3
- In a robust plastic box for practical and space-saving storage
- The box is made from ABS and polycarbonate, manufactured for professional use

Advantage
- Fixed hold of bits with drive C 6.3 and E 6.3
- Special removal function makes it easier to remove the bits
- Fast bit change with just one hand

52714 202
Design
- TORSION bits for particularly tough conditions with a special TORSION zone to cushion load peaks
- The TORSION zone acts as a shock absorber and prevents the bits from abruptly breaking off

		Set contents 52714 201
	1	**quick-change holder** for C 6.3 and E 6.3
⊖	3	**bits for slotted screws** 4.5/5.5/6.5 mm
⊕	4	**bits for Phillips-head screws** 1x**PH**1/2x**PH**2/1x**PH**3
⊕	4	**bits for Phillips-head screws** 1x**PZ**1/2x**PZ**2/1x**PZ**3
⬢	5	**Hex-Plus bits for hexagon socket screws** Sizes 2.5/3/4/5/6 mm
✱	14	**bits for TX® screws** 2xT10/2xT15/3xT20/3xT25/3xT30/1xT40

		Set contents 52714 202
	1	**quick-change holder** for C 6.3 and E 6.3
⊖	3	**bits for slotted screws** 4.5/5.5/6.5 mm
⊕	4	**bits for Phillips-head screws** 1x**PH**1/2x**PH**2/1x**PH**3
⊕	4	**bits for Phillips-head screws** 1x**PZ**1/2x**PZ**2/1x**PZ**3
⬢	5	**Hex-Plus bits for hexagon socket screws** Sizes 2.5/3/4/5/6 mm
✱	14	**bits for TX® screws** 2xT10/2xT15/3xT20/3xT25/3xT30/1xT40

		Set contents 52714 203
	1	**quick-change holder** for C 6.3 and E 6.3
✱	30	**bits for TX® screws** 3xT10/3xT15/6xT20/8xT25/8xT30/2xT40

		Set contents 52714 204
	1	**quick-change holder** for C 6.3 and E 6.3
⊕	5	**bits for Phillips-head screws** 1x**PH**1/3x**PH**2/1x**PH**3
⊕	4	**bits for Phillips-head screws** 1x**PZ**1/3x**PZ**2
⬢	4	**Hex-Plus bits for hexagon socket screws** Sizes 3/4/5/6 mm
✱	17	**bits for TX® screws** 2xT10/2xT15/4xT20/4xT25/4xT30/1xT40

NEW

52714

	Contents	Design	52714	...
Allround	31 pieces	in plastic box		201
TORSION	31 pieces	in plastic box		202

	Contents	Design	52714	...
TX	31 pieces	in plastic box		203
Metal	31 pieces	in plastic box		204

52717 Bit assortments

1/4"

ATORN®

Design
- Bit assortment including bits and quick-change holder 1/4 inch for bits with drive C 6.3 and E 6.3
- In a robust, non-slip plastic box for practical storage of the bits
- The box is made from ABS and polycarbonate, manufactured for professional use

Advantage
- Special removal function makes it easier to remove the bits
- Fast bit change with just one hand

52717 101
Design
- Bit assortment 61 pieces

Advantage
- Quick-change holder for secure holding of bits with drive C 6.3 and E 6.3

52 717 102
Design
- Bit assortment 32 pieces
- With hand-held bit holder

Advantage
- Hand-held bit holder and quick-change holder for bits with drive C 6.3 and E 6.3

		Set contents 52717 101
	1	**quick-change holder** for C 6.3 and E 6.3
⊖	3	**bits for slotted screws** 4.5/5.5/6.5 mm
⊕	11	**bits for Phillips-head screws** 3x**PH**1/6x**PH**2/2x**PH**3
⊕	11	**bits for Phillips-head screws** 3x**PZ**1/6x**PZ**2/2x**PZ**3
⬢	5	**Hex-Plus bits for hexagon socket screws** Sizes 2.5/3/4/5/6 mm
✱	18	**bits for TX® screws** 1xT10/1xT15/4xT20/5xT25/5xT30/2xT40
✱	12	**bits for TX® screws with hole** 1xT10/1xT15/3xT20/3xT25/3xT30/1xT40

		Set contents 52717 102
	1	**quick-change holder** for C 6.3 and E 6.3
	1	**hand-held bit holder** for C 6.3 and E 6.3
⊖	3	**bits for slotted screws** 4.5/5.5/6.5 mm
⊕	7	**bits for Phillips-head screws** 2x**PH**1/3x**PH**2/2x**PH**3
⊕	7	**bits for Phillips-head screws** 2x**PZ**1/3x**PZ**2/2x**PZ**3
⬢	4	**Hex-Plus bits for hexagon socket screws** Sizes 3/4/5/6 mm
✱	9	**bits for TX® screws** 1xT10/1xT15/2xT20/2xT25/2xT30/1xT40

	Contents	Design	52717	...
Allround	61 pieces	in plastic box		101
Vario	32 pieces	in plastic box		102

NEW

52717 101

52717 102

52722 Bit assortments (31 pieces) 1/4"

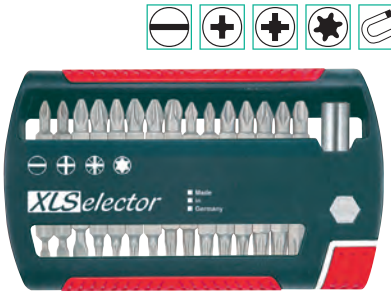
wiha Tools that work for you

Bits XLSelector

Design
- Comfortable handling due to soft zones
- All bits 25 mm long
- All sets with bit holder type E 6.3

Applications
Simple bit removal using integrated bit clamping strip.

52722 101



	Set contents 52722 101
1	**universal holder** magnetic ◯ 1/4 inch to ⬢ 1/4 inch
3	**bits for slotted screws** 4.5/5.5/6.5 mm
7	**bits for Phillips-head screws** 2x**PH**1/4x**PH**2/1x**PH**3
8	**bits for Phillips-head screws** 2x**PZ**1/5x**PZ**2/1x**PZ**3
12	**bits for TX® screws** 2xT10/2xT15/2xT20/3xT25/2xT30/1xT40

52722 104

	Set contents 52722 104
1	**ClicFix quick-change holder** magnetic ◯ 1/4 inch to ⬢ 1/4 inch
4	**bits for tensioning screws** # 4/6/8/10
6	**bits for hexagon socket screws with hole** Sizes 2/2.5/3/4/5/6 mm
3	**bits for TORQ® set screws** # 6/8/10
3	**bits for square drive screws** # 1/2/3
9	**bits for ResisTORX® screws** TX 8/9/10/15/20/25/27/30/40
5	**bits for TRI-WING® screws** # 0/1/2/3/4

Content	Design	52722	...
31 pieces	in plastic box		101
31 pieces	in plastic box		104

52724 Bit assortments (13 pieces) 1/4"

wiha Tools that work for you

FlipSelector

Design
- Box made from impact-resistant, fibre glass-reinforced polyamide, robust for long-term use
- Bit clamping element can swivel 180°
- Extra folding element for the magnetic bit holder
- Universal holder, 1/4 inch, magnetic
- All sets with bit holder type E 6.3
- Always ready to hand – fits in your trouser pocket or on your belt clip

Applications
Push the Wiha logo down – and you are ready to remove the bits. Bits for screwed fittings of all kinds in trade and industry.

52724 201

	Set contents 52724 201
1	**universal holder** magnetic ◯ 1/4 inch to ⬢ 1/4 inch
1	**bits for slotted screws** 5.5 mm
5	**bits for Phillips-head screws** 1x**PH**1/3x**PH**2/1x**PH**3
6	**bits for Phillips-head screws** 1x**PZ**1/4x**PZ**2/1x**PZ**3

52724 202

	Set contents 52724 202
1	**universal holder** magnetic ◯ 1/4 inch to ⬢ 1/4 inch
12	**bits for TX® screws** 1xT7/1xT8/1xT9/1xT10/2xT15/2xT20/2xT25/1xT30/1xT40

52724 203

	Set contents 52724 203
1	**universal holder** magnetic ◯ 1/4 inch to ⬢ 1/4 inch
2	**bits for Phillips-head screws** 2x**PH**2
4	**bits for Phillips-head screws** 1x**PZ**1/2x**PZ**2/1x**PZ**3
6	**bits for TX® screws** 1xT10/1xT15/1xT20/1xT25/1xT30/1xT40

Content	Design	52724	...
13 pieces	plastic box		201
13 pieces	plastic box		202
13 pieces	plastic box		203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Wera

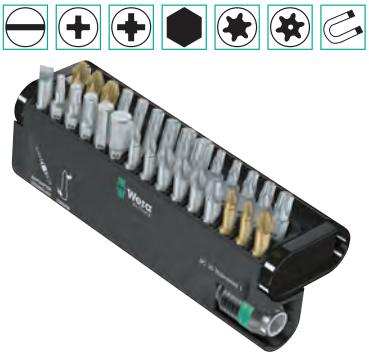
52720 201
Bit-Check
Design
With Rapidaptor BiTorsion holder with quick-change chuck for extremely fast screwing.

52720 201

		Set contents 52720 201
	1	**Rapidaptor BiTorsion holder** with quick-change chuck ◯ 1/4 inch/⬢ 1/4 inch
⊖	3	**bits for slotted screws** 0.8 x 5.5/1.0 x 5.5/1.2 x 6.5 mm
✚	3	**bits for Phillips-head screws PH** 1/2/3
✚	3	**bits for Phillips-head screws PZ** 1/2/3

52720 208
Bit-Check
Design
With Rapidaptor universal holder **with ring magnet and quick-change chuck** for extremely fast screwing.

52720 208



		Set contents 52720 208
	1	**Rapidaptor universal holder** with quick-change chuck ◯ 1/4 inch/⬢ 1/4 inch
⊖	1	**bit for slotted screws** 1.0 x 5.5 mm
✚	6	**bits for Phillips-head screws PH** 2 x Size 1/3 x Size 2/1 x Size 3
✚	6	**bits for Phillips-head screws PZ** 2 x Size 1/3 x Size 2/1 x Size 3
⬢	5	**Hex-Plus bits for hexagon socket screws** Sizes 3/4/5/6/8 mm
✱	6	**bits for TX® screws** TX 10/15/20/25/30/40
✱	5	**bits ResisTORX® with hole** T 10/15/20/25/30

52720 203-204
Bit-Check
Design
With universal holder **with quick-change chuck.**

52720 203

		Set contents 52720 203
	1	**universal holder** with quick-change chuck ◯ 1/4 inch/⬢ 1/4 inch
✱	6	**ResisTORX®** bits **with hole** T 10/15/20/25/30/40

52720 204

		Set contents 52720 204
	1	**universal holder** with quick-change chuck ◯ 1/4 inch/⬢ 1/4 inch
✱	9	**bits for TX® screws** TX 8/9/10/15/20/25/27/30/40

52720 211
Bit-Check
Design
With universal holder **with stainless steel sleeve, snap ring and strong permanent magnet.**

52720 211

		Set contents 52720 211
	1	**universal holder** with stainless steel sleeve ◯ 1/4 inch/⬢ 1/4 inch
⊖	3	**bits for slotted screws** 0.6 x 4.5/1.0 x 5.5/1.2 x 6.5 mm
✚	8	**bits for Phillips-head screws PH** 3 x Size 1/3 x Size 2/2 x Size 3
✚	9	**bits for Phillips-head screws PZ** 3 x Size 1/3 x Size 2/3 x Size 3
✱	6	**bits for TX® screws** TX 10/15/20/25/30/40
⬢	3	**Hex-Plus bits for hexagon socket screws** Sizes 4/5/6 mm

Set contents	Equipped with	Bit design	Design	52720 ...
10 pieces	Rapidaptor BiTorsion holder	BiTorsion, tough	in plastic box	**201**
30 pieces	Rapidaptor universal holder	Torsion, tough	in plastic box	**208**
7 pieces	Universal holder with quick-change chuck	tough	in plastic box	**203**
10 pieces	Universal holder with quick-change chuck	Torsion, tough	in plastic box	**204**
30 pieces	Universal holder with stainless steel sleeve	tough	in plastic box	**211**

Bit assortments

52728 Bit assortment (30 pieces)

1/4" DIAMOND

Bit-Check Diamond 1
Design
1 Rapidaptor bit holder with quick-change chuck, BiTorsion bits for a long service life, **in diamond coated design** ensures secure fit in the screw.

52728

		Set contents
	1	**Rapidaptor** 1/4 inch x 50 mm
⊖	3	**bits for slotted screws** 1x 0.8x5.5x25/1x 1.0x5.5x25/1x 1.2x6.5x25 mm
⊕	7	**bits for Phillips-head screws** 2x **PH**1x25/4x**PH**2x25/1x **PH**3x25
⊕	7	**bits for Phillips-head screws** 2x **PZ**1x25/4x **PZ**2x25/1x **PZ**3x25
✱	12	**bits for TX® screws** 2x TX10x25/2x TX15x25/3x TX20x25/3x TX25x25/1x TX30x25/ 1x TX40x25

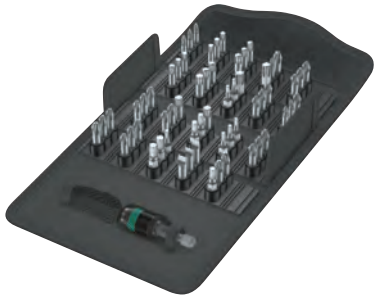
Set contents	Design	52728	...
30 pieces	in plastic box		103

52725 Bit assortments (61 pieces)

1/4"

52725 098
Bit-Safe
Design
With Rapidaptor universal holder **featuring a strong permanent magnet and quick-change chuck** for especially fast screwing.

52725 098



		Set contents 52725 098
	1	**Rapidaptor universal holder** featuring a strong permanent magnet and quick-change chuck
⊖	3	**bits for slotted screws** 0.6x4.5x25/1.0x5.5x25/1.2x6.5x25 mm
⬢	11	**bits for hexagon socket screws Hex-Plus** Sizes 3 x 2.5x25/3 x 3.0x25/3 x 4.0x25/ 2 x 5.0x25 mm
⊕	15	**bits for Phillips-head screws** 3 x **PH** 1x25/10 x **PH** 2x25/2 x **PH** 3x25
⊕	15	**bits for Phillips-head screws** 3 x **PZ** 1x25/10 x **PZ** 2x25/2 x **PZ** 3x25
✱	16	**bits for TX® screws** 2 x TX 10x25/3 x TX 15x25/3 x TX 20x25/3 x TX 25x25/ 3 x TX 30x25/2 x TX 40x25

52725 100
Bit-Safe
Design
With Rapidaptor universal holder **with quick-change chuck.**

52725 100

		Set contents 52725 100
	1	**Rapidaptor universal holder** featuring a strong permanent magnet and quick-change chuck
⊖	3	**bits diamond-coated for slotted screws** 0.8x5.5x25/1.0x5.5x25/1.2x 6.5x25 mm
⊕	4	**bits diamond-coated for Phillips-head screws** 1 x **PH** 1x25/2 x **PH** 2x25/1 x**PH** 3x25
⊕	11	**bits tough for Phillips-head screws** 2 x **PH** 1x25/8 x **PH** 2x25/1 x **PH** 3x25
⊕	4	**bits diamond-coated for Phillips-head screws** 1 x **PZ** 1x25/2 x **PZ** 2x25/1 x **PZ** 3x25
⊕	11	**bits extra hard for Phillips-head screws** 2 x **PZ** 1x25/8 x **PZ** 2x25/1 x **PZ** 3x25
✱	16	**bits tough for TX® screws** 3 x TX 10x25/2 x TX 15x25/4 x TX 20x25/4 x TX 25x25/ 2 x TX 30x25/1 x TX 40x25
⬢	11	**bits tough for hexagon socket screws Hex-Plus** Sizes 3 x 2.5x25/3 x 3.0x25/3 x 4.0x25/ 2 x 5.0x25 mm

Set contents	Equipped with	Bit design	Design	52725	...
61 pieces	Rapidaptor universal holder	Torsion, tough	Robust textile box		098
61 pieces	Rapidaptor universal holder	BiTorsion, diamond-coated/extra hard/tough	Robust textile box		100

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52946 Bit assortment (30 pieces)

1/4"

Wera

Impactor Bit-Check

Design

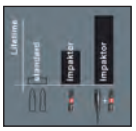
- 20 impactor bits and 9 standard torsion bits
- 1 impactor holder with snap ring and ring magnet in the chuck ensures the secure fit of the bits in the holder
- Holder with ring magnet for easy holding of long and heavy screws, also ideal for overhead work
- Up to 5x longer service life compared with standard or torsion bits
- Up to 10 times longer service life can be achieved with the impactor system bit and holder
- The rough diamond coating of the impactor makes it less likely for the screw to slip out, due to the increased friction resistance

Applications

Ideal for use with standard **impact screwdrivers.**

52946

Wera Impaktor



Set contents	Design	52946	...
20 x impactor bits/9 x standard torsion bits	in plastic box		105

52790 BiTorsion bit assortments (20 pieces)

1/4"

Wera

Design

- Tough, for universal use
- BiTorsion zone to cushion load peaks
- 1/4 inch hexagonal drive (Wera connection series 4)
- Tool finder **Take it easy**: Colour coding according to profiles and size stamping
- In a practical bit box for easy removal

52790 206

52790 207

52790 203

52790 205

Contents	Equipment	52790	...
20 pieces	PH 2 x 25 mm		206
20 pieces	PZ 2 x 25 mm		207
20 pieces	TX® TX 20 x 25 mm		203
25 pieces	TX® TX 20 x 25 mm		205

52791 Impact bit assortments (15 pieces)

1/4"

Wera

Design

- Impactor technology for above-average service life
- Diamond coating ensures secure fit in the screw
- 1/4 inch hexagonal drive (Wera connection series 4)
- Tool finder **Take it easy**: Colour coding according to profiles and size stamping
- In a practical bit box for easy removal

Applications

Ideal for use with standard impact screwdrivers.

52791 201

52791 202

52791 203

52791 204

52791 205

Contents	Equipment	52791	...
15 pieces	PH 2 x 25 mm		201
15 pieces	PZ 2 x 25 mm		202
15 pieces	TX® TX 20 x 25 mm		203
15 pieces	TX® TX 25 x 25 mm		204
15 pieces	TX® TX 30 x 25 mm		205

52800 - 52815 BiTorsion bits diamond-coated 1/4 inch (drive C 6.3/E 6.3)

1/4"

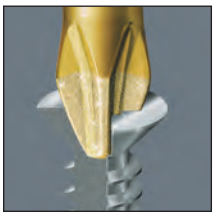
Wera

Design

BiTorsion for a long service life, diamond-coated ensures a secure fit in the screw.

The benefits:

Reduction in wear on the bit and on the screw head
Reduction in the contact force and ejection gradient
Reduction in the screw fitting time
Reduction in costs per screw fitting



52800
Application Slotted screws.
Drive: 1/4 inch hexagonal DIN 3126 **C 6.3,**
suitable for holders in accordance with DIN 3126-D 6.3, ISO 1173.

Size	Length mm		52800	...
0.8 x 5.5	25	10 pieces		101
1.0 x 5.5	25	10 pieces		102
1.2 x 6.5	25	10 pieces		103

52802
Application Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126 **C 6.3,**
suitable for holders in accordance with DIN 3126-D 6.3, ISO 1173.

Size	Length mm		52802	...
PH 1	25	10 pieces		101
PH 2	25	10 pieces		102
PH 3	25	10 pieces		103

52804
Application Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126 **C 6.3,**
suitable for holders in accordance with DIN 3126-D 6.3, ISO 1173.

Size	Length mm		52804	...
PZ 1	25	10 pieces		101
PZ 2	25	10 pieces		102
PZ 3	25	10 pieces		103

52807
Application Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3,**
suitable for holders in accordance with DIN 3126-F 6.3, ISO 1173.

Size	Length mm		52807	...
PH 1	50	10 pieces		101
PH 2	50	10 pieces		102
PH 3	50	10 pieces		103

52809
Application Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3,**
suitable for holders in accordance with DIN 3126-F 6.3, ISO 1173.

Size	Length mm		52809	...
PZ 1	50	10 pieces		101
PZ 2	50	10 pieces		102
PZ 3	50	10 pieces		103

52815
Application Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126 **C 6.3,**
suitable for holders in accordance with DIN 3126-D 6.3, ISO 1173.

Size	Length mm		52815	...
T 10	25	10 pieces		101
T 15	25	10 pieces		102
T 20	25	10 pieces		103
T 25	25	10 pieces		104
T 30	25	10 pieces		105
T 40	25	10 pieces		106

52818 BiTorsion bits SIT 1/4 inch (drive C 6.3)

1/4"

Wera

Design

- **(1) Better power transmission** due to six force application areas.
- **Long service life** thanks to tight tolerances and high power transmission.
- **(2) Fast threading and better fit** due to slightly conical geometry of bit and screw.
- **Reduced cam-out-forces** (high pressure that needs to be exerted on the tool) due to the better power transmission and the secure fit of the tool in the screw.
- **Rapid access** thanks to colour coding system.

BiTorsion for a long service life, tough, ideal for hard screwing applications, for example in sheet or metal.

The benefits:

Reduction in wear on the bit and on the screw head
Reduction in the contact force and ejection gradient
Reduction in the screw fitting time
Reduction in costs per screw fitting

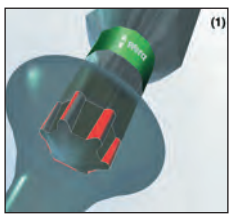
Application Assy®, pias screws.
Drive: 1/4 inch hexagonal DIN 3126 **C 6.3**, suitable for holders in accordance with DIN 3126-D 6.3, ISO 1173.

52818 101

52818 102

52818 103

52818 104



Size	Length mm		52818	...
SIT 10	25	10 pieces		101
SIT 20	25	10 pieces		102
SIT 25	25	10 pieces		103
SIT 30	25	10 pieces		104

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52819 - 52821 TORSION bits, 1/4 inch drive C 6.3 – length 25 mm

1/4"

ATORN®

NEW

Design
TORSION bits for particularly tough conditions with a special TORSION zone to cushion load peaks. The TORSION zone acts as a shock absorber and prevents the bits from abruptly breaking off.

52819
Application ⊕ **Phillips-head screws PH.**
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length mm		52819	...
PH 1	25	10 pieces		101
PH 2	25	10 pieces		102
PH 3	25	10 pieces		103

52820
Application ⊕ Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length mm		52820	...
PZ 1	25	10 pieces		101
PZ 2	25	10 pieces		102
PZ 3	25	10 pieces		103

52821
Application ✱ Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: TX®.

Size	Length mm		52821	...
T 10	25	10 pieces		101
T 15	25	10 pieces		102
T 20	25	10 pieces		103
T 25	25	10 pieces		104
T 27	25	10 pieces		105
T 30	25	10 pieces		106
T 40	25	10 pieces		107

52822 - 52835 Standard bits, 1/4 inch drive C 6.3 – length 25 mm

1/4"

ATORN®

NEW

Design
Standard bits are suitable for all applications in everyday use. The careful selection of the material, the precision machining, as well as a hardening process that is constantly being updated, guarantee a long service life for optimum work results.

52822
Application ⊖ Slotted screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5264-C, ISO 2380.

Size	Length mm		52822	...
0.6 x 4.5	25	10 pieces		201
0.8 x 5.5	25	10 pieces		202
1.0 x 5.5	25	10 pieces		203
1.2 x 6.5	25	10 pieces		204
1.6 x 8.0	25	10 pieces		205

52823
Application ⊕ Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length mm		52823	...
PH 0	25	10 pieces		101
PH 1	25	10 pieces		102
PH 2	25	10 pieces		103
PH 3	25	10 pieces		104

52824
Application ⊕ Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length mm		52824	...
PZ 0	25	10 pieces		201
PZ 1	25	10 pieces		202
PZ 2	25	10 pieces		203
PZ 3	25	10 pieces		204

52825
Application ✱ Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: TX®.

Size	Length mm		52825	...
T 3	25	10 pieces		101
T 4	25	10 pieces		102
T 5	25	10 pieces		103
T 6	25	10 pieces		104
T 7	25	10 pieces		105
T 8	25	10 pieces		106
T 9	25	10 pieces		107
T 10	25	10 pieces		108
T 15	25	10 pieces		109
T 20	25	10 pieces		110
T 25	25	10 pieces		111
T 27	25	10 pieces		112
T 30	25	10 pieces		113
T 40	25	10 pieces		114

Continued ▶

52822 - 52835 Standard bits, 1/4 inch drive C 6.3 – length 25 mm

NEW

1/4"

Continued ▶

52826
Application Internal TX® screws with pin (BO).
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: TX®, with hole in the drive tip.

Size	Length mm		52826 ...
T 10	25	10 pieces	201
T 15	25	10 pieces	202
T 20	25	10 pieces	203
T 25	25	10 pieces	204
T 27	25	10 pieces	205
T 30	25	10 pieces	206
T 40	25	10 pieces	207

52827
Application Internal TX PLUS® screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: TX PLUS®.

Size	Length mm		52827 ...
IP 6	25	10 pieces	101
IP 7	25	10 pieces	102
IP 8	25	10 pieces	103
IP 9	25	10 pieces	104
IP 10	25	10 pieces	105
IP 15	25	10 pieces	106
IP 20	25	10 pieces	107
IP 25	25	10 pieces	108
IP 27	25	10 pieces	109
IP 30	25	10 pieces	110
IP 40	25	10 pieces	111

52828
Application Hexagon socket screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: Hexagon head.

Size	Length mm		52828 ...
1.5	25	10 pieces	201
2.0	25	10 pieces	202
2.5	25	10 pieces	203
3.0	25	10 pieces	204
4.0	25	10 pieces	205
5.0	25	10 pieces	206
6.0	25	10 pieces	207
7.0	25	10 pieces	208
8.0	25	10 pieces	209
10.0	25	10 pieces	210

52829
Application Hexagon socket screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: Ball head.

Size	Length mm		52829 ...
2.5	25	10 pieces	101
3.0	25	10 pieces	102
4.0	25	10 pieces	103
5.0	25	10 pieces	104
6.0	25	10 pieces	105

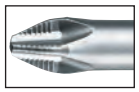
52830
Square bits
Application Square socket screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: Square drive.

Size	Length mm	Square mm	For square socket Screws mm		52830 ...
00	25	1.27	1.4	10 pieces	101
0	25	1.78	2.0	10 pieces	102
1	25	2.31	2.5	10 pieces	103
2	25	2.85	3.1	10 pieces	104
3	25	3.37	3.7	10 pieces	105
4	25	4.84	5.1	10 pieces	106

52831
Application XZN internal triple square screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: XZN.

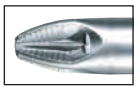
Size	Length mm		52831 ...
M 4	25	10 pieces	101
M 5	25	10 pieces	102
M 6	25	10 pieces	103
M 8	25	10 pieces	104
M 10	25	10 pieces	105

52832
Application ACR Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.
Note:
Anti-come-out ribs provide better grip in the screw.



Size	Length mm		52832 ...
PH 1	25	10 pieces	101
PH 2	25	10 pieces	102
PH 3	25	10 pieces	103

52833
Application ACR Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.
Note:
Anti-come-out ribs provide better grip in the screw.



Size	Length mm		52833 ...
PZ 1	25	10 pieces	101
PZ 2	25	10 pieces	102
PZ 3	25	10 pieces	103

52834
Application TRI-WING® screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: TRI-WING®.

Size	Length mm		52834 ...
1	25	10 pieces	101
2	25	10 pieces	102
3	25	10 pieces	103
4	25	10 pieces	104
5	25	10 pieces	105

52835
Application TORQ-SET® Mplus screws.
Drive: 1/4 inch hexagonal DIN 3126-**C 6.3**, ISO 1173.
Output: TORQ-SET® Mplus.

Size	Length mm		52835 ...
6	25	10 pieces	201
8	25	10 pieces	202
10	25	10 pieces	203
1/4 inch	25	10 pieces	204

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ATORN®

Design
Standard bits are suitable for all applications in everyday use.
The extended shaft acts as a TORSION zone/shock absorber and prevents the bits from abruptly breaking off.
The careful selection of the material, the precision machining, as well as a hardening process that is constantly being updated, guarantee a long service life for optimum work results.

NEW

52850
Application Slotted screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3,** ISO 1173.
Output: DIN 5264-C, ISO 2380.

Size	Length Approx. mm		52850	...
0.5 x 3.0	50	10 pieces		101
0.6 x 3.5	50	10 pieces		104
0.8 x 4.0	50	10 pieces		108
0.8 x 5.5	50	10 pieces		112

52836
Application Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length mm		52836	...
PH 1	50	10 pieces		101
PH 2	50	10 pieces		102
PH 3	50	10 pieces		103

52837
Application Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length mm		52837	...
PZ 1	50	10 pieces		201
PZ 2	50	10 pieces		202
PZ 3	50	10 pieces		203

52838
Application Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: TX®.

Size	Length Approx. mm		52838	...
T 8	50	10 pieces		101
T 10	50	10 pieces		102
T 15	50	10 pieces		103
T 20	50	10 pieces		104
T 25	50	10 pieces		105
T 27	50	10 pieces		106
T 30	50	10 pieces		107
T 40	50	10 pieces		108

52839
Application Internal TX® screws with pin (BO).
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: TX®, with hole in the drive tip.

Size	Length Approx. mm		52839	...
T 7H	50	10 pieces		201
T 8H	50	10 pieces		202
T 9H	50	10 pieces		203
T 10H	50	10 pieces		204
T 15H	50	10 pieces		205
T 20H	50	10 pieces		206

52840
Application Hexagon socket screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: Hexagon head.

Size	Length Approx. mm		52840	...
2.5	50	10 pieces		101
3.0	50	10 pieces		102
4.0	50	10 pieces		103
5.0	50	10 pieces		104
6.0	50	10 pieces		105
8.0	50	10 pieces		106
10.0	50	10 pieces		107

52841
Application XZN internal triple square screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: XZN.

Size	Length Approx. mm		52841	...
M 4	50	10 pieces		201
M 5	50	10 pieces		202
M 6	50	10 pieces		203
M 8	50	10 pieces		204
M 10	50	10 pieces		205
M 12	50	10 pieces		206

52842 - 52845 Standard bits, 1/4 inch drive E 6.3 – length 70 mm

1/4"

ATORN®

NEW

Design
Standard bits are suitable for all applications in everyday use.

The extended shaft acts as a TORSION zone/shock absorber and prevents the bits from abruptly breaking off. The careful selection of the material, the precision machining, as well as a hardening process that is constantly being updated, guarantee a long service life for optimum work results.

52842
Application Slotted screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5264-C, ISO 2380.

Size	Length Approx. mm		52842 ...
0.5 x 3.0	70	10 pieces	101
0.6 x 3.5	70	10 pieces	102
0.8 x 4.0	70	10 pieces	103
1.0 x 5.5	70	10 pieces	104
1.2 x 6.5	70	10 pieces	105

52843
Application Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length Approx. mm		52843 ...
PH 1	70	10 pieces	201
PH 2	70	10 pieces	202
PH 3	70	10 pieces	203

52844
Application Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length Approx. mm		52844 ...
PZ 1	70	10 pieces	101
PZ 2	70	10 pieces	102
PZ 3	70	10 pieces	103

52845
Application Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: TX®.

Size	Length Approx. mm		52845 ...
T 8	70	10 pieces	201
T 10	70	10 pieces	202
T 15	70	10 pieces	203
T 20	70	10 pieces	204
T 25	70	10 pieces	205
T 27	70	10 pieces	206
T 30	70	10 pieces	207
T 40	70	10 pieces	208

52846 - 52848 Standard bits, 1/4 inch drive E 6.3 – length 90 mm

1/4"

ATORN®

NEW

Design
Standard bits are suitable for all applications in everyday use.

The extended shaft acts as a TORSION zone/shock absorber and prevents the bits from abruptly breaking off. The careful selection of the material, the precision machining, as well as a hardening process that is constantly being updated, guarantee a long service life for optimum work results.

52846
Application Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length mm		52846 ...
PH 1	90	10 pieces	201
PH 2	90	10 pieces	202
PH 3	90	10 pieces	203

52847
Application Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length mm		52847 ...
PZ 1	90	10 pieces	101
PZ 2	90	10 pieces	102
PZ 3	90	10 pieces	103

52848
Application Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: TX®.

Size	Length mm		52848 ...
T 8	90	10 pieces	101
T 10	90	10 pieces	102
T 15	90	10 pieces	103
T 20	90	10 pieces	104
T 25	90	10 pieces	105
T 27	90	10 pieces	106
T 30	90	10 pieces	107
T 40	90	10 pieces	108

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52849 - 52852 Standard bits, 1/4 inch drive E 6.3 – length 152 mm

1/4"

ATORN®

NEW

Design
Standard bits are suitable for all applications in everyday use.

The extended shaft acts as a TORSION zone/shock absorber and prevents the bits from abruptly breaking off. The careful selection of the material, the precision machining, as well as a hardening process that is constantly being updated, guarantee a long service life for optimum work results.

52849
Application ⊕ Phillips-head screws PH.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length mm		52849 ...
PH 1	152	10 pieces	101
PH 2	152	10 pieces	102
PH 3	152	10 pieces	103

52851
Application ⊕ Phillips-head screws PZ.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length mm		52851 ...
PZ 1	152	10 pieces	201
PZ 2	152	10 pieces	202
PZ 3	152	10 pieces	203

52852
Application ✱ Internal TX® screws.
Drive: 1/4 inch hexagonal DIN 3126 **E 6.3**, ISO 1173.
Output: TX®.

Size	Length mm		52852 ...
T 8	152	10 pieces	201
T 10	152	10 pieces	202
T 15	152	10 pieces	203
T 20	152	10 pieces	204
T 25	152	10 pieces	205
T 27	152	10 pieces	206
T 30	152	10 pieces	207
T 40	152	10 pieces	208

52853 - 52857 Standard bits 5/16 inch drive C8

5/16"

ATORN®

NEW

Design
Bits are suitable for all applications in everyday use.

The careful selection of the material, the precision machining, as well as a hardening process that is constantly being updated, guarantee a long service life for optimum work results.

52853
Application ⊖ Slotted screws.
Drive: 5/16 inch hexagonal DIN 3126-**C 8**, ISO 1173.
Output: DIN 5264-C, ISO 2380.

Size	Length mm		52853 ...
0.8 x 5.5	41	10 pieces	201
1.0 x 5.5	41	10 pieces	202
1.2 x 6.5	41	10 pieces	203
1.6 x 10.0	41	10 pieces	204
2.0 x 12.0	41	10 pieces	205
2.5 x 14.0	41	10 pieces	206

52854
Application ⊕ Phillips-head screws PH.
Drive: 5/16 inch hexagonal DIN 3126-**C 8**, ISO 1173.
Output: DIN 5260-PH, ISO 8764-PH.

Size	Length mm		52854 ...
PH 1	32	10 pieces	201
PH 2	32	10 pieces	202
PH 3	32	10 pieces	203

52855
Application ⊕ Phillips-head screws PZ.
Drive: 5/16 inch hexagonal DIN 3126-**C 8**, ISO 1173.
Output: DIN 5260-PZ, ISO 8764-PZ.

Size	Length mm		52855 ...
PZ 1	32	10 pieces	201
PZ 2	32	10 pieces	202
PZ 3	32	10 pieces	203
PZ 4	32	10 pieces	204

52856
Application ✱ Internal TX® screws.
Drive: 5/16 inch hexagonal DIN 3126-**C 8**, ISO 1173.
Output: TX®.

Size	Length mm		52856 ...
T 20	35	10 pieces	201
T 25	35	10 pieces	202
T 27	35	10 pieces	203
T 30	35	10 pieces	204
T 40	35	10 pieces	205
T 45	35	10 pieces	206
T 50	35	10 pieces	207
T 55	35	10 pieces	208
T 60	35	10 pieces	209

52857
Application ⬢ Hexagon socket screws.
Drive: 5/16 inch hexagonal DIN 3126-**C 8**, ISO 1173.
Output: Hexagon head.

Size	Length mm		52857 ...
3	30	10 pieces	201
4	30	10 pieces	202
5	30	10 pieces	203
6	30	10 pieces	204
8	30	10 pieces	205
10	30	10 pieces	206

52896 Hand-held bit holder

1/4" | ⬡ | 🧲

ATORN®

52896 101
Design
- With strong permanent magnet
- Circular blade
- 1/4 inch hexagonal output in accordance with DIN 3126-D 6.3
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection

Applications
For holding 1/4 inch bits in accordance with DIN 3126-C 6.3.

Quality
Chromium-vanadium steel blade.

52896 102
Design
- With quick-change holder for bits with drive C 6.3 and E 6.3

Advantage
- Fixed hold of bits with drive E 6.3 and C 6.3
- **Multi-component handle with extra large soft zone** and suspension hole
- Handle top with anti-roll protection
- Removal function makes it easier to remove the bits
- Fast bit change with just one hand

Applications
For holding 1/4 inch bits to DIN 3126-C 6.3 and E 6.3 ISO 1173.

52896 101

52896 102

Total length mm	52896 ...
200	101
139	102 NEW

52897 Hand-held bit holder

1/4" | ⬡ | 🧲

Wera

Design
With strong permanent magnet and hexagon blade, brushed nickel-chrome. With 1/4 inch hexagonal output in accordance with DIN 3126-D 6.3 and **Kraftform handle** with hard and soft zones, as well as anti-roll protection.

Applications
For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

52897

Blade length mm	Total length mm	52897 ...
120	218	101

52898 Hand-held bit holder

1/4" | ⬡ | 🧲

wiha Tools that work for you

Design
- Short, ergonomic **Wiha SoftFinish® multi-component handle** with anti-roll protection
- Bit holder made from stainless steel, with a strong permanent magnet
- Output for bits in accordance with DIN 3126, ISO 1173 type C 6.3

Applications
Ideal for working in confined spaces.

Note:
Can be used with Wiha conical countersink bits for manual deburring.

52898

Handle length mm	Handle width mm	52898 ...
57	34	001

52904 ESD hand-held bit holder

1/4" | ⬡ | ESD

Wera

Design
With 1/4 inch hexagonal output in accordance with **DIN 3126-D 6.3** and snap ring. **Kraftform-Weralit ESD handle.**

Applications
For work on electrostatically sensitive electronic components. Complies with standard **EN 100-015 Part 1.** For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

52904 201
Design
Extra short.

52904 202
Design
Hexagonal blade, brushed nickel-chrome, with anti-roll protection.

52904 201

52904 202

Blade length mm	Total length mm	52904 ...
10	64	201
100	212	202

52900 ESD hand-held bit holder

1/4" | ⬡ | ESD

wiha Tools that work for you

Design
Ergonomic **SoftFinish® multi-component handle** with anti-roll protection. Surface resistance 10^6–10^9 ohms. IEC 61340-5-1. **With integrated CentroFix bit holder,** suitable for all bits and drill bits with type C 6.3, E 6.3 or double bits.
Drive: DIN 3126, ISO 1173, type E 6.3.

Applications
True one-handed operation, extremely high retention force of the bits **(up to 20 kg)** and virtually no play between the bit and the holder due to the special locking and holding mechanism.

52900

Blade length mm	Total length mm	52900 ...
38	148	101

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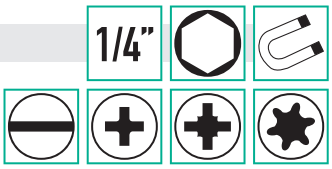
52921 Hand-held magazine bit holder



ATORN®

Design
- Telescopic bit magazine for 7 bits
- Seam-free, smooth cap for minimum friction
- Ergonomic easy-grip soft coating for optimum torques
- Bit holder with magnetic mount 1/4 inch

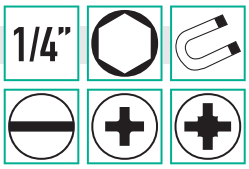
Applications
For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

	Equipment
1	**bit for slotted screws** 5.5x1.0 mm
2	**bits for Phillips-head screws PH** 1/2
2	**bits for Phillips-head screws PZ** 1/2
3	**bits for TX® screws** T 15/20/25

52921

Blade length mm	Total length mm	52921	...
112	217		101

52901 Hand-held magazine bit holder



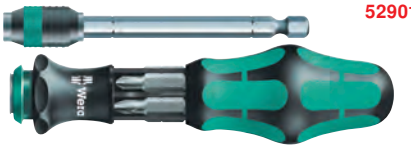
Wera

Design
Kraftform handle with hard and soft zones, as well as anti-roll protection and integrated bit magazine. Bayonet blade concealed in the handle with 1/4 inch hexagonal output and Rapidaptor quick-change chuck.

Applications
For holding 1/4 inch bits to DIN 3126-C and -E 6.3, ISO 1173.

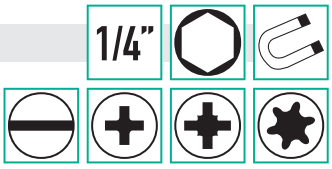
	Equipment
2	**bits for slotted screws** 1.0x5.5/1.2x6.5 mm
2	**bits for Phillips-head screws PH** 1/2
2	**bits for Phillips-head screws PZ** 1/2

52901



Blade length mm	Total length mm	52901	...
100	218		101

52912 Hand-held magazine bit holder



wiha
Tools that work for you

Design
Hexagonal blade with magnetic holder. Ergonomic **SoftFinish® multi-component handle** with anti-roll protection. Bit magazine integrated in the handle, folds out for easy bit removal and secure storage of up to 8 bits.

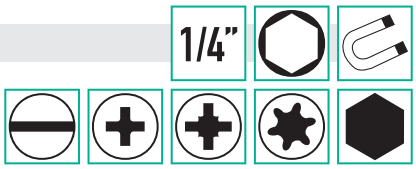
Applications
For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

	Equipment
1	**bit for slotted screws** 6.5 mm
3	**bits for Phillips-head screws PH** 1/2/3
1	**bit for Phillips-head screws PZ** 2
3	**bits for TX® screws** TX 15/20/25

52912

Blade length mm	Total length mm	52912	...
122	245		101

52903 LiftUp hand-held magazine bit holder



wiha
Tools that work for you

Design
- **Bits:** 25 mm standard bits
- Ergonomic Wiha SoftFinish® multi-component handle with anti-roll protection
- **Bit chuck:** Made of stainless steel, with strong neodymium permanent magnets
- **Output:** DIN 3126, ISO 1173, type D 6.3

Applications
12 compact bits stored in the handle body. The alternative to a screwdriver set. For manual and machine operation.

Quality
Blade made from high-quality chromium-vanadium-steel, fully hardened.

52903

	Equipment 52903 102
1	**bit for slotted screws** 5.5 mm
1	**bit for Phillips-head screws PH** 2
3	**bits for Phillips-head screws PZ** 1/2/3
4	**bits for TX® screws T** 15/20/25/30
3	**bits for hexagon socket screws Sizes** 3.0/4.0/5.0 mm
1	**LiftUp magazine bit holder**

Contents	Bit length mm	52903	...
13 pieces	25		102

52905 LiftUp 26one hand-held magazine bit holder

wiha Tools that work for you

Design
- With 13 double bits (12 in the magazine and 1 double bit in the bit holder)
- Inside the bit holder is the two-row bit-clip in a fan design, which allows for easy bit removal
- With its slim shape, the super-slim bit holder means that screws can be reached, even in blind holes
- The soft zone of the ergonomically shaped Soft Finish® multi-component handle is made from a skin-friendly special material

52905

	Equipment 52905 102
1	**double bit for slotted screws** 4.0 x 0.5 + 6.0 x 0.8 mm
3	**double bits for Phillips-head screws PH** 1 + **PH** 2/**PH** 0 + **PH** 3/**PH** 1 + **PH** 2
3	**double bits for TX® screws** T 10 + T 15/T 20 + T 25/T 27 + T 30
2	**double bits for hexagon socket screws** Sizes 3 + 4/5 + 6 mm
3	**double bits for hexagon socket screws** 3/32 + 7/64/1/8 + 9/64/5/32 + 3/16 inch
1	**double bit for square drive screws** Sizes 1.0 + 2.0 mm
1	**LiftUp magazine bit holder** with strong permanent magnet

Contents	Bit length mm	52905	...
14 pieces	30		102

52499 VDE hand-held magazine bit holder

wiha Tools that work for you

LiftUp electric
Design
- Wiha SoftFinish® electric multi-component handle with anti-roll protection
- Internal magazine offers space for 6 common slimBits
- slimBits stored in compartments for easy removal
- Rotating cap for comfortable handling
- Insulated, metal ClicFix bit holder reliably secures all slimBits
- Easy swivel guide sleeve provides support when screwing
- Only suitable for 6 mm slimBits

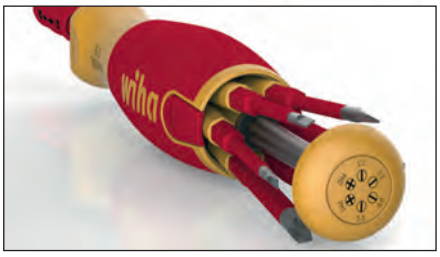
Applications
Compact magazine screwdriver for electrical applications, in particular for mobile use.
Quality
Blade made from chromium-vanadium steel, fully hardened. Protective insulation sprayed directly onto the blade.

Note
Not to be used for C 6.3 and E 6.3 type bits.

52499

	Equipment 52499 101
4	**bits for slotted screws** 2.5/3.0/4.0/5.5 mm
2	**bits for Phillips-head screws PH** 1/2
1	**LiftUp magazine bit holder**

	Equipment 52499 102
3	**bits for slotted screws** 3.0/4.0/5.5 mm
3	**bits for Phillips-head screws PH** 1/2 + **Combi PZ/SZ** 2
1	**LiftUp magazine bit holder**



Set contents	Bit length mm	52499	...
7 pieces	70		101
7 pieces	70		102

52925 Bit ratchet screwdriver

ATORN®

Design
- Bit ratchet screwdriver including 8 bits C6.3x25 mm
- Telescopic magazine for 7 bits
- Fine toothing for low return angle
- Reversing ring (right/left + locking)
- Short design 180 mm for confined spaces
- Non-slip soft casing for an optimum power transmission
- Seam-free, smooth cap for minimum friction
- Brushed chromium-plated blade
- Handle top with anti-roll protection

NEW

Quality
Chromium-vanadium steel blade.

52925

	Equipment
1	**bit for slotted screws** 5.5 x 1.0 mm
2	**bits for Phillips-head screws PH** 1/2
2	**bits for Phillips-head screws PZ** 1/2
3	**bits for TX® screws T** 15/20/25

Set contents	Total length mm	52925	...
8 pieces	180		101

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52917 Bit ratchet screwdriver

1/4"

Wera

Design
- Ratchet tool with fine toothing for a low return angle
- Reversing ring (right, fixed, left)
- Maximum torque of up to 50 Nm
- Hexagonal blade with 1/4 inch hexagon socket mounting
- Stainless steel sleeve
- Strong permanent magnet
- **Integrated magazine with 6 bits**

Applications
For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

52917

Equipment
2 bits for slotted screws 5.5/6.5 mm
2 bits for Phillips-head screws PH 1/2
2 bits for Phillips-head screws PZ 1/2

Blade length mm	Total length mm	52917	...
100	220		101

52920 Bit ratchet screwdriver

1/4"

BAHCO

Design
- Three-component handle for comfortable handling and minimal use of force
- With integrated bit magazine in the handle, opens at the push of a button
- Secure storage of 6 different bits
- Simple bit change thanks to magnetic shaft
- Grooved shaft surface for easy handling
- Easy change of direction (left, right and fixed) by a short turn of the reversing ring

Applications
For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

52920 100
Design
- **With pistol grip**

- Handle swivels at the touch of a button from the normal position to 30°, to enable a higher power transmission, especially in confined spaces
- Automatically engages to 180° normal position

52920 100

52920 101
Design
- **Long-lasting LEDs can be activated at the touch of a button** on the head of the tool, making it easy to work in poorly lit areas
- 3 batteries and 2 lamps
- Battery type: AG-3 4.5 volts in accordance with ROHS requirements

52920 101

Equipment 52920 100 + 52920 101
2 bits for slotted screws 4.5/5.5 mm
2 bits for Phillips-head screws PH 1/2
2 bits for Phillips-head screws PZ 1/2

Design	Blade length mm	Total length mm	52920	...
With pistol grip	135	260		100
With LEDs	135	250		101

52919 Bit ratchet screwdriver

1/4"

BAHCO

Design
Short, compact handle. 1/4 inch magnetic bit holder. Right and left setting.

Applications
For holding 1/4 inch bits to DIN 3126-C 6.3, ISO 1173.

52919

Blade length mm	Total length mm	52919	...
25	95		101

52924 Bit ratchet tool with thumb wheel

1/4"

ATORN®

Design
- Die-forged, extremely robust
- Finely toothed ratchet mechanism with 72 teeth
- Clockwise/anti-clockwise rotation can be changed using the reversing lever
- With practical thumb wheel
- Minimum switching angle of only 5° allows use of the bit ratchet tool even in the tightest spaces
- Excellent smooth running means that the mechanics switch even when other ratchets fail
- Thumb wheel makes it easier to fit, drive and remove the screws

Applications
For bits in accordance with DIN 3126, ISO 1173, type C 6.3 and E 6.3.

Quality
High-quality chromium-molybdenum steel, satin finish and chrome-plated surface.

52924

Drive Inch	Total length mm	52924	...
1/4	90		101

52914 Bit reversible ratchet

1/4"

HAZET

Design
- 2-component handle
- With spring catch and lever reverse

Quality
Chrome-plated surface, polished.

52914

Total length mm	Teeth Number	Actuation angle Degrees	52914	...
115	20	18		101

52906 Bit reversible ratchet

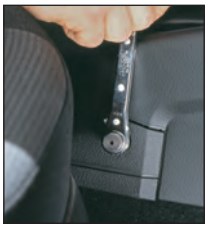
1/4" 5/16"

HAZET

Design
With magnetic holder, can be switched to **clockwise or anti-clockwise rotation,** flat shape, high gloss chrome-plated.

Applications
For screwdriver bits.

Quality
Special steel.



52906

Drive Inch	Total length mm	52906	...
1/4 + 5/16	140		101

52910 Bit ratchet spanner

1/4" 5/16"

STAHLWILLE

Design
With magnets, can be switched to **can be switched to,** angled shape, chrome-plated.

Applications
With hexagon socket mountings for screwdriver bits.

52910

Drive Inch	Total length mm	52910	...
1/4 + 5/16	138		101

52913 Bit holder with quick-change chuck E 6.3

1/4"

Applications
Quick-change holder provides a **wobble-free and fixed connection between the holder and bit**. Pushing the clamping sleeve forward slightly releases the latch mechanism and **facilitates extremely rapid tool replacement.**

52913 096
Wera Rapidaptor
Design
Featuring a strong permanent magnet and quick-change chuck.
Applications
For lightning fast work. Bit removal without any additional tools. One-hand operation.

52913 093
Wera Rapidaptor with ring magnet
Design
With quick-change chuck and free-running magnetic sleeve.
Applications
For lightning-fast fitting and secure hold of the screw on the holder. Ideal for overhead work or fitting long and heavy screws.

52913 094
Wera Rapidaptor BiTorsion
Design
With quick-change chuck. Output 1/4 inch hexagon socket with Wera Rapidaptor quick-change chuck.
Applications
The integrated torsion zone reliably absorbs load peaks and **therefore reduces the risk of premature wear.** This saves setup time and purchasing replacements.

52913 095
Wera Rapidaptor stainless steel
Design
With quick-change chuck.
Applications
The use of stainless steel bits prevents rust strips or pitting due to extraneous rust, caused by the use of conventional bits with stainless steel screws.

52913 090
wiha CentroFix SuperSlim
Design
Up to 30% reduced external diameter in comparison with the usual quick change holders. The bit is automatically locked when inserting – SelfLock. Easy bit removal with the eject function – EasyOut. With a strong neodymium magnet.
Applications
Ideal for applications in cramped conditions. Ideal for screw profiles (e.g. TX®) that tend to get stuck in the screw.

52913 096

52913 093

52913 094

52913 095

52913 090

Drive	DIN 3126	Output inch	DIN 3126	Length mm	52913	...
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	50		096
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	57		093
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	75		094

Drive	DIN 3126	Output inch	DIN 3126	Length mm	52913	...
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	50		095
1/4 inch ⬢	E 6.3	1/4 ◯	C 6.3/E 6.3	66		090

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52931 Bit quick-change holder E 6.3

1/4"

ATORN®

Design
- With a strong magnet for bits with drive C 6.3 and E 6.3

Advantage
- Secure hold of bits with drive E 6.3
- Special removal function makes it easier to remove the bits
- Fast bit change with just one hand

NEW

52931

Drive	DIN 3126	Output inch	DIN 3126	Length mm	52931 ...
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	60	101
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	70	102

52947 Impactor bit holder E 6.3

1/4"

Wera

Design
- The impactor holder technology ensures the optimum utilisation of the material properties and optimally adapted geometries (two coupled torsion zones acting one after the other) for above-average service life even with extreme requirements
- In addition, the impactor holder with ring magnet holds long and heavy screws extremely securely
- This makes lightning-fast and secure location of the screw possible
- Should the magnet not be required in certain situations, such as in the case of metal work, it can be removed from the screw area

Applications
Used mainly in manual machine screw fittings. Also ideal for overhead work.
Ideal for use with standard **impact screwdrivers.**

52947

Drive	DIN 3126	Output inch	DIN 3126	52947 ...
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3/F 6.3	101

Wera Impaktor

52930 Bit magnetic holder with stainless steel sleeve E 6.3

1/4"

ATORN®

Design
Bit magnetic holder E 6.3 with stainless steel sleeve and strong permanent magnet for bits C 6.3

NEW

52930 101

52930 102

Drive	DIN 3126	Output inch	DIN 3126	Length mm	52930 ...
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3	50	101
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3	74	102

52916 - 52918 Universal bit holder

1/4"

52916
DIN 7427-C, with snap ring.

52918 102-108
With stainless steel sleeve, snap ring and strong permanent magnet.

52918 110
With beryllium sleeve and strong permanent magnet.
Suitable for power screwdriver inserts.

52916 103

52918 107

52918 102

52918 108

52918 105

52918 110

With permanent magnet

Drive	DIN 3126	Output inch	DIN 3126	Length mm	52916 ...	52918 ...
5.5 ⬢	A 5.5	1/4 ◯	D 6.3	72		102
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3	57	103	
5/16 inch ⬢	-	1/4 ◯	D 6.3	45		105
Ø 7 ◐	G 7	1/4 ◯	D 6.3	75		107
SDS	-	1/4 ◯	D 6.3	79		108
1/4 inch ⬢	E 6.3	1/4 ◯	D 6.3	75		110

52909 Bit magnetic automatic holder E 6.3

1/4"

felo

Design
- Automatically adjusts to the screw head and holds the screw securely
- True one-handed operation
- Fixes even large screws optimally on the bit and holds them securely in all working positions, even at high speeds
- Suitable for C 6.3 x 25 mm bits.

52909 201

52909 202

Length mm	52909 ...
70	201
150	202

52932 - 52933 Connectors

1/4" 3/8" 1/2"

Connectors with spring-loaded pin

ASW

52932 102-105 + 304-306
Drive: DIN/ISO 1173 type E 6.3
Output: DIN 3121 type E with spring-loaded **pin**

Drive inch	Output inch	Length mm	52932 ...
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/4 ■ DIN 3121 type E	50	102
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/4 ■ DIN 3121 type E	100	103
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/4 ■ DIN 3121 type E	150	304
1/4 ⬢ DIN/ISO 1173 type E 6.3	3/8 ■ DIN 3121 type E	50	305
1/4 ⬢ DIN/ISO 1173 type E 6.3	3/8 ■ DIN 3121 type E	100	105
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/2 ■ DIN 3121 type E	50	306

52932 102-105

52932 304-306

52932 108-109
Drive: For machines with SDS-plus/SDS-max
Output: DIN 3121 type E with spring-loaded pin/ DIN 3120 type A with spring-loaded **ball**

Drive	Output Inch	Length mm	52932 ...
SDS	1/4 ■ DIN 3121 type E	70	108
SDS max	3/8 ■ DIN 3120 type A	95	109

52932 108

52932 109

Connectors with spring-loaded ball

ATORN®

52933 201-204
Drive: 1/4 inch hexagonal, DIN/ISO 1173 type E 6.3/C 6.3
Output: Square drive, DIN 3120 type A with spring-loaded **ball**

Drive inch	Output inch	Length mm	52933 ...
1/4 ⬢ DIN/ISO 1173 type C 6.3	1/4 ■ DIN 3120 type A	25	201 NEW
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/4 ■ DIN 3120 type A	50	202 NEW
1/4 ⬢ DIN/ISO 1173 type E 6.3	3/8 ■ DIN 3120 type A	50	203 NEW
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/2 ■ DIN 3120 type A	50	204 NEW

52933 201

52933 202-204

52933 200
- Connectors set E 6.3
- 3 pieces with ball locking device
- In a robust, non-slip plastic box for practical storage of connectors 1/4, 3/8 and 1/2 inch

Applications
Suitable for professional applications with pneumatic, electrical and cordless screwdrivers.

Drive: 1/4 inch hexagonal, DIN/ISO 1173 type E 6.3
Output: Square drive, DIN 3120 type A with spring-loaded **ball**

Drive inch	Output inch	Length mm	Set 52933 ...
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/4 ■ DIN 3120 type A	50	200 NEW
1/4 ⬢ DIN/ISO 1173 type E 6.3	3/8 ■ DIN 3120 type A	50	
1/4 ⬢ DIN/ISO 1173 type E 6.3	1/2 ■ DIN 3120 type A	50	

52933 200

52935 - 52940 Bit holder with square drive

1/4" 3/8" 1/2"

52935
With quick-change chuck.

52937
HAZET
Hexagon socket **with retaining ball** to accommodate bits.

52938
ATORN®
Hexagon socket **with retaining spring** to accommodate bits.

52939
STAHLWILLE
Hexagon socket **with ring pressure spring** to accommodate bits.
Quality
Chrome alloy steel.

52940
BAHCO
Hexagon socket **with lock washer** to accommodate bits.

52935

52939

52937

52940

52938

Drive inch	DIN 3121	Output inch	DIN 3126	52935 ...	HAZET 52937 ...	ATORN 52938 ...	STAHLWILLE 52939 ...	BAHCO 52940 ...
1/4 □	G 6.3	1/4 ○	D 6.3	101	101	101	101	101
3/8 □	G 10.0	1/4 ○	D 6.3	102	102		102	
3/8 □	G 10.0	5/16 ○	D 8.0	103	103			
1/2 □	G 12.5	1/4 ○	D 6.3	104	104			
1/2 □	G 12.5	5/16 ○	D 8.0		105			

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52980 Hexagon socket wrench inserts groove setter E 6.3

1/4"

ATORN®

Design
- With strong permanent magnet
- Direct drive 1/4 inch hexagonal type E 6.3
- Suitable for holders DIN 3126-F, ISO 1173
- The power wrench sockets are characterised by a very high load capacity

Applications
For hexagon head screws and professional use with pneumatic, electrical and cordless screwdrivers.

52980 400
Design
- Socket wrench set containing 6 pieces: Sizes 7, 8, 10, 12, 13 mm and 3/8 inch

52980 401-406
Design
- Socket wrench inserts, individual

NEW

52980 400

52980 401-406

Size mm	Inch	Design	52980	...
7, 8, 10, 12, 13	3/8	Set in plastic box		400
7	-	-		401
8	-	-		402
-	3/8	-		403
10	-	-		404
12	-	-		405
13	-	-		406

52948 Impact screwdriver

5/16"

Wera

Design
- Extremely high efficiency due to robust double curve design
- Striking force is converted into a rotary movement
- Saves the use of pneumatic tools

Applications
For loosening and tightening screws without the use of machines by impact force alone.

Note:
For suitable bits, see art. no. 52885–52893.

52948 200
Impact screwdriver set
Design
17 pieces:
- 1 impact screwdriver
- 2 connectors
- 14 bits

The robust textile box offers very compact storage for these high-quality tools.

52948 201
Impact screwdriver, individual

52948 200

52948 201

		Set contents 52948 200
	1	**impact screwdriver** 5/16 inch hexagon socket drive
⊖	1	**bit for slotted screws** 2.0 x 12.0 x 41 mm
⊕	3	**bits for Phillips-head screws PH** 2x32/**PH** 3x32/**PH** 4x32
⬢	5	**bits for hexagon socket screws** Sizes 5x30/6x30/7x30/8x30/10x30 mm
✱	5	**bits for TX® screws** TX 30x35/TX 40x35/TX 45x35/TX 50x35/TX 55x35
■ ⬢	2	*** connecting pieces** 3/8 inch x 5/16 inch 1/2 inch x 5/16 inch
		* With ball for hand-operated socket wrench inserts

Contents	Design	Output inch Hexagon socket	Torque Nm	For screws	Total length mm	52948	...
17 pieces	in a compact, textile box	5/16	90	M 4–M 8	142		200
Individually	-	5/16	90	M 4–M 8	142		201

53000 Malleable iron screw clamps

ATORN®

Design
- Heavy-duty design
- Arms reinforced by shafts with non-slip and spindle safety device (from 80 mm overhang)
- 3-component handle
- Hollow profile rail, ribbed, zinc-plated

Clamping width mm	Overhang mm	Rail mm	53000	...
120	65	22 x 6		101
160	80	22 x 6		102
200	100	30 x 8		103
250	120	30 x 8		104
300	140	35 x 9		105
400	175	35 x 9		106
500	120	35 x 11		107
600	120	35 x 11		108
800	120	35 x 11		109
1000	120	35 x 11		110
1500	120	35 x 11		111
2000	120	35 x 11		112

53000

53004 - 53006 Malleable iron screw clamps

Design
- Extremely sturdy design
- With torque adjustment
- **High-quality malleable iron clamping arms**
- **Profiled steel sliding rail**, bright zinc-plated
- Bronzed pressure spindle with movable spherical pressure plate
- Wooden handle
- Up to 400 mm clamping width with protective plastic caps

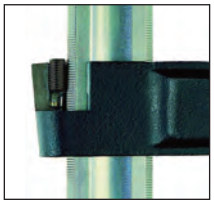
53004

53006

Design
From size 160 x 80 mm with slip protection against slippage of the clamping arm during clamping.

Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53004	...	53006	...
100	50	15 x 5	0.25		101		101
120	60	20 x 5	0.40		102		102
160	80	25 x 6	0.70		103		103
200	100	27 x 7	1.10		104		104
250	120	29 x 9	1.50		105		105
300	140	32 x 10	2.00		106		106
400	175	32 x 10	2.60		107		107
500	120	35 x 11	2.70		108		108
600	120	35 x 11	3.00		109		109
800	120	35 x 11	3.50		111		111
1000	120	35 x 11	4.00		112		112
1250	120	35 x 11	4.70				113
2000	120	35 x 11	6.70				116
2500	120	35 x 11	7.94				119

53004 53006



53008 All-steel screw clamps

ATORN®

Design
- Fixed arm made of cold-drawn profile steel, tempered, zinc-plated
- Sliding arm die-forged, tempered, zinc-plated
- Smooth-running, bronzed steel spindle with trapezoidal thread and movable pressure plate with integrated spindle safety device
- 3-component handle

Clamping width mm	Overhang mm	Rail mm	53008	...
120	60	13.5 x 6.5		101
160	80	16.0 x 7.5		102
200	100	19.5 x 9.5		103
250	120	22.0 x 10.5		104
300	140	25.0 x 12.0		105
400	120	25.0 x 12.0		106
500	120	25.0 x 12.0		107
600	120	25.0 x 12.0		108

53008

53010 All-steel screw clamps

Design
- **20% more clamping force per spindle revolution thanks to optimised rail profile**
- Power transmitted to the sliding arm in a straight line for maximum safety
- Tempered sliding and fixed arms for resilient and elastic clamping
- Ergonomically shaped wooden handle

Applications
For clamping forces of up to 5 kN.

53010

Clamping width mm	Overhang mm	Rail mm	53010	...
100	60	15.0 x 6.0		201
120	60	15.0 x 6.0		202
160	80	17.5 x 6.8		203
200	100	22.0 x 8.5		204
250	120	24.5 x 9.5		205
300	140	28.0 x 11.0		206
400	120	28.0 x 11.0		207
500	120	28.0 x 11.0		208
600	120	28.0 x 11.0		209
800	120	28.0 x 11.0		210
1000	120	28.0 x 11.0		211
1250	120	28.0 x 11.0		212

53012 One-handed clamps

Design
- **Fixed and sliding arms made of heat-treated steel, tempered and zinc-plated**
- Housing and lever made of fibreglass-reinforced polyamide
- Innovative protective caps made of elastic plastic for gentle clamping

Applications
Quick fixing with one hand, powerful clamping with trapezoidal threaded spindle, **up to 5000 N clamping force.**
Ergonomic release button for easy movement of the sliding arm.
Particularly suitable for overhead work and with sprung or strongly yielding workpieces.

53012

Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53012	...
300	100	19.5 x 9.5	1.25		101
600	100	19.5 x 9.5	1.70		102

53011 One-handed clamps

Design
- Can be reversed without tools for spreading thanks to the intelligent release mechanism on the upper part
- Ergonomically shaped two-component plastic handle behind the rail

Applications
For clamping forces of up to 2000 N.

53011

Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53011	...
150	80	19 x 6	0.72		101
300	80	19 x 6	0.83		102
450	80	19 x 6	0.93		103
600	80	19 x 6	1.04		104

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Big performance in a small space
Make the impossible possible!

The new GearKlamp gear clamp from BESSEY gives you a solution for performing perfect, comfortable clamping work even in confined spaces. To do this, BESSEY has separated the spindle from the handle and placed it around the rail. From there, with every turn of the new GearKlamp, the clamping force is transferred to the spindle via a mechanism concealed in the sliding arm. Compared to classic screw clamps, lever-action clamps or one-handed clamps, the design of the new gear clamp is much more compact, which provides decisive benefits for the user: On the one hand, there are no disruptive tool components in the work area that the user could hit and thus damage the workpiece or even injure themselves. On the other hand, ergonomic handling is guaranteed in every clamping situation. The results are no twisting of the hand and more comfort at work. Try it out – you will be impressed!

Unique compact design
The GearKlamp gear clamp is extremely flexible and can even be used in the tightest of spaces:
- The mechanism (patent pending) separates the handle from the spindle and positions it around the rail
- The crossed v-block on the upper section securely holds round, pointed and angular parts

Ergonomic use
The clamp contains all kinds of clamping technology and guarantees the user greater comfort:
- High-quality two-component plastic handle for safe handling
- Quick-release shift button for quickly adjusting the sliding arm
- Swivelling pressure plate for exact adjustment to the workpiece

Robust technology
Development focused on meeting the BESSEY quality promise and the gear clamp is therefore also a winning choice in terms of durability:
- High-quality materials, such as fibreglass-reinforced polyamide for the top and bottom parts, as well as tempered and bronzed steel for the hollow-profile rail
- Thanks to the sliding arm's plastic housing, the driving mechanism is protected against dust and splintering
- High-quality two-component plastic handle positioned around the rail so that the clamp can be used in tight spaces
- Clamping force up to 2000 N
- Easy-to-move trapezoidal thread spindle with swivelling pressure plate

Clamping width mm	Overhang mm	Rail mm	Weight kg	53016	...
150	60	25 x 12	0.62		101
300	60	25 x 12	0.73		102
450	60	25 x 12	0.84		103
600	60	25 x 12	0.95		104

53013 DuoKlamp screw clamps

Design
- Soft pads for gentle clamping of workpieces, reversible for clamping and spreading
- Clamping jaws and housing made of impact-resistant and high-strength fibreglass-reinforced polyamide
- Turning knob for easy switching between clamping and spreading
- Ergonomically shaped pump lever made of superpolyamide
- Release lever for release and quick adjustment
- Rail made of drawn precision steel, surface-hardened and bronzed

Applications
Up to 1200 N clamping and spreading force.

53013

Clamping width mm	Overhang mm	Rail mm	Weight kg	53013	...
160	85	20 x 5	0.66		101
300	85	20 x 5	0.72		102
450	85	20 x 5	0.83		103
650	85	20 x 5	1.02		104

53014 Vario Clippix spring clamps

Design
- Statically optimised E-profile adjustment rail with corrugated ratchet for safe default setting of the clamping arm
- Movable clamping arm made of superpolyamide, easily and quickly adjustable
- Ergonomically shaped two-component handle with soft inserts
- Soft pads for gentle and safe clamping
- Sturdy grip plates made of superpolyamide, cross-ribbed for maximum stability

53014

Clamping width mm	Overhang mm	Weight approx. g	53014	...
55	37	70		101
100	50	170		102

53015 All-steel lever-action clamps

Design
- Greater power reserves thanks to optimised rail profile for even clamping force build-up, especially on full utilisation of the clamping width
- **Fixed and sliding arms made of heat-treated steel, tempered and zinc-plated**
- Plastic-coated clamping lever, with slip guard
- High clamping power with low application of force
- Fast and safe clamping
- Up to five times faster than conventional clamps
- Insensitive to vibrations

Applications
For clamping forces of up to 8 kN.

Note:
Clamp release by pulling the lever.
Lock can then be easily disengaged.

53015

Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53015	...
160	80	17.5 x 6.8	0.65		102
200	100	22.0 x 8.5	1.1		103
250	120	24.5 x 9.5	1.5		104
300	140	28.0 x 11.0	2.3		105
400	120	28.0 x 11.0	2.4		106
500	120	28.0 x 11.0	2.6		107

53020 KliKlamp light lever-action clamps

Design
- **Fixed and sliding arms made of magnesium, extremely light but very strong,** surface-coated
- Fixed arm with cross-over V-block for round, pointed or sharp-edge parts
- Removable protective plastic cap and swivelling pressure plate for gentle clamping
- Multi-stage, VIBRAFIX ratchet mechanism for controlled and vibration-resistant clamping up to 1200 N

Applications
For light and medium clamping forces, e.g. model construction, trade fair construction, furniture assembly.

53020

Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53020	...
120	80	20 x 5	0.26		101
160	80	20 x 5	0.29		102
200	80	20 x 5	0.32		103
250	80	20 x 5	0.36		104

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53030 Deep-grip screw clamps

Design
- Solid-profile rail with ribbing
- **High-quality malleable iron clamping arms**
- Bronzed pressure spindle with movable spherical pressure plate
- Wooden handle

Note:
Deep-grip screw clamps with knob handle available on request.

53030

Clamping width mm	Overhang mm	Rail mm	Weight kg	53030	...
300	200	35 x 11	3.20		101
L 300	**500**	**45 x 12**	8.11		105
400	200	35 x 11	3.41		107
L 400	**250**	**40 x 11**	4.50		108
600	250	40 x 11	5.10		110
1000	300	45 x 12	8.10		113

53112 High-performance clamps

Design
- **20% more clamping force per spindle revolution thanks to optimised rail profile**
- Maximum safety thanks to linear power transmission on the sliding arm
- Tightening torque of 40 Nm
- **Sliding and fixed arms made of heat-treated steel, tempered, zinc-plated**
- Special pressure cap, tempered, swivelling up to 35°, easily replaceable
- Wear-resistant spindle with knob handle that allows fast and powerful clamping

Applications
For high clamping forces up to 12 kN.

53112

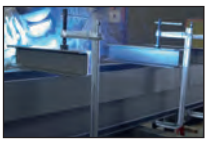
Clamping width mm	Overhang mm	Rail mm	Weight kg	53112	...
250	140	34 x 13	2.58		101
300	140	34 x 13	3.00		102
500	140	34 x 13	3.40		103
800	140	34 x 13	4.45		104
1000	140	34 x 13	4.95		105
1500	140	34 x 13	6.65		106

53113 Extremely robust steel bar clamps

Design
- **Sliding and fixed arms made of heat-treated steel, tempered, zinc-plated**
- Special pressure cap, tempered, swivelling up to 35°, easily replaceable
- Wear-resistant spindle with push-through knob handle
- Hexagonal spindle end for attaching ratchets, torque wrenches, etc.

Applications
For maximum clamping forces up to 22 kN.

53113



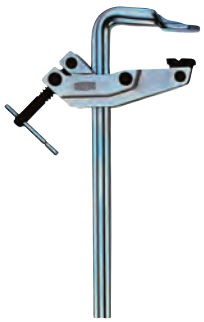
Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53113	...
300	175	40 x 20	5.6		201
400	175	40 x 20	6.1		202
500	175	40 x 20	6.7		203
600	175	40 x 20	7.2		204
800	175	40 x 20	8.4		205
1000	175	40 x 20	9.4		206

53115 All-steel gripper arm clamps

Design
- **Fixed arm made of heat-treated steel, tempered, zinc-plated**
- External spindle is protected against weld spatter and allows free access to the work area

Applications
For the transfer of large forces to the clamping surface by means of a lever arm.
For clamping forces of up to 8 kN.

53115



Clamping width mm	Overhang mm	Rail mm	Weight approx. kg	53115	...
300	120	27 x 13	2.6		101
600	120	27 x 13	3.3		102
1000	120	27 x 13	4.3		103

53119 KombiKlamp screw clamp

Design
- The Vario clamping attachment adapts specifically to round, oval and rectangular workpieces in angles of 60° on the interior to 60° on the exterior
- Easy conversion for spreading by mounting with M8 screw
- The end safety device can be released — for fast reversal of the sliding arm to the spread function
- The pressure plate can be replaced without tools and provides even more comfort in your daily work. It can be replaced very easily and quickly
- The sturdy knob handle has a plastic attachment for even more user-friendly work
- For powerful and controlled clamping

53119

Clamping width mm	Overhang mm	Clamping force N	Rail mm	Weight approx. kg	53119	...
300	120	7500	30 x 15	2.95		101

53120 Vario clamping attachment

Design
- Fits all metal worker's, all-steel and malleable iron screw clamps from an overhang of 100 mm
- 2 movable clamping surfaces adapt to all shapes within an interior and exterior angle of 60° respectively
- **Pack = 1 pair**

Applications
For clamping and alignment of round, oval and rectangular workpieces.

53120

Clamping surface width mm	Weight kg	53120	...
45	0.5		101

53125 C screw clamps

Design
- Extremely sturdy design
- Reinforcing ribs for maximum strength
- Die-forged
- With knob handle

Applications
When high clamping forces are required at clamping widths that are as far as possible identical, predominantly in metalwork and steel construction.

53125

Clamping width mm	Overhang mm	Clamping force kN	Weight approx. kg	53125	...
0 - 60	55	5.5	0.57		201
0 - 100	75	13.5	1.40		202
0 - 120	85	18.0	2.10		203
0 - 150	95	18.0	2.35		204
0 - 200	105	22.0	4.00		205

53300 Parallel screw clamps

Design
- Parallel adjustment via 2 threaded spindles

Applications
To keep small workpieces together when drilling, etc.

53300

Clamping width mm	Jaw length mm	Weight approx. g	53300	...
28	50	80		101
40	60	100		102
55	75	180		103
70	100	430		104
105	135	920		105

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53305 Clamping hand

Design
- Zinc-plated
- Rotating clamping jaws

Applications
For parallel interior and exterior clamping, sensitive clamping at high clamping force.

Clamping width mm	53305 ...
0 - 25	100
0 - 50	101
0 - 75	102
0 - 100	103
0 - 150	104

53305 100-102
Design
- 3 smooth clamping surfaces
- 1 clamping surface with cross-wise V-block

53305 100-102

53305 103-104
Design
- 1 smooth clamping surface
- 1 ribbed clamping surface
- 1 clamping surface, V-block
- 1 clamping surface, crosswise V-block

53305 103-104

53310 - 53311 Hand vice with handle

Design
- Hardened jaws, bright nickel-plated
- With prism
- Special spring, zinc-plated and chromated

Quality
Steel C 35, die-forged.

53310

53311

Length mm	Jaw width mm	Wide jaws 53310 ...	Pointed jaws 53311 ...
130	20	102	
130	10		102

53345 Hand vice

Design
- With a wide mouth for clamping workpieces
- Joint control
- Concealed, captive round steel spring
- Inside of jaw ribbed with prismatic indent
- Wing nut

Advantage
- For universal use
- Very robust

Quality
Arms made of high-strength, alloyed, heat-treated steel, zinc-plated.

53345

Total length mm	Total length inch	Jaw width mm	Jaw width inch	Clamping width mm	Clamping width inch	Weight kg	53345 ...
100	3.7/8	40	1.5/8	18	3/4	0.365	202
120	4.3/4	45	1.3/4	22	7/8	0.500	203
130	5.1/8	48	1.7/8	25	1.	0.545	204
145	5.3/4	52	5.1/16	28	1.3/16	0.805	205
160	6.3/8	58	2.1/4	35	1.3/8	1.040	206
200	7.7/8	65	2.5/8	45	1.3/4	2.000	208

53349 Hand vice

Design
- With wing nut
- Pointed jaws
- Special spring, zinc-plated

Quality
Arms made of high-strength, alloyed, heat-treated steel, zinc-plated.

53349

Total length mm	Jaw width mm	Clamping width mm	53349 ...
120	13	20	102

53390 Vice jaws

Design
- With slanting jaw
- Special spring, zinc-plated

Quality
Arms made of high-strength, alloyed, heat-treated steel, zinc-plated.

53390

Total length mm	Jaw width mm	Clamping width mm	53390 ...
125	30	30	101
150	40	35	102

53550 - 53551 Ball joint vice

BERNSTEIN Electronic-Tools

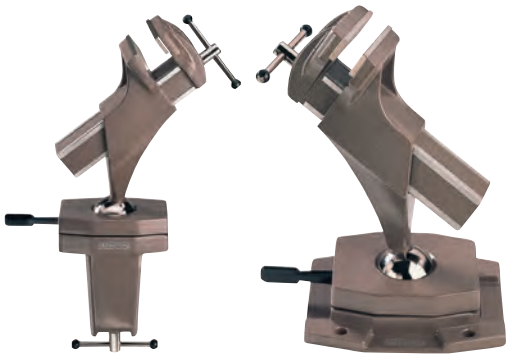
Design
- Made from special-alloy cast aluminium
- Vice with a ball joint, can be rotated in any direction and fixed in any position

Applications
Indispensable for tool construction, fixture construction, optics, precision engineering, instrument construction, model construction, electronics, laboratory work, testing, engravers, watchmakers.

53550
Design
- With a U-bolt for attaching to table tops up to 80 mm thickness

53551
Design
- With screw-on plate for attachment to any workbench.

53550 53551



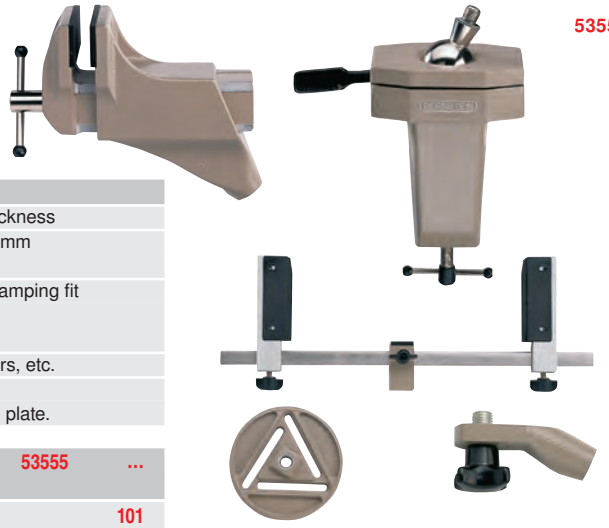
Jaw width mm	Jaw design	Jaw mounting	Clamping width mm	Clamping depth mm	Weight approx. kg	53550	...	53551	...
50	plastic	fixed	70	38	1.50		**101**		**101**
100	steel	reversible	100	50	4.20		**102**		**102**

53555 Combination ball joint vice set

BERNSTEIN Electronic-Tools

Design
- Complete with interchangeable, screw-on workpiece carriers

53555



Set contents	
1 screw-on base	with ball joint and U-bolt for table tops up to 80 mm thickness
1 screw-on vice	with plastic jaws, jaw width 50 mm, clamping width 70 mm Clamping depth 38 mm
1 PCB holder	adjustable clamping width of 25-270 mm, fixed PCB clamping fit thanks to springs in the mounting rods, height of mounting rods 70 mm
1 universal clamping plate	for holding e.g. tuners, line transformers, small speakers, etc.
1 angled adapter	for holding the PCB holder or for expanding the turning area in conjunction with the universal clamping plate.

Set contents	53555	...
5 pieces		**101**

53600 - 53605 Parallel vices

LEINEN

Design
- Maximum stability thanks to high-strength full grey cast iron
- **Opens to the rear**
- With concealed spindle
- Hardened steel jaws
- Dovetail guide
- **Green hammer finish paint**

Note:
Height adjustment devices, see art. no. 53644.

53600
Parallel vice
Design
- Fixed

53601
Rotating base

53603
Parallel vice
Design
- With bracket for attachment to table tops

53605
Replacement jaws
Design
- Pairs
- With screws, sleeves and serrated washers

53600 53601

53603 53605

Jaw width mm	Clamping width mm	Clamping depth mm	Weight approx. kg	Vice 53600	...	Rotating base 53601	...	Vice 53603	...	Replacement jaws 53605	...
60	65	32	2.2						**101**		**101**
80	100	60	6.5		**102**				**102**		**102**
100	140	70	17.0		**103**		**103**				**103**
125	175	75	29.0		**104**						**104**
150	250	87	53.0		**105**						**105**

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53573 - 53577 Parallel vices

ATORN®

Design
- Grey cast iron
- **Opens to the rear**
- With concealed trapezoidal threaded spindle
- Hardened and reversible steel jaws with a ribbed and a smooth side, as well as pipe clamping jaws
- Safe guidance even when wide open thanks to the long dovetail guide.

Note:
Height adjustment devices, see art. no. 53642 and 53643.

53573
Parallel vice
Design
- Blue hammer finish look paint, similar to RAL 5007

53574
Rotating base
Design
- Paint: Blue hammer finish look, similar to RAL 5007

53575
Parallel vice
Design
- Paint: Green hammer finish look, similar to RAL 6011

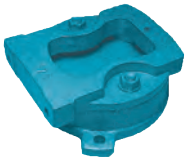
53576
Rotating base
Design
- Paint: Green hammer finish look, similar to RAL 6011

53577
Replacement jaws
- **Pairs**
- With screws, dowel pins and serrated washers

Applications
Suitable for vices
art. no. 53573 and 53575.

53573

53574



53575

53576

53577

Jaw width mm	Clamping width mm	Clamping depth mm	Weight kg	Vice 53573	...	Rotating base 53574	...	Vice 53575	...	Rotating base 53576	...	Replacement jaws 53577	...
100	130	82	12.3		201		201		201		201		201
125	180	80	21.7		202		202		202		202		202
150	215	90	41.8		203		203		203		203		203

53610 - 53612 Parallel vices

ATORN®

53610
Design
- Fixed
- Forged steel
- **Opens to the front**
- With concealed spindle
- Anvil worktop
- Hardened and knurled jaws
- Smoothed surface
- Smoothed and hardened sliding parts
- With a holding fixture for pipe clamping jaws
- **Blue hammer finish paint**

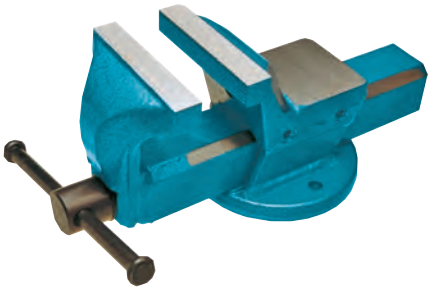
Note:
Height adjustment devices, see art. no. 53644.

53611
Rotating base

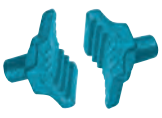
53612
Pipe clamping jaws
Design
- **Pairs**

53611

53610



53612



Jaw width mm	Clamping width mm	Clamping depth mm	Weight approx. kg	Vice 53610	...	Rotating base 53611	...	Pipe clamping jaws 53612	...
100	140	70	7		101		101		101
125	150	80	11		102		102		102
150	200	120	17		103		103		103

53616 - 53619 MATADOR parallel vices

RIDGID Peddinghaus

53617
Design
- Forged steel
- **Opens to the front**
- With concealed double trapezoidal thread spindle
- Surface-hardened clamping jaws
- Adjustable, surface-hardened guide rail
- Hardened, large anvil
- Holding fixture for swivel jaws
- Measurement scale for quick setting of the clamping values

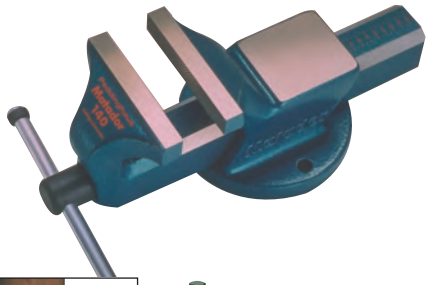
Note:
Clamping jaws, see art. no. 53620–53622.
Height adjustment devices, see art. no. 53646.
Magnetic protective jaws, see art. no. 53690 53694.

53618
Rotating base

53619
Clamping bracket screws
Clamping area 90 mm.
Applications
For direct mounting on a table.

53616
Peddi-Lift
Design
- Automatic folding and height adjustment device
- Height adjustment range 155 mm
- Installation depth only 410 mm
- Weight only 7.5 kg

Applications
For use in conjunction with the Matador 120 vice (art. no. 53617 203).


53617

53618

53619

53616

				Vice		Rotating base		Clamping screw		Peddi-Lift	
Jaw width mm	Clamping width mm	Clamping depth mm	Weight approx. kg	53617	...	53618	...	53619	...	53616	...
100	125	65	6			**202**		**201**			
120	150	75	10			**203**		**202**		**202**	**201**
140	200	95	18			**204**		**203**			
160	225	120	25			**205**		**203**			
180	225	120	26			**206**		**203**			

53620 - 53622 Clamping jaws

RIDGID Peddinghaus

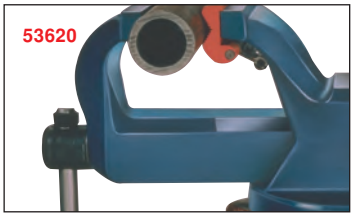
Design
- Swivel jaws
- Interchangeable

Applications
For parallel vices art. no. 53617 (MATADOR).

53620
Pipe clamping jaws
Note:
1 unit required for each size ***(pack = 1 unit).***

53621
Synthetic fibre protective jaws
Note:
1 pair required for each size ***(pack = 2 units).***

53622
Vee block jaw
Applications
For horizontal and vertical clamping.
Note:
1 pair required for each size ***(pack = 2 units).***


53620

53621

53622

		Pipe		Synthetic fibre		V-blocks	
For jaw width mm	For pipes inch	53620	...	53621	...	53622	...
120	1/8–4		**203**		**203**		**203**
140	1/8–5		**204**		**204**		**204**
160	1/8–6		**205**		**205**		**205**
180	1/8–7		**206**		**206**		

53630 - 53631 SUPERIOR parallel vices

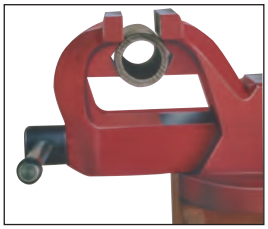
RIDGID Peddinghaus

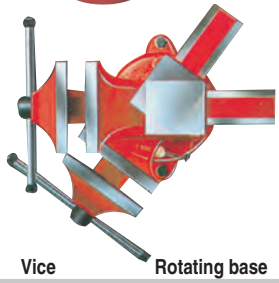
53630
Design
- Fixed
- Forged steel
- **Opens to the front**
- Die-forged
- Double trapezoidal thread spindle, protected along the entire length
- **Stable, wide pipe clamping jaws**
- Closed clamping system
- Long, surface-hardened guide rail
- Large surface-hardened anvil
- Measurement scale for quick setting of the clamping width

Note:
Height adjustment devices, see art. no. 53646.
Magnetic protective jaws, see art. no. 53690 53694.

53631
Rotating base

53630




53631

					Vice		Rotating base	
Jaw width mm	Clamping width mm	Clamping depth mm	For pipes inch	Weight approx. kg	53630	...	53631	...
120	150	75	3/8–3	10		**201**		**201**
140	200	95	3/8–3 1/2	18		**202**		**202**
160	225	120	1/2–4	25		**203**		**202**

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53629 HEUER Compact vice

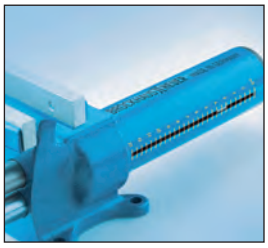
BROCKHAUS][HEUER GmbH

Design
- Opens to the front
- Small, fast, flexible
- With revolutionary HEUER Quicklaunch: For large jaw width differences, the HEUER Compact can be adjusted in a flash. Without activating the handle.
- The opening width display helps with the pre-adjustment
- The parallelism of the jaws is not affected during clamping
- A compression spring guarantees safe locking in the desired position
- **With interchangeable, reversible jaws with a smooth and grooved clamping surface**
- Pipe clamping jaws integrated in the front and rear jaws

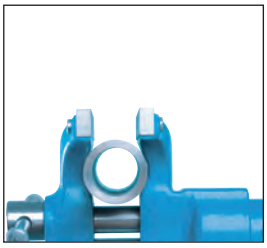
Note:
*Matching turntable with **jaw width 100 mm (!)** see art. no. 53634 101.*
Replacement jaws, see art. no. 53636 102.

53629

Quick adjustment:
From 0 to 130 in 3 seconds



Pre-adjustment scale:
HEUER Quicklaunch with scale



Multi-talent:
Integrated pipe clamping jaws from 5/8 to 2. Inch

Jaw width mm	Clamping width mm	Clamping depth mm	For pipes mm	Clamping force kN	Weight approx. kg	53629	...
120	130	65	15–50	10	4.5		102

53632 - 53636 Parallel vices

BROCKHAUS][HEUER GmbH

Design
- Made entirely from forged steel
- Guaranteed unbreakable
- Surface-hardened clamping jaws
- Standard forged pipe clamping jaws
- Die-forged front jaw
- Die-forged rear jaw with shape-optimised anvil
- Large deep clamping option thanks to lean, die-forged guide rail
- High and optimally distributed clamping force thanks to centrally arranged, well protected spindle
- Spindle with rolled, double trapezoidal thread for fast opening and closing
- Protected precision spindle bearings
- Forged, powerful spindle nut
- Double, internal V-guide, therefore no contamination and damage
- Large guide surfaces machined on all sides guarantee precision and a long service life
- Die-forged guide tabs
- Easily adjustable, central guide via a central screw
- Zinc plated spindle key with riveted circlips made of steel
- Powder-coated

Note:
Folding and height-adjustment devices see art. no. 53646–53650.

53632
Design
- With fixed clamping jaws

53633
Design
- With screw-on, interchangeable clamping jaws
- The clamping jaws are interchangeable and can be reversed and have both a ribbed and a smooth work surface

Note:
Magnetic protective jaws, see art. no. 53690 53694.

53634
Turntable
Applications
For free rotation of the vice on the workbench around 360° in a plane.

53636
Replacement jaw
Design
- **Individual replacement jaw** suitable for a HEUER vice with interchangeable jaws
- The interchangeable jaw can be used on both sides
- It has a textured and a smooth side and is held in place by 2 Allen screws (included in the scope of delivery)

- Price and delivery unit = 1 replacement jaw!

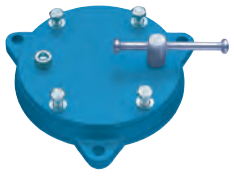
53636 102
Exception to the delivery content:
- 2 screws (short version) for art. no. 53629 102
- 2 screws (long version) for art. no. 53633 102

- Price and delivery unit = 1 replacement jaw!

53632

53633

53634



53636

Figure shows front and back side

Jaw width mm	Clamping width mm	Clamping depth mm	For pipes approx. mm	Weight approx. kg	Vice 53632	...	Vice 53633	...	Turntable 53634	...	Replacement jaw 53636	...
100	125	50	16–30	4.5		101				101		
120	150	65	16–55	9.0		102		102		102		102
140	200	80	27–70	16.0		103		103		103		103
160	225	100	27–100	27.0		104		104		104		104
180	225	100	27–100	29.0		105				104		

53642 - 53646 Vice height adjustment devices

Design
- Even better clamping force thanks to special surface treatment of the standpipe as well as innovative clamping lug
- Effortless and safe height adjustment of vices by 200 mm, swivels around 360°
- A gas strut, which is aligned to the respective vice weight, makes the vice practically weightless so that when the clamping lever has been released, the vice can be moved to the desired working position with almost no effort

Applications
The adaptation of the vice to the body size is particularly important for trainees in schools and training workshops to prevent postural defects with serious consequences, particularly in the growth phase.
For a lot of work performed on the vice, the HEUER LIFT height adjustment device also makes work much easier.

Note:
Height adjustment devices for other brands with comparable jaw widths and weights are available on request.
Please let us know the brand and jaw width.

53642 201-202

53644 101-102

53646 101-102

53643 201-202

53644 103-104

53646 201-203

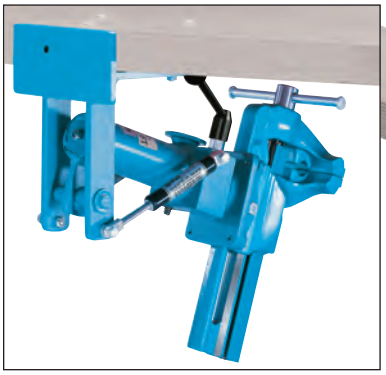
For vice jaw width mm	Vice brand	Vice art. no.	ATORN 53642 ...	ATORN 53643 ...	BROCKHAUS][HEUER 53644 ...	BROCKHAUS][HEUER 53646 ...
100	ATORN	53573 201	201			
100	ATORN	53575 201		201		
100	Leinen	53600 103			101	
120	Brockhaus HEUER	53632 102/53633 102				201
120	Matador/Superior	53617 203/53630 201				101
125	ATORN	53573 202	202			
125	ATORN	53610 102			103	
125	ATORN	53575 202		202		
125	Leinen	53600 104			102	
140	Brockhaus HEUER	53632 103/53633 103				202
140 + 160 + 180	Matador/Superior	53617 204-206/53630 202-203				102
150	ATORN	53610 103			104	
160 + 180	Brockhaus HEUER	53632 104-105/53633 104				203

53650 Folding and height-adjustment devices

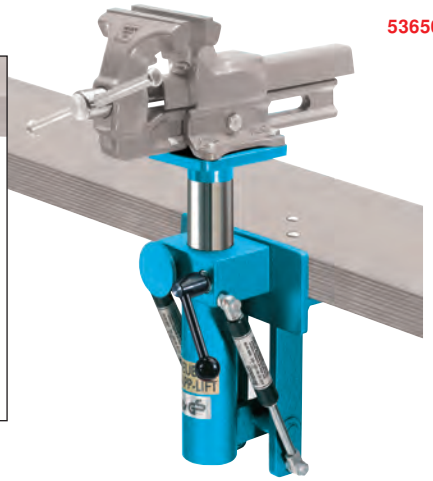
BROCKHAUS][HEUER GmbH

Design
- With safety lock
- Powder-coated

Applications
When not in use, the vice can be folded under the workbench.
In addition, the height of the vice can be adjusted by approximately 175 mm, and the vice can be rotated around 360°.



53650



For vice jaw width mm	Vice brand	Vice art. no.	53650 ...
120	Brockhaus HEUER	53632 102 + 53633 102	101
140	Brockhaus HEUER	53632 103 + 53633 103	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

53655 Vice support

53655

Design
- ANKE workbench top panel made of common beech
- Kiln-dried and specially treated
- Planed, smoothed and oiled

Applications
Can be used as the base plate for all vices or machines.

Length mm	Width mm	Height mm	53655	...
250	250	50		101

53690 - 53694 Magnetic protective jaws

Applications
All protective jaws suitable for
Matador art. no. 53617,
Superior art. no. 53630 and
Heuer Front art. no. 53633.

Note:
The prices listed are per pair.

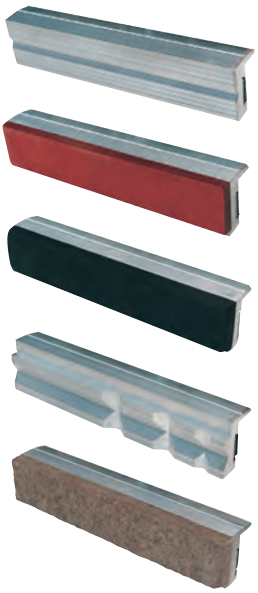
53690 Type N
Design
- The clamping surfaces are made of a special aluminium alloy of a hardness between copper and lead
- For clamping workpieces with coarse to medium-fine machined finishes

53691 Type F
Design
- The clamping surfaces are made of fibre with a special, layered structure
- For clamping workpieces with finely milled or planed and smoothed or polished surfaces

53692 Type G
Design
- The clamping surfaces are made of special synthetic rubber
- For clamping thin-walled pipes, cut parts, wood and plastic parts

53693 Type P
Design
- Jaws made of a special aluminium alloy
- The hardness is between copper and lead
- The 90° recess in the upper part of the jaws and the three prism-shaped recesses allow easy horizontal and vertical clamping of flat material and workpieces of various shapes

53694 Type Fi
Design
- The clamping surfaces are made of elastic abrasion-resistant felt, which largely adapts to the contours of the workpieces
- For clamping highly sensitive workpieces



53690
53691
53692
53693
53694

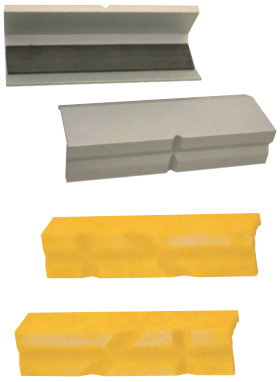
	Type N		Type F		Type G		Type P		Type Fi	
Jaw width mm	53690	...	53691	...	53692	...	53693	...	53694	...
100		201		201		201		201		201
120		202		202		202		202		202
125		203		203		203		203		203
135		204		204		204		204		204
140		205		205		205		205		205
150		206		206		206		206		206
160		207		207		207		207		207
180		208		208		208		208		208

53705 - 53712 Vice protective jaws (protective jaws)

Applications
For clamping delicate workpieces.

53705
Design
- Light metal (aluminium)
- Integrated, **magnetic rail** for a non-slip fit on the vice
- **Pairs**

53712
Design
- Impact-resistant plastic material
- **With permanent magnet**
- Reversible, smooth clamping surface on one side, while the other side has a vertical and a horizontal prism
- **Pairs**



53705
53712

	Light metal		Plastic	
Jaw width mm	53705	...	53712	...
100		201		201
125		203		203
150		205		205

53720 - 53735 Vice jaws and inserts

53720
Vice jaws, pair
- 2 mm zinc-plated sheet steel
- With a zinc-plated retaining spring
- Paired (**no** inserts)

53725
Prism inserts, pair
- Polyamide
- Smooth
- For oval and round parts, pipes, etc.

53730
Smooth inserts, pair
- **Polyamide**
- For sensitive parts, electrodes, mould inserts, measuring and testing devices, etc.

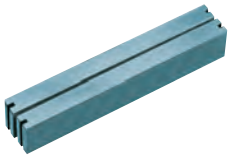
53735
Smooth inserts, pair
- **Aluminium**
- For sensitive parts, electrodes, mould inserts, measuring and testing devices, etc.

53720

53725

53730

53735



	Vice jaws		Prismatic polyamide		Smooth polyamide		Smooth aluminium	
Jaw width mm	53720	...	53725	...	53730	...	53735	...
100		101		101		101		101
125		102		102		102		102
135		103		103		103		103
150		104		104		104		104

54000 - 54002 Machinist's hammer DIN 1041

Design
Smoothed on all sides, painted black, plain work surfaces.

Note:
For protective covers, see art. no. 54016.

54000 102-110
Design
Double curved hickory handle.

54000 201-209
Design
With nylon handle protection sleeve.
Double curved hickory handle, ring wedged.

54002
Design
Double curved ash handle.

		Hickory handle		Hickory handle		Ash handle	
Weight without handle g	Handle length approx. mm	54000	...	54000	...	54002	...
200	280		102		201		102
300	300		103		202		103
400	310				203		
500	320		105		204		105
600	330				205		
800	350		107		206		107
1000	360		108		207		108
1500	380		109		208		109
2000	400		110		209		110

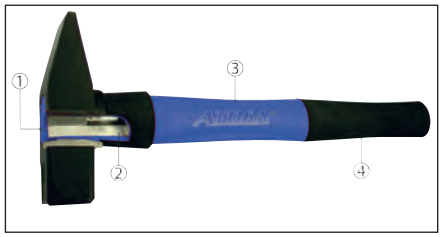
54008 Machinist's hammer DIN 1041

Design
- Ergonomic, indestructible, vibration-free: therefore gentle on the joints
- Hammer head with forged collar, patented model, made of high-grade steel in accordance with the DIN standards
- High-safety handle, patented, fixed in place mechanically

- Three-component composition:
1) Wedge made of steel for mechanical locking
2) Aluminium alloy core with outstanding mechanical criteria
3) Polyamide component also resistant to oil and solvents
4) Handle and protective sleeve made of thermo-plastic, non-slip rubber for a secure grip

Note:
For protective covers, see art. no. 54016.

Weight w/o handle g	Handle length approx. mm	54008	...
300	300		101
500	320		102
1000	360		103
1500	360		104
2000	400		105



54003 - 54007 Machinist's hammer DIN 1041

Design
Hammer head in accordance with **DIN 1041.**
Die forged, precisely smoothed, carefully hardened and properly tempered, peen and face finely smoothed. Double curved hickory handle.
Quality
Steel C 45 in accordance with DIN 17200.

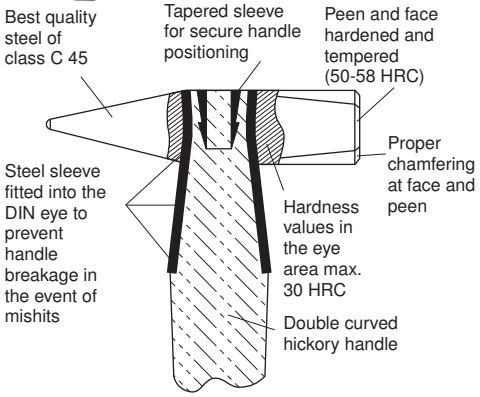
Note:
For protective covers, see art. no. 54016.

54003
Design
Without shock protection sleeve.

54005
Design
With nickel-plated shock protection sleeve firmly pressed into the hammer head.

54007
Model INDU
Design
With impact head lock through **electro-inductively tempered edge zone** of the hammer face and peen, **non-slip hickory handle** and **nickel-plated shock protection sleeve.**

			Shock protection sleeve		INDU	
Weight without handle g	Handle length approx. mm	54003	...	54005	...	54007	...
100	260		101				
200	280		102				
300	300		103		103		103
400	310		104				
500	320		105		105		105
600	330		106				
800	350		107		107		107
1000	360		108		108		108
1500	370		109		109		109
2000	400		110		110		110



54009 - 54015 Machinist's hammer DIN 1041

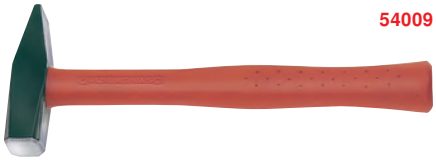
mob PEDDINGHAUS

Design
Smoothed on all sides, painted black, plain work surfaces.

54009
Design
With unbreakable **ULTRAMID** plastic handle, safety wedging and permanently fixed handle fit.

54015
Design
With **ULTRATEC** 3-component fibreglass handle, unbreakable fibreglass core.
Handle inseparably connected with the hammer body. Non-slip elastomer grip layer.
Polypropylene base layer.

Note:
For protective covers, see art. no. 54016.


54009

54015

		ULTRAMID		ULTRATEC	
Weight without handle g	Handle length approx. mm	54009	...	54015	...
200	280		101		101
300	300		102		102
500	320		103		103
800	350		104		104
1000	360		105		105

54020 Machinist's hammer DIN 1041

HALDER

MAXXCRAFT
Design
Noticeable recoil dampening and thus full impact force transfer to the workpiece. Effortless work that's gentle on the joints due to low vibrations on impact. Handle protection sleeve with rubber coating to absorb mishits. Die-forged hammer head made of special high-quality steel with bare smoothed peen and face as well as proper chamfering. Hammer face and peen carefully hardened and tempered. The special connection between the hammer head and handle sleeve creates an inseparable, low-vibration unit.
Ergonomically shaped **hickory handle.**

Note:
For protective covers, see art. no. 54016.

54020

Weight without handle g	Length mm	54020	...
300	300		101
500	320		102
800	350		103
1000	360		104

54016 Protective covers

Design
Made of polyurethane.

Applications
For use as a soft-face hammer for machinist's hammers in accordance with **DIN 1041** (art. no. 54000-54020).

54016

For hammer weight g	54016	...
300		101
500		102
800		103
1000		104

54071 - 54073 Replacement handles for machinist's hammers

54071
Design
Ash, straight, premium quality, DIN 5111.

54073
Design
Hickory, double curved, premium quality, DIN 5111.

Note:
Art. no. 54073 101, straight.

54071

54073

			Ash		Hickory	
For hammer weight g	Handle length mm	Handle end mm	54071	...	54073	...
100	260	17/10		101		101
200	280	19/11		102		102
300	300	21/12		103		103
400	310	24/14		110		110
500	320	26/15		104		104
600	330	28/16		105		105
800	350	29/17		106		106
1000	360	31/18		107		107
1500	380	33/20		108		108
2000	400	37/22		109		109

54075 - 54077 Replacement handles for machinist's hammers

54075
Design
Hickory, double curved, premium quality.
Complete with tapered sleeve.
Applications
For hammers with shock protection sleeve (art. no. 54005–54007).

54077
Design
High-quality **plastic ULTRAMID** with safety wedging for permanent, fixed fit, complete with wedge and pin.
Applications
For all hammers according to DIN 1041.

54075

54077

For hammer weight g	Handle length approx. mm	Handle end mm	Hickory 54075	...	ULTRAMID 54077	...
200	280	19/11				102
300	300	21/12				103
400/500	320	26/15		104		104
800	350	29/17		106		106
1000	360	31/18		107		107
1500	380	33/20		108		
2000	400	37/22		109		

54048 - 54055 Mallets

Design
Painted black, plain work surfaces.

54048
Design
DIN 6475.
With curved **ash handle,**
secure ring wedge.

54053
Design
With **ULTRATEC** 3-component fibreglass handle, unbreakable fibreglass core.
Non-slip elastomer grip layer.
Polypropylene base layer.

54053 101-104
Design
DIN 6475.
Handle inseparably connected with the hammer body.

54053 105-107
Design
Secure hold due to conical force fit.

54055
Design
DIN 6475.
With **steel tube handle** and plastic grip, painted black.

54048

54053 101-104

54053 105-107

54055

Weight without handle kg	Handle length approx. mm	54048	...	54053	...	54055	...
1.00	250		101		101		101
1.25	260		102		102		102
1.50	270		103		103		
2.00	280		104		104		
3.00	900				105		
5.00	900				107		

54087 - 54089 Replacement handles for mallets

54087
Design
Ash, curved, premium quality, DIN 5135.

54089
Design
Hickory, curved, premium quality, DIN 5135.

54087

54089

For mallet weight kg	Handle length approx. mm	Handle end mm	Ash 54087	...	Hickory 54089	...
1-1.25	260	31/18		101		101
1.50	280	33/20		102		102
2.00	300	37/22		103		103

54065 - 54070 Sledgehammers

Design
Forged, carefully hardened and tempered.
Quality
Steel C 45 in accordance with DIN 17200.

54065
Design
DIN 1042. With straight **ash handle.**

54065

54070
Design
With **ULTRATEC** 3-component fibreglass handle, unbreakable fibreglass core.
Secure hold due to conical force fit.
Non-slip elastomer grip layer.
Polypropylene base layer.

54070

Weight without handle kg	Handle length approx. mm	Ash handle 54065	...	ULTRATEC 54070	...
3	600		102		
4	600		103		
5	800		104		
6	800		105		
8	900		106		
10	900		107		
3	900				102
4	900				103
5	900				104

54081 - 54083 Replacement handles for sledgehammers

54081
Design
Ash, straight, premium quality, DIN 5112.

54083
Design
Hickory, straight, premium quality, DIN 5112.

Note:
Art. no. 54081 101, curved.

54081

54083

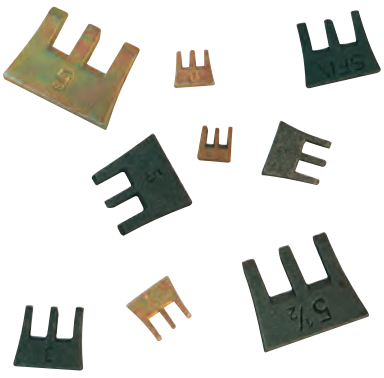
For hammer weight kg	Handle length approx. mm	Handle end mm	Ash 54081	...	Hickory 54083	...
3 - 4	600	42/24		101		101
5 - 6	800	48/48		102		102
8 - 10	900	52/32		103		103

54095 Safety handle wedges (S-FIX claw wedges)

Design
Inseparable connection between the tool and the handle. Anchorage through locking into wood.

Increased expansion effect thanks to innovative clip bars. Drive the wedge diagonally into the handle without pre-sawing.

54095



Size	Width mm	For hammer weight approx. g		54095	...
00	13	100–200	10 pieces		201
0	16	250–400	10 pieces		202
1	20	500–800	10 pieces		203
2	23	1000–1500	10 pieces		204
3	26	1750–2000	10 pieces		205
4	29	3000–5000	10 pieces		206
5	32	Axes, hatchets	10 pieces		207
5.1/2	40	Axes, hatchets	10 pieces		208
6	50	Axes, hatchets	10 pieces		209

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

54104 Light metal hammer

Design
Cylindrical, with double curved hickory handle and cross-pin as an additional handle safety device.

Applications
For beating and dent-removal work and for straightening workpieces.

54104

Striking surface Ø mm	Head length approx. mm	Weight approx. g	54104 ...
40	75	250	201
40	105	350	202
50	92	500	203
60	98	750	204
60	128	1000	205

54118 - 54120 Copper hammers made of E-Cu

Design
- Similar to DIN 5130
- Double curved **hickory handle**
- Made of drawn rod material
- Square

54120
Design
- Fully smoothed

54118 - 54120

Weight approx. g	Brinell hardness	54118 ...	54120 ... Ground
250	80 - 110		200
500	80 - 110		201
750	80 - 110		202
1000	80 - 110		203
1500	80 - 110		204
2000	80 - 110		205
2500	60 - 80	206	
3000	60 - 80	207	
4000	60 - 80	208	
5000	60 - 80	209	

54121 Copper hammers with three-component safety handle

Design
- Copper hammer with three-component safety handle and handle protection sleeve
- Gripping surface with rubber edging for a secure hold and to minimise the risk of injury
- Three-component safety handle with aluminium core, polyamide and rubber components, especially vibration-free and easy on the joints

NEW

54121

Weight without handle g	Handle length mm	54121 ...
500	300	101
750	320	102
1000	320	103
1500	360	104
2000	360	105

54130 Wooden mallets DIN 7462/B

Design
Hornbeam, with pressed-on metal sheath and oval ash handle.

54130

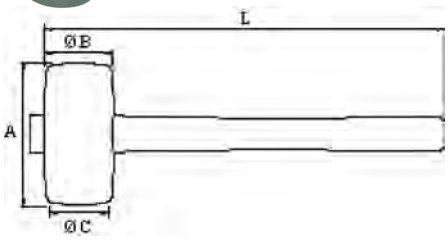
Head Ø x head length mm	Weight approx. g	54130 ...
50 x 100	220	101
60 x 120	370	102
70 x 140	560	103
80 x 160	810	104
90 x 180	1100	105

Soft-face hammers

54150 Rubber composition hammers DIN 5128-90

Design
With two flat faces and ash handle,
Shore hardness approximately 95,
with a powerful impact and little recoil.

54150



Ø B mm	Ø C mm	A mm	L mm	Weight with handle g	54150 ...
40	35	75	280	250	101
50	50	90	300	350	102
60	60	110	330	550	103
70	70	120	380	750	104
90	90	130	380	1120	105

54152 Bumping hammers

HAZET

Design
With permanently plastic filler for gentle strokes.

54152 101
Design
Handle adjustable by 90°.

54152 100

54152 101

Rubber body mm	Total length mm	54152 ...
70 x 70	260	100
70 x 140	280	101

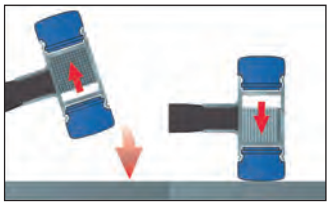
54162 - 54163 Recoil-free soft-face hammers

ATORN®

54162
Design
- Hammer heads made from medium-hard polyurethane, colourfast and wear-resistant, blue
- Housing made of powder-coated precision steel tube
- **Handle:** welded, powder-coated steel tube with ergonomic rubber grip
- Hammer bodies filled with cast iron shot for rebound-free work

Applications
Controlled position impacts, e.g. on workpieces in machine vices or during assembly tasks.

54163
Replacement hammer insert
Design
- Medium-hard polyurethane
- Colourfast and wear-resistant
- Colour: blue



54162

Head Ø mm	Hammer 54162 ...	Insert 54163 ...
30	101	101
40	102	102
50	103	103

54161 Recoil-free soft-face hammers

mob FEDDINGHAUS

Design
Hammer body made of metal filled with steel balls, full plastic coating, particularly resistant to notching and impact-resistant thanks to the special plastic mixture. Temperature resistant from -20°C to +90°C.

Applications
For gentle treatment of materials.

54161

Head Ø mm	Weight approx. g	54161 ...
30	270	101
35	385	102
45	620	103
50	860	104
60	1340	105

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

54153 - 54158 Recoil-free soft-face hammers

HALDER

SUPERCRAFT

Design

The SUPERCRAFT principle:

The head tube of SUPERCRAFT hammers is filled with steel shot. This ensures that when the striking surface hits the workpiece, the shot filling follows with a delay. The reduced recoil means that the impact energy is utilised optimally. This allows for very powerful impacts. In addition, working with SUPERCRAFT hammers is significantly easier on the joints and quieter than with conventional steel hammers.

Applications

Positioning and joining of workpieces in a vice, sheet metal machining, assembly of sharp-edged workpieces, assembly/repair work in the car/commercial vehicle sector, scaffolding, straightening, housing assembly, plant construction, maintenance work, service work

54153

Design

Soft-face hammer with vibration-damping, ergonomically shaped and painted hickory handle.

54154

Design

Soft-face hammer with unbreakable steel tube handle and ergonomically shaped, non-slip grip.

54155

Design

Soft-face hammer with ergonomically shaped, non-slip and shatter-proof three-component handle.

54156

Hammer inserts made of special nylon

Design

- Interchangeable
- Very wear-resistant
- No splintering
- Low noise
- For very high impact force

54158

Hickory handle

Design

- Ergonomically shaped
- Painted
- Very solid

54153

54154

54155

54156 54158

Head Ø x length mm	Total length mm	Weight 54153	approx. g 54154	art. no. 54155	Hickory handle 54153	...	Steel tube handle 54154	...	3C handle 54155	...	Nylon head 54156	...	Replacement handle 54158	...
20 x -	-	-	-	-									100	
25 x 105	305	325	385	-	101		101						101	101
30 x 110	330	460	585	-	102		102						102	102
35 x 110	335	560	690	-	103		103						103	102
40 x 115	360	715	805	790	104		104		204				104	103
50 x 120	370	990	1150	1040	105		105		205				105	103
60 x 145	370	1705	1750	1625	106		106		206				106	104
80 x 200	880	4410	-	-	107								107	105
100 x 210	1000	7050	-	-	108								108	106

54165 Recoil-free soft-face hammer

HALDER

SECURAL

Design

The specialist for corners and edges:

Due to its rectangular hammer inserts, SECURAL is the hammer specialist for working with corners and edges.

Maximum recoil dampening:

The ratio of the hammer head mass to the shot mass in conjunction with the springing properties of the striking surfaces is optimally aligned. The low overall weight of the hammer enables work that is particularly easy on the joints at extremely high impact force.

Robust:

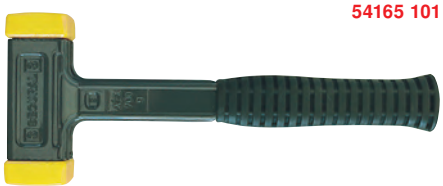
The housing, which is welded longitudinally, ensures an absolutely shatter-proof connection between the hammer and the handle.

Hammer insert made from polyurethane

- Interchangeable
- Rectangular
- Low noise
- Dampening
- Robust

Applications

Sheet metal machining, positioning and joining of workpieces, repair work. For versatile application possibilities with high safety requirements.



54165 101

54165 102

	Size mm	Weight approx. g	54165 ...
Soft-face hammer	40	700	101
Replacement inserts (pair)	30 x 40	-	102

54169 Plastic hammers

ATORN®

Design
- Basic body made from high-quality die-cast zinc with handle impact protection
- Wooden handle made of ash
- Technically sophisticated mount for the inserts as well as a striking and contemporary design

54169 201-204
Replacement heads

54169 301-302
Replacement handles

54169 101-104

54169 201-204

54169 301-302

Head Ø x Head length mm	Total length approx. mm	Weight approx. g	Hammer 54169 ...	Replacement heads 54169 ...	Replacement handles 54169 ...
25 x 86	270	215	101	201	301
30 x 95	280	360	102	202	301
40 x 107	325	510	103	203	302
50 x 115	340	940	104	204	302

54172 - 54173 Plastic/nylon hammers

Design
- Polished ash handle
- Interchangeable hammer heads
- Impact-resistant

Applications
For gentle assembly work and sheet metal deformation.

54172 200-206
Design
- Hammer heads made of transparent cellulose acetate (red)

54172 207
Design
- Hammer heads made of nylon

54173
Replacement heads
- Pairs

54172 200-206

54172 207

Heads made of	Head Ø mm	Length mm	Weight g	Hammer 54172 ...	Replacement heads (pair) 54173 ...
plastic	22	250	144	200	200
plastic	27	270	227	201	201
plastic	32	280	310	202	202
plastic	35	290	410	203	203
plastic	40	320	544	204	204
plastic	50	340	800	205	205
plastic	60	370	1400	206	206
nylon	50	340	800	207	207

54173 200-206

54173 207

54175 - 54179 Plastic hammers

BAHCO

Design
Centre piece made of malleable iron, with impact-resistant, interchangeable inserts (curved faces), handles made from hardwood.
Resistant to almost all mineral oils, greases and solvents.

54175
Design
Inserts, **blue.**
Applications
For normal use.

54176
Design
Inserts, **yellow,** extremely tough and resistant to wear.
Applications
For the most demanding use (hammer faces do not jump).

54177
Loose inserts
Blue, 2 curved faces, **in pairs.**

54179
Loose inserts
Yellow, 2 curved faces, **in pairs.**

54175

54176

Head Ø x Head length mm	Total length approx. mm	Weight approx. g	Blue 54175 ...	Yellow 54176 ...	Blue inserts 54177 ...	Yellow inserts 54179 ...
22 x 80	260	160	101	101	101	101
27 x 90	280	230	102	102	102	102
32 x 100	300	325	103	103	103	103
35 x 106	320	415	104	104	104	104
40 x 112	340	570	105	105	105	105
50 x 120	360	920	106	106	106	106
60 x 125	380	1280	107	107	107	107

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HALDER

SIMPLEX

Design

- **5 sizes and 6 hammer inserts** with different degrees of hardness (see art. no. 54190–54195) make the Simplex soft-face hammer suitable for **universal use**
- Clamp with a screw!
- No wedging!
- All inserts within a size can be combined as required
- All parts subject to wear can be easily retrofitted at any time
- Interchangeable hammer inserts with different degrees of hardness allow individual adjustment to the workpiece

54180
Soft-face hammer, complete
Design
- Two-part housing made of steel casting
- High-quality wooden handle
- 2 different hammer inserts
- **Rubber composition hammer insert:** Medium-hard, dampening, odour-neutral, low wear
- **Nylon hammer insert:** Hard, very resistant to wear, no splintering, resistant to oil and grease

Applications
Assembly of sharp-edged workpieces, housing assembly, plant construction, construction of commercial and industrial buildings, steel construction, trade fair construction, repair/maintenance work.

54181
Soft-face hammer, complete
Design
- Two-part housing made of steel casting
- High-quality wooden handle
- 2 different hammer inserts
- **Rubber composition hammer insert:** Medium-hard, dampening, odour-neutral, low wear
- **Plastic hammer insert:** Tough, resistant to oil and grease

Applications
Assembly/repair work, dent-removal work, maintenance work, scaffolding, construction of tents, construction of prefabricated houses.

54182
Soft-face hammer, complete
Design
- Two-part housing made of steel casting
- High-quality wooden handle
- 2 different hammer inserts
- **Nylon hammer insert:** Hard, very resistant to wear, no splintering, resistant to oil and grease
- **Soft-metal hammer insert:** Tough, heat-resistant

Applications
Mould making, plant construction, assembly/repair work.

54183
Soft-face hammer, complete
Design
- Two-part housing made of steel casting
- High-quality wooden handle
- **Rubber composition hammer insert:** Medium-hard, dampening, odour-neutral, low wear

Applications
Maintenance/repair work, scaffolding, construction of tents, gardening/landscaping, paving work, setting kerbstones, setting masonry/stairs, fencing, construction of prefabricated houses, carpentry.

54184
Soft-face hammer, complete
Design
- Two-part housing made of steel casting
- High-quality wooden handle
- **Plastic hammer insert:** Tough, resistant to oil and grease

Applications
Universal use, assembly/repair/maintenance work, sheet metal machining, construction of prefabricated houses, carpentry, scaffolding, construction of tents.

54186
Housing made from steel casting, single
Design
- Two parts
- With clamping screw

54188
Replacement handle, single
Design
- High-quality wooden handle

54180

54181

54182

54183

54184

Hammer insert Ø mm	Head length mm	Hammer length mm	Weight approx. g	Rubber/nylon 54180	...	Rubber/plastic 54181	...	Nylon/soft metal 54182	...	Rubber 54183	...	Plastic 54184	...
30	90	300	360		101		101		101		101		101
40	110	330	680		102		102		102		102		102
50	135	350	1265		103		103		103		103		103
60	145	405	1730		104		104		104		104		104
80	175	490	3480		105				105		105		

For hammer insert Ø mm	Housing 54186	...	Replacement handle 54188	...
30		301		101
40		302		102
50		303		103
60		304		104
80		305		105

54186 54188

54189 Soft-face hammers with reinforced steel cast housing and fibreglass handle

HALDER

SIMPLEX
Design
The thicker walls and braces in the reinforced steel cast housing ensure high stability - especially when using the SIMPLEX copper hammer inserts. The increased weight gives the hammer a much higher impact force.

54189 101-102
Soft-face hammer, complete
Design
- In two parts, reinforced housing made from steel casting
- Fibreglass handle with rubber grip
- 2 different hammer inserts
- **Copper** with plastic sleeve: Hard
- **Soft-metal hammer insert**
  (art. no. 54195 101+102): Tough, heat-resistant
Applications
For extremely high impact strength, straightening, plant construction, sheet metal machining, assembly/repair/maintenance work.

54189 201-202
Hammer insert, single
Design
- **Copper** with plastic sleeve: Hard
Note:
Assembly possible only in reinforced steel cast housing.

54189 301-302
Reinforced steel cast housing, single
Design
- Two parts
- With clamping screw
- Black
Note:
Only fibreglass handles can be mounted in reinforced steel cast housing.

54189 401-402
Fibreglass handle, single
Design
- With rubber grip
Note:
Assembly possible only in reinforced steel cast housing.

54189 101-102

54189 201-202

54189 301-302

54189 401-402

Hammer insert Ø mm	Head length mm	Hammer length mm	Weight approx. g	Hammer 54189 ...	Hammer insert 54189 ...	Housing 54189 ...	Replacement handle 54189 ...
30	90	300	590	101	201	301	401
40	110	330	1195	102	202	302	402

54190 - 54195 Hammer inserts for SIMPLEX soft-face hammers

HALDER

54190
Design
- **TPE-soft:** Blue, soft, abrasion-free
Applications
For very sensitive materials, gardening/landscaping, laying tiles/panels, setting natural stones, furniture construction, dry walling, window/door construction, carpentry.

54191
Design
- **Rubber composition:** Black, medium-hard, dampening, odour-neutral, low wear
Applications
Gardening/landscaping, paving work, setting kerbstones, setting masonry/stairs, fencing, scaffolding, construction of tents, construction of prefabricated houses, carpentry, maintenance/repair work.

54192
Design
- **Plastic:** Red, tough, resistant to oil and grease
Applications
For universal use, in assembly/repair work in the car/commercial vehicle sector, maintenance work, sheet metal machining, construction of prefabricated houses, carpentry, scaffolding, construction of tents.

54193
Design
- **Super plastic:** White, medium-hard, very resistant, wear-resistant
Applications
Gardening/landscaping, paving work, setting kerbstones, fencing, driving in splitting wedges, scaffolding, construction of tents, sheet metal machining, construction of prefabricated houses, joinery, carpentry, furniture construction.

54194
Design
- **Nylon:** White, hard, very resistant to wear, no splintering, resistant to oil and grease
Applications
Joining of workpieces, assembly of sharp-edged workpieces, housing assembly, mould making, plant construction, construction of commercial and industrial buildings, steel construction, trade fair construction, sheet metal machining, repair/maintenance work.

54195
Design
- **Soft metal:** Silver, hard, heat-resistant
Applications
For high impact force, straightening, mould making, plant construction, assembly/repair/maintenance work.

54190

54191

54192

54193

54194

54195

Insert Ø mm	TPE-soft 54190 ...	Rubber 54191 ...	Plastic 54192 ...	Super plastic 54193 ...	Nylon 54194 ...	Soft metal 54195 ...
30	101	101	101	101	101	101
40	102	102	102	102	102	102
50	103	103	103	103	103	103
60	104	104	104	104	104	104
80		105		105	105	105

54197 Soft-face hammer 2 in 1

HALDER

FERROPLEX

Design
- Machinist's hammers and soft-face hammers in one
- With steel tube handle
- Ergonomically shaped rubber grip
- Hammer head made of high-quality heat-treated steel, inductively hardened on one side, opposite side with interchangeable, very wear-resistant and low-noise nylon hammer insert

Applications
General assembly work in industry, trade and automotive sector, servicing and maintenance work.

Note:
For replacement nylon heads, see art. no. 54156 102.

54197

Head Ø x head length mm	Total length approx. mm	Weight approx. g	54197	...
30 x 104	290	600		101

54198 Drifts and beaters

HALDER

Design
- **Nylon hammer inserts:** Hard, very resistant to wear, no splintering, resistant to oil and grease

Applications
The little helpers for particularly gentle straightening and assembly work with precisely controlled impact effect.

54198 201-203
Drifts
Design
- Not recoil-free

Applications
Assembly/repair work in the car/commercial vehicle sector, repair/maintenance work, for limited accessibility.

54198 101-107
Beaters
Design
- Recoil-free

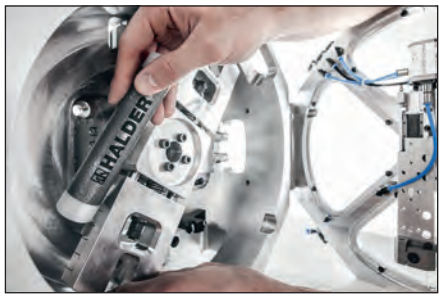
Applications
Joining of workpieces, housing assembly, assembly/repair work in the car/commercial vehicle sector, repair/maintenance work, for limited accessibility.

Note:
For replacement nylon heads, see art. no. 54156.

54198 201-203

54198 101-107

Type	Head Ø mm	Total length mm	Weight g	54198	...
Drift	10	168	90		201
Drift	12	170	130		202
Drift	15	175	200		203
Beater	20	150	215		101
Beater	30	155	470		103
Beater	40	160	785		105
Beater	50	165	1250		107



54200 Roofer's hammer with magnet

mob PEDDINGHAUS

XSTRIKER

Design
Professional model:
- TÜV/GS head-securing device
- Magnetic nail holder
- Reinforced steel ring
- Special plastic handle
- XSTRIKER design

54200 201
Design
Part-polished hammer head.

54200 202
Design
Polished hammer head.
The balanced weight distribution and the special ergonomics of the handle ensure excellent handling.

54200 201

54200 202

Weight g	54200	...
800		201
780		202

Centre punch

54295 Centre punch and drift set

Design
Octagonal, painted shafts, safety zone thanks to electro-inductive special hardening.

Quality
Chrome-vanadium air-hardening steel.

54295

Set contents:
1 centre punch DIN 7250, 120 x 10 x 4 mm
5 drifts DIN 6458, 120 x 10 x 2-6 mm

Dimensions = total length x shaft Ø x tip Ø

Set contents	Design	54295	...
6 pieces	in sheet-metal box		101

54297 Striking tool assortment

Design
Coated, low-vibration and shock-absorbing **comfort handle with replaceable inserts** made of three materials: Brass, polyamide, aluminium. The plug-in system enables a targeted selection of the degree of hardness to exclude damage to the workpieces. Assembly with screw thread M10.
The impacts are dampened by the insert collar, the thread is protected.

Applications
For work on all axis types, shafts, pins, bearings. Ideal for cardan shaft, gears.
For removal, refitting and securing of workpieces:
Brass inserts:
Hardness HV.155 (430-500 N/mm²)
Polyamide inserts:
Shore hardness 85D
Aluminium inserts:
370 N/mm²

54297

	Set contents:	Ø mm	Effective length mm
1	**Comfort handle**		
3	**Brass inserts**	12/16/20	40
3	**Polyamide inserts**	12/16/20	40
5	**Aluminium inserts**	10/12/14/16/18	60
1	**Extension**		100
3	**Brass inserts for extension**	12/16/18	20
3	**Polyamide inserts for extension**	12/16/18	20

Set contents	Design	54297	...
19 pieces	In plastic case		101

54300 Mechanic's centre punch

Design
Knurled shaft.

Quality
Steel, hardened.

54300

Shaft Ø mm	Total length mm	54300	...
8	100		101

54303 Centre punch with a cemented carbide tip

Design
Hexagonal, **with cemented carbide tip,** can be sharpened.

54303

Shaft Ø mm	Total length mm	54303	...
12	120		101

54305 - 54306 Centre punch DIN 7250

54305

Design
Octagonal, forged, tempered hammer head, painted shaft, safety zone thanks to electro-inductive special hardening.
Quality
Chrome-vanadium air-hardening steel.

54306

Design
Octagonal, bright nickel-plated, with plastic hand protection.
Quality
Vanadium extra steel.

54305

54306

Tip Ø mm	Shaft Ø mm	Total length mm	54305	...	54306	...
3	8	100				101
4	10	120		201		102
5	12	120		202		
5	12	150		203		103

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54308 Centre punch with hand protection DIN 7250

Design
With ergonomically shaped handle and extensive hand protection. Octagonal, forged, tempered hammer head, painted shaft, safety zone thanks to electro-inductive special hardening.
Quality
Chrome-vanadium air-hardening steel.

54308

Tip Ø mm	Shaft Ø mm	Total length mm	54308 ...
4	10	120	101
5	10	150	102

54309 Centre punch with handle

Design
Dampening handle, very easy to grip and ergonomic, with finger protection, resistant to temperature fluctuations.
The head is hardened to 43 HRc to prevent splintering. The tip is hardened to 58 HRc.

Gripping comfort and shock-absorbing properties result in high precision and more strength.

54309

Tip Ø mm	Shaft Ø mm	Total length mm	54309 ...
2.5	10	185	101
4.0	10	185	102
6.0	10	185	103
8.0	12	185	104
10.0	14	185	105

54314 - 54315 Automatic centre punches

Design
- Automatic
- Precision design
- Interchangeable hardened tip
- Adjustable impact force
- End no. 202–204, with 2-component hand protection

Applications
For single-hand operation.
Quality
Nickel-plated steel.

Note:
The impact force increases with the size of the centre punch. We therefore recommend selecting the length according to the given application.

54314 202
Applications
Length 95 mm = for fine marks on steel, non-ferrous metals and plastic.

54314 203
Applications
Length 125 mm = for highly visible grain on steel and non-ferrous metals.

54314 204+201
Applications
Length 130 mm = for strong marks on tool steels and structural steels.

54315
Replacement tip

54314 202-204

54314 201

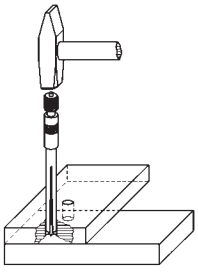
54315

Tip Ø mm	Shaft Ø mm	Total length mm	Adjustable impact force min./max. N	2-component hand protection	Weight g	Centre punch 54314 ...	Replacement tip 54315 ...
3.5	11	95	20/50	x	55	202	
4.0	14	125	60/130	x	95	203	
6.0	17	130	180/250	x	140	204	
6.0	17	130	180/250	-	105	201	
6.0	-	-	-/-	-	-		201

54319 - 54320 Adjustable centre punches

Design
The centre punch consists of a punch stud, guide bushing and centring sleeve.
Applications
For the transfer of existing bore holes to other workpieces.
Application:
1. Insert the centre punch into the bore hole.
2. Expand the centring arms until they make contact with the bore hole.
3. Hit the pin with the hammer.

54319
3 piece set
in a plastic case.



54319

For bore hole Ø mm	Set 54319 ...	Single 54320 ...
Set 6–16	101	
6– 8		101
8–11		102
11–16		103

54321 Drifts DIN 6458

Design
Octagonal, forged, tempered hammer head, painted shaft. Safety zone thanks to electro-inductive special hardening.
Applications
For driving out rivets, bolts, etc.

Quality
Chrome-vanadium air-hardening steel.

54321

Tip Ø mm	Shaft Ø mm	Total length mm	54321	...
1	10	120		201
2	10	120		202
3	10	120		203
4	10	120		204
5	12	120		205

Tip Ø mm	Shaft Ø mm	Total length mm	54321	...
6	12	120		206
7	12	120		207
8	12	120		208
10	14	150		209
12	14	150		210

54325 Drifts with hand protection DIN 6458 B

Design
With ergonomically shaped handle and extensive hand protection. Octagonal, forged, tempered hammer head, painted shaft, safety zone thanks to electro-inductive special hardening.
Applications
For driving out rivets, bolts, etc.

Quality
Chrome-vanadium air-hardening steel.

54325

Set contents	Tip Ø mm	Design	54325	...
5 pieces	2/3/4/5/6	in sheet metal box		101

54327 Drifts DIN 6458

Design
Octagonal, with plastic hand protection.
Applications
For driving out rivets, bolts, etc.

Quality
Vanadium-extra steel, nickel-plated.

54327

Tip Ø mm	Shaft Ø mm	Total length mm	54327	...
2	10	120		101
3	10	125		102
4	10	130		103

Tip Ø mm	Shaft Ø mm	Total length mm	54327	...
5	10	165		105
6	10	180		106
8	12	200		107

54349 Pin punch set DIN 6450 C

Design
Octagonal, tempered hammer head, shaft painted gold.

Quality
Chromium-vanadium air-hardening steel, forged.

54349

Set contents	Tip Ø mm	Length mm	Design	54349	...
6 pieces	3/4/5/6/7/8	150	In sheet metal box		101

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54347 Pin punch set

Design
Polished with coloured powder coating.
Splinter-proof, robust and non-slip surface protection.

Quality
Fully tempered, high alloy tool steel with increased hardness of more than 59 HRC.

54347

Set contents	Tip Ø mm	Shaft Ø mm	Length mm	Design	54347	...
6 pieces	3/4/5/6/8/10	10	150	In plastic case		101

54350 Pin punch set

Design
Octagonal, matt black.

Quality
Chrome-vanadium, air-hardened.

54350

Set contents	Tip Ø mm	Length mm	Design	54350	...
6 pieces	2/3/4/5/6/8	150	In plastic stand		101

54353 Pin punch with hand protection DIN 6450

Design
With ergonomically shaped handle and extensive hand protection.
Octagonal, tempered hammer head, shaft painted gold.

Quality
Chromium-vanadium air-hardening steel, forged.

54353 101 54353 102

Set contents	Tip Ø mm	Design	54353	...
5 pieces	2/3/4/5/6	In plastic case		101
5 pieces	8/10/12/14/16	In cardboard box		102

Tip Ø mm	Shaft Ø mm	Total length mm	54353	...
2	10	150		201
3	10	150		202
4	10	150		203
5	10	150		204
6	10	150		205
8	10	150		206
8	14	225		207
10	14	240		208
12	14	260		209
14	18	275		210
16	18	290		211

54353 201-206

54353 207-211

54351 - 54352 Pin punch with handle

Design
Dampening handle, very easy to grip and ergonomic, with finger protection, resistant to temperature fluctuations. The head is hardened to 43 HRc to prevent splintering.
The tip is hardened to 58 HRc.
Gripping comfort and shock-absorbing properties result in high precision and more strength.

54351

Set contents	Tip Ø mm	54351	...
7 pieces	1.9/2.9/3.9/4.9/5.9/7.9/9.8		102

Tip Ø mm	Shaft Ø mm	Total length mm	54352	...
1.95	8	140		101
2.95	8	150		102
3.95	10	190		103
4.95	10	200		104

Tip Ø mm	Shaft Ø mm	Total length mm	54352	...
5.90	12	210		105
7.90	12	216		106
9.80	14	230		107

54359 Pin punch with guide sleeve in a set

Design
With knurled, nickel-plated **guide sleeves.**
Applications
Attach the tip with the guide sleeve pushed completely forward. When the pin is driven in, the guide sleeve pushes back to provide continuous support for the tip.

Quality
Chromium-vanadium steel, high-gloss polished.

Note:
*Tips Ø 5.9 mm **without** guide sleeve.*

54359

Set contents	Tip Ø mm	Design	54359 ...
8 pieces	0.9/1.4/1.8/2.4/2.8/3.4/3.9/5.9	In sheet metal box	101

54364 Pin punch with guide sleeve in a set

Design
Finely smoothed and polished drive points, with knurled, nickel-plated **guide sleeves.**
Applications
Attach the tips with the guide sleeve pushed completely forward. When the pin is driven in, the guide sleeve pushes back to provide continuous support for the tip.

Quality
Vanadium-extra steel, nickel-plated and chrome-plated.

Note:
*Tips Ø 6.0 mm **without** guide sleeve.*

54364

Set contents	Tip Ø mm	Design	54364 ...
8 pieces	0.9/1.4/1.8/2.4/2.8/3.4/3.9/6.0	In plastic stand	101

54380 Pin punch DIN 6450 C

Design
Octagonal, tempered hammer head, shaft painted gold.

Quality
Chromium-vanadium air-hardening steel, forged.

54380

Tip Ø mm	Shaft Ø mm	Total length mm	54380 ...
2	10	150	101
3	10	150	102
4	10	150	103
5	10	150	104
6	10	150	105

Tip Ø mm	Shaft Ø mm	Total length mm	54380 ...
7	12	150	106
8	12	150	107
10	12	150	108
12	14	150	109

54382 Mechanic's pin punch

Design
Knurled shaft. Zinc-chromated.

54382

Tip Ø mm	Shaft Ø mm	Total length mm	54382 ...
2	6	105	102
3	8	110	103
4	8	115	104
5	8	120	105

Tip Ø mm	Shaft Ø mm	Total length mm	54382 ...
6	10	125	106
7	10	130	107
8	12	135	108
9	12	140	109

54383 Pin punch DIN 6450 D

Design
Octagonal, finely smoothed and polished drive points, with plastic hand protection.

Quality
Vanadium-extra steel, nickel-plated.

54383

Tip Ø mm	Shaft Ø mm	Total length mm	54383 ...
2	8	115	101
3	8	125	102
4	10	150	103

Tip Ø mm	Shaft Ø mm	Total length mm	54383 ...
5	10	165	104
6	12	180	105
8	12	200	106

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54385 - 54390 Pin punch

Design
With knurled, nickel-plated **guide sleeve.**
Applications
Attach the tip with the guide sleeve pushed completely forward. When the pin is driven in, the guide sleeve pushes back to provide continuous support for the tip.

Note:
*Tip Ø 5.9 and 6.0 mm **without** guide sleeve.*

54385
Quality
Chromium-vanadium steel, zinc-chromated.

54385

54390
Quality
Vanadium-extra steel, nickel-plated and chrome-plated.

54390

Tip Ø mm	Total length approx. mm	54385	...	54390	...
0.9	75		101		101
1.4	85		102		102
1.8	85		103		103
2.4	90		104		104
2.8	95		105		105
3.4	95		106		106
3.9	100		107		107
5.9	100		108		
6.0	100				108

54592 Tool set

Design
Safety zone thanks to electro-inductive special hardening. Tempered hammer head.
Quality
Chromium-vanadium air-hardening steel, forged.

Set contents	
2 flat chisels	125/150 mm
1 cross-cut chisel	125 mm
1 centre punch	120 mm
2 drifts	2/3 mm

54592

Set contents	Design	54592	...
6 pieces	in sheet-metal box		101

54601 Flat chisel DIN 6453

Design
Flat-oval, forged, painted shaft, blade can be fully sharpened, tempered hammer head.
Safety zone thanks to electro-inductive special hardening. Smoothed and painted blade.

Quality
Chrome-vanadium air-hardening steel.

54601

Blade width mm	Shaft size mm	Total length mm	54601	...
15	14 x 9	100		101
18	14 x 9	125		102
18	17 x 11	150		103
21	20 x 12	175		104
24	23 x 13	200		105
25	23 x 13	250		106
26	23 x 13	300		107

54605 Cross-cut chisel DIN 6451

Design
Flat-oval, forged, painted shaft, blade can be fully sharpened, tempered hammer head.
Safety zone thanks to electro-inductive special hardening. Smoothed and painted blade.

Quality
Chrome-vanadium air-hardening steel.

54605

Blade width mm	Shaft size mm	Total length mm	54605	...
5.5	14 x 9	125		102
6.0	17 x 11	150		103
7.0	17 x 11	175		104
8.0	20 x 12	200		105
9.0	23 x 13	250		106
9.0	23 x 13	300		107

54620 Grooving chisel DIN 6455

Design
Octagonal, painted shaft, tempered hammer head.

Quality
Chrome-vanadium air-hardening steel.

54620

Blade width mm	Shaft Ø mm	Total length mm	54620	...
3	10	150		102
4	10	150		103
5	10	150		104

54622 Paring chisel (parting chisel)

Design
Two blades with all-round clearance angle.
Octagonal, painted shaft, tempered hammer head.
Applications
For removing webs between bore holes.

Quality
Chrome-vanadium air-hardening steel.

Note:
The shape of the twin blade prevents deformation or compressions on the workpiece.

54622

Blade width mm	Shaft Ø mm	Total length mm	54622 ...
2	10	125	**101**
3	10	125	**102**

Blade width mm	Shaft Ø mm	Total length mm	54622 ...
4	12	150	**103**
5	12	150	**104**

54623 Slitting chisel with curved working end

Design
Working end curved 25° — allowing you to work safely because your hands have more freedom. Optimum cutting geometry. **Additional side blade for slitting and parting.** Inductively finished hammer head. Blades can be sharpened. Working end painted. Shaft painted gold.

Applications
For mortising, parting and slitting.
Quality
Chromium-vanadium steel, fully tempered steel according to DIN 7255.

54623

Shaft size mm	Total length mm	54623 ...
26 x 7	240	**101**

54624 Slitting chisel

Design
Forged, tempered hammer head, shaft painted gold, blade smoothed and painted.

Applications
For metal work and stone work.
Quality
Chrome-vanadium air-hardening steel.

54624

Blade width mm	Shaft size mm	Total length mm	54624 ...
26	26 x 7	240	**102**

54625 Electrician's slitting chisel

Design
2 blades, forged,
tempered hammer head, painted gold,
blade smoothed and painted.

Scope of delivery:
- Incl. hand protection
Quality
Chrome-vanadium air-hardening steel.

54625

Blade width mm	Shaft size mm	Total length mm	54625 ...
34	23 x 13	250	**202**

54650 Point chisel DIN 7256

Design
Octagonal, forged, tempered hammer head,
shaft painted gold,
blade smoothed and painted.

Quality
Chrome-vanadium air-hardening steel.

54650

Shaft Ø mm	Total length mm	54650 ...
16	200	**101**
16	250	**102**
18	300	**103**

Shaft Ø mm	Total length mm	54650 ...
20	400	**104**
20	500	**105**

54656 Stone chisel DIN 7254 B

Design
Octagonal, forged, tempered hammer head,
shaft painted gold,
blade smoothed and painted.

Quality
Chrome-vanadium air-hardening steel.

54656

Blade width mm	Shaft Ø mm	Total length mm	54656 ...
23	16	200	**101**
23	16	250	**102**
26	18	300	**103**

Blade width mm	Shaft Ø mm	Total length mm	54656 ...
30	20	400	**104**
30	20	500	**105**

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54665 Electrician's stone chisel

Design
Forged, tempered hammer head, shaft painted gold, blade smoothed and painted.

Quality
Chrome-vanadium air-hardening steel.

54665

Blade width mm	Shaft Ø mm	Total length mm	54665	...
10	8	200		**201**
10	8	250		**203**
12	10	200		**202**

Blade width mm	Shaft Ø mm	Total length mm	54665	...
12	10	250		**204**
14	12	300		**205**

54680 Chisel hand guard

54680 101

Applications
- For universal use
- For flat-oval chisel 20x12 mm to 26x13 mm
- For octagonal chisel 16–18 mm

54680 102

Design
- Made of PVC
- Thanks to a larger and double guard plate, maximum safety for the hand in the event of mishits
- Ergonomic design
- Avoids hand injuries
- Will not roll away thanks to the oval shape
- Rebound impacts are not transferred to the hand
- Your hands do not become fatigued - safe and secure grip maintained

Applications
- Suitable for all chisels with min. length 250 mm
- For oval chisels 20x12, 23x13, 26x13, 26x7 mm
- For octagonal chisels 14, 16, 18, 20 mm

54680 101

54680 102

Total length mm	Width mm	Height mm	54680	...
110	85	85		**101**
120	85	85		**102**

54812 Rivet extractor set DIN 6434

Design
Octagonal, hammer head secured.

Quality
Chrome-vanadium air-hardening steel.

54812

Set contents	For rivet shank Ø mm	Design	54812	...
5 pieces	2/3/4/5/6	In plastic box		**105**

54814 Rivet header set DIN 6435

Design
Octagonal, hammer head secured.

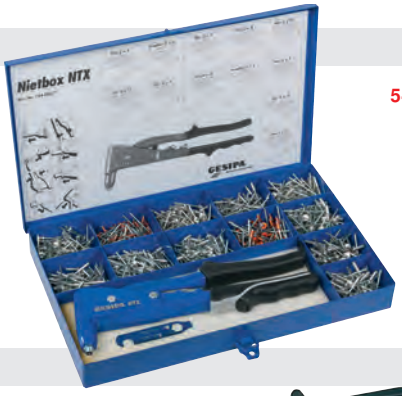
Quality
Chrome-vanadium air-hardening steel.

54814

Set contents	For rivet shank Ø mm	Design	54814	...
5 pieces	2/3/4/5/6	In plastic box		**105**

54820 Blind rivet assortment

54820



	Set contents
1	**Hand rivet tool model NTX** (art. no. 54825)
12	**Blind rivet dimensions** 3 and 4 mm Ø, made of various materials

Version	54820	...
In metal case		**101**

54821 - 54823 Mechanical hand rivet tools

Design
With opening spring, 4 mouthpieces size 2.4/3.2/4.0/4.8 mm and installation key.

54821
Design
With narrow pliers head.

54823
Design
Pliers head can be swivelled by 360°.
Applications
Simple and quick adjustment in any desired angle, can therefore also be used in hard-to-reach places.

54821

54823

For rivet Ø mm	Length mm	54821	...	54823	...
2.4 - 4.8	260		**101**		
2.4 - 4.8	300				**101**

54824 Hand rivet tool Flipper®/Flipper® box

GESIPA

Applications
Blind rivets up to 5 mm aluminium and 4 mm steel and stainless steel.

54824 101
Hand rivet tool Flipper®
Design
True one-handed operation, around 40% less manual force required. **With riveting mandrel collection container.**

54824 102
Hand rivet tool set Flipper® box
Design
Supplied in a case with 3 types of PolyGrip® multi-range blind rivets that replace up to 5 dimensions of standard rivets.

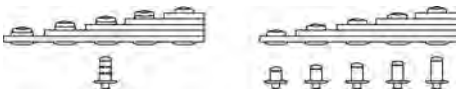
54824 101

54824 102

	Set contents 54824 102:
1 piece	**Hand rivet tool Flipper®**
1 packet	**PolyGrip® multi-range blind rivets** 3.2 x 8 mm
1 packet	**PolyGrip® multi-range blind rivets** 4.0 x 10 mm
1 packet	**PolyGrip® multi-range blind rivets** 4.8 x 10 mm
1 piece	**Plastic case**

	For rivet Ø up to mm	Rivet Ø x shaft length mm	Riveted material thickness mm	Pack = unit	54824 ...
Hand rivet tool	5	-	-	-	101
Hand rivet tool set	5	-	-	-	102
Blind rivets PolyGrip®	-	3.2 x 8	0.5–5.0	100	201
Blind rivets PolyGrip®	-	4.0 x 10	0.5–6.5	100	203
Blind rivets PolyGrip®	-	4.8 x 10	0.5–6.5	50	205

54824 201-205



3.2x8	replaces	3.2x4	3.2x6		3.2x8				
4.0x10	replaces	4.0x5	4.0x6	4.0x7	4.0x8	4.0x10			
4.8x10	replaces		4.8x6		4.8x8	4.8x10			

54825 - 54827 Mechanical hand rivet tools NTX/HN 2

GESIPA

54825
Model NTX
Design
Narrow pliers head, favourable force transmission ratio, with 3 mouthpieces size 3.2/4.0/5.0 mm and installation key.
Applications
Blind rivets up to 5 mm aluminium and 4 mm steel and stainless steel.
Quality
Pliers shanks made of chromium-vanadium steel. Housing made of die-cast aluminium.

54827
HN 2
Design
With 5 mouthpieces size 4.0/4.8/5.0/6.0/6.4 mm.
Applications
For all materials up to 6.4 mm rivet Ø except PolyGrip® stainless steel and G-Bulb.
Quality
Housing made of die-cast aluminium.

Note:
Replacement mouthpieces available on request.

54825

54827

		NTX		HN 2	
For rivet Ø mm	Length mm	54825	...	54827	...
3.2 - 5.0	260		101		
4.0 - 6.4	570				201

54834 Pneumatic-hydraulic blind rivet guns TAURUS®

GESIPA

Design
Patented gripping mechanism with forcibly actuated gripping jaws and pneumatic pressure:
A very long service life, safe and non-slip grip for riveting mandrels.
High placement forces at a low weight, fast work cycle, optimised stroke.
Low air consumption due to the dual use of air for setting and extracting the rest of the mandrel as well as switchable suction by means of lockable sliding switch.

Work comfort and safety:
- User-friendly rubberised handle
- Balanced centre of gravity
- Low-vibration and sound-proof
- Low actuating force
- **Mandrel collecting container** with integrated protection device and rotatable air deflector
- Pressure relief valve to prevent overload

54834

Art. no.	Type	Mouthpiece in working position	Mouthpieces on the bottom of the device	Aluminium/steel up to Ø mm	All materials up to Ø mm
54834 101	TAURUS® 1	17/18	17/20 and 17/22	4.0	-
54834 102	TAURUS® 2	17/24	17/27, 17/29 and 17/32	6.0	5.0
54834 103	TAURUS® 3	17/36	17/40 and 17/45	-	6.4

	Air consumption/riveting operation approx. ltr.	Operating pressure bar	Device stroke mm	Setting force (5 bar) N	Hose connection Ø mm	Weight kg	54834 ...
TAURUS® 1	1.0	5–7	15	5500	6 (1/4 inch)	1.3	101
TAURUS® 2	2.3	-	18	11000	6 (1/4 inch)	1.6	102
TAURUS® 3	4.8	5–7	25	18000	6 (1/4 inch)	1.9	103

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54829 Cordless blind riveters AccuBird® and PowerBird®

GESIPA

Design
- Balanced centre of gravity
- User-friendly handle
- Disposal of the broken-off riveting mandrels by force of gravity: forwards through the mouthpiece or backwards into the collection container
- Immediate return to the starting position after the riveting operation

54829 201
Scope of delivery:
- **AccuBird®** in a case
- Quick-change battery 14.4 V/1.3 Ah lithium-ion
- Charger
- 4 interchangeable mouthpieces

Working area:
Blind rivets up to Ø 5.0 mm for all materials. BULB-TITE® blind rivets Ø 4.0 mm, 5.2 mm and 6.3 mm aluminium and steel.

54829 200
Scope of delivery:
- **PowerBird®** in a case
- Power battery 14.4 V/2.6 Ah lithium-ion
- Charger
- 4 interchangeable mouthpieces

Working area:
Blind rivets from Ø 4.8 mm steel, up to Ø 8.0 mm aluminium and up to Ø 6.4 mm for all materials, except G-Bulb Ø 6.4 mm. BULB-TITE® blind rivets Ø 7.7 mm for all materials. MEGA GRIP® blind rivets up to Ø 6.4 mm for all materials.

54829 220
Quick-change lithium-ion battery 14.4 V/1.3 Ah
Applications
For blind riveters
- **AccuBird®** (art. no. 54829 201)
- **PowerBird®** (art. no. 54829 200)
- **FireBird®** (art. no. 54860 101)

54829 221
Lithium-ion power battery 14.4 V/2.6 Ah
Applications
For blind riveters
- **AccuBird®** (art. no. 54829 201)
- **PowerBird®** (art. no. 54829 200)
- **FireBird®** (art. no. 54860 101)

54829 201

54829 220

54829 200

54829 221

	Setting force N	Working stroke mm	Equipment Mouthpieces	Weight kg	54829 ...
AccuBird®	10000	20	17/24, 17/27, 17/29, 17/32	2.0	201
PowerBird®	14000	20	17/32, 17/36, 17/40, 17/45	2.2	200
Battery 14.4 V/1.3 Ah	-	-	-	0.35	220
Battery 14.4 V/2.6 Ah	-	-	-	0.60	221

54828 Cordless blind riveters AccuBird® Pro and PowerBird® Pro

GESIPA

Design
- Balanced centre of gravity
- User-friendly handle
- Disposal of the broken-off riveting mandrels by force of gravity: forwards through the mouthpiece or backwards into the collection container
- Immediate return to the starting position after the riveting operation

54828 302
Scope of delivery:
- **AccuBird® Pro** in a case
- Sliding battery 18.0 V/2.1 Ah lithium-ion
- Charger
- 4 interchangeable mouthpieces

Working area:
Blind rivets from Ø 2.4 mm aluminium, up to Ø 5.0 mm for all materials and up to Ø 6.0 mm aluminium. BULB-TITE® blind rivets up to Ø 4.0 mm and Ø 5.2 mm aluminium and steel.
G-Bulb blind rivets up to Ø 4.8 mm for all materials.

54828 300
Scope of delivery:
- **PowerBird® Pro** in a case
- Sliding battery 18.0 V/2.1 Ah lithium-ion
- Charger
- 4 interchangeable mouthpieces

Working area:
Blind rivets from Ø 4.8 mm steel, up to Ø 6.4 mm for all materials and up to Ø 8.0 mm aluminium, except G-Bulb Ø 6.4 mm.
BULB-TITE® blind rivets up to Ø 7.7 mm all materials.
MEGA GRIP® blind rivets up to Ø 6.4 mm all materials.

54828 301
Scope of delivery:
- **PowerBird Pro® Gold Edition** in a case
- Sliding battery 18.0 V/2.1 Ah lithium-ion
- Charger
- 4 interchangeable mouthpieces
- **In addition: Compression socket for smaller blind rivet dimensions**

Working area:
Blind rivets up to Ø 6.4 mm for all materials and up to Ø 8.0 mm aluminium.
BULB-TITE® blind rivets up to Ø 7.7 mm all materials.
MEGA GRIP® blind rivets up to Ø 6.4 mm all materials.

54828 303
Sliding lithium-ion battery 18.0 V/2.1 Ah
Applications
For blind riveters
- **AccuBird® Pro** (art. no. 54828 302)
- **PowerBird® Pro** (art. no. 54828 300)
- **PowerBird® Pro Gold Edition** (art. no. 54828 301)

54828 302

54828 300

54828 301

54828 303

	Setting force N	Working stroke mm	Equipment Mouthpieces	Weight kg	54828 ...
AccuBird® Pro	10000	25	17/24, 17/27, 17/29, 17/32	2.0	302
PowerBird® Pro	15000	25	17/32, 17/36, 17/40, 17/45	2.0	300
PowerBird® Pro Gold Edition	20000	25	17/32, 17/36, 17/40, 17/45	2.0	301
Battery 18.0 V/2.1 Ah	-	-	-	0.4	303

54835 Cordless blind rivet setting tool iBird® Pro

GESIPA

54835 101

Advantage
- For smartphone, tablet, PC
- Easy pairing of the device with the app via QR code
- Data available anywhere and any time
- Andon ring for visualisation of the riveting processes
- Optional connection with three mobile end devices simultaneously
- Optional setting process assistant available as Premium Software

Working area
Blind rivets from 2.4 mm aluminium/steel*
up to 6.4 mm for all materials,
up to 8 mm aluminium, except G-Bulb® 6.4 mm.
BULB-TITE® up to 7.7 mm for all materials.
MEGA GRIP® up to 6.4 mm for all materials.

* Please make sure you use the correct compression socket according to the operating instructions

Scope of delivery:
- iBird® Pro
- Sliding battery, 18.0 Volt/2.1 Ah
- Charger 18.0 V lithium-ion
- 30-day trial version: Setting process assistant
- Mouthpieces 17/32, 17/36, 17/40, 17/45
- Quick user guide
- Operating instructions
- Plastic case

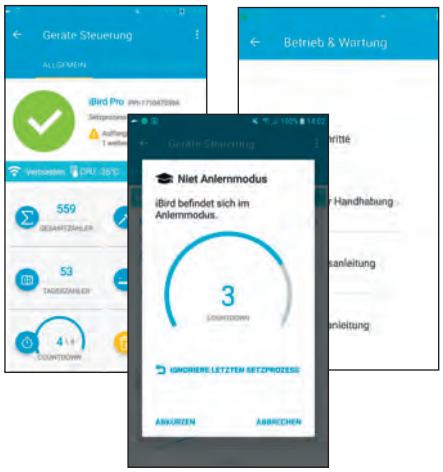
NEW

54835 101

Andon ring
The iBird® Pro has a signal ring for visualising the riveting processes. The colours can be set individually via the app.

Simple scanning of the GESIPA® app

GESIPA® app – all data at a glance
- Various counters: Total, day and set counters, countdown, OK*, NOK*.
- Fill level display, service display (collection container, clean and oil chuck jaws, full service)
- Optional setting process assistant*
- Check of the battery charge state, battery temperature and the temperature of the device control
- Maintenance instructions, maintenance history
- Fault message, fault history, confirmation history
- Tips and tricks
- Operating instructions



54835 102

54835 102
***Premium Software (setting process assistant)**
- Setting process evaluation with error detection, message in the app and through the Andon ring (signal ring lights up depending on the setting process evaluation and colour setting)
- Teaching mode for learning the rivet configurations
- Creation of job lists for processing different rivet configurations

	Wireless connection	Drive	Setting stroke mm	Setting force N	Weight incl. battery kg	54835	...
Cordless blind rivet setting tool iBird® Pro	WiFi 2.4/5.0 GHz and Bluetooth	18 V DC direct current motor	25	15000	2.0		101
Setting process assistant for iBird® Pro	-	-	-	-	-		102

54829 Retaining mouthpieces for blind riveters AccuBird® and PowerBird®

GESIPA

Design
- Plugged rivet holds in any position
- Set rivets with just one hand
- More safety when working

Applications
For blind riveters
- **AccuBird®** (art. no. 54829 201)
- **PowerBird®** (art. no. 54829 200)
- **AccuBird® Pro** (art. no. 54828 302)
- **PowerBird® Pro** (art. no. 54828 300)
- **PowerBird® Pro Gold Edition** (art. no. 54828 301)

54829 205-210

	54829	...
Mouthpiece 17/18R		205
Mouthpiece 17/24R		206

	54829	...
Mouthpiece 17/27R		207
Mouthpiece 17/29R		208

	54829	...
Mouthpiece 17/32R		209
Mouthpiece 17/36R		210

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54830 Aluminium blind rivet with round pan head

GESIPA

Design
- Hollow rivet: Aluminium alloy
- Riveting mandrel: Zinc-plated steel

54830

Rivet Ø x shaft length mm	Clamping length mm	Drill Ø mm	Shearing strength kp	Pack = pieces	54830	...
2.4 x 4	0.5–1.5	2.5	35	1000		**101**
3.0 x 5	1.5–2.5	3.1	71	500		**105**
3.0 x 6	2.5–3.5	3.1	71	500		**106**
3.0 x 8	4.5–5.0	3.1	71	500		**108**
3.0 x 10	5.0–7.0	3.1	71	500		**109**
3.0 x 12	7.0–9.0	3.1	71	500		**110**
4.0 x 6	1.5–3.0	4.1	143	500		**118**
4.0 x 8	4.0–5.0	4.1	143	500		**120**
4.0 x 10	5.0–6.5	4.1	143	500		**121**
4.0 x 12	6.5–8.5	4.1	143	500		**122**
4.0 x 16	10.5–12.5	4.1	87	500		**123**
5.0 x 8	2.5–4.5	5.1	204	500		**127**
5.0 x 10	4.5–6.0	5.1	204	500		**128**
5.0 x 12	6.0–8.0	5.1	204	500		**129**
5.0 x 16	10.0–12.0	5.1	204	500		**131**
6.0 x 12	5.0–7.0	6.1	316	250		**237**

54831 Aluminium Nirosta blind rivets with round pan head

GESIPA

Design
- Hollow rivet: Aluminium alloy
- Riveting mandrel: A2 stainless steel

54831

Rivet Ø x shaft length mm	Clamping length mm	Drill Ø mm	Shearing strength kp	Pack = pieces	54831	...
3 x 6	1.5–3.5	3.1	71	500		**102**
3 x 8	3.5–5.0	3.1	71	500		**105**
3 x 10	5.0–7.0	3.1	71	500		**106**
4 x 6	1.5–3.0	4.1	143	500		**112**
4 x 8	3.0–5.0	4.1	143	500		**114**
4 x 10	5.0–6.5	4.1	143	500		**115**

54832 Steel blind rivets with round pan head

GESIPA

Design
- Hollow rivet: Zinc-plated steel
- Riveting mandrel: Zinc-plated steel

54832

Rivet Ø x shaft length mm	Clamping length mm	Drill Ø mm	Shearing strength kp	Pack = pieces	54832	...
3 x 5	0.5–2.0	3.1	102	500		**101**
3 x 6	2.0–3.0	3.1	102	500		**103**
3 x 10	5.0–6.5	3.1	102	500		**105**
4 x 8	2.5–4.5	4.1	204	500		**113**
4 x 10	4.5–6.5	4.1	204	500		**114**
4 x 12	6.5–8.5	4.1	204	500		**115**

54833 Stainless steel blind rivets with round pan head

GESIPA

Design
- Hollow rivet: A2 stainless steel
- Riveting mandrel: A2 stainless steel

54833

Rivet Ø x shaft length mm	Clamping length mm	Drill Ø mm	Shearing strength kp	Pack = pieces	54833	...
3 x 6	1.0–3.0	3.1	163	500		**101**
3 x 8	3.0–5.0	3.1	163	500		**102**
4 x 6	1.0–2.5	4.1	275	500		**105**
4 x 10	4.5–6.5	4.1	275	500		**106**

54836 Aluminium/steel blind rivets with round pan head

GESIPA

Washer-shaped closing head
This high-quality closing head shape distributes the contact pressure evenly over the component, making it the perfect connector for riveting soft and brittle components such as plastics and composite materials. The PolyBulb® blind rivet achieves a highly aesthetic setting pattern.

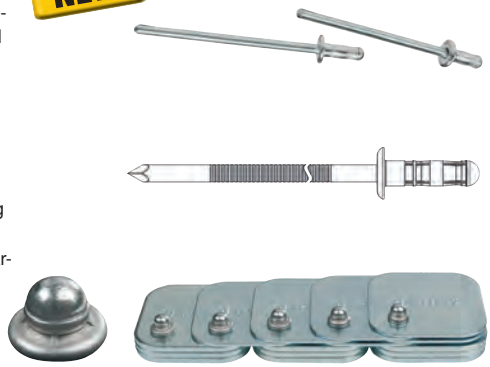
Large clamping range
A PolyBulb® blind rivet replaces up to three conventional blind rivets and reduces the variety of different parts. The combination of several dimensions saves handling and storage costs and sustainably reduces the risk of confusion at the workplace and subsequent quality problems.

Controlled bearing stress
Thanks to a bore hole filling adapted to the requirements, the PolyBulb® blind rivet creates an optimal connection.

Advantage
- Large clamping area
- Washer-shaped closing head formation with a large closing head Ø
- Aesthetic setting pattern, only one distinct closing head
- High tensile strength and pop-out force (particularly in the case of plastic material to be joined)
- Controlled bearing stress
- Excellent clamping properties
- Locked remaining rivet mandrel
- Rattle-free use
- Process can be controlled

NEW

54836



Rivet Ø x shaft length mm	Pack = pieces	54836 ...
4.8 x 11	500	101
4.8 x 16	500	102

54848 Blind rivet nut assortment

GESIPA

Design
- Simple to adjust the stroke using the knurled nut with stroke scale for secure and complete placement of the blind rivet nut
- The threaded mandrel lock via a lock washer allows threaded mandrels to be changed quickly without a tool

Design	54848 ...
In a case	201

Set contents
1 hand rivet tool GBM 10 M 5 (art. no. 54851 102)
Threaded mandrels M 4/M 6
Mouthpieces M 4/M 6
Blind rivet nuts M 4–M 6 made of aluminium **for riveted material thicknesses** 0.25–3 mm

54848

54851 - 54856 Blind rivet nut hand tools

GESIPA

GBM 10
Design
Simple to adjust the stroke using the knurled nut with stroke scale for secure placement of the blind rivet nut. Threaded mandrel lock via a lock washer, quick change of threaded mandrels without a tool. With opening spring, steel inserts at all bearing points subject to high stress.
Handy sleeve grip.

Applications
Working area: Aluminium up to M 6, steel, brass and stainless steel up to M 5.
Quality
Housing made of die-cast aluminium, pliers shanks made of chromium-vanadium steel.

54851

54855

54856

For blind rivet nuts	Length mm	Weight kg	GBM 10 54851 ...	Threaded mandrel 54855 ...	Mouthpiece 54856 ...
M 4	260	0.6	101	101	101
M 5	260	0.6	102	102	102
M 6	260	0.6	103	103	103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

54850 Combination setting tool

GESIPA

Flipper® Plus
Advantage
- 1 device – 2 functions
- Fast conversion from blind rivet to blind rivet nut setting tool
- 40% less manual force required
- Independent mandrel ejection
- Robust and stable

Working area
Blind rivets:
Blind rivets up to 5 mm Ø aluminium and 4 mm Ø steel and stainless steel.

Blind rivet nuts:
Sets blind rivet nuts from M4 to M6 aluminium and from M4 to M5 steel.

Scope of delivery:
- Flipper® Plus
- Mouthpieces 12/20, 12/24, 12/29, 12/M4, 12/M5 and 12/M6
- Conversion kit for threaded mandrel M4, M5 and M6
- 1 installation key (on collection container)
- 1 hexagonal socket wrench
- 1 chuck jaw insertion aid
- Storage box
- Maintenance instructions with spare part list
- Operating instructions
- Stroke table
- Plastic carrying case

NEW

54850

Fast conversion: converted in less than 1 minute with just a few steps

1. Removal
Removal of the parts shown in the illustration

2. Installation
Installation of the threaded mandrel and mouthpiece

3. Converted
Converted as a blind rivet nut setting tool

Total length mm	Total stroke mm	Single stroke mm	Weight g	Case dimensions mm	Case weight approx. kg	Design	54850	...
217	16.2	1.8	750	340 x 275 x 56	1.6	In a sturdy plastic carrying case		**101**

54853 Blind rivet nut hand tools

GESIPA

GBM 40-R/50
Advantage
- Threaded mandrels and mouthpieces can be changed quickly and without tools

Scope of delivery:
- Mouthpieces/threaded mandrels M5, M6, M8, M10
- 1 installation key
- Operating instructions
- Plastic carrying case

Accessories:
- Conversion kit for blind rivet studs (M4 to M8)
- Threaded mandrels and mouthpieces (M3, M4, M12)

Working area:
Blind rivet nuts from M3 to M10 for all materials and M12 aluminium and steel.
Blind rivet studs from M4-M8*.

* Corresponding conversion kit required

54853 101
Advantage
- Compact design
- Good accessibility to workpiece
- Low weight
- Very good power transmission thanks to ratchet function
- Mouthpieces and threaded mandrels compatible with GBM 50

Scope of delivery:
- GBM 40-R

54853 102
Advantage
- Quick drill setup
- Quick and easy drilling on and off of the blind rivet nuts
- Low effort thanks to large lever
- Mouthpieces and threaded mandrels compatible with GBM 40-R

Scope of delivery:
- GBM 50

NEW

54853 101

54853 102

Total length mm	Weight kg	Case dimensions mm	Weight with case approx. kg	54853	...
212	1.25	270 x 201 x 70	1.9		**101**
485	2.40	535 x 290 x 50	3.8		**102**

54858 Pneumatic-hydraulic blind rivet nut setting tool

GESIPA

54858 108
FireFox® 2

Design
The **FireFox® 2** can be controlled either via stroke adjustment or via setting force adjustment. The latter in particular protects the material to be joined as well as the thread, and ensures safe anchoring of the blind rivet nut and high process reliability. The choice of whether to control the tool by the stroke or the setting force depends on the length of the blind rivet nut and thickness of the material to be joined. Blind rivet nut sizes with the same or varying length in different thicknesses of material to be joined requires a setting force adjustment. If the same blind rivet nut size and length is always set with the same thicknesses of material to be joined, the tool can be used with a constant setting stroke.

Advantage
- Fast and precise **presetting of the setting force** through colour-coded setting ring **(Fig. 1)**
- **New stroke scale** can be set easily and reliably even in poor lighting conditions
- **Maximum stroke** clearly recognisable through marking with a blue ring on the stroke scale **(Fig. 2)**
- **Restrictor plate:** Even safer and more gentle setting through the automatic restrictor from M3 blind rivet nuts
- **Sealing rings made of PTFE:** Improved service life of the control spool thanks to sealing rings made of PTFE and optimised control bore holes

Scope of delivery:
- 2 double open-end wrenches, size 24/27 mm
- 4 threaded mandrels (M4, M5, M6 and M8) *
- 4 mouthpieces (M4, M5, M6 and M8) *
- 1 hexagon screwdriver, size 4 mm
- 1 refill bottle with hydraulic oil, 100 ml
- 1 oil refill container
- 1 operating instructions with spare parts list
- 1 quick setting guide

* More threaded mandrels and mouthpieces are available as special accessories.

Applications
Sets blind rivet nuts from M3 to M10 for all materials as well as M12 in aluminium and steel.

54858 201-207
Threaded mandrels

54858 301-307
Mouthpieces

54858 108

(1)

(2)

For blind rivet nuts	FireFox® 2 54858 ...	Threaded mandrel 54858 ...	Mouthpiece 54858 ...
M 4/M 5/M 6/M 8	108		
M 3		201	301
M 4		202	302
M 5		203	303
M 6		204	304
M 8		205	305
M 10		206	306
M 12		207	307

Technical data	art. no. 54858 108
Weight:	2.4 kg
Setting stroke, adjustable:	max. 10 mm
Setting force, adjustable:	max. 22 kN at 6 bar
Operating pressure:	5 - 7 bar
Hose connection:	6 mm Ø (1/4 inch)
Air consumption:	approx. 2–4 ltr. per insertion process (dependent on the nut size)

54859 FireFox® special accessories box

GESIPA

Design
The box contains threaded mandrels and mouthpieces for metric threads.

Applications
For pneumatic-hydraulic blind rivet nut setting tool FireFox® 2 (art. no. 54858 108).

	Set contents
7	**Threaded mandrels** M3/M4/M5/M6/M8/M10/M12
7	**Mouthpieces** M3/M4/M5/M6/M8/M10/M12

Design	54859 ...
In a box	101

54859

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

GESIPA

54860 101
FireBird®
Design
The safe one
- For untwisting blind rivet nuts with optimised torque and automatic cut-out
- Triggering of the insertion process is functionally separate from the untwisting process
- Automatic drilling function after completion of the insertion process
- Drilling of the threaded mandrel with high torque
- Robust and compact with impact-resistant housing

The ergonomic one
- Effortless work thanks to balanced centre of gravity and user-friendly handle
- Easy stroke adjustment

The fast one
- Simple and secure untwisting of the blind rivet nuts
- Consistent insertion speed
- Automatic switchover from insertion to drilling
- Quick-change system for threaded mandrels

With lithium-ion energy
- No memory effect:
- High energy density due to high voltage situation
- Low weight allows extremely light and fast work
- Very low self-discharge
- Battery shape enables the device to be placed on the battery

Scope of delivery:
- **FireBird®** in a case
- Quick-change battery 14.4 V/1.3 Ah lithium-ion
- Charger
- Threaded mandrel and mouthpiece M 6 (in working position)
- Hexagon socket wrench
- 1 each of M 4 and M 5 threaded mandrel and mouthpiece
- Double open-end wrench, size 24/27 mm

Applications
For flexible, wireless use on construction sites and in industrial production.

Note:
For replacement quick-change batteries, see art. no. 54829 220 and 221.

54860 103
FireBird® Pro
Design
Powerful. Fast. Child's play!
Sets blind rivets up to M8 steel!
Advantage
- LED input field: Easy operation thanks to simple adjustment of the setting force, including 10 memory slots
- Brushless motor: fast, strong and durable
- Sets up to 1200 blind rivet nuts with one battery charge
- Sets blind rivet nuts to M10 aluminium, M8 steel and M6 stainless steel
- Setting stroke 10.0 mm
- Automatic drilling operation
- Quick-change system for threaded mandrels
- Consistent setting speed for a defined setting force
- Robust and compact with impact-resistant housing

Scope of delivery:
FireBird® Pro
- Sliding battery, 18.0 Volt/2.1 Ah
- Charger 18.0 V lithium-ion
- Plastic case
- Quick setting guide
- Setting force guide
- Threaded mandrel and mouthpieces M4, M5 and M6 (further dimensions available as special accessories)
- Hexagon socket wrench
- Double open-end wrench, size 24/27 mm
- Operating instructions

54860 104
FireBird® Pro Gold Edition
Design
Strong. Fast. Child's play!
Sets blind rivets up to M12 steel!
Advantage
- LED input field: Easy operation thanks to simple adjustment of the setting force, including 10 memory slots
- Brushless motor: fast, strong and durable
- Sets up to 1200 blind rivet nuts with one battery charge
- Setting stroke 10.0 mm
- Automatic drilling operation
- Quick-change system for threaded mandrels
- Consistent setting speed for a defined setting force
- Robust and compact with impact-resistant housing

Scope of delivery:
- **FireBird® Pro Gold Edition**
- Sliding battery, 18.0 Volt/2.1 Ah
- Charger 18.0 V lithium-ion
- Plastic case
- Quick setting guide
- Setting force guide
- Threaded mandrel and mouthpieces M6, M8 and M10 (further dimensions available as special accessories)
- Hexagon socket wrench
- Double open-end wrench, size 24/27 mm
- Operating instructions

54861 201-206
Threaded mandrels

54861 301-306
Mouthpieces

54860 101

54860 103

54860 104

54861 201-206

For blind rivet nuts	Threaded mandrel 54861 ...	Mouthpiece 54861 ...
M 3	201	301
M 4	202	302
M 5	203	303
M 6	204	304
M 8	205	305
M 10	206	306

	Setting force N	Weight with battery kg	Blind rivet nut up to aluminium/steel/stainless steel	Design	54860 ...
FireBird®	13000	2.1	M10/M8/M6	In a case	101
FireBird® Pro	15000	2.3	M10/M8/M6	In a case	103
FireBird® Pro Gold Edition	20000	2.3	-/M12/-	In a case	104

54862 Blind rivet nuts with flat head

GESIPA

54862

Design
- Knurled, ensures good torsion resistance
- Steel, zinc-plated

Thread	Single-rivet shank D x L mm	Riveted material thickness mm	Drill Ø mm	Pack = pieces	54862	...
M 4	6 x 11.0	0.25–3.0	6.1	500		201
M 4	6 x 13.0	2.5–4.5	6.1	500		202
M 5	7 x 11.5	0.25–3.0	7.1	500		203
M 5	7 x 13.5	2.5–5.0	7.1	500		204
M 6	9 x 15.5	0.25–3.5	9.1	250		305
M 6	9 x 18.0	3.0–5.5	9.1	250		306

54863 Blind rivet nuts with small head

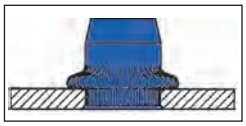
GESIPA

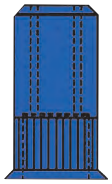
54863

Design
- Knurled, ensures good torsion resistance

Quality
Steel.

NEW





Thread	Single-rivet shank D x L mm	Pack = pieces	54863	...
M 4	6 x 12	500		101
M 5	7 x 12.5	500		102
M 6	9 x 15.5	250		103
M 6	9 x 19	250		104
M 6	9 x 22	250		105

Thread	Single-rivet shank D x L mm	Pack = pieces	54863	...
M 8	11 x 17	100		106
M 8	11 x 21	100		107
M 8	11 x 23	100		108
M 10	12 x 18	100		109
M 10	12 x 20	100		110

54864 Blind rivet nuts with countersunk head 90°

GESIPA

54864

Design
- Knurled, ensures good torsion resistance
- Steel, zinc-plated
- Round shaft, open

Thread	Single-rivet shank D x L mm	Riveted material thickness mm	Drill Ø mm	Pack = pieces	54864	...
M 4	6 x 12.0	1.5–3.5	6.1	500		301
M 4	6 x 13.5	3.0–5.0	6.1	500		302
M 5	7 x 13.5	1.5–4.0	7.1	500		303
M 5	7 x 15.5	3.5–6.0	7.1	500		304
M 6	9 x 17.0	1.5–4.5	9.1	250		405
M 6	9 x 19.0	4.0–6.5	9.1	250		406

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ATORN®

55470 100
Torque screwdriver set
Design
14 pieces, in impact-resistant plastic box with foam insert.

Set contents:
- 1 torque screwdriver 0.6–1.5 Nm
- 1 torque screwdriver 1.5–3.0 Nm
- 1 adjusting key
- 1 bit holder blade
- PH 1/2 bits, 1 of each
- PZ 1/2 bits, 1 of each
- Hexagon bits, size 2.5/3.0 mm, 1 of each
- TORX® bits T 10/15/20/25, 1 of each

55470 100

55470 101-103
Torque screwdriver
Design
Simple and precise torque adjustment. Release clearly felt and heard when the set torque is reached. 2-component handle with ergonomic grip zone. Delivery incl. adjustment wrench, certificate and instructions for use, **no** blade.

Note:
For blades, see art. no. 55470 106-136.

55470 101-103

55470 104
Adjustment wrench

55470 104

55470 105
Fastening seal

55470 127
Bit holder blade
Design
Hexagonal, 1/4 inch, for holding 1/4 inch drive bits, total length 170 mm.

55470 127

				Set		Screwdriver		Accessories	
	Adjustment range Nm	Handle length mm	Handle thickness mm	55470	...	55470	...	55470	...
Torque screwdriver set	0.6–1.5 and 1.5–3.0	105	32		100				
Torque screwdriver	0.6–1.5	105	32				101		
Torque screwdriver	1.5–3.0	105	32				102		
Torque screwdriver	3.0–5.4	105	32				103		
Adjustment wrench	-	-	-						104
Fastening seal	-	-	-						105
Bit holder blade	-	-	-						127

55470 106-126+128-136
Blades
Design
Hexagonal, 1/4 inch, total length 170 mm.

Quality
Chrome-molybdenum-vanadium alloy.

55470 115 - 126

	Blade length x thickness mm	55470	...
⊖	3.0 x 0.5		106
⊖	3.5 x 0.6		107
⊖	4.0 x 0.8		108

	Size PH	55470	...
⊕	0		109
⊕	1		110
⊕	2		111

	Size PZ	55470	...
⊕	0		112
⊕	1		113
⊕	2		114

	Size TX	55470	...
✱	6		115
✱	7		116
✱	8		117
✱	9		118
✱	10		119
✱	15		120
✱	20		133
✱	25		134

	Size IP	55470	...
✱	6		121
✱	7		122
✱	8		123
✱	9		124
✱	10		125
✱	15		126
✱	20		135
✱	25		136

	Hexagonal size mm	55470	...
⬢	1.5		128
⬢	2.0		129
⬢	2.5		130
⬢	3.0		131
⬢	4.0		132

55490 - 55491 Torque screwdriver

Design
4 mm hexagonal blade, Black Point tip and multi-component Kraftform handle with anti-roll protection.

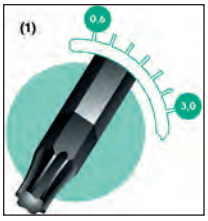
1.) Fixed **torque, preset** at the factory to the respective screw size. Audible and perceptible release when the torque is reached.
2.) **Unlimited release torque** for releasing seized screws.
3.) **Protection against manipulation** via a seal ring.
4.) **Labelling on the handle** with output symbol of the screw, size and preset torque.

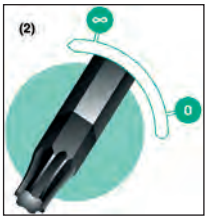
55490
Design
Single torque screwdriver.
Applications
For internal TX® screws.

55491
Design
Single torque screwdriver.
Applications
For inner TX PLUS®screws.

55490

55491





Size	Measured value Nm	Blade length mm	Total length mm	TX® (TX) 55490	...	TX PLUS® (IP) 55491	...
6	0.6	65	170		101		101
7	0.9	65	170		102		102
8	1.2	65	170		103		103
9	1.4	65	170		104		104
10	2.0	65	170		105		105
15	3.0	65	170		106		106

55492 Torque screwdriver set EN ISO 6789

1/4"

Design
With Rapidaptor quick-change chuck, Kraftform handle with anti-roll protection, multi-component.
Accuracy +/- 6%.
Applications
For 1/4 inch bits DIN 3126-C 6.3 and E 6.3.

55492 100
Design
Torque screwdriver set.

55492 101-102
Design
Single torque screwdriver.

55492 100

Set contents 55492 100:
1 torque screwdriver, 0.3–1.2 Nm (art. no. 55492 101)
1 torque screwdriver, 1.2–3.0 Nm (art. no. 55492 102)
6 bits, Hex-Plus for hexagon socket screws size 2/2.5/3/4/5/6 x 25 mm
9 bits for TX® screws TX 6/7/8/9/10/15/20/25/30 x 25 mm
9 bits for TX PLUS® screws TX 6/7/8/9/10/15/20/25/30 x 25 mm

Set contents	Design	55492	...
26 pieces	In plastic case with insert		100

55492 101-102

Chuck Inch	Adjustment range Nm	Scale interval Nm	Length mm	55492	...
1/4	0.3–1.2	0.05	155		101
1/4	1.2–3.0	0.10	155		102

55494 Torque screwdriver for EN ISO 6789 bits

1/4"

Design
With Rapidaptor quick-change chuck, Kraftform pistol grip, multi-component.
Accuracy +/- 6%.

Applications
For 1/4 inch bits DIN 3126-C 6.3 and E 6.3.

55494

Chuck Inch	Adjustment range Nm	Scale interval Nm	Length mm	55494	...
1/4	3.0–6.0	0.25	150		101

55500 Torque screwdriver for interchangeable blades

wiha Tools that work for you

easyTorque
Design
- With a torque value set in the factory
- The handy multi-component grip ensures optimum power transmission
- Click signal on reaching the set torque value
- Quick identification via printed marking on the end of the handle
- Unlimited opening torque
- Mechanism resistant to industrial lubricants
-**Accuracy +/- 10%**
Applications
For controlled screwing at a predefined torque, in combination with torque® interchangeable blades, art. no. 55510-55520.

55500

Adjustment range Nm	Tolerance +/- %	Length mm	Handle thickness mm	55500	...
0.5	10	130	34		**201**
0.6	10	130	34		**202**
0.9	10	130	34		**203**
1.1	10	130	34		**204**
1.2	10	130	34		**205**
1.4	10	130	34		**206**
2.0	10	130	34		**207**

Adjustment range Nm	Tolerance +/- %	Length mm	Handle thickness mm	55500	...
2.5	10	130	34		**208**
3.0	10	130	34		**209**
3.8	10	130	34		**210**
4.0	10	130	34		**211**
4.5	10	130	34		**212**
5.0	10	130	34		**213**

55501 Torque screwdriver set EN ISO 6789

1/4"

wiha Tools that work for you

TorqueVario®-S set
Design
With variable torque adjustment option. Numerical torque value display in window scale.
Infinitely variable torque adjustment with Torque-Setter adjustment tool (included in scope of delivery). Ergonomic multi-component grip, extremely handy thanks to light and compact design. Click signal on reaching the set torque value. Tested according to EN ISO 6798, BS EN 26789, ASME B107.14M. **Accuracy +/- 6%,** based on national standards. Delivery incl. factory test certificate.
Applications
Ideal for screwing indexable inserts. For controlled screwing to a specified torque.

55501

Set contents 55501 101:
1 TorqueVario®-S torque screwdriver, 0.8-5.0 Nm (art. no. 55506 104)
1 Torque® universal bit holder (art. no. 55520 101)
1 Torque-Setter
5 bits for TX® screws T 7/8/9/10/15 x 25 mm
5 bits for TX PLUS® screws IP 7/8/9/10/15 x 25 mm

Set contents	Design	55501	...
13 pieces	in metal box		**101**

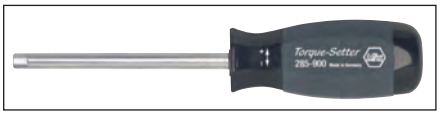
55503 Torque screwdriver for interchangeable blades EN ISO 6789

wiha Tools that work for you

TorqueVario®-S
Design
With variable torque adjustment option. Numerical torque value display in window scale.
Infinitely variable torque adjustment with Torque-Setter adjustment tool (included in scope of delivery). Ergonomic multi-component grip, extremely handy thanks to light and compact design. Handle size optimally adapted to torque range. Click signal on reaching the set torque value. Tested according to EN ISO 6789, BS EN 26789, ASME B107.14M.
Accuracy +/- 6%, based on national standards (for alternative tolerances, see table). 4 mm hexagonal blade mount.
Supplied in a plastic box.
Applications
For controlled screwing at a predefined torque, in combination with torque® interchangeable blades, art. no. 55510-55520.

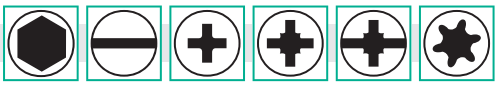
Note:
Art. no. 55503 099, accuracy in the range of 0.1-0.46 Nm.

55503



Adjustment range Nm	Tolerance +/- %	Length mm	Handle thickness mm	55503	...
0.04 - 0.46	10	127	23		**099**
0.1 - 0.6	10	127	23		**101**
0.1 - 0.6	6	127	23		**100**
0.4 - 1.0	6	127	23		**102**
0.5 - 2.0	6	131	30		**103**
0.8 - 5.0	6	138	36		**104**
2.0 - 7.0	6	142	41		**105**

52502 VDE battery screwdriver speedE®



wiha
Tools that work for you

52502 001-003
SpeedE® sets
Design
- The first electric screwdriver from Wiha
- An electric screwing aid that eliminates tiresome screwing work for professionals, yet still leaves them the sensitive manual tightening of the screw

Advantage
- Work twice as fast with the 3-step process:
  1. Fast, electric inserting of screws
  2. Automatic material protection function at 0.4 Nm
  3. Manual fixing option for full tactile sensation
- slimBits tested at 10,000 volts AC and approved for 1000 volts AC
- 100% compatible with the Wiha slimBit system
- Electronic ratchet tool for quick fixing without repositioning
- 800 screw fittings with one battery charge
- Open system with standard battery
- Recommended by doctors and therapists of the AGR (German Action Group for Healthy Backs)

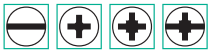
Applications
Ideal tool for all screwdriving work, e.g. socket assembly, work in the switch cabinet, industrial maintenance and assembly, maintenance and repair of power tools, household appliances and white goods, window and door assembly, heating, air conditioning and sanitary installations and repair of bicycles, motorcycles and lawn mowers. Also ideal for household use for building furniture, carrying out repairs and other screwdriving tasks in the hobby sector.

	Set contents
1	**speedE® electric screwdriver handle**
2	**slimBit electric bit** slotted 3.5/5.5 mm
2	**slimBit electric bit** PH1/PH2
2	**slimBit electric bit** SL/PZ1/SL/PZ2
1	**L-Boxx Mini** for speedE®
1	**spare battery** 18500 Li-Ion
1	**charger** for battery type 18500 Li-Ion
1	speedE® **operating instructions**

NEW

52502 001

	Set contents
1	**speedE® electric screwdriver handle**
2	**slimBit electric bit** slotted 3.5/5.5 mm
2	**slimBit electric bit** PH1/PH2
2	**slimBit electric bit** PZ1/PZ2
2	**slimBit electric bit** SL/PZ1/SL/PZ2
1	**easyTorque electric torque adapter** 2.8 Nm
1	**L-Boxx Mini** for speedE®
1	**spare battery** 18500 Li-Ion
1	**charger** for battery type 18500 Li-Ion
1	speedE® **operating instructions**



52502 002

	Set contents
1	**speedE® electric screwdriver handle**
2	**slimBit electric bit** slotted 3.5/5.5 mm
2	**slimBit electric bit** PH1/PH2
2	**slimBit electric bit** PZ1/PZ2
2	**slimBit electric bit** SL/PZ1/SL/PZ2
4	**slimBit electric bit** TX® T10*/15/20/25
4	**slimBit electric bit** hexagonal Sizes 3/4/5/6 mm
1	**easyTorque torque adapter** 0.8 Nm
1	**easyTorque torque adapter** 2.0 Nm
1	**easyTorque torque adapter** 2.5 Nm
1	**easyTorque torque adapter** 2.8 Nm
1	**easyTorque torque adapter** 4.0 Nm
1	**L-Boxx Mini** for speedE®
1	**spare battery** 18500 Li-Ion
1	**charger** for battery type 18500 Li-Ion
1	speedE® **operating instructions**

* No slim version

52502 003

Bit length mm	Torque adapter tolerance %	Spare battery weight g	Charger weight g	52502 ...
75	-	75	285	001
75	10	75	285	002
75	10	75	285	003

Continued

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

52502 VDE torque adapter for speedE® sets

Continued

52502 101
easyTorque adapter VDE set 5 pieces
Applications
For speedE® electric screwdrivers
art. no. 52502 001–003.

Set contents
1 **easyTorque torque adapter** 0.8 Nm
1 **easyTorque torque adapter** 2.0 Nm
1 **easyTorque torque adapter** 2.5 Nm
1 **easyTorque torque adapter** 2.8 Nm
1 **easyTorque torque adapter** 4.0 Nm

Set contents	52502 ...
5 pieces	101

NEW

52502 101

52502 201-205
easyTorque adapter VDE individual
Applications
For speedE® electric screwdrivers
art. no. 52502 001–003.

Torque Nm	52502 ...
0.8	201
2.0	202
2.5	203
2.8	204
4.0	205

52502 201

52502 202

52502 203

52502 204

52502 205

55472 Torque limiter with friction clutch E 6.3

Design
- Torque value preset at the factory
- Perceptible release and a click noise heard when the set torque value is reached
- Integrated friction clutch prevents inadvertent overtightening of the torque and damage to the screw

Applications
Ideal for cutting tools, printed circuit boards and tyre pressure sensors.
Quality
Alloyed steel, HRC 43°-48°.

NEW

55472 101

55472 102

55472 103

55472 104

55472 105

55472 106

55472 107

55472 108

Total length mm	Chuck	Ø mm	Chuck E 6.3	Measured value Nm	Accuracy +/- %	Suitable for	55472 ...
53.4	6.3	12	24.8	0.6	8	TX6/6IP	101
53.4	6.3	12	24.8	0.9	8	TX7/7IP	102
53.4	6.3	12	24.8	1.2	8	TX8/8IP	103
53.4	6.3	12	24.8	1.4	8	TX9/9IP	104
53.4	6.3	12	24.8	2.0	8	TX10/10IP	105
53.4	6.3	12	24.8	3.0	8	TX15/15IP	106
53.4	6.3	12	24.8	4.0	8	TX20/20IP	107
53.4	6.3	12	24.8	5.0	8	TX25/25IP	108

55504 Mechatronic torque screwdriver EN ISO 6789

1/4"

wiha Tools that work for you

iTorque
Design
- Torque value can be set via digital scale

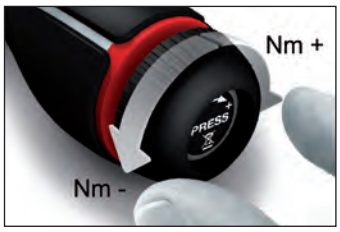
- Automatically releases when calibration alarm sounds

- **Comfortable torque adjustment** using turning knob directly integrated into the handle
- **Click Control:** Integrated counter records every application
- **Calibration alarm** after every 5000 applications (standard guideline value/can be reset)
- **Large digital display** for easy, continuous torque value adjustment
- **Units can be switched easily:** Nm to in-lbs/Ncm to oz-in
- **Accuracy +/- 6%,** based on national standards
- **Standards:** EN ISO 6789, BS EN 26789, ASME B107.14M
- **Long service life:** Can be recalibrated by Wiha Services

- Ergonomic plastic/metal compound handle made from high-quality, robust materials
- Handle size optimally adapted to torque range
- Clearly audible and perceptible click signal when the set torque value is reached
- **Torque bit universal holder interchangeable blade** for holding C 6.3 and E 6.3 (1/4 inch) bits (included in the scope of delivery)

Applications
For controlled screwing at a predefined torque, in combination with torque® interchangeable blades, art. no. 55510-55520.

55504



Can be adjusted without a separate tool

Test equipment monitoring - QA Controlled
Click Control counting function captures every application and optimises the test equipment monitoring

Calibration alarm after 5000 applications for absolute process reliability in the test equipment monitoring

- **Large digital display** with numeric display prevents reading errors
- **Switchable units** (Nm to in-lbs/Ncm to oz-in)
- **Release accuracy of +/- 6%** of the set scale value

Wiha Services
Can be recalibrated by Wiha Services

Adjustment range Ncm/Nm	Adjustment range oz-in/in-lbs	Length mm	Handle thickness mm	55504	...
40-150 Ncm	60–210 oz-in	134	34		**201**
0.8-3.0 Nm	7–26 in-lbs	134	34		**202**
1.0-5.0 Nm	9–50 in-lbs	134	40		**203**

55521 ESD torque screwdrivers

ESD

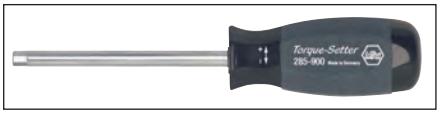
wiha Tools that work for you

TorqueVario®-S ESD
Design
With variable torque adjustment option. Numerical torque value display in window scale.
Infinitely variable torque adjustment with TorqueSetter adjustment tool (included in scope of delivery). Ergonomic multi-component grip made from electrostatically discharging plastic. Handle size optimally adapted to torque range. Click signal on reaching the set torque value. **Tested in accordance with DIN EN 61340-5-1.**

EN ISO 6789, BS EN 26789, ASME B107.14M.
Accuracy +/- 6%, based on national standards (for alternative tolerances, see table). 4 mm hexagonal blade mount.
Supplied in a plastic box.
Applications
For controlled screwing on electrostatically sensitive components at a predefined torque, in combination with torque® ESD interchangeable blades, art. no. 55522-55525 + 55534.

Note
Art. no. 55521 099, accuracy in the range of 0.1-0.46 Nm.

55521



Adjustment range Nm	Tolerance +/- %	Length mm	Handle thickness mm	55521	...
0.04 - 0.46	10	127	23		**099**
0.1 - 0.6	10	127	23		**101**
0.1 - 0.6	6	127	23		**100**
0.4 - 1.0	6	127	23		**102**
0.5 - 2.0	6	131	30		**103**

55510 - 55518 Torque® interchangeable blades

wiha Tools that work for you

Design
4 mm hexagonal blade, fully hardened, brushed chromium-plated. With Wiha ChromTop® tip.
The blades have a different colour code depending on the drive system.
Blade length 175 mm.
Applications
For TorqueFix®, easyTorque, TorqueVario®-S and iTorque torque screwdrivers, art. no. 55500-55504.
Quality
High-quality chrome-vanadium-molybdenum steel.

Note:
Interchangeable blades for different screw types available on request.

55514 - 55516
Design
Very thin blade diameter over a length of 37 mm.
Improved access to hard-to-reach screw connections in the indexable insert area or on electronic components.

55515
Design
With Magic Spring® restraining spring, holds TORX® screws securely.

Art. no.	Use	Colour coding
55510	PH Philips-head screws	Dark blue
55512	PZ Pozidrive screws	Light blue
55514	TX® screws	Dark green
55515	TX® screws	Dark green
55516	TX PLUS® screws	Light green
55518	Hexagon socket screws	Red

55510

Size PH	Max. Nm	55510 ...
000	0.4	103
00	0.4	102
0	0.9	101
1	3.8	104

55512

Size PZ	Max. Nm	55512 ...
0	0.9	101
1	3.8	102

55514

Size T	Max. Nm	55514 ...
5	0.4	101
6	0.6	102
7	0.9	103
8	1.3	104
9	2.5	105
10	3.8	106
15	5.5	107
20	8.0	108
25	8.0	109

55515

Size T	Max. Nm	55515 ...
6	0.6	101
7	0.9	102
8	1.3	103
9	2.5	104
10	3.7	105
15	5.5	106
20	8.0	107
25	8.0	108

55516

Size IP	Max. Nm	55516 ...
5	0.5	101
6	0.8	102
7	1.3	103
8	2.0	104
9	3.0	105
10	4.5	106
15	6.6	107
20	8.0	108

55518

Size mm	Max. Nm	55518 ...
1.5	0.9	101
2.0	1.8	102
2.5	3.8	103
3.0	5.5	104
4.0	8.0	105

55520 Torque® bit holder/Torque® adapter blade

1/4"

wiha Tools that work for you

Design
4 mm hexagonal drive.
Applications
For TorqueFix®, easyTorque, TorqueVario®-S and iTorque torque screwdrivers, art. no. 55500-55504.
Quality
Chromium-vanadium-molybdenum steel blade, fully hardened, brushed chromium-plated.

55520 101
Universal bit holder
Design
1/4 inch hexagonal output, C 6.3 and E 6.3.
Quality
Stainless steel sleeve, blue plastic casing.

55520 102
Adapter blade
Design
1/4 inch square output, head bright nickel-plated, spring-loaded ball.

55520 101

55520 102

	Length mm	55520 ...
Universal bit holder	162	101
Adapter blade	155	102

55526 VDE torque screwdriver for interchangeable bits EN ISO 6789

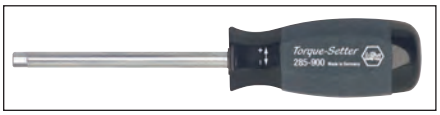
TorqueVario®-S VDE

Design
- **Torque value can be adjusted via window scale**
- Automatic release
- Infinitely variable torque adjustment with Torque-Setter adjustment tool (included in scope of delivery)
- Ergonomic multi-component handle
- Handle size optimally adapted to torque range
- Click signal on reaching the set torque value

- **Manufactured according to IEC 60900:2012**
- EN ISO 6789, BS EN 26789, ASME B107.14M
- **Accuracy +/- 6%,** based on national standards
- **slimTorque VDE bit holder for 6 mm slimBits included in scope of delivery**
- Delivered in a plastic box, incl. plant test certificate

Applications
For controlled screwing in the area of live parts up to 1000 V AC.
Only in combination with a slimTorque VDE bit holder for 6 mm slimBits.

55526



Adjustment range Nm	Tolerance +/- %	Length mm	Handle thickness mm	55526	...
0.5 - 2.0	6	131	30		**101**
0.8 - 5.0	6	138	36		**102**
2.0 - 7.0	6	142	41		**103**

55527 slimTorque VDE bit holder

Design
- High-quality **chromium-vanadium-molybdenum steel**, fully hardened, bronzed
- Protective insulation sprayed directly onto the blade

- **Manufactured to IEC 60900:2012**
- Insulated, metal ClicFix bit holder reliably secures all slimBits
- Only for 6 mm slimBits
- **Caution:** Not to be used for C 6.3 and E 6.3 bits

Use
For 6 mm slimBits (52497 101-126) with VDE torque screwdrivers (art. no. 55526 101-103).

55527

Hexagon head mm	Hexagonal blade mm	Bit holder length mm	Outer diameter mm	55527	...
6	3.8	170	13		**101**

52497 slimVario VDE interchangeable bits

Design
- High-quality **chromium-vanadium steel**, fully hardened, bronzed
- Protective insulation sprayed directly onto the bit, which is fully integrated into the blade in the front area (not for end no. 120-121)
- **Manufactured according to IEC 60900:2012**
- The integrated protective insulation enables low-lying screw and spring elements to be reached and activated
- Slim shape of the bit makes it easy to reach the screws underneath the safety device for the fingers and back of the hand
- **Caution:** 6 mm slimBits must be used only in the slimVario bit holder (art. no. 52497 201) and slimTorque VDE bit holder (art. no. 55526 101-103)

Note:
Art. no. 52497 101-102 and 52497 120-121 are not slim versions.

52497 101-102

52497 103-105

Cutting width x Thickness mm	Total length mm	52497	...
2.5 x 0.4	75		**101**
3.0 x 0.5	75		**102**
4.0 x 0.8	75		**103**
5.5 x 1.0	75		**104**
6.5 x 1.2	75		**105**

52497 108-109

Size PH	Total length mm	52497	...
1	75		**108**
2	75		**109**

52497 111-112

Size SL/PZ	Total length mm	52497	...
1	75		**111**
2	75		**112**

52497 113-114

Size SL/PH	Total length mm	52497	...
1	75		**113**
2	75		**114**

52497 115-119

Size T	Total length mm	52497	...
8	75		**115**
10	75		**116**
15	75		**117**
20	75		**118**
25	75		**119**

52497 120-121

52497 122-126

Size mm	Total length mm	52497	...
1.5	75		**120**
2.0	75		**121**
2.5	75		**122**
3.0	75		**123**
4.0	75		**124**
5.0	75		**125**
6.0	75		**126**

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55542 Torque screwdriver

TorqueFix®-Key
Design
- **Fixed preset torque value**
- Automatic release
- Ergonomic key handle
- Extremely handy thanks to compact design
- Click signal on reaching the set torque value
- EN ISO 6789, BS EN 26789, ASME B107.14M
- **Accuracy+/- 6%,** based on national standards
- Opening torque approx. 30% higher than tightening torque
- Supplied in a plastic box, incl. plant test certificate

Applications
Specially for hard-to-reach screws and for confined areas.
For controlled screwing to a specified torque.

55542 101-111

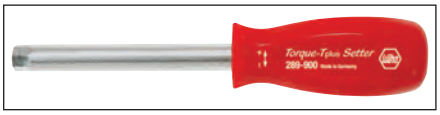
Adjustment range Nm	Tolerance +/- %	Length mm	Handle thickness mm	55542	...
0.5	6	68	50		101
0.6	6	68	50		102
0.9	6	68	50		103
1.1	6	68	50		104
1.2	6	68	50		105
1.4	6	68	50		106
2.0	6	68	50		107
2.5	6	68	50		108
3.0	6	68	50		109
3.8	6	68	50		110
4.0	6	68	50		111

55535 Torque t-handle screwdriver

TorqueVario®-STplus
Design
With numerical torque value gauge in window scale. Infinitely variable torque adjustment with Torque-Setter adjustment tool (included in scope of delivery). Comfortable t-handle with soft zones. Click signal on reaching the set torque value. Manufactured based on EN ISO 6789, BS EN 26789, ASME B107.14M. **Accuracy +/- 6%,** based on national standards. 6 mm hexagonal blade mount. Supplied in a plastic box, incl. plant test certificate

Applications
For controlled screwing at a predefined torque, in combination with torque® interchangeable blades, art. no. 55536-55538.

55535



Adjustment range Nm	Length mm	Width mm	55535	...
5 - 14	56	120		101

55536 - 55537 Torque® interchangeable blades

Design
6 mm hexagonal blade, fully hardened, brushed chromium-plated. With Wiha ChromTop® tip.
The blades have a different colour code depending on the drive system.
Blade length 130 mm.
Applications
For t-handle torque tool TorqueVario®-STplus, art. no. 55535.
Quality
High-quality chrome-vanadium-molybdenum steel.

Note:
Interchangeable blades for other screw types available on request.

55536
Applications
⬢ **Hexagon socket screws.**
Colour coding red.

55536

55537
Applications
✱ **TX® screws.**
Colour coding dark green.

55537

Hexagon

Size mm	Max. Nm	Max. in-lbs.	55536	...
3	5.5	49		101
4	15	132		102
5	15	132		103
6	15	132		104

TX®

Size T	Max. Nm	Max. in-lbs.	55537	...
15	5.5	49		101
20	10	88		102
25	15	132		103
27	15	132		104
30	15	132		105

55538 Torque® bit quick-change holder

1/4"

wiha
Tools that work for you

Design
6 mm hexagonal drive.
1/4 inch hexagonal output, C 6.3 and E 6.3.
Applications
For a particularly fast bit change.
For t-handle torque tool
TorqueVario®-STplus, art. no. 55535.

Quality
Chromium-vanadium-molybdenum steel blade, fully hardened, brushed chromium-plated.

○

55538

Length mm	55538 ...
125	101

55531 - 55533 Torque screwdriver with ISO 6789 micrometer

1/4"

FACOM

Design
Mechanical screwdriver with a **1/4 inch hexagon socket chuck and direction of rotation to the right.**
Automatic release when the tightening torque is reached; tightening values are not exceeded, even in the case of incorrect operation. Automatic re-tightening if there is a preset torque. Easy read-off via micrometer.
All FACOM torque screwdrivers are supplied with a test report in accordance with the standard.

Note:
The reversible ratchet handle is ergonomically shaped to make tightening easier, especially in series work with a higher tightening torque.

55531 - 55532
Torque screwdriver in a set.
In an impact-resistant plastic box.

55533
Single torque screwdriver.
Note:
For adapter for socket wrench inserts, see art. no. 52932 101.

55531

Set contents 55531 101-102
1/4-inch ○ torque screwdriver
○ **9 inserts** hexagonal size 3.2/4/5/5.5/6/7/8/9/10 mm
2 extensions 100 mm and 150 mm
1 adapter 1/4 inch ⬢ x 1/4 inch ■
1 adjustment wrench
1 handle with reversible ratchet

55532

Set contents 55532 101
1/4 inch ○ torque screwdriver 0.5–2.5 Nm
⊖ **3 inserts** 0.6 x 4.5/1.2 x 6.5/1.6 x 8.0 mm
⊕ **3 inserts** PZ 1/2/3
⬢ **3 inserts** hexagonal size 3/4/5 mm
1 connecting piece 1/4 inch ⬢ x 1/4 inch ■, magnetic
1 adjustment wrench
1 handle with reversible ratchet

55533

Set contents 55532 102
1/4 inch ○ torque screwdriver 2–10 Nm
⊖ **3 inserts** 0.6 x 4.5/1.2 x 6.5/1.6 x 8.0 mm
⊕ **3 inserts** PZ 1/2/3
⬢ **3 inserts** hexagonal size 4/5/6 mm
1 connecting piece 1/4 inch ⬢ x 1/4 inch ■, magnetic
1 adjustment wrench
1 handle with reversible ratchet

Adjustment range Nm	Scale interval Nm	Set 55531 ...	Set 55532 ...	Single screwdriver 55533 ...
0.5 - 2.5	0.1	101	101	101
2.0 - 10.0	0.5	102	102	102

55540 Torque screwdriver

1/4"

BAHCO

Design
Adjustable via micro-fine adjustment. Easy-to-read scale under viewing window. The desired value can be set easily via the end knob.
1/4 inch drive unit, hexagon socket DIN 3126 D 6.3.
Incl. adapter for 1/4 inch square.

Applications
Single-direction tightening and small series.

55540

Adjustment range cNm	Length mm	55540 ...
10 - 80	140	101
40 - 200	160	102
50 - 450	170	103

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55543 Electronic torque screwdriver

1/4"

BAHCO

Design
- Torque units in nm, kg-cm, cN.m, ft-lb, in-lb, oz-in and angular units in degrees
- **Accuracy of up to +/-2% CW and 3% CCW** between 20% and 100% of the maximum torque
- Optical 360 degree signal
- Acoustic and additional vibration signal
- Illuminated LCD display
- Durable composite tri-lobe hinge housing
- Flat, recessed membrane keyboard with key lock to prevent accidental changes in the target torque when operating the screwdriver

Scope of delivery:
- Plant declaration of conformity (based on international standard)
- AA batteries

55543 101
Design
- 1/4 inch hexagon socket drive with earthing magnetic holder

55543 102
Design
- 1/4 inch square drive

NEW

55543 101

Additional t-handle made of composite materials offers the operator more leverage and control when applying torque and/or angle in the higher torque ranges.

Adjustment range Nm	Hexagon 55543 ...	Square 55543 ...
0.45 - 9.0	101	
0.45 - 9.0		102

55560 Torque screwdriver

1/4"

STAHLWILLE

Design
With 1/4 inch hexagon socket chuck, flat torsion spring as measuring element. Measuring display with trailing pointer, **clockwise and anti-clockwise tightening.** Direct display via pointer on cNm scale, self-locking sliding pointer for initial marking of the measured value. The accuracy corresponds to the revised **DIN ISO standard 6789.**
Display deviation +/- 4%.

Note:
For adapter for socket wrench inserts, see art. no. 52932 101.

55560

Adjustment range cNm	Adjustment range in-lb	Scale interval cNm	Length mm	Weight kg	55560 ...
15 - 75	1.5–6.5	2.5	185	0.225	106
30 - 150	3–13	5	185	0.225	107
60 - 300	6–26	10	185	0.230	108
120 - 600	12–52	20	185	0.230	109

55583 Torque wrench with mushroom head

1/4" 3/8" 1/2" 3/4"

GEDORE
WERKZEUGE FÜRS LEBEN

Design
- Classified according to DIN EN ISO 6789:2003 type II class A, with traceable workshop certificate
- Calibrated to admissible deviation of +/- 3% and better. The specification of the standard (+/- 4%) is exceeded for your safety
- **For controlled clockwise and anti-clockwise tightening**
- **1/4, 3/8 and 1/2 inch:** Mushroom head reversible square with pushbutton release and ball lock
- **3/4 inch:** With push-through square and pin detent
- Robust, painted steel tube construction, with zinc-plated ratchet and high-quality plastic parts
- Ergonomically shaped plastic handle with calibration aid
- Switching between main scale Nm and additional ft-lb scale to avoid reading errors when setting the desired torque
- With micrometer scale for Nm main scale for adjustment of scale intermediate values
- A jump system generates a perceptible and audible release signal
- Ergonomic system for torque adjustment with note symbol
- Quick adjustment possible with an Allen key, not included in scope of delivery
- Secured adjusting-tuning system

Applications
Controlled screw tightening in the most common range from 2–850 Nm/1.5–630 ft-lb (reference value for screws M7-M10.9 to M24-8.8, M30-5.6). Adjustable, releasing and robust pipe torque wrench with integrated square drive ratchet for industry and trade.

Mushroom head reversible square with pushbutton release and ball lock

55583

	Connection square Inch	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Length mm	55583 ...
TORCOFIX K	1/4	5–25	1.5–18	1	285.0	101
TORCOFIX K	3/8	10–50	7.5–37	2.5	335.0	102
DREMASTER K	1/2	20–100	15–75	5	423.5	103
DREMASTER K	1/2	40–200	30–150	10	514.5	104
DREMASTER K	1/2	60–300	45–220	10	606.5	105
DREMASTER K	3/4	80–400	60–300	10	715.5	106
DREMASTER K	3/4	110–550	80–405	10	953.5	107
DREMASTER K	3/4	150–750	110–550	10	1228.5	108
DREMASTER K	3/4	250–850	185–630	10	1375.5	109

Torque wrench

55831 VDE torque wrench

3/8" | DVE | GS | ≙1000V

HAZET

Design
- Can be re-adjusted and re-calibrated
- VDE torque wrench can be repaired in HAZET Service Centre
- Long service life/accuracy by way of: disassembly, adjustment, repair (if necessary), calibration, reassembly
- Suitable for inspection equipment monitoring
- Sustainable and environmentally friendly
- Fine scale interval with Vernier scale
- Locking mechanism to prevent unintentional adjustment of setting value
- Safe: haptic (quick-release), audible (kink element)
- **Clockwise/anti-clockwise release via reversible square drive,** allowing tightening with the set torque both to the right and left within the specified tolerance
- Output: Square, solid, 10 mm (3/8-inch)
- VDE-tested
- Socket wrench inserts from other manufacturers may be used, provided that they comply with IEC 60900:2012 and DIN EN 60900
- Low weight for good handling and effortless work
- Product design features
- Slim and appealing design in strict compliance with the required insulation factors (material thickness/overlaps)
- Smooth transitions on switching and moving parts with ergonomic handle design and clear calibration groove
- Simple operation and low risk of injury due to ergonomic functional switching elements with a pleasant action
- Uniform appearance even when using other components (e.g. red insulated socket wrench inserts)
- Attractive housing and head colour using well-known VDE signal colours red/yellow
- Black handle for colour separation and to minimise visual disturbance
- Avoids overhanging, obstructing parts (e.g. reverse lever)
- DIN EN ISO 6789:2003 (D), square in accordance with DIN 3120, EN/IEC 60900
- Made in Germany

Note:
Repairs may only be carried out by the HAZET Service Centre, as they must be followed by a 10,000 V test in accordance with IEC 60900.

55831 101

55831 102

Connecting square inches	Adjustment range Nm	Scale interval Nm	Tolerance %	Length mm	Weight kg	55831 ...
3/8	2–10	0.2	6	275	0.59	101
3/8	5–25	0.5	4	305	0.64	102

55620 Torque wrench with reversible ratchet

1/2"

GEDORE
WERKZEUGE FÜRS LEBEN

DREMASTER UK

Design
- Classified according to DIN EN ISO 6789:2003 type II class A, with traceable workshop certificate
- Calibrated to admissible deviation of +/- 3% and better. The specification of the standard (+/- 4%) is exceeded for your safety
- **For controlled clockwise tightening**
- With 1/2 inch reversible ratchet
- Robust, painted steel tube construction, with a zinc-plated ratchet and high-quality plastic parts
- Ergonomically shaped plastic handle with calibration aid
- Switching between main scale Nm and additional ft-lb scale to avoid reading errors when setting the desired torque
- With micrometer scale for Nm main scale for adjustment of scale intermediate values
- A jump system generates a perceptible and audible release signal
- Ergonomic system for torque adjustment with note symbol
- Quick adjustment possible with an Allen key, not included in scope of delivery
- Secured adjusting-tuning system
- Patent pending

Applications
Controlled screw tightening in the most common range from 20–850 Nm/15–630 ft-lb (reference value for screws M7-M10.9 to M24-8.8, M30-5.6). Adjustable, releasing and robust pipe torque wrench with integrated square drive ratchet for industry and trade.

55620

Connection square Inch	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Length mm	55620 ...
1/2	20–100	15–75	5	438	201
1/2	40–200	30–150	10	529	202
1/2	60–300	45–220	10	620	203

55623 Torque wrench with reversible ratchet

3/8" | 1/2"

STAHLWILLE

MANOSKOP® 721 Quick

Design
- Releasing
- Quick adjustment thanks to easy-to-operate release lever in the handle
- Ergonomically shaped, non-slip adjustment element with thumb recess and integrated magnifying glass on the reading window
- Double stop signal
- Dual scale Nm/ft-lb
- No reset to „0" required as measuring element is only under load during the tightening process
- Further load after release or loads in the opposite direction to the function direction, e.g. in the case of tight screws, do not affect the release mechanism, which is therefore protected against damage
- Protection of all sensitive parts through the robust steel tubular casing
- Calibration with the perfectControl calibration device no. 7794 or calibration system no. 7706. Where applicable, readjustment without disassembly
- **Display deviation +/- 4%**
- With certificate

55623 201-202
Design
With built-in ratchet for right-hand and left-hand rotation.

56623 203
Design
With push-through square for anti-clockwise tightening.

55623 201-202

Connection square Inch	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Scale interval ft-lb	Length mm	Weight kg	55623 ...
3/8	6–50	5–36	2	1	352	0.900	201
1/2	30–150	25–110	5	5	452	1.395	202
1/2	60–300	50–220	10	10	553	1.720	203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

55640 Torque wrench with reversible ratchet

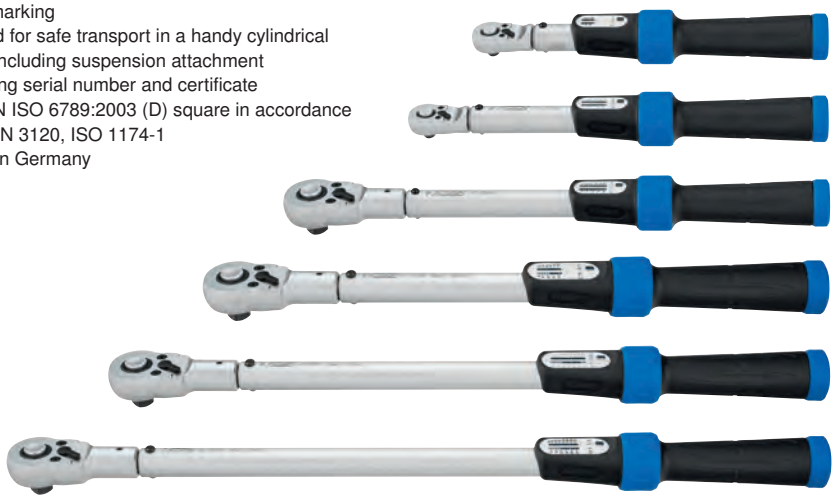
1/4" 3/8" 1/2" MADE IN GERMANY

ATORN®

Design

- Haptic and acoustic adjustment aid
- Ergonomic and easy-to-maintain reversible ratchet with integrated reversing lever
- Easy to use thanks to the ergonomically shaped handle with a comfortable, textured gripping surface
- Clearly audible and perceptible quick release when the set torque value is reached
- Accurate precision scale
- Rapid securing and opening via locking ring
- **Accuracy of +/- 3% of the scale value** (+/- 4% for adjustment range 1–6 Nm).
- Dual scale with Nm and ft-lb display
- Robust tubular design
- Reversible ratchet with locking pushbutton
- Viewing window protects scale against damage
- High-quality permanent identification thanks to laser marking
- Packed for safe transport in a handy cylindrical pack, including suspension attachment
- Including serial number and certificate
- DIN EN ISO 6789:2003 (D) square in accordance with DIN 3120, ISO 1174-1
- Made in Germany

55640



Connection square Inch	Adjustment range Nm	Scale ring Nm	Error limit +/- %	Length mm	Ratchet No. of teeth	55640	...
1/4	1–6	0.1	4	234	20		**201**
1/4	2.5–25	0.25	3	274	20		**202**
3/8	10–60	0.5	3	355	30		**203**
1/2	20–120	1.0	3	456	32		**204**
1/2	40–200	1.0	3	551	32		**205**
1/2	60–320	2.0	3	621	32		**206**

Torque wrench

55642 Torque wrench with reversible ratchet

NEW

1/4" 3/8" 1/2" 3/4"

Wera

Design
- Torque wrench in the unmistakable Wera design
- Ergonomic 2-component handle for clockwise tightening
- Extremely robust design with high **accuracy of +/- 3% in accordance with DIN EN ISO 6789-1:2017-07 (+/- 4% for adjustment range 2.5–25 Nm)**
- Easy adjustment and locking of the default value
- For clockwise tightening and with a reversible ratchet with 45 teeth
- Easy adjustment and locking of the desired torque value using the locking button on the end of the handle
- Release mechanism: When the set value is reached, the torque wrench release can be heard and felt
- Nm and ft-lb dual scale with finest adjustment ensures precise and safe operation

Scope of delivery:
In robust plastic rotating box and with calibration certificate.

55642 103

Connection square Inch	Adjustment range Nm	Scale interval Nm	Error limit +/- %	Length mm	Ratchet No. of teeth	55642 ...
1/4	2.5–25	0.1	4	290	45	**101**
3/8	10–50	0.25	3	360	45	**102**
3/8	20–100	0.5	3	405	45	**103**
1/2	10–50	0.25	3	360	45	**104**
1/2	20–100	0.5	3	405	45	**105**
1/2	40–200	1.0	3	510	45	**106**
1/2	60–300	1.0	3	595	45	**107**
1/2	80–400	1.0	3	680	45	**108**
3/4	200–1000	1.0	3	1250	45	**109**

55643 Torque wrench with switchable bit chuck

1/4"

Wera

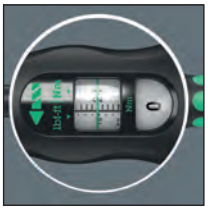
55643 101
Design
- Torque wrench in the unmistakable Wera design
- Extremely robust design with 1/4 inch hexagonal drive and reversible ratchet
- **High accuracy of +/- 4% in accordance with DIN EN ISO 6789-1:2017-07**
- Easy adjustment and locking of the default value
- The audible and perceptible engagement when scale values are reached also makes it easier to safely adjust the desired torque value
- The robust release mechanism guarantees a clearly audible and perceptible release signal when the set torque is reached
- Nm and ft-lb dual scale with finest adjustment ensures precise and safe operation
- Ergonomic 2-component handle for clockwise tightening

Scope of delivery:
In robust plastic rotating box and with calibration certificate.

55643 102
Design
- Click-Torque A1 set in robust folding bag
- The audible and perceptible engagement when scale values are reached also makes it easier to safely adjust the desired torque value
- The robust release mechanism guarantees a clearly audible and perceptible release signal when the set torque is reached
- For clockwise tightening and with a reversible ratchet with 45 teeth
- **Accuracy 4% in accordance with DIN EN ISO 6789-1:2017-07**

NEW

55643 101



55643 102

		Set contents
	1	**Click-torque wrench with reversible ratchet**
○	6	**Zyklop socket wrench inserts** size 6/7/8/10/12/13 x 23 mm
	1	**tool shank (connector)** 25 mm
	1	**Zyklop wobble extension** 56 mm
⬢	4	**bits for hexagon socket screws Hex-Plus** 3/4/5/6 x 50 mm
⊕	1	**bit for Phillips-head screws PH** 2 x 50 mm
✱	6	**bits for inner TORX® screws T** 15/20/25/27/30/40 x 50 mm
	1	**hook and loop strip** 240 x 50 mm

						Single 55643 ...	Set 55643 ...
Connection hexagon Inch	Adjustment range Nm	Scale interval Nm	Error limit +/- %	Length mm	Ratchet Number of teeth		
1/4	2.5–25	0.1	4	290	45	**101**	**102**

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55645 Torque wrench with reversible ratchet

1/2"

Design
DIN EN ISO 6789:2003 (D)
Click-lens type: Large numbers for precise, easy-to-read torque setting.
Safe and accurate setting of the desired release value. Precise and simplified reading of the torque value. Three-digit opto-mechanical torque value display with large digits in the viewing window. Torque release can be felt via quick-release and heard acoustically via click noise. **+/-4% release accuracy** of the set digit value. Large, domed viewing window (replaceable) simplifies the readability. Quick and reliable adjustment of the required torque value by turning the handle. Reversible ratchet. Ergonomically shaped handle. Safety lock in the handle.
With serial number and certificate.

55645

Connection square Inch	Adjustment range Nm	Length mm	55645	...
1/2	20–120	435		101
1/2	40–200	545		102
1/2	60–320	660		103

55646 Production signal torque wrench

1/4" 3/8" 1/2"

Design
Accuracy in actuation direction +/-4% of the scale value (end no. 100 +/-6%) in accordance with DIN EN ISO 6789:2003 (D)
- Safe: Haptic (quick-release) and acoustic (angled element)
- Quick and reliable setting of the desired torque value by turning the handle
- User-friendly reversible ratchet, **right-hand/left-hand rotation**
- Service-friendly (ratchet repair kits available)
- Integrated reversing lever with free running function **reduces the risk of injury and malfunctions**
- Exact: Fine scale intervals
- Safe locking of the handle via ring mount - no risk of jamming!
- Ergonomic
- With serial number and certificate

55646 100-101

55646 102

55646 103-106

Connection square Inch	Adjustment range Nm	Scale interval Nm	Length mm	55646	...
1/4	1–9	0.1	235		100
1/4	2.5–25	0.25	232		101
3/8	10–60	0.50	320		102
1/2	10–60	0.50	320		106
1/2	20–120	1.00	408		103
1/2	40–200	1.00	513		104
1/2	60–320	2.00	632		105

51726 Production signal torque wrench

1/4" 3/8" 1/2" 3/4"

Design
DIN EN ISO 6789:2003.
Robust, with micrometer scale, **right-hand/left-hand rotation.** Torque adjustment by turning the handle. The value (Nm) is read from the scale.
Tool connection:
Reversible ratchet with connection square DIN 3120.
Release accuracy in actuation direction +/- 2% of the scale value (end no. 097 +/- 4%).
Supplied in a safe box and with a certificate.
Applications
For assembly operation, mechanical engineering and shipbuilding.

51726 097-100
Design
No signal button, with plastic handle, resistant to oil and petrol.

51726 101-104
Design
With signal button, with plastic handle, resistant to oil and petrol.

51726 105-107
Design
No signal button, with 2-component handle for improved feel. Simplified locking mechanism for adjusting the torque value, viewing window for visual check of the lock and with 3 further colour coding rings to mark personalisations or special work processes.

51726 105-107

51726 101-104

51726 097-100

Connection square Inch	Adjustment range Nm	Scale interval Nm	Length mm	Weight kg	51726	...
1/4	1–6	0.1	197	0.30		097
1/4	2–10	0.2	198	0.34		099
1/4	4–40	0.4	256	0.40		100
3/8	5–60	0.5	335	0.52		101
1/2	20–120	1.0	435	1.25		102
1/2	40–200	1.0	543	1.40		103
1/2	60–320	2.0	659	1.70		104
3/4	100–400	2.5	803	3.65		105
3/4	200–500	2.5	1040	5.54		107
3/4	300–800	2.5	1280	6.20		106

Torque wrench

55647 Torque wrench with reversible ratchet

3/4" 1"

HAZET

Design
Can be split into 2 parts (55647 103 into 3 parts) with release tool, bag for carrying by hand or as a rucksack. Accuracy in actuation direction +/-3% of the scale value (55647 103 +/-4%).
Fast screw tightening possible with only ratchet shaft, perform torque tightening only with full wrench, 2-component handle for improved feel, simplified locking mechanism for adjusting the torque value, viewing window for visual check of the lock and with 3 further colour coding rings to mark personalisations or special work processes.

Applications
Ideal for industrial climbers. Can be used on wind turbines, in shipyards, in aerospace and heavy industry, in the commercial vehicles sector, etc.

55647 103

Connection square Inch	Adjustment range Nm	Release force N/kg	Total length approx. mm	Weight approx. kg	55647	...
3/4	400–1000	590/60	1788	10		101
1	600–1600	685/70	2455	14		102
1	800–2000	685/70	3034	18		103

55650 Torque wrench with reversible square

3/4"

STAHLWILLE

Design
Releasing torque wrench **with ratchet**, double stop signal, comfortable setting, dual scale Nm/ft-lb and long-term accuracy. The robust steel pipe in aluminium U profile protects all sensitive parts. Reversible square for **right-hand/left-hand rotation.** Easily adjustable without disassembly.
Display deviation +/- 4%. With certificate.

55650

Connection square Inch	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Scale interval ft-lb	Length mm	Weight kg	55650	...
3/4	160–800	120–600	20	20	1051	6.77		101
3/4	200–1000	150–725	25	25	1504	6.97		102

55651 Torque wrench

1/4"

GEDORE
WERKZEUGE FÜRS LEBEN

DREMOMETER MINI
Design
With 1/4-inch square drive with ball lock **DIN 3120 - A 6.3 ISO 1174** for controlled **clockwise tightening.** In accordance with DIN EN ISO 6789, based on national standards. Automatic quick release with perceptible and audible signal. Release accuracy +/- 3% tolerance from the set scale value. Lightweight plastic housing made of high-quality, high-tech fibreglass-reinforced polyamide with soft component in the grip area. Dual scale for Nm and in-lb.
Micrometer scale with scale interval of 0.05 Nm. Viewing window with magnifying glass effect. Secure locking of the set torque via locking adjustment knob. Test certificate in accordance with DIN EN ISO 6789 Type II class A enclosed. Supplied in a plastic box.

55651

Adjustment range Nm	Adjustment range in-lb.	Scale interval Nm	Scale interval in-lb.	55651	...
2.5 - 12	18 - 106	0.5	5		101

51731 Torque wrench

1/4"

GEDORE
WERKZEUGE FÜRS LEBEN

DREMOMETER/AM
Design
- Double-lever mechanism
- Acoustic and perceptible release signal
- **For clockwise rotation**
- Lightweight and handy
- Dual scale for Nm and in-lb.
- 1/4 inch square drive with ball lock A 6.3 **DIN 3120/ISO 1174**
- Release accuracy +/- 3% tolerance of each adjustment value
- Test certificate according to DIN EN ISO 6789 enclosed
- Supplied in plastic box

51731

Adjustment range Nm	Adjustment range in-lb.	Scale interval Nm	Scale interval in-lb.	Length mm	Weight kg	51731	...
6–30	50–270	1	10	265	0.6		101

51733 Torque wrench

3/8"

GEDORE
WERKZEUGE FÜRS LEBEN

DREMOMETER/A
Design
- Double-lever mechanism
- Acoustic and perceptible release signal
- **For clockwise rotation**
- Lightweight and handy
- Dual scale for Nm and in-lb.
- 3/8 inch square drive with ball lock A 10 **DIN 3120/ISO 1174**
- Release accuracy +/- 3% tolerance of each adjustment value
- Test certificate according to DIN EN ISO 6789 enclosed

51733

Adjustment range Nm	Adjustment range in-lb	Scale interval Nm	Scale interval in-lb	Length mm	Weight kg	51733	...
8–40	70–350	5	50	340	1.0		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

51735 Torque wrench

1/2"

GEDORE

DREMOMETER/B and BC
Design
- Double-lever mechanism
- Acoustic and perceptible release signal
- **For clockwise rotation**
- Handy wrench with good length and low weight for effortless continuous use
- Maximum precision even with extreme continuous use
- 1/2 inch square drive with ball lock A 12.5 **DIN 3120/ISO 1174**
- Release accuracy +/- 3% tolerance of each adjustment value
- Test certificate according to DIN EN ISO 6789 enclosed

51735

Type	Adjustment range Nm	Adjustment range ft-lb.	Scale interval Nm	Scale interval ft-lb.	Length mm	Weight kg	51735	...
DREMOMETER/B	25–120	18–90	5	5	463	1.5		101
DREMOMETER/BC	40–200	30–150	5	5	553	1.4		102

51737 Torque wrench

1/2"

GEDORE

DREMOMETER/C
Design
- Acoustic and perceptible signal
- **For clockwise rotation**
- Lowest possible wear thanks to extended lever chain and maximum service life
- Low energy expenditure during continuous use
- 1/2 inch square drive with ball lock A 12.5 **DIN 3120/ISO 1174**
- Release accuracy +/- 3% tolerance of each adjustment value
- Test certificate according to DIN EN ISO 6789 enclosed

51737

Adjustment range Nm	Adjustment range ft-lb.	Scale interval Nm	Scale interval ft-lb.	Length mm	Weight kg	51737	...
60–300	45–220	5	5	618	2.0		101

51741 Torque wrench

3/4"

GEDORE

51741 100+104+101
DREMOMETER/CD, DS and D
Design
- Acoustic and perceptible signal
- **For clockwise rotation**
- Handy wrench
- 3/4 inch square drive with pin detent B 20 **DIN 3120/ISO 1174**
- Release accuracy +/- 3% tolerance of each adjustment value
- Test certificate according to DIN EN ISO 6789 enclosed

51741 102+103
DREMOMETER/DR and DX
Design
- **Additional extension tube** for high tightening values with low effort
- Infinitely adjustable from 1100–1400 mm
- The special handle means it can also be used without the extension tube

51741 100+104+101

51741 102-103

Type	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Scale interval ft-lb	Length mm	Weight kg	51741	...
DREMOMETER/CD	80–360	60–260	5	5	718	2.4		100
DREMOMETER/DS	110–550	80–405	10	10	812	2.9		104
DREMOMETER/D	155–760	115–560	10	10	812	3.2		101
DREMOMETER/DR	155–760	115–560	10	10	800/1100–1400	5.0		102
DREMOMETER/DX	520–1000	380–730	10	10	800/1100–1400	5.6		103

51743 Torque wrench

1"

GEDORE

DREMOMETER/ E
Design
- Acoustic and perceptible signal
- **For clockwise rotation**
- 1 inch square drive with pin detent B 25 **DIN 3120/ISO 1174**
- With push-on pipe to extend the force arm
- No change in the measuring accuracy
- Release accuracy +/- 3% tolerance of each adjustment value
- Test certificate in accordance with DIN EN ISO 6789 enclosed

51743

Adjustment range Nm	Scale interval Nm	Length mm	Weight kg	51743	...
750–2000	50	1078/1998	11.6		101

51750 Slip-on ratchets

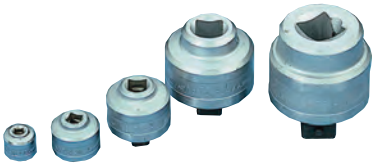
1/4" 3/8" 1/2" 3/4" 1"

GEDORE

Design
Fine pitch and robust.
Applications
For efficient use of DREMOMETER torque wrenches. **For clockwise rotation.**

Note:
Slip-on ratchets for left-hand rotation available on request.

51750



Connection square Inch	Weight approx. g	51750	...
1/4	50		101
3/8	150		102
1/2	350		103

Connection square Inch	Weight approx. g	51750	...
3/4	1000		104
1	2500		105

55655 - 55660 Torque wrench with pressure friction clutch

1/4" 3/8" 1/2"

ATORN®

55655 101-102
SLIPPER
Design
Adjustable torque wrench with scale. Release accuracy +/- 6% tolerance from the set scale value. When the value is reached, the precision mechanism glides through perceptibly - overtightening is not possible.
Automatic reset to the starting position.
ESD (electrostatic discharge) = safe protection against electrostatics.

55660 101-102
SLIPPER
Design
Fixed adjustable torque wrench with no scale. Release accuracy +/- 6% tolerance from the set value. When the value is reached, the precision mechanism glides through perceptibly - overtightening is not possible.
ESD (electrostatic discharge) = safe protection against electrostatics.

55660 103-105
SLIPPER
Design
Fixed adjustable torque wrench with no scale. Release accuracy +/- 4% tolerance from the set value. When the value is reached, the precision mechanism glides through perceptibly - overtightening is not possible.

55655 101-102

55660 101-102

55660 103-105

Connection square Inch	Adjustment range Nm	Adjustment range in-lb	Weight g	55655	...	55660	...
1/4	1–5	-	235		101		
1/4	2–10	-	235		102		
1/4	1–5	10–45	190				101
1/4	2–10	20–90	190				102
1/4	5–25	-	340				103
3/8	15–55	-	800				104
1/2	40–125	-	1360				105

55674 Torque wrench with clock display

1/4" 3/8" 1/2"

KANON

Design
With trailing pointer. **For right-hand/left-hand rotation.** Display accuracy +/- 3% of value displayed.

Note:
Further units available: ft-lb, in-lb, kgf-cm.

55674

Connection square Inch	Adjustment range Nm	Scale interval Nm	Length mm	Weight kg	55674	...
1/4	0.6–6	0.1	260	0.50		101
1/4	1–12	0.2	260	0.50		102
3/8	5–30	0.5	323	0.61		103
3/8	10–70	1.0	323	0.61		104
1/2	20–140	2.0	463	0.87		105
1/2	20–200	2.0	463	0.87		106

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

55725 Torque multiplier

1/2" 3/4"

STAHLWILLE

Design
With overload protection and planetary gears.
With a spare hexagonal for overload protection.
Display deviation +/- 5%. In a carrying case.

Applications
The multiplier makes work significantly easier when tightening or loosening stiff or large screw connections. Even large torques are transferred easily and with precision over long periods.

Note:
Art. no. 55725 103 with anti-backlash device.

55725 101

55725 102

55725 103

Connection Input □	square Inch Output ■	Max. output Nm	capacity ft-lb	Max. input Nm	capacity. ft-lb	Gear reduction	Torque ratio	W mm	H mm	L mm	weight kg	55725	...
1/2	3/4	800	590	229	169	4:1	1:3.5	66	85	215	2.0		101
3/4	3/4	1350	996	375	277	4:1	1:3.6	90	106	265	3.4		102
1/2	1	2000	1475	160	118	16:1	1:12.5	95	161	330	7.0		103

55727 Torque multiplier

3/4"

GEDORE
WERKZEUGE FÜRS LEBEN

DREMOPLUS ALU
Design
- Mechanical, hand-operated torque multiplier for controlled tightening and undoing of screws
- With single-stage planetary gears
- Housing made of high-performance aluminium
- Guaranteed accuracy: better than +/- 3% tolerance
- Must be activated in combination with a torque wrench
- Output square with bore hole for power screwdriver inserts with locking pin and ring

Scope of delivery:
- DREMOPLUS ALU torque multiplier
- With permanently integrated reaction arm
- Delivered in a stable transport case with foam insert
- Factory test certificate and setting table
- Detailed technical information is available on request

55727 101
Design
With straight reaction arm, L-shaped, with adjustable reaction square, made from light metal.

55727 102
Design
With offset z-shaped reaction arm made from chromium-vanadium steel.

55727 101

55727 102

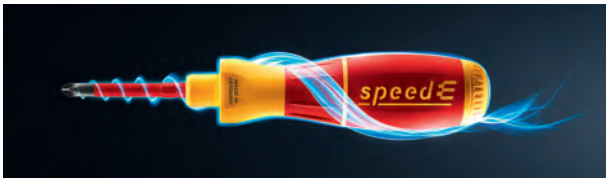
Reaction arm	Connection square Input - output inch	Output torque Max. Nm/ft-lb	Input torque Max. Nm/ft-lb	Transmission ratio	Width mm	Height mm	Weight kg	55727	...
Straight L-shape	3/4–1.	2800/2050	550/410	1:6	106	146	3.4		101
Offset Z-shape	3/4–1.	2800/2050	550/410	1:6	106	146	3.9		102

Info VDE battery screwdriver speedE®

wiha
Tools that work for you

- The first electric screwdriver from Wiha
- An electric screwing aid that eliminates tiresome screwing work for professionals, yet still leaves them the sensitive manual tightening of the screw

- See art. no. 52502 001–205, Page 55.4



55785 Articulated torque wrench with plug-in socket

9x12

ATORN®

KNICKER

Design
- **No scale**
- Fixed setting via a torque tester
- Kinking of the handle up to 20° and, by removing the limiting ring, up to 90°
- The kinking when the torque value is reached makes overtightening unlikely
- Release accuracy of +/- 4% tolerance from the set value
- **Anti-clockwise tightening by reversing the plug-in tools.**

Applications
To accommodate plug-in tools.

55785

Plug-in socket mm	Adjustment range Nm	Adjustment range in-lb	Weight g	55785	...
9 x 12	0.4–2	3.6–18	110		**101**
9 x 12	1–10	9–89	130		**102**

51757 Torque wrench with plug-in socket

9x12 14x18

HAZET®

Design
- **DIN EN ISO 6789:2003 (D)**
- Robust
- **With adjustable value that can be fixed**
- **Torque can be set and locked only with combination wrench art. no. 51758 in conjunction with torque testers, e.g. art. no. 55961**
- Repeat accuracy after 50,000 tightening operations +/- 2%
- No adjustment scale
- No self-adjustment
- **Acoustic and perceptible signal** when the set torque is reached
- **For right-hand rotation only**
- Undo screw connections with no torque function
- With plastic handle
- **Tool connection: Plug connector**

Applications
To accommodate plug-in tools.
For series production.

51757 101-102

51757 103-104

51757 105

51757 106-107

Plug-in socket mm	Adjustment range Nm	Length mm	Weight kg	51757	...
9 x 12	2–12	125	0.185		**101**
9 x 12	2–25	180	0.240		**102**
9 x 12	15–35	180	0.243		**103**
9 x 12	5–50	240	0.295		**104**
9 x 12	15–85	315	0.363		**105**
14 x 18	50–200	400	0.710		**106**
14 x 18	60–320	630	1.050		**107**

51758 Adjustment wrench for 51757

HAZET®

Applications
For adjusting the torques on torque wrenches, art. no. 51757.

51758

Length mm	51758	...
167		**101**

55790 Torque wrench with plug-in socket

9x12 14x18

STAHLWILLE®

Series manoscope

Design
- Releasing torque wrench with double stop signal
- Particularly light and practical due to the patented design
- Handle part and shaft made of square steel tube
- Continued load after release or loads opposite to the direction of function do not affect the release mechanism
- **Tool connection: Plug connector**
- **Right-hand/left-hand rotation**
- **Display deviation +/- 4%**
- No adjustment scale, therefore setting only in combination with torque testers art. no. 51795 ff.

Applications
To accommodate plug-in tools.
For work on production lines or in series production.

55790

Plug-in socket mm	Adjustment range Nm	Adjustment range ft-lb	Length mm	Weight kg	55790	...
9 x 12	4–40	4–30	201	0.427		**101**
9 x 12	20–100	15–74	318	0.634		**102**
14 x 18	40-200	30-147	457	0.948		**103**
14 x 18	60-300	40-220	609	1.210		**104**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

55780 Torque wrench with plug-in socket

9x12 | 14x18 | MADE IN GERMANY

ATORN®

Design
- Haptic and acoustic adjustment aid
- Easy to use thanks to the ergonomically shaped handle with a comfortable, textured gripping surface
- Clearly audible and perceptible quick release when the set torque value is reached
- Locking pushbutton on the plug-in square head
- Accurate precision scale
- Rapid securing and opening via the locking ring
- **Accuracy +/- 3% of the scale value**
- Dual scale with Nm and ft-lb display
- Robust tubular design
- Viewing window protects scale against damage
- High-quality permanent identification thanks to laser marking

- Packed for safe transport in a handy cylindrical pack, including suspension attachment
- Including serial number and certificate
- DIN EN ISO 6789:2003 (D)
- Made in Germany

55780

Plug-in socket mm	Adjustment range Nm	Scale interval Nm	Error limit +/- %	Length mm	55780	...
9 x 12	2.5–25	0.25	3	258		201
9 x 12	10–60	0.5	3	312		202
14 x 18	20–120	1.0	3	393		203
14 x 18	40–200	1.0	3	488		204
14 x 18	60–320	2.0	3	558		205

55786 Torque wrench with plug-in socket

9x12 14x18

Wera

Design
- Torque wrench in the unmistakable Wera design
- Extremely robust design with high **accuracy of +/- 3% in accordance with DIN EN ISO 6789-1:2017-07 (+/- 4% for adjustment range 2.5–25 Nm)**
- Easy adjustment and locking of the default value
- The audible and perceptible engagement when scale values are reached also makes it easier to safely adjust the desired torque value
- The robust release mechanism guarantees a clearly audible and perceptible release signal when the set torque is reached
- Nm and ft-lb dual scale with finest adjustment ensures precise and safe operation
- Ergonomic 2-component handle for clockwise tightening
- With chuck for interchangeable plug-in tools
- For clockwise and anti-clockwise tightening

Scope of delivery:
In robust plastic rotating box and with calibration certificate.

NEW

55786 201

Plug-in socket mm	Adjustment range Nm	Scale interval Nm	Error limit +/- %	Length mm	Ratchet Number of teeth	55786	...
9 x 12	2.5–25	0.1	4	283	45		**201**
9 x 12	10–50	0.25	3	338	45		**202**
9 x 12	20–100	0.5	3	372	45		**203**
14 x 18	40–200	1.0	3	480	45		**204**
14 x 18	60–300	1.0	3	570	45		**205**
14 x 18	80–400	1.0	3	655	45		**206**

51760 Production signal torque wrench with plug-in socket

9x12 14x18

HAZET

Design
- **DIN EN ISO 6789:2003 (D)**
- Robust
- With micrometer scale
- **Right-hand/left-hand rotation**
- Torque adjustment by turning the handle
- The value (Nm) is read from the scale
- No self-adjustment
- **Optical, acoustic and perceptible signal** when the set torque is reached
- With plastic handle, resistant to oil and petrol
- **Tool connection: Plug connector**
- Release accuracy in direction of actuation +/-2% of the scale value

Applications
To accommodate plug-in tools.
For assembly operation, mechanical engineering and shipbuilding.

51760 206
Design
- 2-component handle for improved feel
- Simplified locking mechanism for adjusting the torque value
- Viewing window for visual check of the locking
- With 3 other colour coding rings to mark personalisations or special work processes.

51760 200-201

51760 202-205

51760 206

Plug-in socket mm	Adjustment range Nm	Length mm	Weight kg	Signal head	Design	51760	...
9 x 12	2–10	180	0.32	-	Safe box		**201**
9 x 12	4–40	240	0.32	-	Safe box		**200**
9 x 12	5–60	305	0.45	x	Safe box		**202**
9 x 12	20–120	388	1.27	x	Safe box		**203**
14 x 18	40–200	510	1.07	x	Safe box		**204**
14 x 18	60–320	620	1.27	x	Safe box		**205**
14 x 18	100–400	715	2.71	-	Safe box		**206**

55820 Torque wrench with plug-in socket

9x12 14x18 QR

STAHLWILLE

Service MANOSKOP® 730 Quick
Design
- **Chuck for interchangeable plug-in tools**
- Releasing
- **Quick-release safety lock**
- Quick adjustment thanks to easy-to-operate release lever in the handle
- Ergonomically shaped, non-slip adjustment element with thumb recess and integrated magnifying glass on the reading window
- Double stop signal
- Dual scale Nm/ft-lb
- No reset to „0" required as measuring element is only under load during the tightening process
- **Anti-clockwise tightening by reversing the plug-in tools**
- Further load after release or loads opposite to the function direction, e.g. in the case of tight screws, do not affect the release mechanism, which is thus protected against damage
- **Display deviation +/- 4%**
- With certificate
- Calibration with the perfectControl calibration device no. 7794 or calibration system no. 7706. Where applicable, readjustment without disassembly

Applications
To accommodate plug-in tools.

55820 203-207

Plug-in socket mm	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Scale interval ft-lb	Length mm	Weight kg	55820	...
9 x 12	6–50	5–36	2	1	315	0.805		**203**
9 x 12	20–100	15–72.5	2.5	2.5	370	0.965		**204**
14 x 18	25–130	20–95	2.5	2.5	410	1.100		**205**
14 x 18	40–200	30–145	5	5	455	1.250		**206**
14 x 18	80–400	60–300	10	10	590	1.880		**207**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

55858 Torque wrench with plug-in socket

9x12 | 14x18 | QR

STAHLWILLE

Service MANOSKOP® 730N

Design

Fast, accurate adjustment thanks to QuickSelect quick adjustment, with QuickRelease safety lock, double stop signal, very easy-to-read dual scale with colour differentiation of Nm/ft-lb and long-term accuracy.

55858

Plug-in socket mm	Measuring range Nm	1 mark Nm	Length mm	Weight kg	55858	...
9 x 12	4–20	0.20	275	0.740		100
9 x 12	10–50	0.25	330	0.825		101
9 x 12	20–100	0.50	386	0.980		102
14 x 18	25–130	0.50	421	1.120		103
14 x 18	40–200	1.00	467	1.260		104
14 x 18	80–400	2.00	607	1.660		105
14 x 18	130–650	2.50	890	3.300		106

No reset to „0" required as measuring element is only under load during the tightening process. Robust housing, 2-component handle with soft zone, resistant to oils, greases, fuels, brake fluids and Skydrol. If used incorrectly, the measuring mechanism does not work (e.g. uncontrolled loosening of seized screws). **Reversible plug-in tools allow anti-clockwise tightening.** Easily adjustable without disassembly. **Display deviation +/- 3%.** With certificate.

Applications

To accommodate plug-in tools.

STAHLWILLE

With the mechanical torque wrench no. 730N

Fast, precise and safe work through innovative technology. The further development of the successful torque wrench 730 to the 730N model is the logical continuation of a successful product that offers the user even more benefits.

The adjustment mechanism of the 730N is based on a completely new concept. The core of this technology is the new **QuickSelect quick adjustment.** The adjusting knob at the end of the handle allows fast and precise setting of the desired tightening value. The desired tightening torque is set by turning the extended adjusting knob. During this process, the easy-to-read dual scale with colour differentiation between Nm and ft-lb or in-lb is always in view. Directly next to the adjusting knob is the scale ring, which is used for fine adjustment for the corresponding measuring range. When the desired value is set, simply press the adjusting knob to return it to its locking position to secure the setting against unintentional turning.

At a glance:

- Very fast, precise one-handed adjustment
- Adjustment lock
- Very easy-to-read two-colour dual scale in Nm and ft-lb
- Double stop signal
- For clockwise and anti-clockwise tightening
- Square socket with QuickRelease safety lock
- Measuring element is under load only during the tightening operation
- Easy to readjust without disassembly
- Robust housing with resistant, durable mechanics, housed inside for protection against dirt
- 2-component handle, resistant to a wide range of aggressive liquids
- Display deviation +/- 3%
- Fulfils DIN EN ISO 6789
- Based on national standards

No reset to 0 required
Due to the proven wear-free release system with switching edge

QR Quick-release safety lock
Secure locking and quick change of plug-in tools with the QuickRelease safety lock.

Easy to adjust
Through the openings integrated in the type plate, the measuring unit can be adjusted easily from the outside with an Allen key. The torque wrench does not have to be dismantled with a lot of effort.

Easy-to-read dual scale
The different colours for Nm and ft-lb make it easier to assign the fine adjustment clearly.

Variable socket
The square socket allows a wide variety of drive tools to be used, depending on the requirements. STAHLWILLE offers a variety of suitable plug-in tools for a wide range of applications.

Scale ring
Fine adjustment for the measuring range of the dual scale marked black

QuickSelect -Quick adjustment
Fast, precise and safe adjustment:
Pull the adjusting knob, set the desired value with just a few turns, press to save the setting, finished!

55830 Torque wrench with plug-in socket

9x12 14x18

GEDORE
WERKZEUGE FÜRS LEBEN

TORCOFIX SE and DREMASTER SE

Design

- Classified according to DIN EN ISO 6789:2003 type II class A, with traceable workshop certificate
- Calibrated to admissible deviation of +/- 3% and better. The specification of the standard (+/- 4%) is exceeded for your safety
- **For controlled clockwise and anti-clockwise tightening**
- Robust, painted steel tube construction, with a zinc-plated rectangular socket and high-quality plastic parts
- Ergonomically shaped plastic handle with calibration aid
- Switching between main scale Nm and additional ft-lb scale to avoid reading errors when setting the desired torque
- With micrometer scale for Nm main scale for adjustment of scale intermediate values
- A jump system generates a perceptible and audible release signal
- Ergonomic system for torque adjustment with note symbol
- Quick adjustment possible with an Allen key, not included in scope of delivery
- Secured adjusting-tuning system
- Factory calibration gauge: 17.5 mm (9x12 mm) or 25 mm (14x18 mm)
- Actuation only with plug-in tools with a uniform pitch. Otherwise, values may shift
- Patent pending

Applications

Depending on the tool insert, work can be performed forwards (e.g. plug-in single open-end wrench) or to the side (e.g. reversible ratchet and socket wrench insert).
Controlled screw tightening in the most common range from 5–400 Nm/3.7–300 ft-lb
(reference value for screws M7-M10.9 to M20-6.9).
Adjustable, releasing and robust pipe torque wrench with pin mount for industry and trade.

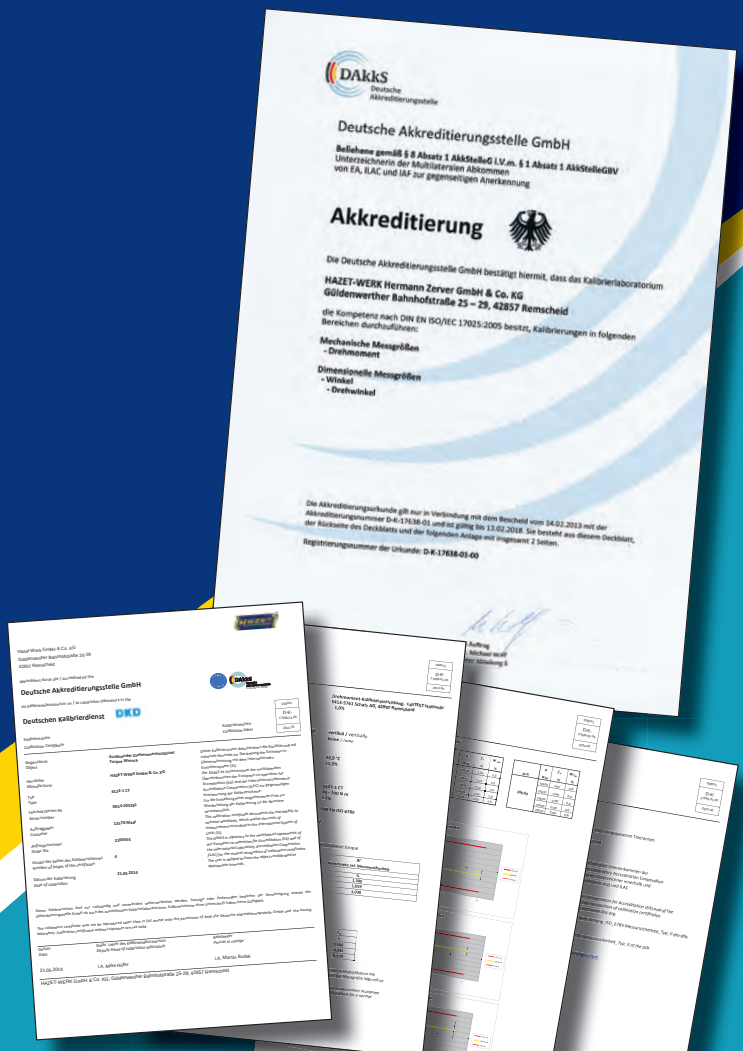
55830

	Plug-in socket mm	Adjustment range Nm	Adjustment range ft-lb	Scale interval Nm	Length mm	55830	...
TORCOFIX SE	**9 x 12**	5–25	3.7–18	1	273.0		**101**
TORCOFIX SE	**9 x 12**	10–50	7.5–37	2.5	323.0		**102**
DREMASTER SE	**9 x 12**	20–100	15–75	5	398.5		**103**
DREMASTER SE	**9 x 12**	30–150	22–110	10	498.5		**104**
DREMASTER SE	**14 x 18**	40–200	30–150	10	499.5		**105**
DREMASTER SE	**14 x 18**	60–300	45–220	10	590.5		**106**
DREMASTER SE	**14 x 18**	80–400	60–300	10	677.5		**107**

HAZET-Competence for calibration of torque and rotation angles

HAZET
The tool brand

- ☑ **Accredited according to DIN EN ISO/IEC 17025** for measured values:
  - **Torque** (DIN EN ISO 6789)
  - **Rotation angle** (VDI/VDE 2648 page 2; without item 4.2)
- ☑ **Complies with special demands of ISO/TS 16949 for calibration laboratories** (mandatory requirement for all suppliers of the automotive industry)
- ☑ **HAZET-owned calibration laboratory guarantees optimal technical calibration competence by accreditation**
- ☑ **Authorised to issue calibration certificates**



ilac-MRA
DAkkS Deutsche Akkreditierungsstelle D-K-17638-01-00

[1] DAkkS: Deutsche Akkreditierungsstelle GmbH (National accreditation body for the Federal Republic of Germany, Berlin)

[2] PTB: Physikalisch Technische Bundesanstalt (PTB is the national metrology institute providing scientific and technical services)

HAZET-WERK Hermann Zerver GmbH & Co. KG · Güldenwerther Bahnhofstraße 25 - 29 · 42857 REMSCHEID · GERMANY · www. hazet.de

55839 Electromechanical torque wrench

9x12 | 14x18 | QR

STAHLWILLE

Service/series MANOSKOP® 730D
Design
- The electromechanical torque wrench combines the **display** and **release** functions in one device
- Both operating modes can be selected independently of the other
- Chuck for interchangeable plug-in tools
- QuickRelease safety lock
- Quick setting via handy keyboard and large display
- Perceptible and acoustic release signal
- Different tolerance limits can be set depending on the screwing application
- Optical evaluation of the screwing application via green and red indicator on the display
- Display function even for left-hand torques
- 7500 art.s of screw data can be stored, read out via a USB interface and evaluated on the PC
- Correct tightening torque is reached automatically after input of a different pitch
- Overload protection by means of acoustic and optical warning signal
- The automatic key lock prevents unintentional adjustment
- Additional security of preset values (function mode, release or target value, unit of measure, tolerance value, saving, deviating pitch) via PIN code
- The robust housing protects all sensitive parts
- The 2-component handle with hand-friendly, green soft zone is resistant to oils, greases, fuels, brake fluids and Skydrol
- 2 AA batteries (1.5 V) are included in the scope of delivery
- NiMH AA/LR6 batteries, 1.2 V or AA/LR6 RAM batteries, 1,5 V can also be used
- Automatic reference to the next calibration date
- Easy calibration with testers, art. no. 51795 ff.
- Where applicable, readjustment without disassembly
- In a sturdy plastic case (art. no. 55839 103-104 in a sheet steel box)
- Measuring units: Nm, ft-lb, in-lb
- Display deviation +/- 2%
- With certificate
- Patented

Applications
To accommodate plug-in tools.

Note:
For the USB adapter, jack plug cable and software, see art. no. 55848 102.
Angle of rotation module available on request.

55839

Plug-in socket mm	Measuring range Nm	Measuring range ft-lb	Measuring range in-lb	Adjustment resolution Nm/ft-lb/in-lb	Display resolution Nm/ft-lb/in-lb	Length mm	Weight kg	55839	...
9 x 12	10–100	7.4–75	90–900	0.2/0.2/2.0	0.1/0.1/1.0	467	1.15		**101**
14 x 18	20–200	15–150	180–1800	0.5/0.5/5.0	0.1/0.1/1.0	548	1.43		**102**
14 x 18	40–400	30–300	360–3600	1.0/1.0/10.0	0.1/0.1/1.0	688	1.83		**103**
14 x 18	65–650	48–480	580–5800	1.0/1.0/10.0	0.1/0.1/1.0	870	3.30		**104**

55841 Electronic torque angle-controlled wrench

9x12 | 14x18 | 3/8" | 1/2" | 3/4" | QR

STAHLWILLE

Sensotork 713
Design
- Plug-in reversible ratchet
- QuickRelease safety lock
- **For clockwise and anti-clockwise tightening**
- Adjustable pre-warning time of visual, perceptible and acoustic signals
- Torque and angle of rotation are visible at the same time
- **Comfortable angle of rotation measurement without reference arm**
- Simple and flexible operation with menu navigation on a large display
- Background illumination of the display, also for the evaluation of the screwing operation (traffic light principle)
- Screwing operations are saved with a time stamp
- Extra large measuring range (5% to 100% of the nominal value) with a display deviation of +/- 1% of the respective measured value
- Display deviation of the angle of rotation of +/- 1%
- Recurring screw connections can be grouped into a menu-guided process
- Meets DKD-R 3-7, Class 2 and DIN EN ISO 6789
- With factory certification in accordance with DIN EN 10204
- Supplied in plastic case (art. no. 55841 103 in a sheet steel box).

Note:
For the USB adapter, jack plug cable and software, see art. no. 55848 101.

55841

Plug-in socket mm	Square drive Inch	Adjustment range Nm	Adjustment range ft-lb	Length mm	Weight kg	55841	...
9 x 12	3/8	3–60	2.5–44	378	0.856		**101**
14 x 18	1/2	10–200	7–148	608	1.552		**102**
14 x 18	3/4	20–400	15–296	838	2.332		**103**

55848 USB adapter, jack plug cable and software

STAHLWILLE

Applications
For documentation and management of measured values on a PC.
For electro-mechanical torque wrench MANOSKOP® 730D, art. no. 55839 and electronic torque wrench Sensotork 713, art. no. 55841.

55848

Use for art. no.	Length m	Weight g	55848	...
55839+55841	1.5	100		**102**

55840 Electronic torque wrench

9x12 | 14x18 | 1/4" | 3/8" | 1/2"

Design
- 2 scroll buttons for fast and easy operation
- Measuring range can be programmed in Nm, ft-lb, in-lb
- Tolerance can be programmed in 2° intervals
- 3-fold signal when the set maximum torque value is reached: visually, acoustically and by vibration of the handle
- **Right-hand and left-hand rotation**
- Power save function
- Dust- and splash-proof
- Data and setpoint saved when the battery is changed
- Stainless steel housing with impact-resistant, shatter-proof display
- Handle made of non-slip fibreglass nylon with integrated Santoprene soft grip
- Reversible plug-in ratchet head and 3 AA batteries included in the scope of delivery

Applications
To accommodate plug-in tools.

55840

Plug-in socket mm	Connection square Inch	Adjustment range Nm	Length mm	55840	...
9 x 12	1/4	3–30	405		101
9 x 12	3/8	7–135	450		102
14 x 18	1/2	20–200	535		105
14 x 18	1/2	34–340	650		106

55842 Electronic torque angle-controlled wrench

1/4" | 3/8" | 1/2" | 3/4"

55842 301-304
Design
- Measuring accuracy (20% to 100% of the maximum torque) +/-2% +/-3%
- Signals: visual (LEDs + display), audible and vibrating
- **Equipped with a reversible, quick-releasing ratchet head**
- 40 teeth/9° return angle
- **Up to 10 preset values**
- Programmable automatic shut-off
- Data and setpoint saved during battery change
- Operating temperature: 5°C to 42°C
- Storage temperature: -10°C to 50°C
- Measuring range can be adjusted in Nm, kg-cm, dNm, ft-lb, in-lb
- **Torque, angle of rotation, torque then angle of rotation and values that can be preset**
- Counter
- Programmable note for re-calibration
- Metal housing for higher resistance
- ISO 6789
- 2004/108/EC

55842 401-404
Design
In addition:
- With data storage and USB
- Storage capacity for up to 1500 measurements and **up to 50 default settings**
- Torque, angle of rotation, **torque and angle of rotation,** torque then angle of rotation, values that can be preset **and work mode**

55842 301-304

55842 401-404

Connection square Inch	Data storage and USB	Adjustment range Nm	Adjustment range in-lb	Adjustment range ft-lb	Length mm	Weight kg	55842	...
1/4	-	1.5–30	13.3–265.5	1.1–22.1	358	0.84		301
1/4	x	1.5–30	13.3–265.5	1.1–22.1	357	0.85		401
3/8	-	7–135	62–1194	5.2–99.5	482	1.37		302
3/8	x	7–135	62–1194	5.2–99.5	482	1.37		402
1/2	-	17–340	150.5–3009	12.5–250	677	2.02		303
1/2	x	17–340	150.5–3009	12.5–250	677	2.02		403
3/4	-	40–800	354–7080	29.5–590	1235	4.85		304
3/4	x	40–800	354–7080	29.5–590	1235	4.85		404

55843 Aluminium electronic torque angle-controlled wrench

9x12 | 1/4"

Design
- **With data storage and USB in lightweight aluminium design**
- **Interchangeable ratchet head (9x12 mm)**
- Measuring accuracy (20% to 100% of the maximum torque) +/-2% +/-3%
- Signals: visual (LEDs + display), audible and vibrating
- **Equipped with reversible ratchet head**
- 60 teeth/6° return angle
- Storage capacity for up to 1500 measurements and 50 default settings
- Programmable automatic shut-off
- Data and setpoint saved during battery change
- Operating temperature: 5°C to 42°C
- Storage temperature: -10°C to 50°C
- Plug-and-play USB data download to Excel format
- Measuring range can be adjusted in Nm, kg-cm, dNm, ft-lb, in-lb
- Torque, angle of rotation, torque and angle of rotation, torque then angle of rotation, values that can be preset and work mode
- Counter
- Programmable note for re-calibration
- ISO 6789
- 2004/108/EC

55843

Plug-in socket mm	Connection square Inch	Data storage and USB	Adjustment range Nm	Adjustment range in-lb	Adjustment range ft-lb	Length mm	Weight kg	55843	...
9 x 12	1/4	x	1.5–30	13.3–265.5	1.1–22.1	377	0.65		301

55847 Electronic torque wrench SENSOTORK® 701

1/4"

STAHLWILLE

Design
- **With fixed, built-in fine-tooth ratchet (80 teeth), 1/4 inch**
- Very slim and compact design for small torques from 1 Nm
- Measurement units: Nm, cNm, ft-lb, in-lb
- Measurement regardless of force application point
- Indicating, for a wide torque range from 1–20 Nm
- Supplied with 3.6 V lithium battery, type 14500
- Calibration with the perfectControl calibration device no. 7794 or calibration system no. 7706
- Where applicable, readjustment without disassembly
- With certificate
- Display deviation +/- 4%

With additional SENSOMASTER 4 software:
- Adjustable screwing application
- Evaluation of screwing operation by means of colour LEDs, buzzer and vibration
- Adjustable calibration interval
- Can be documented

Advantages:
Reliable. Thanks to the fixed, integrated fine-tooth ratchet with QuickRelease technology.
Compact. The ergonomic design is extremely slim and allows you to work even when space is restricted.
Versatile. 3 measuring modes: Track, Peak Hold, screwing application with evaluation.
Precise. The SENSOTORK® 701 measures with a deviation of only +/- 4%. And over a long period.
Intuitive. The different modes can be set quickly and easily via the key control.
Ergonomic. Effortless work thanks to special grip design.

55847

Connection square Inch	Adjustment range Nm	Adjustment range cNm	Adjustment range ft-lb	Adjustment range in-lb	Length mm	Weight kg	55847	...
1/4	1–20	100–2000	0.7–15	9–180	210	0.145		101

55846 Electro-mechanical torque/angle-controlled wrench

9x12 14x18

1/4" 3/8" 1/2" 3/4"

STAHLWILLE

Manoskop 714
Design
- 4 measurement modes (torque, rotation angle, torque with control variable of rotation angle, rotation angle with control variable of torque)
- High-resolution colour graphic display with additional side signal lights
- Freely configurable menu structure
- Optional: Li-ion battery no. 7195-2 and charger no. 7160
- 3 function modes: releasing, peak (displaying operation with peak value display) and track (displaying operation with current value display)
- Micro-USB 2.0 interface
- Bayonet mount for battery compartment
- QuickRelease safety lock changing system for plug-in tools
- Angle of rotation measurement with no reference arm
- Data storage (up to 2500 screw operations)
- Up to 200 screwing applications can be programmed in a maximum of 25 processes
- Different tolerance limits can be adjusted depending on the screwing application
- Audible and visual evaluation of the screwing application
- Fast and precise adjustment via keyboard
- No accidental adjustment thanks to automatic key lock
- Overload protection by means of acoustic and optical warning signals and forced release (right)
- Automatic indication of the next calibration deadline depending on the time and/or the load count
- Fully automatic calibration and adjustment with the perfectControl calibration and adjustment device no. 7794-2 (torque) or no. 7794-3 (torque and angle of rotation)
- Measurement units: Nm, ft-lb, in-lb
- Automatically correct tightening torque on input of deviating actual dimension
- Ready for operation again immediately after discharge
- Clockwise and anti-clockwise tightening – for anti-clockwise tightening in release mode, it may be necessary to rotate the plug-in tool by 180°
- Perceptible and acoustic release signal
- Torque and angle of rotation visible at the same time
- Measurement independent of the point of application of force (end no. 101–103)
- Reliable handling with ergonomically shaped handle (resistant to oils, greases, fuels, brake fluids and Skydrol)
- In a sturdy plastic case (end no. 107 in a sheet steel box)
- With 2 certificates (torque, angle of rotation)
- Registered design, patented
- Supplied with Sensomaster software, USB cable, 4 micro-batteries AAA/LR03, 1.5 V
- Micro-NiMH batteries AAA, 1.2 V can be used
- Display resolution, rotation angle 0.1°
- Display deviation for rotation angle +/- 1%, +/- 1% digit
- Display resolution for torque
  Up to 60 Nm: 0.01 Nm
  More than 60 Nm: 0.1 Nm
- Display deviation for torque +/- 2%, +/- 1% digit

55846 102

55846 104

Plug-in socket mm	Square drive Inch	Adjustment range Nm	Adjustment range ft-lb	Length mm	Weight kg	55846	...
9 x 12	1/4	1–10	0.7–7.5	226	0.432		101
9 x 12	1/4	2–20	1.5–15	226	0.442		102
9 x 12	1/4	4–40	3–30	252	0.482		103
9 x 12	3/8	6–60	4.5–45	393	0.965		104
9 x 12	1/2	10–100	7.5–75	466	1.232		105
14 x 18	1/2	20–200	15–150	547	1.663		106
14 x 18	3/4	40–400	30–300	687	2.275		107

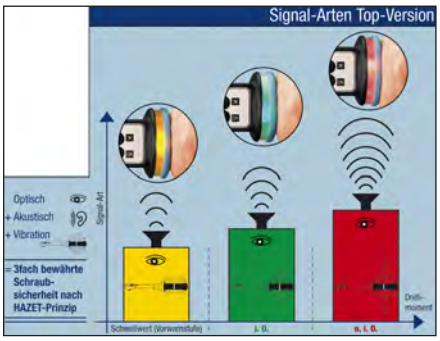
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

SYSTEM 7000
eTAC
Redefined digital precision and handling
DIGITAL SAFETY
Choice of torque units Nm / lbf ft / lbf in / kgf m
10 – 400 Nm
PRECISE TORQUE ±1%, ±1 DIGIT
PRECISE ROTATION ANGLE ±1%, ±1°
360° LED SIGNAL
AUDIBLE SIGNAL
VIBRATION
DOCUMENTATION
HAZET
Hommel Hercules
Werkzeughandel
HHW
www.hhw.de
Two strong partners
HAZET
The tool brand

55845 Electronic torque angle-controlled wrench 7000 eTAC TOP version

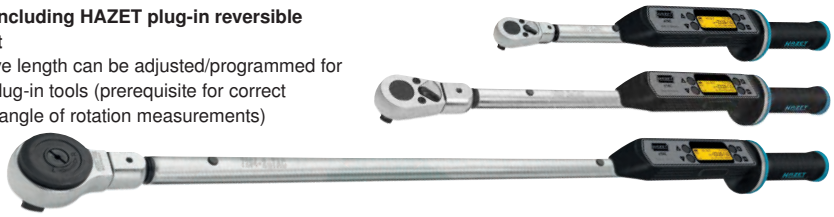
9x12 | 14x18 | 3/8" | 1/2" | 3/4"

Design
- **Measuring accuracy: +/- 1% / +/- 1 digit (or +/- 1°) in left and right direction of rotation**
- Torque and angle-controlled wrench with maximum precision
- Ergonomic, user-orientated design of the entire tool for professional use
- 2-component handle made of fibreglass-reinforced, impact-resistant plastic and soft grip elements
- 3-fold signalling of the screwing process via acoustic signal (buzzer), vibration and all-round 360° LED display with traffic-light function visible from any position
- Large, easy-to-read display, can be rotated by 180°
- Measured value display in 13 mm font size including OK/NOK Screwing application evaluation
- Simple, clearly structured menu guidance in easy-to-read plain text in font size 5 mm in German and English
- Safety switch-on and switch-off function (2x button press) and automatic, **time-dependent adjustable** and energy-saving stand-by function
- Adjustable torque units: Nm and ft-lb, **in-lb, Kgf-m**
- Large angle of rotation range (adding) up to 999 degrees
- Menu lock function for protection against unauthorised adjustment of the adjustment values with self-selectable four-digit code
- Battery and memory display
- Extremely long service life due to 4 commercially available AA batteries (1.5 V) or rechargeable batteries
- **Adjustable signalling:** Acoustic signal (buzzer) **On/Off** and vibration **On/Off**
- Variable threshold value (first warning stage)
- Background illumination of the display can be activated
- Memory space for up to **2000 measurements**, incl. date and time
- Programmable parameter sets and processes
- Control function: Programmable angle of rotation check during torque tightening and torque check during angle of rotation tightening
- Optional evaluation software for memory data, with access via mini-USB port (available on request for a surcharge)
- Supplied with detailed operating instructions and certificates in an aluminium case with foam insert **including HAZET plug-in reversible ratchet**
- Effective length can be adjusted/programmed for other plug-in tools (prerequisite for correct torque/angle of rotation measurements)



- Release accuracy in accordance with ISO 6789, DIN EN ISO 6789, NF EN ISO 6789
- Made in Germany

55845



Plug-in socket mm	Connection square Inch	Adjustment range Nm	Length mm	Weight kg	55845 ...
9 x 12	3/8	10–100	380.5	0.78	**101**
14 x 18	1/2	20–200	518.0	0.98	**102**
14 x 18	3/4	40–400	942.5	2.30	**103**

51785 Open-end wrench plug-in tools

9x12 | 14x18

Design
Chrome-plated.

51785

Size mm	Plug-in socket mm	51785 ...
7	9 x 12	**101**
8	9 x 12	**102**
10	9 x 12	**104**
11	9 x 12	**105**
13	9 x 12	**107**
14	9 x 12	**108**
15	9 x 12	**109**
16	9 x 12	**110**

Size mm	Plug-in socket mm	51785 ...
17	9 x 12	**111**
18	9 x 12	**112**
19	9 x 12	**113**
13	14 x 18	**114**
14	14 x 18	**115**
15	14 x 18	**116**
16	14 x 18	**117**
17	14 x 18	**118**

Size mm	Plug-in socket mm	51785 ...
18	14 x 18	**119**
19	14 x 18	**120**
21	14 x 18	**121**
22	14 x 18	**122**
24	14 x 18	**123**
27	14 x 18	**124**
30	14 x 18	**125**
32	14 x 18	**126**

51787 Bi-hexagon box wrench plug-in tools

9x12 | 14x18

Design
Chrome-plated.

Note:
Open box wrench plug-in tools available on request.

51787

Size mm	Plug-in socket mm	51787 ...
7	9 x 12	**101**
8	9 x 12	**102**
10	9 x 12	**103**
11	9 x 12	**104**
13	9 x 12	**106**
14	9 x 12	**107**
15	9 x 12	**108**
16	9 x 12	**109**
17	9 x 12	**110**
18	9 x 12	**111**

Size mm	Plug-in socket mm	51787 ...
19	9 x 12	**112**
21	9 x 12	**113**
22	9 x 12	**114**
13	14 x 18	**115**
14	14 x 18	**116**
15	14 x 18	**117**
16	14 x 18	**118**
17	14 x 18	**119**
18	14 x 18	**120**
19	14 x 18	**121**

Size mm	Plug-in socket mm	51787 ...
21	14 x 18	**122**
22	14 x 18	**123**
24	14 x 18	**124**
27	14 x 18	**125**
30	14 x 18	**126**
32	14 x 18	**127**
34	14 x 18	**128**
36	14 x 18	**129**
41	14 x 18	**130**

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55915 TORX® plug-in tools

9x12 14x18

Design
Chrome-plated.

55915

Size E	Plug-in socket mm	55915 ...
6	9 x 12	101
8	9 x 12	102
10	9 x 12	103

Size E	Plug-in socket mm	55915 ...
12	9 x 12	104
14	9 x 12	105
14	14 x 18	106

Size E	Plug-in socket mm	55915 ...
18	14 x 18	107
20	14 x 18	108
24	14 x 18	109

55920 Square plug-in tools

9x12 14x18 1/4" 3/8" 1/2" 3/4"

Design
Chrome-plated.

55920

Connection square Inch	Plug-in socket mm	55920 ...
1/4	9 x 12	101
3/8	9 x 12	102
1/2	9 x 12	103
1/2	14 x 18	104
3/4	14 x 18	105

51791 Plug-in reversible ratchets

9x12 14x18 1/4" 3/8" 1/2"

HAZET

51791

Design
Chrome-plated, die-forged. Lever reverse with safety connection and quick-release button.

Connection square Inch	Plug-in socket mm	Teeth Number	51791 ...
1/4	9 x 12	20	101
3/8	9 x 12	30	102
1/2	9 x 12	32	103
1/2	14 x 18	32	104

55925 Plug-in reversible ratchets

9x12 14x18 1/4" 3/8" 1/2" QR

STAHLWILLE

Design
Reversible, with QuickRelease safety lock.

Note:
The durability of the plug-in ratchets is limited (see table). It must not be exceeded when larger torque wrenches are used.

55925

Connection square Inch	Plug-in socket mm	Teeth Number	Durability Nm	55925 ...
1/4	9 x 12	22	40	101
3/8	9 x 12	30	100	102
1/2	9 x 12	30	100	103
1/2	14 x 18	36	200	104

55930 Plug-in reversible ratchets

9x12 14x18 3/8" 1/2" 3/4"

STAHLWILLE

Design
Chrome-plated.

55930

Connection square Inch	Plug-in socket mm	Teeth Number	55930 ...
3/8	9 x 12	60	102
1/2	9 x 12	60	103
1/2	14 x 18	60	104
3/4	14 x 18	60	105

51793 Plug-in fine-tooth ratchet

9x12 | 14x18 | 3/8" | 1/2" | 3/4"

Design
Chrome-plated, **for right-hand/left-hand rotation,** fine toothing, 72 teeth.

Quality
Chromium-vanadium steel.

51793

Connection square Inch	Plug-in socket mm	Teeth Number	Length Approx. mm	51793	...
3/8	9 x 12	72	58.5		101
1/2	9 x 12	72	58.5		102
1/2	14 x 18	72	70.5		103
3/4	14 x 18	72	101.0		104

55938 Plug-in adapter

9x12 | 14x18

Applications
For reducing or increasing the plug-in square.

Quality
Chromium-vanadium steel.

55938 101 55938 102

Output socket mm	Drive socket mm	55938	...
14 x 18	9 x 12		101
9 x 12	14 x 18		102

55940 Plug-in weld-on pieces

9x12 | 14x18

Design
Bronzed.

Use
For welding self-made tools.
Note:
To avoid damage caused by high temperatures, the retaining pin, spring and washer are not fitted until the tool has been welded. Instructions are included.

55940

Plug-in socket mm	55940	...
9 x 12		101
14 x 18		102

55961 Electronic torque testers

1/4" | 3/8" | 1/2" | ⬢ | ■

Design
- In accordance with DIN EN ISO 6789:2003
- Accuracy +-1%
- 3 operating modes: Synchronous display (Track), click point detection (1st Peak), peak value display (Final Peak)
- Scope of delivery includes power supply unit and RS-232C connecting cable for PC or printer.
- Compatible with test software 7901 E-D
- Large, easy-to-read LED display with 3 LEDs for easily recognisable status display
- Rapid attachment to even surfaces using four screws (table, wall, etc.)
- Very simple to operate
- Display in Nm, can be easily switched to ft-lb and in-lb
- Simple setting of a target torque with tolerances
- In plastic case with foam insert

55961 100
Design
Fixed 1/4 inch hexagonal chuck incl.
1 adapter 1/4 inch hexagon socket x 1/4 inch square socket and 1 adapter 1/4 inch hexagon socket x 3/8 inch square socket.

55961 101
Design
Fixed 1/2 inch square chuck.

55961 102
Design
Fixed 27 mm hexagonal chuck.

55961 100

55961 101

55961 102

Measuring range Nm	Hexagonal chuck Ext. inch	Square chuck Int. inch	Hexagonal chuck Ext. mm	H x Ø mm	Weight kg	55961	...
1–25	1/4	1/4 + 3/8	-	97.5 x 160	3.28		100
10–350	-	1/2	-	97.5 x 160	3.28		101
100–1000	-	-	27	97.5 x 160 (182)	3.28		102

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55962 Electronic tester DREMOTEST E

1/4" 3/8" 1/2" 3/4"

GEDORE

Design
With integrated torsion measuring transducer (DMS) and CE mark. High measuring accuracy:
+/- 1% tolerance for all readings, +/- 1 digit.
1. Peak value detection (first peak/break point detection). Auto reset. Can be switched between Nm and ft-lb. Serial RS 232 interface.
Supplied with power pack with Euro plug, operating instructions and test certificate.

Applications
For checking and adjusting right-hand rotation torque wrenches. Suitable for workshops, industry and quality assurance thanks to simple operation and robust design.

Note:
Vehicle adapter for 12-volt power supply available on request.

55962

Measuring range Nm	Measuring range ft-lb	Hexagonal socket Size mm	Adapter inch	55962	...
0.9 - 55	0.7–40.6	10	1/4 + 3/8		201
9 - 320	7–236	17	3/8 + 1/2		202
90 - 1100	66–811	36	1/2 + 3/4		203

Info Calibration systems

STAHLWILLE

For an overview for **complete calibration systems with matching components,** see page 55.36.

55980 Electronic workshop testers

1/4" 3/8" 1/2" 3/4"

STAHLWILLE

Sensotork 7707 W

Design
Compact workshop tester that is easy to expand with easily interchangeable measurement transducers (see art. no. 55983). High accuracy thanks to the flat measurement transducers and measurement processing and digitalisation in the transducer itself. High level of reliability thanks to the additional display of the actual tightening torque with clicking torque wrenches.

Comprising:
Measurement transducer (DBGM), holder, display unit (DBGM), stand for display unit (with 1.5 m cable), spiral cable, power supply (230 V) or direct connection to a 12-V vehicle electrical system possible, square adapter, mounting kit for horizontal and vertical test position **for right-hand and left-hand measurements.**

The easily interchangeable transducers are secured in the holder with a QuickRelease safety lock. Versatile and user-friendly thanks to the horizontal or vertical test position and variable positioning of the display unit, additional stand with 1.5-m cable to accommodate the display unit for better optical tracking when testing long torque wrenches.
A particularly large measuring range from approx. 2% to 100% of the nominal value. The measured values can be transferred to a PC via a USB cable. Complies with DIN 51309:2005, Class 2 and directive DRD R 3-8:2003. With certificate. Supplied in a plastic case.

55980

Measuring range Nm	Drive socket Inch	Adapter Inch	Weight kg	55980	...
0.4 - 20	1/4	-	6.255		102
2 - 100	3/8	1/4x3/8	7.025		103
25 - 1100	3/4	1/4x3/4 / 3/8x3/4 / 1/2x3/4	7.495		104

55983 Measurement transducer for electronic workshop testers

3/8" 3/4"

STAHLWILLE

Design
Patented. High level of accuracy thanks to measurement processing and digitalisation in the transducer itself. Insensitive to transverse forces due to the particularly flat design. With certificate. Supplied in a sturdy plastic case.

55983

Measuring range Nm	Drive socket Inch	Weight kg	55983	...
2 - 100	3/8	2.486		202
25 - 1100	3/4	3.100		203

55984 Accessories for electronic workshop testers

STAHLWILLE

55984 104
USB adapter, jack plug cable and TORKMASTER software
Applications
Connection between the measurement transducer and PC, for adjustment and calibration of torque wrenches and for the creation of calibration certificates in accordance with DIN EN ISO 6789:2003. Length 1.5 m.

55984 106
Spiral cable
Applications
Connection between the measurement transducer and display unit or USB adapter, with jack plug on both sides, 90° angle.

55984 110
Square adapter
Design
1/4 inch on the inside to 3/4 inch on the outside (6 x 20).

55984 111
Square adapter
Design
3/8 inch on the inside to 3/4 inch on the outside (10 x 20).

55984 112
Square adapter
Design
1/2 inch on the inside to 3/4 inch on the outside (12.5 x 20).

55984 104

55984 106

55984 110

55984 111

55984 112

	55984 ...
USB adapter cable + software	104
Spiral cable	106
Square adapter, 1/4 inch x 3/4 inch	110
Square adapter, 3/8 inch x 3/4 inch	111
Square adapter, 1/2 inch x 3/4 inch	112

55987 Mechanical calibration device for torque wrenches

STAHLWILLE

55987 201
Mechanical basic unit up to 400 Nm
Design
Measurement without offset of the force application point. A special power transmission system means that there is no shift of the force application point during the calibration process. Powered by the handwheel, the lever mounted beneath the test rail is moved in a linear motion by a spindle. The linear movement is converted into a rotary motion that then takes effect on the transducer. The torque wrench to be calibrated remains in a constant position during the entire calibration. This means that measuring errors resulting from a shift in the force application point are avoided.

The torque wrench is automatically aligned in the horizontal position by a low-friction linear bushing. The resulting reduction in the transverse forces on the measurement transducer leads to a reduction in measurement errors. Supplied without a torque wrench, measurement transducer, display unit and holder.

Note:
For an extension, see art. no. 55987 202.

55987 202
Extension
Applications
For the basic unit (art. no. 55987 201) for extending the range to 1100 Nm.

55987 201

55987 202

Range Nm	For measurement transducer art. no.	For torque wrench with functional length (LF) max. mm	Profile width mm	W x H x L mm	Weight kg	55987 ...
0.4 - 400	55983 200-203	815	180	704 x 323 x 1087	26.5	201
- 1100	-	1390 (art. no. 55987 201+202)	180	308 x 135 x 673	5.4	202

55989 Test adapter

STAHLWILLE

Applications
Can be screwed to the mechanical actuation device, art. no. 55987. The torque screwdriver to be calibrated is inserted in the square socket of the measurement transducer and fixed in place using the universal centre clamping device. The required force is introduced into the torque screwdriver in a controlled manner using the handwheel.

55989

Range Nm	W x H x D mm	Weight kg	55989 ...
- 10	250 x 442-593 x 351	3.7	101

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STAHLWILLE

Complete calibration systems
with matched components

Mechanical base unit

Transducer laboratory

Cable
No 7751-1

USB adaptor No 7757-1

USB adaptor

PC/Printer – not included in the delivery

Calibration systems No	7706-8 PC	7706-9 PC	7706-10 PC	7706-11 PC
Code	**96 52 10 68**	**96 52 10 69**	**96 52 10 70**	**96 52 10 74**
Weight/kg	14.2	67.6	70.6	108.4
Range/N·m	1–10	2–100	2–1000	20–3000
Mechanical loader	–	No 7791	No 7791	No 7792
Stand alone test attachment for torque screwdrivers	No 7790	–	–	–
Extension unit	–	–	No 7791-1	No 7792-1
Transducer laboratory	No 7728-1S (1–10 N·m)	No 7728-2 (2–20 N·m) No 7728-10 (10–100 N·m)	No 7728-2 (2–20 N·m) No 7728-10 (10–100 N·m) No 7728-40 (40–400 N·m) No 7728-100 (100–1000 N·m)	No 7728-20 (20–200 N·m) No 7728-100 (100–1000 N·m) No 7728-300 (300–3000 N·m)
USB adaptor	No 7757-1	No 7757-1	No 7757-1	No 7757-1
Jack cable	No 7751	No. 7751	No 7751	No 7751
Cable for No 7728 (connection between transducer and USB adaptor)	No 7751-1	No 7751-1	No 7751-1	No 7751-1
Square drive adaptor	No 431 (3/8" O x 1/4" ■)	No 431 (3/8" O x 1/4" ■) No 409M (1/4" O x 3/8" ■)	No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 409M (1/4" O x 3/8" ■)	No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 7789-2 (3/4" O x 1½" ■) No 7789-3 (1" O x 1½" ■) No 7789-4 (1/4" O x 1/2" ■) No 7789-5 (3/8" O x 1/2" ■)
Calibrating square drive insert tools	–	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■)
Adaptors	No 3115 (1/4" ■ x 1/4" ⬢ E 6,3) No 3115/1 (1/4" ■ x 1/4" ⬢ C 6,3)	– –	–	–
Calibration software	TORKMASTER 4	TORKMASTER 4	TORKMASTER 4	TORKMASTER 4
DAkkS calibration certificates	1	2	4	3

56100 Pliers sets

ATORN®

Design
Head high-gloss polished, chrome-plated.
Quality
Steel C 45, oil hardened and tempered, induction-hardened cutting edges.

56100 101
Design
4 pieces. Handles with 2-component sleeves and non-slip protection. Water pump pliers, polished head, handles dip coated.

56100 103
Design
6 pieces. Handles with 2-component sleeves and non-slip protection. Water pump pliers, polished head, handles dip coated.

56100 201
Design
4 pieces. Insulating handles, up to 1000 V, sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with non-slip protection.

56100 202
Design
5 pieces. Insulating handles, up to 1000 V, sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with non-slip protection.

56100 101

56100 103

Set contents 56100 101:
1 x combination pliers 180 mm
1 x snipe nose pliers 160 mm
1 x side cutters 160 mm
1 x water pump pliers 250 mm

Set contents 56100 103:
1 x combination pliers 200 mm
1 x side cutters 160 mm
1 x telephone pliers, straight 200 mm
1 x telephone pliers, curved 200 mm
1 x heavy-duty side cutters 180 mm
1 x water pump pliers 250 mm

Set contents 56100 201:
1 x VDE combination pliers 180 mm
1 x VDE snipe nose pliers 200 mm
1 x VDE side cutters 160 mm
1 x VDE wire stripping pliers 160 mm

Set contents 56100 202:
1 x VDE side cutters 160 mm
1 x VDE wire stripping pliers 160 mm
1 x VDE snipe nose pliers 160 mm
1 x VDE radio pliers 160 mm
1 x VDE combination pliers 180 mm

56100 201

56100 202

Set contents	Design	56100 ...
4 pieces	in plastic box	101
6 pieces	in plastic box	103
VDE 4 pieces	in plastic box	201
VDE 5 pieces	in plastic box	202

56119 - 56120 Pliers sets

Design
Head high-gloss polished, chrome-plated.
Quality
Steel C 45, oil hardened and tempered, induction-hardened cutting edges.

56119
ATORN®
Design
Handles with 2-component sleeves and non-slip protection.

56120
HHW
Design
Handles with **ergosoft** sleeves and non-slip protection.

Set contents 56119 + 56120:
1 x combination pliers 160 mm
1 x Langbeck flat-nose pliers 160 mm
1 x flat nose pliers 160 mm
1 x Langbeck round-nose pliers 160 mm
1 x round-nose pliers 160 mm
1 x snipe nose pliers, straight, 200 mm
1 x snipe nose pliers, angled 45°, 200 mm
1 x side cutters 160 mm

		ATORN®		HHW	
Set contents	Design	56119	...	56120	...
8 pieces	in tool roll		101		101

56119

56120

56101 Pliers sets

KNIPEX

56101 001
Design
- 3 pieces
- Pliers with polished heads
- Handles coated with non-slip plastic or with two-colour multi-component sleeves

56101 002
Design
- 3 pieces
- Pliers with two-coloured multi-component grip covers

56101 003
Design
- 3 pieces
- Chrome-plated pliers
- Handles with multi-component sleeves
- Pliers **VDE-tested** in accordance with **DIN EN/IEC 60900** 1000 V

56101 004
Design
- 5 pieces
- Chrome-plated pliers
- Handles with multi-component sleeves
- With 3 WERA screwdrivers
- Tools **VDE-tested** in accordance with **DIN EN/IEC 60900** 1000 V

	Set contents 56101 001
1	**Combination pliers** 180 mm
1	**Side cutters** 160 mm
1	**High-tech water pump pliers** 250 mm

	Set contents 56101 002
1	**Combination pliers** 180 mm
1	**Snipe nose pliers with cutting edge** 200 mm
1	**Side cutters** 160 mm

	Set contents 56101 003
1	**Combination pliers** 180 mm
1	**Snipe nose pliers with cutting edge** 200 mm
1	**Side cutters** 160 mm

	Set contents 56101 004
1	**Snipe nose pliers with cutting edge** 200 mm
1	**Side cutters** 160 mm
⊖ 2	**slotted screwdriver** 0.6 x 3.5 x 100 / 1.0 x 5.5 x 125 mm
⊕ 1	**Phillips screwdriver** PH 2 x 100 mm

Set contents	Design	56101 ...
3 pieces	in deep-drawn plastic part with transparent lid	001
3 pieces	in deep-drawn plastic part with transparent lid	002
VDE 3 pieces	in deep-drawn plastic part with transparent lid	003
VDE 5 pieces	in deep-drawn plastic part with transparent lid	004

56101 001

56101 002

56101 003

56101 004

56130 - 56138 Combination pliers DIN ISO 5746

Design
With cutting edge and burner hole.
Quality
Steel C 45, oil hardened and tempered, Inductively hardened blades.

56130
ATORN®
Design
Polished head, grips dip coated.

56132
ATORN®
Design
Head high-gloss polished, chrome-plated, handles with 2-component sleeves and non-slip protection.

56134
HHW
Design
Head high-gloss polished, chrome-plated, handles with **ergosoft** sleeves with non-slip protection.

56138
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

56130

56132

56134

56138

Length mm	Up to wire Ø hard mm	Up to wire Ø medium mm	ATORN® 56130 ...	ATORN® 56132 ...	HHW 56134 ...	ATORN® VDE 56138 ...
160	1.8	2.5	101	101	101	201
180	2.5	2.8	102	102	102	202
200	2.5	3.0	103	103	103	203

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56152 - 56158 Combination pliers DIN ISO 5746

KNIPEX

56152 - 56157
Design
Long cutting edges for thicker cables.
Quality
Special tool steel,
cutting edge hardness approx. 60 HRC.

56152
Design
Polished head, arms with plastic coating.

56155
Design
Polished head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56156
Design
Chrome-plated head, arms with thick-walled, two-colou-red, multi-component sleeves and non-slip protection.

56157
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection, individually tested to **VDE DIN EN 60900.**

56158
Design
Chrome-plated head, arms with thick-walled, two-colou-red, multi-component sleeves and non-slip protection, individually tested according to **VDE DIN EN 60900**.
Long cutting edges for thicker cables.
Also suitable for piano wire.
Quality
Chromium-vanadium high strength steel,
cutting edge hardness approx. 64 HRC.

Grip zone for flat material

Grip zone for round material

Cutting edges for wire and cable

56152

56155

56156

56157

56158

Length mm	Up to wire Ø piano mm	Up to wire Ø hard mm	Up to wire Ø medium mm	56152	...	56155	...	56156	...	VDE 56157	...	VDE 56158	...
110	-	1.6	2.5						201				
140	-	1.8	2.8		101								
160	-	2.0	3.1		102		101		203		102		
160	1.5	2.0	-										101
180	-	2.2	3.4		103		102		204		103		
190	2.0	2.5	-										102
200	-	2.5	3.8		104		104		206		105		
250	-	2.5	3.8		105								

56172 - 56176 Heavy duty combination pliers DIN/ISO 5746

Applications
For continuous work in the toughest conditions **(approx. 63 HRC).**
Approx. 50% easier cutting thanks to new geometry of the pliers.
Quality
Steel C 60, oil-hardened and tempered, induction-hardened cutting edges.

56172
ATORN®
Design
Polished head, grips dip coated.
With cutting edge and burner hole.

56175
ATORN®
Design
High-gloss polished head, chrome-plated, handles with 2-component sleeves and grip protection.
With cutting edge and burner hole.

56176
HW
Design
High-gloss polished head, chrome-plated, handles with **ergosoft** sleeves and grip protection.
With extra-long cutting edge.

56172

56175

56176

Length mm	Up to wire Ø piano mm	Up to wire Ø hard mm	Up to wire Ø medium mm	ATORN® 56172	...	ATORN® 56175	...	HW 56176	...
200	2.2	2.7	3.8		102		102		102

56177 Heavy duty combination pliers DIN/ISO 5746

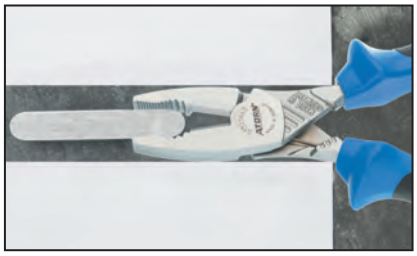
ATORN®

Design
- Handles with 2-component sleeves and grip protection
- Power joint saves up to 30% effort compared with conventional combination pliers
- Secure retention of workpieces with 4-point involute burner hole
- Serrated gripping surfaces for a better hold
- Slim design for better accessibility
- 20% weight reduction
- Made in Germany

Applications
For continuous work in the toughest conditions (64 HRC).

Quality
Chrome-plated surface. Serrated gripping surface, teeth inductively hardened, for hard and soft wire.

Secure retention with 4-point involute burner hole



Narrowed for better accessibility

56177 101
Design
- With opening spring for optimal handling (simple to disassemble)

56177 101

56177 201
Design
- Individually tested according to **VDE DIN EN 60900**

56177 201

Length mm	Up to wire Ø piano mm	Up to wire Ø medium mm	Up to wire Ø hard mm	56177	...	VDE 56177	...
180	2.0	3.5	2.5		101		201

56180 - 56184 Heavy duty combination pliers DIN/ISO 5746

KNIPEX

Applications
For continuous work in the toughest conditions **(approx. 63 HRC).** 35% less effort required than with conventional combination pliers.

Quality
High-quality special tool steel.

Grip zone for round material

Inductively-hardened cutting edges, even for piano wire

Powerful gripping, pulling and bending due to high force transmission

56180
Design
Polished head, arms with plastic coating.

56180

56182
Design
Polished head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56182

56184
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection, individually tested according to **VDE DIN EN 60900.**

56184

Length mm	Up to wire Ø piano mm	Up to wire Ø hard mm	56180	...	56182	...	VDE 56184	...
180	2.0	2.5		101		101		101
200	2.2	2.8		102		102		102
225	2.5	3.0				103		103

56188 Pointed combination pliers

KNIPEX

Design
- Small, heavy-duty combination pliers with pointed mount
- Especially handy: Ideal for working in hard-to-reach areas thanks to the slim head shape with jaws tapering to a point (very resistant to torsion)
- Gripping surface convex on one side for a firm grip of flat parts
- Machined groove in the gripping area allows secure gripping and pulling of small workpieces such as nails, pins and bolts

Applications
For all common installation and repair tasks.

56188 100
Design
- Black atramentised
- Polished head
- Handles with multi-component sleeves

56188 200
Design
- Chromium-plated
- Handles insulated with multi-component sleeves, **VDE tested**

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Multi-strand copper cable Ø mm	Multi-strand copper cable mm²	Weight g	56188 ...	VDE 56188 ...
145	3.0	2.0	8.0	16.0	148	100	
145	3.0	2.0	8.0	16.0	154		200

62113 VDE electrical installation pliers

KNIPEX

Design
- Multi-purpose pliers for electrical installation
- Bolted joint: precise movement of pliers with no play
- Slim design for good accessibility

Applications
For gripping flat and round material, bending, deburring, cable cutting, stripping and crimping of wire end ferrules.

Quality
Special-grade tool steel, forged, oil-hardened.

Six functions in one set of pliers:
- Smooth gripping surfaces at the tip for damage-free gripping of individual wires, profiled gripping surfaces and burner hole for gripping flat and round materials
- Sharper outer edge on the jaw for processing flush-mounted sockets and deburring feed-through holes
- Stripping holes for conductors 0.75–1.5 mm² and 2.5 mm²
- Crimp nest for wire end ferrules 0.5–2.5 mm²
- Cable cutter with precision cutting edges (inductive hardened) for copper and aluminium cables up to 5 x 2.5 mm² / Ø 15 mm
- Individually tested according to **VDE DIN EN 60900**

62113 301

Version	Length mm	62113 ...
Without opening spring	200	301
With opening spring	200	302

56200 - 56205 Flat nose pliers DIN/ISO 5745

Quality
Steel C 45, oil-hardened and tempered.

56200
ATORN®
Design
Polished head, grips dip coated.

56202
ATORN®
Design
High-gloss polished head, chrome-plated, handles with 2-component sleeves and grip protection.

56203
HHW
Design
Head high-gloss polished, chrome-plated, handles with **ergosoft** sleeves with non-slip protection.

56205
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

56200

56202

56203

56205

Length mm	ATORN® 56200 ...	ATORN® 56202 ...	HHW 56203 ...	ATORN® VDE 56205 ...
140		203		
160		204	204	204 201

56209 - 56220 Flat nose pliers DIN/ISO 5745

KNIPEX

Design
Short, flat, wide jaws, serrated gripping surface.
Quality
Chromium-vanadium electric steel, forged, oil-hardened

56209
Design
Polished head, arms with plastic coating.

56213
Assembly pliers DIN/ISO 5743
Design
Polished head, arms with plastic coating.
Very flat, wide jaws, especially well-suited for gripping and adjustment work.

56218
Design
Polished head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56220
Design
Chrome-plated head, arms with thick-walled, two-coloured, multi-component sleeves and non-slip protection, individually tested according to **VDE DIN EN 60900**.

56209

56213

56218

56220

Length mm	56209	...	56213	...	56218	...	VDE 56220	...
125		101						
140		102				102		
160		103				103		101
180		104						
200				101				

56240 - 56248 Langbeck flat-nose pliers DIN/ISO 5745

Quality
Steel C 45, oil-hardened and tempered.

56240
ATORN®
Design
Polished head, grips dip coated.

56242
ATORN®
Design
Head high-gloss polished, chrome-plated, handles with 2-component sleeves and non-slip protection.

56244
HW
Design
Head high-gloss polished, chrome-plated, handles with **ergosoft** sleeves with grip protection.

56248
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

56240

56242

56244

56248

Length mm	ATORN® 56240	...	ATORN® 56242	...	HW 56244	...	ATORN® VDE 56248	...
140		201						
160		203		203		203		201

56252 - 56256 Langbeck flat-nose pliers DIN/ISO 5745

KNIPEX

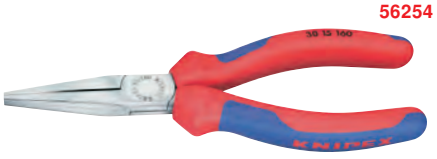
Design
Long, flat jaws, serrated gripping surfaces.
Quality
Chromium-vanadium electric steel.

56252
Design
Polished head, arms with plastic coating.

56254
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with Non-slip protection.

56256
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection, individually tested to **VDE DIN EN 60900.**

56252


56254

56256

Length mm	56252	...	56254	...	VDE 56256	...
140		101		101		
160		102		102		101
190		103		103		

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56271 - 56280 Snipe nose pliers DIN/ISO 5745 (radio pliers)

Design
With straight jaws, flat/round, tapered, serrated gripping surfaces, with cutting edge and burner hole.
Quality
Steel C 45, oil-hardened and tempered, induction-hardened cutting edges.

56271 101-103
ATORN®
Design
Polished head, grips dip coated.

56271 104
ATORN®
Design
Polished head, grips dip coated.
Without cutting edge.

56274
ATORN®
Design
Head high-gloss polished, chrome-plated, handles with 2-component sleeves and non-slip protection.

56277
H+W
Design
Head high-gloss polished, chrome-plated, handles with **ergosoft** sleeves with non-slip protection.

56280
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

56271 101-103

56271 104

56274

56277

VDE GS ≙1000V

56280

Length mm	Up to wire Ø hard mm	Up to wire Ø medium mm	ATORN® 56271	...	ATORN® 56274	...	H+W 56277	...	ATORN® VDE 56280	...
140	1.6	2.3		101						
160	1.6	2.5		102		102		102		201
200	1.8	2.8		103		103		103		202
280	-	-		104						

56284 - 56292 Snipe nose pliers DIN/ISO 5745 (radio pliers)

Design
With 45° curved jaw tips, flat/round, tapered, serrated gripping surfaces, with cutting edge and burner hole.
Quality
Steel C 45, oil-hardened and tempered, induction-hardened cutting edges.

56284 101
ATORN®
Design
Polished head, grips dip coated.

56284 103
ATORN®
Design
Polished head, grips dip coated.
Without cutting edge.

56286
ATORN®
Design
High-gloss polished head, chrome-plated, handles with 2-component sleeves and grip protection.

56288
H+W
Design
High-gloss polished head, chrome-plated, handles with **ergosoft** sleeves and grip protection.

56292
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

56284 101

56284 103

56286

56288

VDE GS ≙1000V

56292

Length mm	Up to wire Ø hard mm	Up to wire Ø medium mm	ATORN® 56284	...	ATORN® 56286	...	H+W 56288	...	ATORN® VDE 56292	...
160	1.6	2.5				101		101		101
200	1.8	2.8		101		102		102		201
280	-	-		103						

56296 - 56300 Snipe nose pliers DIN/ISO 5745 (snipe nose pliers/radio pliers)

KNIPEX

Design
Long jaws, tapering to a point, serrated gripping surfaces, **with wire cutter.** Elastic tips: stable in form even in case of twisting.
Quality
Vanadium electric steel, forged, oil-hardened

56296 101 + 105
Design
Polished head, arms with plastic coating.

56296 102 + 106
Design
Polished head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56296 103 + 100 + 104
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56300
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection, individually tested to **VDE DIN EN 60900.**

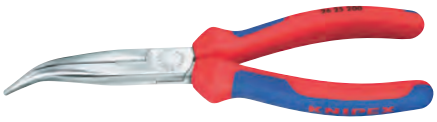
56296 101

56296 102

56296 103

56296 100

56296 104



56296 105

56296 106

56300 101

56300 100

56300 102

Shape		Length mm	Jaw length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	56296 ...	VDE 56300 ...
Straight	Snipe nose pliers	200	73	3.2	2.2	101	
Straight	Snipe nose pliers	200	73	3.2	2.2	102	
Straight	Snipe nose pliers	200	73	3.2	2.2	103	101
Angled 40°	Radio pliers	160	50	2.5	1.6	100	100
Angled 40°	Snipe nose pliers	200	73	3.2	2.2	104	102
Angled 40°	Snipe nose pliers	200	73	3.2	2.2	105	
Angled 40°	Snipe nose pliers	200	73	3.2	2.2	106	

56296 Assembly pliers with transverse profiles

KNIPEX

Design
- Slim, extra-long design
- The slim, flat/round gripping tips enable low-lying workpieces to be reached perfectly
- Gentle but secure gripping, holding and guiding of small copper pipes, screws, cables and other round parts due to milled grooves and smooth surface
- Serrated burner hole for gripping round parts
- Slim but robust tool

Applications
For gripping, adjustment and assembly work in hard-to-reach places.
Particularly suitable for work in the automotive industry (e.g. in the engine compartment), in assembly and in mechanical engineering.
Quality
Forged from special tool steel, oil-hardened.

NEW

56296 107

56296 108

Shape	Length mm	Jaw length mm	56296 ...
Straight	280	76.5	107
Angled 45°	280	70.0	108

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56304 - 56312 Snipe nose pliers DIN/ISO 5745 (radio pliers)

KNIPEX

Design
Pointed, flat/round jaws, serrated gripping surfaces, **with wire cutter.**
Applications
For soft wire up to Ø 2.5 mm and medium-hard wire up to Ø 1.6 mm.
Quality
Vanadium electric steel, forged, oil-hardened

56304
Design
Polished head, arms with plastic coating.

56308
Design
Polished head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56309
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56312
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection, individually tested to **VDE DIN EN 60900.**

56304

56308

56309

56312

Length mm	56304 ...	56308 ...	56309 ...	VDE 56312 ...
125	101			
140	102	101	102	
160	103	102	103	101

56316 Langbeck snipe nose pliers DIN/ISO 5745

KNIPEX

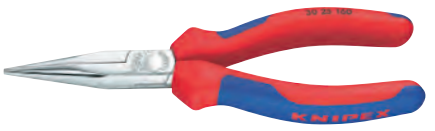
Design
With long, half-round jaws, serrated gripping surfaces.
Quality
Chromium-vanadium electric steel.

56316 101
Design
Polished head, arms with plastic coating.

56316 102
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56316 101

56316 102



Length mm	Jaw length mm	56316 ...
160	50	101
160	50	102

56332 Telephone pliers DIN/ISO 5745

KNIPEX

Design
Flat round jaws, cross-toothed gripping surfaces, **pointed and extremely slim, no wire cutter.**
Quality
Chromium-vanadium electric steel.

56332 101
Design
Polished head, arms with plastic coating.

56332 102
Design
Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56332 101

56332 102

Length mm	Jaw length mm	56332 ...
160	54	101
160	54	102

56360 - 56368 Round-nose pliers DIN/ISO 5745

Quality
Steel C 45, oil-hardened and tempered.

56360
ATORN®
Design
Polished head, grips dip coated.

56360

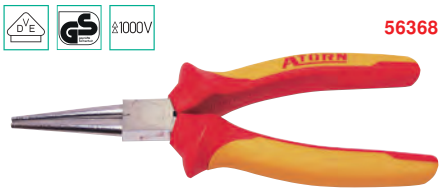
56362
ATORN®
Design
High-gloss polished head, chrome-plated, handles with 2-component sleeves and grip protection.

56362

56364
HW
Design
High-gloss polished head, chrome-plated, handles with **ergosoft** sleeves and grip protection.

56364

56368
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.


56368

Length mm	ATORN® 56360	...	ATORN® 56362	...	HW 56364	...	ATORN® VDE 56368	...
140		101						
160		102		102		102		201

56372 - 56376 Round-nose pliers DIN/ISO 5745

KNIPEX
Design
Short, round jaws, smooth gripping surfaces, precision-ground.
Quality
Chromium-vanadium electric steel, forged, oil-hardened

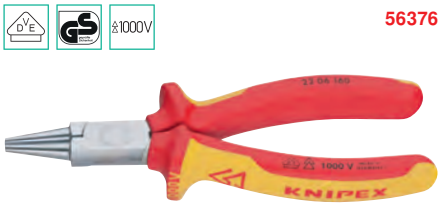
56372
Design
Polished head, arms with plastic coating.

56372

56374
Design
Polished head, arms with thick-walled, two-colour, multi-component sleeves, with non-slip protection.

56374

56376
Design
Chrome-plated head, arms with thick-walled, two-coloured, multi-component sleeves and non-slip protection, individually tested according to **VDE DIN EN 60900**.


56376

Length mm	56372	...	56374	...	VDE 56376	...
160		103		103		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

56400 - 56406 Langbeck round-nose pliers DIN/ISO 5745

Quality
Steel C 45, oil-hardened and tempered.

56400
ATORN®
Design
Polished head, grips dip coated.

56402
ATORN®
Design
High-gloss polished head, chrome-plated, handles with 2-component sleeves and grip protection.

56404
H+W
Design
High-gloss polished head, chrome-plated, handles with **ergosoft** sleeves and grip protection.

56406
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

56400

56402

56404

56406

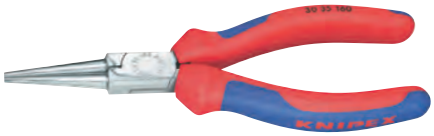
Length mm	Jaw length mm	ATORN® 56400	...	ATORN® 56402	...	H+W 56404	...	ATORN® VDE 56406	...
160	47		102		102		102		201

56410 Langbeck round-nose pliers DIN/ISO 5745

KNIPEX

Design
Long, round jaws, smooth gripping surfaces, ground. Chrome-plated head. Arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

Quality
Chromium-vanadium electric steel.

56410


Length mm	Jaw length mm	56410	...
160	41		102

56415 Electronics gripping pliers (needle-nose pliers) DIN/ISO 57423

KNIPEX

Design
Chrome-plated head, pointed oval jaws, tapering to 2.5 mm wide and 1 mm point. Smooth-ground gripping surfaces. Arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

Quality
Chromium-vanadium electric steel.

56415 101

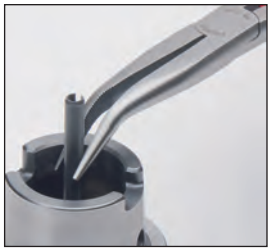
56415 102

Shape	Length mm	Jaw length mm	56415 ...
Straight	160	55	101
Angled 45°	160	55	102

56425 Mechanic's pliers DIN/ISO 5745

KNIPEX

Applications
For all precision engineering, highly resistant to torsion.
Quality
Vanadium electric steel.



56425 101
Design
Flat/round jaw head, straight. Cross-toothed gripping surfaces. Polished head, arms with plastic coating.

56425 103
Design
Flat/round jaw head, straight. Cross-toothed gripping surfaces. Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56425 104
Design
Flat-round jaws, angled. Cross-toothed gripping surfaces. Chrome-plated head, arms with thick-walled, two-colour multi-component sleeves with non-slip protection.

56425 101

56425 103

56425 104

Shape	length mm	56425 ...
Straight	200	101
Straight	200	103
Angled 40°	200	104

56430 - 56434 Electronics/mechanic's precision pliers DIN/ISO 9655

KNIPEX

Applications
For gripping and adjusting components and bending wire eyelets.
Quality
Chromium-vanadium electric steel, oil-hardened.

56430 100
Design
- Cross-toothed gripping surfaces
- Polished head
- Handles coated in plastic

56430 101-102
Design
- Smooth gripping surfaces
- Precision-ground tips
- Polished head
- Handles coated in plastic

56434
Design
- Smooth gripping surfaces
- Precision-ground tips
- Chrome-plated head
- Handles coated in plastic

56430 100

56430 101

56430 102

Jaw shape	Length mm	56430 ...	56434 ...
Flat/wide	190	100	
Flat/wide	125	101	101
Flat/round	125	102	102

56445 Weber pliers (duckbill pliers)

KNIPEX

Design
With beak-shaped, thin tapered jaws. Polished head, jaw width tapers from 9 mm to 1.5 mm, smooth gripping surfaces, plastic-coated arms.

Quality
Chromium-vanadium electric steel.

56445

Length mm	Jaw length mm	56445 ...
160	55	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

56450 Adjustment pliers DIN 5235

KNIPEX

Design
With thin, flat jaws. Polished head and gripping surfaces, arms with plastic coating.
Applications
For bending contact springs and thin wires. For gripping components of the smallest diameter.

Quality
Chromium-vanadium electric steel.

56450 201

56450 202

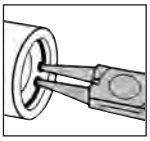
56450 203

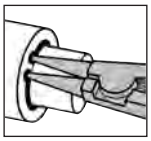
Jaw shape	Length mm	56450 ...
Flat/wide, straight	135	201
Flat/pointed, straight	135	202
Angled 40°	135	203

56700 Circlip pliers sets DIN 5256

ATORN®

Applications
For Seeger circlips, internal or external.
Quality
Chromium-vanadium steel.

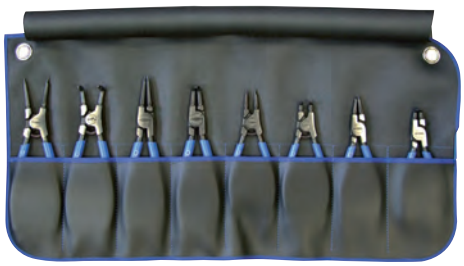




56700 100

	Set contents 56700 100	Size	Tip shape	For hole Ø mm	For shaft Ø mm
1	Internal circlip pliers	J 2	straight	19 - 60	-
1	Internal circlip pliers	J 21	angled 90°	19 - 60	-
1	External circlip pliers	A 2	straight	-	19 - 60
1	External circlip pliers	A 21	angled 90°	-	19 - 60

56700 101



	Set contents 56700 101	Size	Tip shape	For hole Ø mm	For shaft Ø mm
1	Internal circlip pliers	J 1	straight	12 - 25	-
1	Internal circlip pliers	J 2	straight	19 - 60	-
1	Internal circlip pliers	J 11	angled 90°	12 - 25	-
1	Internal circlip pliers	J 21	angled 90°	19 - 60	-
1	External circlip pliers	A 1	straight	-	10 - 25
1	External circlip pliers	A 2	straight	-	19 - 60
1	External circlip pliers	A 11	angled 90°	-	10 - 25
1	External circlip pliers	A 21	angled 90°	-	19 - 60

Set contents	Design	56700 ...
4 pieces	in tool roll	100
8 pieces	in tool roll	101

56703 Circlip pliers sets

KNIPEX

Design
- Tool roll with practical, adjustable quick release
- Tool roll made of durable polyester fabric

56703 101
Design
- **4 common** circlip pliers for internal and external rings

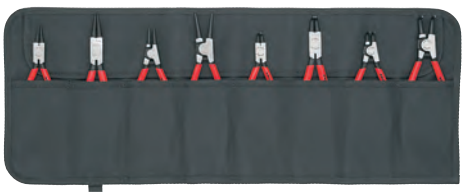
56703 102
Design
- **8 common** circlip pliers for internal and external rings

NEW

56703 101

	Set contents 56703 101	Size	Tip shape	For hole Ø mm	For shaft Ø mm
1	Internal circlip pliers	J 2	straight	19 - 60	-
1	Internal circlip pliers	J 21	angled 90°	19 - 60	-
1	External circlip pliers	A 2	straight	-	19 - 60
1	External circlip pliers	A 21	angled 90°	-	19 - 60

56703 102



	Set contents 56703 102	Size	Tip shape	For hole Ø mm	For shaft Ø mm
1	Internal circlip pliers	J 1	straight	12 - 25	-
1	Internal circlip pliers	J 2	straight	19 - 60	-
1	Internal circlip pliers	J 11	angled 90°	12 - 25	-
1	Internal circlip pliers	J 21	angled 90°	19 - 60	-
1	External circlip pliers	A 1	straight	-	10 - 25
1	External circlip pliers	A 2	straight	-	19 - 60
1	External circlip pliers	A 11	angled 90°	-	10 - 25
1	External circlip pliers	A 21	angled 90°	-	19 - 60

Set contents	Design	56703 ...
4 pieces	in tool roll	101
8 pieces	in tool roll	102

Circlip pliers

56701 - 56702 Precision circlip pliers sets

KNIPEX

56701
Design
- Four common precision circlip pliers for the most demanding requirements
- Tool roll made of durable polyester fabric
- With practical, adjustable quick release

56702
Design
- Equipped with common precision circlip pliers for the most demanding requirements
- High-quality, impact-resistant plastic case
- Precise recesses for storing the pliers
- For clear storage of tools
- Dimensions, external (W x H x D): 260 x 80 x 210 mm

56701

	Set contents 56701	Size	Tip Shape	For hole Ø mm	For shaft Ø mm
1	Internal circlip pliers	J 1	straight	12 - 25	-
1	Internal circlip pliers	J 2	straight	19 - 60	-
1	External circlip pliers	A 1	straight	-	10 - 25
1	External circlip pliers	A 2	straight	-	19 - 60

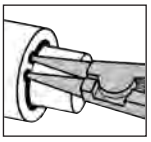
56702

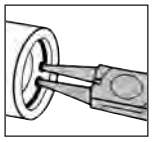
	Set contents 56701	Size	Tip Shape	For hole Ø mm	For shaft Ø mm
1	Internal circlip pliers	J 1	straight	12 - 25	-
1	Internal circlip pliers	J 2	straight	19 - 60	-
1	Internal circlip pliers	J 11	angled 90°	12 - 25	-
1	Internal circlip pliers	J 21	angled 90°	19 - 60	-
1	External circlip pliers	A 1	straight	-	10 - 25
1	External circlip pliers	A 2	straight	-	19 - 60
1	External circlip pliers	A 11	angled 90°	-	10 - 25
1	External circlip pliers	A 21	angled 90°	-	19 - 60

Set contents	Design	56701 ...	56702 ...
4 parts	in tool roll	100	
8 parts	in plastic case		100

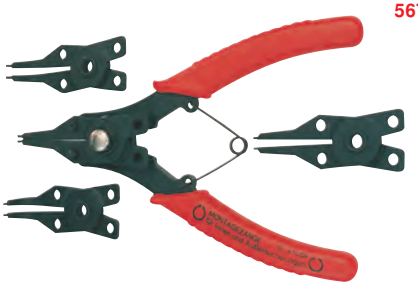
56710 Circlip pliers

Design
With 4 interchangeable heads
(2 x straight 180°, 1 each of 45° and 90°).
Heads can be swapped quickly and easily on the pliers.
Applications
For internal and external retaining rings of 10–50 mm Ø.





56710

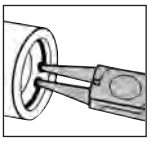


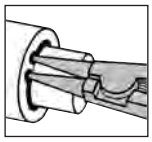
	56710 ...
	101

56715 Circlip pliers set

BAHCO

Design
3 pliers (length 160, 200 and 250 mm) with interchangeable tips. Easily convertible from external to internal ring and vice versa. Adjustable stops (automatic with 250-mm pliers) to prevent damage to circlips due to excessive force.





56715

For hole Ø (internal) mm	For shaft Ø (external) mm	Design	56715 ...
8 - 100	3 - 100	in tray	101

56730 - 56731 Internal circlip pliers DIN 5256 C

Design
With straight tips.
Applications
For Seeger internal circlips (hole rings).
Quality
Chromium-vanadium steel.

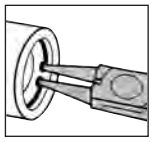
56730
ATORN®
Design
Polished head, grips dip coated.

56731
KNIPEX
Design
Polished head, plastic-coated handles

56730

56731

Size	Application area Hole Ø mm	Circlips Type -JK-	ATORN 56730	...	KNIPEX 56731	...
J 0	8 - 13	-		101		101
J 1	12 - 25	16 - 25		102		102
J 2	19 - 60	22 - 60		103		103
J 3	40 - 100	40 - 100		104		104
J 4	85 - 140	85 - 140		105		105



56729 Precision circlip pliers for internal rings in holes

KNIPEX

Design
With straight tips. Atramentised head, handles coated with non-slip plastic. Large tip surface area, no ring twisting, easy assembly. With inset tips to ensure safe working **(1)**. Highly resilient, even in continuous use. Precise, free-moving screw joint. Slim head for optimal access to the workpiece.
Applications
Precision circlip pliers for internal rings in holes.
Quality
Pliers body: Chromium-vanadium electric steel, forged, oil-hardened.
Inset tips: Spring steel wire, drawn.

56729

Size	Application area Hole Ø mm	Length mm	56729	...
J 0	8 - 13	140		101
J 1	12 - 25	140		102
J 2	19 - 60	180		103
J 3	40 - 100	225		104
J 4	85 - 140	320		105

56733 Internal circlip pliers DIN 5256 C

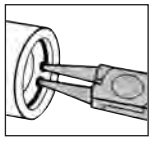
KNIPEX

56733 101-102
Design
With straight, replaceable tips to match the circlip holes. Reliable handling due to ratchet tip width adjustment.
Applications
For large internal rings.
Quality
Pliers body: Rolled steel, high-strength.
Tips: Special tool steel, rolled, oil-hardened.

56733 103-104
Replacement tips (pair).

56733

Size	Application area Hole Ø mm	56733	...
J 5	122 - 300		101
J 6	252 - 400		102
J 5	replacement tips 122 - 300 (pair)		103
J 6	replacement tips 252 - 400 (pair)		104



Circlip pliers

56735 - 56735 Internal circlip pliers DIN 5256 D

Design
With 90° angled jaws.
Applications
For Seeger internal circlips (hole rings).
Quality
Chromium-vanadium steel.

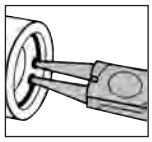
56736
ATORN®
Design
Polished head, grips dip coated.

56735
KNIPEX
Design
Polished head, plastic-coated handles

56736

56735

Size	Application area Hole Ø mm	Circlips Type -JK-	ATORN® 56736	...	KNIPEX 56735	...
J 01	8 - 13	-		101		101
J 11	12 - 25	16 - 25		102		102
J 21	19 - 60	22 - 60		103		103
J 31	40 - 100	40 - 100		104		104
J 41	85 - 140	85 - 140		105		105



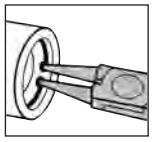
56738 Precision circlip pliers for internal rings in holes

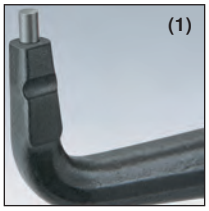
KNIPEX

Design
With 90° angled jaws. Atramentised head, handles coated with non-slip plastic. Large tip surface area, no ring twisting, easy assembly. With inset tips to ensure safe working **(1).** Highly resilient, even in continuous use. Precise, easy-to-move screw joint. Slim head for optimal access to the workpiece.
Applications
Precision circlip pliers for internal rings in holes.
Quality
Pliers body: Chromium-vanadium electric steel, forged, oil-hardened.
Inset tips: Spring steel wire, drawn.

56738

Size	Application area Hole Ø mm	Length mm	56738	...
J 01	8 - 13	130		101
J 11	12 - 25	130		102
J 21	19 - 60	165		103
J 31	40 - 100	210		104
J 41	85 - 140	305		105





56739 Internal circlip pliers DIN 5256 D

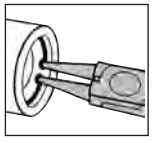
KNIPEX

56739 101-102
Design
With 90° angled, replaceable tips to match the circlip holes. Tip clamping width is set using a ratchet mechanism for reliable handling.
Applications
For large internal rings.
Quality
Pliers body: Rolled steel, high-strength.
Tips: Special tool steel, rolled, oil-hardened.

56733 103-104
Replacement tips (pair).

56739

Size	Application area Hole Ø mm	56739	...
J 51	122 - 300		101
J 61	252 - 400		102
J 51	replacement tips 122 - 300 (pair)		103
J 61	replacement tips 252 - 400 (pair)		104



56742 - 56743 External circlip pliers DIN 5254 A

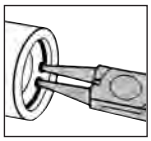
Design
With straight tips.
Applications
For Seeger external circlips (shaft rings).
Quality
Chromium-vanadium steel.

56743
ATORN®
Design
Polished head, grips dip coated.

56742
KNIPEX
Design
Polished head, plastic-coated handles

56743

56742



Size	Application area Shaft Ø mm	Circlips Type -AK-	ATORN 56743	...	KNIPEX 56742	...
A 0	3 - 10	-		101		101
A 1	10 - 25	16 - 25		102		102
A 2	19 - 60	20 - 60		103		103
A 3	40 - 100	40 - 100		104		104
A 4	85 - 140	85 - 140		105		105

56745 Precision circlip pliers for external rings on shafts

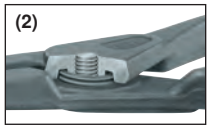
KNIPEX
Design
With straight tips. Atramentised head, handles coated with non-slip plastic. Large tip surface area, no ring twisting, easy assembly. With inset tips to ensure safe working **(1).** Highly resilient, even in continuous use. Precise, easy-to-move screw joint. Captive opening spring in the joint **(2).** Slim head for optimal access to the workpiece.
Applications
Precision circlip pliers for external rings on shafts.
Quality
Pliers body: Chromium-vanadium electric steel, forged, oil-hardened.
Inset tips: Spring steel wire, drawn.

56745 201-203
Design
- With adjustable opening limit
- Adjustable stop to prevent over-expansion
- Set using Allen screw
- Ideal for series production, as ring overstretching is effectively prevented

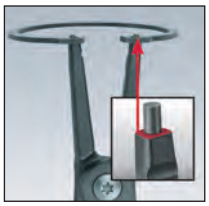
56745 101-105

56745 201-203

(1)


(2)

Size	Application area Shaft Ø mm	Length mm	56745	...	56745	...
A 0	3 - 10	140		101		201
A 1	10 - 25	140		102		202
A 2	19 - 60	180		103		203
A 3	40 - 100	225		104		
A 4	85 - 140	320		105		



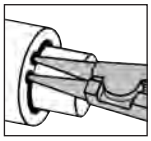
56746 External circlip pliers DIN 5254 A

KNIPEX
56746 101-102
Design
With straight, replaceable tips to match the circlip holes. Tip clamping width is set using a ratchet mechanism for reliable handling.
Applications
For large external rings.
Quality
Pliers body: Rolled steel, high-strength.
Tips: Special tool steel, rolled, oil-hardened.

56746 103-104
Replacement tips (pair).

56746

Size	Application area Shaft Ø mm	56746	...
A 5	122 - 300		101
A 6	252 - 400		102
A 5	replacement tips 122 - 300 (pair)		103
A 6	replacement tips 252 - 400 (pair)		104



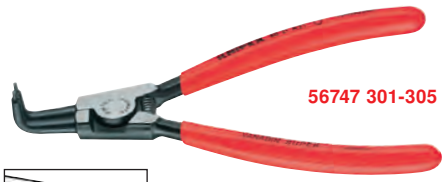
56747 External circlip pliers DIN 5254 B

Design
With 90° angled jaws.
Applications
For Seeger external circlips (shaft rings).
Quality
Chromium-vanadium steel.

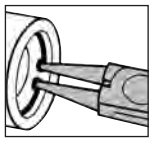
56747 101-105
ATORN®
Design
Polished head, grips dip coated.

56747 301-305
KNIPEX
Design
Polished head, plastic-coated handles

56747 101-105


56747 301-305

Size	Application area Shaft Ø mm	Circlips Type -AK-	ATORN® 56747	...	KNIPEX 56747	...
A 01	3 - 10	-		101		301
A 11	10 - 25	16 - 25		102		302
A 21	19 - 60	20 - 60		103		303
A 31	40 - 100	40 - 100		104		304
A 41	85 - 140	85 - 140		105		305



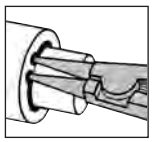
56749 Precision circlip pliers for external rings on shafts

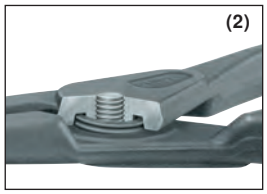
KNIPEX

Design
With 90° angled jaws. Atramentised head, handles coated with non-slip plastic. Large tip surface area, no ring twisting, easy assembly. With inset tips to ensure safe working **(1).** Highly resilient, even in continuous use. Precise, easy-to-move screw joint. Captive opening spring in the joint **(2).** Slim head for optimal access to the workpiece.
Applications
Precision circlip pliers for external rings on shafts.
Quality
Pliers body: Chromium-vanadium electric steel, forged, oil-hardened.
Inset tips: Spring steel wire, drawn.

56749

Size	Application area Shaft Ø mm	Length mm	56749	...
A 01	3 - 10	130		101
A 11	10 - 25	130		102
A 21	19 - 60	165		103
A 31	40 - 100	210		104
A 41	85 - 140	305		105





56750 External circlip pliers DIN 5254 B

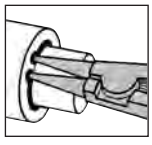
KNIPEX

56750 101-102
Design
With 90° angled, replaceable tips to match the circlip holes. Tip clamping width is set using a ratchet mechanism for reliable handling.
Applications
For large external rings.
Quality
Pliers body: Rolled steel, high-strength.
Tips: Special tool steel, rolled, oil-hardened.

56750 103-104
Replacement tips (pair).

56750

Size	Application area Shaft Ø mm	56750	...
A 51	122 - 300		101
A 61	252 - 400		102
A 51	replacement tips 122 - 300 (pair)		103
A 61	replacement tips 252 - 400 (pair)		104



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56751 Assembly pliers for snap rings on shafts

KNIPEX

Design
- Burnished pliers
- For shaft retainer clips
- With opening spring

Applications
For mounting snap rings and circlips without grip holes.

Quality
Chromium-vanadium electric steel, forged, oil-hardened.

56751 101
Applications
For snap rings with minimum gap size of 3.6 mm

56751 102
Design
- Handles coated with plastic
- Curved jaws with centring
- Minimum opening of rings 2.2 mm

Applications
For standard snap rings above Ø 12.0 mm (e.g. shaft retainer clips on a vehicle gearbox).

NEW

56751 101

56751 102

Length mm	Tip shape	56751 ...
170	straight	101
200	angled 30°	102

56764 Hose clamping tongs

Design
Forged, clamping jaw hardness 200 kg/mm², with plastic handles and opening spring.

Applications
For installation and removal of CLIC and CLIC R clamps.

56764 101-104
Installation pliers

56764 105
Installation and removal pliers

56764 101 | 56764 102 | 56764 103 | 56764 104 | 56764 105

		56764 ...
Installation pliers	straight head	101
Installation pliers	head tilted 45°	102
Installation pliers	head angled 45°	103
Installation pliers	head tilted 15°	104
Installation and removal pliers	straight head	105

56765 - 56770 Hose clamping tongs

56765
GEDORE

Design
Chrome-plated handles.

Applications
For self-tightening **hose clamps**.

56770 100
HAZET

Design
Chrome-plated swivel jaws.

Applications
For spring band clamps, e.g. on coolant hoses, especially VW, Audi and Opel.

56770 101
HAZET

Design
Fixed jaws, with locking device.

Applications
For self-tightening **spring band clamps.** Adjustable jaw opening for different size spring band clamps, specially developed for VW/Audi.

56770 102
HAZET

Design
Fixed jaws, with plastic-coated handles.

Applications
In particular for 12 and 15 mm wide, self-tightening **spring band clamps** in cooling and heating systems, e.g. Opel, VW, Ford, Renault, Fiat, Peugeot, Citroën, Porsche, Alfa Romeo, Mercedes-Benz.

56765

56770 100

56770 101

56770 102

Clamping width mm	Total length mm	GEDORE 56765 ...	HAZET 56770 ...
6-40	210		100
40	220	101	
90	320		101
80	320		102

56771 Spring band clamp pliers

KNIPEX

Design
A single pair of pliers for clamps and spring band rings of different sizes up to 70 mm. Rotating grip inserts for adapting to any situation. Clamps still sit securely within the pliers. **Grey atramentised, with non-slip plastic coating.**

- Rotating, universal gripping inserts for a secure clamp hold in any position
- Extremely good leverage to open clamps simply, safely and easily without excessive force
- Slim head, narrow head width, rotating gripping inserts: the ideal tool even in confined spaces
- Can be used for standard, compact and wire clamps, as well as spring band rings up to a nominal size of 70 mm
- Maximum jaw opening 80 mm, clamp travel greater than 40 mm

Quality
Chromium-vanadium electric steel, forged, oil-hardened

56771 100

56771 101

Lock washer Ø max. mm	Jaw opening mm	Length mm	56771 ...
50	0 - 80	180	100 NEW
70	0 - 80	250	101

56771 Hose clamp pliers for Click clamps

KNIPEX

Design
- Grey atramentised
- Handles coated in non-slip plastic
- Rotating gripping inserts for reliable clamp operation in any position
- Good leverage to open and close clamps simply, safely and easily without excessive force
- **Additional function:** Gently loosen hoses with toothed gripping jaw
- Slim head, narrow head width, rotating gripping inserts: the ideal tool even in confined spaces

Applications
For opening and closing „click" clamps.
For comfortable working, e.g. on fuel hoses, vacuum lines and intake manifolds.

Quality
Chromium-vanadium electric steel, forged, oil-hardened

56771 200

56771 201

Length mm	Weight g	56771 ...
180	170	200 NEW
250	340	201

56772 Ear clamp pliers

KNIPEX

Design
- Black atramentised
- Polished head
- Handles coated in plastic
- Prevents damage to the pressing points on the ear clamps
- The narrow head enables easy access in confined spaces
- Durable and robust

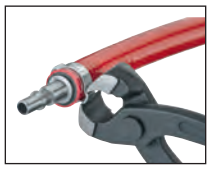
Applications
For the easy and reliable attachment of 1-ear and 2-ear clamps (Oetiker system or similar). Versatile use for clamps on axle boots, cooler and fuel lines, lubricant systems, air pressure systems, compressors.

Quality
Special tool steel in special grade, forged and oil-hardened.

56772 102
Design
- With side pressing nose

Applications
For universal use thanks to additional side pressing nose.

56772 101



56772 102

Length mm	Weight g	With side Pressing nose	56772 ...
220	354	-	101
220	340	x	102

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56780 Pinch-off pliers

Design
Plastic.
Applications
For disconnecting flexible hose lines without metal mesh.

For hose Ø mm	For hose Ø inch	56780	...
6-19 / 13-32 / 19-57	1/4-3/4 / 1/2-1.1/4 / 3/4-2.1/4		**100**
6-19	1/4-3/4		**101**
13-32	1/2-1.1/4		**102**
19-57	3/4-2.1/4		**103**

56780 100
Design
Set, 3 parts.
Pinch-off pliers, 1 each of 6-19 / 13-32 / 19-57 mm.

56780 102

56780 103

56800 Water pump pliers (universal pliers) DIN/ISO 8976

ATORN®

Design
With attached grooved slip joint, burner hole, serrated jaws and clamping protection.

5-way adjustment. High-gloss polished head, chrome-plated, handles with 2-component sleeves and grip protection.
Quality
Chromium-vanadium steel.

Length mm	Grip width max. mm	56800	...
250	55		**103**

56800

56810 - 56813 Water pump pliers (universal pliers) DIN/ISO 8976

KNIPEX

Design
- With attached grooved slip joint
- Gripping surfaces with special hardened teeth (approx. 61 HRc)
- Pinching guard
- 5-way adjustment
- Easy engagement due to milled turntable
- Self-clamping on pipes and nuts
- No slippage on workpiece
- Energy-saving work

Quality
Chromium-vanadium electric steel, forged, oil-hardened.

56810
Design
- Black atramentised
- Polished head
- Handles with red plastic coating

56812
Design
- Chrome-plated head
- Handles with red plastic coating

56813
Design
- Chrome-plated head
- Handles with thick-walled, two-colour, multi-component sleeves, with non-slip protection

Length mm	Grip width For pipe inch	Grip width For nut size mm	56810	...	56812	...	56813	...
250	1.5/16	36	**102**		**102**		**102**	

56810

56812

56813

56818 Water pump pliers (universal pliers) with quick-action lever DIN/ISO 8976

HAZET

Design
- Convenient one-handed quick adjustment thanks to tip/step lever function
- Can be adjusted without changing grip (for right-handed users)

- Maximum clamping range up to 50 mm hex width and 50 mm pipe diameter
- Integrated pinch guard prevents injuries/crushing

Length mm	Grip width For pipe mm	Grip width For nut size mm	56818	...
260	50	50		**101**

56818

56862 Water pump pliers with automatic adjustment KNIPEX SmartGrip®

KNIPEX

Design
With box joint Full automatic adjustment to the workpiece simply by pressing the handles of the pliers together. Self-clamping on pipes and nuts. One-handed operation for left-handed and right-handed users. Fine adjustment. Gripping surfaces with special hardened teeth (approximately 61 HRC). Clamping protection against crushing injuries. Locking lever for space-saving transport with securely closed handles.

Quality
Chromium-vanadium electric steel, forged, oil-hardened.

Working range mm	Working range inch	56862	...
10 - 36	1/8 - 1,1/4		**101**

56862

Water pump pliers

56819 Water pump pliers KNIPEX Cobra®ES

KNIPEX

Design
The extra-slim water pump pliers. Entire head and joint area is very slim for excellent access to the workpiece. Long, pointed jaws. One-handed fine adjustment directly on workpiece at the push of a button with 19 positions for optimum adaptation to different workpiece sizes and comfortable handle width. Secure locking of the joint pin: no unintentional adjustment. Perforated joint: highly robust thanks to double guide. Secure grip even on flat parts due to three-point support. Self-locking on pipes and nuts: no slippage on workpiece, energy-saving. Specially hardened teeth on gripping surfaces, teeth hardness approx. 61 HRC: high wear resistance for lasting secure grip. Favourable leverage: optimum force transmission. Pinch guard prevents crushing injuries. Polished head. Handles coated in non-slip plastic.
Quality
Chromium-vanadium electric steel, oil hardened and annealed.

56819

Optimal access to the workpiece. Ideal for service and maintenance, appliance repair, vehicle work and industry

Very slim design throughout the head and joint area (compared to conventional water pump pliers)

Fine adjustment by push button: quick and convenient

Grips nuts with up to 34 mm width across flats

Length mm	Grip width For pipe inch	Grip width For nut size mm	Fine adjustment	56819	...
250	1,1/4	34	19x		202

56821 - 56824 Water pump pliers (universal pliers) DIN/ISO 8976

Design
With box slip joint in hole grid, die-forged, burner hole, gripping surfaces with hardened teeth, with protection against crushing injuries by clamping
Quality
Chromium-vanadium steel.

56821
ATORN®
Design
Handles with plastic coating.

56822
H+W

56824
VBW●
Design
Knurled handles, inductively hardened grip area, ground.

56821

56822

56824

			ATORN®		H+W		VBW●	
Length mm	Grip width max. mm	Fine adjustment	56821	...	56822	...	56824	...
160	16	6x	101					101
250	32	7x	102			102		102
315	48	7x	103					103

56827 One-handed water pump pliers (universal pliers) DIN/ISO 8976

Design
With box joint Automatic, infinitely variable size setting for each diameter even with one-handed operation. Spring leg for optimal pressure transmission. Hardened teeth **(51 HRC).**
Non-slip grip covers for a secure hold.
Quality
Chromium-vanadium steel (50 CrV).

56827

Length mm	Grip width for pipes inch	Grip width for nut size mm	Grip depth mm	Jaw width mm	Fine adjustment	Weight g	56827	...
175	1,1/4	30	26	8	11	168		101
250	1,1/2	38	32	8	12	375		102

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56830 Water pump pliers set KNIPEX Alligator®

Design
- Pliers with polished heads
- Pinch guard prevents crushing injuries
- Handles coated in non-slip plastic
- Robust design, resistant to soiling
- Box joint: high level of stability thanks to double guide
- Slim head and joint area provides excellent access to the workpiece
- Self-locking on pipes and nuts: no slippage on workpiece, energy-saving
- Better performance and more comfort compared to conventional water pump pliers of the same length: 9-stage detent adjustment for 30% more gripping capacity
- Specially hardened teeth on gripping surfaces, teeth hardness approx. 61 HRC: high wear resistance for lasting secure grip

Applications
Particularly suitable for outdoor work.

Quality
Chromium-vanadium electric steel, forged, multi-stage oil-hardening.

NEW

56830

Length mm	Design	56830	...
180/250/300	in plastic deep deep-drawn part with transparent cover		001

56830 - 56833 Water pump pliers KNIPEX Alligator®

Design
- With box joint
- Gripping surfaces with special hardened teeth (approx. 61 HRC)
- Pinching guard
- Self-clamping on pipes and nuts

Quality
Chromium-vanadium electric steel, oil-hardened.

56830
Design
- Black atramentised
- Polished head
- Handles with red plastic coating

56832
Design
- Chrome-plated head
- Handles with thick-walled, two-colour, multi-component sleeves, with grip protection.

56833 101
Design
- Chrome-plated head
- Dip-insulated handles with non-slip protection
- Individually tested according to **VDE DIN EN 60900**

56833 201
Design
- Chrome-plated head
- Handles with thick-walled, two-colour, multi-component sleeves, with non-slip protection.
- Individually tested according to **VDE DIN EN 60900**

56830 100

56830 101

56830 102

56830 103

56832 100

56832 101

56832 102

56833 101

56833 201

VDE

Length mm	Grip width for pipes inch	Grip width for nut size mm	Fine adjustment	56830	...	56832	...	56833	...
180	1.1/2	36	9x		100		100		
250	2.	46	9x		101		101		101
250	2.	46	9x						201
300	2.3/4	60	9x		102		102		
400	3.1/2	95	11x		103				

Water pump pliers

56836 Water pump pliers

ATORN®

Design
- 30% larger gripping area
- With box joint
- Enhanced self-clamping with optimised jaw design
- Fine adjustment graduations owing to quick-snap ratchet mechanism
- Spring-driven sliding block ensures quicker engagement
- Opposing toothing at the back of the jaws ensures aggressive gripping
- Fast and precise fine-tuning at the press of a button directly on the workpiece
- Made in Germany

Quality
Inductively hardened, serrated jaws

56836 101-103
Design
- Plain surface
- PVC-dipped handles

56836 201-202
Design
- Chrome-plated surface
- 2-component plastic handles

Refined gradation for better ergonomics.

Opposing teeth for aggressive grabbing.

30% larger gripping area.

56836 101

56836 102

56836 103

56836 201

56836 202

Length mm	Clamping width max. mm	Clamping width max. inch	56836 ...
180	42	1.1/2	101
250	50	2.	102
300	70	2.3/4	103
180	42	1.1/2	201
250	50	2.	202

56837 VDE water pump pliers (universal pliers)

ATORN®

Speedy®
Design
With box joint, burner hole and pinch protection. With quick adjustment. High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

Quality
Chromium-vanadium steel.

56837

Length mm	56837 ...
250	201

56845 High-tech water pump pliers set KNIPEX Cobra®

KNIPEX

Design
- Grey atramentised pliers
- Pinch guard prevents crushing injuries
- Push-button adjustment directly on workpiece
- Handles coated in non-slip plastic
- Box joint: high level of stability thanks to double guide
- Secure locking of the joint pin: no unintentional adjustment
- Self-locking on pipes and nuts: no slippage on workpiece, energy-saving
- Fine adjustment for optimal adaptation to different workpiece sizes and hand-friendly handle position
- Specially hardened teeth on gripping surfaces, teeth hardness approx. 61 HRC: high wear resistance for lasting secure grip

Quality
Chromium-vanadium electric steel, forged, multi-stage oil-hardening.

NEW

56845

Length mm	Design	56845 ...
180/250/300	in plastic deep-drawn part with transparent cover	001

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56845 High-tech water pump pliers KNIPEX Cobra® and Cobra® QuickSet

Design
- With box joint
- Gripping surfaces with special hardened teeth (approx. 61 HRC)
- Pinching guard
- Fast and precise fine-tuning at the press of a button directly on the workpiece
- Adjustable with one hand
- No accidental readjustment
- Self-clamping on pipes and nuts

Quality
Chromium-vanadium electric steel, oil-hardened.

56845 199-203
Design
- Polished head
- Handles coated in non-slip plastic

56845 204-205
Design
- Polished head
- Handles coated in plastic
- Gas pipe and water pump pliers in one tool
- Wide grip for pipes and nuts, while remaining lighter than comparable pipe wrenches.

56845 303-304
KNIPEX Cobra® QuickSet
Design
- Chrome-plated head
- Handles coated in non-slip plastic
- Open fully, slide, grip!
- Additional fast sliding adjustment to the workpiece
- Combines the proven, reliable engagement of the joint pin with an additional slide function, which makes it easier to work in very narrow and inaccessible areas
- Simple slide method for adjustment directly on the workpiece
- Joint pin locks securely when first loaded. The width of the grip is then fixed and can only be adjusted by pressing the button
- To reactivate the sliding function, press the button to push out the joint pin and open the pliers fully

Length mm	Grip width for pipes inch	Grip width for nut size mm	Fine adjustment	56845	...
125	1.	27	13x	199	
150	1.1/4	30	11x	200	
180	1.1/2	36	18x	201	
250	2.	46	25x	202	
300	2.3/4	60	30x	203	
400	3.1/2	95	27x	204	
560	4.1/2	120	20x	205	
250	2.	46	25x	303	
300	2.3/4	60	25x	304	

56845 199

56845 200

56845 201

56845 202

56845 203

56845 204

56845 205

56845 303

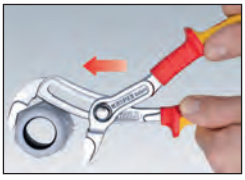
56845 304

56846 VDE high-tech water pump pliers KNIPEX Cobra®

Design
- Quick adjustment to the workpiece without push-button operation: Simply slide the tool
- Opens away from the workpiece with proven push-button function
- Fine adjustment: allows optimum adaptation to a wide range of workpiece sizes and a hand-friendly handle position
- Self-locking jaw geometry for a secure hold on flat, round and multi-edge profiles
- Gripping surfaces with special hardened teeth: reliable grip due to high wear resistance
- **Box joint:** high level of stability thanks to double guide
- Highly resilient with slim design
- Handles with noticeably improved arrangement of soft/hard components
- Pinch guard prevents crushing injuries

Length mm	Grip width for pipes Ø mm/inch	Grip width for nut size mm	Setting positions	56846	...
250	50 / 2	46	24	102	

56846



56848 Water pump pliers (universal pliers) -ERGO- DIN/ISO 8976

BAHCO

Design
With a slip joint and extremely wide jaw opening. Quick setting by pressing the thumb button on the upper handle.

With ergonomic, elastomer-coated handles. Soft, easy-grip surface for a secure hold, high power transmission and pain-free work. With straight jaws with recess.
Quality
Chromium-vanadium steel.

Length mm	Grip width max. mm	Fine adjustment	56848 ...
250	45	11x	101
225	51	13x	104

56855 Plier wrench

KNIPEX

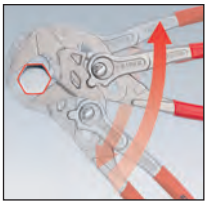
Design
With box joint Parallel-set, smooth jaws. No edge damage to sensitive fittings as mechanism works across the entire surface and is free of play. Rapid push-button adjustment directly on workpiece. 10x power transmission, high clamping force. Chrome-plated pliers.
Applications
For gripping, holding, pressing and bending workpieces. For universal use, e.g. in industry, plumbing, vehicle repair, etc. The action of the gripping surfaces allows rapid tightening and loosening of bolted connections using a ratchet mechanism.

56855 099-104
Design
Handles coated in plastic.

56855 200-202
Design
Handles with two-colour, multi-component grip sleeves.

56855 303
Design
With scale for setting the width across flats away from the workpiece. Handles insulated with two-colour, multi-component grip sleeves. Individually tested according to **VDE DIN EN 60900.**

Quality
Chromium-vanadium electric steel, forged, oil-hardened.



56855 303

Length mm	Working range up to size mm	Working range up to size inch	Setting positions	56855 ...
125	23	7/8	11	099
150	27	1.	14	100
180	35	1.3/8	13	101
250	46	1.3/4	17	102
300	60	2.3/8	22	103
400	85	3.3/8	25	104
150	27	1.	14	200
180	35	1.3/8	13	201
250	46	1.3/4	17	202
VDE 250	52	2.	19	303 NEW

56858 Slip joint pliers

KNIPEX

Design
With box joint Gripping jaws with pliers action for rapid tightening and loosening of bolted connections using ratchet mechanism. Fine adjustment with 15 positions allows for optimum adjustment. Self-locking on pipes and nuts above 17 mm. One-handed adjustment, pinch protection. Polished head, handles with non-slip plastic coating.

Applications
For gripping, holding, tightening and loosening screws.
Quality
Chromium-vanadium electric steel, forged, oil-hardened.

Length mm	Working range mm	Working range inch	56858 ...
250	10 - 32	3/8 - 1,1/4	101

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56870 - 56875 Pipe wrench 90° DIN 5234, type A

56870
ATORN®
Design
90° angled, inductively hardened plier jaws, double-T profiled plier lever, teeth offset against direction of rotation, secured with adjustable nut, red powder-coated.
Quality
Chromium-vanadium steel.

56875
VBW●
Design
The red one with the yellow dot. Narrow model. Type A, angled 90°. Painted red, polished. Fully forged. With reinforced sleeve. Self-locking on the workpiece. Double-T profile handle. Nuts cannot be lost. High-quality tempering. Safety pinching guard to prevent crushing injuries.

56875 301-303
Design
Ribbed handle, wide head.

56875 304-305
Design
Wide, ground opening.

Length mm	For pipes up to Ø inch	Clamping width mm	ATORN® 56870	...	VBW● 56875	...
305	1.	42		101		
310	1.	49				301
425	1.1/2	65				302
430	1.1/2	60		102		
540	2.	84				303
560	2.	75		103		
670	3.	105		104		
685	3.	110				304
760	4.	130		105		
815	4.	140				305

56870

56875 301-303

56880 - 56885 Corner pipe wrench 45° (inclined jaw) DIN 5234, type B

56880
ATORN®
Design
45° angled, inductively hardened plier jaws, secured with adjustable nut, red powder-coated.
Quality
Chromium-vanadium steel.

56885
VBW●
Design
Secure, 3-point grip even on smooth pipes. Favourable corner dimensions Narrow model. Type B, angled 45°. Painted red.

Fully forged. Self-locking on the workpiece. Double-T profile handle. Nuts cannot be lost. High-quality tempering. Safety pinching guard to prevent crushing injuries.

Length mm	For pipes up to Ø inch	Clamping width mm	ATORN® 56880	...	VBW● 56885	...
280	3/4	38		101		
320	1.	45		102		
320	1.	55				301
430	1.1/2	60		103		
445	1.1/2	81				302
565	2.	94				303
580	2.	75		104		

56880

56885

56891 - 56895 Corner pipe wrench, S-jaw, DIN 5234, type C

56891
ATORN®
-S-
Design
Three-point pipe wrench, inductively hardened jaws, secured with adjustable nut, red powder-coated.
Quality
Chromium-vanadium steel.

56895
VBW●
Design
- S-jaw pipe wrench, painted red, polished.
- Type C, narrow model
- Inductively hardened grip area
- Double-T profile grip
- High-quality tempering

- Secure, 3-point grip even on smooth pipes
- Fully forged
- Self-clamping on the workpiece
- Nuts cannot be lost
- Clamping protection against crushing injuries

Length mm	For pipes up to Ø inch	Clamping width mm	ATORN® 56891	...	VBW● 56895	...
245	1/2	35		101		
245	1/2	39				201
320	1.	42		102		
320	1.	49				202
420	1.1/2	60		103		
440	1.1/2	68				203
550	2.	70		104		
560	2.	85				204
630	3.	110		105		
675	3.	120				205

56891

56895

56898 Corner pipe wrench Master DIN 5234, type C (S-jaw)

RENNSTEIG

Design
- Patented quick adjustment prevents the plier jaws from being unintentionally adjusted
- Teeth inductively hardened
- Teeth offset against the direction of rotation
- Also with dipped handles
- Made in Germany

Quality
High-quality CRV steel, forged and hardened.

56898

Length mm	For pipes up to Ø inch	56898 ...
325	1.	103
425	1.1/2	104
560	2.	105

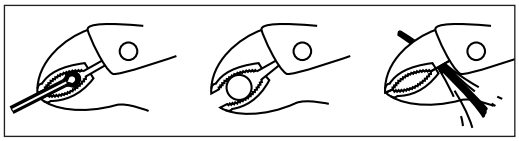
56920 - 56935 Locking pliers

HHW

Design
With serrated jaws, bright nickel-plated, with quick release lever, plier-type opening
Quality
Jaws made of chromium-vanadium steel.

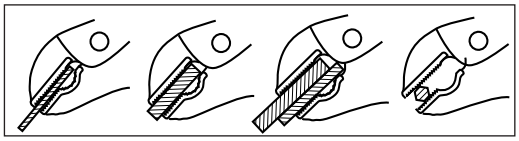
56920 103

56920
Universal locking pliers
Oval jaws with burner hole and wire cutter (only end no. 101+102).
Applications
For round profiles and flat profiles.



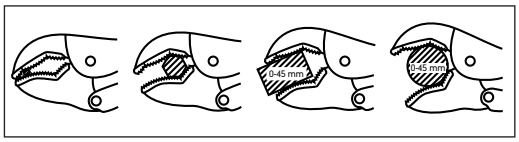
56920 101-102

56925
Prism locking pliers
Gripping jaws: top straight, bottom angled, good parallel clamping.
Applications
For flat and round parts.



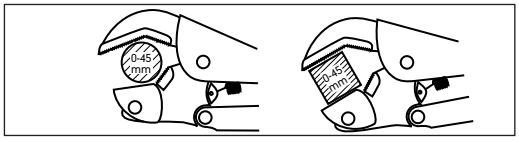
56925

56930
Special locking pliers
Jaws angled at the top, bottom prismatic.
Applications
For flat and round profiles.



56930

56935
Parallel locking pliers
Movable lower jaws, self-adjusting, parallel clamping 0–45 mm and each profile is secure due to three-point support.



56935

Length mm	Clamping width mm	56920 ...	56925 ...	56930 ...	56935 ...
100	20	103			
180	35	101			
250	50	102			
180	25		101		
250	30		102		
250	45			102	102

56936 - 56937 Locking pliers

56936
Langbeck locking pliers
Design
Nickel-plated.
Applications
Particularly suitable for narrow, tapering spaces.

56937
Sheet metal clamping tongs
Design
Nickel-plated.
Applications
Particularly suitable for bending sheet metal.

56936

56937

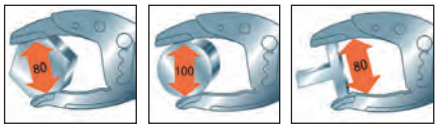
Length mm	Clamping width mm	Jaw width mm	Weight g	56936 ...	56937 ...
115	30	-	115	101	
240	55	-	380	102	
180	45	80	470		101

56938 Locking pliers with wide jaw

ATORN®

Design
- Long jaws for larger capacity
- Four-way adjustable grooved gripping face
- Ergonomic opening system
- One-handed clamp adjustment
- Knurled handles
- Aerospace industry chrome coating for perfect protection against oxidation

Quality
Chromium-vanadium steel jaws (45-50 HRC).
Handles made of special steel. (35-45 HRc).



56938

Length mm	Clamping width mm	Weight g	56938 ...
250	100	650	101

56941 Locking pliers with wide jaw

FACOM

Design
Chrome-plated. Upper jaw with milled groove for holding round workpieces with a small diameter. Jaws always remain parallel for clamping.
Quality
Chromium-molybdenum steel for higher wear resistance.

56941 101
Design
With short jaws.
4-way adjustable grooved gripping face.

56941 103
Design
Jaws with a large clamping range.
5-way adjustable grooved gripping face, deep jaw.

56941 101

56941 103

Length mm	Clamping width mm	Weight g	56941 ...
225	135	540	101
270	135	720	103

56942 Angled locking pliers TUCAN

Design
Nickel-plated.
Applications
Ideal for tight, difficult-to-access areas.
Quality
Body of pliers made of micro-alloyed, high-strength special steel. Jaws made from heat-treated steel.

56942

Length mm	Clamping width mm	Jaw angle degrees	Weight g	56942 ...
210	45	70	400	101

56960 Locking welding pliers

Design
Bright nickel-plated, adjustable clamping width and clamping force can be adjusted by means of a knurled thumb screw, workpieces held securely in place, with quick-release lever.

56960 101
Applications
For shaped and profile steel
Quality
Jaws made of high-quality malleable iron.

56960 102
Applications
For pipe parts and round rods.
Quality
Jaws made of high-quality malleable iron.

56960 103
Applications
For bulky workpieces.
Quality
Jaws made of chromium-vanadium steel.

56960 101

56960 102

56960 103

Length mm	Clamping width mm	56960 ...
280	0 - 55	101
280	12 - 70	102
280	0 - 65	103

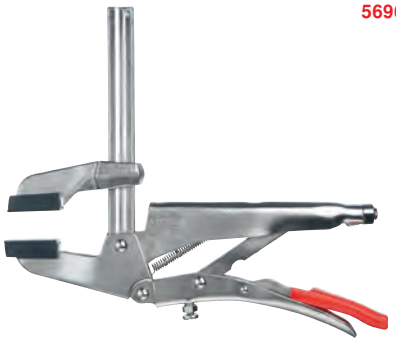
56965 - 56970 Universal, locking holding pliers

Design
With large clamping range (up to 200 mm), infinitely adjustable, serrated, parallel jaws. All parts are nickel-plated, with plastic-coated quick-release lever.
Quality
Jaws made from chromium-vanadium steel, hardened.

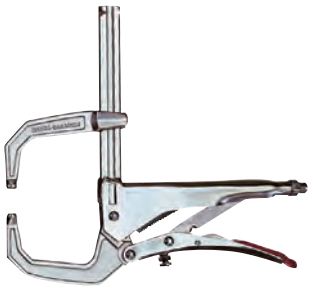
56965
Parallel locking pliers
Design
The parallel jaws have a prismatic recess on one side for small round parts.

56970
C-shape locking pliers
Design
With a wide jaw (up to 40 mm per jaw) for precise, all-round clamping of rails up to 110 mm.

56965



56970



Clamping width mm	Overhang mm	Clamping force max. N	Parallel locking pliers 56965 ...	C-shape pliers 56970 ...
100	65	4000	101	
200	65	4000	102	
110	80	3000		101

56975 Pipe locking pliers

Design
With a large clamping range, infinitely adjustable, parallel clamping, all parts are nickel-plated. Including protective cap set.
Applications
For holding pipes and round objects with a consistent diameter. The fork-shaped clamping arms, each with 2 prisms, centre the workpieces to each other.

56975

Clamping width mm	Overhang mm	56975 ...
0 - 110	65	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

57005 - 57006 Pincers DIN/ISO 9243

ATORN®

Applications
For hammering in and pulling out nails or pinching wire.
Quality
Steel C 45, oil hardened and tempered, induction-hardened cutting edges.

57005
Design
Polished head, black atramentised grips.

57006
Design
Polished head, grips dip coated.

57005

57006

Length mm	57005 ...	57006 ...
160	101	
180	102	101

Length mm	57005 ...	57006 ...
200	103	102
250	104	

57000 Pincers DIN/ISO 9243

KNIPEX

Design
Extremely robust, balanced weight distribution, high wear resistance, pliers black atramentised, polished head.

Quality
Special tool steel, oil-hardened cutting edge.

57000

Length mm	57000 ...
160	102
180	103
210	104

Length mm	57000 ...
225	105
250	106
300	107

57010 Bodywork pliers (farriers' pincers) DIN 5173

KNIPEX

Design
Efficient force transfer thanks to high lever transmission. Polished head. Black atramentised pliers. Blade hardness approx. 59 HRC.
Applications
For disassembly work on bodywork parts.

Quality
Special tool steel, oil-hardened and annealed.

57010

Length mm	Head width mm	Weight g	57010 ...
300	20	785	101

57012 Mechanic's nippers (concreter's/steel fixer's nippers)

ATORN®

Design
Optimum cutting performance thanks to favourable leverage. Dip-coated grips.

Applications
For twisting and pinching wire or pulling out nails.
Quality
Special tool steel, oil-hardened, polished, blackened.

57012

Length mm	57012 ...
220	101
250	102
280	103

57020 Mechanic's nippers (concreter's/steel fixer's nippers) DIN/ISO 9242

KNIPEX

Design
Ground cutting edges, black atramentised pliers, polished head.

Applications
For twisting and pinching wire or pulling out nails.
Quality
Special-grade tool steel, forged, oil-hardened.

57020

Length mm	57020 ...
200	101
220	102
250	103

Length mm	57020 ...
280	104
300	105

57025 Heavy-duty mechanic's nippers (concreter's/steel fixer's nippers) DIN/ISO 9242

KNIPEX

Design
Extra slim head and long arms, optimum cutting performance with minimal effort due to high transmission, strong damping of the cutting impact after cutting binding wire, providing relief for muscles and tendons.
Applications
For binding reinforcing steel and twisting and cutting binding wire from a roll in one step.
Quality
Special tool steel, oil-hardened.

57025 101
Design
Polished head,
black atramentised pliers.

57025 201
Design
Bright galvanised head and grips.

57025 101

57025 201

Length mm	Up to wire Ø soft mm	Up to wire Ø hard mm	Head width mm	57025 ...
300	4.5	3.5	25	101
300	4.5	3.5	25	201

57050 Wire-twisting pliers

BAHCO

Design
Bronzed, rustproof, bright finished head.
With additional cutting edge. Jaws bevelled to 30°.
Applications
Ideal for securing locations that are subject to vibrations. Quick and exact twisting, even with rust-free wires. For any wire length, twisting length or number of rotations.
Quality
Vanadium extra.

57050 201
Design
With serrated jaws.

57050 201

57050 202
Design
With automatic return action.
Applications
The automatic return action enables clockwise and anti-clockwise rotation of the locking wire.
The wire is fully twisted in a single step.
When the return slider is in the centre position, it locks the twisting axle. Consequently, the pliers can also be used as side cutters or gripping pliers.

57050 202

Length mm	Up to wire Ø max. mm	57050 ...
224	1.04	201
282	1.60	202

57211 Heavy-duty end cutting nippers DIN/ISO 5748

KNIPEX

Design
Polished head, grips with plastic coating.
Applications
For piano wire and soft wire.
Quality
Chromium-vanadium high-performance steel, forged, oil-hardened, inductively hardened cutting edges.

57211

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	57211 ...
160	3.4	2.5	2.0	102

57230 End cutting nippers DIN/ISO 5748

KNIPEX

Design
Polished head, grips with plastic coating.
Applications
For hard and soft wire. Also suitable for binding (braiding) reinforcing steel.

Quality
High-grade, special tool steel, forged, oil-hardened, inductively hardened cutting edges.
Blade hardness approx. 61 HRC.

57230

Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	57230 ...
160	4.0	2.8	2.3	101
200	4.0	3.5	2.8	103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

57231 Power flush cutter for soft metal and plastic

KNIPEX

Design
- Black atramentised pliers
- Grips with slim multi-component covers
- Thick workpieces made of soft metal and plastic can be cut with minimal effort
- 20° angled head with lug on one side and lateral cut for flush cutting, with room for gripping
- Additional opening spring and locking mechanism integrated into the grip covers for comfortable working and safe transport
- Precision cutting for soft materials
- Additionally hardened cutting edges, cutting hardness approx. 59 HRC

Applications
For flush cutting of soft materials such as plastic, aluminium, copper and lead.

Quality
Chromium-vanadium electric steel, forged, multi-stage oil-hardening.

57231 101

NEW

Length mm	Up to wire Ø soft mm	57231 ...
200	6.0	101

57240 High-leverage edge cutting nippers DIN/ISO 57498

Design
Maximum cutting performance thanks to double lever mechanism and opening spring. 31 mm cutting width for all dimensions. Painted red, polished head.

Applications
Suitable for spring wire up to 2000 N/mm² (52 HRC) and special wire.

Quality
Special tool steel, fully forged.

NEW

57240

Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	57240 ...
180	3.5	3.0	2.5	301
210	3.5	3.5	2.8	302
235	3.5	3.5	3.0	303

57268 Bolt end cutting nippers, high transmission

KNIPEX

Design
Powerful, compact, comfortable. Polished head, grips with plastic casing. High cutting performance. Easier cutting due to high transmission ratio.

Applications
For piano wire as well as thick and soft wire such as rivets, bolts, etc.

Quality
Vanadium electric steel, forged, oil-hardened, inductively hardened cutting edges, cutting hardness approx. 64 HRC.

57268

Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	57268 ...
200	1.0-6.0	4.0	3.5	3.0	101

57280 Heavy-duty centre cutters

KNIPEX

Design
Polished head, grips with plastic coating.
With forged articulated axis for the most demanding, continuous use.

Applications
These pliers can cut hard or thick wires with less effort than side cutters of the same length.
With precision cutting edges for soft and hard wire as well as piano wire.

Quality
Chromium-vanadium high-performance steel, forged, oil-hardened.
Blade hardness approx. 64 HRC.

57280

Length mm	Cu conductor to mm²	Alu conductor to mm²	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	57280 ...
250	16	35	5.0	5.0	3.8	3.5	101

62141 Side cutters for fibre-optic/fibreglass cables

KNIPEX

Design
Polished head, grips with plastic coating, with opening spring. With surface-ground cutting surfaces. Blades also inductively hardened.
Applications
Specially designed for cutting fibre-optic cable.

Quality
Vanadium electric steel, forged, oil-hardened

62141

Length mm	62141 ...
160	105

57390 Side cutters for plastic

KNIPEX

Design
With opening spring. Polished head, grips with plastic casing, without chamfer. With surface-ground cutting surface.
Applications
For smoothly cutting off sprues on plastic parts or soft materials such as lead.
Quality
Vanadium electric steel, forged, oil-hardened

57390 102-104

57390 105

57390 106

Cutting edge	Length mm	57390 ...
Straight	140	102
Straight	160	103
Straight	180	104
Angled 45°	160	105
Angled 85°	160	106

57420 - 57421 Stripping side cutters

KNIPEX

Design
Long cutting edges for larger cuttings. With precision stripping holes for single-wire (solid) conductors of 1.5 and 2.5 mm².
Quality
Vanadium electric steel, forged, oil-hardened, inductively hardened cutting edges.
Blade hardness approx. 60 HRC.

Multi-functional: cutting and stripping

57420

DVE GS 1000V

57421

57420
Design
Polished head, grips with thick, two-colour, multi-component covers with non-slip protection.

57421
Design
Chrome-plated head, grips with thick, two-colour, multi-component covers with non-slip protection, individually tested according to **VDE DIN EN 60900.**

Length mm	Up to wire Ø soft mm	Stripping values mm²/AWG	57420 ...	VDE 57421 ...
160	4.0	1.5+2.5 / 15+13	101	101

57430 - 57441 Side cutters DIN/ISO 5749

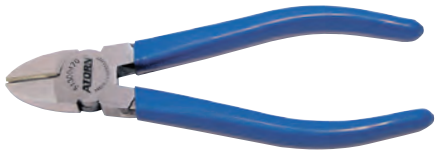
Quality
Special tool steel, oil-hardened and tempered, inductively hardened cutting edges.

57430
ATORN®
Design
Polished head, grips dip coated.

57433
ATORN®
Design
High-gloss polished head , chrome-plated, grips with 2-component covers with grip protection.

57437
H+W
Design
High-gloss polished head, chrome-plated, handles with **ergosoft** sleeves and grip protection.

57441
ATORN®
Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

57430


57433

57441

57437

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	ATORN® 57430	...	ATORN® 57433	...	H+W 57437	...	ATORN® VDE 57441	...
125	2.3	1.5	-		101				102		
140	2.5	1.8	-		103		102		104		201
160	2.8	2.0	-		105						202
160	3.0	2.3	1.6				106				
160	3.5	2.5	2.0						106		
180	3.8	2.7	2.2		106				107		

57448 - 57457 Side cutters DIN/ISO 5749

KNIPEX

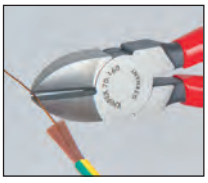
Applications
Slim head shape for use in hard-to-reach areas. For hard and soft wire. Fine wires are cleanly cut over the entire cutting length.
Quality
Vanadium electric steel, oil-hardened.
Inductively hardened blades.
Blade hardness approx. 62 HRC.

57448
Design
Polished head, grips with plastic coating.

57453
Design
Polished head, grips with thick, two-colour, multi-component covers with non-slip protection.

57455
Design
Chrome-plated head, grips with thick, two-colour, multi-component covers with non-slip protection.

57457
Design
Chrome-plated head, grips with thick, two-colour, multi-component covers with non-slip protection, individually tested according to **VDE DIN EN 60900.**



57457 105
Design
- 20% higher cutting force than predecessor model, longer cutting edges
- Strong cutting force thanks to optimised cutting geometry and transmission
- Robust precision rivet for even action and a long service life

57457 105

57448

57453

57455

57457 101-104

Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	57448	...	57453	...	57455	...	VDE 57457	...
125	3.0	2.3	1.5		101		101				101
140	4.0	2.5	1.8		102		102		102		102
160	4.0	2.8	2.0		103		103		103		103
180	4.0	3.0	2.5		104		104		104		104
160	4.0	-	-								105

57472 Side cutters -ERGO- DIN 5749

BAHCO

Design
- Chrome-plated surface for extra corrosion protection
- No sharp edges
- 2-component grips
- Optimal arm width
- Less effort, maximum cutting performance
- Screw connection
- Small shoulders
- On/off function of opening spring

Quality
Chromium-vanadium steel.

57472 101-103
Progressive cutting edges
Design
- Optimum cutting radius for cutting
- Soft and thin materials are cut at the tip (copper and plastic)
- Hard materials are cut close to the joint (FE+ and piano wire)

57472 101-103

57472 201-204
Heavy-duty cutting edges
Design
- Withstands more than 50,000 cuts through hard wire
- The heavy-duty cutting edges ensure a strong cut along the entire blade
- The reinforced metal frame withstands extreme conditions and extra-hard wires

57472 201-204

Length mm	Up to wire Ø CU mm	Up to wire Ø FE+ mm	Up to wire Ø piano mm	57472	...
125	3.5	1.8	1.6		101
140	3.7	2.0	1.8		102
160	3.8	2.5	2.0		103

Length mm	Up to wire Ø CU mm	Up to wire Ø FE+ mm	Up to wire Ø piano mm	57472	...
140	-	2.2	2.0		201
160	-	2.5	2.3		202
180	-	2.7	2.5		203
200	-	3.2	3.0		204

57475 - 57485 Heavy-duty side cutters DIN/ISO 5749

Quality
Steel C 60, oil-hardened and tempered, induction-hardened cutting edges.

57475

ATORN®

Design
Polished head, grips dip coated.

57478

ATORN®

Design
High-gloss polished head , chrome-plated, grips with 2-component covers with grip protection.

57480

H+W

Design
High-gloss polished head, chrome-plated, handles with **ergosoft** sleeves and grip protection.

57485

ATORN®

Design
High-gloss polished head, chrome-plated, up to 1000-V insulating handles sprayed directly onto plier arms in accordance with **VDE IEC 60900**, two-component sleeves with grip protection.

57475

57478

57480

1000V

57485

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	ATORN® 57475 ...	ATORN® 57478 ...	H+W 57480 ...	ATORN® VDE 57485 ...
140	3.0	2.2	1.8	101			
160	3.5	2.5	2.0	102	102	102	201
180	3.8	2.7	2.2	104	104		
200	4.2	3.0	2.5	103	103	103	203

57486 Heavy-duty side cutters DIN/ISO 5749

ATORN®

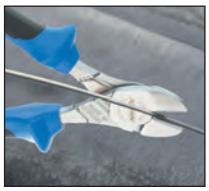
Design
- 20% weight reduction
- Shaped for better accessibility
- Power joint with up to 20% less effort
- High cutting performance with minimal effort thanks to optimised lever transmission
- Secure, ergonomic and effortless work thanks to grips with 2-component covers with grip protection

Applications
Precise cut even for the most demanding, continuous use.

Quality
Chrome-plated surface.
Special tool steel, oil-hardened.
Inductively hardened blades.
Cutting hardness HRC 64.

57486 101-103
Design
- With opening spring for optimal handling (simple to disassemble)

57486 201-203
Design
- Individually tested according to **VDE DIN EN 60900**



Power joint with up to 20% less effort

Shaped for better accessibility

57486 101-103

1000V

57486 201-203

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	57486 ...	VDE 57486 ...
160	3.5	2.5	2.0	101	201
180	3.8	2.7	2.3	102	202
200	4.2	3.0	2.5	103	203

57500 - 57515 Heavy-duty side cutters DIN/ISO 5749

KNIPEX

Applications
For hard and soft wire, as well as piano wire.
For the most demanding requirements.
Quality
Chromium-vanadium high-performance steel, forged, oil-hardened, inductively hardened cutting edges. Blade hardness approx. 64 HRC.

Note:
Length 250 mm, suitable for copper conductors up to 16 mm² and aluminium conductors up to 35 mm².

57500
Design
Polished head, grips with plastic coating.

57505
Design
Polished head, grips with thick, two-colour, multi-component covers with non-slip protection.

57507
Design
With opening spring that can be activated when required. Polished head, grips with thick, two-colour, multi-component covers with non-slip protection.

57510
Design
Chrome-plated head, grips with thick, two-colour, multi-component covers with non-slip protection.

57515
Design
Chrome-plated head, grips with thick, two-colour, multi-component covers with non-slip protection. Individually tested according to **VDE DIN EN 60900.**

57507

The opening spring is easily activated with the thumb

View of the underside of the pliers with activated opening spring

57500

57510

1000 V

57505

57515

Length mm	Up to wire Ø soft mm	Up to wire Ø hard mm	Up to wire Ø piano mm	57500	...	57505	...	57507	...	57510	...	VDE 57515	...
140	3.1	2.0	1.5		101		101				101		
160	3.4	2.5	2.0		102		102		102		102		102
180	3.8	2.7	2.2		103		103		103		103		103
200	4.2	3.0	2.5		104		104				104		104
250	4.6	3.5	3.0		105		105				105		105

57516 Heavy-duty side cutters KNIPEX TwinForce®

KNIPEX

Design
- Optimum transmission thanks to double-jointed design
- Extremely easy cutting with minimal effort: cuts 50% easier than tried-and-tested KNIPEX heavy-duty side cutters
- **NEW for side cutters:**
  Adjustment function.
  The KNIPEX TwinForce® cuts through even 4-mm thick wires with 2-3x repeat cuts with little effort. Conventional heavy-duty side cutters cannot cut such diameters at all or only with extreme effort
- Minimum cutting impact: protects the hand, relieves muscles and tendons
- High level of stability and zero-backlash action thanks to forged and precision-milled articulated axis
- Black atramentised pliers, polished head

Applications
- Reliably cuts all types of wire, as well as strip material
- For rough and precision cutting
- For use with greater comfort, for repetitive cutting or extremely hard cutting jobs

Quality
Chromium-vanadium high-performance steel, forged, oil-hardened.

57516 103
Design
Handles coated in plastic.

57516 203
Design
Grips with multi-component covers.

57516 103

57516 203

Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	57516	...
180	5.5	4.6	3.2	3.0		103
180	5.5	4.6	3.2	3.0		203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

57518 - 57520 Compact side cutters X-Cut®

KNIPEX

Design
- Compact and lightweight, powerful and precise
- Box joint: maximum stability combined with a low weight
- Double-mounted articulated axis for the most demanding, continuous use
- High cutting performance with minimal effort thanks to optimum coordination of the cutting angle and transmission ratio with a laterally offset pivot point
- 20% less effort than heavy-duty side cutters of the same length
- Large opening width for thicker cables
- Precise cutting action even for fine copper wires
- Compact, weight-saving design

Applications
Cuts the finest wires as well as multi-stranded cable and hard piano wire. For universal use in assembly, maintenance and production.

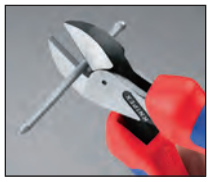
Quality
Chromium-vanadium high-performance steel, forged, oil-hardened.

57518
Design
- Black atramentised pliers
- Polished head
- Grips with multi-component covers

57519
Design
- Chrome-plated pliers
- Grips with multi-component covers

57520
Design
- Chrome-plated pliers
- Insulated grips with multi-component covers
- VDE-tested

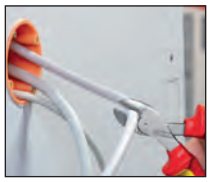
57518



57519

≥1000V

57520



Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm		57518	...	57519	...	57520	...
										VDE	
160	4.8	3.8	2.7	2.2			101		101		101

57521 POWER heavy-duty cutters

ATORN®

Design
- 20° angled head
- Lever transmission with up to 50% less effort
- Precision power joint for maximum resistance
- With opening spring and locking mechanism
- Made in Germany

Applications
For safe and easier cutting of soft, hard and piano wires up to Ø 3.6 mm.

Quality
Cutting performance HRC 64.

57521 101
Design
- PVC grips

57521 201
Design
- Grips with 2-component covers

57521 101

57521 201

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm		PVC 57521	...	2-component 57521	...
210	5.2	4.0	3.6			101		201

57610 - 57611 Compact bolt cutters KNIPEX CoBolt®

Applications
Particularly high cutting performance with minimal effort thanks to a highly effective joint design.
The cutting forces are more than 30 times the applied force (more than 40 times for art. no. 57610 501 and 601). 60% less effort than conventional heavy-duty side-cutters.
Quality
Chromium-vanadium high-performance steel, oil-hardened, inductively hardened cutting edges. Blade hardness approx. 64 HRC.

57610 100-101
Design
Handles coated in plastic. Atramentised head. With gripping surface under the joint for gripping and pulling wires from Ø 1.0 mm.

57610 100
Design
Short.
Applications
Particularly suitable for small hands.

57610 201
Design
Grips with two-colour, multi-component grip covers. Atramentised head. With gripping surface under the joint for gripping and pulling wires from Ø 1.0 mm.

57610 301
Design
Opening spring and locking mechanism **integrated into the grip covers** for comfortable working and safe transport. Grips with two-colour, multi-component grip covers. Atramentised head.

57610 401
Design
With recess to make it easier to cut thicker wires. With gripping surface under the joint for gripping and pulling wires from Ø 1.0 mm, e.g. for suspended ceiling structures. Handles coated in plastic. Atramentised head.

57610 501
Design
Extended grips for even more powerful cutting. Handles coated in plastic. Atramentised head. With gripping surface under the joint for gripping and pulling wires from Ø 1.0 mm

57610 601
Design
Cutting edges with recess to make it easier to cut larger cross-sections thanks to better leverage effect near the pivot point. Handles coated in plastic. Atramentised head. With gripping surface under the joint for gripping and pulling wires from Ø 1.0 mm

57611 101
Design
20° angled head with lug on one side and lateral cut for flush cutting. With room for gripping. Handles coated in plastic. Atramentised head.

57611 201
Design
20° angled head with lug on one side and lateral cut for flush cutting.
With room for gripping.
Opening spring and locking mechanism **integrated into the grip covers** for comfortable working and safe transport. Grips with two-colour, multi-component grip covers. Atramentised head.

56610 301 + 56611 201

Straight 20° angled

57610 100

57610 101

57610 201

57610 301

57610 401

57610 501

57610 601

57611 101

57611 201

Length mm	Up to wire Ø soft mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	Straight 57610	...	20° angled 57611	...
160	5.3	4.4	3.2	3.0		100 NEW		
200	6.0	5.2	4.0	3,6		101		101
200	6.0	5.2	4.0	3,6		201		201
200	6.0	5.2	4.0	3.6		301		
200	6.0	5.2	4.0	3.6		401		
250	-	5.6	4.0	3.8		501		
250	-	6.0	4.3	4.2		601		

57615 Small bolt cutters

VBW

57615 101
Design
Die-forged cutter and casing head. No adjustment of the cutters is required. High-quality tempering. Ergonomic plastic grips.
Applications
For cutting all standard structural steels and steel wires up to 48 HRC.
Quality
Cutter made of chromium-vanadium special steel.

57615 201
Replacement cutter head
With bolts and circlips.

57615 101

57615 201

Length mm	19 HRC to Ø mm	40 HRC to Ø mm	48 HRC to Ø mm	Replacement cutter head 57615 ...	Replacement cutter head 57615 ...
390	7	5	4	101	201

57617 Bolt end cutting nippers

VBW

57617 101
Design
Angled cutter head for flush cutting. Die-forged cutter and casing head. No adjustment of the cutters is required. High-quality tempering. Ergonomic plastic grips.
Applications
For cutting all standard structural steels and steel wires up to 48 HRC.
Quality
Cutter made of chromium-vanadium special steel.

57617 201
Replacement cutter head
With bolts and circlips.

57617 101

57617 201

Length mm	19 HRC to Ø mm	40 HRC to Ø mm	48 HRC to Ø mm	Replacement cutter head 57617 ...	Replacement cutter head 57617 ...
370	7	5	4	101	201

57620 - 57622 Heavy-duty bolt cutters

ALARM

57620
Design
Replaceable, infinitely adjustable cutters, cutting edge in the middle, tube grips.
Applications
For cutting structural steel and steel wire up to 48 HRC.
Quality
Cutter made of chromium-vanadium steel.

57622
Replacement cutter head
with lugs and screws.

57620

57622

Length mm	19 HRC to Ø mm	40 HRC to Ø mm	48 HRC to Ø mm	Replacement cutter head 57620 ...	Replacement cutter head 57622 ...
470	8	6	5	101	201
630	9	8	7	102	202

57632 - 57634 Heavy-duty bolt cutters

VBW

57632
Design
Replaceable, infinitely adjustable cutters, screwed to the grips, tube grips.
Applications
For cutting all standard structural steels and steel wires up to 48 HRC.
Quality
Cutter made of tempered electro-cast steel, inductively hardened cutting edges.

57634
Replacement cutter head
With lugs and screws, inductively hardened cutting edges.

57632

57634

Length mm	19 HRC to Ø mm	40 HRC to Ø mm	48 HRC to Ø mm	Replacement cutter head 57632 ...	Replacement cutter head 57634 ...
460	8	6	5	101	101
610	9	8	7	102	102
760	11	9	8	103	103
910	13	11	9	104	104
1070	16	11	10	105	105

57635 - 57636 Heavy-duty bolt cutters

KNIPEX

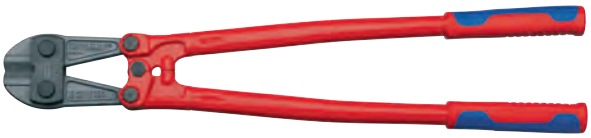
57635
Design
- Forged stop with comfortable damper
- Extremely flat head and joint area ensure excellent accessibility
- Ergonomically angled arms for effortless work
- Robust, non-slip, two-coloured, multi-component grip covers
- Precise adjustments (12x) and re-adjustments using eccentric screws
- High cutting performance with minimal effort thanks to optimum coordination of the cutting angle and transmission ratio
- Bolted cutter head, replaceable
- Grey atramentised head

Applications
For hard materials up to 48 HRC.

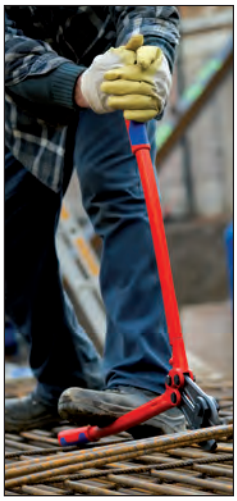
Quality
Blade: Chromium-vanadium heavy-duty steel, forged, oil-hardened. Robust cutting edges additionally inductively hardened, cutting hardness approx. 62 HRC.
Joint: Special tool steel, forged.
Arms: Steel tube, powder-coated.

57636
Replacement cutter head
Complete with screws.

57635



Forged stop with damping insert: comfortably absorbs the cutting impact



57636

Length mm	19 HRC to Ø mm	40 HRC to Ø mm	48 HRC to Ø mm	Replacement cutter head 57635	...	57636	...
460	8	6	5		101		101
610	9	8	7		102		102
760	11	9	8		103		103
910	13	10	9		104		104

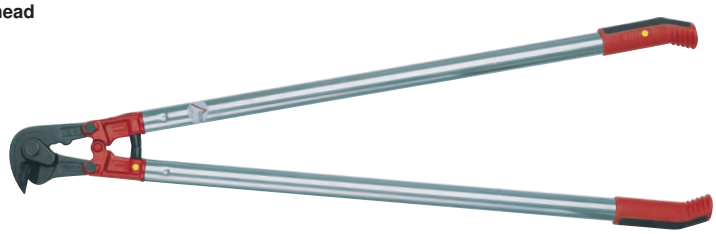
57640 - 57641 Welded wire mesh cutters

VBW

57640
Design
Approx. 40% lighter due to high-strength **aluminium multi-component grips.**
Small opening angle of the grips, minimal cutting effort. The extended upper cutter makes it even easier to grip flush-lying welded wire mesh.
Quality
Cutter and casing head made of special steel.

57641
Replacement cutter head
With screws.

57640



57641

Length mm	19 HRC to Ø mm	40 HRC to Ø mm	48 HRC to Ø mm	Replacement cutter head 57640	...	57641	...
800	11	9	8	201		201	

57650 - 57651 Grating and flat material cutters

VBW

57650
Design
With multi-component grips and replace able cutters.
Applications
As a substitute for cutting torches, cutting discs and saws.
Quality
High-alloy steel, die-forged, inductively hardened cutting edges.

57651
Replacement cutter head

57650

57651

Length mm	Max. cutting performance HRC 20 mm	From mesh size mm	Replacement cutter head 57650	...	57651	...
840	40 x 4	30 x 30	101		101	

58007 Non-sparking double open-end wrench

Design
Special bronze alloy.

58007

Size mm	58007 ...
6 x 7	201
8 x 9	202
10 x 11	103
12 x 13	104
14 x 15	105

Size mm	58007 ...
16 x 17	106
17 x 19	207
18 x 19	107
20 x 22	208
21 x 23	108

Size mm	58007 ...
24 x 27	209
25 x 28	109
30 x 32	210

58010 Non-sparking combination spanner

Design
Special bronze alloy.

58010

Size mm	58010 ...
6 x 6	101
7 x 7	102
8 x 8	103
9 x 9	303
10 x 10	104
11 x 11	304
12 x 12	105
13 x 13	106

Size mm	58010 ...
14 x 14	306
15 x 15	307
16 x 16	308
17 x 17	107
18 x 18	309
19 x 19	108
22 x 22	109
24 x 24	110

Size mm	58010 ...
27 x 27	111
30 x 30	112
32 x 32	113
36 x 36	114
41 x 41	115
46 x 46	116

58011 Non-sparking striking face box wrench

Design
Bi-hexagonal. Special bronze alloy.

58011

Size mm	58011 ...
24	101
30	102
32	103

Size mm	58011 ...
36	104
41	105
46	106

Size mm	58011 ...
50	107
55	108
60	109

58015 Non-sparking adjustable wrench

Design
Copper-beryllium alloy.

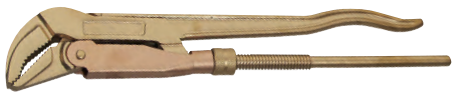
58015

Total length mm/inch	Clamping width mm	58015 ...
200/8	25	201
300/12	35	202

58019 Non-sparking corner pipe wrench

Design
Swedish form, with straight jaw, copper-beryllium alloy.

58019



Jaw width Inch	58019 ...
2	201

58022 Non-sparking hexagonal socket wrench inserts

1/2"

Design
With square drive, connecting square: 1/2 inch, special bronze alloy.

58022

Size mm	58022 ...
24	210
27	211
30	212
32	213

Non-sparking tools

58023 Non-sparking gear ratchet

1/2"

Design
Interchangeable, clockwise/anti-clockwise action,
Copper-beryllium alloy.

58023

Connecting square Inch	Total length mm	58023	...
1/2	250		201

58030 Non-sparking hexagonal T-handle wrench DIN 911

Design
Angled, special bronze alloy.

58030

Size mm	58030	...
2		201
3		202
4		203
5		204
6		205
8		206
10		207
12		208
14		209

58040 Non-sparking screwdriver

Design
Copper-beryllium alloy.

58040

Cutting edge width mm	Blade length mm	58040	...
3.0	75		301
4.5	100		302
6.0	100		303
6.0	150		304
8.0	150		305
10.0	200		306

58043 Non-sparking Phillips screwdriver PH

Design
Copper-beryllium alloy.

58043

Size PH	Blade length x total length mm	58043	...
1	80 x 155		301
2	100 x 195		302
3	150 x 245		303
4	200 x 305		304

58058 Non-sparking flat scraper

Design
With plastic handle, special bronze alloy.

58058

Blade length mm	Width mm	58058	...
200	30		201

58060 Non-sparking angle scraper

Design
Angled on one side, special bronze alloy.

58060

Length mm	Width mm	58060	...
200	22		201

58062 Non-sparking machinist's hammer DIN 1041

Design 58062
With hickory handle. Special bronze alloy.

Weight without handle g	58062 ...
300	201
500	202
800	203
1000	204

58063 Non-sparking sledgehammer DIN 1042

Design 58063
With hickory handle. Special bronze alloy.

Weight kg	58063 ...
3	201
5	202

58064 Non-sparking mallet

Design 58064
With hickory handle. Special bronze alloy.

Weight kg	58064 ...
1.5	202
3.0	203

58070 Non-sparking centre punch

Design 58070
Special bronze alloy.

Length mm	58070 ...
100	201

58075 Non-sparking offset pin

Design 58075
Special bronze alloy.

Arm length mm	Material thickness mm	58075 ...
450 x 150	16	201

58076 Non-sparking flat chisel

Design 58076
Special bronze alloy.

Length mm	58076 ...
200	201
300	203

58077 Non-sparking cross-cut chisel

Design 58077
Special bronze alloy.

Length mm	58077 ...
200	201

58080 Non-sparking pliers

Design
Copper-beryllium alloy.

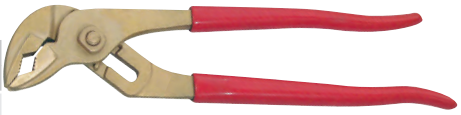
58080 202

58080 205

58080 203

58080 206

58080 207



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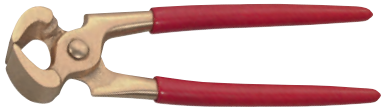


	Length mm	58080 ...
Combination pliers	200	202
Flat nose pliers	160	203
Telephone pliers	180	205
Side cutters	160	206
Water pump pliers	250	207
Pincers	200	208

58085 Non-sparking work scissors

Design
With 1 round and 1 oval eye, copper-beryllium alloy.

58085

Length mm	58085 ...
220	201

58088 Non-sparking cutter

Design
With wooden handle, copper-beryllium alloy.

58088

Length mm	58088 ...
180	201

58090 Non-sparking scriber

Design
With 1 straight and 1 angled tip, special bronze alloy.

58090

Length mm	Material thickness mm	58090 ...
225	4	201

58092 Non-sparking spatulas

Design
Straight, rigid blade, brass.

58092

Width mm	58092 ...
50	201
100	202

58094 Non-sparking wire hand brush

Design
Round wire, with wooden body, 3 rows, tin-bronze wire.

58094

Length mm	58094 ...
350	201

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

ATORN®

Workshop trolley

Design
- 6 drawers height 80 mm
- 1 drawer height 165 mm
- Robust sheet steel construction
- Solvent-resistant plastic worktop with 2 integrated storage compartments
- Drawers with roller guides
- **Drawers with full extension 100%**
- Internal dimensions of drawers (W x D) = 527 x 348 mm
- Load capacity 20 kg per drawer
- Total trolley capacity 300 kg
- Individual locking elements prevent unintentional opening of drawers
- **All drawers can be used for OPT-I-STORE hard foam inlays (art. no. 59604-59692)**
- Individual fastening possibilities thanks to rectangular hole grid on the side walls, e.g. with hooks for tools or other add-on parts such as can holder, document holder, suspended boxes, waste basket, etc. (art. no. 81725 103-105)
- Inserted side walls protect the additionally attached add-on parts from damage, since these are suspended within the trolley dimensions
- Central locking with cylinder lock secures all drawers, incl. 2 articulated wrenches
- Plastic-coated metal sliding handle attached directly to frame
- Wheeled by 2 ball bearing-mounted fixed castors and 2 steering rollers ∅ 100 mm, with locking brake
- Powder-coated surface: Body RAL 7035 light grey, drawers RAL 5010 gentian blue
- **Delivery includes 1 separating plate per drawer** (additional separating plates art. no. 81725 106-107)

OPT-I-STORE hard foam inlays

Design
- Two-tone support frame made of polyethylene (PE)
- Lightweight, durable, water resistant, oil resistant
- With shock-absorbing properties
- Colour black/blue

The hard foam is durable, odour-free and suitable for use with foodstuffs.

Applications

For clearly arranged, easily organised and protected storage of tools in drawers.

(1)

		59628	...
	Complete price	101	

(1)	**Sawing and marking kit, 8 pcs.**
	OPT-I-STORE hard foam inlay 520 x 345 mm
1	**pocket hacksaw**
1	**pack = 12 replacement saw blades**
1	**saw bow** without blade
1	**pack = 11 replacement saw blades**
1	**scriber** straight/bent, 250 mm
1	**try square** DIN 875/2, 200 x 130 mm
1	**tape measure** 3 m
1	**rule** 300 x 13 x 0.3 mm, stainless steel

(2)	**Combination spanner set, 12 pcs.**
	OPT-I-STORE hard foam inlay 260 x 345 mm
	Sizes 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 17 / 19 / 22 mm

(3)	**Set of pliers/scissors, 5 pcs.**
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**combination pliers** 180 mm
1	**snipe nose pliers** 200 mm
1	**water pump pliers** 250 mm
1	**side cutters** 160 mm
1	**multi-purpose scissors** 190 mm

(4)	**Measuring tool set, 7 pcs.**
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**vernier calipers** analogue 150 mm
1	**scriber** straight/bent, 250 mm
1	**divider** 200 mm
1	**try square** DIN 875/2, 150 x 100 mm
1	**goniometer** 120 x 150 mm
1	**tape measure** 3 m
1	**rule** 300 x 13 x 0.3 mm, stainless steel

(5)	**Striking tool set, 12 pcs.**
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**machinist's hammer** 500 g
1	**centre punch** 4 x 120 mm
2	**drift punches** 2 / 3 x 120 mm
6	**pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm
1	**flat chisel** 18 x 150 mm
1	**cross-cut chisel** 6 x 150 mm

(6)	**Screwdriver/T-handle wrench set, 17 pcs.**
	OPT-I-STORE hard foam inlay 260 x 345 mm
9	**T-handle wrench** sizes 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
3	**x workshop screwdrivers** 5.5 x 100 / 6.5 x 125 / 8 x 150 mm
3	**x Phillips screwdrivers PH** 1 / 2 / 3
2	**x Phillips screwdrivers PZ** 1 / 2

(2)

(3)

(4)

(5)

(6)

(7)

(7)	**1/4+1/2 inch hexagon socket wrench set, 35 pcs.**
	OPT-I-STORE hard foam inlay 260 x 345 mm
5	**hexagon inserts with energy profile** sizes 5.5 / 7 / 8 / 10 / 13 mm
3	**inserts for hexagon socket screws** sizes 3 / 4 / 5 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 50/105 mm
11	**hexagon inserts with energy profile**
	Sizes 10 / 13 / 16 / 17 / 18 / 19 / 22 / 24 / 27 / 30 / 32 mm
6	**inserts for hexagon socket screws**
	Sizes 6 / 8 / 10 / 12 / 14 / 17 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 125/250 mm

59629 Workshop trolley with 7 OPT-I-STORE inserts and 151 pcs. tool assortment

ATORN®

Workshop trolley

Design
- 6 drawers height 80 mm
- 1 drawer height 165 mm
- Robust sheet steel construction
- Solvent-resistant plastic worktop with 2 integrated storage compartments
- Drawers with roller guides
- **Drawer 100% full extension**
- Internal dimensions of drawers (W x D) = 527 x 348 mm
- Load capacity 20 kg per drawer
- Total trolley capacity 300 kg
- Individual locking elements prevent unintentional opening of drawers
- **All drawers can be used for OPT-I-STORE hard foam inlays (art. no. 59604-59692)**
- Individual fastening possibilities thanks to rectangular hole grid on the side walls, e.g. with hooks for tools or other add-on parts such as can holder, document holder, suspended boxes, waste basket, etc. (art. no. 81725 103-105)
- Inserted side walls protect the additionally attached add-on parts from damage, since these are suspended within the trolley dimensions
- Central locking with cylinder lock secures all drawers, incl. 2 articulated wrenches
- Plastic-coated metal sliding handle attached directly to frame
- Wheeled by 2 ball bearing-mounted fixed castors and 2 steering rollers ∅ 100 mm, with locking brake
- Powder-coated surface: Body RAL 7035 light grey, drawers RAL 5010 gentian blue
- **Delivery includes 1 separating plate per drawer** (additional separating plates art. no. 81725 106-107)

OPT-I-STORE hard foam inlays

Design
- Two-tone support frame made of polyethylene (PE)
- Lightweight, durable, water resistant, oil resistant
- With shock-absorbing properties
- Colour black/blue
- The hard foam is durable, odour-free and suitable for use with foodstuffs.

Applications

For clearly arranged, easily organised and protected storage of tools in drawers.

NEW

(1)

	59629	...
Complete price	101	

(1)	Saw and striking tool set, 18 pcs.
	OPT-I-STORE hard foam inlay 520 x 345 mm
1	**machinist's hammer** 500 g
1	**soft-face hammer** no recoil, Ø 30 mm
2	**flat chisel** 125/150 mm
1	**cross-cut chisel** 125 mm
1	**centre punch** 120 mm
2	**drift punches** 2/3 mm
6	**pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm
1	**scriber** 150 mm
1	**aluminium saw bow** 300 mm
1	**pack = 10 hand saw blades** 24 teeth
1	**universal knife** blade width 9 mm

(2)	Combination spanner set, 17 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
	Sizes 6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/22/24 mm

(3)	Pliers set, 5 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**round-nose pliers** 160 mm
1	**snipe nose pliers** 200 mm
1	**Combination pliers** 180 mm
1	**Side cutters** 160 mm
1	**water pump pliers** 250 mm

(4)	Tool set, 39 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**vernier calipers** 150 mm
1	**try square** 100 x 70 mm
1	**pocket tape rule** 3 m
1	**precision rule** 300 mm
1	**bit box** 32-piece
1	**universal knife** blade width 18 mm
1	**LED rubber lamp** 175 mm
1	**multi-purpose scissors** 190 mm

(5)	TORX® screwdriver set with bore hole, 11 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
	T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40 (T 10 and above with bore hole)

(6)	Screwdriver/T-handle wrench set, 17 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
9	**T-handle wrenches** size 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
3	**workshop screwdrivers** 5.5 x 100 / 6.5 x 125 / 8 x 150 mm
3	**Phillips screwdrivers** PH 1 / 2 / 3
2	**Phillips screwdrivers** PZ 1 / 2

(2) (3) (4)

(5) (6) (7)

(7)	1/4+1/2 inch hexagon socket wrench set, 35 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
5	**hexagon inserts with energy profile** size 5.5 / 7 / 8 / 10 / 13 mm
3	**inserts for hexagon socket screws** size 3 / 4 / 5 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 50/105 mm
11	**hexagon inserts with energy profile**
	Sizes 10 / 13 / 16 / 17 / 18 / 19 / 22 / 24 / 27 / 30 / 32 mm
6	**inserts for hexagon socket screws**
	Sizes 6 / 8 / 10 / 12 / 14 / 17 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 125/250 mm

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59630 Workshop trolley with 7 OPT-I-STORE inserts and 142 pcs. tool assortment

Design
- Robust sheet steel construction
- 5 drawers height 75 mm, 2 drawers height 160 mm
- Total load carrying capacityof the trolley 440 kg

Colour:
- Body RAL 7016
- Drawers RAL 9006

2-step locking concept:
- Central locking, lockable by cylinder lock with articulated wrenches
- Individual locking prevents unintentional opening of drawers

Robust and sophisticated technology:
- Stable steering handle for maximum traction, firmly mounted on the cabinet
- Edge protection corners at the top and bottom of all four sides
- Solvent-resistant plastic worktop (resistant to oil, brake fluid, Skydrol) with compartments for small parts and labelling field (e.g. individual personalization for mechanics)
- Edging prevents parts from falling

Drawer guide:
- Suitable for all ATORN OPT-I-STORE hard foam inserts art. no. 59604-59692
- All drawers feature smooth, ball bearing-mounted telescopic rails
- Drawer 100% full extension
- Internal dimensions of drawers (WxD) 527x348 mm
- Load capacity 25 kg per drawer

Various additional mountingoptions:
- Individual fastening possibilities thanks to rectangular hole grid on the side walls, for example, can holder, paper role holder, waste basket etc.
- Side wall inserts protect the attached add-on parts against damage, as they are attached within the carriage dimensions

High-quality chassis:
- High-quality, large, heavy-duty ball bearing rollers (Ø 125 mm) ensure simple movement even with dynamic load
- All wheels have thread guards (protect the bearings from dirt and threads)

Made in Germany

OPT-I-STORE hard foam inlays

Design
- Two-tone support frame made of polyethylene (PE)
- Lightweight, durable, water-resistant, oil-resistant
- With shock-absorbing properties
- Colour black/blue
- The hard foam is durable, odour-free and suitable for use with foodstuffs

Applications
For clear, easy organisation and protected storage of tools in the drawers.

(1)

NEW

	59630 ...
Complete price	101

(1) Saw and striking tool set, 18 pcs.
- 1 **machinist's hammer** 500 g,
- 1 **soft-face hammer** recoil-free, Ø 30 mm,
- 2 **flat chisel** 125 / 150 mm,
- 1 **cross-cut chisel** 125 mm,
- 1 **centre punch** 120 mm,
- 2 **drift punches** 2 / 3 mm,
- 6 **pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm,
- 1 **scriber** 150 mm,
- 1 **aluminium saw bow** 300 mm,
- 1 **pack = 10 hand saw blades** 24 teeth,
- 1 **universal knife** blade width 9 mm.

(2) Combination spanner set, 17 pcs.
- 17 **combination spanners** size 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 22 / 24 mm.

(3) Hex socket wrench set, 35 pcs.
- 5 **hexagon inserts with energy profile** size 5.5 / 7 / 8 / 10 / 13 mm,
- 3 **inserts for hexagon socket screws** size 3 / 4 / 5 mm,
- 1 **reversible ratchet, handle with slide piece, cardan joint,**
- 2 **extensions** 50 mm / 105 mm,
- 11 **hex inserts with energy profile** size 10 / 13 / 16 / 17 / 18 / 19 / 22 / 24 / 27 / 30 / 32 mm,
- 6 **inserts for hexagon socket screws** size 6 / 8 / 10 / 12 / 14 /17 mm,
- 1 **reversible ratchet, handle with slide piece, cardan joint,**
- 2 **extensions** 125 mm / 250 mm.

(4) Screwdriver/T-handle wrench set, 17 pcs.
- 9 **hexagonal ball head T-handle wrench** size 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm,
- 3 **workshop screwdriver** 5.5 x 100 / 6.5 x 125 / 8 x 150 mm,
- 3 **Phillips screwdriver** PH 1 / 2 / 3,
- 2 **Phillips screwdriver** PZ 1 / 2.

(5) TORX® screwdriver set with bore hole, 11 pcs.
- 11 **TORX® screwdrivers** (from T 10 with bore hole) T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40.

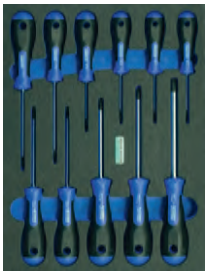
(6) Pliers set, 5 pcs.
- 1 **round-nose pliers** 160 mm,
- 1 **snipe nose pliers** 200 mm,
- 1 **combination pliers** 180 mm,
- 1 **side cutters** 160 mm,
- 1 **water pump pliers** 250 mm.

(2)

(3)

(4)

(5)



(6)

(7)

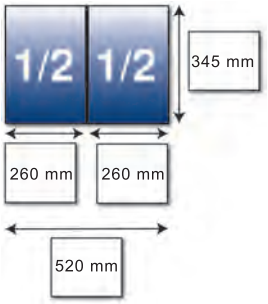
(7) Tool set, 39 pcs.
- 1 **vernier calipers** 150 mm,
- 1 **try square** 100 x 70 mm,
- 1 **pocket tape rule** 3 m,
- 1 **precision rule** 300 mm,
- 3 **bits for slotted screws** 4.5/5.5/6.5 mm
- 9 **bits for Phillips-head screws** 2xPH1 / 5xPH2 / 2xPH3
- 9 **bits for Phillips-head screws** 2xPZ1 / 5xPZ2 / 2xPZ3
- 3 **bits for hexagon socket screws** size 4 / 5 / 6 mm
- 6 **bits for TORX®screws** T 10 / 15 / 20 / 25 / 30 / 40
- 1 **universal knife blade width** 18 mm,
- 1 **LED rubber light** 175 mm,
- 1 **multi-purpose scissors** 190 mm.
- 1 **handle** with 1/4 inch mounting
- 1 **Bit holder**

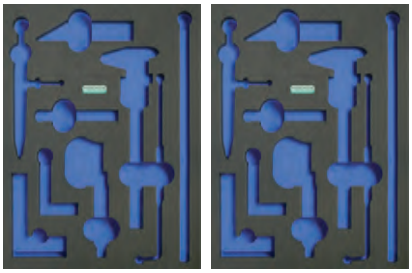
Info — OPT-I-STORE hard foam inlays art. no. 59604-59692

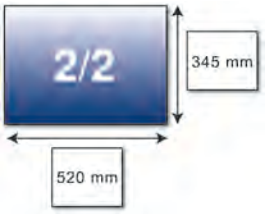
ATORN®

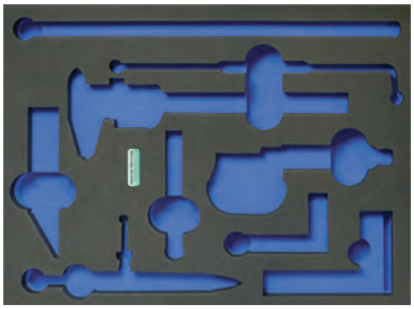
Design
The PE foam is lightweight yet resilient. The material is also water-repellent and oil-resistant, and has shock-absorbing properties.
The hard foam is durable, odour-free and suitable for use with foodstuffs.
In order to be able to store electronic parts, the foam is also available in an ESD version, with the property non-conductive.

Applications
For clearly arranged, easily organised and protected storage of tools in drawers.









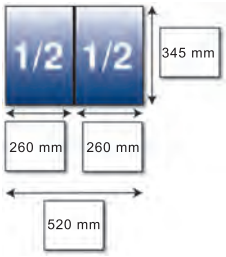
The drawers of the ATORN workshop trolley (art. no. 81725 101-102 + 122), can optionally be equipped with
- two 1/2 OPT-I-STORE hard foam inlays (260 x 345) or
- one 2/2 OPT-I-STORE hard foam inlay (520 x 345).

59635 Measuring tool sets (7 pcs.) — 1/2

ATORN®

59635 104

	Set contents
1	**vernier calipers** 150 mm,
1	**scriber** straight/bent, 250 mm,
1	**divider** 200 mm,
1	**try square** DIN 875/2, 150 x 100 mm,
1	**goniometer** 120 x 150 mm,
1	**tape measure** 3 m,
1	**rule** 300 x 13 x 0.3 mm, stainless steel



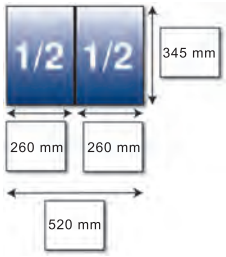
Version Vernier calipers	Insert Size	Insert external dimensions W x D x H mm	Complete set 59635	...	Empty insert 59635	...
analogue	1/2	260 x 345 x 30		102		302
digital	1/2	260 x 345 x 30		104		304

59636 Measuring tool sets (9 pcs.) — 1/2

ATORN®

59636 101

	Set contents
1	**vernier calipers** 150 mm,
1	**micrometer** 0 - 25 mm,
1	**scriber** straight/bent, 250 mm,
1	**spring divider** 125 mm,
1	**straight edge** DIN 874, 125 mm, stainless,
1	**try square** DIN 875/1, 100 x 70 mm, stainless,
1	**knife-edge square** DIN 875/00, 75 x 50 mm, stainless,
1	**feeler gauge set,** conical, 20 blade, 0.05 - 1.00 mm,
1	**rule** 300 x 13 x 0.5 mm, stainless.



Version Vernier calipers	Insert Size	Insert external dimensions W x D x H mm	Complete set 59636	...	Empty insert 59636	...
analogue	1/2	260 x 345 x 30		101		301
digital	1/2	260 x 345 x 30		102		302

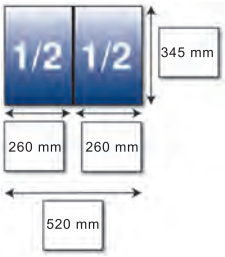
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59613 Measuring tool set (8 pcs.)

1/2

ATORN®

59613



	Set contents
1	**vernier calipers** 150 mm,
1	**micrometer** 0 - 25 mm,
1	**workshop divider with elbow** 150 mm,
1	**tape rule** 3 m,
1	**rule** 200 x 13 x 0.5 mm stainless,
1	**straight edge** DIN 874, 100 mm,
1	**workshop angle** DIN 875/1, 100 x 70 mm,
1	**goniometer** 120 x 150 mm.

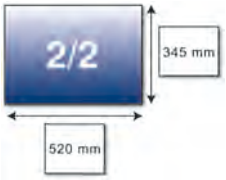
Insert Size	insert external dimensions W x D x H mm	Complete set 59613	...	Empty insert 59613	...
1/2	260 x 345 x 30		101		301

59640 Sawing and marking set (8 pcs.)

2/2

ATORN®

59640



	Set contents
1	**pocket saw,**
1	**pack = 12 replacement saw blades**
1	**saw bow** without blade,
1	**pack = 11 replacement saw blades,**
1	**scriber** straight/bent, 250 mm,
1	**try square** DIN 875/2, 200 x 130 mm,
1	**tape measure** 3 m,
1	**rule** 300 x 13 x 0.3 mm, stainless.

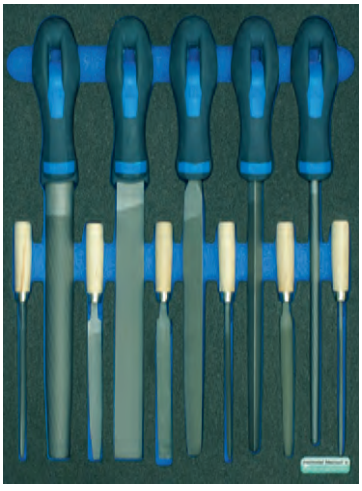
Insert Size	Insert external dimensions W x D x H mm	Complete set 59640	...	Empty insert 59640	...
2/2	520 x 345 x 30		102		302

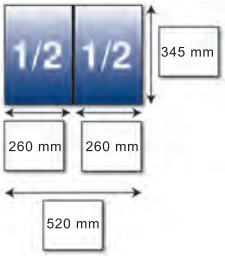
59653 File set (11 pcs.)

1/2

ATORN®

59653





	Set contents
5	**flat hand engineer's files** length 200 mm, cut 2, flat hand file, half round head, round, triangular, square head
6	**key files** length 100 mm, flat hand file, flat-pointed, half round head, round, triangular, square.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59653	...	Empty insert 59653	...
1/2	260 x 345 x 30		101		301

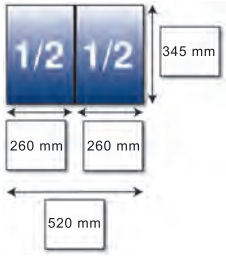
59650 Double open-end wrench set (11 pcs.) DIN 3110, ISO 10102

1/2

ATORN®

59650

59650 102
Design
- Jaw angle 15°



	Set contents
11	**double open-end wrench** size 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 / 21 x 23 / 24 x 27 / 30 x 32 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59650	...	Empty insert 59650	...
1/2	260 x 345 x 30		102		302

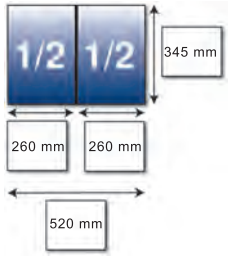
59655 Combination spanner set (12 pcs.) DIN 3113 A, ISO 7738 A

1/2

ATORN®

59655

59655 101
Design
- Ring head with energy profile
- 15° angled



	Set contents
12	**combination spanners** size 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 17 / 19 / 22 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59655	...	Empty insert 59655	...
1/2	260 x 345 x 30		101		301

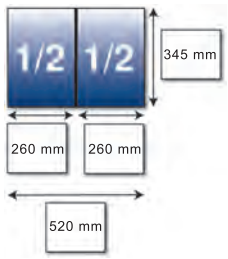
59610 Combination spanner set (17 pcs.) DIN 3113 A, ISO 7738 A

1/2

ATORN®

59610

59610 101
Design
- Ring head with energy profile
- 15° angled



	Set contents
17	**combination spanners** size 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 22 / 24 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59610	...	Empty insert 59610	...
1/2	260 x 345 x 30		101		301

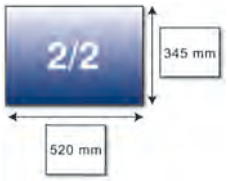
59657 Depressed centre combination spanner set (12 pcs.) DIN 3113 B, ISO 7738 B

2/2

59657

ATORN®

59657 101
Design
- Ring head with energy profile
- 10° angled and depressed centre



Set contents	
12	**combination spanners** size 10 / 11 / 12 / 13 / 14 / 17 / 19 / 22 / 24 / 27 / 30 / 32 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59657	...	Empty insert 59657	...
2/2	520 x 345 x 30		101		301

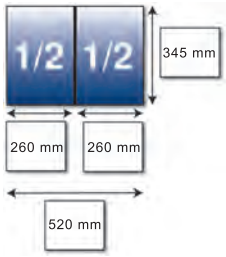
59612 Depressed centre combination spanner set (17 pcs.) DIN 3113 B, ISO 7738 B

1/2

59612

ATORN®

59612 101
Design
- Ring head with energy profile
- Ring head with 12 edges (size 6 to 9 mm with hex)
- 10° angled and depressed centre



Set contents	
17	**combination spanners** size 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59612	...	Empty insert 59612	...
1/2	260 x 345 x 30		101		301

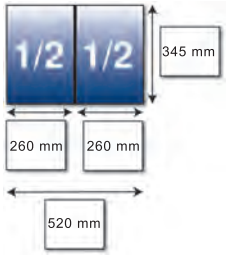
59660 Depressed centre box wrench set (8 pcs.) DIN 838, ISO 10104

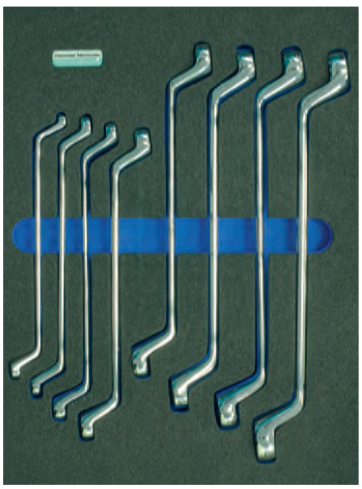
1/2

59660

ATORN®

59660 101
Design
- Double sided, deep offset
- With energy profile





Set contents	
8	**box wrenches** size 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59660	...	Empty insert 59660	...
1/2	260 x 345 x 30		101		301

59611 Combination spanner set with ring ratchet (18 pcs.)

1/2

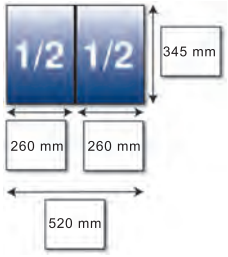
ATORN®

59611 101
Quality
Chromium-vanadium steel.

Note:
Supplied without socket wrench inserts.

1 x adapter for 1/4 inch bits

3 x adapters for socket wrench inserts 1/4, 3/8 and 1/2 inch



59611

	Set contents
14	**combination spanners with ringratchet** size 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 mm,
1	**adapter for bits** 1/4 inch,
3	**adapters for socket wrench inserts** 1/4 / 3/8 / 1/2 inch.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59611	...	Empty insert 59611	...
1/2	260 x 345 x 30		101		301

59607 Screwdriver/combination spanner set with ring ratchet (15 pcs.)

1/2

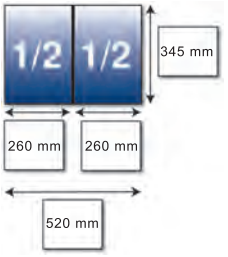
ATORN®

59607 101
Quality
Chromium-vanadium steel.

Note:
Supplied without socket wrench inserts.

1 x adapter for 1/4 inch bits

3 x adapters for socket wrench inserts 1/4, 3/8 and 1/2 inch



59607

	Set contents
5	**combination spanners with ring ratchet** size 8 / 10 / 13 / 17 / 19 mm,
1	**adapter for bits** 1/4 inch,
3	**adapters for socket wrench inserts** 1/4 / 3/8 / 1/2 inch,
⊖ 4	**slotted screwdrivers** 4.5 x 90 / 5.5 x 100 / 6.5 x 125 / 8.0 x 150 mm,
⊕ 2	**Phillips screwdrivers PH** 1/80 / **PH** 2/100

Insert Size	Insert external dimensions W x D x H mm	Complete set 59607	...	Empty insert 59607	...
1/2	260 x 345 x 30		101		301

59623 Hex socket wrench set (77 pcs.)

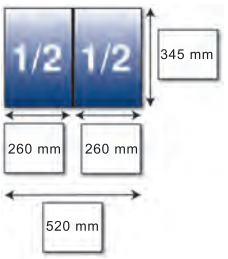
1/4" 1/2

ATORN®

59623
Quality
Chromium-vanadium steel.

59623

	Set contents
○ 16	**Hexagon socket wrench inserts** size 4 / 4.5 / 5 / 5.5 / 6 / 7 / 8 / L 8 / 9 / 10 / L 10 / 11 / L 11 / 12 / 13 / L 13 mm,
⬢ 5	**Hexagon screwdriver bits** size 3 / 4 / 5 / 6 / 8 mm,
⊖ 3	**slotted screwdriver bits** 0.8 x 4.0 / 1.0 x 5.5 / 1.2 x 6.5 mm,
⊕ 2	**Phillips screwdriver bits PH** 1 / 2,
⊕ 2	**Phillips screwdriver bits PZ** 1 / 2,
✱ 9	**TORX® screwdriver bits** T 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40,
⬢ 3	**bits for hexagon socket screws** size 4 / 5 / 6 mm,
⊖ 3	**bits for slotted screws** 4.5 / 5.5 / 6.5 mm,
⊕ 9	**bits for Phillips-head screws** 2 x **PH** 1 / 5 x **PH** 2 / 2 x **PH** 3,
⊕ 9	**bits for Phillips-head screws** 2 x **PZ** 1 / 5 x **PZ** 2 / 2 x **PZ** 3,
✱ 6	**bits for TORX® screws** T 10 / 15 / 20 / 25 / 30 / 40,
1	**reversible ratchet** 145 mm,
1	**handle with sliding piece,**
1	**cardan joint,**
3	**extensions** 55 / 100 / 150 mm,
1	**adapter** 3/8 x 1/4 inch,
1	**handle** with 1/4 inch holder,
1	**bit holder.**



Insert Size	Insert external dimensions W x D x H mm	Complete set 59623	...	Empty insert 59623	...
1/2	260 x 345 x 30		101		301

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59622 Hex socket wrench set (49 pcs.)

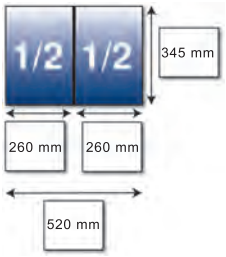
3/8" | 1/2

ATORN®

59622 101
Quality
Chromium-vanadium steel.

59622

		Set contents
○	17	**Hexagon socket wrench inserts** size 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 mm,
⬢	9	**Hexagon screwdriver bits** size 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 12 mm,
✪	8	**TORX® socket wrench inserts** E 5 / 6 / 7 / 8 / 10 / 11 / 12 / 14,
✱	7	**TORX® screwdriver bits** T 20 / 25 / 27 / 30 / 40 / 45 / 50.
	1	**reversible ratchet** 190 mm,
	1	**handle with sliding piece,**
	1	**cardan joint,**
	3	**extensions** 50 / 150 / 250 mm,
	1	**adapter** 3/8 x 1/4 inch,
	1	**adapter** 3/8 x 1/2 inch.



Insert Size	Insert external dimensions W x D x H mm	Complete set 59622	...	Empty insert 59622	...
1/2	260 x 345 x 30		101		301

59624 Hex socket wrench set (35 pcs.)

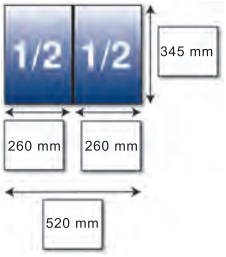
1/2" | 1/2

ATORN®

59624 101
Quality
Chromium-vanadium steel.

59624

		Set contents
○	18	**Hexagon socket wrench inserts** size 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 23 / 24 / 27 / 30 / 32 mm,
⬢	6	**Hexagon screwdriver bits** size 6 / 7 / 8 / 10 / 12 / 14 mm,
⊕	2	**Phillips screwdriver bits PH** 2 / 3,
✱	5	**TORX® screwdriver bits** T 30 / 40 / 45 / 55 / 60,
	1	**reversible ratchet** 255 mm,
	1	**cardan joint,**
	2	**extensions** 125 / 250 mm.



Insert Size	Insert external dimensions W x D x H mm	Complete set 59624	...	Empty insert 59624	...
1/2	260 x 345 x 30		101		301

59665 Hex socket wrench set (35 pcs.)

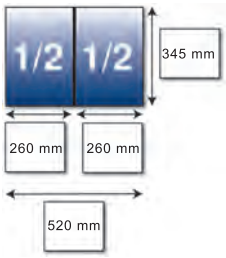
1/4" | 1/2" | 1/2

ATORN®

59665 101
Quality
Chromium-vanadium steel.

59665

		Set contents
¼" ○	5	**hexagon bits with energy profile** size 5.5 / 7 / 8 / 10 / 13 mm,
⬢	3	**bits for hexagon socket screws** size 3 / 4 / 5 mm,
1 each of		**reversible ratchet, handle with sliding piece, cardan joint,**
	2	**extensions** 50 mm/105 mm,
½" ○	11	**hexagon inserts with energy profile** size 10 / 13 / 16 / 17 / 18 / 19 / 22 / 24 / 27 / 30 / 32 mm,
⬢	6	**inserts for hexagon socket screws** size 6 / 8 / 10 / 12 / 14 / 17 mm,
1 each of		**reversible ratchet, handle with sliding piece, cardan joint,**
	2	**extensions** 125 mm / 250 mm.



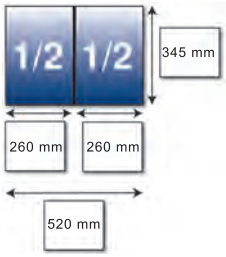
Insert Size	Insert external dimensions W x D x H mm	Complete set 59665	...	Empty insert 59665	...
1/2	260 x 345 x 30		101		301

59656 Hex/TORX® socket wrench set (34 pcs.)

1/4" | 1/2

ATORN®

59656 401
Quality
Chromium-vanadium steel.



59656

		Set contents
○	13	**Hexagon inserts with energy profile** size 4 / 4.5 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm,
1 each of		**reversible ratchet, handle with slide piece, cardan joint,**
	2	**extension** 50 mm / 150 mm,
✪	6	**TORX® socket wrench inserts** E 4 / 5 / 6 / 7 / 8 / 10,
✱	9	**TORX® screwdriver inserts** T 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40,
✱ ✪	1	**TORX® profile gauge** E 4 - E 16 and T 10 - T 60.

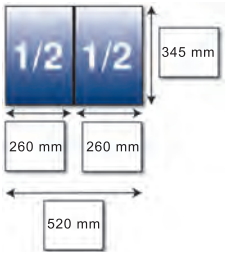
		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59656	...	59656	...
1/2	260 x 345 x 30		401		301

59648 TORX® socket wrench set (23 pcs.)

1/2" | 1/2

ATORN®

59648 101
Quality
Chromium-vanadium steel.



59648

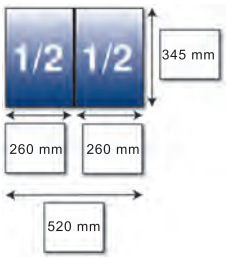
		Set contents
✱	8	**TORX® screwdriver inserts** T 20 / 25 / 27 / 30 / 45 / 50 / 55 / 60,
✪	9	**TORX® socket wrench inserts** E 10 / 11 / 12 / 14 / 16 / 18 / 20 / 22 / 24,
1 each of		**reversible ratchet, handle with slide piece, cardan joint,**
	2	**extension** 125 mm / 250 mm,
✱ ✪	1	**TORX® profile gauge** E 4 - E 16 and T 10 - T 60.

		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59648	...	59648	...
1/2	260 x 345 x 30		101		301

59670 Screwdriver/T-handle wrench set (17 pcs.)

1/2

ATORN®



59670

		Set contents
⬢ !	9	**hexagonal ball head T-handle wrench** size 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm,
⊖	3	**workshop screwdrivers** 5.5 x 100 / 6.5 x 125 / 8 x 150 mm,
⊕	3	**Phillips screwdrivers PH** 1 / 2 / 3,
⊕	2	**Phillips screwdrivers PZ** 1 / 2.

		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59670	...	59670	...
1/2	260 x 345 x 30		101		301

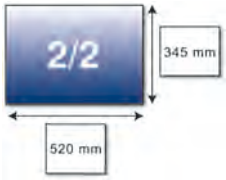
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59646 TORX®Screwdriver/T-handle wrench set (35 pcs.)

ATORN®

2/2

59646



		Set contents
✱	13	**TORX® T-handle wrenches** T 5 / 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40 / 50, in plastic clip,
✱	6	**TORX® T-handle wrench** T 10 / 15 / 20 / 25 / 27 / 30,
✱ !	8	**TORX® ball head T-handle wrench** T 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40, **in plastic clip,**
✱	7	**TORX® screwdriver** (from T 10 with bore hole) T 8 / 9 / 10 / 15 / 20 / 25 / 30,
✱ ✪	1	**TORX® profile gauge** E 4 - E 16 and T 10 - T 60.

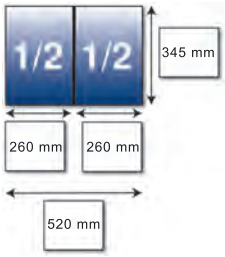
Insert Size	Insert external dimensions W x D x H mm	Complete set 59646	...	Empty insert 59646	...
2/2	520 x 345 x 30		101		301

59673 TORX® screwdriver set with bore hole (7 pcs.)

ATORN®

1/2

59673



		Set contents
✱ ✱	7	**TORX® screwdrivers** (from T 10 with bore hole) T 6 / 7 / 8 / 9 / 10 / 15 / 20.

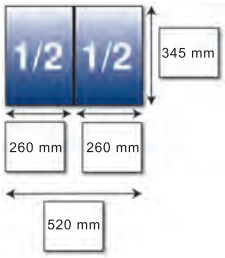
Insert Size	Insert external dimensions W x D x H mm	Complete set 59673	...	Empty insert 59673	...
1/2	260 x 345 x 30		102		302

59615 TORX® screwdriver set with bore hole (11 pcs.)

ATORN®

1/2

59615

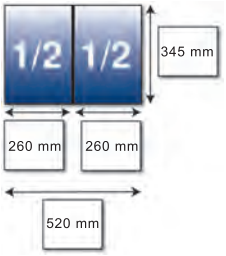


		Set contents
✱ ✱	11	**TORX® screwdrivers** (from T 10 with bore hole) T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59615	...	Empty insert 59615	...
1/2	260 x 345 x 30		101		301

59614 Hexagon/TORX® screwdriver set (21 pcs.)

ATORN®



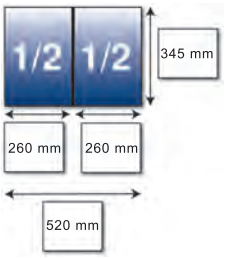
59614

	Set contents
8	**ball head screwdriver** size 2 x 100 / 2.5 x 100 / 3 x 100 / 4 x 100 / 5 x 100 / 6 x 125 / 8 x 150 / 10 x 150 mm,
13	**TORX® T-handle wrenches** T 5 / 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40 / 50, in plastic clip.

		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59614	...	59614	...
1/2	260 x 345 x 30		101		301

59621 TORX® T-handle wrench set with T-handle (9 pcs.)

ATORN®



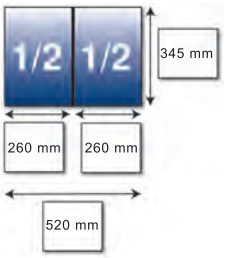
59621

	Set contents
9	**TORX® T-handle wrench** T 8 x 100 / 10 x 100 / 15 x 100 / 20 x 100 / 25 x 100 / 27 x 100 / 30 x 100 / 40 x 100 / 45 x 150.

		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59621	...	59621	...
1/2	260 x 345 x 30		101		301

59620 Hexagon T-handle wrench set (8 pcs.)

ATORN®



59620

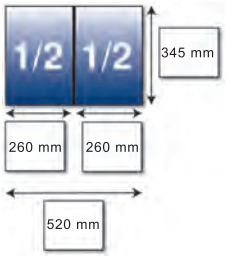
	Set contents
8	**hexagon T-handle wrench** size 2 x 100 / 2.5 x 100 / 3 x 100 / 4 x 100 / 5 x 100 / 6 x 150 / 8 x 150 / 10 x 200 mm.

		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59620	...	59620	...
1/2	260 x 345 x 30		101		301

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59672 VDE electrician screwdriver set (8 pcs.)

ATORN®



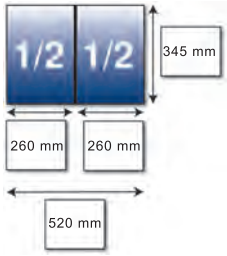
59672

		Set contents
⊖	4	**VDE electrician slotted screwdrivers** 2.5 x 75 / 3.5 x 100 / 4 x 100 / 5.5 x 125 mm,
⊕	3	**VDE electrician Phillips screwdrivers PH** 0 / 1 / 2,
⊖	1	**VDE voltage tester** 3.0 x 70, 150 - 250 V.

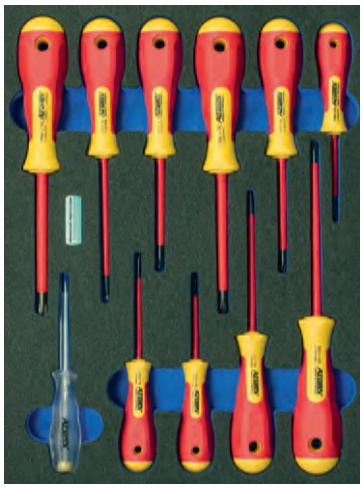
Insert Size	Insert external dimensions W x D x H mm	Complete set 59672	...	Empty insert 59672	...
1/2	260 x 345 x 30		102		302

59618 VDE electrician screwdriver set (11 pcs.)

ATORN®



59618

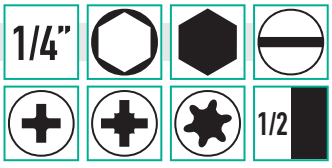


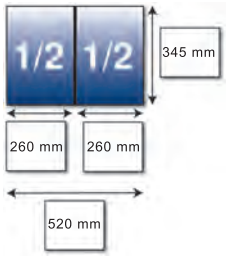
		Set contents
⊖	4	**VDE electrician slotted screwdrivers** 2.5 x 75 / 4.0 x 100 / 5.5 x 125 / 6.5 x 150 mm,
⊕	3	**VDE electrician Phillips screwdrivers PH** 0 / 1 / 2,
⊕	3	**VDE electrician Phillips screwdrivers PZ** 0 / 1 / 2,
⊖	1	**VDE voltage tester** 3.0 x 0.8 mm, 150 - 250 V.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59618	...	Empty insert 59618	...
1/2	260 x 345 x 30		101		301

59627 Torque screwdriver set (80 pcs.)

ATORN®





59627

		Set contents
1/4"	3	**torque screwdrivers** 0.6 - 1.5 / 1.5 - 3.0 / 3.0 - 5.4 Nm,
⬢	13	**hexagon socket wrench inserts** size 4 / 4.5 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm,
⬢	8	**bits for hexagon socket screws** size 2 x 3 / 2 x 4 / 2 x 5 / 2 x 6 mm,
⊖	4	**bits for slotted screws** 4.5 / 5.5 / 6.5 / 8.0 mm,
⊕	18	**bits for Phillips-head screws** 4 x **PH** 1 / 10 x **PH** 2 / 4 x **PH** 3,
⊕	18	**bits for Phillips-head screws** 4 x **PZ** 1 / 10 x **PZ** 2 / 4 x **PZ** 3,
✱	12	**bits for TORX® screws** 2 x T 10 / 2 x T 15 / 2 x T 20 / 2 x T 25 / 2 x T 30 / 2 x T 40,
	1	**bit holder,**
	1	**bit holder blade** 170 mm,
	1	**adapter** 1/4 inch x 25 mm.

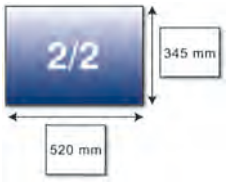
Insert Size	Insert external dimensions W x D x H mm	Complete set 59627	...	Empty insert 59627	...
1/2	260 x 345 x 30		101		301

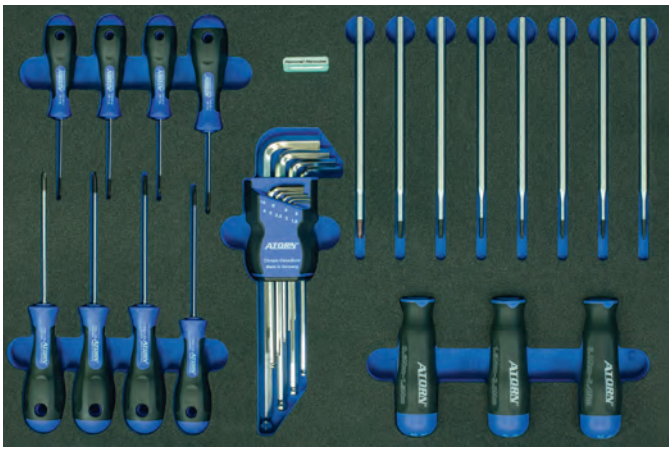
59658 TORX® torque screwdriver set (28 pcs.)

1/4" | 2/2

ATORN®

59658





	Set contents
3	**torque screwdrivers** Adjustment range 0.6 - 1.5 / 1.5 - 3.0 / 3.0 - 5.4 Nm,
8	**TORX® screwdriver blades** T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25,
8	**TORX® screwdriver** (from T 10 with hole) T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25,
9	**hexagonal ball head T-handle wrench** Sizes 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm.

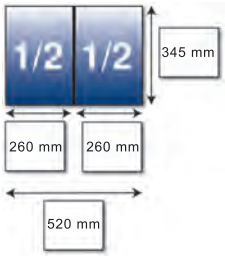
Insert Size	Insert external dimensions W x D x H mm	Complete set 59658	...	Empty insert 59658	...
2/2	520 x 345 x 30		101		301

59676 Striking tool set (12 pcs.)

1/2

ATORN®

59676



	Set contents
1	**machinist's hammer** 500 g,
1	**centre punch** 4 x 120 mm,
2	**drift punches** 2 / 3 x 120 mm,
6	**pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm,
1	**flat chisel** 18 x 150 mm,
1	**cross-cut chisel** 6 x 150 mm.

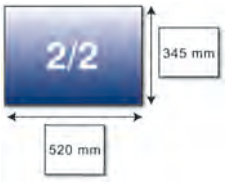
Insert Size	Insert external dimensions W x D x H mm	Complete set 59676	...	Empty insert 59676	...
1/2	260 x 345 x 30		102		302

59609 Saw and striking tool set (18 pcs.)

2/2

ATORN®

59609



	Set contents
1	**machinist's hammer** 500 g,
1	**soft-face hammer** non-recoil, Ø 30 mm,
2	**flat chisel** 125 / 150 mm,
1	**cross-cut chisel** 125 mm,
1	**centre punch** 120 mm,
2	**drift punches** 2 / 3 mm,
6	**pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm,
1	**scriber** 150 mm,
1	**aluminium saw bow** 300 mm,
1	**pack = 10 hand saw blades** 24 teeth,
1	**universal knife** blade width 9 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59609	...	Empty insert 59609	...
2/2	520 x 345 x 30		101		301

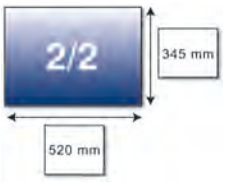
59675 Filing/striking tool set (19 pcs.)

2/2

ATORN®

59675

	Set contents
5	**files** flat hand file, half round head, triangular Square, round 200 mm, cut 2,
1	**machinist's hammer** 500 g,
1	**plastic hammer** Ø 27 mm,
1	**centre punch** 5 x 120 mm,
2	**drift punches** 2 / 3 x 120 mm,
6	**pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm,
2	**flat chisel** 18 x 125 / 18 x 150 mm,
1	**cross-cut chisel** 5.5 x 125 mm.



Insert Size	Insert external dimensions W x D x H mm	Complete set 59675	...	Empty insert 59675	...
2/2	520 x 345 x 30		101		301

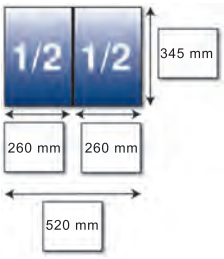
59649 Pliers set (6 pcs.)

1/2

ATORN®

59649

	Set contents
1	**Langbeck flat-nose pliers** 160 mm,
1	**snipe nose pliers** 160 mm,
1	**pincers** 200 mm,
1	**mechanic's nippers,** 250 mm,
1	**work scissors** 200 mm,
1	**universal knife** blade width 18 mm.



Insert Size	Insert external dimensions W x D x H mm	Complete set 59649	...	Empty insert 59649	...
1/2	260 x 345 x 30		101		301

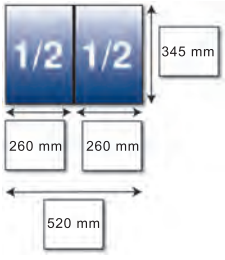
59616 Pliers set (5 pcs.)

1/2

ATORN®

59616

	Set contents
1	**round-nose pliers** 160 mm,
1	**snipe nose pliers** 200 mm,
1	**combination pliers** 180 mm,
1	**side cutters** 160 mm,
1	**water pump pliers** 250 mm.



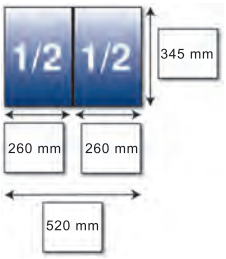
Insert Size	Insert external dimensions W x D x H mm	Complete set 59616	...	Empty insert 59616	...
1/2	260 x 345 x 30		101		301

59680 Pliers/scissors Set (5 pcs.)

1/2

ATORN®

59680



	Set contents
1	**combination pliers** 180 mm,
1	**snipe nose pliers** 200 mm,
1	**water pump pliers** 250 mm,
1	**side cutters** 160 mm,
1	**multi-purpose scissors** 190 mm.

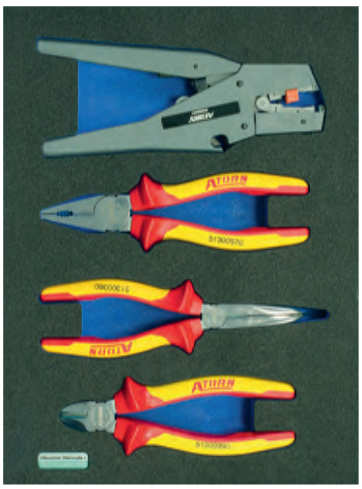
		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59680	...	59680	...
1/2	260 x 345 x 30		101		301

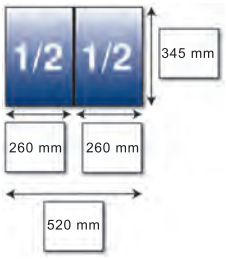
59685 VDE electrician pliers set (4 pcs.)

1/2

ATORN®

59685





	Set contents
1	**VDE electrician's combination pliers** 180 mm,
1	**VDE electrician's snipe nose pliers** 45° bent, 200 mm,
1	**VDE electrician side cutters** 160 mm,
1	**wire stripping pliers** 0.08 - 6 mm.

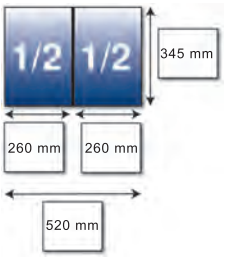
		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59685	...	59685	...
1/2	260 x 345 x 30		102		302

59626 Wire-stripping tool set (6 pcs.)

1/2

ATORN®

59626



	Set contents
1	**cable cutters** VDE 200,
1	**crimping tool** 0.25 - 6.0 mm² 205 mm,
1	**wire stripping pliers** 0.08 - 6.0 mm²,
1	**snipe nose pliers** bent, 200 mm,
1	**stripping knife** 8 - 28 mm,
1	**voltage tester** 3.0 x 0.8 mm, 150 - 250 V.

		Complete set		Empty insert	
Insert Size	Insert external dimensions W x D x H mm	59626	...	59626	...
1/2	260 x 345 x 30		101		301

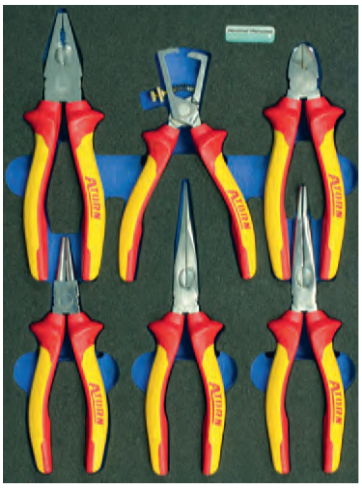
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

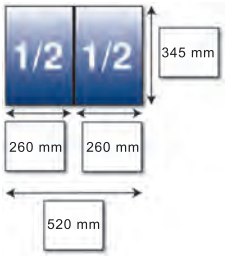
59619 VDE electrician pliers set (6 pcs.)

1/2

ATORN®

59619





	Set contents
1	**VDE electrician's combination pliers** 180 mm,
1	**VDE electrician's snipe nose pliers** 200 mm,
1	**VDE electrician's side cutters** 160 mm,
1	**VDE electrician's wire stripping pliers** 160 mm,
1	**VDE electrician's snipe nose pliers** 200 mm,
1	**VDE electrician's round-nose pliers** 160 mm.

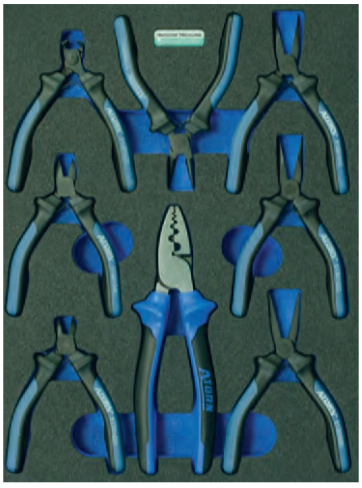
Insert Size	Insert external dimensions W x D x H mm	Complete set 59619	...	Empty insert 59619	...
1/2	260 x 345 x 30		101		301

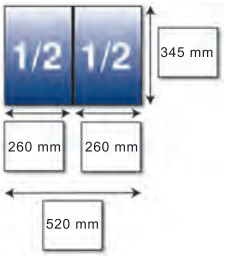
59625 Electronics pliers set (8 pcs.)

1/2

ATORN®

59625





	Set contents
1	**precision electronics flat nose pliers** 125 mm,
1	**precision electronics round-nose pliers** 125 mm,
2	**precision electronics pointed pliers** straight/bent 125 mm,
1	**crimping pliers** 180 mm,
2	**side cutters** with/without bevel, 112 mm,
1	**end cutting nippers** without bevel 112 mm.

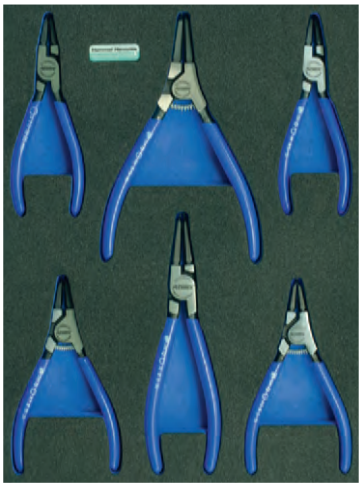
Insert Size	Insert external dimensions W x D x H mm	Complete set 59625	...	Empty insert 59625	...
1/2	260 x 345 x 30		101		301

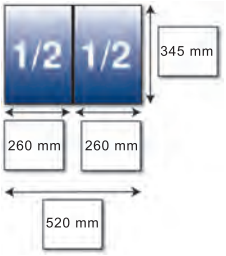
59690 Circlip pliers set (6 pcs.)

1/2

ATORN®

59690





	Set contents
3	**inner circlip pliers** Straight tips, for hole diameter 8 - 13 / 12-25 / 19 - 60 mm,
3	**outer circlip pliers** Straight tips, for shaft Ø 3 - 10 / 10 - 25 / 19 - 60 mm.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59690	...	Empty insert 59690	...
1/2	260 x 345 x 30		102		302

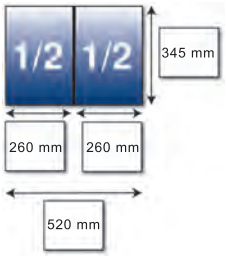
59617 Circlip pliers set (8 pcs.)

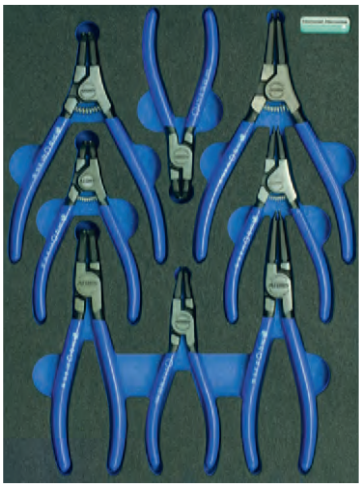
1/2

ATORN®

59617

	Set contents
2	**internal circlip pliers** Straight tip for bore diameter of 10 - 25 / 19 - 60 mm,
2	**internal circlip pliers** Angled tip for bore diameter of 10 - 25 / 19 - 60 mm,
2	**external circlip pliers** Straight tip for shaft diameter of 10 - 25 / 19 - 60 mm,
2	**external circlip pliers** Angled tip for shaft-Ø 10 - 25 / 19 - 60 mm.





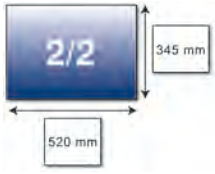
Insert Size	Insert external dimensions W x D x H mm	Complete set 59617	...	Empty insert 59617	...
1/2	260 x 345 x 30		101		301

59605 VDE set (15 pcs.)

2/2

ATORN®

59605



		Set contents
⊖	4	**slotted screwdriver** 2.5 x 75 / 4.0 x 100 / 5.5 x 125 / 6.5 x 150 mm,
⊖	1	**voltage tester** 3 x 140 mm 150 - 250 V,
⊕	2	**Phillips screwdriver PH** 1/180 / **PH** 2/100,
	1	**VDE electrician's combination pliers** 180 mm,
	1	**VDE electrician's snipe nose pliers** 200 mm,
	1	**VDE electrician's side cutters** 160 mm,
	1	**cable knife** blade length 50 mm,
	1	**electrician's safety knife** , folding
	1	**VDE electrician's stripping knife** for cable Ø 8 - 28 mm,
	1	**VDE electrician's wire stripping pliers** chrome-plated, 1.1 - 4.8 mm,
	1	**fabric adhesive tape** grey 25 m.

Insert Size	Insert external dimensions W x D x H mm	Complete set 59605	...	Empty insert 59605	...
2/2	520 x 345 x 30		101		301

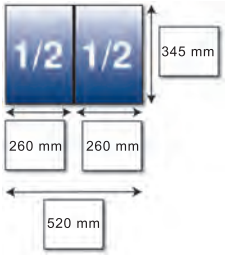
59608 Inspection set (7 pcs.)

1/2

ATORN®

59608

	Set contents
1	**telescopic pick-up magnet** magnet Ø 6 mm,
1	**inspection mirror with telescopic handle** mirror Ø 50 mm,
1	**magnifying glass** 4x magnification dimension Ø approx. 65 mm,
1	**flexible gripper** claws opening up to 15 mm,
1	**explosion-proof LED light** 143 mm,
1	**universal knife** blade width 18 mm,
1	**pocket tape measure** 5 m.



Insert Size	Insert external dimensions W x D x H mm	Complete set 59608	...	Empty insert 59608	...
1/2	260 x 345 x 30		101		301

59637 Tool set (39 pcs.)

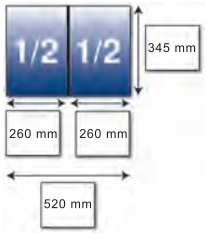
1/2

ATORN®

NEW

59637

	Set contents
1	**vernier calipers** 150 mm,
1	**try square** 100 x 70 mm,
1	**pocket tape measure** 3 m,
1	**precision rule** 300 mm,
3	**bits for slotted screws** 4.5 / 5.5 / 6.5 mm
9	**bits for Phillips-head screws** 2xPH1 / 5xPH2 / 2xPH3
9	**bits for Phillips-head screws** 2xPZ1 / 5xPZ2 / 2xPZ3
3	**bits for hexagon socket screws** size 4 / 5 / 6 mm
6	**bits for TORX® screws** T 10 / 15 / 20 / 25 / 30 / 40
1	**universal knife blade width** 18 mm,
1	**LED rubber light** 175 mm,
1	**multi-purpose scissors** 190 mm.
1	**handle** with 1/4 inch mounting
1	**bit holder**



Insert Size	Insert external dimensions W x D x H mm	Complete set 59637	...	Empty insert 59637	...
1/2	260 x 345 x 30		101		201

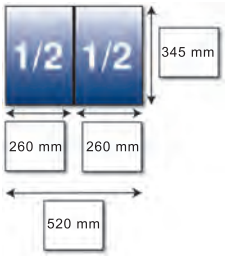
59604 Cordless screwdriver set (36 pcs.)

1/4" 1/2

ATORN®

59604

	Set contents
1	**cordless screwdriver** Li-ion 10.8-2-LI,
1	**charger** AI 1130 CV
2	**batteries** Li-ion 2.0 Ah
1	**handle** with 1/4 inch holder,
1	**bit holder,**
3	**bits for hexagon socket screws** size 4 / 5 / 6 mm,
3	**bits for slotted screws** 4.5 / 5.5 / 6.5 mm,
9	**bits for Phillips-head screws** 2 x **PH** 1 / 5 x **PH** 2 / 2 x **PH** 3,
9	**bits for Phillips-head screws** 2 x **PZ** 1 / 5 x **PZ** 2 / 2 x **PZ** 3,
6	**bits for TORX® screws** T 10 / 15 / 20 / 25 / 30 / 40.



Insert Size	Insert external dimensions W x D x H mm	Complete set 59604	...	Empty insert 59604	...
1/2	260 x 345 x 30		101		301

59652 OPT-I-STORE hard foam inserts

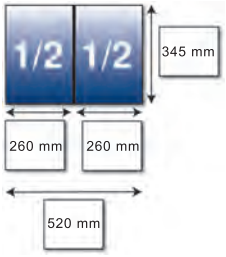
1/2

59652

ATORN®

Design
- Two-tone support frame made of polyethylene (PE)
- Lightweight, durable, water resistant, oil resistant
- With shock-absorbing properties
- Colour black/blue
- The hard foam is durable, odour-free and suitable for use with foodstuffs

Applications
For clearly arranged, easily organised and protected storage of tools in drawers.



Insert Size	Insert external dimensions W x D x H mm	59652 ...
1/2	260 x 345 x 30	301

59691 DIY hard foam inserts

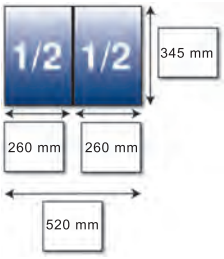
1/2 2/2

59691

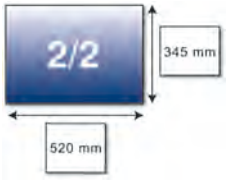
ATORN®

Design
- A strong material
- The PE foam is lightweight yet resilient
- The material is also oil-resistant and water-resistant
- It also has shock-absorbing properties
- The hard foam is durable, odour-free and even suitable for use with foodstuffs
- The foam is also available as an ESD version for electronic components
- Tailor-made cutouts and blue contrast colour mean that missing tools are immediately apparent

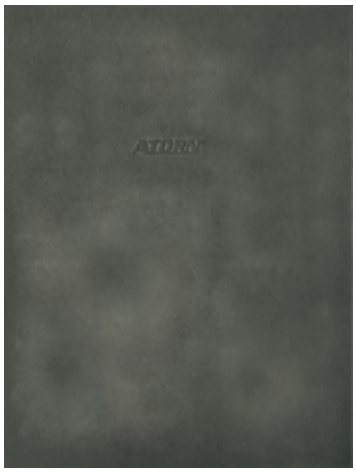
59691 303



59691 304



For example, for art. no. 81725 101-102 + 122



W x D x H mm	59691 ...
236 x 318 x 30	301
476 x 320 x 30	302
260 x 345 x 30	303
520 x 345 x 30	304

Insert external dimensions W x D x H mm	suitable for workshop trolley Manufacturer	art. no.
520 x 345 x 30	ATORN	81725 101-102 + 122

59692 Mounting frame for OPT-I-STORE hard foam insert

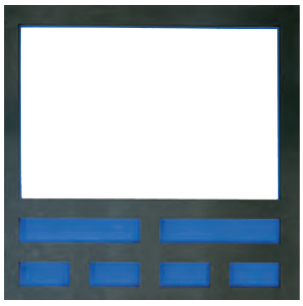
ATORN®

Design
- Two-tone mounting frame made of polyethylene (PE)
- Lightweight, durable, water-resistant, oil-resistant
- With shock-absorbing properties
- Colour black/blue
- The hard foam is durable, odour-free and suitable for use with foodstuffs

Applications
For clearly arranged, easily organised and protected storage of tools in drawers.

Note:
Figure shows mounting frame with 2x OPT-I-STORE hard foam inserts, 260x345 mm:
- Hexagon socket wrench set (art. no. 59665)
- Screwdriver/T-handle wrench set (art. no. 59670)

59692



Example application

External dimensions mm	Interior dimensions mm	59692 ...
600 x 600	528 x 348	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59720 Tool assortment (55 pcs.)

ATORN®

	Set contents
½" 14	**Hexagon socket wrench inserts** size 10 - 32 mm
1	**reversible ratchet** 255 mm
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 125/250 mm
11	**double open-end wrench** size 6 - 32 mm
9	**double-end box wrench** depressed centre size 6 - 23 mm
4	**Electrician's slotted screwdriver** 0.4 x 2.5 x 75 / 0.6 x 3.5 x 100 / 0.8 x 4.0 x 100 / 1.0 x 5.5 x 200 mm
4	**Workshop Phillips screwdriver** **PH** 1 / 2, **PZ** 1 / 2
1	**machinist's hammer** 500 g
1	**plastic hammer** Ø 32 mm
1	**drift punches** Ø 2 mm
1	**flat chisel**cutting width 18 mm
1	**cross-cut chisel** cutting width 6 mm
1	**combination pliers** 180 mm
1	**water pump pliers** 240 mm
1	**side cutters** 140 mm

Set contents	59720	...
55 pcs.		101

59720

59721 Tool assortment (65 pcs.)

ATORN®

	Set contents
1	**pocket vernier calipers** 150 mm
1	**scriber** 250 mm
1	**workshop angle** with stop 100 x 70 mm
1	**wooden folding rule** 2 m
1	**pocket tape measure** 5 m
1	**scale** flexible 300 mm
1	**aluminium saw bow** 300 mm
1	**pack = 10 x saw blades** 24 teeth
4	**flat hand engineer's files** 250 mm cut 2 (flat hand file, half round, round, triangular)
1	**adjustable wrench** up to size 24 mm
21	**combination spanners** size 6 - 32 mm
1	**tyre irons** 500 mm
8	**hexagon ball head T-handle wrench** in box Size 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
4	**workshop slotted screwdrivers** 4.5 x 90 / 5.5 x 100 / 6.5 x 125/8.0 x 150 mm
2	**Workshop Phillips screwdriver** **PH** 1 / 2
1	**machinist's hammer** 500 g
1	**soft-face hammer** Ø 40 mm
1	**centre punch** Ø 4 mm
2	**drift punches** Ø 2 / 3 mm
3	**flat chisel** cutting width 18 / 18 / 25 mm
1	**cross-cut chisel** cutting width 5.5 mm
1	**combination pliers** 180 mm
1	**snipe nose pliers** 160 mm
1	**water pump pliers** 240 mm
1	**side cutters** 140 mm
1	**ideal scissors** 240 mm
1	**triangular hollow-ground scraper** 250 mm
1	**nylon safety goggles**

Set contents	59721	...
65 pcs.		101

59721

59722 Tool assortment (90 pcs.)

1/4"

ATORN®

		Set contents
1/4"	12	**hexagon socket wrench inserts** size 4 - 13 mm
	5	**inserts for hexagon socket screws** size 3 / 4 / 5 / 6 / 8 mm
	2	**inserts for Phillips-head screws** PH 1 / 2
	2	**inserts for Phillips-head screws** PZ 1 / 2
	3	**inserts for slotted screws** 4.0 / 5.5 / 6.5 mm
	1	**each of reversible ratchet** 145 mm, **handle with sliding piece, cardan joint**
	1	**extension** 50 mm
	1	**pocket vernier calipers** 150 mm
	1	**pocket tape measure** 5 m
	1	**universal pocket hand saw** 146 mm
	4	**workshop files** 250 mm, cut 2 (flat hand file, half-round, round, triangular)
	6	**key files** 100 mm cut 2 (flat hand file, flat-pointed, half round, round, triangular, square head)
	1	**file brush** 110 x 40 mm
	9	**double open-end wrench** sizes 6 - 23 mm
	8	**hexagon T-handle wrench** in box sizes 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
	1	**universal screwdriver** with 4 blades
	4	**workshop slotted screwdrivers** 4.5 x 90 / 5.5 x 100 / 6.5 x 125 / 8.0 x 150 mm
	2	**workshop Phillips screwdrivers** PH 1 / 2
	1	**slotted angled screwdriver** 4.0 x 4.0 mm
	1	**pointed file vice** 130 mm
	2	**machinist's hammers** 200 / 500 g
	1	**centre punch** Ø 4 mm
	8	**pin punches** with guide sleeve Ø 0.9 - 5.9 mm
	1	**flat chisel** cutting width 18 mm
	1	**combination pliers** 160 mm
	1	**Langbeck flat nose pliers** 160 mm
	1	**snipe nose pliers** 160 mm
	1	**water pump pliers** 240 mm
	1	**side cutters** 160 mm
	1	**precision tweezers** 130 mm
	1	**pricker/awl** 100 mm
	1	**ideal scissors** 240 mm
	1	**precision engineering scraper** 80 mm
	1	**oil dispenser** 60 ml

59722

Set contents	59722	...
90 pcs.		101

59723 Tool assortment (101 pcs.)

1/4" 1/2"

ATORN®

		Set contents
1/4"	12	**hexagon socket wrench inserts** size 4 - 13 mm
	5	**inserts for hexagon socket screws** size 3 / 4 / 5 / 6 / 8 mm
	2	**inserts for Phillips-head screws PH** 1 / 2
	2	**inserts for Phillips-head screws PZ** 1 / 2
	3	**inserts for slotted screws** 4.0 / 5.5 / 6.5 mm
1 each of		**reversible ratchet** 145 mm, **handle with sliding piece, cardan joint**
	1	**extension** 50 mm
1/2"	14	**hexagon socket wrench inserts** size 10 - 32 mm
1 each of		**reversible ratchet** 255 mm, **handle with sliding piece, cardan joint**
	2	**extensions 125 / 250 mm**
	1	**pocket tape measure** 3 m
	1	**universal pocket hand saw** 146 mm
	1	**pack = 12 pieces saw blades** 32 teeth
	1	**aluminium saw bow** 300 mm
	1	**pack = 10 pieces saw blades** 24 teeth
	2	**adjustable wrenches** up to size 20 mm / up to size 29 mm
	11	**double open-end wrench** size 6 - 32 mm
	12	**double-end box wrenches** depressed centre size 6 - 32 mm
	3	**workshop slotted screwdrivers** 5.5 x 100/6.5 x 125/10.0 x 175 mm
	4	**Electrician's slotted screwdriver** 2.5 x 75 / 3.0 x 80 / 3.5 x 100 / 4.0 x 100 mm
	5	**workshop Phillips screwdrivers PH** 1 / 2 / 3, **PZ** 1 / 2
	1	**machinist's hammer** 500 g
	1	**plastic hammer** Ø 32 mm
	1	**centre punch** Ø 4 mm
	2	**drift punches** Ø 2 / 3 mm
	2	**flat chisels** cutting width 18 / 18 mm
	1	**cross-cut chisel** cutting width 5.5 mm
	1	**combination pliers** 180 mm
	1	**water pump pliers** 240 mm
	1	**heavy-duty end cutting nippers** 160 mm
	1	**side cutters** 140 mm

59723

Set contents	59723	...
101 pcs.		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59724 Tool assortment (113 pcs.)

ATORN®

	Set contents
14	**hexagon socket wrench inserts** size 10 - 32 mm
4	**hexagon screwdriver inserts** size 5 / 6 / 8 / 10 mm
1	**reversible ratchet** 255 mm
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 125 / 250 mm
1	**pocket tape measure** 3 m
1	**universal pocket hand saw** 146 mm
1	**pack = 12 x saw blades** 32 teeth
1	**aluminium saw bow** 300 mm
1	**pack = 10 x saw blades** 24 teeth
4	**flat hand engineer's files** 200 mm cut 2 (flat hand file, half round, round, triangular)
1	**wire hand brush** cast steel 4-row
1	**adjustable wrench** up to size 24 mm
11	**double open-end wrench** size 6 - 32 mm
21	**combination spanners** size 6 - 32 mm
12	**double-end box wrenches** depressed centre size 6 - 32 mm
1	**pry bar** 400 mm
8	**hexagon T-handle wrench** in box sizes 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
5	**workshop slotted screwdrivers** 4.5 x 90 / 5.5 x 100 / 6.5 x 125 / 10.0 x 175 / 12.0 x 200 mm
4	**Workshop Phillips screwdrivers PH** 1 / 2, **PZ** 1 / 2
1	**machinist's hammer** 500 g
1	**soft-face hammer** Ø 40 mm
1	**centre punch** Ø 4 mm
4	**pin punch** Ø 3 / 4 / 5 / 6 mm
2	**flat chisels** cutting width 18 / 24 mm
1	**combination pliers** 180 mm
1	**internal circlip pliers** for hole Ø 19 - 60 mm
1	**external circlip pliers** for shaft Ø 19 - 60 mm
1	**water pump pliers** 240 mm
1	**side cutters** 160 mm
1	**triangular hollow-ground scraper** 250 mm
1	**oil dispenser** 250 ml
1	**nylon safety goggles**

Set contents	59724	...
113 pcs.		101

59724

59602 Professional tool case (39 pcs.)

ATORN®

Design
- High-quality tool case made from highly impact-resistant ABS plastic, black
- Extremely tough
- Suitable for flying
- Solid aluminium frame
- Glide runners
- Ratchet hinges
- 2 lockable tilt cylinder locks
- Robust, scratch-resistant and dustproof, washable

Contents:
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 88 mm, freely dividable

Scope of delivery:
ATORN tool case, fitted with 39 high-quality and robust ATORN tools for heavy-duty work.

Note:
Accessories such as tool panel, base shell, insert shells, etc. available on request.

59602

Content	size
9 combination spanners	size 8 / 9 / 10 / 11 / 13 / 14 / 15 / 17 / 19 mm,
9 hexagonal ball head T-handle wrenches in holder	size 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm,
8 TORX® ball head T-handle wrench in holder	T 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40,
3 slotted screwdrivers	⊖ 4.5 x 90 / 6.5 x 125 / 8 x 150 mm,
2 Phillips screwdrivers	⊕ PH 1 x 80 / PH 2 x 100,
1 machinist's hammer	500 g,
1 heavy-duty combination pliers	200 mm,
1 snipe nose pliers	200 mm,
1 water pump pliers	250 mm,
1 side cutters	160 mm,
1 aluminium saw blade	300 mm,
1 pack = 10 metal hand saw blades,	
1 folding rule	2 m.

Content	Version	Internal dimensions mm	Volume approx. litres	Weight approx. kg	59602	...
39 pcs.	in professional tool case	470 x 180 x 360	30	5.1		101

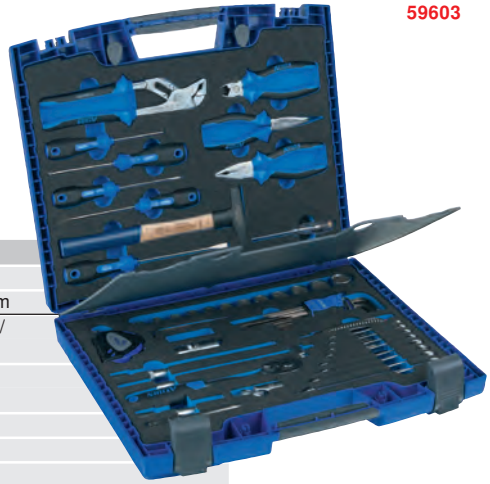
59603 Universal tool assortment (50 pcs.)

1/2"

ATORN®

Design
- Hard shell case in all-round sandwich design for high stability
- Rubberised soft touch handle for secure grip and ease of handling
- Knee lever closures
- Wide, dirt-repellent adjustable feet for secure positioning
- Stack feet for safe and slip-free stacking of multiple cases on top of each other, for example in service vehicles
- Intermediate plate to allow use of the full case interior
- Robust, end-to-end plug-in hinges for extra stability

59603



	Content	size
	1 pocket tape rule	5 m
	8 combination spanners, ring head with energy profile	size 8 / 9 / 10 / 11 / 13 / 14 / 17 / 19 mm
½	**12 hexagonal socket wrench inserts with energy profile**	size 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 19 / 21 / 22 / 24 mm
	1 hexagonal socket wrench insert with energy profile	long, with rubber insert for spark plugs Size 21 mm
	1 reversible ratchet	255 mm
	1 handle with sliding piece	
	1 x cardan joint	
	2 extensions	125 / 250 mm
	9 Allen® hex ball head T-handle wrenches in holder	size 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
	3 slotted screwdrivers	4.5 x 100 / 5.5 x 125 / 6.5 x 150 mm
	2 Phillips screwdrivers	PH 1 x 80 / PH 2 x 80
	1 machinist's hammer	300 g
	1 combination pliers	180 mm
	1 snipe nose pliers	200 mm
	1 water pump pliers	250 mm
	1 side cutters	160 mm
	1 universal knife	Blade width 18 mm
	1 LED pen light, stainless steel housing	140 mm
	1 universal voltage tester	6-24 volts
	1 voltage tester, single-pole	150-250 volts

Content	Version	Internal dimensions W x H x D mm	External dimensions W x H x D mm	59603	...
50 pcs.	in hard shell case	465 x 325 x 110	500 x 420 x 125		101

59725 Universal tool assortment (73 pcs.)

ATORN®

59725

Content	size
19 HSS twist drill, 0.5 mm increment	Ø 1 - 10 mm
1 twist drill storage case	
8 cemented carbide stone drills, 2 each of	Ø 5 / 6 / 8 / 10 mm
1 light metal spirit level	400 mm
1 wooden folding rule	2 m
1 pocket tape measure	3 m
1 universal pocket hand saw with all-purpose saw blade	146 mm
1 workshop flat hand engineer's file cut 2 with handle	150 mm
1 workshop round file cut 2 with handle	150 mm
1 wood rasp flat hand file with handle	300 mm
1 wire hand brush Brass	4 row
3 double open-end wrenches	size 8 x 10 / 13 x 17 / 19 x 24 mm
2 double-end box wrenches depressed centre	size 13 x 17 / 19 x 24 mm
8 hexagon T-handle wrenches in box	size 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
4 workshop slotted screwdrivers	4.0 x 100 / 5.5 x 125 / 6.5 x 150 / 8.0 x 175 mm
2 workshop Phillips screwdrivers	PH 1 / 2
1 machinist's hammer	500 g
1 mallet	1.25 kg
1 centre punch	Ø 4 mm
1 point chisel	250 mm
1 stone chisel	cutting edge width 23 mm
1 electrician's stone chisel	cutting edge width 12 mm
1 combination pliers	180 mm
1 snipe nose pliers	160 mm
1 water pump pliers	240 mm
1 corner pipe wrench	320 mm
1 mechanic's nippers	250 mm
1 cable knife folding, with 1 blade	
1 VDE voltage tester single-pole	3.0 x 143 mm, 150 - 250 V
1 spatula	50 mm
1 plaster pot	125 x 90 mm
1 bevelled-edge chisel	10 mm
1 keyhole saw/hole making rasp	Ø 6.5 x 360 mm
1 multi-purpose scissors, straight	190 mm

Contents	Design	59725	...
73 pcs.	in cowhide leather pouch		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59727 Electrician's tool assortment (42 pcs.)

ATORN®

Design
- With 42 important quality tools for electrical installation
- **All VDE tools piece-tested according to VDE 0680/T201, IEC 900**

Content	size
1 light metal spirit level	400 mm
1 plastic folding rule	2 m
1 universal pocket hand saw adjustable with universal saw blade	310 mm
5 VDE hexagonal socket wrenches	size 5 / 6 / 7 / 8 / 10 mm
8 hexagonal T-handle wrenches on ring	size 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
4 VDE electrician's slotted screwdrivers	2.5 x 75 / 3.5 x 100 / 4.0 x 100 / 5.5 x 125 mm
2 VDE electrician's Phillips screwdrivers	PH 1 / 2
1 slotted angled screwdriver	5.5 + 5.5 mm
1 Phillips angled screwdriver	PH 1 + 2
1 machinist's hammer	500 g
1 mallet	1.25 kg
1 point chisel	250 mm
1 stone chisel	cutting width 23 mm
1 electrician's stone chisel	cutting width 12 mm
1 VDE combination pliers	180 mm
1 VDE snipe nose pliers	200 mm
1 VDE round-nose pliers	160 mm
1 VDE water pump pliers	250 mm
1 VDE side cutters	160 mm
1 cable knife folding, with 1 blade	
1 stripping knife	8 - 28 mm
1 VDE wire stripping pliers	160 mm
1 VDE cable cutters	180 mm
1 VDE voltage and continuity tester	12 - 1,000 Volt AC/DC
1 fine/electronics slotted screwdriver	3.0 x 80 mm
1 ESD electronics side cutters	125 mm
1 multi-purpose scissors straight	190 mm

59727

Contents	Design	59727	...
42 pcs.	in cowhide leather pouch		101

59728 Assembly case for electricians (27 pcs.)

ATORN®

Design
- Body with aluminium-reinforced corners
- Fold-out front panel
- Carry handle
- Key locks
- Glide runners
- Retaining rings
- Base shell in sheet steel, zinc-plated
- Front pocket
- Tool holders on the front and rear wall
- With 26 important quality tools for electrical installation
- **All VDE tools piece-tested according to VDE 0680/T201, IEC 900**

Content	size
1 wooden folding rule	2 m
1 small hacksaw PUK with universal saw blade	240 mm
4 workshop slotted screwdrivers	4.0 x 100 / 5.5 x 125 / 6.5 x 150 / 8.0 x 175 mm
2 workshop Phillips screwdrivers	PH 1 / 2
4 VDE slotted screwdrivers	2.5 x 75 / 4.0 x 100 / 5.5 x 125 / 6.5 x 150 mm
2 VDE Phillips screwdrivers	PH 1 / 2
1 VDE voltage tester	3.0 x 140 mm, 150 - 250 V
1 machinist's hammer	300 g
1 mallet	1 kg
1 stone chisel	cutting width 26 mm
1 electrician's stone chisel	cutting width 10 mm
1 combination pliers	160 mm
1 snipe nose pliers bent	200 mm
1 side cutters	160 mm
1 VDE cable knife straight	50 mm
1 wire stripping pliers	160 mm
1 spatula	40 mm
1 plaster pot	125 x 90 mm
1 paint brush	35 x 45 mm

59728

Contents	Design	59728	...
27 pcs.	in cowhide leather pouch		101

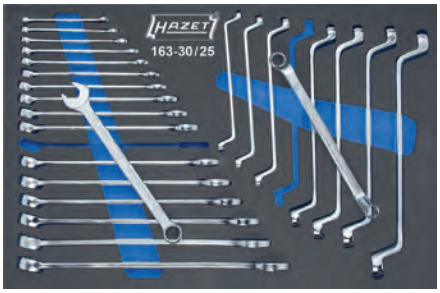
Tool assortments

59750 Tool assortment (25 pcs.)

Design
In 2-component soft foam insert. Safety insert system: All tools are embedded in a vibration-proof insert. Missing tools are immediately apparent.

Applications
Suitable for all HAZET Assistent workshop trolleys with drawers.
Suitable for ATORN workshop trolleys, art. no. 81725.

59750



	Set contents
17	**combination spanners with traction profile** Sizes 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 mm,
8	**box wrenches** size 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 21 x 22 mm.

Set contents	Version	Size	59750	...
25 pcs	in insert 519 x 342	3/3		101

59751 Tool assortment (56 pcs.)

Design
In 2-component soft foam insert. Safety insert system: All tools are embedded in a vibration-proof insert. Missing tools are immediately apparent.

Applications
Suitable for all HAZET Assistent workshop trolleys with drawers.
Suitable for ATORN workshop trolleys, art. no. 81725.

1/4" 1/2"

59751

	Set contents
12	**hexagon socket wrench inserts** with traction profile Sizes 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm,
5	**hexagon socket screwdriver bits** sizes 3 / 4 / 5 / 6 / 8 mm,
3	**slotted screwdriver bits** 0.6 x 3.5 / 1 x 5.5 / 1.2 x 8 mm,
2	**Phillips screwdriver bits PH** 1 / 2,
2	**Phillips screwdriver bits PZ** 1 / 2,
1	**reversible ratchet,**
1	**T-handle,**
1	**push-fit handle,**
2	**extensions** 55 / 147 mm,
1	**cardan joint.**
21	**hexagon socket wrench bits with traction profile** Size 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 23 / 24 / 26 / 27 / 28 / 30 / 32 / 34 mm,
1	**reversible ratchet,**
1	**T-handle,**
2	**extensions** 123 / 248 mm,
1	**cardan joint.**

Set contents	Version	Size	59751	...
56 pcs.	in insert 519 x 342	3/3		101

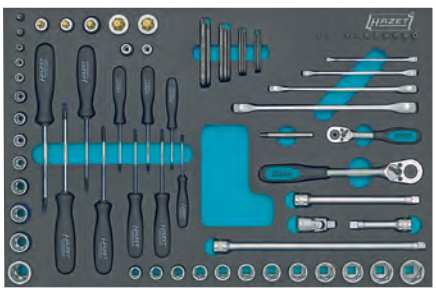
59752 Tool assortment (75 pcs.)

Design
In 2-component soft foam insert. Safety insert system: All tools are embedded in a vibration-proof insert. Missing tools are immediately apparent.

Applications
Suitable for all HAZET Assistent workshop trolleys with drawers.
Suitable for ATORN workshop trolleys, art. no. 81725.

1/4" 3/8" 1/2"

59752



	Set contents
5	**TORX® socket wrench inserts** E 4 / 5 / 6 / 7 / 8,
11	**TORX® screwdriver bits with bore hole (only T 6 without hole)** T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40,
1	**TORX® screwdriver bit long** T 25,
1	**bit reversible ratchet,**
12	hexagon socket wrench inserts with traction profile Sizes 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 mm,
4	**TORX® socket wrench inserts** E 10 / 11 / 12 / 14,
2	**TORX® screwdriver bits** T 40 / 45,
1	**reversible ratchet,**
3	**extensions** 74 / 150 / 254 mm,
1	**cardan joint,**
2	**connectors** 1/4 ◯ x 1/4 □ inch and 1/4 ◯ x 3/8 □ inch,
4	**TORX® socket wrench inserts** E 16 / 18 / 20 / 24,
3	**TORX® screwdriver bits** T 50 / 55 / 60,
4	**TORX® box wrenches** E 6 x 8 / 10 x 12 / 14 x 18 / 20 x 24,
11	**TORX® Allen keys** T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40,
10	**TORX® trinamic® screwdrivers** T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30.

Set contents	Version	Size	59752	...
75 pcs.	in insert 519 x 342	3/3		101

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59753 Tool assortment (27 pcs.)

version
- In 2-component soft foam insert
- Safety insert system:
  All tools are embedded in a vibration-proof insert, missing tools are immediately apparent

Applications
Suitable for all HAZET Assistent workshop trolleys with drawers.
Suitable for ATORN workshop trolleys, art. no. 81725.

59753

	Set contents
6	**slotted trinamic® screwdriver** 0.4 x 2.5 / 0.5 x 3 / 0.6 x 3.5 / 0.8 x 4 / 1.2 x 6.5 / 1.2 x 8.0 mm,
2	**Phillips trinamic® screwdrivers PH** 1 / 2,
5	**TORX® trinamic® screwdrivers** T 10 / 15 / 20 / 25 / 30,
1	**slotted ULTRA screwdriver** short version 1.0 x 5.5 mm,
1	**Phillips ULTRA screwdriver** short version PH 2,
1	**machinist's hammer,**
1	**centre punch,**
4	**pin punch,**
2	**flat chisel,**
1	**combination pliers,**
1	**snipe nose pliers,**
1	**side cutters,**
1	**water pump pliers.**

Set contents	Version	Size	59753	...
27 pcs.	in insert 519 x 342	3/3		101

59756 Tool assortment (27 pcs.)

Design
In 2-component soft foam insert Safety insert system: All tools are embedded in a vibration-proof insert. Missing tools are immediately apparent.

Applications
Suitable for all HAZET Assistent workshop trolleys with drawers.
Suitable for ATORN workshop trolleys, art. no. 81725.

59756

	Set contents
17	**combination spanners with traction profile** size 6 to 24 mm,
6	**slotted trinamic® screwdrivers** 0.4 x 2.5 / 0.5 x 3 / 0.6 x 3.5 / 0.8 x 4 / 1.2 x 6.5 / 1.2 x 8 mm,
2	**Phillips trinamic® screwdrivers PH** 1 / 2,
1	**slotted TRInamicULTRA screwdriver** short version 1 x 5.5 mm,
1	**Phillips TRInamicULTRA screwdriver** short version PH 2.

Set contents	Version	Size	59756	...
27 pcs.	in insert 519 x 342	3/3		101

59754 Tool assortment (9 pcs.)

Design
- HAZET safety insert system (SIS)
- Organisation system size: 3/3+ (519 x 392 mm)
- Perfect organisation system
- All tools are embedded in a vibration-proof insert
- Rapid, integrated, completeness check - missing tools are noticed immediately
- Infinite combination possibilities

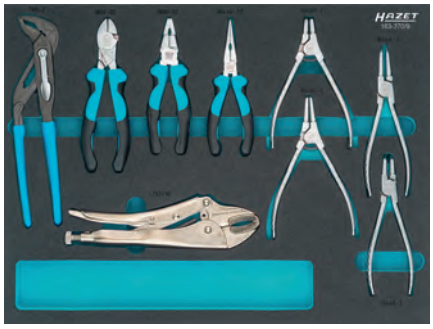
Applications
Suitable for HAZET-Assistent 173, 179, 179 W, 179 BIG-1, 179 XL, 179 XXL, 179 A XXL, 179 T XXL and 180 with drawer depth of 398 mm.

Note:
For the workshop trolley Assistent 173, 179 (XL-XXL) and 180, we also recommend soft foam inserts 163-522x40 and 163-522x50.

59754

	Set contents
1	**gripping pliers** 757-102
1	**universal pliers** 760-2
1	**heavy-duty side cutters** 1802-22
1	**flat round pliers** 1841A-22
1	**circlip pliers** 1846A-2
1	**circlip pliers** 1846B-2
1	**circlip pliers** 1846C-2
1	**circlip pliers** 1846D-2
1	**combination pliers** 1850-22

Set contents	Version	Size	59754	...
9 pcs.	in insert 519 x 392	3/3+		102



59755 Tool assortment (77 pcs.)

HAZET

	Set contents
12	**hexagon socket wrench inserts with traction profile** size 4 to 14 mm,
11	**hexagon socket wrench inserts long with traction profile** size 4 to 13 mm,
5	**hexagon socket screwdriver bits** size 3 to 8 mm,
3	**slotted screwdriver bits** 0.6 x 3.5 / 1 x 5.5 / 1.2 x 8 mm,
2	**Phillips screwdriver bits PH** 1 / 2,
2	**Phillips screwdriver bits PZ** 1 / 2,
1	**reversible ratchet,**
1	**T-handle,**
1	**push-fit handle,**
2	**extensions** 55 / 147 mm,
1	**cardan joint,**
1	**1/4 inch adapter to 3/8 inch,**
17	**hexagon socket wrench inserts with traction profile** size 10 to 32 mm,
2	**heavy-duty hexagon socket wrench inserts** size 17 / 19 mm,
8	**hexagon socket screwdriver inserts** size 5 to 17 mm,
1	**reversible ratchet,**
1	**T-handle,**
1	**extension** swivel 46 mm,
2	**extensions** 123 / 247 mm,
1	**cardan joint,**
2	**1/2 inch adapter to 3/4 inch** and **1/2 inch adapter to 3/8 inch.**

Set contents	Version	Size	59755	...
77 pcs.	in insert 519 x 342	3/3+		101

Design
- In 2-component soft foam insert
- Safety insert system:
  All tools are embedded in a vibration-proof insert, missing tools are immediately apparent

Applications
Suitable for HAZET workshop trolley -Assistent- 173, 179, 179BIG-1, 179XL and 180 with drawer depth of 398 mm.

59755

51677 Tool assortment (94 pcs.)

HAZET

51677

	Set contents
13	**hexagon socket wrench inserts with traction profile,** size 4 to 14 mm,
1	**reversible ratchet,** 115 mm,
1	**T-handle,** 115 mm,
1	**push-fit handle,** 134 mm,
2	**extensions,** 55 / 147 mm,
1	**cardan joint,**
19	**hexagon socket wrench inserts with traction profile,** size 10 to 34 mm,
1	**reversible ratchet,** 275 mm,
2	**extensions,** 123 / 248 mm,
1	**T-handle,** 298 mm,
1	**cardan joint,**
2	**single open-end wrench,** adjustable to 18 and 28 mm,
10	**double open-end wrench,** size 6 - 32 mm,
10	**double-end box wrench,** size 6 - 32 mm,
7	**slotted screwdrivers,** 0.4 x 2.5 x 75 / 0.5 x 3 x 80 / 0.6 x 3.5 x 100 / 0.8 x 4 x 100 / 1 x 5.5 x 100 / 1.2 x 8 x 150 / 1.6 x 10 x 175 mm,
5	**Phillips screwdrivers, PH** 1 / 2 / 3, **PZ** 1 / 2,
1	**machinist's hammer,** 500 g,
1	**plastic soft-face hammer,** Ø 35 mm,
2	**flat chisel,** cutting width 18 / 24 mm,
1	**cross-cut chisel,** cutting width 6 mm,
2	**drift punch,** Ø 2 / 4 mm,
1	**centre punch,** shaft Ø 12 mm,
3	**universal pliers,** 180 / 260 / 310 mm,
1	**snipe nose pliers,** 200 mm,
1	**heavy-duty side cutters,** 170 mm,
1	**metal saw, incl. 1 saw blade,** 300 mm,
1	**small metal saw, incl. 1 saw blade,** 150 mm,
1	**tape measure,** 2 m,
1	**universal knife.**

Set contents	Design	51677	...
94 pcs.	in box		101

59810 Double open-end wrench sets DIN 3110, ISO 10102

FACOM

Design
Satin chrome-plated, slim design. In plastic drawer module, compatible with Facom workshop trolleys and tool boxes.

59810 101

59810 102

	Set contents Size mm	Design	59810	...
9 pcs.	6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 21 x 23 / 22 x 24	in plastic module		101
3 pcs.	26 x 28 / 27 x 29 / 30 x 32	in plastic module		102

59812 Combination wrench sets DIN 3113 A, ISO 7738 A

OGV®

FACOM

Design
Satin chrome-plated, fine heads, **ring head with OGV® profile and 15° depressed centre.** In plastic drawer module, compatible with Facom workshop trolleys and tool boxes.

59812 101

59812 102

	Set contents Size mm	Design	59812	...
16 pcs.	6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 22 / 24	in plastic module		101
4 pcs.	27 / 29 / 30 / 32	in plastic module		102

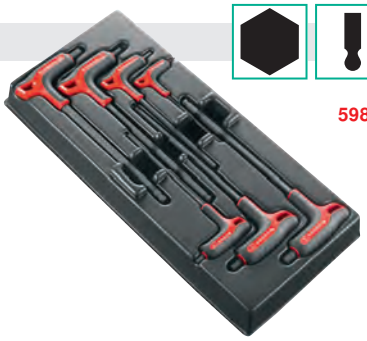
59816 Hexagon ball head T-handle wrench set (7 pcs.)

FACOM

Design
Zinc-plated, ergonomic handle. **Hexagon with Hex-Plus® profile.** Ball-shaped head (size 3 mm without) for screwing at angles up to 30°.

In plastic drawer module, compatible with Facom workshop trolleys and tool boxes.

59816



Number of wrenches	Size mm	Design	59816	...
7	3 / 4 / 5 / 6 / 7 / 8 / 10	in plastic module		101

59821 TORX® T-handle wrench set (7 pcs.)

FACOM

Design
Bronzed, ergonomic T-handle. In plastic drawer module, compatible with Facom workshop trolleys and tool boxes.

Applications
The **ergonomic handle** means that both ends of the wrench can be used effectively.

Note:
TX® profile gauge, see art. no. 37930.

59821

Number of wrenches	Size T	Design	59821	...
7	10 / 15 / 20 / 25 / 27 / 30 / 40	in plastic module		101

59818 Striking tool set (11 pcs.)

FACOM

Design
With handle. Shock-absorbing handle, easy to hold and ergonomic, with finger protection.

In plastic drawer module, compatible with Facom workshop trolleys and tool boxes.

59818

	Set contents
1	**centre punch** Ø 6 mm,
4	**drift punches** Ø 3.9 / 4.9 / 5.9 / 7.8 mm,
6	**pin punches** Ø 1.9 / 2.9 / 3.9 / 4.9 / 5.9 / 7.9 mm.

Set contents	Design	59818	...
11 pcs.	in plastic module		101

59850 TCS tool assortment (98 pcs.)

STAHLWILLE

Design
Chemical resistant, exact fit for the tools, with gripping recesses. **Two layers, two-colour system:** black on top, yellow on the bottom. If no yellow can be seen, all tools are present.

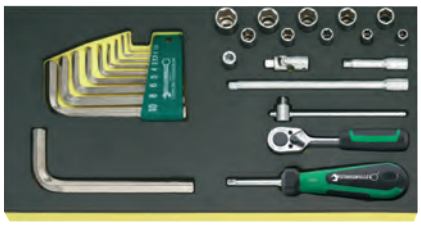
Note:
For suitable workshop trolleys, see article no. 81791.

59850

(1)

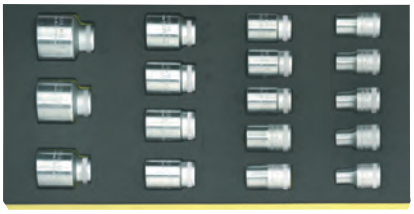
(2)

(3)



(4)

(5)



(6)

(7)

(8)

(9)

TCS inlay		Contents	Size
(1)	10	**double open-end wrenches**	size 6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 / 24 x 27 / 30 x 32 mm,
(2)	18	**combination spanners With AS drive profile**	size 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24 mm.
(3)	10	**socket wrench inserts, hexagon with AS drive profile**	size 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm,
	1	**reversible ratchet**	117 mm,
	1	**T-handle**	116 mm,
	1	**push-fit handle**	150 mm,
	1	**cardan joint**	37 mm,
	2	**extensions**	55 mm / 150 mm,
	1	**bit holder**	25 mm,
	10	**T-handle wrench, hexagon, in holder**	1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 / 12 mm.
(4)	1	**reversible ratchet**	265.5 mm,
	1	**T-handle**	300 mm,
	1	**cardan joint**	71 mm,
	3	**extensions**	52 mm/130 mm/255 mm.
(5)	17	**socket wrench inserts, hexagon with AS-Drive profile**	size 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24 / 27 / 30 / 32 mm.
(6)	4	**workshop screwdrivers**	0.6 x 3.5 x 75 / 0.8 x 4 x 100 / 1 x 5.5 x 125 / 1.2 x 6.5 x 150 mm,
	3	**Phillips screwdrivers**	PH 1 / 2 / 3.
(7)	1	**machinist's hammer**	500 g,
	1	**nylon hammer**	Ø 35 mm,
	2	**pin punches**	6 x 150 / 6 x 175 mm,
	1	**pin punch** with guide sleeve	3.4 x 100 mm,
	1	**flat chisel**	175 mm.
(8)	1	**combination pliers**	180 mm,
	1	**snipe nose pliers**	200 mm,
	1	**water pump pliers**	240 mm,
	1	**heavy-duty side cutters**	160 mm.
(9)	1	**inner circlip pliers**	J 2 (19 - 60 mm),
	1	**outer circlip pliers**	A 2 (19 - 60 mm),
	1	**locking pliers**	250 mm.

Set contents	Design	59850	...
98 pcs.	in 9 TCS inserts		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59860 Combination wrench sets DIN 3113 A, ISO 7738 A

AS-drive

STAHLWILLE

Design
Ring head with AS-drive profile, 15° angled, chrome-plated, slim and thin-walled, chrome alloy steel. **Tool Control System:** Chemical resistant, exact fit for the tools, with gripping recesses. **Two layers, two-colour system:** black on top, yellow on the bottom. If no yellow can be seen, all tools are present. Compatible with Stahlwille workshop trolleys and tool cases.

Note:
For suitable workshop trolleys, see article no. 81791.

59860 101

59860 103

59860 102

	Set contents Size mm	Design	59860	...
17 pcs.	6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24	in TCS insert		**101**
18 pcs.	6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24	in TCS insert		**103**
21 pcs.	6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 24 / 27 / 30 / 32 / 34	in TCS insert		**102**

59865 Offset box wrench sets DIN 838, ISO 10104

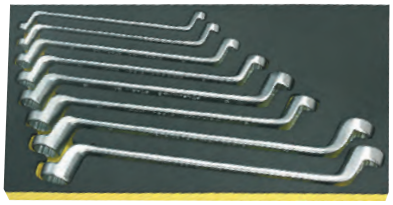
AS-drive

STAHLWILLE

Design
Double-sided deep offset, **AS-drive profile,** thin-walled and polished rings, chrome-plated, chrome alloy steel. **Tool Control System:** Chemical resistant, exact fit for the tools, with gripping recesses. **Two layers, two-colour system:** black on top, yellow on the bottom. If no yellow can be seen, all tools are present. Compatible with Stahlwille workshop trolleys and tool cases.

Note:
For suitable workshop trolleys, see article no. 81791.

59865 101



59865 102

	Set contents Size mm	Design	59865	...
8 pcs.	6 x 7 / 8 x 9 / 10 x 11/ 12 x 13 / 14 x 15 / 16 x 17 / 18 x 21 / 19 x 22	in TCS insert		**101**
10 pcs.	6 x 7 / 8 x 9 / 10 x 11/ 12 x 13 / 14 x 15 / 16 x 17 / 18 x 21 / 19 x 22 / 24 x 27 / 30 x 32	in TCS insert		**102**

59870 Hex socket wrench set (33 pcs.)

1/4" ⬡ ⬢ ⊖ ✚ ✚

AS-drive

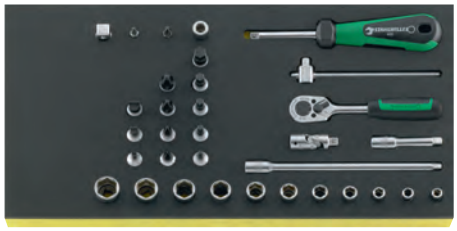
STAHLWILLE

Design
Chrome-plated, chrome alloy steel.
Tool Control System: Resistant to chemicals, Exact fit for tools, with gripping recesses.

Two layers, two-colour system: black on top, yellow on the bottom. If no yellow can be seen, all tools are present. Compatible with Stahlwille workshop trolleys and tool cases.

Note:
For suitable workshop trolleys, see article no. 81791.

59870



		Set contents
⬡	**11**	**hexagon inserts with AS-drive profile** Sizes 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm,
⬢	**5**	**bits for hexagon socket screws** size 3 / 4 / 5 / 6 / 8 mm,
⊖	**3**	**bits for slotted screws** 0.6 x 3.5 / 1.0 x 5.5 / 1.2 x 8 mm,
✚	**4**	**bits for Phillips-head screws** PH 1 / 2 / 3 / 4,
✚	**2**	**bits for Phillips-head screws PZ** 1 / 2,
	1	**bit holder,** 1/4 inch square x 1/4 inch hexagon (bit).
	1	**reversible ratchet,** 1 handle with sliding piece,
	1	**push-fit handle,** 1 cardan joint,
	1	**connecting piece** (1/4 x 3/8 inch),
	2	**extensions** 54 mm / 150 mm.

Set contents	Design	59870	...
33 pcs.	in TCS insert		**101**

59875 Hex socket wrench set (23 pcs.)

3/8" | AS-drive

STAHLWILLE

Design
Chrome-plated, chrome alloy steel.
Tool Control System: Chemical resistant, exact fit for the tools, with gripping recesses.

Two layers, two-colour system: black on top, yellow on the bottom. If no yellow can be seen, all tools are present. Compatible with Stahlwille workshop trolleys and tool cases.

Note:
For suitable workshop trolleys, see article no. 81791.

59875

	Set contents
○ 16	**hexagon inserts with AS-drive profile** Sizes 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 mm,
1	**reversible ratchet,**
1	**cardan joint,**
2	**connecting pcs.** 1/4 x 3/8 inch and 1/2 x 3/8 inch,
3	**extensions** 76 mm/125 mm/240 mm.

Set contents	Design	59875 ...
23 pcs.	in TCS insert	101

59880 Ratchet set (6 pcs.)

1/2"

STAHLWILLE

Design
Chrome-plated, chrome alloy steel.
Tool Control System: Chemical resistant, exact fit for the tools, with gripping recesses.

Two layers, two-colour system: black on top, yellow on the bottom. If no yellow can be seen, all tools are present. Compatible with Stahlwille workshop trolleys and tool cases.

Note:
For suitable workshop trolleys, see article no. 81791.

59880

	Set contents
1	**reversible ratchet,**
1	**handle with sliding piece**
1	**cardan joint,**
3	**extensions** 52 mm/130 mm/255 mm.

Set contents	Design	59880 ...
6 pcs.	in TCS insert	101

59883 Socket wrench sets

1/2" | AS-drive

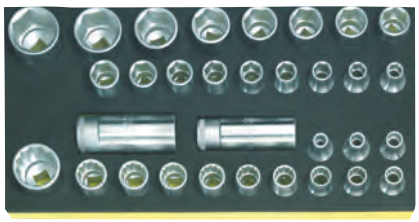
STAHLWILLE

Design
Chrome-plated, chrome alloy steel.
Tool Control System: Chemical resistant, exact fit for the tools, with gripping recesses.

Two layers, two-colour system: black on top, yellow on the bottom. If no yellow can be seen, all tools are present. Compatible with Stahlwille workshop trolleys and tool cases.

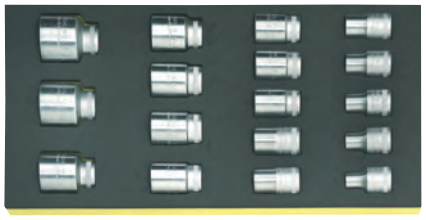
Note:
For suitable workshop trolleys, see article no. 81791.

○ 59883 101



	Set contents 59883 101
○ 17	**hexagon inserts with AS-drive profile** Sizes 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24 / 27 / 30 / 32 mm,
○ 13	**bits double hexagon with AS-drive profile** size 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 30 mm,
○ 2	**bits long, double hexagon with AS-drive profile** size 22 / 27 mm.

○ 59883 102



	Set contents 59883 102
○ 17	**hexagon inserts with AS-drive profile** Sizes 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 24 / 27 / 30 / 32 mm,

Set contents	Design	59883 ...
32 pcs.	in TCS insert	101
17 pcs.	in TCS inlay	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59900 Combination spanner sets DIN 3113 A/B, ISO 7738 A/B

GEDORE

Design
In 2/3 tool module (D 315 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59900 101
Design
25 pieces. 17 x combination spanners, **ring head, with UD profile and 10° depressed centre,** slim and thin-walled, chrome-plated, polished rings. 8 x hexagon T-handle wrenches in push-in holder.

59900 102
Design
25 pieces. 17 x combination spanners, **ring head with UD profile and 15° angled,** with profile shaft, chrome-plated, polished rings. 8 x hexagon T-handle wrenches in push-in holder.

59900 103
Design
5 pieces. 5 x combination spanners, **ring head with UD profile and 15° angled,** with profile shaft, chrome-plated, polished rings.

59900 101

59900 102

59900 103

	Set contents 59900 101 + 102
17	**combination spanners** Sizes 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 mm,
⬢ 8	**hexagon T-handle wrenches** size 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm.

	Set contents 59900 103
5	**combination spanner** sizes 23 / 24 / 27 / 30 / 32 mm.

Set contents	Design	59900 ...
25 pcs.	in 2/3 tool module	**101**
25 pcs.	in 2/3 tool module	**102**
5 pcs.	in 2/3 tool module	**103**

59905 Open-end ratchet spanner set (10 pcs.)

Schlüsselknarre A-Serie

GEDORE

Design
Ratchet loosening or rapid tightening using the ring ratchet (UD profile), in one pass with no additional adjustment required. Fine teeth (72 teeth), low height. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59905

	Set contents Size mm	Design	59905 ...
10 pcs.	8 / 10 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19	in 1/3 tool module	**102**

59910 Double open-end wrench set (10 pcs.) DIN 3110, ISO 10102

GEDORE

Design
Jaw angle 15°, chrome-plated, with flat, finely polished heads. In 1/3 tool module (D 157.5 x W 310 mm) made from impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59910

	Set contents Size mm	Design	59910 ...
10 pcs.	6 x 7 / 8 x 9 / 10 x 11 / 12 x 13 / 14 x 15 / 16 x 17 / 18 x 19 / 20 x 22 / 21 x 23 / 24 x 27	in 1/3 tool module	**101**

59917 Open double-end box wrench set (5 pcs.) DIN 3118

GEDORE

Design
Heads angled by 15°. Hexagon opening 30° offset, **UD profile opening** 15° offset, chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59917

	Set contents Size mm	Design	59917 ...
5 pcs.	8 x 10 / 10 x 11 / 12 x 14 / 13 x 15 / 17 x 19	in 1/3 tool module	**101**

59920 Hex socket wrench set (37 pcs.)

1/4"

GEDORE

Design

Chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59920

		Set contents
○	12	**bits hexagon** size 4 / 5 / 5.5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 mm,
⬢	5	**bits for hexagon socket screws** size 3 / 4 / 5 / 6 / 8 mm,
✪	6	**bits for external TORX® screws** E 4 / 5 / 6 / 7 / 8 / 10,
✱	9	**bits for internal TORX® screws** T 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40,
	1	**reversible ratchet,**
	1	**handle with sliding piece**
	1	**push-fit handle with plastic grip,**
	1	**cardan joint,**
	1	**extension** 97 mm.

Set contents	Design	59920	...
37 pcs.	in 1/3 tool module		101

59925 Hexagon socket wrench set (24 pcs.)

3/8"

UNIT DRIVE

GEDORE

Design

Chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59925

		Set contents
○	14	**bits hexagonal with UD profile** sizes 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 mm,
⬢	5	**bits for hexagon socket screws** size 4 / 5 / 6 / 8 / 10 mm,
	1	**reversible ratchet,**
	1	**handle with sliding piece,**
	1	**cardan joint,**
	2	**extensions** 125 mm / 250 mm.

Set contents	Design	59925	...
24 pcs.	in 1/3 tool module		101

59927 Socket wrench/screwdriver bits set (39 pcs.)

3/8"

GEDORE

Design

Chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59927

		Set contents
⬢	6	**bits, hexagon long,** sizes 4 / 5 / 6 / 7 / 8 / 10 mm,
✱	7	**bits for internal TORX® screws** T 20 / 25 / 27 / 30 / 40 / 45 / 50,
✱	7	**bits for internal TORX® screws long,** T 20 / 25 / 27 / 30 / 40 / 45 / 50,
✪	8	**bits for external TORX® screws** E 5 / 6 / 7 / 8 / 10 / 11 / 12 / 14,
⊖	5	**bits for slotted screws** 5.5 / 6.5 / 8 / 10 / 12 mm,
⊕	3	**bits for Phillips screws PH** 1 / 2 / 3,
⊕	3	**bits for Phillips-head screws PZ** 1 / 2 / 3.

Set contents	Design	59927	...
39 pcs.	in 1/3 tool module		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

59930 Ratchet set (5 pcs.)

1/2"

GEDORE

Design
Chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59930

	Set contents
1	**reversible ratchet,**
1	**handle with sliding piece**
1	**cardan joint,**
2	**extensions** 125 mm / 250 mm.

Set contents	Design	59930	...
5 pcs.	in 1/3 tool module		101

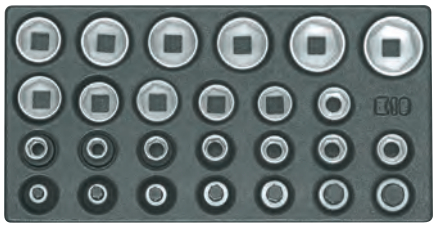
59932 Socket wrench/screwdriver bits set (26 pcs.)

1/2" ○ ⬢ UNIT DRIVE

GEDORE

Design
Chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59932



	Set contents
○ 19	**bits hexagonal with UD profile** Sizes 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 21 / 22 / 23 / 24 / 26 / 27 / 28 / 30 / 32 mm,
⬢ 7	**bits for hexagon socket screws** size 6 / 7 / 8 / 9 / 10 / 12 / 14 mm.

Set contents	Design	59932	...
26 pcs.	in 1/3 tool module		101

59933 Hexagon screwdriver set (15 pcs.)

1/2" ⬢

GEDORE

Design
Chrome-plated. In 1/3 tool module (D 157.5 x W 310 mm) made of impact-resistant ABS plastic, black grained. For organisation of drawers in GEDORE tool trolleys and wheeled workbenches with variable drawer partitioning.

59933

	Set contents
⬢ 9	**bits for hexagon socket screws** sizes 5 / 6 / 7 / 8 / 9 / 10 / 12 / 14 / 17 mm
⬢ 6	**bits for hexagon socket screws long,** sizes 5-90 / 6-90 / 8-90 / 10-140 / 12-140 / 14-140 mm.

Set contents	Design	59933	...
15 pcs.	in 1/3 tool module		101

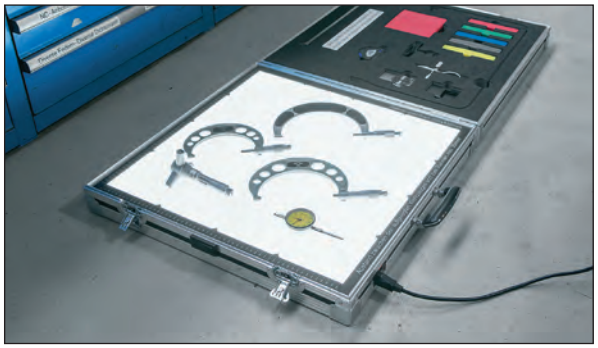
81200 THE HHW TOOLSCANNER

To design your own custom hard foam insert, order the fully equipped HHW Toolscanner - equipped with everything you need for rapid scanning. This enables you to create your own individual OPT-I-STORE hard foam inserts for your existing tools, directly on your premises.

The scanners are easy to use:
You determine the distribution and arrangement of the tools in your future hard foam insert and position them within the reference frame on the white surface. Then take a photo. Send a test photo to betriebseinrichtung@hhw.de. After you send your data, your responsible contact person will contact you by telephone or email to discuss the test image.

The existing tools from your warehouse inventory are recorded, the handle recess for easier removal is adjusted automatically. The contours of the photographed objects are digitized and your hard foam insert is created - your product will be delivered within 10 working days of your order.

HHW CASE TOOLSCANNER
- Outer dimensions (WxDxH) 620 x 620 x 130 mm, total weight 15 kg
- LED panel 600 x 600 mm incl. transformer and plug
- Lid with hard foam insert for all accessories
- Digital camera with memory card and accessories
- Flight case with combination lock for reusable secure transport with no additional packaging required

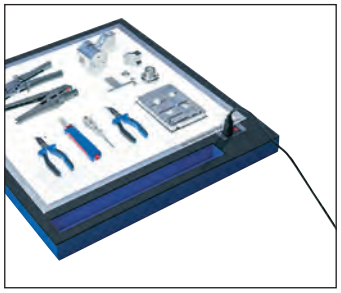


Art. no. 81200 101
HHW case Toolscanner
Scope of delivery: 1 unit

Art. no. 81200 104
Case scanner rental
Scope of delivery: 1 unit for 5 working days
Free of charge (return costs are borne by the customer)

HHW TRAY TOOLSCANNER
- Outer dimension (WxD) 646 x 721 mm, total weight 15 kg
- LED panel 600 x 600 mm incl. transformer and plug
- In hard foam insert

Art. no. 81200 103
HHW tray Toolscanner
LED panel 600 x 600 mm
In hard foam insert
Without a digital camera and without accessories
Scope of delivery: 1 unit

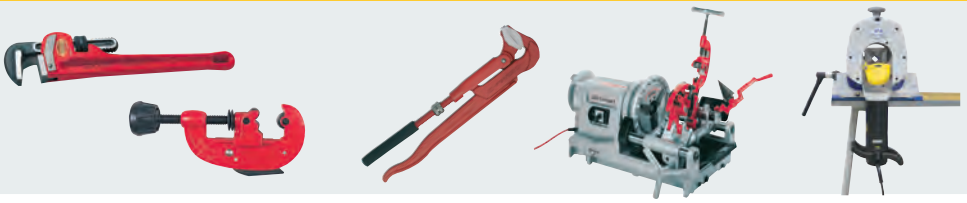


The folding scan template is ideal for taking your initial quick pictures and can be ordered free of charge.

	81200 ...
HHW case Toolscanner	101
Case scanner rental (free of charge, return costs are borne by the customer)	104
HHW tray Toolscanner	103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Special tools / PPE



- Pipe wrenches
- Special pliers
- Pipe cutters/cleaners
- Thread cutting tools
- Pipe cutting machines

61

61.3 – 61.18

- Blades
- Wire-stripping tools
- Cable cutters
- Crimping pliers and crimping tools • Wire end ferrules • Pocket torches
- Voltage testers

62

62.1 – 62.68

- Electronic tools
- Gripping pliers and tweezers
- ESD range

63

63.1 – 63.20

- Trowels and spatulas
- Painting equipment
- Adhesive tapes
- Shovels and brooms

66

66.1 – 66.14

- Woodworking tools
- Bevelled-edge chisels
- Wood drill bits
- Hand saws

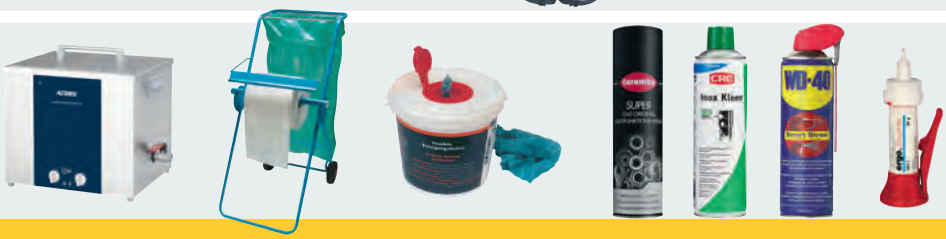
67

67.1 – 67.6

- Occupational safety
- Skin care products
- First aid
- Work clothes
- Safety work shoes

68

68.1 – 68.26



- Ultrasonic devices
- Cleaning products
- Oil binders
- Caramba special sprays
- Adhesives and silicones

69

69.1 – 69.20

Our suppliers for SPECIAL TOOLS / PPE:

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3M

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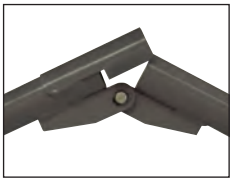
61004 Folding workbench

Design
- Welded, large-sized tubular steel frame
- Secure footing thanks to non-slip plastic feet, even when working with a vice
- Waterproof glued laminated wood panel on all sides with steel edge protection
- Set up in no time, without wedges, bolts or screws
- Can be folded for transport purposes



61004

H x W x D mm	Panel thickness mm	Colour	61004	...
840 x 1000 x 700	30	Hammered anthracite grey		101

61031 One-handed pipe wrenches

Design
- Straight
- Replaceable jaws made of alloyed tool steel
- Quickly adjustable due to scale on the top of the hook jaws
- Ratchet-style work thanks to movable, sprung hook jaws
- Adjustment via knurled nut

Applications
For heavy-duty installation work.

61031 102-107+302-303
RIDGID
Design
- Handle made of malleable iron

61031 201-203
Design
- Handle made of ductile cast iron

61031 401-407
RIDGID
Design
- Aluminium handle
- **Almost 40% lighter** than comparable cast-iron pipe wrenches

61031 102-107+302-303

61031 201-203

61031 401-407

For pipes up to dia. inch	Length mm	61031 102-303 Weight approx. kg	61031 401-407 Weight approx. kg	RIDGID 61031	...	61031	...	RIDGID 61031	...
1.1/2	250	0.8	0.4		102		201		401 NEW
2.	300	1.2	1.1		302 NEW				402 NEW
2.	350	1.6	1.1		103		202		403 NEW
2.1/2	450	2.6	1.7		303 NEW				404 NEW
3.	600	4.4	2.7		104		203		405 NEW
5.	900	8.7	5.0		105 NEW				406 NEW
6.	1200	15.6	8.4		106 NEW				407 NEW
8.	1500	23.3	-		107 NEW				

61035 Lightweight chain pipe wrenches

Design
- Double T-handle and gripping jaw die-forged from a single piece
- Fully tempered, hardened toothing, blue enamel paint
- Chain with pin 450 mm long

Applications
Ideal for use in particularly confined spaces.
Ratchet-style work possible.

Quality
Chromium-vanadium steel 31 Cr V3.

61035

For pipe dia. inch	Length mm	Chain length mm	Weight approx. kg	61035	...
3/8 - 4.	300	450	0.82		101

61038 Chain pipe wrench

Design
American model, with double-sided serrated jaws. Die-forged body, solid round steel handle, stable, tempered steel link chain, painted surface. Design and size provide maximum leverage.
The double-end jaws can be replaced.

Quality
Special tool steel.

61038

For pipe dia. inch	Length mm	Chain length mm	Weight approx. kg	61038	...
1.1/2 - 8.	1275	1000	13.5		201

61051 Adjustable pipe wrenches

GEDORE

Design
- **DIN 5246**
- With toothed jaw
- Adjustment via steel roller
- Reinforced jaws
- Black powder-coated surface

Quality
Special tool steel.

61051

For pipes up to dia. Inch	Clamping width mm	Length mm	61051	...
1 1/2	40	225		202
2 1/2	70	315		203

61041 - 61044 Belt pipe wrenches (belt wrenches)

Design
- Made of high-strength steel

Use
For clamping round parts, especially those made of plastic and with chrome-plated polished surfaces (pipes). The ideal belt wrench for sanitary trades.

61041 101
Design
- Bright nickel-plated
- Wear-resistant and non-slip fabric belt
- Plastic-coated handle

61043
RIDGID
Design
- Double T-handle
- Wear-resistant and non-slip nylon fabric belt
- Painted surface

61044 201
Design
- Chrome-plated
- With non-slip fabric belt

61041

61043

61044

Clamping width max. dia. mm	Holder length mm	Belt length mm	Belt width mm	61041 ...	61043 ...	61044 ...
160	230	730	23	101		
Replacement belt	-	730	23	102		
90	300	425	12		101	
90	300	425	30		102	
135	300	760	30		103	
175	450	750	45		104	
240	220	1000	20			201 NEW
Replacement belt	-	1000	20			202 NEW

61045 STRAPLOCK pipe assembly aid

RIDGID

Design
- Consists of a robust, practical handle and durable belt
- Simplifies the installation and maintenance of large-diameter plastic pipes

Grip
- Grips plastic pipes firmly and securely and fits nicely in the hand, which makes it easier to connect pipes
- The special belt ensures optimum grip and minimises abrasion

Fast
- Innovative locking mechanism for repetitive applications
- Quick clamping mechanism enables adjustment to different pipe diameters in no time at all

Flexibility
- Fits all plastic pipe sizes from 80 mm to 220 mm (3 to 8 inches)
- Secure hold even in cold and wet environments
- Maximum power transmission in confined areas
- Can be used in pairs to aid complex installations

NEW

61045

For pipe dia. inch	Belt length mm	Belt width mm	Weight kg	61045 ...
3. - 8.	800	25	0.33	101

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56855 Pliers wrench

KNIPEX

Design
- **With box joint**
- Parallel-set, smooth jaws
- No edge damage to sensitive fittings as mechanism works across the entire surface and is free of play
- Rapid push-button adjustment directly on workpiece
- 10x power transmission, high clamping force
- Chrome-plated pliers

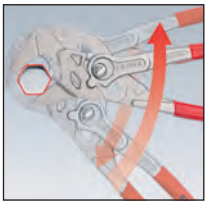
Applications
For gripping, holding, pressing and bending workpieces. For universal use, e.g. in industry, plumbing, vehicle repair, etc. The action of the gripping surfaces allows rapid tightening and loosening of bolted connections using a ratchet mechanism.

Quality
Chromium-vanadium electric steel, forged, oil-hardened.

56855 099-104
Design
- Handles coated in plastic

56855 200-202
Design
- Handles with two-colour multi-component grip covers

56855 303
Design
- With scale for setting the width across flats away from the workpiece
- Handles insulated with two-colour, multi-component grip covers
- Individually tested according to **VDE DIN EN 60900**



56855 303

56855 099

56855 100

56855 101

56855 102

56855 103

56855 104

56855 200

56855 201

56855 202

1000V

56855 303

Length mm	Working range up to size mm	Working range up to size inch	Setting positions	56855	...
125	23	7/8	11		099
150	27	1.	14		100
180	35	1.3/8	13		101
250	46	1.3/4	17		102
300	60	2.3/8	22		103
400	85	3.3/8	25		104
150	27	1.	14		200
180	35	1.3/8	13		201
250	46	1.3/4	17		202
VDE 250	52	2.	19		303 NEW

61059 Quick-clamping key

ALARM

Design
- **With detent quick adjustment** and clamping lever
- Jaw angle 90°
- Smooth jaws (not suitable for protective jaws)
- Plier parts with bright galvanised finish
- Painted clamping lever
- High clamping force thanks to lever action, can also be used as a wrench

Quality
Chromium-vanadium steel.

61059

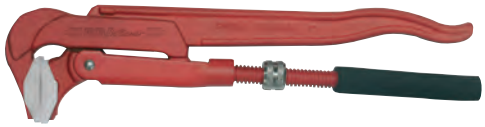
Length mm	Clamping width mm	Clamping depth mm	Weight approx. kg	61059	...
260	75	45	0.68		101

61065 Soft-jaw pliers

Design
- With double T-handle for a secure and gentle grip of chrome-plated and coated parts
- Jaw angle 90°
- With captive adjusting nut
- Die-forged, jaws ground smooth
- With fit-on, self-gripping plastic protective jaws made of polyamide with pin-locking device
- Painted red
- Manufactured according to DIN 5234

Quality
Chromium-vanadium steel.

61065



Length mm	Clamping width mm	Weight approx. kg	61065	...
315	0–42	0.7		201

61071 Syphon pliers (pipe gripping pliers)

Design
- With attached slip joint
- 4-way adjustable up to max. 62 mm
- Jaws with adjustable plastic jaws
- Handles dip-coated in plastic

Quality
Chromium-vanadium steel with Titacrom surface.

61071

Length mm	Clamping width mm	Weight approx. kg	61071	...
250	62	0.3		201

61072 Syphon and connector pliers

KNIPEX

Design
- Coated in non-slip plastic
- With replaceable plastic jaws for sensitive surfaces up to dia. 75 mm
- Fine adjustment for optimum adaptation to a wide range of diameters
- Robust, withstands high loads
- For connectors and couplings with screwed connections (e.g. Cannon round plug-in connector)
- For gentle loosening of hoses on pipe connectors
- Box joint with 25-position adjustment
- Ergonomic narrow geometry

Applications
For syphons, plastic pipes and connectors to dia. 80 mm. Ideal for tightening and loosening syphon connectors, plastic pipe connectors and round union nuts.

Quality
Chromium-vanadium electric steel, forged, oil-hardened.

61072 200
Replacement jaws

61072 102

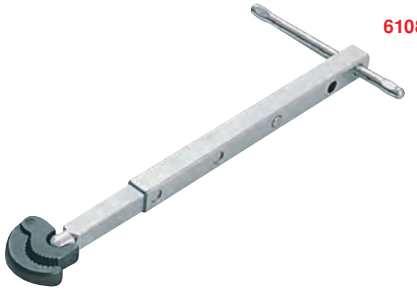
61072 200

Length mm	Clamping width dia. mm	Setting positions	Weight approx. kg	Pliers 61072	Pliers ...	Replacement jaws 61072	Replacement jaws ...
250	10–75	25	0.4		102		200

61086 Telescopic stop cock nut wrench

Design
- Chromium-plated
- With swivel clamp for use on left/right
- 4-way adjustable thanks to ball catch in the pipe

61086



Length mm	Clamping width mm	Weight approx. kg	61086	...
250 - 460	10–32	0.7		101

61102 Pass-through ratchet with step wrench

Design
- Step wrench in 3/8, 7/16, 1/2, 5/8, 13/16 inches
- 12.5 mm (1/2 inch) square drive adapter

Quality
Chromium-vanadium steel, matt chromium-plated.

61102

Dimensions L x W x H mm	Weight kg	61102	...
365 x 105 x 30	0.75		201

61150 - 61151 Steel pipe cutter

61150
Steel pipe cutter
Design
- Body made of high-quality, shatter-proof malleable iron GTW 40
- With 1 cutting wheel for steel and 2 guide rollers

Applications
For precise, right-angled cutting of pipes with low burr formation.

61151
Spare cutting wheel for steel pipes.

Note:
Cutting wheels for cast pipes deliverable on request.

61150

61151

For pipe dia. inch	From - to dia. mm	Cutting wheel dia. mm	Weight approx. kg	Cutter 61150 ...	Spare cutting wheel 61151 ...
1/8 - 2.	3–50	32	2.2	101	101
1.1/4 - 4.	30–100	40	5.0	202	202

61165 - 61166 Telescopic pipe cutter INOX

Design
- Extremely quick adjustment and setting of the work range
- 2 guide rollers
- Precise telescopic guide
- Spare cutting wheel in handle
- Extremely stable with scale on the side
- With retractable internal pipe cutter

61166
Spare cutting wheel

61165

61166

For pipe dia. mm	For pipe dia. inch	Cutter 61165 ...	Spare cutting wheel 61166 ...
6 - 42	1/4–1 5/8	201	201

61167 Stainless steel pipe cutter

RIDGID

61167 101-102
Design
- Ball bearing-mounted cutting wheel for excellent cuts
- Spare cutting wheel with bearing in knob.

Applications
Specially developed for cutting stainless steel pipes.

61167 101
Model 35S
Design
- Open threaded spindle
- 2 x 3 guide rollers for quick and easy cutting

61167 102
Model 65S
Design
- Quick adjustment to the desired pipe size
- 4 x 3 guide rollers for quick and easy cutting

61167 103
Spare cutting wheel
Pack = 2 units.

61167 101

61167 102

61167 103

For pipe dia. mm	Model	Cutter 61167 ...	Spare cutting wheel 61167 ...
5 - 35	35S	101	103
6 - 67	65S	102	103

61168 2-in-1 ratchet pipe cutter

RIDGID

Design
- 2-in-1 design that allows the pipe cutter to be used alone or with the ratchet tool
- The mini pipe cutter can be easily inserted into the ratchet head
- The ratchet tool works in small 10-degree steps and allows fine adjustment of the pipe cutter
- The ratchet handle offers greater flexibility and mobility without compromising the benefits of the pipe cutter
- Spare cutting wheel in knob

Applications
Specially developed for use in confined spaces or under restricted conditions where there is no space to guide the mini pipe cutter completely around the pipe by hand. Cuts copper, aluminium and brass pipes.

61168 102
Spare cutting wheel

61168 101

61168 102

For pipe dia. mm	Cutter 61168 ...	Spare cutting wheel 61168 ...
6 - 28	101	102

61170 Small pipe cutter Classic

Design
- Fold-out interior deburrer
- Two guide rollers
- Spare cutting wheel in handle

Applications
For cutting copper and brass.

Note:
Spare cutting wheels, see art. no. 61180.

61170

For pipe dia. mm	Cutting wheel dia. mm	Length mm	Weight kg	Size mm	61170 ...
3 - 32	36	147.5	0.3	36	201

61172 - 61175 Small pipe cutters

Design
- High-pressure die-cast zinc body
- Cutting diameter can be adjusted via the smooth-running spindle
- Chrome-alloy stainless steel cutting wheel
- With 1 cutting wheel and 2 guide rollers

Applications
For cutting copper, brass, aluminium and thin-walled steel pipes.

Note:
Spare cutting wheel, see art. no. 61180.

61172
GEDORE
Quick-automatic model
Design
- With automatic feed through Belleville washers and fold-out deburring knife
- Also with spare cutting wheel in the handle

61175
mini model
Applications
- For working in hard-to-reach places, small working radius
- For cutting copper and brass

61172

61175

For pipe dia. mm	Cutting wheel dia. mm	Length mm	Weight kg	Size mm	Quick-automatic 61172 ...	mini 61175 ...
4 - 32	20	165	0.4	32	101	
3 - 16	16	48	0.1	3		201

61180 Spare cutting wheels for small pipe cutters

61180

For art. no.	Cutting wheel Dia. mm	Use	61180 ...
61170 + 61175	18	Copper, brass	101
61172	20	Copper, brass, aluminium	203

61185 - 61186 Plastic pipe cutter

Design
- Quick adjustment
- Spare cutting wheel in handle
- Fold-out internal pipe cutter recessed in the housing
- 4 guide rollers

Applications
This pipe cutter was developed especially for separating plastic pipes. The construction ensures fast, vertical cutting of the pipe.

61186
Spare cutting wheel

61185

61186

For pipe dia. mm	Cutting wheel dia. mm	No. of rollers	Length mm	Cutter 61185 ...	Spare cutting wheel 61186 ...
6 - 67	40	4	245	201	201

61187 Corrugated pipe cutters FIFFI

ALARM

Design
- High-strength plastic with 2 exchangeable cutting inserts

Applications
For separating and cutting to length plastic protective pipes in sanitary, heating and electrical installations. Safe cutting on the external diameter without damaging the internal pipe.

61187

For pipes up to dia. mm	61187 ...
42	101

61188 Plastic pipe cutter

Design
- In pistol shape with 1 cutting blade
- High-pressure die-cast aluminium housing
- The movable handle transports the cutting blade forwards step-by-step along a toothed rack
- By pressing the retract button, the blade returns to its open initial position

Applications
This handy pipe cutter separates PVC pipes, pipes made of synthetic resin, water hoses etc. The pipe cutter is placed on the pipe at a right angle. Actuating the hand lever cleanly cuts the pipe.

61188

For pipes up to dia. mm	61188 ...
35	101

61191 Plastic tube cutting shears

61191 201
Design
- With ratchet lever movement

Applications
Suitable for PE, PP, PB, VPE, PVDF, MLP, PPR, PEX and multi-layer pipes.

61191 202
Spare blade

61191 201

61191 202

	For pipe dia. mm	61191 ...
Shears	0 - 42	201
Spare blade	-	202

61193 Pipe cutter

Design
- Ergonomically shaped handle made from fibre-glass-reinforced plastic
- With opening spring and catch
- Changeable blades

Applications
For cutting thin-walled plastic tubing (e.g. plastic armoured conduits) and hoses, including with fabric strengthening, made of plastic and rubber.

Quality
Blade made of special tool steel, oil-hardened.

Note:
Not suitable for cutting cables.

61193

For pipes up to dia. mm	Length mm	Weight g	61193	...
25	185	172		101

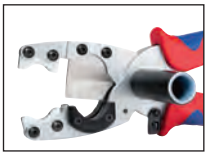
61194 Combination shears

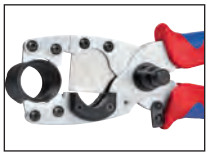
Design
- Ergonomically shaped two-component handles
- Clean, smooth and burr-free cutting surface
- Safe cutting of the corrugated protective pipe on the external diameter without damaging the internal pipe
- Easy cutting of the protective pipe even when assembled thanks to short cutting distances (90°)
- Replaceable blades

Applications
For precise cutting at a right angle of composite and plastic pipes.

Note:
Ability to attach a calibration pin e.g. for dia. 11.5 and 15 mm Geberit pipes.

61194





Composite pipe dia. mm	Protective pipe dia. mm	Length mm	Weight g	61194	...
12 - 25	18 - 35	210	320		102

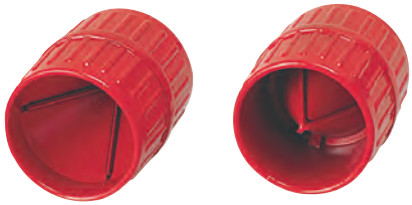
61205 Internal and external deburring cutters

Design
- Three cutting edges for clean deburring
- Plastic basic body

Applications
For copper, light metal and soft steel pipes.

Quality
Special steel.

61205



For pipe dia. mm	Length mm	61205	...
3 - 40	57		101

61206 Pipe internal and external deburring cutters

Design
Robust metal design. Specially hardened and ground cutting edges for easy, fast deburring.

Applications
For stainless steel pipes, steel pipes, copper, brass, aluminium and plastic pipes.

61206

For pipe dia. mm	61206	...
10–54		101

61207 Deburring tool set (sanitary deburring set)

Design
Set comprises:
- 1 deburring tool handle NB100GT
- 2 blades GT-E100
- 1 blade GT-E200
- 1 pipe deburring tool EL-SP8100

Applications
Ideal for sanitary applications, both indoors and outdoors. Easily and quickly deburr your brass, aluminium, copper or plastic pipes.

61207

Type	61207	...
NB 1400GT		101

61250 Pipe bending pliers (6 pieces)

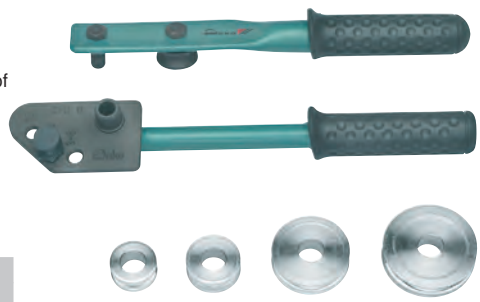
GEDORE

Design
Two-hand bending pliers with replaceable aluminium bending segments. With plastic handles on the levers, small form, only 260 mm long.

Set comprises:
- 1 basic body
- 1 bending lever
- 4 bending segments, for 3-4/5-6/7-8 and 10 mm pipes

Applications
Bends up to 180°. An ideal tool for the assembly case. Also suitable for clamping in a vice. Suitable for precision steel pipes (hydraulic pipes), also for flexible stainless steel pipes with wall thicknesses of 1.0 - 1.2 mm.

61250



For pipe dia. mm	Length mm	61250	...
3 - 10	260		102

61255 Pipe bending pliers

RIDGID

Design
Two-hand bending pliers with built-in bending segment. Malleable iron handles, painted with plastic grip covers. Bending segment and support bracket made of steel, zinc-plated, with gradient scale on the bending segment and marks on the bending shoe to determine the desired bending angle.

Applications
Manual bending pliers for easy and precise bending of copper, aluminium, steel and stainless steel pipes. The pliers can also be clamped in a vice.

61255

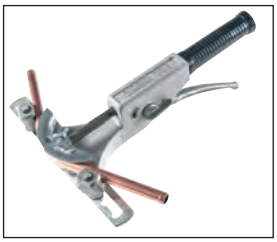
For pipe dia. mm	Radius mm	Length mm	Weight approx. kg	61255	...
6	16	250	0.7		101
8	24	350	1.2		102
10	24	350	1.2		103
12	38	450	2.5		104

61260 Pipe bending tool

RIDGID

Design
- Bending tool with copper bending segments for 10, 12, 14, 15, 16, 18 and 22 mm
- A special sliding mechanism quickly puts the bending segments into the correct position for the corresponding diameter

Applications
For bends up to 90° for pipes made of soft copper and coated soft copper with a thickness of 10 to 22 mm.



61260

Bending segment dia. mm	Design	61260	...
10/12/14/15/16/18/22	In plastic box		201

61272 Expander set (flaring pliers)

ROTHENBERGER

Design
- High-strength, forged aluminium body
- Ergonomic handles, no slipping, no pinching
- Long lever arm — little effort required
- Extra-long segments — secure pipe connections according to DVGW
- Steel receptacle — robust and wear-resistant
- Expansion and capillary gap can be set using KSO screw
- TiN-coated expansion mandrel.

Scope of delivery:
- 1x expander pliers
- 4x expander heads 12/15/18/22 mm
- Pipe internal and external milling cutter

Applications
For efficient, fitting-free installation of pipes in sanitary, heating, gas, refrigeration and air-conditioning systems. For expanding and calibrating soft and semi-hard pipes from dia. 12-22 mm with maximum wall thicknesses up to 1.6 mm and for the manufacture of reductions.

Note:
Additional expanding heads, e.g. 8, 10, 14, 16, 28, 35 mm and inch sizes are deliverable on request.

61272

For pipe dia. mm	Design	61272	...
12/15/18/22	In sheet steel box		201

61315 Drain cleaner

Design
Red rubber plunger with screwed-in 350 mm long wooden handle.

61315

Diameter mm	61315 ...
130	101

61322 Plumber's snakes

Design
- Complete with crank and claw
- Spirals are zinc-plated
- Black handle

Applications
For pipes with internal diameter 24-100 mm, spirals 9 mm.

61322

Wave dia. mm	Length m	61322 ...
9	5	201
9	10	202

61331 Pipe cleaning devices/pipe cleaning machine

RIDGID

61331 201
Pipe cleaning device POWER SPIN+
Design
- Press the trigger and rotate the drum - for a clean drain without dirt build up
- The kink-resistant MAXCORE® spiral is designed for operation with drills up to 500 rpm
- The AUTOFEED® spiral feed automatically pushes the spiral through the drain
- The spiral is firmly secured in the drum to prevent pulling out

Applications
Cleans drain lines up to 40 mm (1.1/2 inch) in diameter.

61331 201

NEW

61331 202
Pipe cleaning machine PowerClear™
Design
- 230 V
- Capacity up to 40 mm (with light blockages up to 50 mm max.), with the AUTOFEED® 2-way spiral feed
- Kink-resistant 7 mm x 9 m MAXCORE® spiral
- Incl. guide hose extension for areas with restricted space

Applications
For cleaning bath, shower and basin drains.

61331 202

Spiral length m	For pipe dia. inch	Spiral dia. mm	61331 ...
7.6	1/2–1.1/2	6.3	201
9.0	3/4–1.1/2	7.0	202

61334 Pipe cleaning pump

Design
- With short and long attachment
- Adapter for toilet and washbasin

Applications
As suction/pressure cleaner.

61334

61334 ...
101

Special tools / PPE

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

61351 Test pump

Design
- Manual test pump with 12-litre container
- Container made of sheet steel, zinc-plated and painted
- Throughput capacity 12 l/min
- 1/2 inch pressure hose, 1.5 m long
- Manometer up to 60 bar (860 psi)
- Automatic locking of the piston at the desired pressure range

Applications
The pump is suitable for pressure testing water and oil lines up to a maximum of 60 bar.

61351

Connection inch	Container content litres	Weight approx. kg	61351	...
1/2	12	8		101

61355 Test pump

Design
- Manual test pump with hot-dip galvanised sheet steel container
- Cast pump body
- Plunger (piston) and pressure valve made of brass
- Brass suction valve
- Test pressure up to 100 bar, with single plunger
- Pump complete with manometer and oval zinc-plated container with drain valve
- Pressure hose 3 m

Applications
For pressure testing water, oil lines, containers and moulds. For testing parts with smaller volumes.

Note:
Motor-driven test pumps deliverable on request.

61355

Container content litres	Operating pressure bar	Plunger dia. mm	Weight approx. kg	61355	...
30	100	22	14		201

61381 Sealing tape

Design
- PTFE sealing tape made from high-quality plastic

Applications
For threaded fittings. Resistant to virtually all chemicals. Sealing against liquid, vapour and gases, approved according to **DIN-DVGW,** can therefore also be used for all-gas seals.

61381

Width mm	Thickness mm	Length m	61381	...
12	0.1	12		201

61390 Flat coil

Applications
For all pipe fittings.

61390

Size dia. mm	Width approx. mm	Weight g	61390	...
43 x 95	5	80		301

61501 Die stock sets

RIDGID

Design
- With enclosed ratchet thread cutter
- Ratchet tool to minimise operator fatigue
- Right-hand thread
- Quick cutting jaws for faster and easier pipe thread cutting

Set consisting of:
- Ratchet set
- Ratchet handle
- Cutting heads
- Alloyed cutting jaws
- All ratchet thread cutting inserts use the same 11-R/12-R cutting jaws in the cutting heads

NEW

61501

For pipe dia. inch	1 each quick-change cutting head inch	Design	61501	...
3/8 - 1.1/4	3/8 / 1/2 / 3/4 / 1. / 1.1/4	In plastic case		**201**
1/2 - 1.1/4	1/2 / 3/4 / 1. / 1.1/4	In plastic case		**202**
3/8 - 2.	3/8 / 1/2 / 3/4 / 1. / 1.1/4 / 1.1/2 / 2.	In plastic case		**203**
1/2 - 2.	1/2 / 3/4 / 1. / 1.1/4 / 1.1/2 / 2.	In plastic case		**204**

61510 Electric die stock sets

RIDGID

Design
- Light weight and easy handling for maintenance and repair work
- Coated and moulded handle ensures optimal control
- Screwed carbon brush cover accessible from the outside simplifies maintenance
- Robust aluminium injection-moulded gear housing and glass-fibre reinforced plastic motor housing, withstands demanding construction site conditions
- Support arm with two-jaw design provides improved support and increased safety during use
- Controls: Forward/reverse slide switch, two-stage On/Off button

Applications
Ideal for on-site applications.

61510 301

NEW

61510 302

61510 301
Type 600-I
Scope of delivery:
- Incl. cutting heads with cutting jaws 1/2 / 3/4 / 1. / 1.1/4 inch
- Support arm
- Transport case

61510 302
Type 690-I
Design
- With the **RIDGID quick release system** for effortless insertion and removal of cutting heads
- Reducer chuck for cutting heads up to 1.1/4 inch
- Light weight and easy handling for maintenance and repair work

Scope of delivery:
- Incl. cutting heads with cutting jaws 1/2 / 3/4 / 1. / 1.1/4 / 1.1/2 and 2. Inch
- Support arm
- Transport case

RIDGID quick release system (art. no. 61510 302): Turning the locking plate once releases the cutting head for easy replacement.

Type	For pipe dia. inch	L x W x H mm	Weight (power drive) kg	61510	...
600-I	1/8 - 1.1/4	508 x 95 x 191	5.80		**301**
690-I	1/8 - 2.	613 x 121 x 203	9,59		**302**

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61645 Thread cutting lubricants RUBINOL 2000

ROLLER

Design
- Mineral oil-free thread cutting lubricant with a high lubricating and cooling effect
- Completely water-soluble
- Red coloured for washing control
- Tested according to **DVGW, ÖVGW, SVGW regulations**

Applications
Suitable for all materials, especially for drinking water pipes.

Note:
Also ideal as a coolant when sawing metals. 55 l drum deliverable on request.

61645 102

61645 104

Design	Contents	61645 ...
Spray bottle	500 ml	102
Canister	5 l	104

61650 - 61651 Thread cutting machine, 300 compact

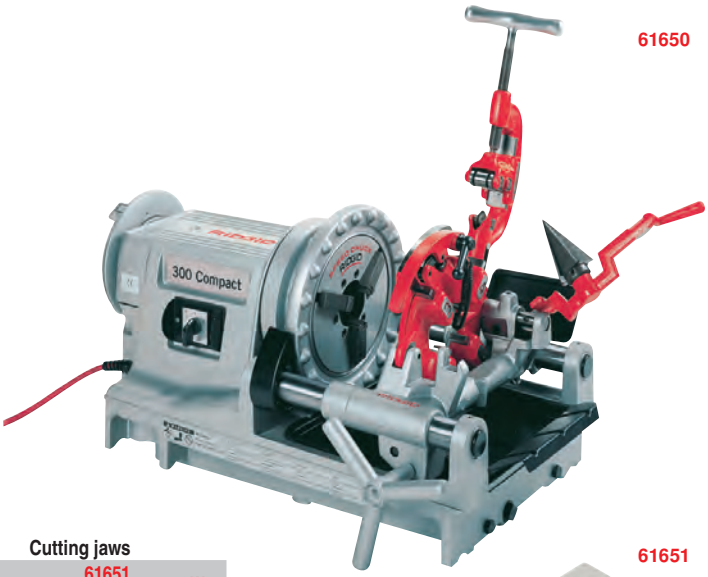
RIDGID

Design
- Quick-action chuck with replaceable profile jaws
- Cam-operated centring device
- Self-oiling via the cutting head
- With integrated oil and chip pan
- Spindle speed 38 rpm.
- Rotation switch with built-in foot switch
- Return/supply
- Motor 1.7 kW, 230 volt, 25-60 Hz

Accessories provided:
- **Cutting head** BSPT 1/8 - 2 inch, opens automatically
- **Cutting jaws** 1/2 - 3/4 inch and 1 to 2 inch BSPT Euro
- **Pipe cutter** 1/8 - 2 inch freely movable, self-centring with cutting wheel
- **Cutter** 1/8 - 2 inch
- **Thread cutting agent** 5 litres

61651
Cutting jaws

61650



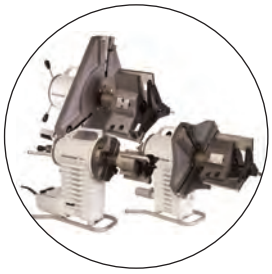
61651

For tube diameter Inches	Pins	Weight approx. kg	61650 ...	Cutting jaws 61651 ...
1/8 - 2.	6 inch - 52 mm	52.0	101	
1/2 - 3/4	BSPT EURO RH	0.6		101
1. - 2.	BSPT EURO RH	0.6		102

Info

Precision machines and tools for tube processing

GF, RA
Tube cutting and chamfering machines
We set the standards: over 40 years of delighted customers worldwide! New tube sawing generation with planetary cutting principle developed by Orbitalum Tools, now with many new innovative features and an ergonomic design. Right-angled, burr and deformation-free, and cold machining process taking seconds.
Tube outer dia.: 12 - 508 mm
Wall thickness: 1 - 15 mm



REB, BRB
Tube end processing machines
Production of highly precise and reproducible welding seam joint forms at tube ends. Compact design, quick tool clamping system QTC®, square and burr-free, turning plate with four or two blades and high-performance coating.
Tube inner dia.: 49 - 500 mm
Tube outer dia.: 56 - 508 mm
Wall thickness: 3 - 22 mm

Consumables
Saw blades, cutters, lubricants
Specially developed for tube sawing with Orbitalum Tools for the highest demands and longest service life.

RPG
Tube squaring machines
For burr-free and right-angled squaring of thin-walled stainless steel tubes and micro-fittings. Creates a squaredtube surface with very high surface quality. Burr-free and right-angled, quick-change system for tools, clamping shells and tubes, turning plate with two blades and high-performance coating.
Tube outer dia.: 3 - 219.1 mm
Wall thickness: 2 - 3.6 mm

orbitalum tools for piping systems

precision. power. simplicity.

61660 Pipe cutting and chamfering machine

orbitalum tools for piping systems

Design
- Includes 1 saw blade and 1 tube of lubricating gel
- Transportable machines with single-phase AC motor
- Infinitely variable electrical speed control with restart lock
- Includes accessories required to operate the machine

Applications
Cutting and chamfering in seconds of tubes made of high-alloy steel (stainless steel), low-alloy and non-alloy steel, cast materials, non-ferrous metals and plastics in accordance with planetary cutting approach. Right-angled, burr-free and cold machining process. Optimum preparation for automated welding process. Robust design with powerful drive. Unique, automatically guided immersion process. High efficiency, increased productivity and long tool life.

Note:
Aluminium version available on request.

61660

Type	Nominal tube dimensions Inches	External tube diameter mm	max. wall thickness mm	Internal tube diameter min. mm	Watts	Speed rpm	Motor V/Hz	Protection class	61660	...
GF 4	1/4 - 4.	12 - 120	1.0 - 9.0	16	1800	65 - 215	200 - 240 / 50/60	II		102

61665 Tube feed

orbitalum tools for piping systems

Design
- Stable design with powder-coated frame and stainless steel rollers
- Height-adjustable

Applications
To feed long and heavy tubes easily and coaxially into the machine. Saws can be directly mounted on the mounting plate of the base unit without special accessories.

Suitable for pipe cutting and chamfering machines GF 4 (art. no. 61660 102).

61665

Work area Tube diameter mm	Load capacity kg	L x H x W mm	61665	...
16 - 325	400	1850 x 1050 x 500		101

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61667 Saw blades for pipe cutting and chamfering machines

orbitalum tools for piping systems

61667 101-102
Economy
Applications
For low and unalloyed steel, cast materials.

For pipe wall thicknesses mm	Dia. mm	61667 ...
		Economy
1.2 - 2.5	63	101
2.0 - 5.5	63	102

61667 104-112
Performance
Applications
For high-alloy steel (stainless steel).

For pipe wall thicknesses mm	Dia. mm	61667 ...
		Performance
0.6 - 1.2	63	105
1.0 - 1.6	68	108
1.2 - 2.5	63	106
1.2 - 2.5	68	109
2.5 - 5.5	63	107
2.5 - 7.0	68	110
2.5 - 7.0	80	111
6.0 - 10.0	80	104

61667 101-102

61667 104-112

61670 Saw blade/cutter combination

orbitalum tools for piping systems

Design
Set consisting of:
Saw blade and cutter with titanium coating.
Applications
For simultaneous cutting and chamfering of pipes made of high-alloy steel (stainless steel), low and unalloyed steel and cast materials.

61670 101
Press fitting saw blade/cutter combination
Applications
For pipes of metal press fitting systems.

61670 102-103
Welding seam saw blade/cutter combination

61670 101

61670 102-103

For pipe wall thicknesses mm	Dia. mm	Chamfer angle ° (degrees)	Chamfer height mm	61670 ...
1.0 - 2.0	63	45/70	0.4/1.0	101
2.5 - 7.0	68	30	7.0	102
2.5 - 5.0	68	35	5.0	103

61675 Saw blade lubricant

orbitalum tools for piping systems

61675 101
Saw blade lubrication paste GF LUB
Applications
High-performance lubricating paste for sawing and milling. Increases the service life of saw blades and cutters.

61675 102
Saw blade lubricant GF TOP
Applications
Synthetic, high-performance lubricant for sawing and milling. Increases the service life of saw blades and cutters. Compliant with NSF H2 food-safety approval.

Type	Design	Contents	61675 ...
GF LUB	Tube	160 ml	101
GF TOP	Tube	180 g	102

61675 101

61675 102

62010 Universal cutter with snap-off blade

STANLEY

Design
- Stainless steel blade guide for easy working and high stability and durability
- Two-component handle to ensure safe working without slipping
- The mounting wheel acts directly on the blade and prevents slipping during working
- Automatic blade change by magazine
- Space for up to 6 blades in the handle
- With integrated blade snapper
- **Fitted with 6 blades**

Note:
For spare blades, see art. no. 62020 + 62021.

62010

Blade width mm	62010 ...
18	101

62015 - 62016 Universal cutter with snap-off blade

OLFA CUTTERS & KNIVES

Design
- With snap-off, retractable blade
- Precision metal blade guide
- Fitted with 1 blade

Note:
For spare blades, see art. no. 62020 + 62021.

62015 101
Design
- With push-button mechanism

62016 101
Design
- With locking wheel
- **2 spare blades included**

62015

62016

Blade width mm	62015 ...	62016 ...
9	101	
18		101

62017 Universal cutter with snap-off blade

ATORN®

Design
- All-metal cutter with snap-off, retractable blade
- Fitted with 1 blade

Note:
For spare blades, see art. no. 62020 + 62021.

62017 101
Design
- With pushbutton mechanism and auto-lock mechanism

62017 102
Design
- With locking wheel

62017 103
Design
- With pushbutton mechanism and auto-lock mechanism
- With removable end cap to aid snapping off

62017 101

62017 102

62017 103

Blade width mm	62017 ...
9	101
18	102
18	103 NEW

62020 - 62021 Universal cutter with snap-off blade

Design
- With snap-off, retractable blade
- Precision metal blade guide
- High-quality design
- **Fitted with 1 blade**
- **2 spare blades included**

Note:
For spare blades, see art. no. 62020 + 62021.

62020 101 + 62021 101
Design
- With push button mechanism, automatic locking

62021 201
Design
- With locking wheel

62020 101

62021 101

62021 201

Blade width mm	62020 ...	62021 ...
9	101	
18		101
18		201

Info **Replacement blades for universal cutter can be found on page 62.2**

62020 - 62021 Spare blades

62020 102 + 62021 102+202
- Universal snap-off blade, made of special steel, highly versatile

62020 103 + 62021 103+203
- Universal snap-off blade, made of special steel, with **TiN coating** for a long life

62020 103 + 62021 103+203
- Universal snap-off blade, made of special steel, with optimised grinding for a particularly sharp cutting edge

62020 202-204
- 50 blades in safety dispenser with individual removal

62020 102

62021 102+202

62020 103

62021 103+203

62020 104

62021 104+204

Design	Pack = pieces	Blade width 9 mm 62020 ...	Blade width 18 mm 62021 ...
Universal	10	102	102
TiN-coated	10	103 NEW	103
Black	10	104 NEW	104 NEW
Universal	50		202 NEW
TiN-coated	50		203 NEW
Black	50		204 NEW

62019 Universal knife with 25-mm snap-off blade

Design
- Extra heavy-duty design
- Cutter for 25-mm snap-off blades
- Metal guide
- Adjusting wheel
- Blade held in place
- With non-slip rubber grip
- With automatic blade tracking
- Additional safety as snap-off blade can be held in place
- Blade compartment integrated into the handle (equipped with 5 spare blades)

62019 101

62019 201

	62019 ...
Professional snap-off cutter	101
Replacement blades, 10 pieces	201

62026 Paper and film cutter

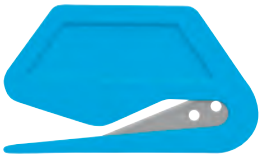
martor

62026 100
SECUMAX POLYCUT
Design
- Disposable safety knife with concealed blade for maximum safety.
- Extra long and pointed tip enables particularly good access to cavities. The cutting material is also guided reliably towards the blade

62026 102
SECUMAX CARDY
Design
- Disposable safety knife with concealed blade for maximum safety.
- Its small compact form makes handling easier, such as for curved cuts
- With a wall thickness of only 2.5 mm, it is also particularly narrow. This allows the safety knife to cut through particularly narrow gaps, especially when cutting film.

62026 103
SECUMAX CARDYCUT
Design
- Disposable safety knife with concealed blade for maximum safety.
- Quality, rust-free blade with TiN coating
- Made of completely clear plastic for visual monitoring when cutting film and paper
- Small, compact design, ideal for curved cuts and particularly narrow gaps
- Frequently used, e.g. in the automotive industry due to its mastery of thin films

62026 100



62026 102

62026 103

	62026 ...
SECUMAX POLYCUT	100 NEW
SECUMAX CARDY	102
SECUMAX CARDYCUT	103 NEW

Special tools / PPE

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62025 Safety knife

martor

62025 101
SECUMAX EASYSAFE
Design
- Concealed blade for maximum occupational safety and maximum product protection
- Additional hold-down clamp for a smooth cut even through single layers of thin film and paper
- Specially designed tip makes it easier to puncture material, so it is ideal for opening bags and film-sealed pallets
- Integrated metal plate for slicing open packing tape
- Blade can be changed without tools

Scope of delivery:
- With fitted blade, blade thickness 0.30mm

Applications
Perfect for films, bags, plastic strapping, etc.

Note:
For use in sensitive production areas, such as in the food industry, access to the blade can be prevented using a key. This prevents the blade from being changed by unauthorised persons.

62025 102
Spare blades
Design
- 4-way blade
- 2-sided grinding
- Thickness approx. 0.30 mm
- Length approx. 39 mm
- Width approx. 18.4 mm

Applications
For SECUMAX EASYSAFE safety knife art. no. 62025 101.

62025 103
Safety key
Applications
For SECUMAX EASYSAFE safety knife art. no. 62025 101.

62025 106
SECUMAX 350
Design
- Concealed blade for maximum occupational safety and maximum product protection
- Innovative 2-in1 blade head with two cutting edges and dual tape slicers
- Contactless blade change, as the blade is coated in plastic
- Fibreglass-reinforced plastic handle (incl. soft grip for optimum hold)

Scope of delivery:
- With installed blade head, blade thickness 0.30 mm
- Spare blade head in handle

Applications
All-round cutter for cardboard boxes up to 2-ply, film, plastic strapping, adhesive tape, etc.

62025 107
Spare blades
Design
- 2-way blade
- Thickness approx. 0.30 mm
- Length approx. 38.9 mm
- Width approx. 25.8 mm

Applications
For SECUMAX 350 safety knife art. no. 62025 106.

62025 108
SECUMAX 320
Design
- Concealed blade for maximum occupational safety and maximum product protection
- Simplified and extra-safe blade change without tools
- New, high-quality 4-way blade
- Fibreglass-reinforced plastic handle for right- and left-handed users
- Reversible adhesive tape slicer with two cutting depths (5.0 mm/3.5 mm)
- New design and significantly improved ergonomics incl. soft grip

Scope of delivery:
- With fitted blade, blade thickness 0.40 mm

Applications
Specialist for films, plastic strapping, adhesive tapes, etc.

62025 109
Spare blades
Design
- 4-way blade
- Wide, double-sided grinding
- Thickness approx. 0.40 mm
- Length approx. 26 mm
- Width approx. 18.5 mm

Applications
For SECUMAX 320 safety knife art. no. 62025 108.

62025 103

62025 102

62025 107

62025 109

62025 101

62025 106

62025 108

	Pieces	62025	...
Safety knife SECUMAX EASYSAFE	1		101
Replacement blades for SECUMAX EASYSAFE	10		102
Safety key for SECUMAX EASYSAFE	5		103
Safety knife SECUMAX 350	1		106 NEW
Replacement blades for SECUMAX 350	10		107 NEW
Safety knife SECUMAX 320	1		108 NEW
Replacement blades for SECUMAX 320	10		109 NEW

62028 Disposable safety knife

martor

62028 201
SECUMAX 150
Design
- With concealed blade
- Ergonomically shaped and very light at 24 g

Applications
For cutting, scraping and scoring.

62028 202
SECUMAX 145
Design
- With concealed blade
- Slim design
- The fibreglass-reinforced plastic handle and 0.5 mm thick blade make it remarkably rugged
- Extremely light at only 12 g

Applications
Suitable for cutting single-ply cardboard, film and adhesive tape.

62028 201

62028 202

	62028	...
Disposable safety knife SECUMAX 150		201
Disposable safety knife SECUMAX 145		202

62032 Safety double lock knife

martor

SECUPRO 625

Design
- Ergonomic double-lock knife for high cutting frequencies and the most demanding requirements
- Aluminium handle with soft grip
- A smooth lever to trigger the blade.
- Easy blade change with blade change button
- Extra large depth of cut
- Fully automatic blade retraction for a very high level of safety
- With lock for extra protection

Scope of delivery:
- With fitted blade, trapezoidal shape, wide grind, rounded tips, thickness approx. 0.63 mm

Applications
All-round knife for cardboard boxes up to 3-ply, plastic strapping, material on rolls, rubber, PVC, carpeting, etc.

62032 101

	Pieces	62032	...
Safety double lock knife SECUPRO 625	1		101
Replacement blades for SECUPRO 625	10		102

62032 102
Spare blades
- Trapezoidal shape
- 2-way blade
- Thickness approx. 0.63 mm

62032 102

62034 Safety double lock knife

martor

Design
- Fully automatic blade retraction for a very high level of safety
- Ergonomic pliers handle for high cutting frequencies and fatigue-free, user-friendly work
- With lock for extra protection
- Low cutting depth of 11 mm to minimise the risk of damaging contents while opening boxes
- Easy blade change with blade change button
- Suitable for right-handed and left-handed people

Scope of delivery:
- With fitted blade, thickness approx. 0.40 mm.

Applications
All-round knife for all normal cutting work, such as cardboard boxes up to 2-ply, plastic strapping, adhesive tape, bags, film, material on rolls, etc.

62034 101
SECUPRO MARTEGO
- Made of aluminium and incl. soft grip for comfortable, non-slip handling

62034 102
SECUPRO MERAK
- Small, handy safety knife for precision cutting
- Made of high-quality plastic

62034 101

62034 102

	Pieces	62034	...
Safety double lock knife SECUPRO MARTEGO	1		101
Safety double lock knife SECUPRO MERAK	1		102
Replacement blades for safety double lock knife SECUPRO	10		103

62034 103
Spare blades
- 4-way blade
- 2-sided grinding
- Thickness approx. 0.40 mm

62034 103

62036 Safety knife

martor

62036 101
SECUPRO MEGASAFE
Design
- Ergonomic aluminium handle for high cutting frequencies and the most demanding requirements
- Suitable for right-handed and left-handed people
- Fully automatic blade retraction for a very high level of safety
- Particularly suited to cutting tasks where protective gloves need to be worn
- Cutting depth of up to 20 mm

Scope of delivery:
- Fitted with trapezoidal blades, approx. 0.63 mm thickness

Applications
All-round knife for cardboard boxes up to 3-ply, bags, winding film, stretch and shrink-wrap, plastic strapping, cutting material on rolls, adhesive tape.

62036 102
SECUPRO MAXISAFE
Design
- Safety knife with 3-sided slider and fully automatic blade retraction for a very high level of safety
- Blade extension area reinforced with metal abrasion protection
- Suitable for right-handed and left-handed people
- Simple to change blades without the need for tools

Scope of delivery:
- Fitted with trapezoidal blades, approx. 0.63 mm thickness

Applications
All-round knife for cardboard boxes up to 3-ply, plastic strapping, film, material on rolls, textiles, etc.

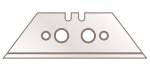
62036 101

62036 102

	Pieces	62036	...
Safety knife SECUPRO MEGASAFE	1		101
Safety knife SECUPRO MAXISAFE	1		102
Replacement blades for SECUPRO MEGASAFE/MAXISAFE	10		104

62036 104
Spare blades
- Trapezoidal shape with wide grind
- Thickness approx. 0.63 mm

62036 104



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62027 Safety box cutter

martor

SECUNORM 175

Design
- Automatic blade retraction for a high level of safety
- Ergonomic handle: The grip is shaped to fit the hand and has a comfortable, rounded end
- Suitable for right and left-handed people as the slider can be operated from either side
- Blade change button for easy blade replacement
- Practical mounting eyelet

Scope of delivery:
- With fitted blade, thickness approx. 0.30 mm.

Applications
All-round knife for all cutting work in commercial areas, in the warehouse, etc.

62027 201

	Pieces	62027	...
Safety box cutter SECUNORM 175	1		201
Replacement blades for SECUNORM 175	10		102

62027 102
Spare blades
- 4-way blade
- 2-sided grinding
- Thickness approx. 0.30 mm

62027 102

62038 Safety knife

martor

SECUNORM 380

Design
- Ergonomic handle with soft grip
- Maximum cutting depth 73 mm
- Easy blade change with blade change button
- Particularly rugged, strong and abrasion-resistant due to metal rail in core
- Suitable for right-handed and left-handed people
- Automatic blade retraction for a high level of safety
- Lock for extra protection

Scope of delivery:
- With fitted blade, thickness approx. 0.50 mm.

Applications
All-round knife for cardboard boxes up to 4-ply, bags, paper webs and rolls, construction foam, other foam, polystyrene, etc.

62038 101

	Pieces	62038	...
Safety knife SECUNORM 380	1		101
Replacement blades for SECUNORM 380	10		102

62038 102

62038 102
Spare blades
- 2-sided grinding
- Thickness approx. 0.50 mm

62035 Safety knife

martor

62035 202
SECUNORM PROFI LIGHT

Design
- Handle made from abrasion-proof plastic
- Automatic blade retraction for a high level of safety
- Safe blade change without the need for tools
- Suitable for right-handed and left-handed people

Scope of delivery:
- Fitted with trapezoidal blades, approx. 0.63 mm thickness

Applications
All-round knife for cardboard boxes up to 2-ply, plastic strapping, bags, film, material on rolls, textiles, etc.

62035 100
SECUNORM 500

Design
- Aluminium handle
- Automatic blade retraction for a high level of safety
- Slider on both sides for right and left-handed users
- Simplified and extra-safe blade change withou tools
- Cutting depth 17 mm
- New design with optimised ergonomics and soft grip
- Modern successor to the MARTOR classic SECUNORM PROFI

Scope of delivery:
- Fitted with trapezoidal blades, approx. 0.63 mm thickness

Applications
All-round knife for cardboard boxes up to 3-ply, plastic strapping, bags, winding film, stretch and shrink-wrap, adhesive tape, film and paper webs.

62035 202

62035 100

	Pieces	62035	...
Safety knife SECUNORM PROFI LIGHT	1		202
Safety knife SECUNORM 500	1		100 NEW
Replacement blades, trapezoidal	10		204
Replacement blades, trapezoidal with wide grind	10		105
Replacement blades, hook shape	10		206

62035 204+105

62035 206

62037 Safety knife

martor

SECUNORM PROFI40
- Aluminium handle
- Flexible blade with extra-long blade extension of 40 mm
- Extremely low risk of breakage
- Automatic blade retraction for a high level of safety
- Blade change without tools
- Suitable for right-handed and left-handed people

Scope of delivery:
- With fitted blade, thickness approx. 0.50 mm.

Applications
Suitable for opening bags and for cutting tasks such as on paper webs in roller printing, for film, plastic strapping, foam, polystyrene, etc.

62037 101

	Pieces	62037	...
Safety knife SECUNORM PROFI40	1		101
Replacement blades for safety knife SECUNORM PROFI40	10		102

62037 102

62037 102
Spare blades
- 2-sided grinding
- Thickness approx. 0.50 mm

62018 Folding utility knife

ATORN®

Design
- Aluminium handle, ergonomically shaped
- Reliable locking of blade when folded out
- Thumb pads for optimal, very precise cutting pressure
- Quick-action lever for fast change of blades without tools
- Blade compartment integrated into the handle (equipped with 5 spare blades)
- All standard trapezoidal blades fit
- With belt clip

Note:
For spare blades, see art. no. 62029 104.

62018

Total length mm	Blade length mm	62018 ...
160	28	101

62022 Folding utility knife

STANLEY

Design
- Retractable blade
- Chrome-plated metal housing
- Safety locking mechanism
- Complete with two blades
- Straight blade

62022 101

	Pack = pieces	62022 ...
Knife	-	101
Replacement blades, straight cutting edge	3	202
Replacement blades, straight cutting edge	50	203
Scalpel blades (TiN). straight cutting edge	50	207

62022 202-203

62022 207

62033 Quick-change universal knife with retractable blade

STANLEY

Design
- With die-cast zinc body for high strength and durability
- Two-component handle for safe working without slipping
- Simple push-button loading system for increased safety, no additional tools are required
- Space for up to 8 blades in the handle
- **Supplied with 3 spare blades**

62033

	62033 ...
	101

62029 Universal knife with retractable blade

62029 101
Universal knife, standard
- Ergonomically shaped die-cast zinc knife handle stove-enamelled
- High-quality special steel knife blades, razor-sharp
- **Includes 5 trapezoidal blades in handle**

62029 102
Universal safety knife
- On this safety knife **the blade retracts automatically** as soon pressure is removed from the cutting edge. **Low risk of injury**
- Die-cast aluminium knife handle, stove-enamelled

62029 103
Universal knife with holster
- Particularly robust, ergonomically shaped knife with retractable blade
- Rapid blade change without screw: Simply pull out the handle end and rotate 90°
- With magazine for spare blades or bits
- **Incl. holster and 1 blade** (trapezoidal shape, straight)
- Bit holder integrated into the handle

62029 101

62029 102

62029 103

62029 104

	62029 ...
Universal knife standard	101
Universal safety knife	102
Universal knife with holster	103
Replacement blades, trapezoidal, 5 pieces	104

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62040 Combination knife

STANLEY

Design
- **Multi-functional knife with two blades:** Serrated stainless steel blade, length 75 mm and trapezoidal blade

- **Ergonomic handle:** The stainless steel blade is easy to open with one hand

- **Safety lock on stainless steel blade:** unintentional opening is prevented
- **Retractable trapezoidal blade:** Blade slider can be operated comfortably with the thumb
- Zinc blade slider for strength and durability
- Fast blade change without tools
- **Interlock™ mechanism** prevents both blades from being open at the same time

62040

Length mm	62040 ...
120	101

62041 Collection box for used blades

martor

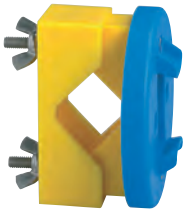
62041 101
Collection box
- The collection box allows you to minimise the risk of injury when disposing of used blades
- Once the box is completely filled, twist the lid until it stops, i.e. until a red pin engages automatically
- Then the box can no longer be opened
- The collection box is then disposed of complete with used blades

62041 102
Wall bracket
For mounting the collection box to pipes, poles or walls.

Note:
When attaching to walls, only attach the blue plate.

62041 101

62041 102



	Dimensions H x W x D mm	62041 ...
Collecting box	210 x 100 x 100	101
Wall bracket	-	102

62056 Pocket knife Olivio

Design
- Stainless steel blade, can be locked
- Genuine olive wood handle
- High-quality brass inlay for the blade guide
- Eyelet for cord/chain

62056

Blade length mm	62056 ...
90	101

62094 Working knife (kitchen knife)

ATORN®

Design
Rustproof blade. Plastic handle, shaped to the hand.

62094 101

Blade length mm	62094 ...
80	101
150	102

62094 102

62091 Professional knife

BAHCO

62091 102
Design
- Sport knife with 75 mm blade
- **Safety lock:** Blade locks when fully folded out
- Partially serrated blade

62091 101
Design
- High-quality steel, strong and sharp blade, non-slip
- Safe transport in belt holster

Applications
Cleanly and reliably cuts wood, plastics and similar.

62091 102

62091 101

Blade length mm	62091 ...
75	102
102	101

62044 Multi-tool

VIGOR EQUIPMENT

62044

Design
- Stainless steel housing
- Incl. belt pouch

	Contents
1	combination pliers
1	Flat nose pliers
1	Wire cutter
3	Slotted screwdriver 3.0 x 0.8/4.0 x 1.0/5.0 x 1.0 mm
1	Phillips screwdriver PH 1
1	Single cut file
1	Cross cut file
1	Bottle opener
1	Can opener
1	Saw
1	Knife
1	Serrated knife

	62044 ...
14 pieces	101

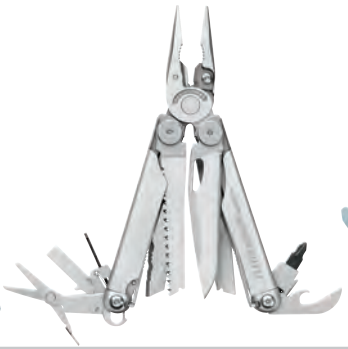
62045 Leatherman® combination tools

LEATHERMAN
Now you're ready.®

Design
All Leatherman® tools are made in the United States from stainless steel.
Each tool is specially hardened for its function.

62045 301

62045 302



62045 306

62045 307

art. no.	62045 301	62045 302	62045 306	62045 307
Model	Squirt P4 10 pieces	Wave 19 pieces In leather case	Micra 10 pieces	Skeletool CX 8 pieces in nylon holster
Wire stripping blade		x		
Awl	x			
Mounting eyelet		x		
Bit holder		2 pieces		x
Bits (double-sided)		2 pieces		2 pieces
Can opener		x		
Wire cutter	x	x		x
File (diamond-coated)		x		
File (wood, metal)	x	x		
Hard wire cutter		x		x
Bottle opener	x	x	x	x
Snap hook				x
Combi knife (smooth/serrated cut)				x
Combination pliers	x			
Phillips screwdriver	x		x	
Ruler		x	x	
Knife	x	x	x	
Nail file/cleaner			x	
Tweezers			x	
Saw		x		
Scissors		x	x	
Slotted screwdriver	x	x	x	
Keyring eyelet	x		x	
Pointed pliers		x		x
Watchmaker's screwdriver	x		x	
Serrated knife		x		

	62045 ...
Squirt P4 10 parts	301
Wave 19 parts	302
Micra 10 parts	306
Skeletool 8 parts	307

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62055 Pocket knife

VICTORINOX

Original Swiss Made.

62055 101
Manager
10 parts, colour: blue-sapphire, with pen and torch function (red).
Small blade, screwdriver (3 mm), bottle opener, wire bender, ring, Philips screwdriver, scissors, nail file, LED light.

62055 102
Nomad
11 parts, colour: black. Large blade, latching (fixed), can opener with screwdriver (3 mm), bottle opener with screwdriver (5 mm), wire bender, steel reamer/needle, corkscrew, toothpick, tweezers, ring.

62055 103
Cybertool
34 parts, colour: red, with the tools:
large blade, small blade, corkscrew, can opener with small screwdriver (also for Phillips screws), bottle opener with screwdriver and wire stripper, piercing and drilling awl, ring, tweezers, toothpick, needle and sewing awl, bit wrench with hexagon socket for D-SUB plug connector. Hexagon socket for bits, bit PZ 0, bit PZ 1, bit holder with 4 mm slotted screw bit, bit PH 2, 4 mm hex bit, TX 6 bit, TX 10 bit, TX 15 bit, ballpoint pen for adjusting DIP switches, needle (stainless), mini screwdriver, combination pliers with wire cutter, ferrule crimping tool, scissors, universal hook.

62055 101

62055 102

62055 103

Type	62055 ...
Manager 10 parts	101
Nomad 11 parts	102
Cybertool 34 parts	103

62095 Cable knives

ATORN®

62095 103
Lead or work knives
With wooden handle, fixed.

62095 104
Gutta-percha knife
With wooden handle, fixed.

62095 105
1 blade with wire scraper, wooden handle, folding.

62095 106
One-piece knife with plastic shell, folding.

62095 107
With 1 blade and scribe, wooden handle, folding.

62095 108
With 2 blades (small blade with wire scraper), scribe and screwdriver, plastic handle, folding.

62095 109
Industrial knives
One-piece knife with black, unbreakable plastic handles. Stainless, folding blade with double lock.

62095 110
Serrated industrial knife
Design otherwise as 62095 109.

62095 111
With plastic handle, 1 blade, scribe and screwdriver, folding.

62095 113
Electrician's safety knife
With plastic handle, 1 blade, folding, with locking device. Red handle, blade with 2 notches for stripping PVC cables.

62095 103

62095 104

62095 105

62095 106

62095 107

62095 108

62095 109

62095 110

62095 111

62095 113

62095 ...
103
104
105
106

62095 ...
107
108
109
110

62095 ...
111
113

62090 Cable knife / stripping knife

Design
- Tough, elastic, impact-resistant plastic handle
- With blade guard

62090 102
Design
- Semi-circular ground cutting edge

62090 101
Design
- With strong, straight blade

62090 102

62090 101

Blade length mm	Total length mm	62090 ...
35	165	102
50	200	101

62092 Cable knife with replaceable blade

Design
- Fully insulated impact-resistant plastic handle in accordance with VDE
- Folding blade guard, permanently integrated in the handle
- Solid, straight blade with protected back

Quality
Stainless steel.

62092 201

62092 202

	Blade length mm	Total length mm	62092 ...
Cable knife	50	200	201
Replacement blade	50	-	202

62093 VDE cable sheath knife

KNIPEX

Design
- Handle shape with comfortable slip guard for improved ergonomics
- More safety through soft, non-slip components
- Thumb recess and finger hook on the end of the handle for good power transmission when pulling the knife
- Transparent safety blade
- Insulating multi-component handle, **VDE-tested**

62093 101
Design
- Robust, fixed hooked blade, **crescent-shaped**
- With sliding shoe on the tip

Quality
Surgery steel, rust-free, air-hardened.

62093 102
Design
- Stable, fixed hooked blade, **straight blade**

Quality
Special tool steel, oil-hardened.

62093 101

62093 102

Blade length mm	Total length mm	62093 ...
38	180	101
50	185	102

62098 Secura cable knife

JOKARI original

Design
- Adjustable cutting depth
- Automatic blade adjustment for round and longitudinal cut

Applications
For stripping and sheath stripping all common round cables.

62098 101
Design
- Spare blade in the handle
- Designed for wet room cabling
- For cable Ø 4–16 mm

62098 102
Design
- Spare blade in the handle
- For cable Ø 8–28 mm

62098 103
Design
- **With hooked blade**
- Spare blade in the handle
- Designed for wet room cabling
- For cable Ø 8–28 mm

62098 101-102

62098 103

For cable Ø mm	62098 ...
4 - 16	101
8 - 28	102
8 - 28	103

62100 Stripping knife

ATORN®

Design
- Adjustable cutting depth
- Automatic blade adjustment for round and longitudinal cut
- Spare blade in the handle

Applications
For stripping and sheath stripping all common round cables, particularly wet room cabling.

62100 101-102
Design
- **Without pre-cutting blade**

62100 103
Design
- With hooked blade and protective cap

Applications
Longitudinal and round cut.

62100 301
Spare blade
Applications
Suitable for stripping knife, art. no. 62100 101-103

62100 101-102

62100 103

62100 301

For cable-Ø mm	62100 ...
4 - 16	101
8 - 28	102
8 - 28	103
Spare blade	301

62121 Stripping knife

Weidmüller

62121 100+102
Stripping knife AM 25 / AM 35
Design
- Rotating blade for round, longitudinal and spiral cuts
- Mounting bracket with integrated blade for breaking open cut insulation
- Incl. spare knife

Note:
For spare knife, see art. no. 62121 103

62121 100
Stripping knife AM 25
Applications
For PVC round cable of 6-25 mm Ø.
Adjustable cutting depth for insulation thickness up to 6 mm.

62121 102
Stripping knife A M 35
Applications
For PVC round cable of 25-36 mm Ø.
Adjustable cutting depth for insulation thickness up to 4.5 mm.

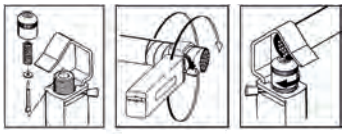
62121 103
Spare blade
Design
- Contents: 1 piece

Applications
For stripping knives AM 25 (art. no. 62121 100) and AM 35 (art. no. 62121 102).

62121 104
Stripping knife AM 16
Design
- Stripping tool for PVC insulated cable
- Insulation can be stripped at any point
- Integrated blade for breaking open cut insulation
- Cutting depth can be adjusted from 0.8-2.5 mm

Applications
For PVC round cables of 6-17.3 mm Ø.
Very well-suited to sheath stripping of cables in cable ducts.

62121 100+102



62121 103

62121 104

For cable Ø mm	62121 ...	Spare blade 62121 ...
6 - 25	100	103
25 - 36	102	103
6 - 17.3	104	

62117 Cable knife assortments

JOKARI original

Design
- Cable knife system with automatic blade guard and replaceable bracket system for stripping all common round cables
- Blades made of special steel, hardened and tempered.

Modular system
Thanks to the intelligent replaceable bracket system, one tool is sufficient to strip the most common cable types, from Ø 4–70 mm

Design
The unique viewing window on the metal clip shows the cutting progress at a glance.
Form-fitting design for comfortable handling.

Safety
Cut injuries are
a thing of the past with the newly developed hooked blade protection mechanism.
TÜV/GS tested.

62117 100
Scope of delivery:
- 1 cable knife
- 1 replacement bracket for the following working range:
- Ø 8–28 mm

62117 101
Scope of delivery:
- 1 cable knife
- 1 replacement bracket each for the following working ranges:
- dia. 4–16 mm
- Ø 8–28 mm
- dia. 27–35 mm
- dia. 35–50 mm
- dia. 50–70 mm
- In case

The bracket can be swapped without additional tools.
This allows the working range to be adjusted effortlessly.

62117 100

62117 101

For cable Ø mm	Number of replacement brackets	62117 ...
8 - 28	1	100 NEW
4 - 70	5	101

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62102 Stripping tool

KNIPEX

Design
- Cutting depth can be adjusted from 0–5 mm
- Interchangeable blade can be used on both sides
- Handles made from fibreglass-reinforced plastic

62102 101

Applications
For removing all insulation layers from cables **above 25 mm Ø.** Suitable for longitudinal and transverse cuts.

62102 102
Spare blade

Fitting the tool for longitudinal cutting

Longitudinal cuts

Turning the tool for circumferential cutting

Circumferential cuts

For cable-Ø mm	62102 ...
> 25	101
Replacement blade	102

62102 102

62106 Universal stripping tool

JOKARI original

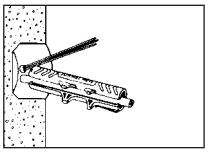
62106 101
Design
- Housing made of high-quality, wear-resistant polyamide
- Titanium-nitride-coated blades for a higher cutting speed, lower wear and longer service life
- No need to adjust the blades to the cutting depth
- Pocket clip for safe storage
- **TÜV/GS tested**

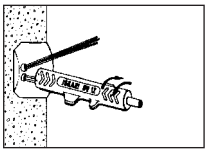
Applications
Ideal for applications in junction and distributor boxes. For stripping sheathing from all standard round cables. Stripping of various cable types, e.g. NYM 3 x 1.5 mm² to 5 x 2.5 mm².

62106 102
Design
- Long, ergonomic stripping tool design
- Housing made of polyamide
- Four-blade arrangement reduces the effort required and increases precision
- Internal length scale
- Comfortable surface texture with good grip
- Ergonomic, non-slip, 2-component grip zone for a secure hold

Applications
For stripping various cable types, e.g. NYM 3 x 1.5 mm² to 5 x 2.5 mm².
The extra-long design of the JOKARI XL allows easy work, even in deeper appliance sockets.

62106 101





62106 102

For cable Ø mm	Length mm	62106 ...
8 - 13	124	101
8 - 13	176	102 NEW

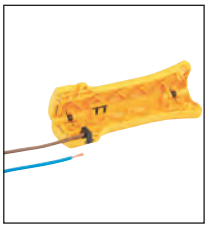
62101 Sheath and wire-stripping tool

JOKARI original

Design
- Cable guide for easy longitudinal cuts
- Suitable for power and control cables, data cables (CAT 5-7), coax, flat cables, flexible conductors, installation cables
- Improved closure sealing with the option to use only one hand
- Ergonomic curved handle
- With reversible length stop for left-handed and right-handed users
- **TÜV/GS tested**

Applications
For stripping sheathing from all common round cables of 4–15 mm diameter (e.g. NYM 3 x 1.5 mm² to 5 x 2.5 mm²). For stripping sheathing from flat cables up to 15 mm in width. For stripping solid conductors of 1.5 and 2.5 mm². For stripping flexible conductors of 1.5–50 mm².

62101



Length mm	62101 ...
130	101

62107 Micro-stripping tools

JOKARI original

Design
- Lightweight and easy-to-handle micro-precision stripping tool for removing sheathing from conductors and wires
- Stripping range can be set in steps according to the table
- Polyamide housing (PA)
- Special hardened steel blade
- Incl. adjustable length stop
- With cutting device for wires up to Ø 1.0 mm
- Replaceable lever blade
- **TÜV/GS tested**

Applications
Particularly suitable for conductors with exterior insulation made of PVC, Mylar®, Kynar®, Tefzel® and others.For applications in electronics, computer and network technology, alarm and doorbell systems, wire wrapping, telecommunications and much more.

62107 100

62107 101

62107 102

Application range Ø mm	Dimensions L x W x H mm	Weight g	62107 ...
0.12 / 0.16 / 0.20 / 0.25 / 0.30 / 0.40	102 x 42 x 14	34.5	100 NEW
0.25 / 0.30 / 0.40 / 0.50 / 0.60 / 0.80	102 x 42 x 14	34.5	101
0.30 / 0.40 / 0.50 / 0.60 / 0.80 / 1.00	102 x 42 x 14	34.5	102 NEW

62108 Super stripping tool

JOKARI original

Design
- Secure hold due to integrated non-slip grip zones
- Locking mechanism prevents uncontrolled opening of the tool
- Cable residue does not clog the blades
- No need to adjust the blades to the cutting depth
- Sheathing can be removed from longer cable runs using the longitudinal cutter
- Contoured blade for stripping wires 0.2 - 0.3 - 0.8 - 1.5 - 2.5 - 4.0 mm²
- Additional TiN-coated sliding blade
- Supplied in a pocket clip

Applications
Stripping tool for removing sheathing from **all standard round cables of Ø 8–13 mm. Stripping of various cable types, e.g. NYM 3 x 1.5 mm to 5 x 2.5 mm².** Ideal for applications in junction and distributor boxes.

62108

	62108 ...
	101

62109 Sheath and wire-stripping tool

JOKARI original

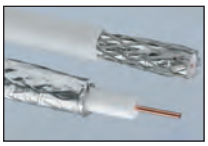
62109 301
Secura Coaxi No. 1
Design
- Soft grip zones and scale area for comfortable operation
- The tool's two-stage stripping system removes the outer sheathing and the di-electric layer in stages (these two stages can be seen at a glance by the numbers 1 and 2 in contrasting colours)
- The stripping length can easily be determined by the internal, colour-coded scale
- This feature is particularly useful when working in a wall outlet box
- A reliable sealing system simplifies day-to-day use, even in demanding environments
- Soft, blue components for a secure hold when removing sheathing

Applications
Suitable for all common coaxial cables of Ø 4.8 up to 7.5 mm, as well as RG 58U/RG 59U cables.

62109 302
No. 1 Cat
Design
- It is not necessary to adjust the cutting depth to the respective diameter, as the special blade alignment perfectly removes the outer insulation, after which the film shielding can be scored and removed
- The stripping blades are TiN-coated

Applications
For PVC-insulated data cables (e.g. cat 5, cat 6 or cat 7 cables, twisted pair cable) with a diameter of 4.5–10 mm.

62109 301



62109 302

Application range Ø mm	Length mm	62109 ...
4.8 - 7.5	100	301
4.5 - 10.0	100	302

62096 Wire stripping tool CST

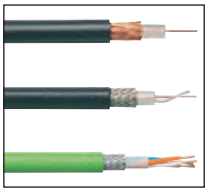
Weidmüller

62096 101
CST basic tool
Design
- Incl. mounting aid
- Blade cassettes can be used from either side
- Replaceable blade cassette (**not** included in scope of delivery)

Applications
For coaxial cable and round (shielded) data cables of Ø 2.5–8 mm 1-, 2- and 3-stage stripping in a single action.

62096 102
Blade cassette for CST basic tool
- Stripping dimensions = B 6.5 mm

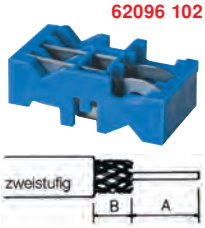
62096 103
Blade cassette for CST basic tool
- Stripping dimensions = C 7.1 mm / B = 5.1 mm



62096 101

NEW

62096 102



62096 103

Type	62096	...
CST basic tool		101
Blade cassette, blue		102
Blade cassette, green		103

62105 Insertion tool

RENNSTEIG

Design
- Plastic
- With integrated pull hook and release blade

Applications
For UTP and STP cables, conductor diameter 0.4 to 0.8 mm. For insertion on strips, sockets and panels. Presses in and cuts the cable in one action Lockable cutter enables cable to be pressed in without cutting.

62105

Length mm	62105	...
175		101

62110 ErgoStrip® universal stripping tool (pat. pend.)

KNIPEX

Design
- Innovative, ergonomic pistol grip design for easy cutting, pulling and longitudinal cutting of the sheath
- Conically streamlined tool ends for better access in tight installation spaces
- Stripping device for cross sections 0.2/0.3/0.8/1.5/2.5/4 mm².
- Positioning bars simplify insertion of single conductors for stripping
- Convenient insertion of coaxial and data cables thanks to opening guide
- Multi-component design with soft plastic zone for convenient handling and secure hold
- Housing made from rigid fibreglass-reinforced plastic

Applications
Fast and precise sheath stripping and stripping of all standard round and wet room cables (e.g. NYM cable from 3 x 1.5 mm² to 5 x 2.5 mm²), data cables (e.g. twisted pair) and coaxial cables.

62110 100
Design
- For **right-handed users**

62110 101
Design
- For **left-handed users**

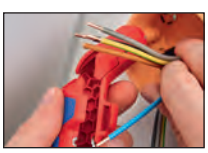
Stripping an NYM cable

Stripping a data cable

Stripping a coaxial cable

62110 100

62110 101



Application range Ø mm	Length mm	Round cable Ø mm	Conductor and wire mm²	Coax cable Ø mm	Data cable	for right-handed users 62110	...	for left-handed users 62110	...
0.2 / 0.3 / 0.8 / 1.5 / 2.5 / 4.0	135	8 - 13	0.2 - 4.0	4.8 - 7.5	Cat 5-7. twisted pair (TTPTSTP)		100		101 NEW

Special tools / PPE

62115 Stripping pliers

ATORN®

Design
- High-gloss polished head, chrome-plated
- With adjusting screw and spring
- Handles with heavy, covered two-component grips

62115

Length mm	Wire mm	Cable mm²	62115	...
160	1.1 - 4.8	0.5 - 6		101

62104 VDE wire stripping pliers, chrome plated

ATORN®

Design
- Made of chromium-vanadium steel, high-gloss polished, chrome-plated
- With 2-component handle
- Specially designed to meet the strict safety guidelines of the **IEC 900, DIN EN 60900 and VDE 0680 part 2 standards**
- Directly sprayed-on insulated handles, 1000 V

62104

Length mm	Wire mm	Cable mm²	62104	...
160	1.1 - 4.8	0.5 - 6		101

62112 Stripping pliers

HHW

Design
- With black ergosoft grips
- High-gloss polished
- Adjusting screw for adjusting to the wire or flex diameter
- With opening spring

Quality
Special C 45 tool steel, oil-hardened, chrome-plated.

62112

Length mm	Wire mm	Cable mm²	62112	...
160	1.1 - 4.8	0.5 - 6		101

62114 VDE wire stripping pliers/sheath stripping pliers

KNIPEX

62114 101
Design
- Chrome-plated head
- Easy to adjust to desired wire or flex diameter using knurled thumb screw and jam nut
- With opening spring
- For single-, multi- and fine-strand conductors with plastic or rubber insulation max. Ø 5 mm or 10 mm² conductor cross-section
- Handles with thick-walled, two-colour multi-component sleeves and non-slip protection over insulated handles
- **Tested in accordance with IEC DIN EN 60900**

Quality
Special tool steel, forged, oil-hardened.

62114 201
Design
- Easier access, especially with deep-set flush-mounted junction boxes, due to narrow head shape and optimally angled cable sheath blade
- Simple and damage-free sheath stripping due to circular blade with depth stop
- For universal use: Precision stripping holes for conductors 1.5 and 2.5 mm²
- With side cutters for cutting conductors, wires, small screws and nails
- All cutting edges also induction hardened to approx. 61 HRC: for high wear resistance
- 30% lighter than comparable pliers
- Handles with thick-walled, two-colour, multi-component sleeves
- **Tested in accordance with IEC DIN EN 60900**

Applications
Saves time when stripping and removing insulation and sheathing from all standard round and wet room cables (e.g. NYM cables).

Quality
Vanadium electric steel, forged, oil-hardened

62114 101

62114 201

Length mm	62114	...
160		101
165		201

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62116 VDE wire stripping pliers

Design
- Polished, chrome-plated
- Self-adjusting
- The segmented blades automatically adjust to the cable cross-section
- Thick-walled plastic handles with hand guard

Quality
Vanadium extra steel.

62116

Length mm	Cable mm²	62116	...
165	0.5 - 6		101

62118 Wiring pliers

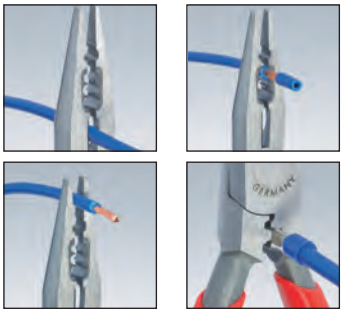
KNIPEX

Design
- Polished head
- Arms with plastic coating
- **Blades also inductively hardened**
- Blade hardness approx. 60 HRC

Applications
For stripping, gripping and bending wires, crimping wire end ferrules, ideal for wiring work. For cutting soft, medium-hard and hard wire.

Quality
Vanadium electric steel, forged, oil-hardened

62118 301
Design
With two-coloured multi-component grip sleeves.



62118 101

62118 301

Stripping values mm²	Up to wire Ø medium-hard mm	Up to wire Ø hard mm	Length mm	62118	...
0.5-0.75 / 1.5 / 2.5	2.5	1.6	160		101
0.5-0.75 / 1.5 / 2.5	2.5	1.6	160		301

62113 VDE electrical installation pliers

KNIPEX

Design
- Multi-purpose pliers for electrical installation
- Bolted joint: precise movement of pliers with no play
- Slim design for good accessibility

Applications
For gripping flat and round material, bending, deburring, cable cutting, stripping and crimping of wire end ferrules.

Quality
Special-grade tool steel, forged, oil-hardened.

Six functions in one set of pliers:
- Smooth gripping surfaces at the tip for damage-free gripping of individual wires, profiled gripping surfaces and burner hole for gripping flat and round materials
- Sharper outer edge on the jaw for processing flush-mounted sockets and deburring feed-through holes
- Stripping holes for conductors 0.75–1.5 mm² and 2.5 mm²
- Crimp nest for wire end ferrules 0.5–2.5 mm²
- Cable cutter with precision cutting edges (inductive hardened) for copper and aluminium cables up to 5 x 2.5 mm² / Ø 15 mm
- Individually tested according to **VDE DIN EN 60900**

62113 301

Version	Length mm	62113	...
Without opening spring	200		301
With opening spring	200		302

62119 Three-way pliers

Design
- Flat, stripping and crimping pliers in one
- Head polished and chrome-plated

Applications
For stripping, gripping and bending wire, cutting wire, crimping wire end ferrules and cable lugs and much more.

62119

Length mm	Working range Ø mm	62119	...
160	1.6 - 2.5		101

Wire stripping pliers

62123 Stripping pliers

KNIPEX

Design
- With interchangeable blades for four or six different conductor cross-sections
- Precisely ground, shaped blades cause no damage to the conductor; even finely stranded wires are stripped carefully
- Jaws hold the wire in place while stripping
- With adjustable longitudinal stop for identical stripping lengths during series tasks
- Pliers brought back to original position by compression spring
- With plastic grip covers
- Pliers painted black
- AWG 20-19/17/15/13/11/10

Quality
Pliers body: Aluminium.
Blade: Special tool steel, oil-hardened.

62123

Length mm	Application range mm²	62123	...
180	0.5-0.75 / 1.0 / 1.5 / 2.5 / 4.0 / 6.0		201

62124 Wire stripping pliers

RENNSTEIG

Design
- Ergonomic and non-slip 2-component handles
- Small handle width
- Made in Germany

Applications
Special pliers with longitudinal stop for high-quality, damage-free stripping and sheath removal of all electrical single- and multi-conductor cables from 0.03 to 16 mm². Can be used regardless of the strength of the insulation material. Special cutting process does not squash or deform the cable ends. Replaceable shaped blade for various cable cross-sections. Customer-specific dimensions are also possible. Stripping knife is automatically returned to the starting position.

62124 201
Applications
For PTFE-insulated cables 0.03–2.08 mm² with cable guide.
Stripping positions Ø 0.35 mm / 0.55 mm, 0.80 mm / 1.05 mm, 1.35 mm / 1.60mm, 1.75 mm.

62124 202
Applications
For PTFE-insulated cables 2.5–10.0 mm².
Stripping positions Ø 4.45 mm, 3.50 mm, 2.70 mm, 2.30 mm.

62124 203
Applications
For DIN stranded cables 0.14–6.0 mm².
Stripping positions Ø 0.70 mm / 1.35 mm, 1.70 mm / 2.30 mm, 2.70 mm / 3.50 mm.

62124

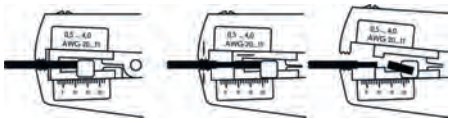
Length mm	62124	...
200		201
200		202
200		203

62126 Wire stripping pliers

62126 201+301
Design
- With cable cutters and longitudinal stop
- Fibreglass-reinforced polyamide housing
- Metal parts made of specially hardened steel
- The segmented blades automatically adjust to the respective conductor cross-section
- With 3-stage insulation thickness adjustment: thick-normal-thin
- Can be preset using longitudinal stop, 3-18 mm
- Total length 190 mm
- Weight: approx. 150 g

Use
For conductors and wires with PVC insulation.

62126 202+302
Spare blade for art. no. 62126 201+301.



62126 301

62126 201

	Working range mm²	ATORN 62126	...	HHW 62126	...
Pliers	0.08 - 6		301		
Pliers	0.03 - 10				201
Spare blade	-		302		
Spare blade	-				202

62127 Wire stripping pliers Multi Strip 10 (automatically self-adjusting)

RENNSTEIG

MultiStrip 10
Design
- The first wire stripping pliers to self-adjust to cross sections and insulation thickness.

Applications
Suitable for single- and multi-strand cables with PVC insulation and a variety of special insulations, integrated cable cutters.

62127

Length mm	Application range mm²	62127	...
195	0.03 - 10.0		201

62128 - 62129 Wire stripping pliers

Weidmüller

62128 101
Mini-Stripax®
Design
- Stripping length can be adjusted with stop
- Clamping jaws open automatically after stripping

Applications
For stripping and cutting conductors 0.08 – 1 mm² (~AWG 28 – 18) up to a maximum diameter of 1.3 mm fine-strand and solid conductors with PVC insulation.

62128 102
Stripax® RD
Design
- Removable recessed handles
- Optional partial stripping
- Stripping length up to 25 mm
- Personalised marking
- Clamping jaws open automatically after the stripping process
- The blade cassettes can be easily replaced
- Double insulated cables in two operations without special setting
- Segmented blade technology means that the conductor is surrounded, the blades automatically adjust to the insulation thickness, the insulation is removed

Applications
For stripping and cutting fine-strand and solid conductors with PVC insulation of 0.08 – 10 mm² (~AWG 28 – 7). Processing of multiple conductors; in the case of thin, flat ribbon conductors, several conductors can be processed in a single work step.

62128 104
Stripax® ULtimate
Design
- Stripping length up to max. 25 mm
- Double-insulated cables in two operations without special setting
- Clamping jaws open automatically after stripping
- Personalised marking with ESG device marker
- Thanks to the special shaped blades, the conductors are not damaged

Applications
Particularly suitable for UL-specified conductors. For stripping and cutting fine-strand and solid conductors with halogen-free insulation of 0.25 – 6 mm² (~AWG 24 – 10)

62128 105
Stripax® ULtimate XL
Design
- Stripping and cutting of almost all halogen-free insulation materials as well as UL or UL-like conductors with hard or smooth insulation in the cross-sectional range of 2.5 – 10 mm².
- This means that even tough PUR sheathing material for sensor/actuator wiring of 4.1 mm to 7.2 mm diameter poses no problem
- With automatic self-adjustment
- 3-stage partial stripping function (removal length: 3, 5 and 10 mm)
- The individual conductors are not fanned out
- Adjustable to a wide range of insulation thicknesses

Applications
Optimally designed for typical application areas such as processing control cables, earth cables, motor connection cables, power bus cables, aluminium cables for lightweight machinery or for removing sheathing from sensor/actuator cables.

62128 103
Stripax® 16 RD
Design
- Clamping jaws open automatically after the stripping process
- The blade cassettes can be easily replaced
- Double insulated cables in two operations without special setting
- Removable recessed handles
- Optional partial stripping
- Stripping length up to 25 mm
- Personalised marking
- Cuts up to a maximum of 6 mm²
- Thanks to the special shaped blades, the conductors are not damaged

Applications
For stripping and cutting fine-strand and solid conductors with PVC insulation of 6–16 mm².

62129
Spare blade

62128 101

62128 102

62128 104

62128 105

62128 103

Type	Working range mm²	Length mm	Weight g	62128	...	Spare blade 62129	...
Stripax® Mini	0.08 - 1	135	110		101		101
Stripax® RD	0.08 - 10	190	175		102		102
Stripax® ULtimate	0.25 - 6	190	175		104		
Stripax® ULtimate XL	2.5 - 10	190	175		105		
Stripax® 16 RD	6.0 - 16	190	155		103		

62129 101

62129 102

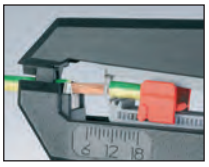
62142 Automatic wire stripping pliers

KNIPEX

Design
- Glass fibre-reinforced plastic with ergonomic soft plastic area in the handle
- Compact design
- Very comfortable working even in hard-to-reach places
- Adapts automatically to the conductor cross-section
- With wire cutter for copper and aluminium conductors up to max. 2.5 mm²
- Longitudinal stop adjustable between 6–18 mm to allow series work with consistent stripping lengths
- Blade easily replaceable

Applications
For all standard cable cross-sections. Suitable for single, multi-strand and fine-stranded wire from 0.2–6.0 mm² with standard insulation.

62142



Working range mm²	Length mm	Weight g	62142 ...
0.2 - 6.0	180	151	101

62130 Wire stripping pliers

JOKARI original

62130 201
Design
- Ergonomic and **automatic wire stripping pliers** for solid and flexible conductors and wires from 0.2–6.0 mm² (AWG 24-10)
- No adjustment to cable cross-section is necessary
- Suitable for cables with insulation made of PVC and other materials
- **Special sensing system** ensures no damage to the conductor
- Longitudinal stop adjustable between 6–15 mm allows consistent series stripping
- Well-positioned, external side cutter for conductors up to max. 2.5 mm²
- Pliers body made of fibreglass-reinforced polyamide, pliers handle with slot at bottom end for mounting
- **TÜV/GS tested**

Applications
For fast and precise stripping even in hard-to-reach places. Electrical industry, electrical engineering, automotive industry.

62130 202
Design
- Automatic wire stripping pliers for stripping combination cables for connection to sensor/actuator distribution boxes
- Cables can be stripped to any length
- No adjustment to cable cross-section is necessary
- Replaceable blades
- **TÜV/GS tested**

Applications
For stripping halogen-free sensor/actuator cables with PUR or PVC sheathing and multi-strand cable structure, e.g. sensor cables from 4.4 mm Ø, shielded and unshielded.
For applications in trade and industry.

62130 201

62130 202

Working range mm²	Length mm	Weight g	62130 ...
0.2 - 6.0	165	91	201
4.4 - 7.0	166	125	202

62131 Cable cutters

Design
- One-handed operation
- Inductively-hardened cutting edges
- Adjustable screw joint
- Laser-cut components

Applications
For cutting copper and aluminium cables without steel core.

Quality
Special carbon steel.

62131 100

62131 102

Type	Length mm	Cutting performance Ø mm	62131 ...
Evo Shark	180	18	100
Shark	230	25	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62132 Cable cutters, patented

KNIPEX

Design
- One-handed ratchet cutter with 2-speed automatic mechanism and removable swivel knives
- Handles with thick-walled plastic sleeves
- Optimum leverage
- Cable cutting with minimal effort
- Cuts smoothly and cleanly without crushing
- With pinch protection
- Precision-ground cutting edges

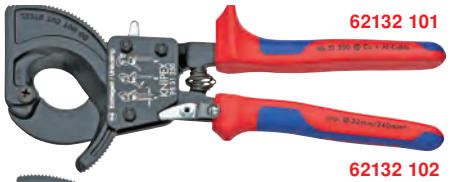
Applications
For cutting copper and aluminium cables, single- and multi-strand, even in tight spaces.

Quality
High-quality special tool steel.

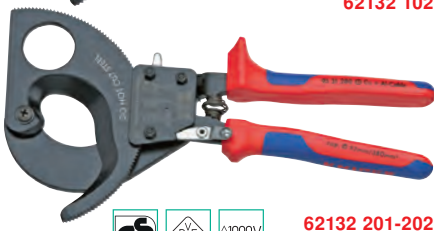
62132 201+202
Design
- **VDE version**
- Insulated with two-colour multi-component grip covers

62132 103+104
Spare blade

62132 101



62132 102



62132 201-202

62132 103

62132 104

	Length mm	Cutting performance Copper + aluminium cable Ø mm/mm²	62132	...
Cable cutters	250	32/240		**101**
Cable cutters	280	52/380		**102**
Cable cutters VDE	250	32/240		**201**
Cable cutters VDE	280	52/380		**202**
Spare blade	250	32/240		**103**
Spare blade	280	52/380		**104**

62154 Cable cutters

KNIPEX

Design
- Hardened cutting edges, ground for clean, smooth, precision cutting with no crushing
- Fixed-arm sleeve with platform for setting down during cutting
- Cuts copper and aluminium cables in one- or two-handed operation up to a diameter of 60 mm
- **Innovative three-speed gear drive** with high transmission ratio for easy one-handed or two-handed cutting
- Easy to handle due to low weight and compact design

Applications
For cutting copper and aluminium cables, single- and multi-strand. Not suitable for steel wire and wire cables.

Quality
Special-grade tool steel, forged, oil-hardened.

62154 101
Design
- Arms have thick-walled, two-colour, multi-component sleeves with non-slip protection

62154 201
Design
- Arms have thick-walled, two-colour, multi-component sleeves with non-slip protection
- Individually tested according to **VDE DIN EN 60900**

62154 101

62154 201

				VDE	
Length mm	Cutting performance Copper + aluminium cable Ø mm	62154	...	62154	...
320	60		**101**		**201**

62156 VDE cable cutters

Weidmüller

62156 101
VDE cable cutters KT 8 VDE
Design
- Cutting tool for cutting copper and aluminium cables up to Ø 8 mm without crushing them
- **VDE and GS-tested protective insulation up to 1000 V in accordance with EN/IEC 60900**

- **Maximum cutting performance in copper cable:**
  single-strand: max. 16 mm²
  multi-strand: max. 16 mm²
  fine-strand: max. 16 mm²
  max. dia. 8 mm
- **Maximum cutting performance in aluminium cable:**
  single-strand: max. 16 mm²
  multi-strand: max. 16 mm²
  max. dia. 8 mm

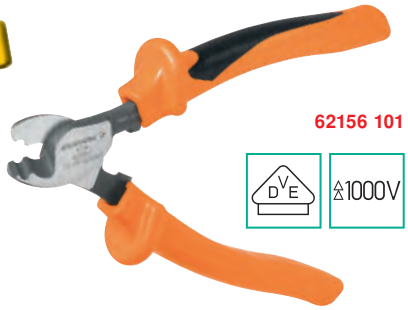
Note:
***Not suitable** for steel wire, steel-reinforced cable, aluminium alloy or hard-drawn copper conductors!*

62156 102
Cable cutters KT 45 R
Design
- One-handed operation
- Low hand force
- Can be unlocked in each cutting position

- **Maximum cutting performance in copper cable:**
  fine-strand: max. 400 mm²/800 kcmil
  multi-strand: max. 300 mm²/600 kcmil
  max. Ø 45 mmsector cable: 3 x 70 SM
- **Maximum cutting performance in aluminium cable:**
  multi-strand: max 400 mm²/800 kcmil
  multi-strand: max Ø 45 mm
  sector cable: 4 x 70 SE
- **Data/phone/control cable:**
  external diameter max. 45 mm

Note:
***Not suitable** for steel wire, steel-reinforced cables, aluminium alloy or hard-drawn copper conductors!*

NEW



62156 101

62156 102

Length mm	weight approx. g	62156 ...
185	180	101
290	740	102

62140 VDE cable cutters

ATORN®

Design
- Angled head for optimum visibility and wrist protection
- Curved pulling arm for a secure hold even with large cross sections
- Opening spring and upper lock
- Polished head, 2-component VDE grip covers with non-slip protection
- **VDE version in accordance with DIN EN 60900**

Applications
For copper and aluminium cables. Not suitable for steel wire.

62140

Length mm	Cutting performance Ø mm/mm²	62140 ...
180	18/50	201
220	25/70	202

62138 Cable cutters

KNIPEX

Design
- One-handed operation
- Hardened cutting edges
- With pinch protection and adjustable screw joint
- Cuts smoothly and cleanly without crushing

Applications
For cutting copper and aluminium without a steel core. Universal for cutting, stripping and sheath stripping.

Quality
Special-grade tool steel, forged, oil-hardened.

62138 101
Design
- Bronzed tool
- Handles with plastic coating

62138 103
Design
- Chrome-plated tool
- Handles with two-colour multi-component sleeves
- **VDE tested in accordance with DIN EN 60900**

62138 106
Design
- **With twin cutting edge**
- Chrome-plated tool
- Handles with two-colour multi-component sleeves
- **VDE tested in accordance with DIN EN 60900**

Note:
By splitting the cutting process into pre-cut (insulating sheath with front blade area) and post-cut (conductor in rear blade area), cables up to 20 mm in diameter can be cut with one hand

62138 101

62138 103

62138 106

Length mm	Cutting performance Ø mm/mm²	62138 ...
165	15 / 50	101
VDE 165	15 / 50	103
VDE 200	20 / 70	106

62133 Universal cable cutters

Design
- Lockable, with spring
- Handles with plastic coating, red

Quality
Stainless steel.

62133

Length mm	Cutting performance Ø mm/mm²	Weight g	62133	...
168	12/10	109		101

62134 Cable cutters

KNIPEX

Design
- Hardened, precision-ground blades
- Cable is not pinched, minimal deformation
- Pinch guard prevents crushing injuries
- Adjustable screw joint
- Cutter body: Surgical steel, stainless, air-hardened
- Handles: Impact-resistant plastic

Note:
Not suitable for steel wire and hard-drawn copper wire.

62134 100
- Polished head, handles with plastic moulding
- With opening spring and catch

Applications
For cutting cables Ø 10 mm / 24 mm².

Quality
Cutting edges made of stainless steel, oil-hardened and tempered.

62134 101
- Polished head, insulated handles, with plastic moulding, **VDE tested in accordance with DIN EN 60900, 1000 V**
- Simple to make cuts using one hand thanks to high ratio

Applications
For copper conductors up to 16 mm², multi-strand up to 50 mm² and fine-strand up to 70 mm². For multi-strand aluminium conductors 70 mm².

Quality
Stainless special steel, hardened and tempered.

62134 100

62134 101

Length mm	Copper + Aluminium cable Ø mm/mm²	62134	...
165	10/24		100
230	16/50		101

62135 Cable cutters/cutting pliers

62135 103-104
RENNSTEIG
Small cable cutters
Design
- Bronzed head
- Sturdy plastic handles
- One-handed operation
- Made in Germany

Applications
Cable cutters for cutting single-strand, multi-strand and fine-strand aluminium or copper cables. Easy, clean cut. Special cutting edge shape does not crush or deform the cable. Not suitable for steel wire, wire cable or hard-drawn copper wire.

62135 103
With single cutting edge.

62135 104
With double cutting edge, pre- and finish cut (first and second cutting edge).

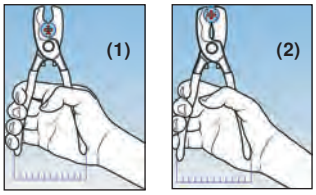
Note:
(1) Pre-cut: *By using the front cutting edge, the arms remain at an ergonomic cutting width even with larger-diameter cables.*
(2) Finish cut: *Where more force is required, it is possible to adjust the profile at the joint. Pre-cut at the front, finish cut at the back.*

61235 201-202
HHW
Ratchet-type cable cutting pliers
Design
- Bronzed cutter head
- Ground cutting edge
- Telescopic arms made of anodised aluminium tubing
- With 2-component handles
- Arm length adjustable in multiple steps
- Cutters can be opened in any cutting position
- Ratchet mechanism for optimum cutting performance
- Can also be used in tight spaces and overhead

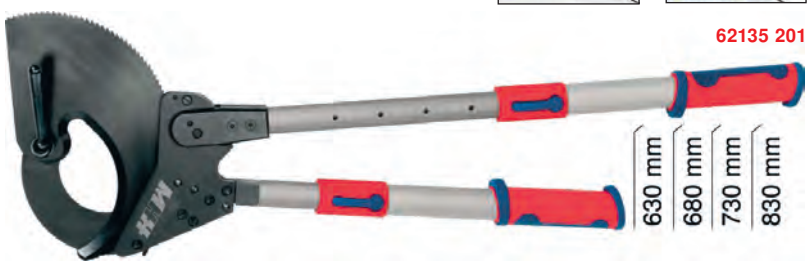
Applications
For cutting of solid, multi-strand and fine-strand aluminium and copper cables. Also for cables with sheet metal sheathing. Not suitable for wire cables or steel wire.

62135 103

62135 104



62135 201



Length mm	Cutting performance Ø mm/mm²	Weight approx. kg	62135	...
170	15/50	0.2		103
200	20/70	0.3		104
630 - 830	60/740	3.9		201
680 - 880	100/960	5.0		202

62137 Cable cutters

Design
- No force multiplication
- Special tool steel
- Forged cutting head
- Ground cutting edge
- Adjustable screw joint
- Arms made of aluminium tubing, powder coated and with plastic handles

Applications
For cutting copper and aluminium cables without steel core.

62137

Length mm	Cutting performance Ø mm/mm²	Weight approx. kg	62137 ...
500	27/150	1.0	101

62139 Cable cutters

62139 103
Type K105/1
Design
- Two-handed operation
- Compact design with extending telescopic handles for easy transportation
- High cutting performance
- Textured hand grips for safe working
- On-site maintenance by replacing the cutting heads

Applications
For cutting copper and aluminium cables up to Ø 26 mm. **Also for fine-strand conductors such as VDE 0295 class 5.** Not suitable for cutting steel or steel wire.

62139 101
Type K130
Design
- Textured hand grips for safe working
- Excellent cutting performance in fine-strand wires due to specially shaped, extremely flat cutting knife
- Large cutting range

Applications
For cutting copper and aluminium cables up to Ø 30 mm. Not suitable for cutting steel or steel wire.

62139 102
Type K1012
Design
- Two-handed operation
- Large cutting range
- Extending lever arms
- **Replaceable cutting head**

Applications
For cutting copper and aluminium cables up to Ø 38 mm. **Also for fine-strand conductors such as VDE 0295 class 5.** Not suitable for cutting steel or steel wire.

62139 103

62139 101

62139 102

Length mm	Cutting performance Ø mm	Weight kg	62139 ...
350 - 520	26	1.4	103
570	30	1.7	101
930	38	4.2	102

62179 Wire cable cutters

62179 101
Design
- Shearing blade cuts fine-strand wire cable
- With internal spring, polished head, 2-component handles

62179 103
Design
- Shearing cutter cuts wire cable and electric cables
- Tubular steel handles with ergonomic plastic grips

62179 101

62179 103

Length mm	Wire thickness max. mm	62179 ...
190	7	101
500	12	103

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62151 Wire cable and electric cable cutters

KNIPEX

62151 102
Wire cable cutters
Design
- Polished head, plastic-coated handles
- Low effort required due to high force transmission
- Two pressing sections for end caps on Bowden casings and end sleeves for wire cables
- Handy, slim design and inner opening spring
- Bolted joint for precise guiding of the cutter, adjustable
- Double function: Clean cutting, precise crimping

Applications
Cuts all wire cables, even high-strength versions, cleanly and without the cables fanning out.
Quality
Chromium-vanadium heavy-duty steel, forged, oil-hardened. Blade hardness approx. 64 HRC.

62151 103
Wire cable cutter, also suitable for high-strength wire cables
Design
- Compact, lightweight and powerful
- Requires up to 30% less force compared with wire cable cutters of the same length
- Bronzed tool, handles with multi-component sleeves
- Double bearing box joint for high stability
- Comfortable working with opening spring
- Secured by latch during transport
- Ball bearing steel

Applications
For wire cables up to Ø 4.0 mm/1960 N/mm².
Quality
Chromium-vanadium heavy duty steel, forged, multi-stage oil-hardened. Blades also inductively hardened, Blade hardness approx. 64 HRC.

62151 104
Wire cable and electric cable cutters
Design
- Polished head, plastic-coated handles
- Low effort required due to high force transmission
- Angled cutting blades allow cutting of individual rope strands
- Bolted cutter head, replaceable

Applications
For wire cable, round bars, copper and aluminium cable. Suitable for cutting overhead power line cables with strain relief wire.
Quality
Knife head made of high-quality special tool steel, oil hardened. Cutter body made of aluminium, high strength.

62151 102

62151 103

62151 104

Type	Length mm	Wire cable Up to Ø mm	Copper + aluminium cable Up to Ø mm/mm²	Up to wire Ø Medium mm	Up to wire Ø Piano mm	62151	...
Wire cable cutters	190	6	7/10	4	2.4		102
Wire cable cutters	160	4	6/-	-	-		103 NEW
Wire cable and electric cable cutters	600	14	-/150	9	-		104

62141 Side cutters for fibre-optic/fibreglass cables

KNIPEX

Design
Polished head, handles with plastic coating, with opening spring. With flat-ground cutting surfaces. Blades also inductively hardened.

Applications
Specially designed for cutting fibreglass cable (fibre optic).
Quality
Vanadium electric steel, oil-hardened and tempered.

62141

Length mm	62141	...
160		105

62144 Pelican cutters/Notching pliers

62144 101

Pelican cutters

Design
- With support for plastic panels and cable ducts, and support for plastic pipes
- Very good cutting performance, even up to the cutter tip
- Optimum leverage for consistent manual force over the entire cutting length
- Ergonomic handle design
- Easy to handle
- Red plastic handles

Applications
For burr-free cutting of plastic panels, pipes, skirting boards and cable ducts.

Quality
Burnished, replaceable cutting knife made of hardened special steel.

62144 201

RENNSTEIG

Notching pliers

Design
- Compact design, simple handling
- Pliers open automatically
- Cutting head made of special tool steel
- Bronzed surface
- Red plastic handles
- Lightweight, drawing cut (scissors principle)
- Clean-cut edges
- Precise cutting of the rubber lip on the skirting board

Applications
For cutting notches in plastic housings for electrical and plumbing installation.

62144 101

62144 201

Type	Length mm	Cut length mm	Cut width mm	Cut depth mm	62144	...
Pelican cutters	280	110	-	-		101
Notching pliers	250	-	16	32		201

62145 - 62146 Universal crimping pliers

62145 101

Design
- With wire cutter
- Stripping openings and bolt cutters for M 2.6–M 5

Applications
For insulating sleeves:
- Red 0.5–1 mm²,
- Blue 1.5–2.5 mm²,
- Yellow 4–6 mm².

62145 102

Design
- Cutting function
- Cut-off function for threaded bolts 2.6 mm, 3 mm, 3.5 mm, 4 mm and 5 mm
- Crimping **non-insulated** cable lugs from 1.5–6.0 mm2
- Stripping function for PVC conductors 0.75 - 6.0 mm²
- Cable cutters
- Length 225 mm, weight 225 g

62145 103

Design
- Cutting function
- Crimping **insulated** cable lugs from 0.5–6.0 mm²
- Cut-off function for threaded bolts 2.6 mm, 3 mm, 3.5 mm, 4 mm and 5 mm
- Crimping **non-insulated** cable lugs from 1.5–6.0 mm²
- Stripping function for PVC conductors 0.75 - 6.0 mm²
- Cable cutters
- Length 240 mm, weight 285 g

62146 102

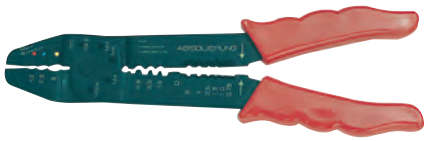
KLAUKE

Type K60

Version
- Roll pressing (crimping)
- For shortening screws M 2.5–M 6
- Crimping of wires and cable insulation is carried out in two work steps
- With wire cutter and stripping device for the cross-sections 0.75–6 mm²

Applications
Suitable for flat connectors with 2.8/4.8 and 6.3 mm plug width. For non-insulated flat connectors 0.5–6 mm².

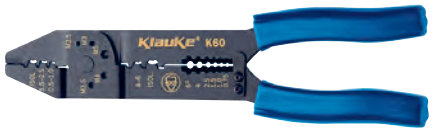
62145 101



62145 102

62145 103

62146 102



	KLAUKE 62145	...	KLAUKE 62146	...
		101		
		102		102
		103		

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Weidmüller

62147 100
PZ 4
Design
- Forced locking guarantees crimping quality
- Can be unlocked if operated incorrectly
- Trapezoidal crimping
- Only one crimping point required for the entire cross-sectional range

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 0.5 – 4 mm².

62147 101
PZ 3
Design
- Forced locking guarantees crimping quality
- Can be unlocked if operated incorrectly
- Square crimp
- Only one crimping point required for the entire cross-sectional range
- Wire end ferrules inserted from the front
- Short lever travel

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 0.5 – 6 mm².

62147 102
PZ 16
Design
- Forced locking guarantees crimping quality
- Can be unlocked if operated incorrectly
- Indent crimp
- Three crimping points depending on the conductor cross-section
- Crimp complies with EN 60947-1
- Approval in line with VG 95211:

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 6 – 16 mm².

62147 103
PZ 6 Roto
Design
- Forced locking guarantees crimping quality
- Can be unlocked if operated incorrectly
- Trapezoidal crimping
- Only one countersink required for the entire cross-sectional area
- Rotating countersink for inserting the wire end ferrules from the front or from the side

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 0.14 ... 6 mm² as well as for twin wire end ferrules from 0.5–2.5 mm².

62147 104
PZ 6 Roto L
Design
- For easy crimping, even in hard-to-reach places
- Trapezoidal crimping
- The rotating crimp insert allows wire end ferrules to be inserted either from the front or the side
- **The lockable crimp insert allows flexibility in application**
- UL-approved crimp connection

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 0.14 ... 6 mm².

62147 105
PZ 10 HEX
Design
- The hex crimp offers a rather round crimp form at the lowest max. diameter and comes into its own where space for crimping is limited

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 0.14 – 10 mm².

62147 106
PZ 10 SQR
Design
- The geometric dimensions of the square crimp make for an ideal connection with spring-loaded terminals

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With or without plastic collar of 0.14 – 10 mm².

62147 107
PZ 50
Design
- Three crimping points depending on the conductor cross-section
- Indent crimp
- Crimp complies with EN 60947-1
- Approval in line with VG 95211:

Applications
For wire end ferrules (in accordance with DIN 46228, T.1 and 4)
With and without plastic collar of 25, 35 and 50 mm².

62147 108
CTI 6 G
Design
- With stop for precise positioning of contacts
- Oval crimp, parallel crimp
- Forced locking guarantees crimping quality
- Can be unlocked if operated incorrectly
- Slotted crimp for reduced manual force

Applications
For PVC and polyamide-insulated connectors in the cross-sectional range 0.5 – 6 mm².
For cable lugs, pin-type cable lugs, parallel and series connectors and plug-in connectors.

Type	Crimping range Ø mm²	Length mm	Weight g	62147 ...
PZ 4	0.5 - 4.0	200	448	100
PZ 3	0.5 - 6.0	200	426	101
PZ 16	6.0 - 16.0	200	418	102
PZ 6 Roto	0.14 - 6.0	200	428	103
PZ 6 Roto L	0.14 - 6.0	200	428	104 NEW
PZ 10 HEX	0.14 - 10.0	195	510	105 NEW
PZ 10 SQR	0.14 - 10.0	195	510	106 NEW
PZ 50	25 / 35 / 50	260	700	107 NEW
CTI 6 G	0.5 - 6.0	250	747	108 NEW

62181 - 62182 Crimping pliers

ATORN®

Design
- Marked trapezoidal profiles for secure crimping of ferrule and conductor

62181
Design
- Polished head
- PVC-dipped handles

62182
Design
- Polished head
- 2-component grip sleeves

62181

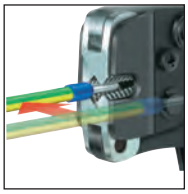
62182

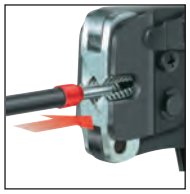
Length mm	Crimping range Ø mm²	62181 ...	62182 ...
145	0.25 - 2.5	101	101
180	0.25 - 16.0	102	102

62148 Crimping pliers for front crimping

HW

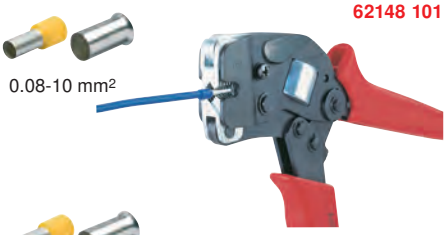
Design
Square crimp profile with four profiled crimp surfaces. Front insertion of wire end ferrules. Effort-saving lever ratios, adjustable crimping force, adjustment lever for pre-selection of crimp areas. Bronzed, with ergonomic two-component handles.
Applications
DIN-compliant crimping connections of wire end ferrules. Universal application, extremely simple to use in confined spaces.





MM

62148 101



62148 102

Capacity mm²	Capacity AWG	Length mm	62148 ...
0.08 - 10.0	28 - 7	190	101
0.08 - 16.0	28 - 5	190	102

62155 Crimping tool

Klauke®

62155 100
Type K25
Design
- With locking mechanism for even, controlled crimping results
- Precise cross-section assignment thanks to permanent markings on the crimping tool
- **Edge crimping**
- Ideal crimping tool with spring-supported tool opening

Applications
For DIN 46235 crimp cable lugs, DIN 46230 pin-type cable lugs. For nickel and stainless steel tubular cable lugs and connectors up to 6 mm².

62155 102
Type K05
Design
- Synchronised profile shim adjustment when open
- Cross-section displayed on marked adjusting wheel
- **Hexagon crimping**
- Precisely synchronised head plate production for optimum, consistent crimping results
- Modern, robust and lightweight elliptical tube handles
- Ergonomic 2-component handles with double-sided non-slip protection
- Smooth, durable tool mechanism that is fatigue-free in use
- Service-friendly design for easy profile shim change

Usage
For pipe cable lugs and connectors, normal design 6–50 mm².

62155 100

62155 102

Crimping range mm²	Length mm	Weight approx. kg	62155 ...
0.5 - 16	325	0.6	100
6 - 50	390	1.1	102

62149 Crimping pliers for wire end ferrules

Design
Die-forged, arms with plastic handles.
With cable cutters.
Applications
For the production of solderless cable connections on insulated and non-insulated connectors, cable lugs and wire end ferrules with and without plastic collars.

62149 101

62149 102

62149 103

Crimping range Wire end ferrules mm²	Length mm	62149 ...
0.25 - 2.5	155	101
0.5 - 16.0	220	102
10 - 35.0	220	103

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62150 Crimping pliers

KNIPEX

62150 101+103
Applications
For crimping wire end ferrules in line with DIN 46228 parts 1+4 Crimping in marked **trapezoidal profiles** for secure connection between ferrule and conductor.
Quality
Vanadium electric steel, forged, oil-hardened

61150 101
Design
- Polished head, grips with multi-component sleeves.

61150 103
Design
- Polished head, insulated grips with multi-component sleeves, **VDE-tested IEC 60900 DIN EN 60900.**

62150 102
Design
- Polished head, grips with multi-component sleeves
- Nine particularly deep profiles with conical side areas.

Applications
For crimping wire end ferrules in line with DIN 46228 parts 1+4 Crimping in marked **semi-circular profiles** for secure connection between ferrule and conductor.
Quality
Special tool steel, forged, oil-hardened.

0.25-2.5 mm²

62150 101

0.25-2.5 mm²

62150 103

0.25-16 mm²

62150 102

Crimping range Wire end ferrules mm²	Application area AWG	Length mm	Number of recesses	62150	...	VDE 62150	...
0.25 - 2.5	23 - 13	145	6		101		103
0.25 - 16.0	23 - 5	180	9		102		

62153 Plastic gripping pliers/snipe nose pliers

KNIPEX

Design
- Pliers made of plastic, fibreglass-reinforced
- Handles with soft plastic zone for secure grip
- Full insulation reduces the risk of short circuit
- Not sensitive to magnetic fields
- Fully spark-free

Applications
For use on voltage-carrying parts up to 1000 VAC and 1500 VDC.
Also ideal for use in chemically aggressive environments.

62153 201
Applications
For meter assembly and meter blocking.

62153 201

62153 202

Type	Length mm	62153	...
Gripping pliers	180		201
Snipe nose pliers	220		202

62152 Universal crimping pliers

Design
- With precise radial closing movement
- Precision achieved with special profile geometries
- With mounting device for **Clip & Strip cutting and stripping system**
- Integrated, releasable forced lock to secure the complete crimp
- Ergonomically formed soft handles with non-slip protection
- Optimum power transmission for reduced manual force
- Completely manufactured from high-strength special steel, highly stressed parts are specially tempered.

Note:
The Clip & Strip cutting and stripping unit can also be inserted into the handle without tools.

62152 101
Applications
Insulated DIN cable lugs, pin-type cable lugs, flat connectors, flat plug-in sleeves, round connectors, round connector sleeves, butt and parallel connectors.

62152 102
Applications
Non-insulated spade connectors and flat plug-in sleeves for DIN plug widths F 2.8 / F 4.8 / F 6.3 / F 9.5 as well as various other electronic contacts.

62152 101

62152 102

Stripping and cutting system **Clip & Strip** for cutting and stripping cables

For cable crosssections mm²	Application range AWG	62152	...
0.50 - 6.0	20 - 10		101
0.25 - 6.0	24 - 14		102

Special tools / PPE

62157 Crimping tool

KLAUKE®

62157 100
Type K306K
For wire end ferrules and twin wire end ferrules
Design
- One crimping profile for all cross-sections from 0.08–16 mm² through automatic cross-section adjustment
- With locking mechanism for even, controlled crimping results
- Hexagon crimping
- Lateral sleeve insertion (side crimping)
- Positioner for small wire end ferrules
- Handles with non-slip protection and label section

62157 102
Type K82A
For insulated cable connections
Design
- Less effort required thanks to new lever mechanism
- Precise pre-tension adjustment to maintain consistent crimping performance
- Three-component handle, yellow (hard core for power transmission), blue (soft ergonomic grip), grey (soft non-slip protection)
- Easy handling thanks to reduced opening width of the tool
- Palm and fingers are placed in a joint-friendly position for optimum ergonomics
- Wire and insulation compression is performed in a single work step

62157 103
Type K507
With replaceable inserts
Design
- With locking mechanism for even, controlled crimping results
- Adjusting shim to compensate for natural tool wear
- Fast, tool-free crimping insert replacement without need to re-adjust thanks to special securing system
- Additional crimping inserts integrated in handle

Scope of delivery:
- Crimping insert for insulated connectors 0.5–6 mm²
- Crimping insert for wire end ferrules AE 50, 0.14–10 mm²
- Crimping insert for crimp-on cable lugs 0.5–10 mm²

62157 100

62157 102

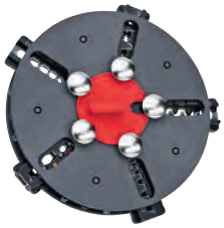
62157 103

Crimping range mm²	Length mm	Weight approx. kg	62157 ...
0.08 - 16	215	0.5	100
0.5 - 6	225	0.5	102
0.5 - 10	220	0.6	103

62158 Multicrimp crimping tool with quick-change system

HW

Design
- **5 parts**
- **With interchangeable crimp dies** in magazine
- Patented storage and replacement system
- With practical belt clip
- Simple die change without additional tools
- Optimum lever ratios ensure less manual force required
- Releasable forced lock for reliable, solderless electrical crimp connections
- High operating comfort due to ergonomically designed two-component handles



62158

Contents:
- For non-insulated flat connectors 0.5–6 mm²
- For insulated connectors 0.5–6 mm²
- For wire end ferrules 0.25–0.6 mm²
- For wire end ferrules 10–25 mm²
- For butt connectors and non-insulated connectors 0.5–10 mm²

0.5-6.0 mm²

0.5-6.0 mm²

0.25-6.0 mm²

10/16/25 mm²

0.5-10 mm²

Length mm	weight g	62158 ...
315	850	101

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62741 Twistor16 crimping tool for wire end ferrules

KNIPEX

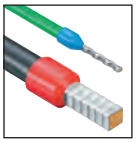
Design
- Square crimp profile, large capacity range of 0.14 to 16 mm²
- **Crimp insert can be rotated 360°** with 8 positive lock positions
- **Self-adjusting** to the desired wire end ferrule size: avoids failed crimps due to use of incorrect crimp insert or incorrect setting
- Narrow head for optimum accessibility
- Chrome-plated pliers
- With multi-component grip covers
- Consistently high crimping quality thanks to forced lock function (can be released)
- Jointed lever mechanism for favourable force transmission ratios
- Crimping pressure is set precisely (calibrated) at factory, adjustable
- Lightweight, manageable design for comfort and ease of use

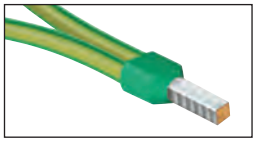
Applications
For crimping wire end ferrules in accordance with DIN 46228 parts 1 + 4. Possible to crimp twin wire end ferrules up to 2 x 6 mm² .

Quality
Special grade chromium-vanadium electric steel, oil-hardened.

NEW

62741





360° rotating crimping head
Provides the best access even under cramped conditions

Twin wire end ferrules up to 2 x 6 mm² can be crimped without conversion

Uniquely flexible:
Connectors can be inserted into the rotating crimping head from almost any position

Application range mm²	Application range AWG	Number of recesses	Length mm	62741	...
0.14 - 16	26 - 5	1	200		**101**

62159 Manual crimping pliers (crimping lever pliers)

Design
Lever system with releasable forced lock function. Ergonomically shaped plastic handles for effortless work. Adjustable crimping pressure.

Applications
For crimp connections in accordance with DIN standards.

Quality
Tempered special steel.

62159 101
For non-insulated flat connectors.

62159 102
For non-insulated flat connectors. Roll crimp.

62159 103
For insulated cable lugs and plug-in connectors. Oval crimp, double crimp.

62159

Application range mm²	Application range AWG	Number of crimping positions	Length mm	62159	...
0.3 - 2.5	24 - 14	2	200		101
0.5 - 6.0	22 - 10	3	230		102
0.5 - 6.0	22 - 10	3	230		103

62160 Crimping lever pliers

Design
- Bronzed
- Two-component handles for a secure grip
- Narrow grip width enables high crimping force due to optimum force transmission ratios
- Guarantees solderless electrical connections
- With forced lock function for reliable crimping (can be released)
- Compact and lightweight design

62160 203
For non-insulated plug connectors. Mandrel crimping.

62160 205
For non-insulated flat connectors. F-crimping.

62160 206
For insulated plug-in connectors. Oval crimp.

62160 106
For insulated cable lugs and plug-in connectors. Oval crimp, double crimp.

62160 208
For wire end ferrules. Trapezoidal crimp.

62160 210
For coaxial connectors. Hexagon crimping.

62160

Application range mm²	Number of crimping positions	62160	...
0.5 - 10.0	4		203
0.50 - 6.0	3		205
0.50 - 6.0	3		206

Application range mm²	Number of crimping positions	62160	...
0.50 - 6.0	3		106
0.25 - 6.0	5		208
RG 58. 59. 62. 71	3		210

Info 62160 - Crimping lever pliers

art. no.	Application range	Profile	Connector	Capacity mm²	AWG	Length mm	Weight g
62160 203	non-insulated connectors			0.5 - 1.0 / 1.5 - 2.5 4.0 - 6.0 10	20 - 7	215	490
62160 205	non-insulated flat connectors			0.5 - 1.0 1.5 - 2.5 4.0 - 6.0	20 - 10	215	490
62160 206	insulated connectors			0.5 - 1.0 1,5 - 2,5 4.0 - 6.0	20 - 10	215	490
62160 106	insulated connectors			0.5 - 1.0 1,5 - 2,5 4.0 - 6.0	20 - 10	250	550
62160 208	wire end ferrules			0.25 - 0.75 / 1.0 - 1.5 2.5 / 4.0 6.0	23 - 10	215	490
62160 210	coaxial connectors			Size 5.4 SW 6.48 SW 1.72	RG 58 / 59 / 62 / 71	215	490

62163 Crimping tool (crimping pliers)

Design
- Automatic crimping pliers
- Self-adjusting to the desired wire end ferrules
- Sleeve is inserted into the tool from the side, for the simplest operation
- Slim design
- Uniform crimping of sleeves
- Square crimp
- Made in Germany

62163

Application range mm²	Application range AWG	Length mm	62163	...
0.08 - 16.0	28 - 7	180		102

0.08-16 mm²

62164 Crimping tool

Design
- Automatic crimping pliers
- Self-adjusting to the desired wire end ferrules
- Sleeve is inserted into the tool from the side, for the simplest operation
- Slim design
- Uniform crimping of sleeves
- Hex crimp
- Made in Germany

62164

Application range mm²	Application range AWG	Length mm	62164	...
0.08 - 10.0	28 - 9	180		102

0.08-10 mm²

62740 crimping tools

ATORN®

Design
- Lever system with releasable forced lock
- Ergonomically designed plastic handles for fatigue-free work
- Adjustable crimping pressure

62740 101-102
Applications
For insulated and non-insulated wire end ferrules.
Trapezoidal crimping

62740 106
Applications
For insulated cable lugs and connectors.

62740 101-102

62740 106

Application range mm²	Length mm	62740	...
0.5 - 6.0	205		101
6.0 - 16.0	205		102
0.5 - 6.0	235		106

62161 Wire end ferrule assortments

KNIPEX

NEW

Design
- Handy, transparent shaker
- Rotating lid with opening for removing individual wire end ferrules
- Made in Germany

62161 201-203
- Contains **insulated wire end ferrules** according to DIN colour code

62161 204-205
- Contains **insulated twin wire end ferrules** according to DIN colour code

62161 206-207
- Contains **non-insulated wire end ferrules**

62161 201

- 30 pieces, blue, 0.25 mm²
- 30 pieces, turquoise, 0.34 mm²
- 30 pieces, white, 0.50 mm²
- 30 pieces, black, 0.75 mm²
- 30 pieces, red, 1.0 mm²

62161 202

- 50 pieces, white, 0.5 mm²
- 100 pieces, grey, 0.75 mm²
- 100 pieces, red, 1.0 mm²
- 100 pieces, black, 1.5 mm²
- 50 pieces, blue, 2.5 mm²

62161 203

- 50 pieces, grey, 4 mm²
- 20 pieces, yellow, 6 mm²
- 20 pieces, red, 10 mm²
- 10 pieces, blue, 16 mm²

62161 204

- 50 pieces, grey, 2 x 0.75 mm²
- 50 pieces, red, 2 x 1.0 mm²
- 50 pieces, black, 2 x 1.5 mm²
- 50 pieces, blue, 2 x 2.5 mm²

62161 205

- 20 pieces, grey, 2 x 4 mm²
- 10 pieces, yellow, 2 x 6 mm²
- 10 pieces, red, 2 x 10 mm²
- 5 pieces, blue, 2 x 16 mm²

62161 206

- 500 pieces, 0.5 mm²
- 500 pieces, 0.75 mm²
- 400 pieces, 1.0 mm²
- 300 pieces, 1.5 mm²
- 200 pieces, 2.5 mm²

62161 207

- 150 pieces, 4 mm²
- 75 pieces, 6 mm²
- 75 pieces, 10 mm²
- 50 pieces, 16 mm²

Application range mm²	Contents pieces	Design	62161 ...
0.25 - 1.0	150	in shaker	**201**
0.5 - 2.5	400	in shaker	**202**
4.0 - 16.0	100	in shaker	**203**
0.75 - 2.5	200	in shaker	**204**
4.0 - 16.0	45	in shaker	**205**
0.5 - 2.5	1900	in shaker	**206**
4.0 - 16.0	350	in shaker	**207**

62162 Wire end ferrule assortment

Design
- Wire end ferrule assortment according to DIN standards

Assortment box, comprising:
- 500 pieces each: 1.0/14, 1.5/14
- 250 pieces each: 0.5/14, 0.75/14, 2.5/14, 4.0/17
- 100 pieces 6.0/20
- 50 pieces each: 10.0/22, 16.0/24

62162

Application range mm²	Dimensions mm	Deisgn	Weight g	62162 ...
0.5 - 16.0	355 x 230 x 50	in multi-purpose plastic case	1200	**101**

62760 Wire end ferrule assortment

ATORN®

Assortment box consisting of:
- Wire stripping pliers, art. no. 62126
- Crimping pliers, art. no. 62740 101
- Wire end ferrules,
  500 each of: 0.5/0.75/1.0/1.5 + 2.5
  250 each of: 4.0 + 6.0 mm²

62760

Application range mm²	Dimensions mm	Weight g	62760 ...
0.5 - 6.0	340 x 250 x 50	1660	**101**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62165 Cable lug assortment

Design
- Insulated ring, pin, eyelet-type cable lugs and cable connectors in accordance with DIN

Contents:
- 12 types, each 50 pieces

62165

Application range mm²	Version	62165	...
0.5 - 6.0	in multi-purpose plastic case		101

62167 Wire end ferrule assortment box

Assortment box consisting of:
- Self-adjusting wire stripping pliers 0.3–10.0 mm²
- Manual crimping pliers for wire end ferrules 0.08–16.0 mm²
- Insulated and non-insulated wire end ferrules 0.25/0.5/0.75/1.0/1.5/2.5/4.0/6.0/10.0 mm²

Applications
For stripping and crimping up to 16 mm².
For insulated and non-insulated wire end ferrules.
A universal tool for the professional.

62167

	62167	...
		301

62143 Cable processing set QUADRO Plus

Design
- Exemplary integration of four functions in one stripping and crimping tool
- The perfect synthesis of ergonomics and functionality
- Forced lock triggers when the crimping punch reaches the end position
- A high level of force transmission allows very easy crimping of wire end ferrules
- Precise longitudinal stop for even stripping
- Twisting system prevents the strands from fanning out and therefore ensures the wire is inserted reliably into the wire end ferrule
- Rapid magazine change
- Significant cost and time saving when wiring switch cabinets
- Integrated forced lock ensures a consistent, high-quality crimp
- Four functions for fast work: cutting - stripping - twisting - crimping
- Strips can be reloaded in just a few seconds with a simple magazine change, allowing efficientworking
- Working range of 0.5–2.5 mm²
- Adjusting to the conductor cross-section is not necessary
- Built-in side cutters for wire up to max. 2.5 mm²
- Crimping of wire end ferrules on strips from 0.5 to 2.5 mm² (AWG 20–14) in accordance with VDE 0609 part 1
- Suitable for wire with PVC insulation
- Applications in the electrical industry, electronic service, panel installation

Scope of delivery:
- 1 Jokari QUADRO Plus
- 240 wire end ferrules: 50 each of 0.5 mm², 0.75 mm², 1.0 mm², 1.5 mm², 40 pieces 2.5 mm²
- 3 wire end ferrule magazines

62143 102-106
Wire end ferrules
Applications
For QUADRO Plus, art. no. 62143 101.

NEW

62143 101

62143 102

62143 103

62143 104

62143 105

62143 106

		Set	
Working range mm²		62143	...
0.5 - 2.5			101

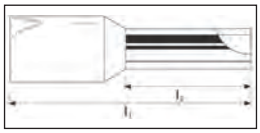
		Wire end ferrules	
Cross section mm²	Contents pieces	62143	...
0.5	500 (10 strips of 50 pieces)		102
0.75	500 (10 strips of 50 pieces)		103
1.0	500 (10 strips of 50 pieces)		104
1.5	500 (10 strips of 50 pieces)		105
2.5	400 (10 strips of 40 pieces)		106

62745 Crimp assortments for wire end ferrules/cable connectors

KNIPEX

Design
- In TANOS MINI systainer® (strong plastic box)
- T-Loc closure for one-handed operation: open or close the systainer® with one turn and connect it to another systainer®
- Opening when connected: Quick and easy access to the contents without disconnecting
- Two stackable plastic inserts, each with six recesses for connectors

Wire end ferrules



NEW

62745 101

	Set contents 62745 101	l_1 mm	l_2 mm	
1	**Crimping tool** for wire end ferrules			Length 180 mm
200 each	**wire end ferrules** with plastic collar	14	8	0.5/0.75/1.0/1.5 mm²
150	**wire end ferrules** with plastic collar	14	8	2.5 mm²
75	**wire end ferrules** with plastic collar	17	10	4 mm²
75	**wire end ferrules** with plastic collar	20	12	6 mm²
50	**wire end ferrules** with plastic collar	22	12	10 mm²
40	**wire end ferrules** with plastic collar	24	12	16 mm²

62745 102

	Set contents 62745 102	l_1 mm	l_2 mm	
1	**Crimping tool** for wire end ferrules Self-adjusting, with lateral guide			Length 180 mm
200 each	**wire end ferrules** with plastic collar	14	8	0.5 / 0.75 / 1.0 / 1.5 / 2.5 mm²
100	**wire end ferrules** with plastic collar	17	10	4 mm²
100	**wire end ferrules** with plastic collar	20	12	6 mm²
50	**wire end ferrules** with plastic collar	22	12	10 mm²

62745 103

	Set contents 62745 103	l_1 mm	l_2 mm	
1	**crimping tool Twistor16** for wire end ferrules Self-adjusting			Length 180 mm
200 each	**wire end ferrules** with plastic collar	14	8	0.5/0.75/1.0/1.5 mm²
150	**wire end ferrules** with plastic collar	14	8	2.5 mm²
75	**wire end ferrules** with plastic collar	17	10	4 mm²
75	**wire end ferrules** with plastic collar	20	12	6 mm²
50	**wire end ferrules** with plastic collar	22	12	10 mm²
40	**wire end ferrules** with plastic collar	24	12	16 mm²

62745 104

	Set contents 62745 104	l_1 mm	l_2 mm	
1	**Crimping tool** for wire end ferrules Self-adjusting, with front insertion			Length 190 mm
1	**automatic wire stripping pliers MultiStrip 10**			Length 195 mm
200 each	**wire end ferrules** with plastic collar	14	8	0.5 / 0.75 / 1.0 / 1.5 / 2.5 mm²
100	**wire end ferrules** with plastic collar	17	10	4 mm²
100	**wire end ferrules** with plastic collar	20	12	6 mm²
50	**wire end ferrules** with plastic collar	22	12	10 mm²

62745 105

	Set contents 62745 105	
1	**PreciForce®** crimping tool	length 220 mm
25 each	**flat plug-in sleeves** 6.3 x 0.8 mm	0.5 - 1.0 mm² / 1.5–2.5 mm²
25 each	**cable lugs,** ring-shaped, Ø 4 mm	0.5 - 1.0 mm² / 1.5 - 2.5 mm²
25 each	**cable lugs,** ring-shaped, Ø 5 mm	0.5 - 1.0 mm² / 1.5 - 2.5 mm²
25 each	**cable lugs,** ring-shaped, Ø 6 mm	1.5 - 2.5 mm² / 4 - 6 mm²
25	**Cable lugs.** ring-shaped, Ø 8 mm	4 - 6 mm²
25	**Butt connectors,** insulated, red	0.5 - 1.0 mm²
25	**Butt connectors,** insulated, blue	1.5 - 2.5 mm²
25	**Butt connectors,** insulated, yellow	4 - 6 mm²

Set	Application	62745 ...
1	For wire end ferrules	101
2	For wire end ferrules	102
3	For wire end ferrules	103
4	For wire end ferrules	104
5	For cable connectors	105

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62166 Heat shrink tubing kits

HellermannTyton

Design
- Operating temperature 55° to 135°
- Shrink temperature above 120°
- Made from polyolefin
- Irradiated
- Self-extinguishing
- The refillable case is the ideal tool for assembly
- Set of universal heat shrink tubing, sorted by size and colour

62166 101

62166 102

Type	Contents Pieces	Version	62166	...
Basic set	220	in case		101
Universal set	975	in case		102

62180 LED pocket torch

ATORN®

Design
- Anodised aluminium housing with LED
- Power supply: Battery
- Scope of delivery includes 1 x AAA battery

Note:
Replacement batteries, see art. no. 39900 304.

NEW

62180

Luminous flux lm (lumens)	Light duration hrs.	Beam range m	Length x Ø mm	Suitable batteries	62180	...
55	1.5	35	91 x 18	1 x AAA		201

62183 LED pen light

ATORN®

62183 101
Design
- LED pocket torch made of aluminium with clip
- The lamp can be switched on and off using a rubberised push button on the end of the lamp
- Delivery includes 2 x AAA batteries

Note:
Replacement batteries, see art. no. 39900 304.

62183 102
Design
- LED pocket torch made of aluminium with clip
- The three light modes (high, medium, low) can be changed using a push button on the end of the lamp
- There is a powerful retaining magnet on the switch
- The micro USB connector is protected with a cover and sealed with a rubber gasket
- Small LED charge level indicator
- Charging time 1.5 hrs

Scope of delivery:
- USB charging cable
- Battery 3.7 V, 320 mAh, 10440 Li-ion

62183 101

62183 102

Micro USB charging (62183 102)

Luminous flux lm (lumens)	LED number	Light duration hrs.	Beam range m.	Length approx. mm	Suitable batteries	Weight (with batteries) g	62183	...
100	1	2.3	30	140	2 x AAA	66		101
110	1	16	35	126	-	56		102

62193 LED Meisterlampe 3

Design
- Small and handy
- Always in your breast pocket
- 6 powerful LEDs
- Rotating clip
- Pen-shaped with pocket clip
- Delivery includes 3 x AAA batteries

Applications
Ideal for illuminating surfaces when accepting orders and performing inspections.

62193

Luminous flux lm (lumens)	LED number	Light duration hrs.	Length approx. mm	Suitable batteries	62193	...
60	6	8	160	3 x AAA		101

62197 LED rechargeable inspection lamp with UV light and USB charging function

ATORN®

Inspection lamp 220RUV
Design
- Switch:
1. UV light
2. Main light 100%
3. Main light 30 %
4. Off
- Rugged and splash-proof plastic housing

Fastening options:
- Robust retaining clip on the rear with integrated retaining magnet
- Ball joint (+/- 45° tilt, can be rotated through 360°) with strong retaining magnet on the bottom

- Li-ion battery pack, 3.7 V, 1100 mAh
- Battery status indicator
- Can be charged via 5-V micro USB socket

Scope of delivery:
- 1x light
- 1x micro USB charging cable 1.0 m
(Can optionally be charged via USB AC & DC charging power supply, not included in scope of delivery)

NEW

IP 54

62197

Main light lm (lumens)*	Main light eff. light duration approx. hrs.	Additional light eff. light duration approx. hrs.	Charging time approx. hrs.	Lamp degree of protection	Impact resistance (EN62262)	Dimensions mm	Weight g	62197	...
220	2.5	6.0	3.0	IP54	IK07	170 x 25 x 21	75		**101**

*LED technology lumens at 0.5 m distance

62194 LED inspection lamp

ATORN®

62194 101
Design
- LED lamp made of ABS (housing) and polycarbonate (lens)
- With magnetic pocket clip
- Delivery includes 3 x AAA batteries

Note:
Replacement batteries, see art. no. 39900 304.

62194 102
Design
- **Rechargeable** inspection lamp made of ABS plastic
- Two lights (on head and side) that can be switched on and off via a pressure switch
- Light modes can only be activated separately
- Magnetic retaining clip on the reverse
- The clip can be rotated 90° and locked at 45° intervals
- The micro USB contact is closed with a cover
- The charge level is indicated by a small LED

Scope of delivery:
- USB charging cable
- 3.7 V battery, 2 x rechargeable 800 mAh 14500 Li-ion

62194 101

62194 102

Luminous flux lm (lumens)	LED number	Length approx. mm	Suitable batteries	62194	...
150	1	158	3 x AAA		**101**
150	2	185	-		**102**

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62168 LED pin/rubber lamp

Note:
Replacement batteries, see art. no. 39900.

62168 401
LED pen light
- **Metal housing**
- Push-button switch
- Ultra-bright LED light
- Housing with clip
- Extremely low energy consumption
- **Scope of delivery includes batteries**

Applications
Practical diagnostic light.

62168 100
Rubber LED lamp
- 1-watt, 120-lumen LED pocket torch made of durable hard rubber
- With practical strap as a mounting option
- **Scope of delivery includes batteries**
- Colour: black

62168 401

62168 100

Length mm	Suitable batteries	Weight g	62168 ...
140	2 x AAA (LR3)	38	**401**
175	2 x AA (LR6)	165	**100**

62169 - 62170 Maglite pocket torches

MAG-LITE® DAS ORIGINAL

Note:
For batteries see art. no. 39900.

62169
Design
- Very high light output
- Housing precision-machined from high-strength aerospace aluminium
- Housing internally and externally anodised for maximum reliability and protection against corrosion
- O-rings provide protection against splash water
- Incl. spare bulb in the sealing cap

62169 201-202
- Batteries **included** in the scope of delivery

62169 204
- Batteries **not** included in the scope of delivery

62170 101
LED version of the Mini Maglite **incl.** batteries

62170 102-103
LED version for 2/D or 3/D pen light
up to 10,000-hour lifetime, **without** batteries

62170 201
Mini Maglite Pro LED
Design
- The perfect combination of classic simplicity and high LED light output
- The ideal pocket torch for everyday
- Splash-resistant precision housing machined from high-strength aerospace aluminium
- Incl. nylon holster
- Scope of delivery **includes** batteries

62170 202
Maglite XL50 LED
Design
- Practical LED pocket torch with the latest MAG-LED® technology
- QuickClick™ with 3 light modes for a variety of applications:
- 100% power
- 25 % power
- Emergency strobe
- Splash-resistant precision housing machined from high-strength aerospace aluminium
- Scope of delivery includes batteries

62170 301
Maglite ML300L
Design
- LED pocket torch for all applications
- Perfectly suited for professional, security and hobby use
- 5 light modes
- 4 switching combinations can be selected
- Up to 117 hours of battery life
- Splash-resistant precision housing machined from high-strength aerospace aluminium
- Batteries not included in the scope of delivery

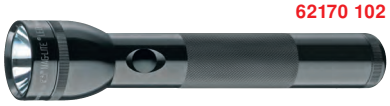
62170 401
Maglite ML150LR
Design
- **Rechargeable** LED pocket torch with **1082 lm** light output
- 5 light modes
- 4 switching combinations can be selected
- Up to 79 hours of battery life
- Splash-resistant precision housing machined from high-strength aerospace aluminium
- Incl. LiFePO4 battery and charging cradle
- Full charge in approximately 2.5 hours
- Up to 2000 charge cycles

62169 202

62169 204

62170 101

62170 102



62170 103

62170 201

62170 202

62170 301

62170 401

Type	Length mm	Luminous flux lm (lumens)	Suitable batteries	Weight (with batteries) g	Halogen 62169 ...	LED 62170 ...	LED 62170 ...	LED 62170 ...	LED 62170 ...	LED 62170 ...
Micro-Mag	127	9	2 x AAA	49	**201**					
Mini-Maglite	146	14	2 x AA	107	**202**					
Mini-Maglite LED	168	97	2 x AA	118		**101**				
2/D	254	168	2 x C	652		**102**				
3/D	314	45	3 x D	856	**204**					
3/D LED	314	168	3 x D	850		**103**				
Mini-Maglite Pro LED	168	272	2 x AA	118			**201** NEW			
Maglite XL 50	122	200	3 x AAA	104			**202** NEW			
Maglite ML300L	298	625	3 x D	748				**301** NEW		
Maglite ML150LR	271	1082	1 x LiFePO4 battery	439					**401** NEW	

62175 Pocket torches (explosion-proof)

PARAT

Note:
Replacement batteries, see art. no. 39900.

62175 103
PARALUX® PX2
Design
- Safety lamp **ATEX certified for zone 1**
- 100% waterproof and dustproof
- Made of non-conductive plastic
- Handy ball-point pen style safety light
- Ideal as inspection lamp that can be stowed in a shirt or jacket pocket
- Rubberised rear switch for one-handed operation
- Tested and certified
- With AAA batteries
- Colour: flame-yellow

62175 203-204
Design
- 100% waterproof and dustproof
- Rubberised rear switch for one-handed operation
- Rubberised lamp head
- With 4x AA batteries

Applications
Suitable for nearly all helmet brackets.

62175 203
PARALUX® PX1
Design
- Polycarbonate (non-conductive)
- **ATEX certified for zone 1**
- Colour: flame-yellow

62175 204
PARALUX® PX0
Design
- XAG-housing (high-impedance conductive plastic)
- **ATEX certified for zone 0**
- Colour: red

62175 103

62175 203

62175 204

Type	Luminous flux approx. lm (lumens)	Beam range approx. m	Length mm	Bulb type	Suitable batteries	Illumination time (at 10°C) hrs.	Weight (with batteries) g	62175	...
PARALUX® PX 2	30	35	142	1W CREE LED	2 x AAA	10	40		**103**
PARALUX® PX 1	120	150	167	3W CREE LED	4 x AA	15 - 50	180		**203**
PARALUX® PX 0 (conductive)	120	150	167	3W CREE LED	4 x AA	15 - 50	180		**204**

PELI

62175 300+400
Design
- Space-saving and powerful in hazardous areas
- The brightest and narrowest safety-tested pen lamp
- Switch at the lamp end for full/momentary illumination
- Scope of delivery **includes** 2 batteries

62175 300
1975 Z1
Design
- ABS housing
- Beam range: 22 m
- **ATEX standard ZONE 1**

62175 400
1975 Z0
Design
- Anti-static PC/PBT (housing) and polycarbonate (screw-on lens)
- Beam range: 24 m
- **ATEX standard ZONE 0**

62175 401
MityLite™ 1965 Z0
Design
- Anti-static PC/PBT (housing) and polycarbonate (screw-on lens)
- 1x 0.5-watt LED
- Beam range: 41 m
- Watertight (IPX7)
- **ATEX standard ZONE 0**
- Supplied with 2 batteries

62175 404
3315 Z0
Design
The new 3315 Z0 LED lamp:
Compact, lightweight and with enormously powerful LED
- Watertight (IP67)
- Beam range 146 m
- **ATEX standard ZONE 0**
- Anti-static, impact-modified PC/PBT housing and polycarbonate screw-on lens
- Supplied with hand strap and 3 batteries

62175 405
3415 MZ0
Design
- 3 modes: Spot light, floodlight or both
- Can be operated with one or both LEDs
- Pivoting head
- Attached clip with integrated magnet for hands-free operation
- Beam range: 133 m
- Dust-protected and watertight: IPX8 (to 1 m)
- **ATEX standard ZONE 0**
- Anti-static PC/PBT (housing) and polycarbonate (screw-on lens)
- Supplied with hand strap

62175 402
HeadsUp Lite™ 2690 Z0
Design
- Anti-static, impact-modified PC/PBT housing
- Beam range: 92 m
- Watertight (IPX7)
- **ATEX standard ZONE 0**
- Supplied with rubber headband and 3 batteries

62175 403
2765 Z0
Design
- Compact LED head lamp
- 4 light modes (High, Low, Downcast, Flashing) to operate the 3 LEDs
- Battery charging status display
- IP54
- Beam range: 78 m
- **ATEX standard ZONE 0**
- Supplied with rubber and fabric strap plus 3 batteries

62175 406
3765 Z0
Design
- Rechargeable 90° lamp has a safety clip for hands-free use
- ABS housing and polycarbonate screw-on lens
- The attached battery compartment cover allows for a quick battery change
- 4-mode button for battery charging status
- Splash-proof, IPX4
- Beam range: 256 m
- **ATEX standard ZONE 0**
- Supplied with charging station and battery

62175 300

62175 400

62175 401

62175 404

62175 405

- With movable head (art. no. 62175 405)

62175 402

62175 403

62175 406

Type	Length mm	Luminous flux lm (lumens)	Beam range m	Suitable batteries	Illumination time (at 10 °C) hrs.	62175 ...
1975 Z1	146	94	22	2 x AAA	8.25	300 NEW
1975 Z0	146	117	24	2 x AAA	2.25	400 NEW
MityLite™ 1965 Z0	139	87	41	2 x AAA	2.5	401
3315 Z0	156	138	146	3 x AA	19	404 NEW
3415 MZ0	189	329	133	3 x AA	6 - 15	405 NEW
HeadsUp Lite™ 2690 Z0	71	74	92	3 x AAA	11	402
2765 Z0	57	141	78	3 x AAA	5 - 14	403 NEW
3765 Z0	136	194	256	1 x NiMH	3.5 - 20	406 NEW

62190 Battery-powered LED pocket torch

IP X6

ATORN®

Design
- 4 modes of operation: High power, low power, flash, SOS
- Battery life 4 hours, illumination then reduces by up to 10% in the high power operating mode
- LED lamp (LED CREE 1 W)
- **Electrical protection IP X6 (protected against high pressure water jets),** in accordance with standard IEC 60529 section 14.2.6

Scope of delivery:
- LED pocket torch
- 1 x Li-ion battery
- Car charger
- Mains charger
- Hand strap

62190

Luminous flux lm (lumens)	LED number	LED watts	Length (retracted) mm	Length (extended) mm	Weight (without battery) g	62190	...
135	1	1	150	157	156		201

62196 LED inspection lamps with UV light

IP 54

ATORN®

Design
- 2 LEDs controlled separately using 2 switches (blue and red)
- With rotating head
- The end of the lamp contains a strong magnet

Black switch:
- The black switch activates the CRI 95 LED with true-colour light
- The artificially generated, warm daylight is particularly suited to illuminating colours in the most realistic way.
- Conventional lamps usually have an LED with a cold, bluish light which changes the colour perception

Blue switch:
- The blue switch activates the UV LED
- The 395 nm black light is particularly suited to finding scratches, dirt particles and oil leaks

Note:
Replacement batteries, see art. no. 39900.

62196 101
Design
- With shirt clip
- Supplied with 1x AA battery

62196 102
Design
- 3 light modes (Low, Medium, High)
- Delivery includes 3 x AAA batteries

NEW

62196 101

62196 102

Detecting oil leaks

Magnet on end of lamp

Rotating head

Luminous flux lm (lumens)	LED number	Light duration approx. hrs.	Beam range m	Length approx. mm	Suitable batteries	Weight g	62196	...
90	2	1.33	24.5	112	1 x AA	82		101
200	2	20	55	149	3 x AAA	160		102

62191 LED pocket torch LED LENSER P7.2

IP X3

LED LENSER®

Design
- The P7.2 is equipped with **Advanced Focus System** lenses and the newly developed **Speed Focus** mechanism
- You can select from a stage-like, circular spotlight or a sharply focused light up to 260 metres in width
- Water resistant to IPX3
- The modular lamp features a **dynamic switch** that allows 3 different brightness levels
- Up to 50 hours of light (in power-saving mode)

Scope of delivery:
- LED pocket torch
- 4 batteries (AAA)
- Hand strap
- Nylon belt pouch
- In cardboard box

Note:
Replacement batteries, see art. no. 39900.

62191

Luminous flux lm (lumens)	LED number	Length mm	Batteries	Weight (with batteries) g	62191	...
320	1	130	4 x AAA	175		101

Special tools / PPE

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

LED LENSER®

The LED LENSER i-series is designed specifically for the needs of industry and trade.

62189 101
LED LENSER i6
Design
- Powerful, high-end LED and speed focus lens for concentrated light over large areas or a large, uniform circle of light for optimum illumination of the working area
- With dynamic sensor switch and two switchable lighting levels
- With clip for shirt/coat pocket and belt pouch

62189 102
LED LENSER i6R
Design
- **Rechargeable** pen lamp
- Robust metal housing
- High-end power LED
- Advanced Focus System
- Quickly switch to high-power or low-power modes using the end cap switch
- Charging time of only 3 hours
- With charging station

62189 103
LED LENSER i2
Design
- Small LED lamp with a big performance
- Small and compact with a light output that puts any conventional pocket torch in the shade
- With speed focus lens for concentrated light over large areas or a large, uniform circle of light for optimum illumination of the working area

62189 104
Design
LED LENSER i7
- The professional torch for anyone who really needs light
- With powerful, high-end LED and speed focus lens for concentrated light over large areas or a large, uniform circle of light for optimum illumination of the working area
- With dynamic sensor switch and two switchable lighting levels
- With belt pouch

62189 105
LED LENSER i7R
Design
- As per art. no. 62189 104, but **rechargeable**
- With charging station and USB cable for connecting to a PC/laptop

62189 107
LED LENSER i9
Design
- When handling water or oil, you can very quickly lose your grip. The LED Lenser i9 industrial pocket torch provides optimal light even in complex situations and maintains a firm grip: The special diamond knurled surface of this compact industrial pocket torch lets you keep a handle on everything. Even with work gloves on, the front switch ensures trouble-free operation. Ideal for anyone who needs to get their hands dirty now and then.

62189 108
LED LENSER i9R
Design
- As per art. no. 62189 107, but **rechargeable**

62189 106
LED LENSER iSEO3
Design
The LED LENSER iSEO3 is a lightweight headlamp of excellent quality, supporting you with custom Smart Light Technology across the whole construction site. A particularly clever feature is the red reading light for glare-free reading of documents, maps or plans.

IP X4 62189 101

IP X4 62189 102

IP X4 62189 103

IP X4 62189 104

IP X4 62189 105

IP X4 62189 107

IP X4 62189 108

IP X6 62189 106

Type	Luminous flux lm (lumens)	Light range m	Length mm	LED number	Batteries	Rechargeable battery	Weight (with batteries) g	62189	...
i6	140	120	166	1	3 x AAA	-	75		101
i6R	120	100	170	1	-	3 x AAA	82		102
i2	120	170	102	1	3 x AAA	-	110		103
i7	220	180	130	1	4 x AAA	-	175		104
i7R	220	180	130	1	-	4 x AAA	175		105
i9	400	260	187	1	1 x C	-	330		107
i9R	400	260	187	1	-	1 x C	320		108
iSEO3	100	100	-	2	3 x AAA	-	105		106

62191 LED headlamp LED LENSER H7.2

IP X6

LED LENSER®

Design
- For peak brightness: With this LED, the LED LENSER achieves a very high light output
- Light head can be tilted
- **Front switch** - one switch on the light head for one-handed operation
- **Multi-functional switch** - multi-functional switch for quick and easy operation of specific lighting functions
- **Dimmable** - infinite regulation of light level
- **Transportation lock** - prevents accidental activation of the light
- **IPX6** - protection against powerful water jets

Light functions:
1. Power - high light output for any situation
2 applies as the year of use. Low Power - economical light for long run times, glare-free reading and working
3 applies as the year of use. Boost - brief maximum power for more brightness
4 applies as the year of use. Flash - automatic pulses of light at regular intervals

Scope of delivery:
- 4x AAA batteries
- Removable headband
- Smart Instruction Card
- Operating instructions

Note:
Replacement batteries, see art. no. 39900.

62191 102

Luminous flux (lumens) stage 1 / stage 2	Light duration (hrs.) stage 1 / stage 2	LED number	Head Ø mm	Batteries	Weight (with batteries) g	62191	...
250 / 20	5 / 30	1	130	4 x AAA	165		**102**

62195 LED headlamps

ATORN®

62195 101
Design
- The ABS headlamp has a pressure switch on the light head to switch both lamps on and off
- The battery compartment is located behind the light bulbs
- The headband is interchangeable

Scope of delivery:
- Two headbands (one made of rubber, the other of fabric)
- 3 x AAA batteries

Note:
Replacement batteries, see art. no. 39900.

62195 102
Design
- The rechargeable, aluminium headlamp has a pressure switch on the light head to control the 4 light modes (High, Medium, Low & Strobe)
- Pressing the switch again activates boost mode for up to 10 seconds
- The battery is located on the back of the wearer's head in a rugged ABS housing
- The lamp has been drop tested from 2 m
- Easily removable battery is charged via the included USB charging cable, charging time approx. 4 hrs
- There is also a red signal lamp on the rear that can be used as a continuous or flashing light
- XP-GS Cree LED chip

Scope of delivery:
- Fixed headband
- USB charging cable

62195 101

62195 102

IP X6

62195 102

Rear: additional red signal lamp that can be used as a continuous or flashing light

Luminous flux lm (lumens)	Light duration hrs.	LED number	Batteries/ rechargeable	Weight (with batteries/rechargeable) g	62195	...
100	60	1	3 x AAA	83		**101**
350	55	1	3.7-V battery 2600 mAh	178		**102**

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88001 Slim LED cordless work lamp with USB charging function

IP 54

ATORN®

Professional inspection light 600R SLIM

Design
- Switch:
1. Auxiliary light
2 applies as the year of use. Main light 100%
3 applies as the year of use. Main light 50 %
4 applies as the year of use. off
- Rugged and splash-proof plastic housing with rubberised grip area
- Lamp head with slim aluminium housing

Fastening options:
- Ball joint (+/- 45° tilt, 360° rotation) with strong retaining magnet on the bottom
- Hook (can be folded out by 210°, can be rotated using the ball joint)
- Li-ion battery pack, 3.7 V/2,600 mAh
- Battery status indicator
- Residual capacity display:
- Can be charged via 5-V micro USB socket

Scope of delivery:
- 1x light
- 1x micro USB charging cable 1.5 m
- 1x USB AC charging power supply

(Can optionally be charged via vehicle adapter, not included in scope of delivery)

NEW

88001

Main light lm (lumens) *	Auxiliary light lm (lumens) *	Main light eff. light duration approx. hrs.	Auxiliary light eff. Light duration approx. hrs.	Charging duration approx. hrs.	Lamp Degree of protection	Impact resistance (EN62262)	Dimensions mm	Weight g	88001	...
600 / 225	120	2	10	4,0	IP54	IK07	384 x 45 x 41	250		**201**

* LED technology lumens at 0.5 m distance

88002 LED rechargeable workshop lamp with USB charging function

IP 54

ATORN®

Design
- Switch:
1. Auxiliary light
2. Main light 100%
3. Main light 50 %
4. off
- Rugged and splash-proof plastic housing with rubberised grip area
- Lamp handle can be rotated 180° and locked in eight positions
- 2x fold-out hooks that can be rotated by 360°
- 2x holding magnets on the rear
- 1x magnet on the underside
- Li-ion battery pack, 3.7 V/2,600 mAh
- Battery status indicator
- Residual capacity display:
- Can be charged via 5-V micro USB socket

- Delivery incl. 1.5 m micro USB charging cable and USB AC charging power supply

88002

Main light lm (lumens) *	Auxiliary light lm (lumens) *	Main light eff. light duration approx. hrs.	Auxiliary light eff. Light duration approx. hrs.	Charging duration approx. hrs.	Lamp Degree of protection	Impact resistance (EN62262)	Dimensions mm	Weight g	88002	...
440 / 280	180	6	9	4,0	IP54	IK07	266 x 48 x 32	340		**301**

* LED technology lumens at 0.5 m distance

88003 LED rechargeable folding lamp with USB charging function

IP 54

ATORN®

Design
- Switch:
1. Main light 100%
2. Main light 50 %
3. off
- Rugged and splash-proof plastic housing with rubberised grip area
- Flexible joint can be rotated through 340° and locked in 12 positions
- Pull-out hook that can be rotated 360°
- Belt clip on the underside
- Holding magnet on the underside
- Li-ion battery pack, 3.7 V/1,550 mAh
- Battery status indicator
- Can be charged via 5-V micro USB socket

- Delivery incl. 1.5 m micro USB charging cable and USB AC charging power supply

88003

Main light lm (lumens) *	Main light eff. light duration approx. hrs.	Charging duration approx. hrs.	Lamp degree of protection	Impact resistance (EN62262)	Dimensions mm	Weight g	88003	...
220 / 105	10	4.5	IP54	IK07	131 x 66 x 28	183		**201**

* LED technology lumens at 0.5 m distance

88004 COB LED rechargeable work lamps

SCANGRIP®
INNOVATION FROM DENMARK

Design
- Slim design
- The COB LED light band ensures uniquely powerful and completely uniform illumination, ideal for work lighting

88004 101
MINIFORM
Design
- Ultra-slim pocket work lamp
- Comfortable and ergonomic handle
- Two-stage switch
- Flexible light head can be swivelled up to 180°
- Strong, built-in magnet
- Robust hook for mounting to work belt

88004 102
UNIFORM
Design
- Extremely robust work light
- Waterproof (IP65) for operation in the damp and dirty environment of a workshop
- Intelligent charge level indicator
- Two-stage switch
- Flexible light head can be swivelled up to 180°
- Strong, built-in magnet
- Robust hook for mounting to work belt
- Sleek charging station
- Simple wall mounting

88004 103
UV-FORM
Design
- The most powerful UV lamp on the market
- UV-FORM is a rechargeable LED work light with powerful 1.5-W UV light on top
- Flexible light head can be swivelled up to 180°
- Strong, built-in magnet
- Robust hook for mounting to work belt
- It is a combination of indispensable universal work light and UV detection, eliminating the need for specific UV detection lamps
- UV light is used for leak detection in air conditioning systems with the help of trace elements
- It is also suitable for detecting leaks in larger, complex refrigeration/freezing systems, process cooling systems, heat pumps, etc.

88004 104
SLIM
Design
- The only 3-in-1 compact lamp on the market
- 3-in-1: Inspection light, work light and pocket torch in one lamp
- Ultra-slim and compact design
- Powerful, built-in magnet and hook for flexible positioning

Super-slim light
for inspection tasks:
The ultra-thin, compact design of only 9 mm in diameter allows inspection of the narrowest, most difficult-to-access spaces.
This makes the SLIM lamp ideally suited for the most demanding and complex inspection tasks.
Pocket-sized work light:
The SLIM lamp is equipped with a 100% folding light head. Fully folded, the lamp works like a traditional hand-held work lamp. When folded, the SLIM is merely pocket size - compact and convenient to carry anywhere.
Spotlight function:
The powerful, 100-lumen spotlight allows the SLIM light to also function as a pocket torch.
Its unique, never-before-seen functionality means that the lamp also functions as a torch when folded, offering a powerful spotlight as well as a practical, firm hold.

IP 65

88004 101

IP 65

88004 102

IP 20

88004 103

88004 104

IP 30

Type art. no.	MINIFORM 88004 101	UNIFORM 88004 102	UV-FORM 88004 103	SLIM 88004 104
	COB-LED	COB-LED / Spot: High-power LED	COB LED/high-power UV spotlight	COB LED/Spot: High-power LED
Lux (stage 1/stage 2)	100/200 lux@0.5 m	475/950 lux@0.5 m	200/400 lux@0.5 m	400/800 lux@0.5 m
Lux (spot)	800 lux@0.5 m	0.5 m 6000 lux@	-	4800 lux@0.5 m
Lumens (stage 1/stage 2)	100/200 lumens	250/500 lumens	125/250 lumens	250/500 lumens
Lumens (spot)	75 lumens	175 lumens	-	100 lumens
Operating time (stage 1/stage 2)	6 hrs/3 hrs	4.5 hrs/2 hrs	5 hrs/2.5 hrs	5 hrs/2.5 hrs
Operating time (spot)	4 hrs	3 hrs	3 hrs	-

Type	Charging duration hrs.	Battery voltage/capacity V/mAh	Degree of protection	88004 ...
MINIFORM	3.0	3.7 / 1000 Li-ion battery	IP65	101
UNIFORM	5.0	3.8 / 3000 Li-ion battery	IP65	102
UV-FORM	3.0	3.7 / 1600 Li-ion battery	IP20	103
SLIM	4.5	3.8 / 2800 Li-ion battery	IP30	104

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88011 LED cordless work spotlights

ATORN®

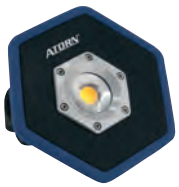
Design
- Switch:
1. Low 20%
2 applies as the year of use. Middle 45%
3 applies as the year of use. High 100%
4 applies as the year of use. off
- Protective rubber edge
- Handle can be swivelled and rotated
Fastening option:
- Tripod hole in base
- Battery status indicator
- Residual capacity display:
- Can be charged via barrel plug socket
- 5 V 1 A USB output

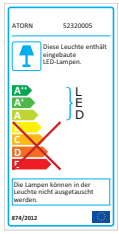
Advantage:
- Constant light in the day and at night
- Can be operated while charging

Scope of delivery:
- 1x spotlight
- 1x AC power supply
- 1x magnet

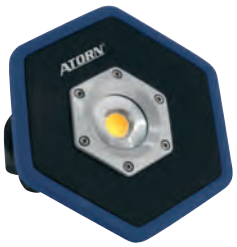
NEW

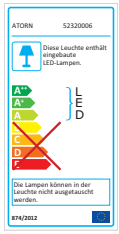
88011 101





88011 102





Main light approx. lm (lumens) *	Colour rendering index CRI (colour match) *	Battery operation eff. Light duration approx. hrs.	Li-ion battery pack V/mAh	Charging duration Approx. hrs.	Lamp Degree of protection	Impact resistance (EN62262)	Dimensions	Weight mm	88011 g	...
1.000	> 95	9	11.1 / 2.200	3.5	IP54	IK07	209 x 190 x 73	720	**114.00**	101
4,000	> 80	6	11.1 / 5.200	6.0	IP54	IK07	265 x 237 x 60	1340	**221.00**	102

* LED technology lumens at 0.5 m distance

62280 Three-punch pliers

HellermannTyton

Applications
An expansion tool for quick and easy application of grommets of all kinds. The grommets are pushed over the 3 pins and opened by squeezing the pliers.

This means the grommets can be pulled over the cable and are positioned on the cable by closing the pliers.

62280

Pliers type	For Hellermann grommets size	For inner Ø mm	Max. grommet length mm	62280	...
NA - 0/1	0 - 1	1.25 - 1.75	28		101
NA - 1/K/3	1 K-3/30 mm long	2.50 - 5.00	28		102
NA - 4/5	4 - 5	7.50 - 10.00	50		103
NA - 8/10	8 - 10	12.00 - 17.00	60		104

62300 Nylon fish tape

Design
Made of stretched monofilament. With solid steel end pieces and additional guide spring, approx. 130 mm long, pulling eyes on both ends, material diameter 4 mm, tensile strength 900 N.

62300

Length m	62300	...
10		401
15		402
20		403
25		404

62310 Kati Blitz Compact fish tape set

Design
The 3 mm thick polycarbonate, fibreglass rod is elastic but can be pushed like a rod. Each individual glass fibre is coated with polyester resin. The fibreglass core is additionally reinforced. The special guide head sits on a guide spring and allows you to work even where conduits are tightly curved. With an integrated range of accessories and special handle (minimum radius 30 mm).
Tensile strength at least 100 kg.

The Kati Blitz Compact set comprises:
1x guide head 7–10 mm Ø,
5x M5 end sleeves
3x connection sleeves
5x M5 pulling eyes
1 special Kati-Grip handle
1 cable puller 6–9 mm Ø
1 bottle of fibreglass repair adhesive, 3 g.

Note:
30 and 50-m lengths available on request.

62310

Length m	62310	...
20		101

Special tools / PPE

62313 Detachable cable ties

HellermannTyton

62313

Design
- Flexible and resilient mounting solution, can be re-opened
- Made of polyamide, meets UL94 HB for fire spread
- Operating temperature range between -40 °C and +85 °C, briefly even up to +105 °C
- Maximum tensile load 88 kg or 888 N
- Colour: yellow

Dimensions approx. mm	Pack = pieces	62313 ...
750 x 12	5	101

62314 Detachable cable ties

SapiSelco

62314

Design
- Excellent flexibility even with large fluctuations in temperature
- Above-average colour fastness even in direct sunlight
- Resistant to most chemicals
- Self-extinguishing in accordance with **the UL94 V2 POLYAMIDE standard** within max. 30 seconds
- Tensile load 160 kg

Dimensions approx. mm	Pack = pieces	62314 ...
3.8 x 240	100	101
4.4 x 320	100	102
5.6 x 500	100	103

62315 Cable ties

SapiSelco

Design
- Made of halogen- and silicone-free polyamide 6.6
- Excellent flexibility even with large fluctuations in temperature
- Resistant to most chemicals
- **Self-extinguishing** in accordance with the **UL94 V2 POLYAMIDE** standard within max. 30 seconds
- Different self-extinguishing properties to art. no. 62315 302-306, in this case the self-extinguishing properties correspond to **UL94 HB**

62315 201-208
Design
- Standard
- Above-average colour fastness even in direct sunlight

62315 301-306
Design
- **UV-stabilised**
- Cable ties for outdoors
- The UV-series cable ties are made of a special material and resist the effects of UV radiation significantly longer than the standard material
- UV-stable for 10 years
- TÜV-certified

62315 401-405
Design
- With **stainless steel tongue** for demanding applications
- The steel tongue cuts firmly into the body of the cable tie and in any position
- The larger tongue is made of stainless steel, which has an extremely high mechanical strength and excellent resistance to corrosion

SELFIT 62315 201-208

UV 62315 301-306

m3.t 62315 401-405

Dimensions approx. mm	Pack = pieces	Standard 62315 ...	UV-stabilised 62315 ...	With stainless steel tongue 62315 ...
2.5 x 100	100	201	301	401
3.5 x 140	100	202		402
4.5 x 186	100			403
4.5 x 200	100	203	302	
4.5 x 280	100	204	303	
4.5 x 360	100	205	304	404
7.5 x 360	100	206	305	405
7.5 x 450	100	207	306	
12.5 x 1000	100	208		

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62317 Cable tie tensioner

Design
Rugged setting tool. The end of the tie is cut off at the head with no sharp overhang.

Applications
For quick and easy installation of cable ties.

62317

Length mm	For tie width to mm	Bundle Ø to max. mm	62317	...
170	4.8	108		101
165	7.8	130		102

62318 Cable tie gun

Weidmüller

Applications
Processing tool for tensioning and cutting cable ties.

62318

Length mm	For tie width mm	Weight approx. g	62318	...
160	2.4 - 4.8	309		101

62319 Cable tie tensioner

PANDUIT

Design
- Bevelled tie insertion point allows the tie to be inserted quickly into the side of the tool, speeding up installation
- Long, narrow nose improves the installer's field of vision and allows better access in tight spaces
- Easy-to-read label for tension adjustments, eliminating unnecessary guesswork
- Tension adjusting knob with 1/2-step tension adjustment for simpler work, as only one setting needs to be made
- Lightweight, impact-resistant resin housing
- Soft, non-slip trigger and rear handle cushion the fingers and hands while working
- Ergonomically shaped handle for natural and comfortable force transmission from all fingers when operating the trigger
- Tool hanging hooks for easy storage
- Improved cable tie cutting mechanism reduces impact on installer's hand by 40%, which is the lowest in the industry
- Less force is required at the handle to cut the cable tie – 15% less than with comparable tools

Applications
Suitable for cable ties with sub-miniature, miniature, medium and standard cross sections.

62319

Type	Weight approx. g	62319	...
GTS	294.5		101

62323 Fitting screw wrench DIN 49516

Design
Insulating handle tested according to VDE.

Applications
Combined for threaded inserts 2-25 A and 35-63 A.

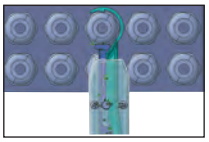
62323

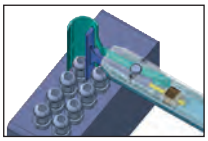
Length mm	62323	...
107		101

62324 Wrench for PG threaded fittings

Design
- Made from impact-resistant PA plastic
- **Comfortable, non-slip handling**
- Jaws made of metal
- Step-free, one-handed adjustment of wrench size
- Countersinking prevents unwanted adjustment of clamping jaws

62324





Width across flats mm	Length mm	Weight g	62324	...
11 - 24	190	190		101
24 - 32	204	240		102

92306 Manual stapler

92306 102
Twin-Fix MP-10
Design
- Processes staples of 6, 8, 10 mm length, solid metal construction
- Easily accessible staple magazine
- Large staple capacity
- Padded grip
- Transport lock prevents empty firing
- Stapler nose is flush to housing, allows targeted driving of staples into corners and edges

Applications
For all professional work with wood. For attaching upholstery, labels, cardboard, for decorating, tensioning, etc.

92306 301-303
Staples Regur 11
Design
- Zinc-plated
- Box of 5000 pieces (6, 8, 10 mm)

Applications
For securing roofing, insulation panels, soundproofing, membranes, all kinds of films, etc.

92306 307-308
Staples Regur HP-7 / HP-10
Design
- Plastic
- Box of 1000 pieces (7, 10 mm)

92306 102

92306 301-303

92306 307+308

Type	Length mm	92306 ...
Twin-Fix MP-10	-	102
Staples	6	301
Staples	8	302
Staples	10	303
Plastic staples	7	307
Plastic staples	10	308

62325 Universal control cabinet key

62325 203
Functions:
1.-2. Female square drive 6, 7-8 mm
3. applies as the year of use. Triangular socket drive 9 mm
4. applies as the year of use. Keyhole insert 3-5 mm
5. applies as the year of use. Double bit on chain, slotted 1 x 7 mm + Phillips PH2
6. applies as the year of use. Plastic adapter 1/4 inch

62325 201
Functions:
1.-2. Female square drive 6, 7–8 mm
3. applies as the year of use. Triangular socket drive 8 mm
4. applies as the year of use. Keyhole insert 3-5 mm
5. applies as the year of use. Double bit on chain, slotted 1 x 7 mm + Phillips PH2
6. applies as the year of use. Plastic adapter 1/4 inch

62325 202
Functions:
1. Male square drive 4-10 mm
2.-4. Female square drive 5, 7, 8 mm
5. applies as the year of use. Triangular socket drive 8 mm
6. applies as the year of use. Double bit on chain, slotted 1 x 7 mm + Phillips PH2
7. applies as the year of use. Plastic adapter 1/4 inch

62325 206
For virtually all technical closures, e.g. in gas and water supplies, air-conditioning and ventilation, for inspection flaps, sealing street lamps, bins, waste containers, etc.
Functions:
1.-4. Female square drive 5, 6, 7-8, 9-10 mm
5.-7. Female triangular drive 7, 8-9, 10-11 mm
8. applies as the year of use. Keyhole insert 3-5 mm
9. applies as the year of use. Half moon 6 mm

62325 203

62325 201

62325 202

62325 206

Size mm	Weight g	62325 ...
45 x 45	50	203
72 x 72	70	201
90 x 60	79	202
96 x 92	204	206

62326 Universal switch cabinet key TwinKey

KNIPEX

Design
- 8-leg version: two four-way socket wrenches, connected with magnets to save space
- Reversible bit: Slotted 1.0 x 7 mm and Phillips PH 2
- Wrench and reversible bit connected with robust stainless steel wire cable
- Weight-optimised die-cast zinc combination
- High-quality surface coating

Functions:
1.-4. Square 5 / 6-7 / 8-9 / 10-11 mm
5.-7. Triangle 7-8 / 9-10 / 11-12 mm
8. applies as the year of use. Two-way bit 3-5 mm
9. applies as the year of use. Half moon 6 mm
10. applies as the year of use. Stepped square 6-9 mm

Applications
Multifunctional key for actuating closures in building technology (heating and plumbing, air-conditioning and ventilation technology, electro-technology), gas and water supplies and shut-off systems.

62326

Length mm	Weight g	62326 ...
95	135	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62327 Universal construction wrench

Design
- Zinc, matt nickel-plated

Functions:
1. Square drive 6/7/8 mm
2. applies as the year of use. Step square 7-10 mm
3. applies as the year of use. Hex key 3 mm
4. applies as the year of use. Driver for locks with cylinder notch
5. applies as the year of use. Measuring scale up to 70 mm

62327

Size mm	Weight g	62327	...
195 x 68	193		101

62328 Multi-function wrench MasterKey

ATORN®

62328 101
MasterKey construction
Design
- 6 different closures in one wrench
- Magnetic reversible bit: PH2 cross and 1 x 7 mm slot
- With bottle opener function

Functions:
1. Hexagon socket, 3 mm
2. applies as the year of use. Square drive, 5 mm
3. applies as the year of use. Square drive, 6 mm
4. applies as the year of use. Square drive, 8 mm
5. applies as the year of use. Triangular socket drive 9 mm
6. applies as the year of use. Step square 6-10 mm

Applications
For closures in plumbing, heating, ventilation, air conditioning and much more.

Quality
Die cast zinc.

62328 102
MasterKey electric
Design
- 5 different closures in one wrench
- Magnetic reversible bit: PH2 cross and 1 x 7 mm slot
- With bottle opener function

Functions:
1. Square drive, 5 mm
2. applies as the year of use. Square drive, 6 mm
3. applies as the year of use. Square drive, 8 mm
4. applies as the year of use. Triangular socket drive 9 mm
5. applies as the year of use. Two-way bit 3-5 mm

Applications
For closures in plumbing, electrical, heating, ventilation, air conditioning and much more.

Quality
Die cast zinc.

62328 101 62328 102

Type	Size mm	Weight g	62328	...
MasterKey construction	135 x 75	90		101
MasterKey electric	110 x 75	70		102

62354 Voltage tester, non-contact

Testboy

Design
- Housing made from impact-resistant and break-proof ABS plastic
- Visual and vibrating indicator
- LED pocket torch function
- Voltage range 12–1000 VAC
- TÜV tested and approved
- EN 61010-1:2010, CAT III 1000 V
- Scope of delivery includes 2x 1.5 V AAA batteries

Applications
Detection of alternating voltages without current flow, detection of cable breaks and faulty fuses, testing of faulty switches, sockets, junction boxes, transformers, e.g. low voltage lighting systems and light chains. Detection of phase conductors in single-phase and three-phase systems. Checks the function of circuit breakers, detects faulty in-line switches and live cables in distribution boxes.

Note:
Replacement batteries, see art. no. 39900.

NEW

62354

Length mm	62354 ...
160	201

62356 Magnetic field tester, non-contact

Testboy

Design
- LED display
- Integrated LED pocket torch (light duration approx. 80 hours)
- TÜV/GS tested
- Scope of delivery includes 2 x 1.5 V AAA batteries and operating instructions

Applications
For fast and precise testing of electronic switches and valves. A function test can be carried out without any set-up time or machine downtime. An illuminated tip shows all permanent and synthetic magnetic fields. The device is so sensitive that in many cases it is not even necessary to remove covers or panelling. A permanent magnet is attached for the self-test.

Note:
Replacement batteries, see art. no. 39900.

62356

Length mm	62356 ...
160	101

62355 Universal voltage tester (vehicle test light)

62355 101
Design
Rugged brass housing with 720 mm connection cable and crocodile clip, probe tip can be unscrewed, with needle tip.
Applications
Also for testing through wiring harnesses.

62355 201
Weidmüller
Design
Because of its low power consumption of 1.5 mA, the Car Check is especially suitable for troubleshooting electronic components.
The tester has an extra-long 100-cm cable. The voltage ranges 5, 12, 24 and 48 V are shown using a bright LED indicator. Polarity is indicated by means of an additional fifth LED.
The probe has 2 different tips (probe, cable probe).
Applications
Specially designed for applications on cars and bicycles.

62355 101

62355 201

Measuring range Volts	Tip mm	Length mm	62355 ...
6 - 24	12	115	101
3 - 48	15	137	201

62359 Single-pole voltage tester 150-250 volts

ATORN®

Design
- Ergonomically shaped, transparent handle
- With glowing tubes and clip
- Chromium-vanadium steel blade, plastic coated
- **In accordance with VDE 0680**

Applications
For testing DC and AC voltage 150–250 volts as well as determining polarity (positive or negative).

62359

Cutting width x Thickness mm	Blade length mm	Total length mm	62359 ...
3.0 x 0.8	70	143	101

Special tools / PPE

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62360 - 62361 Single-pole voltage tester 150-250 volts

Design
- **Complies with DIN 57680 part 6, VDE 0680/6**
- With screwdriver and clip

Applications
For checking DC and AC voltage 150–250 volts as well as determining polarity (positive or negative).

62360

62361

Cutting width x Thickness mm	Blade length mm	Total length mm	Wera 62360	...	BAHCO 62361	...
3.0 x 0.5	70	142		101		
3.5 x 0.5	42	134				201

62384 Dual-pole voltage and continuity tester

FLUKE®

Design
4 detection methods for AC/DC voltages:
1. Status and measured values are clearly represented via LEDs
2. applies as the year of use. Measured valuedisplayed on bright digital display
3. applies as the year of use. Continuity test with audible signal
4. applies as the year of use. Vibration sensor provides tactile feedback

- Measured value display with backlight
- Battery voltage display
- Voltage detection even in discharged batteries
- Improved mounting of measuring tips for safe storage
- Rotary field indicator for 3-phase systems
- RCD testing function
- A load can be engaged using the secondary button in order to pull a higher current from the circuit being tested and trigger residual current devices (RCDs)
- Measured value can be held on the display
- Integrated electric pocket torch
- Rapid determination of current-carrying conductors by means of single-pole phase test
- Sliding probes
- Protection for probe tips and accessories during storage
- The guard allows you to always keep one hand free when opening safety power outlets
- Detection of damaged test leads with WearGuard™ insulation
- **Approved in accordance with IEC 61243-3, VDE 0682 part 401**

Scope of delivery:
- 2x AAA (LR03) batteries
- 2x GS38 probe tip protectors
- 2x 4 mm probe extensions
- Instruction manual

Note:
Replacement batteries, see art. no. 39900 304.

62384 101

62384 102

Art. no.	62384 101	62384 102
Type	**T130 VDE**	**T150 VDE**
Functions:		
Backlit LEDs	x	x
Backlit digital LCD display	x	x
Continuity test - visual indicator	x	x
Continuity test - audible indicator	x (can be switched off)	x (can be switched off)
Vibration when load engaged	x	x
Display hold	x	x
Voltage test	x	x
Polarity indicator	x	x
Resistance measurement	-	x
Switchable load, can also trigger RCD	x	x
Single-pole test for phase determination No counter potential	x	x
Rotation direction indicator	x	x
Probe tip protection	x	x
Voltage display for discharged batteries	x	x
Electric pocket torch function	x	x
Wear indicator for test leads	x	x
Specifications:		
DC and AC voltage	6–690 V	6–690 V
Continuity testing	0–400 kOhms	0–400 kOhms
Frequency measurement	0–400 Hz	0–400 Hz
Rotary phase direction	100–690 V	100–690 V
Resistance measurement	-	up to 1999 ohms
Response time (LEDs)	less than 0.1 secs	less than 0.1 secs
200-kOhm input impedance	current draw 3.5 mA at 690 V Current draw 1.15 mA at 230 V	current draw 3.5 mA at 690 V current draw 1.15 mA at 230 V
7-kOhm input impedance	current draw 30 mA at 690 V	current draw 30 mA at 690 V
Safety specification	CAT III 690 V, CAT IV 600 V	CAT III 690 V, CAT IV 600 V
Dimensions (H x W x D)	260 x 70 x 38 mm	260 x 70 x 38 mm

Type	62384 ...
T130 VDE	101
T150 VDE	102

62388 Electrical tester with FieldSense technology

FLUKE®

Design
- HOLD button to freeze measured values on the display and make work easier
- Easy-to-read display with backlight
- Measuring instrument magnetic holder TPAK for convenient, hands-free operation

Voltage measurement without test leads
The open-jawed current clamp allows you to measure AC voltages without making contact with voltage-carrying points using test leads*. Without opening the covers or removing screws on terminal blocks. For conductor cross-sections of up to 120 mm2 and currents up to 200 A. This will significantly change your work.
Safer. Quicker. Easier.

Scope of delivery:
- Electrical tester
- Connected test leads with removable 4-mm protective probe caps
- User documentation

Note:
**Requires a capacitive path to earth, which in most applications is provided through the user. In some cases, the earth connection must be established using a test lead.*

True RMS

62388

Type	62388 ...
T6-600	101
T6-1000	102

Test specifications Function	requires test leads	62388 101 (T6-600) range	62388 102 (T6-1000) range	resolution
AC voltage measurement with FieldSense	No	600 V	1000 V	1 V
AC current measurement with FieldSense	No	200 A	200 A	0.1 A
Frequency measurement with FieldSense	No	-	45 to 66 Hz	1 Hz
AC voltage	Yes	600 V	1000 V	1 V
DC voltage	Yes	600 V	1000 V	1 V
Resistance	Yes Yes Yes	2000 ohms	2000 ohms 20.00 kOhms 100.0 kOhms	1 ohm 0.01 kOhms 0.1 kOhms
Dimensions		61.1 x 259.3 x 43.8 mm	61.1 x 259.3 x 43.8 mm	
Jaw opening max.		17.8 mm	17.8 mm	
Measurement category		CAT III 600 V	CAT III 1000 V / CAT IV 600 V	

62396 Digital multimeter

FLUKE®

Design
- Unique function for accurate voltage and frequency measurements on speed-controlled motor drives where harmonics overlap the base frequency
- The integrated thermometer allows you to easily take temperature measurements without needing to carry a separate thermometer
- Display with large digits and bright two-stage backlighting makes the measuring device significantly easier to read
- True RMS measurement of voltage and current for precise measurements of non sine-wave signals
- Selectable filter for precise voltage and frequency measurements on motor drives
- Basic accuracy of 0.05% for DC voltage
- 6000 digits, 3-3/4 places
- 4-1/2 places for precise measurements (20,000 digits)
- Measurement of up to 1000 VAC and DC
- Measurement of up to 10 A, 20 A for up to 30 seconds
- Integrated thermometer, so you need to carry one less device (including TC sensor)
- Frequency up to 200 kHz and % duty cycle
- Resistance, continuity and diode test
- 10,000 µF capacitance range for components such as motor capacitors
- Min/max/average value capture with min/max alert for automatic detection of deviations
- Peak detection for determining short-term transients up to 250 µs
- Relative value mode to remove test lead interference for low-impedance measurements
- Automatic and manual range selection for maximum flexibility
- Touch Hold to capture stable readings unaffected by interfering signals
- Large display digits and two-stage backlighting for improved readability
- Analogue bar graph display for fast signal changes or unstable signals
- Input Alert beeps if the input sockets are connected incorrectly
- Automatic shut-off can be adjusted flexibly to extend battery life
- Separate battery compartment for quick battery change without damaging the calibration seal
- Classic design with new, removable holster including built-in holder for test leads and probes
- Lifetime warranty

Scope of delivery:
- Measuring lines
- Crocodile clips
- Yellow holster
- Temperature probe
- 9-V battery (installed)
- CD-ROM (user guide, technical notes and operating instructions)

Functions	measuring range
DC voltage	1000 V
AC voltage	1000 V
DC current	10 A**
AC current	10 A**
Resistance	50 MOhms
Conductivity	60 nS
Capacitance	999 µF
Frequency	> 200 kHz
Temperature	-200°–+1090°
80BK temperature probe	-40°–+260°

** 20 A up to 30 seconds

Type	62396	...
87 V		101

62396

62383 Digital multimeter with thermal imaging camera

FLUKE®

Design
- Fully equipped multimeter **with integrated thermal imaging camera**
- **15 measurement functions,** including: AC voltage with low-pass filter, DC voltage, resistance, continuity, capacitance, diode test, min/max/average value, AC current (with iFlex®), frequency
- Thermography for fast and reliable detection of many electrical problems, reduces the need for numerous time-consuming measurements and inspections
- The combination of **two measuring devices in one** is designed to help increase productivity. You no longer have to go back to the vehicle or office to return a borrowed camera or to wait for a thermography expert
- The measuring device is designed for durability, can survive a fall from a height of 3 m and is fitted with a rubber holster to improve protection of the device
- If there are no obstacles to transmission, you can transfer measured values and thermal images to your smartphone wirelessly from a distance of up to 6 m
- Thermal image resolution: 80 x 60 pixels
- Colour LCD screen with 8.9-cm/3.5-inch diagonal
- Under normal conditions, the lithium-ion battery lasts for a full working day (over 10 hours)
- Automatic shut-off to extend operating time
- Over-voltage categories **CAT III 1000 V** / **CAT IV 600 V**

Scope of delivery:
- True RMS thermal imaging multimeter 279 FC
- Flexible iFlex® current clamp
- TL175 test leads
- Lithium-ion rechargeable battery with charger
- Soft carrying case
- Magnetic holder

Functions	measuring range
DC voltage	1000 V
AC voltage	1000 V
Resistance	50 MOhms
Capacitance	9,999 µF
Frequency	100 kHz

Type	62383	...
Fluke 279 FC		101

62383

The integrated **Fluke Connect™** function allows you to transfer results wirelessly to your smartphone and save time when reporting the results of your work.

62426 Wireless True RMS clamp ammeter

FLUKE®

Design
The new Fluke 376 FC clamp ammeter allows better and more flexible troubleshooting.
Measurements on awkwardly shaped conductors and in confined spaces are made easier by the flexible **iFlex® current** probe. In addition, the Fluke 376 FC clamp ammeter is now part of the Fluke Connect series of wireless measuring instruments. You can now take advantage of the following new functions.

Faster troubleshooting:
Immediate logging, trend display and monitoring of intermittent problems thanks to trend graphs and internal memory for 65,000 measurement values

Safe working:
Connect measuring instrument to your smartphone via Bluetooth®, clamp the ammeter around a conductor and record values at a distance of 30 m from the point of capture

Save time when creating reports:
Easy creation of reports by capturing measured values on the measuring instrument and emailing the values from the point of capture

Innovative flexible current clamp:
Simple and reliable measurements on awkwardly shaped conductors and in confined spaces

Share data from any location:
With the ShareLive™ video call function, you and your team are always up-to-date even if you are in different locations

Measuring functions:
- DC and AC voltage up to 1000 A
- Alternating current measurement up to 2500 A with flexible iFlex® current clamp
- DC and AC voltage measurement up to 1000 V
- True RMS measurement of voltage and current for precise measurements of non sine-wave signals
- Frequency measurement up to 500 Hz with clamp and **iFlex®**
- Resistance measurement up to 60 kOhms with continuity detection
- Min/max, average and inrush current recording for automatic detection of deviations
- Measuring range 500 mVDC for connecting additional devices
- Up to 1000 µF capacitance measurements

Scope of delivery:
- Flexible iFlex® clamp ammeter (45.7 cm)
- Measuring lines
- TPAK magnetic holding fixture
- Soft carrying case
- Reference card
- Safety information sheet
- 2 x AA batteries

62426 201

Type	62426	...
376 FC		201

62426 mA process clamp ammeter

FLUKE®

Design
- Measure 4-20 mA signals **without interrupting the circuit** in order to save time and money
- The highest accuracy in its class: 0.2 %
- Resolution and sensitivity of 0.01 mA
- Measurement of mA signals for analogue inputs/outputs on PLCs and control systems
- Double display with backlight, mA measured value indicator and the percentage value of the 4 to 20 mA range
- Measuring point lighting illuminates hard-to-see wires in dark switch cabinets
- Detachable clamp with extension cable for measurements in confined spaces
- Measure 10 to 50 mA signals in older control systems using the 99.9 mA range
- Automatic change of the 4 to 20 mA output for testing over greater distances
- Energy-saving function, automatic shut-off, time-controlled backlight switch-off to extend battery life
- Hold function captures and displays fluctuating readings
- Dimensions H x W x D mm: 212 x 59 x 38

Scope of delivery:
- Soft carrying case
- User handbook
- 2 x AA batteries

Note:
Replacement batteries, see art. no. 39900.

62426 202

Type	62426	...
771		202

Weidmüller

62370
VT
Design
- Voltage display 12-690 VAC/DC
- LED display for voltage and polarity
- Clear, staggered LED display
- Small, handy voltage tester
- Works without batteries
- One-handed operation for sockets
- Probe protection

62371
VT Master
Design
- Voltage display 12-690 VAC/DC
- LED display for voltage and polarity
- Visual/audible continuity test
- Battery monitoring
- One-handed operation
- Compact design
- Screw-on probe extension
- Probe tip cover to shorten probe tip
- Probe protection

62372
VT Combi Pro
Design
- With switchable load
- Voltage display 6-690 VAC/DC
- LED display for voltage and polarity
- Visual/audible continuity test
- Phase sequence indicator
- FI test/load function
- Probe tip lighting
- Magnetic latching
- One-handed operation
- Screw-on probe extension
- Probe tip cover to shorten probe tip
- Probe protection

62380
VT Digi Pro
Design
- With switchable load
- Voltage display 1-1000 VAC/DC
- LCD display for voltage and polarity
- Visual/audible continuity test
- Phase sequence indicator
- Resistance measurement
- Frequency measurement
- FI test/load function
- Probe tip lighting
- Magnetic latching
- One-handed operation
- Screw-on probe extension
- Probe tip cover to shorten probe tip
- Probe protection

62370

62371

62372

62380

art. no.	62370	62371	62372	62380
Type	**VT**	**VT Master**	**VT Combi Pro**	**VT Digi Pro**
Rated voltage	12-690 V AC/DC	12-690 V AC/DC	6-690 V AC/DC	1–1000 V AC/DC
Display	LED	LED	LED	digital LCD
Up to 6 V	-	-	-	x
6 V	-	-	x	x
12 V	x	x	x	x
24 V	x	x	x	x
50 V	x	x	x	x
120 V	x	x	x	x
230 V	x	x	x	x
400 V	x	x	x	x
690 V	x	x	x	x
Type of voltage display	LED	LED	LED	LCD
Polarity (+/-)	x	x	x	x
Continuity test	-	x	x	x
Single-pole phase test	-	-	x	x
One-handed test	x	x	x	x
Measuring tip lighting	-	-	x	x
HOLD function	-	-	-	x
Rotary field indicator	-	-	x	x
Switchable load	-	-	x	x
30 ma RCD tripping via button	-	-	x	x
Power supply	from test object (w/o batteries)	2 x 1.5 V (AAA)	2 x 1.5V (AAA)	2 x 1.5 V (AAA)
Peak electric strength	5 kV	6 kV	8 kV	8 kV
Degree of protection	IP 64	IP 54	IP 65	IP 65
Working temperature	-15°C-+55°C	-15°C-+55°C	-15°C-+55°C	-15°C-+55°C
Dimensions mm	190 x 55 x 21	235 x 60 x 28	264 x 67 x 33	264 x 67 x 33
Weight g	115	181	288	295

Type	62370 ...	62371 ...	62372 ...	62380 ...
VT	101 NEW			
VT Master		201		
VT Combi Pro			101	
VT Digi Pro				101

62381 Quick-access case (empty)

Applications
For two-pole voltage testers.

62381

	62381 ...
	104

Info Testing and measuring devices

BENNING

Double-pole voltage detectors

DUSPOL®	Display	Display levels	Continuity check	Rotary field test	Phase test	Polarity test	Art. no.
expert	LED	12 - 1000 V	Buzzer + LED	Yes / LED	Yes / LED	Yes / LED	62387 201
analogue	Moving coil / LED	12 - 1000 V	No	Yes / LCD	Yes / LCD	Yes / LED	62389 201
digital	LCD / LED	1 - 1200 V	Buzzer + LED	Yes / LED	Yes / LED	Yes / LCD	62390 201

Continuity and line testers

	Display	Voltage AC	Continuity check	External voltage protection	Phase test	Flashlight function	Art. no.
DUTEST pro®	LED	No	Buzzer + LED	Yes / Buzzer + LED	Yes / LED	Yes	62405 201

Digital multimeter

	Voltage AC	Voltage DC	Current	Resistance	Continuity/ Diode	Frequency	Art. no.
MM P3	0.1 mV - 600 V	0.1 mV - 600 V	No	0.1 Ohms - 40 MOhms	Yes	1 mHZ - 5 MHz	62393 101
MM 1-3	100 µV - 750 V	100 µV - 1000 V	1 mA - 10 A AC/DC	0.1 Ohms - 20 MOhms	Yes	1 Hz - 20 MHz	62395 201
MM 3	1 mV - 600 V	1 mV - 600 V	0.1 µA - 20 A AC/DC	0.1 Ohms - 20 MOhms	Yes	1 Hz - 200 kHz	62395 102
MM 5-1	0.1 mV - 600 V	0.1 mV - 600 V	No	0.1 Ohms - 40 MOhms	Yes	0.01 Hz - 50 kHz	62395 105
MM 5-2	0.1 mV - 600 V	0.1 mV - 600 V	1 mA / 0.1 µA - 10 A AC/DC	0.1 Ohms - 40 MOhms	Yes	0.01 Hz - 50 kHz	62395 106
MM 7-1	10 µV - 1,000 V	10 µV - 1,000 V	10 µA - 10 A AC/DC	0.1 Ohms - 40 MOhms	Yes	0.01 Hz - 100 kHz	62395 104
MM 12	10 µV - 1,000 V	10 µV - 1,000 V	10 µA - 10 A AC/DC	0.1 Ohms - 40 MOhms	Yes	0.1 Hz - 100 kHz	62397 101

Digital current clamp multimeter

	Voltage AC	Voltage DC	Current AC	Current DC	Continuity	Pliers opening	Art. no.
CM P2	No	No	10 µA - 400 A	10 µA - 400 A	No	max. 23 mm	62422 101
CM 2	1 mV - 600 V	0.1 mV - 600 V	100 mA - 300 A	10 mA - 300 A	Yes	max. 25 mm	62422 102
CM 5-1	1.3 V - 750 V	0.7 V - 1,000 V	0.9 A - 600 A	0.9 A - 600 A	Yes	max. 35 mm	62422 207
CM 11	0.01 V - 600 V	0.01 V - 600 V	0.1 mA - 20 A	0.1 mA - 10 A	Yes	max. 23 mm	62422 103

62385 Two-pole voltage and continuity tester PROFIPOL®+

IP 54

BENNING

Design
- Voltage of 12 V - 690 V AC/DC (LED)
- Display levels: 12, 24, 50, 120, 230, 400, 690 VAC/DC are fully functional with flat or missing batteries
- Audible/visual continuity test up to 100 kOhms (buzzer/yellow ohm LED)
- Single-pole external conductor test (phase) (red LED)
- Polarity test (+/- LEDs)
- Tester handle locking mechanism for single-handed operation on sockets and for safe storage
- Reduced test current without RCD tripping: IS less than 6.0 mA

- **Degree of protection IP 54** (dust/splash-proof)
- Impact-resistant and robust housing guide
- Over-voltage category **CAT III 600 V, CAT II 690 V**
- Includes 2 x 1.5 V AAA batteries (LR03) (voltage display even with flat batteries)

Applications
Suitable for electrical engineering, industry, maintenance and service (troubleshooting).

Note:
Replacement batteries, see art. no. 39900.

62385

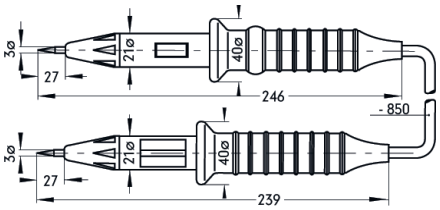
Volts	62385 ...
12–690 V AC/DC	201

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62386 Two-pole voltage finder

Design
- Black Makrolon housing
- Oil-resistant and non-flammable rubber grips with elasticated, raised finger protection
- Under the rubber handles, there is a rugged, double electrically insulated and heat-insulated measuring unit on one side
- In the other housing, there is an enlarged viewing window for polarity and phase display
- Under the red Perbunan ring is a ring switch for switching the measuring tool on and off
- With a large, powerful neon lamp
- Under the large, Makrolon magnifying glass there is an illuminated, red scale for **DC voltage between 120–750 volts**
- Yellow scale **for AC voltage between 120–750 volts**
- Heavily insulated, oil-resistant, single-strand connection cable: approx. 1 m long
- The flattened, insulated, spring-loaded contact tips fit CEE sockets and push terminals

62386



Volts	62386	...
120–750 V AC/DC	201	

62387 Two-pole voltage and continuity tester DUSPOL® expert

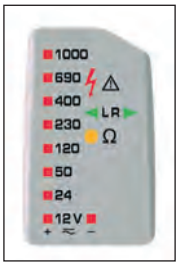
BENNING

Design
- Voltage of 12 V - 1,000 V AC/DC (LED)
- Display levels: 12, 24, 50, 120, 230, 400, 690, 1000 VAC/DC
- Audible/visual continuity test up to 100 kOhms
- Rotating field direction/phase test, polarity test (LED)
- Direct display without pushbutton control (high-impedance test)
- Load engagement via pressure switch (low-impedance test)
- Intentional tripping of the RCCB
- Vibration alarm in the probe handle
- Switchable measuring point lighting
- Non-contact open-circuit detector
- **Degree of protection IP 65** (dust/splash-proof)
- Robust housing guide with rubberised handle area
- Includes 2 x 1.5 V AAA batteries (voltage display from 50 V even with flat batteries)
- Tested and approved according to: **DIN EN 61243-3, (VDE 0682-401) 2015**
- Overvoltage category: **CAT IV 600 V, CAT III 1000 V.**

Applications
Suitable for electrical engineering, industry, maintenance, service (troubleshooting), photovoltaic plants/wind turbines and hybrid vehicle technology.

Note:
For matching case, see art. no. 62381.
Replacement batteries, see art. no. 39900.

62387



Volts	62387	...
12–1,000 V AC/DC	201	

62389 Two-pole voltage and continuity tester DUSPOL® analogue

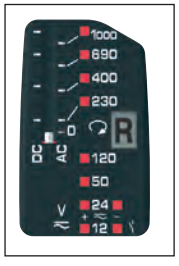
BENNING

Design
- Voltage between 12 V–1000 VAC/DC (LED/voice coil)
- Display levels: 12, 24, 50, 120, 230, 400, 690, 1,000 VAC/DC
- Rotating field direction/phase test (LCD), polarity test (LED)
- Direct display without pushbutton control (high-impedance test)
- Load connection via pushbutton (low-impedance test)
- Intentional tripping of the RCCB
- Vibration alarm in the probe handle
- **Degree of protection IP 65** (dust/splash-proof)
- Rugged housing design with rubberised grip area
- **Safety any time, any place:** No batteries required
- Tested and approved according to: **DIN EN 61243-3, (VDE 0682-401) 2015**
- Overvoltage category: **CAT III 1000 V**

Applications
Suitable for electrical engineering, industry, maintenance, service (troubleshooting), photovoltaic plants/wind turbines and hybrid vehicle technology.

Note:
For matching case, see art. no. 62381.

62389



Volts	62389	...
12–1000 V AC/DC	201	

62390 Two-pole True RMS voltage and continuity tester DUSPOL digital

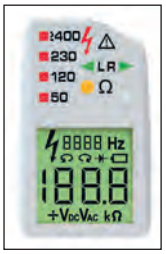
BENNING

Design
- Voltage between 1 V–1000 VAC True RMS / 1200 VDC (LCD)
- Display levels: 50, 120, 230, 400 V AC/DC (LED)
- Audible/visual continuity measurement up to 100 kOhms
- Resistance measurement: 0.1 kOhms–300 kOhms (LCD)
- Diode testing: 0.3 V–2 V (LCD)
- Rotating field direction/phase test (LED), polarity testing (LCD)
- Frequency measurement: 1 Hz–1000 Hz
- Non-contact open-circuit detector
- Direct display without pushbutton control (high-impedance test)
- Load connection via pushbutton (low-impedance test)
- Intentional tripping of the RCCB
- Vibration alarm in the probe handle
- Measurement point and display lighting
- **Degree of protection IP 65** (dust/splash-proof)
- Rugged housing design with rubberised grip area
- Incl. 2 x 1.5 V AAA batteries (voltage display above 50 V even with flat batteries)
- Tested and approved according to: **DIN EN 61243-3, (VDE 0682-401) 2015**
- Overvoltage category: **CAT IV 600 V, CAT III 1000 V.**

Applications
Suitable for electrical engineering, industry, maintenance, service (troubleshooting), photovoltaic plants/wind turbines and hybrid vehicle technology.

Note:
For matching case, see art. no. 62381.
Replacement batteries, see art. no. 39900.

62390



Volts	62390	...
1–1,000 VAC / 1,200 VDC (True RMS)		201

62393 Digital multimeter

BENNING

Design
- Extremely compact housing (132 x 86 x 19 mm)
- High basic accuracy of 0.7% VDC
- Weighs only 130 g (incl. accessories)
- Measured value storage
- Battery low-voltage display and automatic shut-off after 30 minutes.
- **Measurement category CAT III 300 V, CAT II 600 V**
- Including leather case, test leads and battery pack

Measuring ranges:
DC voltage: from 0.1 mV to 600 V,
AC voltage: from 0.1 mV to 600 V,
Resistance: 0.1 ohms to 40 MOhms,
Capacity: 10 pF to 100 µF,
Frequency: 1 mHz to 5 mHz,
Diode testing: 1.1 mA
Continuity testing: 50 Ohms.

62393

	62393	...
		101

62394 Digital multimeter

testboy GmbH, Germany Stands For Quality Since 1953

Design
- With built-in, non-contact voltage sensor and integrated LED pocket torch
- Automatic shut-off
- Data Hold function for storing multiple measurements
- Auto Range function (avoids manual switching)
- Audible continuity tester
- Diode test
- Scope of delivery **includes** test leads, quick-access case, 2 batteries (1.5 V AAA LR03), operating instructions
- **TÜV/GS-tested and approved according to (IEC/EN 61010-1, DIN VDE 0411)**

Measuring ranges:
DC voltage from 200 mV to 600 V,
AC voltage from 200 mV to 600 V,
DC current from 200 µA to 10 A,
AC current from 200 µ to 10 A,
Resistance from 200 ohms to 20 MOhms.

Note:
Replacement batteries, see art. no. 39900 304.

62394

	62394	...
		201

Special tools / PPE

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

BENNING

Design
- With automatic and/or manual range selection
- Automatic shut-off
- Battery low voltage display.
- Incl. rubber holster (except MM 1-3, art. no. 62395 201), compact carrying case, battery pack and test leads

Note:
Replacement batteries, see art. no. 39900.

62395 201
Type MM 1-3
Design
- Volt sensor for non-contact detection of phase voltage and cable breaks (audible/LED)
- Incl. wire temperature probe

62395 102
Type MM 3
Design
- Basic measurement types for current, voltage, resistance, continuity, diode, capacity and frequency

62395 105-106
Type MM 5-1/MM 5-2
Design
- Continuity test via red LED and buzzer
- True RMS measurement procedure
- Volt sensor for non-contact detection of phase voltage and cable breaks (visual signal)
- Relative measurement (REL)
- Measurement category CAT IV 300 V, CAT III 600 V

62395 106
Type MM 5-2
Design
- Microampere measuring ranges (400.0 µA DC/ 4000 µA DC) for ionisation current measurement on heating systems
- Incl. wire temperature probe

62395 104
Type MM 7-1
Design
- True RMS measurement procedure
- Highest measurement category CAT IV 600 V
- AutoV function for automatic AC/DC voltage detection and low input impedance
- Peak detection (PEAK)
- 4-digit LCD display with bar graph display and backlight
- Incl. wire temperature sensor with adapter

62395 201 | 62395 102 | 62395 105 | 62395 106 | 62395 104

Art. no.	62395 201	62395 102	62395 105	62395 106	62395 104
Type	**MM 1-3**	**MM 3**	**MM 5-1**	**MM 5-2**	**MM 7-1**
Display range	2,000	2,000	6,000	6,000	6,000
Basic accuracy	0.5%	0.5%	0.5%	0.5%	0.08%
AC voltage	100 µV–750 V	0.1 mV–600 V	100 µV–600 V	100 µV–600 V	10 µV–1000 V
DC voltage	100 µV - 1,000 V	0.1 mV - 600 V	100 µV - 600 V	100 µV - 600 V	10 µV - 1000 V
AC current	1 mA–10 A	0.1 µA–20 A	-	1 mA–10 A	10 µA–10 A
DC current	1 mA–10 A	0.1 µA–20 A	-	0.1 mA–10 A	10 µA–10 A
Resistance	0.1 ohms–20 MOhms	0.1 ohms–20 MOhms	0.1 ohms–40 MOhms	0.1 ohms–40 MOhms	0.1 ohms–40 MOhms
Continuity/diode	yes / yes	yes / yes	yes / yes	yes / yes	yes / yes
Frequency	1 Hz–20 MHz	1 Hz–200 kHz	0.01 Hz–50 kHz	0.01 Hz–50 kHz	0.01 Hz–100 kHz
Capacitance	1 pF–2 mF	1 pF–200 µF	0.01 nF–1 mF	0.01 nF–1 mF	1 nF–10 mF
Temperature	-20°C to +800°C	-	-	-40°C to +400°C	-40°C to +400°C
Volt sensor	Yes	-	Yes	Yes	Yes
Memory function	HOLD, MAX/MIN	-	HOLD, PEAK	HOLD, PEAK	HOLD, MAX/MIN
Measuring method	RMS	RMS	TRUE RMS	TRUE RMS	TRUE RMS
Measurement category	CAT III 600 V	CAT III 300 V	CAT III 600 V	CAT III 600 V	CAT IV 600 V

Type	62395 ...
MM 1-3	201 NEW
MM 3	102
MM 5-1	105
MM 5-2	106
MM 7-1	104

62397 Digital multimeter (True RMS) MM 12

BENNING

Design
- With logging function (40,000 measured values) plus Bluetooth® and USB interface
- TRUE RMS measurement procedure
- Memory function (1000 measured values, A-SAVE, SAVE)
- PC software for further evaluation
- Free iOS/Android app for data connection to smartphone/tablet
- AutoV function for automatic AC/DC voltage detection and low input impedance (LoZ)
- Low-pass filter (HFR) for measurements on motor drives
- Additional functions are HOLD, P-HOLD, REL, MAX/MIN/AVG, dB/dBm
- Measurement category CAT IV 600 V, CAT III 1000 V

Scope of delivery:
- PC software
- USB cable
- Protective rubber bumper
- Magnetic hook
- Bag
- 4 batteries (1.5 V AA LR6)
- Measuring lines
- Wire temperature probe
- Calibration certificate

Applications
Suitable for industry, electrical engineering, service.

Note:
For replacement batteries, see art. no. 39900.

NEW

62397

Measurement ranges	
Voltage	10–1,000 V
Current	10 µA–10 A
Resistance	0.1 ohms–40 MOhms
Frequency	0.1 Hz–100 kHz.
Capacitance	0.01 nF–40 mF
Temperature	-200 °C to +1200 °C
Continuity test	30 ohms (buzzer)
Diode test	2.0 V

Type	62397	...
MM 12	101	

62405 Continuity and line tester DUTEST® pro

BENNING

Design
- Continuity and diode testing via LEDs and testing buzzer
- Visual indicator via 3 LEDs: 0–100 ohms/1 kOhms/10 kOhms
- Audible indication via test buzzer up to approx. 100 ohms
- External voltage display: 6–400 V (LEDs/testing buzzer)
- Polarity testing
- Single-pole external conductor test (Phase)
- Non-contact open-circuit detector
- Precise, high-performance LED pocket torch
- Buzzer volume and LED pocket torch brightness individually adjustable in four stages
- Integrated magnet holder and belt clip on back of housing
- Scope of delivery incl. test lead set
- Measuring category: CAT III 300 V

Applications
For testing of high- and low-impedance resistors.

Note:
For batteries see art. no. 39900.

62405

Type	62405	...
DUTEST pro®	201	

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62411 Current/metal detecting device

BOSCH

Design
- Precise display of object centre with „Centre Finder" scale
- Better visibility of the result with illuminated display
- Marking opening with three-colour LED light ring
- Three detection modes for various applications: drywall mode, metal mode, mode for energised cables
- Locates at up to 12 cm depth
- Detectable materials: ferrous metals, non-ferrous metals, wooden substructures, energised wires
- Intuitive operation with automatic calibration
- Current supply: 1 x 9 V 6LR61 battery

Scope of delivery:
- GMS 120
- Protective case
- Hand strap
- Battery

Note:
For batteries see art. no. 39900.

62411

Type	Max. detection depth mm Steel/copper	Automatic shut-off approx. min	62411	...
GMS 120	120 / 80	5		301

62422 Digital current clamp multimeter (True RMS)

BENNING

Design
Scope of delivery includes compact case, battery and test leads (except for CM P2, art. no. 62422 101).

Note:
Replacement batteries, see art. no. 39900.

62422 101
Type CM P2
Design
- Small, handy, always ready for use
- Precise measurement of load currents up to 400 A
- INRUSH, Low Pass Filter (LPF), Volt Sensor (NCV), ZERO

62422 102
Type CM 2
Design
- Measure high currents safely and without contact
- Measures small currents
- Measuring inputs for voltage, resistance and continuity testing

62422 207
Type CM 5-1
Design
- Automatic measuring function selection (VAC/DC, A AC/DC, ohm and low input impedance LoZ)

62422 103
Type CM 11
Design
- Highest resolution of 0.1 mA AC/DC
- Ideal for troubleshooting electrical installations, equipment, automotive engineering, controller (4–20 mA process signals), as well as fire and intrusion alarm systems
- Broad range of uses for voltage (600 V), resistance (600 kOhms) and continuity testing

62422 101 62422 102 62422 207 62422 103

art. no.	62422 101	62422 102	62422 207	62422 103
Type	CM P2	CM 2	CM 5-1	CM 11
Display range	4,200	4,000	9,999	6,000
Basic accuracy	2.0%	0.5%	0.9%	1.0%
AC voltage	-	1 mV–600 V	1.3 V–750 V	0.01 V–600 V
DC voltage	-	0.1 mV–600 V	0.7 V–1,000 V	0.01 V–600 V
AC current	10 mA–400 A	100 mA–300 A	0.9 A–600 A	0.1 mA–20 A
DC current	10 mA–400 A	10 mA–300 A	0.9 A–600 A	0.1 mA–10 A
Resistance	-	0.1 ohms–40 MOhms	1 ohm–10 kOhms	0.1 ohms–600 kOhms
Continuity/diode	-	yes/ -	yes/yes	yes/ -
Memory function	HOLD	HOLD, MAX	HOLD	HOLD, PEAK
Measuring method	TRUE RMS	TRUE RMS	TRUE RMS	TRUE RMS
Max. jaw opening	23 mm	25 mm	35 mm	23 mm
LC display	4 digits	3 1/2 digits	4 digits	4 digits
Measurement category	CAT III 600 V	CAT III 300 V / CAT III 600 V	CAT IV 600 V / CAT III 1000 V	CAT IV 300 V / CAT III 600 V

Type	62422 ...
CM P2	101 NEW
CM 2	102
CM 5-1	207
CM 11	103

62425 Digital mini clamp ammeter

Testboy GmbH, Germany – Stands For Quality – Since 1953

Design
- **Complies with IEC/EN 61010-1 (DIN VDE 0411)**
- With 4-digit LCD display
- Manual or automatic selection of the measuring range
- Alternating current measurement
- AC and DC voltage measurement
- Continuity and diode test
- Resistance measurement
- Max. jaw opening Ø 28 mm
- Continuity test 50 ohms with audible signal
- Resistance up to 60 Megaohms
- **Overvoltage category CAT III 600 V**
- **Degree of protection IP 44**
- Dimensions: 220 x 75 x 35 mm

Scope of delivery:
- 3 batteries (1.5 volt AAA, LR03)
- 1 x test lead
- Quick-access bag
- Operating instructions

Note:
Replacement batteries, see art. no. 39900 304.

62425

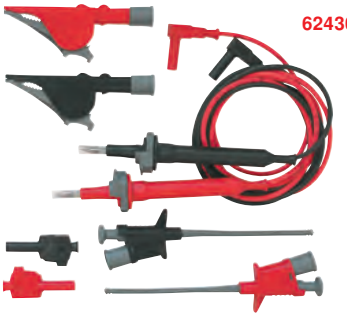
Alternating current (AC)	Direct current (DC)	AC voltage	62425	...
60 A–600 A / 40–400 Hz	60 A–600 A	600 mV–600 V / 40–400 Hz		301

62430 Industrial test lead set

Design
8 pieces. CAT. III, 1000.
Contents: 2 x repair adapters red/black, 600 V CAT II / 20 A, 2 x pickup probes red/black, 1000 V CAT III, 6 A, 2 x crocodile clips red/black, 1000 V CAT III, 600 V CAT IV / 36 A, 2 x safety test leads red/black, 1380 mm, 5949-IEC-120 / 1000 V CAT III / 20 A with non-slip protection.

Applications
For all commercially available multimeters with plug sockets, 4 mm version.

62430



Content	62430	...
8 parts		101

62440 Battery-operated device tester ST 710

BENNING

Design
Simple (operated with three buttons), **fast** (full test within 10 seconds), **mobile** (test can be carried out without mains power, battery capacity for 2500 test samples), automatic test procedure for class I, II (III) devices, extension cables, device connection cables with C13 plug, good/bad indicator Pre-set threshold values according to VDE standard.
Measurements: Protective conductor (200 mA test current), insulation resistance (500 V test voltage), protective conductor/touch current (alternative leakage current procedure), conductor test including RPE, RISO, continuity/short-circuit testing of the phase/neutral conductor, voltage at external schuko socket (L-N, L-PE, N-PE). Three-phase samples can be tested via optional measuring adapter.

Scope of delivery:
- Device tester
- Bag
- Test lead with crocodile clip
- C13 lead
- Batteries (6 x 1.5 V, AA, IEC LR6)

Applications
Testing of electrical devices/work equipment, such as electric tools, motorised devices, lights, extension leads, household appliances **in accordance with VDE 0701-0702 BGV A3.**

Note:
Test stickers (300 units), measuring adapter 16 A/32 A CEE Schuko socket for three-phase test samples on request.
Replacement batteries, see art. no. 39900 303.

62440

Type	62440	...
ST 710		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

62490 Pliers and VDE screwdriver range

KNIPEX

Design
- **11 pieces,** in tool roll
- Heads of pliers chrome-plated
- Arms have thick-walled, two-colour, multi-component sleeves with non-slip protection
- Screwdriver, fully insulated, **individually tested to VDE DIN EN 60900, 1000 V**

Applications
For telecommunication and electrical technicians.

Quality
Pliers in chromium-vanadium electric steel

62490

Content	size
1 combination pliers	160 mm
1 wire stripping pliers	160 mm
1 radio pliers	160 mm
1 x Langbeck pliers, flat/wide	160 mm
1 x Langbeck pliers, round	160 mm,
1 needle nose pliers, straight	160 mm,
1 heavy-duty end-cutting nippers,	140 mm
1 side cutters	140 mm
1 screwdriver, blade width	2.5 mm
1 screwdriver, blade width	4.0 mm
1 Phillips screwdriver	size 1

Content	62490 ...
11 pieces	101

62520 VDE electrician's tool kit

KNIPEX

Design
48 pieces, in durable ABS case. Surrounding aluminium frame with D-rings to attach a strap and fixed, stable, central wall, can be equipped on both sides. Variety of insertion options with elastic straps and 12 small pockets. Can be opened on one or both sides, 3-piece combination lock. All tools fully insulated. **Individually tested in accordance with VDE DIN EN 60900, 1000 V.**

62520

Content	size
1 combination pliers	200 mm
1 wire stripping pliers	160 mm
1 side cutters	160 mm
1 cable cutters	200 mm,
1 water pump pliers, Alligator	250 mm
1 each single open-end wrench	size 10 / 13 / 14 / 17 / 19 / 22 mm,
1 each single ring wrench	size 10 / 13 / 14 / 17 / 19 / 22 mm,
1 each screwdriver	2.5 / 4.0 / 5.5 / 6.5 mm,
1 each screwdriver	PH 1, PH 2,
1 T-handle 1/2 inch	165 mm,
1 reversible ratchet 1/2 inch	265 mm,
1 each extension 1/2 inch,	125 mm and 250 mm,
1 each socket wrench insert 1/2 inch	size 10 / 11 / 12 / 13 / 14 / 17 / 19 / 22 / 24 mm,
1 cable knife	180 mm,
1 sheath stripping knife	155 mm,
6 plastic clips	clamping width 15 mm
1 pair of electrician's gloves	size 9,
3 rubber cloths	500 x 500 x 1.6 mm.

Content	62520 ...
48 pieces	201

62530 VDE tweezers

Design
Delicate, narrow tip, 1.5 mm, serrated, fully insulated and individually tested in accordance with **VDE 0680/T 201, IEC 900.**

Quality
Nickel-plated steel.

62530 101

62530 102

	Length mm	62530 ...
straight	145	101
curved	145	102

62540 VDE single open-end wrench DIN 7446

Design
Jaw angle 15°, professional multi-layer dip-insulated, individually tested according to **IEC 60900.**
Applications
For working on or near energised parts up to 1000 VAC voltage (RMS value) or 1500 VDC voltage.

Quality
Chromium-vanadium steel.

62540

Size mm	Length approx. mm	62540 ...
10	110	101
13	135	102
14	140	103
16	145	104
17	155	105
18	170	106
19	175	107
22	220	108
24	240	109

62550 VDE single ring wrench, DIN 7447

Design
Offset, professional multi-layer dip-insulated, individually tested in accordance with **IEC 60900.**
Applications
For working on or near energised parts up to 1000 VAC voltage (RMS value) or 1500 VDC voltage.

Quality
Chromium-vanadium steel.

62550

Width mm	Ring thickness mm	Length mm	62550 ...
10	9	165	201
13	11	185	202
14	12	195	203
16	13	205	204
17	13	205	205

Width mm	Ring thickness mm	Length mm	62550 ...
18	14	215	206
19	14	220	207
22	15	245	208
24	16	270	209

62560 VDE screwdriver for hex socket bolts with T-handle

KNIPEX

Design
With a fixed T-handle, **short version. Complies with VDE DIN EN 60900, 1000 V, insulated and tested.**

Quality
Special tool steel, tempered.

62560

Size mm	Length mm	62560 ...
5	120	104
6	120	105
8	120	106

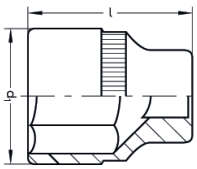
62580 VDE socket wrench inserts DIN 7448

KNIPEX

Design
With 1/2-inch square drive for hexagonal bolts.
According to VDE standard DIN EN 60900, 1000 V, insulated and tested.

Quality
Chromium-vanadium steel.

62580



Width mm	l mm	d_1 mm	62580 ...
10	38	19.5	201
11	40	20.7	202
12	40	23.0	203
13	40	23.2	204
14	40	24.5	205
17	40	28.2	206
19	40	30.7	207
22	40	34.5	208

62600 VDE fully insulated reversible ratchet

1/2" ≙1000V

KNIPEX

Design
With locking screw, reversible for clockwise/anti-clockwise rotation, 1/2-inch square drive.
Complies with VDE standard DIN EN 60900, 1000 V insulated and tested.

Quality
Chromium-vanadium steel.

62600

Total length mm	62600 ...
265	101

62610 VDE extensions DIN 7434

≙1000V

KNIPEX

Design
With 1/2-inch internal/external square drive. **According to VDE standard DIN EN 60900, 1000 V, insulated and tested.**

Quality
Chromium-vanadium steel.

62610

Length mm	62610 ...
125	101
250	102

62612 VDE side cutters

≙1000V

KNIPEX

Design
- Streamlined head shape for use in difficult-to-reach work areas
- Clean cut with thin copper wire, even at tips of cutting edge
- **Complies with VDE DIN EN 60900, 1000 V, insulated and tested.**

Applications
For hard and soft wire.

Quality
Vanadium electric steel, forged, multi-stage oil-hardened. Inductively hardened blades. Blade hardness approx. 62 HRC.

62612

Length mm	Up to wire Ø medium mm	Up to wire Ø hard mm	Up to wire Ø piano mm	62612 ...
160	4.0	2.8	2.0	101

55831 VDE torque wrench

3/8" ≙1000V

HAZET

Design
- Can be re-adjusted and re-calibrated
- VDE torque wrench can be repaired in HAZET Service Centre
- Long service life/accuracy by way of: disassembly, adjustment, repair (if necessary), calibration, reassembly
- Suitable for inspection equipment monitoring
- Sustainable and environmentally friendly
- Fine scale interval with Vernier scale
- Locking mechanism to prevent unintentional adjustment of setting value
- Safe: haptic (quick-release), audible (kink element)
- **Right/left triggering with interchangeable square drive,** allows tightening to a set torque clockwise or anti-clockwise within the specified tolerance
- Output: Square, solid, 10 mm (3/8-inch)
- VDE-tested
- Socket wrench inserts from other manufacturers may be used, provided that they comply with IEC 60900:2012 and DIN EN 60900
- Low weight for good handling and effortless work
- Product design features
- Slim and appealing design in strict compliance with the required insulation factors (material thickness/overlaps)
- Smooth transitions on switching and moving parts with ergonomic handle design and clear calibration groove
- Simple operation and low risk of injury due to ergonomic functional switching elements with a pleasant action
- Uniform appearance even when using other components (e.g. red insulated socket wrench inserts)
- Attractive housing and head colour using well-known VDE signal colours red/yellow
- Black handle for colour separation and to minimise visual disturbance
- Avoids overhanging, obstructing parts (e.g. reverse lever)
- DIN EN ISO 6789:2003 (D), square in acc. with DIN 3120, EN/IEC 60900
- Made in Germany

Note:
Repairs may only be carried out by the HAZET Service Centre, as they must be followed by a 10,000 V test in accordance with IEC 60900.

55831 101

55831 102

Connecting square inches	Adjustment range Nm	Scale interval Nm	Tolerance %	Length mm	Weight kg	55831 ...
3/8	2–10	0.2	6	275	0.59	101
3/8	5–25	0.5	4	305	0.64	102

62620 VDE occupational safety items

62620 101
Protective glove, electronics
Provides protection against arcing, with inspection stamp for working in areas of voltage up to 1000 V, complies with EN 60903. Made from natural latex, anatomical design, best flexibility. Length 410 x 1.5 mm. Size 10, supplied in UV-resistant bag.

62620 201
1000 V LV HRC safety handle
In accordance with **VDE 0680/4.** With non-slip protection and protective cuff made of smooth, impregnated leather.
For LV HRC fuses size 00–3. VDEGS-tested.

62620 301
1000 V insulating mat
With grooved non-slip surface, not acid or oil-resistant, not anti-static. 1000 x 1000 x 4 mm. Temperature resistance of -30° to +70° according to **DIN VDE 0680 part 1.**

62620 401
1000 V covering blanket
Grease and acid-resistant. For covering live parts, according to **VDE 0680/1.** 600 x 600 x 1.6 mm. VDEGS-tested.

62620 501
1000 V clip made of plastic. For securing rubber blankets. VDEGS-tested.

62620 101

62620 201

62620 301

62620 401

62620 501

	62620 ...
Protective gloves	101
Safety handle	201
Insulating floor mat	301
Cover sheet	401
Staples	501

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63077 Electronics screwdriver sets, PicoFinish (6 pieces)

wiha
Tools that work for you

Design
- Slim handle shape and rotating cap for sensitive work
- Screwdriver handle size concept for an optimum balance between precision and control
- With a practical plastic holder for hanging or positioning

Applications
Ideal for fine and delicate screwdriving work in electronics, precision engineering, model construction and hobby applications.

	Contents 1 piece each	Design	63077 ...
	0.25 x 2.0/0.4 x 2.0/0.4 x 2.5/0.5 x 3.0 mm	in rack	100
	PH 00/PH 0		
	TX 4/5/6/7/8/9	in rack	200
	size 2.5/3.0/3.5/4.0/5.0/5.5 mm	in rack	300

63078 Precision engineering/electronics screwdriver sets (6 pieces)

Wera
Be a Tool Fetish

Design
Kraftform micro with anti-roll protection and rotating cap for lightning-fast twisting, multi-component.
Blade: Round, nicro matt, black point.

	Contents 1 piece each	Design	63078 ...
	0.3 x 1.8/0.4 x 2.0/0.4 x 2.5/0.5 x 3.0 mm	in rack	101
	PH 00/PH 0		
	0.4 x 2.5/0.5 x 3.0/0.6 x 3.5/0.8 x 4.0 mm	in rack	102
	PH 0/PH 1		
	TX 7/8/9/10/15/20	in rack	103
	size 0.9/1.3 mm	in rack	104
	size 1.5/2.0/2.5/3.0 mm		
	size 2.0/2.5/3.0/3.5/4.0/5.0 mm	in rack	105

63079 Precision engineering/electronics screwdriver set (12 pieces)

Wera
Be a Tool Fetish

Design
- Kraftform micro screwdriver set in a rugged belt bag, keeping the tool always to hand
- With anti-roll protection and rotating cap for fast twisting
- The Wera black point tip provides a precise fit and optimised corrosion protection
- With holding function for TX® screws

Applications
For example, for electronics technicians, opticians, precision engineers, jewellers or computer hardware fitters

	Contents 1 piece each	Design	63079 ...
	0.23 x 1.5 x 40/0.30 x 1.8 x 60/0.40 x 2.0 x 60/0.40 x 2.5 x 80/0.50 x 3.0 x 80 mm	in belt bag	101
	PH 00 x 60(1)/PH 0 x 60(2)		
	TX 5 x 40/6 x 40		
	SW 0.9 x 40/1.5 x 60/2.0 x 60 mm		

1) Optimised for Japanese PH screws
2) Size 0 modified according to JCIS 0 (Japanese Camera Industrial Standard)

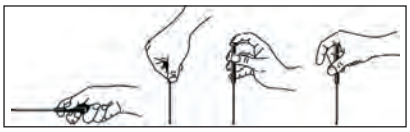
63084 Precision engineering/electronics slotted screwdrivers

Wera

Design
- Multi-component Kraftform micro handle with anti-roll protection and rotating cap for lightning-fast twisting
- Blade: Round, nicro matt, black point

Tip:
DIN 8320 up to 0.3 x 1.8 mm,
DIN 5264-A from 0.4 x 2.0 mm,
ISO 2380 from 0.8 x 4.0 mm.

63084



Blade thickness x Width mm	Blade length mm	Total length mm	63084	...
0.16 x 0.8	40	137		099
0.25 x 1.2	40	137		101
0.23 x 1.5	40	137		102
0.30 x 1.8	60	157		103
0.40 x 2.0	60	157		104

Blade thickness x Width mm	Blade length mm	Total length mm	63084	...
0.40 x 2.5	80	177		105
0.50 x 3.0	80	177		106
0.60 x 3.5	80	177		107
0.80 x 4.0	80	177		108

63086 Precision engineering/electronics Phillips screwdrivers PH

Wera

Design
- Multi-component Kraftform micro handle with anti-roll protection and rotating cap for lightning-fast twisting
- Blade: Round, nicro matt, black point

Tip:
DIN 5260-PH, ISO 8764-PH.

Applications
Philips cross recess head screws.

63086

Size	Blade length mm	Total length mm	63086	...
PH 00	60	157		101
PH 0	60	157		102

Size	Blade length mm	Total length mm	63086	...
PH 1	80	177		103

63088 Precision engineering/electronics Phillips screwdrivers PZ

Wera

Design
- Multi-component Kraftform micro handle with anti-roll protection and rotating cap for lightning-fast twisting
- Blade: Round, nicro matt, black point

Tip:
DIN 5260-PZ, ISO 8764-PZ.

Applications
Pozidriv Phillips-head screws.

63088

Size	Blade length mm	Total length mm	63088	...
PZ 0	60	157		101

Size	Blade length mm	Total length mm	63088	...
PZ 1	80	177		102

63091 Precision engineering/electronics TORX® B0-s-screwdrivers

Wera

Design
- Multi-component Kraftform micro handle with anti-roll protection and rotating cap for lightning-fast twisting
- Blade: Round, nicro matt, black point
- **From size T7 TORX® B0-s.**

Applications
Internal TORX® screws with locking pin
(B0 = with hole).

63091

Size	Blade length mm	Total length mm	63091	...
T 1	40	137		097
T 2	40	137		098
T 3	40	137		099
T 4	40	137		100
T 5	40	137		101
T 6	40	137		102

Size	Blade length mm	Total length mm	63091	...
T 7 B0	60	157		103
T 8 B0	60	157		104
T 9 B0	60	157		105
T 10 B0	60	157		106
T 15 B0	60	157		107

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63094 Precision engineering/electronics hexagon socket screwdrivers

Wera

Design
- Multi-component Kraftform micro handle with anti-roll protection and rotating cap for lightning-fast twisting
- Blade: Round, nicro matt, black point

63094

Size mm	Blade length mm	Total length mm	63094 ...
0.7	40	137	101
0.9	40	137	102
1.3	40	137	103
1.5	60	157	104

Size mm	Blade length mm	Total length mm	63094 ...
2.0	60	157	105
2.5	60	157	106
3.0	60	157	107

63095 ESD precision screwdrivers

ATORN®

Design
- High-quality ESD precision screwdrivers with rotating cap and two-component handle with soft casing
- Integrated anti-roll protection at the transition to the blade, prevents unintended rolling away of the screwdriver
- Black tip for a precise fit and secure grip
- Blade made from chrome-molybdenum-vanadium enables performance data up to 100% above DIN
- Hanging hole for convenient tool storage
- Anti-static, electrically-conductive –dissipative to protect electrostatically sensitive components

Quality
Chrome-molybdenum-vanadium alloy.

63095 100
Design
- Set in a special ESD plastic box for safe tool storage

63095 100

	Contents 1 piece each	Design	63095 ...
⊖	0.23 x 1.5/0.40 x 2.0/0.40 x 2.5/0.50 x 3.0 mm	in ESD plastic box	100
⊕	PH 00x60/PH 0x60		

63095 101-104

Blade thickness x Width mm	Blade length mm	Total length mm	63095 ...
0.23 x 1.5	60	162	101
0.40 x 2.0	60	162	102
0.40 x 2.5	60	162	103
0.50 x 3.0	60	162	104

63095 105-107

Size	Blade length mm	Total length mm	63095 ...
PH 00	60	162	105
PH 0	60	162	106
PH 1	75	177	107

63095 108-111

Size mm	Blade length mm	Total length mm	63095 ...
1.5	60	162	108
2.0	60	162	109
2.5	75	177	110
3.0	75	177	111

63099 ESD/EGB screwdriver set (6 pieces)

Wera

63099

Design
- Multi-component Kraftform micro handle with anti-roll protection and rotating cap for lightning-fast twisting
- Blade: Round, nicro matt, black point

	Contents 1 piece each	Design	63099	...
⊖	0.23 x 1.5/0.25 x 1.2/0.3 x 1.8/0.4 x 2.5 mm	in rack		101
⊕	PH 0x60/PH 1x80			

63100 ESD precision screwdriver set with interchangeable bits

Wera

Design
- **20 pieces,** consisting of 1 handheld bit holder and 19 interchangeable bits (bit length 44 mm)
- Bit holder suitable for accommodating bits with 4 mm half moon or HIOS drive
- Handle made from material with electrical surface resistance of less than 10 to the power of 9 ohm
- Handle/interchangeable blade system to replace blades in seconds
- Kraftform micro handle with rotating cap for lightning-fast twisting

Applications
For manual and machine-operated screw connections.

63100

	Contents 1 piece each	Design	63100	...
⊖	0.23 x 1.5/0.40 x 2.0/0.50 x 3.0	in folding pouch		101
⊕	PH 00/ PH 0 / PH 1			
⬢	Hex-Plus size 1.5/2			
✱	TORX® TX 1/ 2/ 3/ 4/ 5/ 6			
✱	TORX® Plus IP 1/2/ 3/4			
	Five lobe IPR 1			

52445 ESD/EGB Phillips screwdrivers PH

Wera

Design
Tip: **DIN 5260 PH, ISO 8764 PH. Round blade,** black point tip, handle with anti-roll protection. With rotating cap for lightning-fast twisting.

Applications
For Phillips cross recess head screws. For work on electrostatically sensitive electronic components.
Complies with standard EN 100-015 Part 1.
Quality
Blade made from high-alloy special steel.

52445

Size	Blade length mm	Total length mm	52445	...
PH 0	60	157		101
PH 1	80	177		102

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63200 Precision electronics pliers and electronics cutters

ATORN®

Design
- Joint surfaces polished, phosphated
- Heavy two-component grip covers and double-leaf opening spring

Applications
For work in the electronics industry and precision engineering.

Quality
Tool steel, cutting edges inductively hardened.

63200 100
Set of 6 pieces in a zipped case.

63200 101-104
Design
- DIN ISO 9655
- Hardness on the head, the joints and handles HRC 44-48
- Cutting edge hardness HRC 56-60

63200 105-110
Design
- DIN ISO 9654
- Hardness on the head, the joints and handles HRC 38-42
- Cutting edge hardness HRC 62-65

63200 100

63200 101

63200 102

63200 103

63200 104

63200 105

63200 107

63200 110

	Set contents	Design	Length	Art. no.
1	**Flat-nose pliers**	-	125 mm	63200 101
1	**Round-nose pliers**	-	125 mm	63200 102
1	**Pointed pliers**	30° bent	125 mm	63200 103
1	**Pointed pliers**	straight	125 mm	63200 104
1	**Side cutters**	with bevel	112 mm	63200 105
1	**Side cutters**	without bevel	112 mm	63200 106

Content	Set 63200 ...
6 pieces	100

Description	Design	Length mm	Up to wire diameter medium-hard mm	Up to wire diameter hard mm	Up to wire diameter piano mm	Up to wire diameter copper mm	63200 ...
Flat-nose pliers	-	125	-	-	-	-	101
Round-nose pliers	-	125	-	-	-	-	102
Pointed pliers	Tip 30° bent	125	-	-	-	-	103
Pointed pliers	Straight	125	-	-	-	-	104
Side cutters	With bevel	112	2	1.2	0.6	-	105
Side cutters	Without bevel	112	-	-	-	0.5-2	106
Side cutters	With bevel and retaining spring	112	2	1.2	0.6	-	107
Side cutters	Without bevel and retaining spring	112	-	-	-	0.5-2	108
End cutting nippers	Without bevel	112	-	-	-	0.5-2	110

63210 ESD electronics cutters

ESD

ATORN®

Design
- Two-component handle with soft, non-slip thermoplastic material
- With slip guard
- Inserted double-leaf spring
- Precision box joint, pushed-through (no readjustment required)
- Cutting edges inductively hardened

Applications
For work in the electronics and telecommunications industries as well as in precision engineering, service areas and **areas at risk of electrostatic discharge (ESD).** EGB protection in accordance with DIN EN 100 015.

63210 311+316

63210 312

63210 313-315

63210 317

63210 318

63210 310

Description	Design	Length mm	Up to wire diameter medium-hard mm	Up to wire diameter hard mm	Up to wire diameter copper mm	63210 ...
Mini side cutters	Pointed head, fine bevel	120	0.8	-	1.5	310
Side cutters	Oval head, with bevel	125	1.0	0.4	1.5	311
Side cutters	Oval head, with bevel	125	1.0	0.4	1.5	312
Side cutters	Pointed head, with bevel	125	1.0	0.3	1.5	313
Side cutters	Pointed head, fine bevel	125	1.0	-	1.5	314
Side cutters	Pointed head, fine bevel	125	0.8	-	1.5	315
Side cutters	Oval head, with bevel	140	1.5	0.7	2.0	316
Angled cutters	Straight head, horizontal and vertical operation, fine bevel	120	1.0	0.4	1.2	317
Pointed cutters	Slim jaws, fine bevel	130	0.6	-	0.8	318

63211 ESD electronics pointed pliers

ATORN®

Design
- Two-component handle with soft, non-slip thermoplastic material
- With slip guard
- Inserted double-leaf spring
- The gripping pliers have no cutting edge and are therefore not inductively hardened
- Precision box joint, pushed-through (no readjustment required)
- Cutting edges inductively hardened

Applications
For work in the electronics and telecommunications industries as well as in precision engineering, service areas and **areas at risk of electrostatic discharge (ESD).**
EGB protection in accordance with DIN EN 100 015.

63211 101

Version	Length mm	63211 ...
Pointed jaws, without cut (smooth)	130	**101**
Pointed short jaws, without cut (smooth)	130	**102**
Flat jaws, without cut (smooth)	130	**103**
Round jaws, without cut (smooth)	130	**104**
Pointed long jaws, with cut	155	**105**

63212 Cemented carbide ESD electronics side cutters

ATORN®

Design
- With cemented carbide cutting edge
- Two-component handle with soft, non-slip thermoplastic material
- With slip guard
- Inserted double-leaf spring
- Pliers with cemented carbide cutting edges are not inductively hardened
- Precision box joint, pushed-through (no readjustment required)
- Cutting edges inductively hardened

Applications
For extreme requirements in the aerospace industry. In particular for tough nickel, electrodes, diodes and piano wires. For work in the electronics and telecommunications industries as well as in precision engineering, service areas and areas at risk of electrostatic discharge (ESD). EGB protection in accordance with DIN EN 100 015.

63212 101

Design	Length mm	Up to wire diameter medium hard mm	Up to wire diameter hard mm	Up to wire diameter piano mm	63212 ...
Oval head, with bevel	125	2.0	1.0	0.6	**101**

63250 Electronics side cutters

HHW

Design
- **Oval head,** jet black bronzed, polished
- Red plastic-coated arms
- Box joint articulation
- Double-leaf opening spring

Applications
For extremely fine electronics work.

Quality
C 60, inductively hardened cutting edges.

63250 101
Design
- With bevel

63250 102
Design
- Without bevel

63250

Up to wire diameter piano mm	Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63250 ...
0.4	**0.6**	**1.0**	**1.2**	7.5	11	115	**101**
-	**-**	**1.0**	**1.2**	7.5	11	115	**102**

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63252 Electronics side cutters

Design
- **Narrow head,** pointed, jet black bronzed, polished
- Red plastic-coated arms
- Box joint articulation, double-leaf opening spring

Applications
For extremely fine electronics work.

Quality
C 60, inductively hardened cutting edges.

63252 101
Design
- With 1/2 bevel

63252 102
Design
- Without bevel

63252

Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63252	...
0.4	1.0	1.0	10	11	115		101
-	1.0	1.0	10	11	115		102

63255 Electronics holding side cutters

Design
- **Oval head,** with wire holder, mini bevel, jet black bronzed, polished
- Red plastic-coated arms
- Box joint articulation
- Double-leaf opening spring

Applications
For extremely fine electronics work.

Quality
C 60, inductively hardened cutting edges.

63255

Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63255	...
0.4	1.2	1.2	7.5	11	115		101

63258 Electronics angled end cutting nippers

Design
- **Oval head,** with wire holder, mini bevel, jet black bronzed, polished
- Red plastic-coated arms
- Box joint articulation
- Double-leaf opening spring

Applications
For extremely fine electronics work.

Quality
C 60, inductively hardened cutting edges.

63258

Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63258	...
1.2	1.4	7	10	115		101

63270 Electronics side cutters DIN/ISO 9654

Design
- **Very slim shape**
- Narrow head, bronzed, anti-glare
- Handles with plastic sleeves
- Captive, friction-free double leaf opening spring

Applications
For extremely fine work on electronic components.

Quality
Special tool steel, inductively hardened precision cutting edges. Approx. 64 HRC.

63270 101
Design
- With chamfer

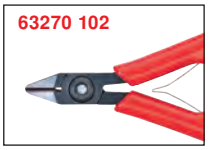
63270 102
Design
- With chamfer and wire clamp

63270 103
Design
- With a small chamfer, for flush cutting

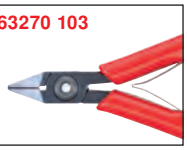
63270 101

Up to wire diameter piano mm	Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63270	...
0.4	0.6	1.0	1.3	6.5	10.5	125		101
0.4	0.6	1.0	1.3	6.5	10.5	125		102
0.3	0.4	0.9	1.3	6.5	10.5	125		103

63270 102



63270 103



63271 Electronics side cutters

KNIPEX

63271 100-105+107
Design
- With two-colour multi-component grip covers
- Robust, clearance-free box joint
- Low-friction double spring for smooth, even opening action
- Combined with a fine oil film, the mirror polish offers good rust protection - no interference in the circuit due to flaking chrome parts
- Cutting edges additionally inductively hardened
- Special-grade tool steel, forged, oil-hardened

Applications
Precision pliers for extremely fine cutting work e.g. in electronics and precision engineering.

Quality
Special tool steel, oil-hardened and annealed.

63271 100
Design
- Round head, with small chamfer
- Blade hardness approx. 62 HRC

63271 101
Design
- Round head, with chamfer
- Blade hardness approx. 62 HRC
- With wire clamp - no uncontrolled displacement of wire sections

63271 102
Design
- Round head, without chamfer
- Blade hardness approx. 57 HRC

63271 103
Design
- Pointed head, with small chamfer
- Blade hardness approx. 62 HRC

63271 105
Design
- Pointed mini-head, with small chamfer
- Blade hardness approx. 62 HRC

63271 107
Design
- Pointed head, without chamfer
- Blade hardness approx. 62 HRC

63271 106
Design
- Lap joint
- With two-colour multi-component grip covers
- With sharp, precisely closing cutting edges for soft wire, hard wire and piano wire
- Cutting edges additionally inductively hardened
- Blade hardness approx. 63 HRC

Quality
Vanadium electric steel, forged, oil-hardened

63271 100

63271 101

63271 102

63271 103

63271 105

63271 107

63271 106

Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63271	...
0.6	1.2	1.6	7.5	11.0	115		100
0.6	1.2	1.6	7.5	11.0	115		101
-	1.0	1.3	7.0	11.0	115		102
0.5	1.0	1.3	7.5	11.0	115		103
-	-	0.8	6.0	9.5	115		105
-	1.3	1.6	9.5	15.0	130		107
-	-	2.5	9.0	14.5	125		106

63272 ESD electronics side cutters

KNIPEX

Design
- **Electrically-conductive - dissipative**
- Precision box joint, pushed-through
- Low-friction double spring for smooth, even opening action
- Combined with a fine oil film, the mirror polish offers good rust protection - no interference in the circuit due to flaking chrome parts
- Cutting edges additionally inductively hardened, cutting edge hardness approx. 62 HRC
- Grips with two-colour multi-component grip covers black/grey

Applications
Precision pliers for extremely fine cutting work e.g. in electronics and precision engineering.

Quality
Special-grade tool steel, fully oil-hardened and annealed.

63272 101
Design
- Round head, with small chamfer

63272 102
Design
- Pointed head, without chamfer

63272 107
Design
- Pointed mini-head with small chamfer

63272 101

63272 102

63272 107

Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63272	...
0.6	1.2	1.6	7.5	11.0	115		101
-	0.8	1.3	7.0	11.0	115		102
-	-	0.8	6.0	9.5	115		107

63273 Electronics side cutters DIN/ISO 9654

KNIPEX

Design
- **Heavy-duty design,** polished
- Handles with plastic sleeves,
- Box joint
- Captive, friction-free double leaf opening spring
- With wire clamp and chamfer

Quality
Special-grade tool steel, cutting edges additionally inductively hardened, approx. 62 HRC.

63273

Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63273	...
0.6	1.2	1.6	7.5	11	115		101

63274 Electronics end (angled) cutting nippers DIN/ISO 9654

KNIPEX

Design
- **Head mirror-polished**
- Handles with two-colour multi-component grip covers
- Precision box joint, pushed-through
- Low-friction double spring for smooth, even opening action
- Combined with a fine oil film, the mirror polish offers good rust protection - no interference in the circuit due to flaking chrome parts.

Applications
Precision pliers for extremely fine cutting work e.g. in electronics and precision engineering.

Quality
Special-grade tool steel, forged, oil-hardened. Cutting edges additionally inductively hardened, approx. 56 HRC.

63274 101
End angled cutting nippers
Design
Short head, without chamfer, cutting edge angle 27°.

63274 102
End cutting nippers
Design
With chamfer, cutting edge angle 90°.

63274 101

63274 102

Up to wire diameter hard mm	Up to wire diameter medium hard mm	Up to wire diameter soft mm	Head thickness mm	Head width mm	Length mm	63274	...
-	-	1.3	7.0	10.5	115		101
0.6	1.0	2.0	7.5	11.0	115		102

63275 Electronics side cutters electronics Super Knips® DIN/ISO 9654

KNIPEX

Design
- Grips with two-colour multi-component grip covers
- Play-free joint
- Ground, very sharp cutting edges **without bevel** for flush cutting
- With opening spring and opening limiter

63275 101-103
Design
- **Bare head**

Applications
For soft wire.

Quality
Stainless steel.
Cutting edge hardness approx. 54 HRC.

63275 102
Design
- **With wire clamp**

63275 103
Design
- **Cutting edge angled 60°**

63275 105-106
Design
- Cutting edges additionally inductively hardened
- **Head bronzed**
- Anti-glare

Quality
Special tool steel.
Cutting edge hardness approx. 64 HRC.

63275 105
Applications
For hard and soft wire.

63275 106
Design
- **With wire clamp**

Applications
For hard and soft wire.
Also suitable for cutting fibre-optic cables.

63275 107
Design
- Joint with stainless steel rivet
- Cutting edges additionally inductively hardened
- Extremely smooth action for fatigue-free work
- With narrow head

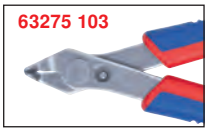
Applications
For extremely fine cutting work, e.g. in electronics and precision engineering.

Quality
Special tool steel, bronzed.
Cutting edge hardness approx. 60 HRC.

63275 101

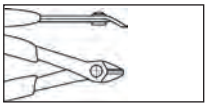
63275 102

63275 103



63275 105

63275 106



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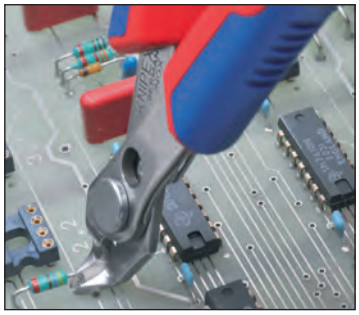


Up to wire diameter piano mm	Up to wire diameter medium hard mm	Up to wire diameter soft mm	Length mm	Jaw length mm	63275	...
-	1.0	0.2-1.6	125	9.0		101
-	1.0	0.2-1.6	125	9.0		102
-	0.6	0.2–1.0	125	5.5		103
0.6	1.2	0.2-1.6	125	9.0		105
0.6	1.2	0.2-1.6	125	9.0		106
-	-	0.2-1.0	125	9.0		107

63276 ESD side cutters Super-Knips

KNIPEX

Design
- **Electrically-conductive handles –dissipative**
- Grips with two-colour multi-component grip covers black/grey
- Ground, very sharp cutting edges **without bevel** for flush cutting
- Precisely shaped tips also cut attached wires from a diameter of 0.2 mm
- Joint with stainless steel rivet
- Extremely smooth action for fatigue-free work
- With opening spring and opening limiter

Applications
Precision pliers for extremely fine cutting work e.g. in electronics and precision engineering.

63276 101
Design
- INOX - stainless steel
- Blade hardness approx. 54 HRC
- Special tool steel, polished

63276 105
Design
- Cutting edges additionally inductively hardened
- Blade hardness approx. 64 HRC
- Special tool steel, bronzed

63276 106
Design
- INOX - stainless steel
- Blade hardness approx. 54 HRC
- Special tool steel, polished
- With wire clamp - no uncontrolled displacement of wire sections

63276 107
Design
- Cutting edges additionally inductively hardened
- Blade hardness approx. 64 HRC
- Special tool steel, bronzed
- With wire clamp - no uncontrolled displacement of wire sections

63276 101

63276 105

63276 106

63276 107

						Without wire clamp		With wire clamp	
Up to wire diameter hard mm	Up to wire diameter soft mm	Up to wire diameter copper mm	Head thickness mm	Head width mm	Length mm	63276	...	63276	...
-	1.0	1.6	7.5	13.5	125		101		106
0.6	1.2	1.6	7.5	13.5	125		105		107

63285 Electronics side cutters

BAHCO

Design
- Grip covers made from cellulose acetate
- Nickel-plated, chrome-plated, high-gloss polished
- With opening spring
- Wear-free screw joint

Quality
SKF special steel,
cutting edges inductively hardened.

63285

Design	Up to wire diameter hard mm	Up to wire diameter copper mm	Length mm	63285	...
Very slim shape, cutting edge angled 12°, with bevel	0.25	1.25	110.0		102
Slim shape, rounded head, with bevel	0.50	1.25	110.0		104
Heavy-duty model, cutting edge angled 12°, with bevel	0.70	1.60	125.0		106
Heavy-duty model, cutting edge angled 12°, without bevel	-	1.60	125.0		107

63288 Electronics side cutters

BAHCO

Design
- Grip covers made from cellulose acetate
- Nickel-plated, chrome-plated, high-gloss polished
- Very slim shape
- Pointed jaws
- With clamping spring
- Without bevel

Quality
SKF special steel,
Inductively hardened blades.

63288

Up to wire diameter hard mm	Up to wire diameter copper mm	Length mm	63288	...
-	1.0	110		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

63292 Electronics side cutters

LINDSTROM

Design
- **Pointed jaws**
- Black bronzed

- Overlaid precision joint with screw connection
- Plastic grip covers
- With opening spring

Quality **63292**
High-alloy ball bearing steel.

Design	Up to wire diameter copper mm	Length mm	63292 ...
With bevel	1.25	110	201
With fine bevel	1.25	110	200
Without bevel	1.00	110	202

63293 Electronics side cutters

LINDSTROM

Design
- **Pointed, fluted jaws**
- Black bronzed

- Overlaid precision joint with screw connection
- Plastic grip covers
- With opening spring

Quality **63293**
High-alloy ball bearing steel.

Design	Up to wire diameter Copper mm	Length mm	63293 ...
With small bevel	1.0	110	102
Without bevel	0.8	110	103

63295 Electronics side cutters

LINDSTROM

Design
- **Oval jaws**
- Black bronzed

- Overlaid precision joint with screw connection
- Plastic grip covers
- With opening spring

Quality **63295**
High-alloy ball bearing steel.

Design	Up to wire diameter Spring steel mm	Up to wire diameter copper mm	Length mm	63295 ...
With bevel	0.4	1.60	112.5	101
With small bevel	-	1.60	112.5	102
Without bevel	-	1.25	112.5	103

63296 Electronics side cutters

LINDSTROM

Design
- **Oval jaws**
- Black bronzed

- Overlaid precision joint with screw connection
- Plastic grip covers
- With opening spring

Quality **63296**
High-alloy ball bearing steel.

Design	Up to wire diameter Piano mm	Up to wire diameter copper mm	Length mm	63296 ...
With bevel	0.4	2.0	125	101
With small bevel	-	2.0	125	102
Without bevel	-	1.6	125	103

63297 Electronics side cutters

LINDSTROM

Design
- **Pointed jaws**
- Black bronzed

- Overlaid precision joint with screw connection
- Plastic grip covers
- With opening spring

Quality **63297**
High-alloy ball bearing steel.

Design	Up to wire diameter Spring steel mm	Up to wire diameter copper mm	Length mm	63297 ...
With bevel	0.4	2.0	125	101

63298 Electronics angled end cutting nippers

LINDSTROM

Design
- Jaws black bronzed
- With small bevel, angled at 45°

- Overlaid precision joint with screw connection
- Plastic grip covers
- With opening spring

Quality **63298**
High-alloy ball bearing steel.

Design	Up to wire diameter Copper mm	Length mm	63298 ...
With small bevel	0.8	117.5	103

63299 Precision electronics side cutters DIN ISO 9654/9655

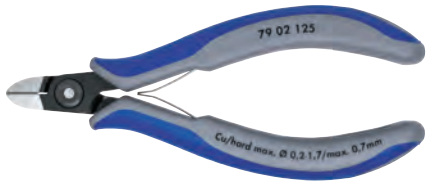
KNIPEX

Design
- Ergonomic two-component grip cover
- With opening spring
- Precision-ground joint surfaces
- Very precisely ground, sharp cutting edges with very small bevels for exact cuts on delicate electronic components
- Cutting edges additionally inductively hardened
- Cutting edge hardness approx. 64 HRC

Applications
For extremely fine cutting work, e.g. in electronics and precision engineering. Designs without bevel for flush cutting.

Quality
Made from chrome-vanadium ball-bearing steel, forged.

63299 101



Design	Up to wire diameter hard mm	Up to wire diameter medium mm	Up to wire diameter soft mm	Length mm	63299	...
Round head with fine bevel	0.7	1.3	0.2-1.7	125		101
Pointed head with fine bevel	0.6	1.1	0.2-1.5	125		103
Mini-head without bevel	-	0.8	0.1-1.3	120		106

63299 103

63299 106

63301 ESD precision electronics side cutters and gripping pliers

KNIPEX

63301 101-103
ESD precision electronics side cutters
Design
- Pliers with small bevels for precise cuts even on delicate electronic components
- Cutting edges additionally inductively hardened
- Blade hardness approx. 64 HRC
- Design electrically-conductive, dissipative
- Two-colour multi-component ESD grip covers

Applications
For extremely fine cutting work e.g. in electronics and precision engineering. Designs without bevel for flush cutting.

Quality
Made from chrome vanadium ball bearing steel, head bronzed.

63301 107
ESD precision electronics gripping pliers
Design
- Electrically-conductive, dissipative
- Two-colour multi-component ESD grip covers
- Smooth ground gripping surfaces
- Fine rounded edges

Applications
For assembly work, e.g. in electronics and precision engineering. For gripping, holding and bending.

Quality
Made from chrome vanadium ball bearing steel, head bronzed.

63301 101

63301 102

63301 103

63301 107

Design	Up to wire diameter hard mm	Up to wire diameter medium mm	Up to wire diameter soft mm	Length mm	63301	...
Round head with very small bevel	0.7	1.3	0.2-1.7	125		101
Round head without bevel	-	1.0	0.1-1.7	125		102
Pointed head with very small bevel	0.6	1.1	0.2-1.5	125		103
Flat, wide jaws	-	-	-	135		107

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63315 - 63316 Electronics and ESD gripping pliers

KNIPEX

Design
- Precision box joint, pushed-through
- Smooth ground gripping surfaces
- Edges carefully deburred
- Low-friction double spring for smooth, even opening action
- Combined with a fine oil film, the mirror polish offers good rust protection - no interference in the circuit due to flaking chrome parts
- Handles with two-colour multi-component grip covers

Applications
Precision pliers for extremely fine assembly work e.g. in electronics and precision engineering, for gripping, holding and bending.

Quality
Special tool steel, oil-hardened and annealed.

63315 101
- Flat, wide jaws

63315 102
- Flat, round jaws

63315 103
- Round, pointed jaws

63315 104
- 45° angled, flat, round jaws

63315 105
- Straight jaws

63315 106
- Angled jaws

63316 101
- **Electrically-conductive - dissipative**
- Flat, wide jaws

63316 102
- **Electrically-conductive - dissipative**
- Flat, round jaws

63316 103
- **Electrically-conductive - dissipative**
- Round, pointed jaws

63316 104
- **Electrically-conductive - dissipative**
- 45° angled, flat, round jaws

Length mm	63315 ...	ESD 63316 ...
115	101	101
115	102	102
115	103	103
115	104	104
145	105	
145	106	

63320 Electronics flat-nose pliers

Design
- **Smooth jaws,** jet black etched, polished
- Red plastic-coated arms
- Box joint articulation
- Double-leaf opening spring

Quality
C 45.

Jaws	Jaw length mm	Total length mm	63320 ...
short	23	120	101
long	40	145	102

63323 Electronics pointed pliers

Design
- **Smooth jaws,** jet black etched, polished
- Red plastic-coated arms
- Box joint articulation
- Double-leaf opening spring

Quality
C 45.

Jaws	Jaw length mm	Total length mm	63323 ...
short	23	120	101
long	38	145	102
Needle shaped, long	38	145	104
45° bent	23	120	105

63355 ESD electronics pliers set

KNIPEX

Design
- In synthetic leather case
- With precision box joint and captive, low-friction double spring
- With two-colour multi-component grip covers, **electrically-conductive**

Applications
For work in the electronics and telecommunications industries as well as in precision engineering, service areas and **areas at risk of electrostatic discharge (ESD).**

63355

Set contents	Design	Length
1 **Gripping pliers**	Flat wide jaws	115 mm
1 **Gripping pliers**	Flat round jaws	115 mm
1 **Gripping pliers**	Flat round jaws 45° angled	115 mm
1 **Side cutters**	Round head, with small bevel	120 mm
1 **Side cutters**	Pointed head, with small bevel	115 mm
1 **Angled end cutting nippers**	With small bevel	115 mm

Content	63355	...
6 pieces		101

63380 Electronics side cutters DIN ISO 5749

BAHCO

Design
- **Oval jaws**
- Bronzed
- Computer-ground cutting edges and jaws
- With opening spring and clamping springs to hold cut pieces of wire

Applications
For work in precision engineering, electronics and telecommunications.

Quality
High-performance tool steel, cutting edges inductively hardened 58-60 HRC.

63380

Design	Up to wire diameter copper mm	Length mm	Head thickness/width mm	63380	...
With bevel	0.3-1.5	120	6.8/11		101
Fine bevel	0.3-1.5	120	6.8/11		102

63385 Electronics angled end cutting nippers DIN ISO 5748

BAHCO

Design
- Bronzed
- Computer-ground cutting edges and jaws
- With opening spring

Applications
For work in precision engineering, electronics and telecommunications.

Quality
High-performance tool steel, cutting edges inductively hardened 58-60 HRC.

63385

Design	Up to wire diameter copper mm	Length mm	Head thickness/width mm	63385	...
Fine bevel	0.3-1.25	119	6.8/10		101

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63400 Tweezers sets

Design
In synthetic leather case, length approx. 145 mm.

Quality
Stainless steel, anti-glare.

	63400...	201	202
1 Fitting tweezers for vertical components		X	X
1 Fitting tweezers for horizontal components		X	X
1 Fitting tweezers for diagonal components		X	X
1 Fitting tweezers for flat components		X	X
1 Unsoldering tweezers with gripper for pulling out components that are stuck		X	X
1 Gripping pincers for flat components such as platelet condensers, etc.		X	
1 Cold tweezers, cold jaws made from copper, anti-magnetic		X	
1 Precision engineering tweezers, hollow point, straight			X
1 Precision engineering tweezers, flat, fine tapering point, straight			X
1 Pointed tweezers, with serrated back and points, straight			X
1 Gripping pincers, heavy-duty design, rounded grip ends, rough teeth, straight			X
1 Mounting tweezers, with guide pin, serrated gripper, bent			X

Content	63400	...
7 pieces		201
10 pieces		202

63400 201

63400 202

63403 - 63405 Universal tweezers

Quality
Nickel-plated steel.

63403 101-102
Sensitive, round, serrated tip 3 mm, straight.

63403 103
Plastic-coated up to the tip, red.

63405 101
Sensitive, slim tip 1.5 mm, serrated with guide pin, bent.

63405 102
Plastic-coated up to the tip, red, without guide pin.

Length mm	63403	...	63405	...
120		101		
145		102		
145		103		
155				101
155				102

63403 101-102

63403 103

63405 101

63405 102

63410 Precision tweezers

Design
- Sensitively spring-loaded
- Wide jaws
- Fine long tips

63410 101
Quality
Nickel-plated steel.

63410 102
Quality
Stainless steel, non-magnetic.

Length mm	63410	...
130		101
130		102

63410

63412 Precision tweezers, Touch Point

Design
- **Touch Point = Ergonomic grip pads that reduce the amount of force required by approximately 33%.** Bending forces on the tip of the tweezers and the components held are reduced
- Advantage when working with a limited field of view (work magnifying glasses, microscopes): The tweezers can be added without even looking, the proper grip position is found immediately

63412 101
Watchmaker tweezers
Design
- Straight, fine long tips, anti-glare matt

63412 102
Precision tweezers
Design
- Flat, fine long tips, anti-glare matt

63412 103
Electronics tweezers
Design
- Curved fine long tips with roll-bending, anti-glare matt

Length mm	63412	...
108		101
130		102
122		103

63412 101

63412 102

63412 103

63415 Titanium electronics tweezers

Design
- Extremely lightweight
- Electrically-conductive
- High degree of mechanical resilience
- Corrosion resistant to aggressive acids
- 100% anti-magnetic
- Anti-glare matt

Quality
Titanium, rust-free.

63415 101
Titanium electronics tweezers
Design
- Pointed

63415 102
Titanium universal tweezers
Design
- Pointed, bent
- Fine version, with pin

63415 103
Titanium watchmaker tweezers
Design
- Straight
- Fine tips

63415 101

63415 102

63415 103

Length mm	63415 ...
120	101
155	102
108	103

63417 ESD precision tweezers

63417 101
ESD watchmaker tweezers
Design
- Bent
- Fine tips
- **ESD safe**

63417 102
ESD electronics tweezers
Design
- Pointed
- **ESD safe**

63417 103
ESD electronics tweezers
Design
- Roll-bending
- Anti-glare matt
- **ESD safe**

63417 101

63417 102

63417 103

Length mm	63417 ...
108	101
120	102
122	103

63420 - 63430 Cross locking soldering tweezers

Quality
Nickel-plated steel.

63420
Design
- Wide, spatula-shaped tip
- Straight and serrated

63425
Design
- Fine tip, bent
- Heat dissipation guard made from plastic

63430
Design
- Straight, wide tip, rounded
- Soldered **copper jaws, heat dissipating**

63420

63425

63430

Length mm	63420 ...	63425 ...	63430 ...
160	101	101	101

63450 Precision watchmakers tweezers

Design
- Sensitively spring-loaded
- Hardened spring and tips
- Rust-free

63450 101
Design
- Non-magnetic
- Straight, pointed

Quality
Special steel.

63450 108
Design
- Bent tip

Quality
Austenitic steel.

63450 101

63450 108

Length mm	63450 ...
120	101
105	108

63455 Precision tweezers

Design
- Sensitively spring-loaded
- Hardened spring and tip

Quality
Special steel.

63455 101
Design
- Hollow point, polished

63455 102
Design
- Polished

63455 103
Design
- Polished
- Tip width 2 mm

63455

Length mm	63455 ...
112	101
127	102
120	103

63460 Jewellers tweezers

Design
- Sensitively spring-loaded
- Hardened spring and tip
- With rounded tips
- Jaws with fine teeth

Quality
Special steel.

63460 101+103
Design
- Polished and nickel-plated

63460 102
Design
- Plastic-coated up to the tip, red

63460 101+103

63460 102

Length mm	63460 ...
140	101
140	102
160	103

63465 Precision engineers tweezers

Design
- Sensitively spring-loaded
- Hardened spring and tip
- Rounded jaws with fine teeth

Quality
Special steel.

63465 101-105

63465 106-108

Version	Length mm	63465 ...
Polished and nickel-plated	120	101
Polished and nickel-plated	145	102
Polished and nickel-plated	200	103
Rust-free, non-magnetic	145	105
Plastic-coated up to the tip, red	120	106
Plastic-coated up to the tip, red	145	107
Plastic-coated up to the tip, red	200	108

63470 - 63475 Precision tweezers

Quality
Special steel.

63470
College model
Design
- Side angled
- Finely serrated
- Hardened tip

63470 103
Design
- Rust-free
- Non-magnetic

63470 104
Design
- Polished, nickel-plated
- Active part hardened

63470 105
Design
- Plastic-coated up to the tip, red

63475
Cross tweezers
Design
- Spring hardened
- Polished, nickel-plated

63470 103

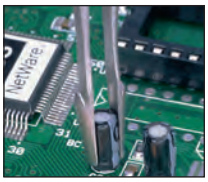
63470 105

63475 101

Length mm	63470 ...	63475 ...
150	103	
150	104	
150	105	
155		101

63482 Electronics fitting tweezers

Design
Smooth gripping surfaces.
Applications
For inserting and desoldering electronic components.
Quality
Stainless steel, anti-glare.



63482 101

63482 102

63482 103

For component diameter mm	Length mm	63482 ...
vertical 2.5-5	145	101
horizontal 2.5-5	145	102
diagonal 2.5-5	145	103

63483 ESD fitting tweezers

63483 101
Design
Diameter 3.5 mm horizontal, anti-glare matt,
ESD safe.

63483 102
Design
Diameter 1.5 mm diagonal, anti-glare matt,
ESD safe.

63483 101

63483 102

Length mm	63483 ...
120	101
120	102

63485 Electronics fitting tweezers

Design
- Wide gripping surfaces
Quality
Stainless steel, anti-glare.

63485 101
Applications
For flat components, e.g. platelet condensers

63485 102
Design
- Soft-coated gripping surfaces
- Temperature-resistant up to approx. 350 °C
Applications
For ceramic components.

63485 101

63485 102

Length mm	63485 ...
145	101
145	102

63492 Electronics unsoldering tweezers

Design
- With grippers

Applications
To pull out stuck, round or cubic components up to 10 mm.
Quality
Stainless steel.

63492

Length mm	63492 ...
145	101

63497 Magnifying tweezers

Design
- Hardened tips
- Magnifying glass diameter 30 mm
- Magnification 3 1/2 to 4 times

Quality
Special steel.

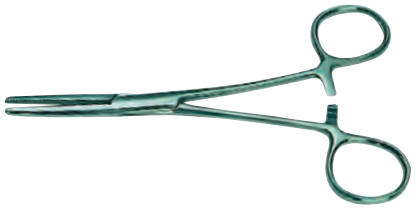
63497

Length mm	63497 ...
120	101

63499 Clamping tongs

Design
- Long hold
- Lockable with catch

Applications
Especially suitable for assembly work.
Quality
Stainless steel.

63499


Length mm	63499 ...
145	101

63614 ESD table trolley

63614 101
Table trolley SAP-507-ESD
- Base made from powder-coated steel profiles
- Table top 26 mm, resistant to heat, solder, acids and solvents
- Particle board core coated with ESD laminate
- Earthing occurs via a safety resistor
- Height-adjustable with hexagon socket screws from 650-900 mm
- With 4 steering rollers 100 mm, 2 of which are conductive and 2 with locking devices

Note:
Supplied without bottom plate (art. no. 63614 102).

63614 102
Bottom plate AT-507-ESD
For table trolley SAP-507 (art. no. 63614 101).

63614

	Type	Capacity kg	Colour RAL	63614	...
Table trolley	SAP-507-ESD	150	7045		101
Bottom plate	AT-507-ESD	-	-		102

63615 ESD swivel chair

Design
- 5 star cross base with soft, load-dependent braked, conductive rollers
- Safety gas spring
- Durable and conductive upholstery on the seat and backrest
- Upholstery covers can be cleaned with commercially available cleaning agents

63615

Standard seat height mm	Colour Upholstery	63615	...
400-530	grey		101

63625 ESD easy-view storage bin

Design
- Made from conductive polypropylene
- Corrugated base and large opening ensure convenient access

63625

External dimensions H x W x D mm	63625	...
75 x 105 x 165		101

63641 ESD bags SX10

Design
- Bags made from low-charging LDPE film
- Complies with requirements in line with DIN EN 61340-5-1
- Resealable using welded-in zip closure

63641

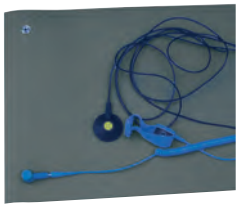
Width x length mm	Pack = piece	63641	...
203 x 254	100		102
254 x 305	100		103

63655 - 63656 ESD table covering set

63655
ESD table covering set
Design
- Table mat grey 600 x 900 mm, with 2 press studs 10 mm
- Textile adjustable wrist strap, with 10 mm press stud
- Easy-coil cable 1.8 m, 10 mm press stud/banana plug
- Banana plug adapter with 10 mm press stud
- Earthing cable 3 m (with 1 megohm safety resistor), black, 10 mm press stud and eyelet

63656
ESD table mat cleaner
Design
- Cleaning agent for dissipative and conductive surfaces
- Problem-free cleaning for conventional soiling
- Supplied in a 1 litre spray bottle

63655



63656

Type	Colour	63655	...	63656	...
Table covering set	grey		201		
Table mat cleaner	-				101

63670 ESD wrist straps

63670 101
Textile wrist strap
Design
- 10 mm DK
- Adjustable to fit any wrist size
- Anti-allergic, no metal contact
- Colour blue

63670 102
Textile wrist strap set
Design
- 10 mm DK - banana plug
- Textile strap adjustable to fit any wrist size
- Anti-allergic, no metal contact
- Including spiral cable 1.8 m
- Colour: blue

63670 104
Metal wrist strap set
Design
- 10 mm DK - banana plug
- Adjustable to fit any wrist size
- Replaceable plastic links
- Including spiral cable 1.8 m
- Colour: black

63670 105
Wrist strap earthing cable
Design
- 10 mm DK - 10 mm DK
- 1.8 m easy-coil cable with 1 megohm safety resistor

63670 101

63670 102

Type	63670 ...
Textile wrist strap	101
Textile wrist strap set	102
Metal wrist strap set	104
Wrist strap earthing cable	105

63670 104 63670 105

63680 ESD gloves

Design
- Polyamide fabric
- PU-coated fingertips
- Seam and lint-free
- Pairs

63680

Size	63680 ...
S	101
M	102
L	103
XL	104

63750 ESD brushes

Design
- Conductive plastic handle
- Natural bristles with integrated conductive fibres

63750 102

63750 104

Type	63750 ...
Round brush, 8.0 mm	102
Hard brush, 30.0 mm long	104

Special tools / PPE

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66001 - 66002 Bricklayer's trowels

Design
- Hardened steel blade
- Conical ground
- With S-neck
- Painted beech handle
- DIN 6441 C

66002
Stainless steel.

66001
66002

Blade length mm	Blade width mm	66001	...	rust-proof 66002	...
160	85/115		102		102
180	95/125		101		101

66003 - 66004 Berne plastering trowels

Design
- Hardened steel blade
- Conical ground
- With straight neck
- Painted beech handle
- DIN 6441 A

66004
Stainless steel.

66003
66004

Blade length mm	Blade width mm	66003	...	rust-proof 66004	...
140	85/60		101		101

66007 Cat's tongue

Design
- Hardened steel blade
- Conical ground
- With S-neck
- Painted beech handle

Quality
Stainless steel.

66007

Blade length mm	Blade width mm	rust-proof 66007	...
160	55		101

66008 - 66009 Plasterer's spatulas

Design
- Hardened steel blade
- Conical ground
- With straight neck
- Painted beech handle
- DIN 6441 C

66009
Stainless steel.

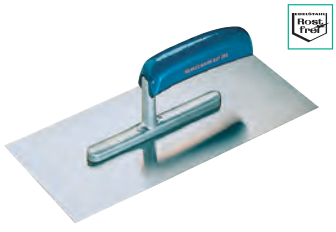
66008
66009

Blade length mm	Blade width mm	66008	...	rust-proof 66009	...
93	50		101		101
110	80		103		103

66020 - 66021 Smoothing trowels

Design
- Hardened steel blade
- 0.7 mm thick
- With no rivets
- With LM-support and bent, painted beech handle
- DIN 6439

66021
Stainless steel.



66020
66021

Blade length mm	Blade width mm	66020	...	rust-proof 66021	...
280	130		101		101

66216 Japanese surface spatulas

Design
- Highly flexible steel, hardness II, 0.31 mm thick
- With acid-resistant plastic back

66216

Width mm	66216 ...
50	101
100	102
Set of 4 pieces: 50, 80, 100 and 120	103

66218 Spatula

Design
- Blade made from electric steel
- With flat, oval wooden handle
- Conical ground
- With suspension hole

66218

Blade width mm	66218 ...
30	101
40	102
50	103

Blade width mm	66218 ...
60	104
80	105
100	106

66219 Decorator's stripping knife

Design
- Rustproof stainless steel
- Polished to a high gloss
- Flexible blade, conical ground
- Plastic handles with suspension hole

66219

Blade width mm	66219 ...
30	101
40	102
50	103

Blade width mm	66219 ...
60	104
80	105
100	106

66270 Plaster pot

Design
- Made from special soft PVC
- Conical curved
- Solidified plaster can be easily removed by pressing the flexible pot sides together

66270

Dimension mm	66270 ...
125 x 90	101

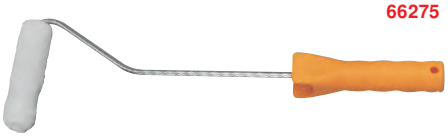
66275 - 66276 Radiator/small paint rollers

Design
- Rollers with plug cap
- Arms made from zinc-plated wire, diameter 6 mm
- Plastic handle
- Solvent-resistant

66275
Nylon rollers with gold threads
- Seamless covering, spiral shaped

66276
Moltoprene rollers
- Straight, cut from block

66275



66276

		Perlon with gold threads		Moltoprene	
	Width mm	66275	...	66276	...
Roller with arm	100	101		101	
Replacement roller, individual	100	102		102	

66280 Paint tray

Design
- Hostalen plastic, break-resistant and solvent-resistant

66280

Dimension cm	66280 ...
20 x 21 x 3.5	101

66285 Brush assortments

66285 101
Comprising:
- 3 round brushes
- 3 flat brushes

66285 102
Comprising:
- 3 round brushes
- 5 flat brushes
- 2 radiator paint brushes

66285 101

66285 102

Content	66285 ...
6 pieces	101
10 pieces	102

66288 Modler flat brushes

Design
- Light, pure bristles
- Metal clamp
- Limewood handle, premier strength

66288

Brush width approx. mm	Bristle length approx. mm	66288 ...
25	37	101

66289 - 66290 Flat and radiator paint brush

66289
Paint brush
Design
- With short handle
- Straight design
- Light, pure bristles

66290
Radiator paint brush
Design
- With 40 cm long handle
- Angled shape
- Strong, grey China bristles

66289

66290

Paint brush

Brush width approx. mm	Bristle length approx. mm	66289 ...
35	45	101
50	45	102
70	50	103

Radiator paint brush

Brush width approx. mm	Bristle length approx. mm	66290 ...
35	45	101
50	45	102
75	50	103

66293 Round paint brush

Design
- Universal round paint brush
- Wooden handle with suspension hole
- Bristles held in plastic capsule
- Rounded tip
- Light, pure bristles, metal-free grip

66293

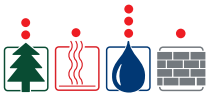
SizeBrush diameter mm	Bristle length mm	66293 ...
2	20	58	101
4	25	65	102
6	30	68	103

SizeBrush diameter mm	Bristle length mm	66293 ...
8	35	73	104
10	40	77	105

Info — Paint brush - suitable for various paint types

MESKO DIE PINSELMACHER

The pictograms indicate which paint types the brush is suitable for.
The number of points shows the quality level of suitability.



Example

very good ●●●
good ●●
components ●

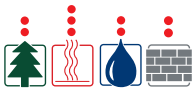
Glazes — Solvent-based paints — Water-based paints — Dispersions

66291 Paint brush

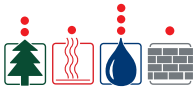
MESKO DIE PINSELMACHER

66291 101-103
Flat paint brush, multi-colour
Design
- 12 Thickness
- Fully synthetic mix M12
- Red polyamide plastic grip
- Fully bonded
- Beech handle

66291 201-203
Flat brush, aqua
Design
- 12 Thickness
- Fully synthetic mix M3
- Blue polyamide plastic grip
- Fully bonded
- Beech handle



66291 101-103



66291 201-203

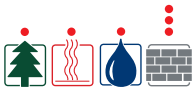
		Multi-colour		Aqua	
Brush width approx. mm	Bristle length approx. mm	66291	...	66291	...
25	43		101		
25	49				201
50	56		102		
50	59				202
60	56		103		
60	61				203

66292 Radiator paint brush and façade paint brush

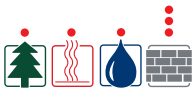
MESKO DIE PINSELMACHER

66292 101-103
Radiator paint brush
Design
- Best mix M6
- Tin plate grip
- Beech handle

66292 104
Façade paint brush
Design
- Double strength
- Best mix M6
- Rust-free stainless steel grip
- Fully bonded
- Beech handle



66292 101-103



66292 104

		Radiator paint brush		Façade paint brush	
Brush width approx. mm	Bristle length approx. mm	66292	...	66292	...
35	49		101		
50	54		102		
60	54		103		
75	60				104

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66297 Round brush

66297 201-203
Round brush, Master class
Design
- Good mix M66
- Single yellow cord binding
- Nickel ring
- Red cover
- Beech handle

66297 301-303
Round brush, Aqua
Design
- Fully synthetic mix M3
- Double detachable, blue polyamide plastic grip
- Blue cover
- Beech handle

66297 401-403
Round brush, Multi-colour
Design
- Fully synthetic mix M12
- Double detachable, red polyamide plastic grip
- Red cover
- Beech handle

66297 201-203

66297 301-303

66297 401-403

Size	Brush diameter mm	Master class 66297 ...	Aqua 66297 ...	Multi-colour 66297 ...
4	25	201	301	401
6	30	202	302	402
8	35	203	303	403

66281 Large paintbrush

66281 101
Large paintbrush, Master class
Design
- Good mix M55
- Tin plate grip
- Wooden cover
- Metal holder
- Beech wood handle

66281 102
Large paintbrush, Aqua
Design
- Fully synthetic mix M3
- Blue polyamide plastic grip
- Black plastic cover and holder
- Beech wood handle

66281 103
Large paintbrush, Multi-colour
Design
- Fully synthetic mix M12
- Red polyamide plastic grip
- Black plastic cover and holder
- Beech wood handle

66281 101

66281 102

66281 103

Brush width approx. mm	Bristle length approx. mm	Master class 66281 ...	Aqua 66281 ...	Multi-colour 66281 ...
100	57	101		
100	66		102	103

66282 Ceiling brush

Design
- Punched, rectangular
- Synthetic bristles, unfinished wood body
- Black plastic holder and handle

66282

Size mm	Bristle length approx. mm	66282 ...
170 x 70	75	101

Special tools / PPE

66296 Flat crepe adhesive tape

66296 101-105
Design
- In the best professional painter quality
- Heat resistant up to 80 °C
- Moisture-proof

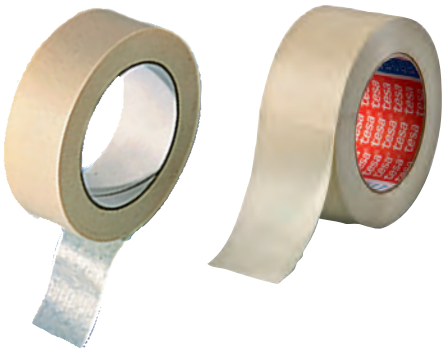
66296 201-205

tesa

type 4316
Design
- Standard industrial masking tape
- Lightly creped with good adhesion on various surfaces
- Stretchable and flexible
- Easily removable

Applications
General covering work up to a temperature of 100 °C.

66296 101-105 66296 201-205



Width mm	Length m	Colour	tesa 66296	...	tesa 66296	...
19	50	chamois		101		201
25	50	chamois		102		202
30	50	chamois		103		203
38	50	chamois		104		204
50	50	chamois		105		205

66294 Soft PVC adhesive tape

66294 101
Design
- Crosswise grooving
- UV-resistant
- Adhesive layer can be completely removed

Applications
Specially designed for areas exposed to the sun and anodised metal surfaces.

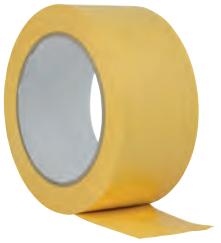
66294 201-202

tesa

type 4172
Design
- Made from soft and tear-resistant plasticised PVC film and synthetic rubber adhesive
- Resistant to moisture
- Resistant to cold, weak alkalis and acids as well as many chemicals

Applications
Protects the surfaces of delicate profiles, frames and veneers from dirt and damage from materials and tools before and during construction work. Can be used for plasterwork, painting and masonry.

66294 101



66294 201 66294 202

Width mm	Length m	Colour	tesa 66294	...	tesa 66294	...
50	33	yellow		101		202
50	33	white				201

66295 Fabric adhesive tape

66295 101
Design
- Mesh-reinforced PE extra strong adhesive tape
- Pigmented rubber adhesive with high adhesive force for almost any surface
- Colour silver grey, black

Applications
As standard assembly tape for masking pipes and ventilation slots, as well as to fasten films to metal, plastic, plaster and concrete. Can be used at temperatures of between -20 °C and +80 °C.

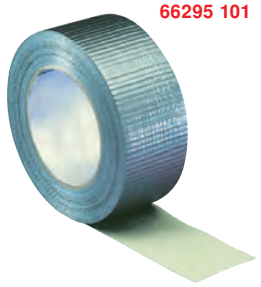
66295 201-202

tesa

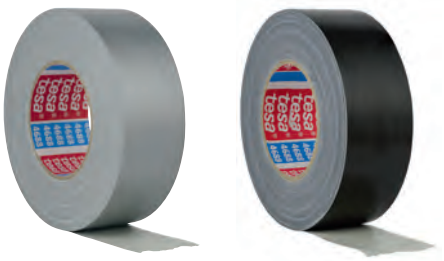
type 4688
Design
- High initial adhesive force, even on rough surfaces
- Easy to tear off by hand
- Easy to unroll
- Waterproof and resistant to ageing
- Strong but flexible

Applications
For marking, covering, packaging, protecting, sealing etc. For fixing cables and as a floor marker for theatre and stage applications. For securing attachments, general marking work, sealing of bags and cardboard boxes.
Can be used as a versatile repair tape.

66295 101



66295 201 66295 202



Width mm	Length m	Colour	tesa 66295	...	tesa 66295	...
50	50	silver grey/black		101		
50	50	silver				201
50	50	black				202

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62353 Fabric adhesive tape

62353 101
Design
- Sealed surface
- Resistant to weathering and ageing
- Can be written on
- The electronic properties are much higher than the requirements for Type G2 according to VDE 0340, Part 2/DIN 40633, Page 2

Applications
For installation and repair work.
For wrapping, reinforcing, protecting, sealing, fastening and marking of cables, wires and connections.

62353 201-203
tesa
Type 4651
Design
- Strong adhesive, even on rough, fibrous surfaces and surfaces treated with a release agent
- Waterproof, resistant to weathering and ageing
- Excellent tensile strength
- Can be written on, soft, smooth and abrasion-resistant
- Very easy to tear by hand

Applications
For bundling and reinforcing pipes and profiles, masking of drill holes and other openings. Marking of cables, fixing and insulation of cables. Colour coding of wires, permanent, air-tight sealing of wiring, etc.

62353 101

62353 201

62353 202

62353 202

Width mm	Length m	Colour	62353 ...	tesa 62353 ...
19	25	grey	101	
19	25	black		201
19	25	silver		202
19	25	red		203

62336 Double-sided adhesive tape

3M
Type 9088
Design
- Double sided adhesive tape with polyester carrier
- Modified acrylate adhesive
- Good UV and temperature resistance

Applications
Suitable for a wide range of high and low-energy surfaces. Suitable for universal use.

62336

Width mm	Length m	62336 ...
25	50	101
50	50	102

62341 Assembly tape

3M
Design
- Double-sided adhesive tape made from closed-cell acrylate adhesive
- Good adaptability to the surfaces to be bonded
- Bonds entire surfaces without clamping, regardless of whether they are smooth or textured

62341 101
Type 4611 F
Applications
For bonding metals such as steel, stainless steel and aluminium and other high-energy materials such as, for example, painted surfaces, painted wood, glass, ceramics and many plastics.

62341 102
Type 4910 F
Applications
For bonding transparent materials such as glass, polycarbonate, acrylic glass (PMMA) and other high-energy materials such as, for example, metals, painted surfaces, painted wood, ceramics and many plastics.

62341 103
Type 5952 F
Applications
For bonding low-energy materials such as, for example, powder coatings and high-energy materials such as, for example metals (e.g. steel, stainless steel and aluminium), painted surfaces, painted wood, glass, ceramics and many plastics (e.g. rigid PVC, ABS, acrylic glass/PMMA, polycarbonate).

62341 101

62341 102

62341 103

Width mm	Length m	Colour	62341 ...
19	3	grey	101
19	3	transparent	102
19	3	black	103

62337 Aluminium adhesive tape

3M

Design
- Outstanding sealing properties thanks to good moisture shielding (water vapour diffusion)
- A combination of robust aluminium and durable adhesive for problem-free long-term applications
- Low flammability (class L)
- Good resistance to chemicals
- High level of resistance to ageing and weathering
- Strong heat and light reflection

Applications
For masking, sealing, heat and light reflection, covering surfaces during aluminium anodising and for use as a moisture barrier.

62337

Width mm	Length m	62337 ...
25	55	101
50	55	102

62338 Universal hook and loop tape

3M

Design
- Universal hook and loop Scotchflex tape for permanent as well as releasable bundling of cables, etc.

62338

Width mm	Length m	62338 ...
20	10	101

62339 Universal hook and loop tape

3M

Design
- Dispenser with 5 m hook and loop tape for easy use
- The releasable fastening system allows for quick and easy assembly or disassembly and non-visible fixing
- The synthetic rubber adhesive ensures the highest retention force on all surfaces

Applications
For quickly detachable connections in mechanical engineering, automotive and trade fair construction.

62339

Width mm	Length m	Colour	62339 ...
25	5	black	101

62340 Electrical insulating tape

3M

Design
- Scotch™ 23 electrical insulating tape, self-fusing
- Binds homogeneous fused winding layers
- Excellent dielectric properties
- Weather-resistant

62340

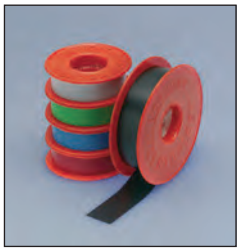
Width mm	Length m	62340 ...
19	9.15	101

62343 - 62351 Electrical insulating tape IEC 60454

Design
- High-quality soft PVC film, combined with an ageing-resistant acrylic-based adhesive material
- Tape width 15 mm
- Tape thickness 0.15 +/-0.003 mm
- High adhesive strength, soft, self-extinguishing, lead-free, easy to work with
- Complies with VDE, ÖVE and SEV according to type test IEC 60454-3-1-10/F-PVCp/105
- Temperature-resistant from –10° to +105° C

Applications
Suitable for all standard insulation work in electrical applications. Can also be used universally for repairs, colour coding and bundling.

62343 - 62351



		green/yellow		brown		grey		yellow		green		red		blue	
Roll length m	Width mm	62343	...	62344	...	62345	...	62346	...	62347	...	62348	...	62349	...
10	15		101		101		101		101		101		101		101
25	15		102		102		102		102		102		102		102

		black		white	
Roll length m	Width mm	62350	...	62351	...
10	15		101		101
25	15		102		

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68388 Warning tape, self-adhesive

Design
- Waterproof
- Good abrasion resistance
- Very strong adhesion
- Can be processed manually and by machine
- Can be walked on immediately after adhesion

Applications
To mark the boundary of width and height, moving devices and obstacles, flammable substances, etc.

68388 101 68388 102

Colour	Width mm	Length m	68388 ...
red/white	60	66	101
black/yellow	60	66	102

68389 Non-slip and floor marking tape

tesa

68389 101
Type 60951
Non-slip tape
Design
- Very good adhesive strength on various surfaces
- UV, moisture and salt water resistant
- Step safety in hazardous areas such as stairs, steps, slopes, ladders, ramps, car trailers, scaffolding etc.
- Long-lasting non-slip effect

Applications
Suitable for use indoors and outdoors.

68389 102
Type 4169
Floor marking tape
Design
- Robust, durable carrier
- Soft, can be applied in curves
- Sticks on dry and clean floors
- Can be driven over by a forklift

Applications
Suitable for permanent, demanding marking both indoors and outdoors, marking boundaries of work areas, paths and playing fields.

68389 101 68389 102

Width mm	Length m	Colour	Non-slip tape 68389 ...	Floor marking tape 68389 ...
50	15	yellow/black	101	
50	33	yellow/black		102

68390 Warning tape

Design
- Polyethylene film
- Tear-resistant
- Non-fading

68390

Colour	Width mm	Length m	Design	68390 ...
red/white	80	500	in a sturdy dispenser box	101

66298 Hand dispensers/Stretch film

66298 101
Hand dispensers
Design
- Inexpensive standard dispenser unit
- With a ball bearing
- Centring disc made from plastic
- Adjustable dispenser brake to regulate film tension

Applications
For film width 420/450/500 mm.
For cardboard core diameter 38/50/76 mm.

Note:
Stretch film not included in scope of delivery.

66298 102
Hand-stretch film
Design
- For reliable, inexpensive pallet securing
- Extremely versatile
- Protection against dust, moisture and theft
- Economic material consumption, 300 running metres provide up to 450 winding metres
- The higher the protection requirement or the pallet weight, the thicker the film should be
- Stretch film adhesion on both sides
- Strength/thickness 17 µ
- Film width 500 mm
- Core diameter 50 mm
- Colour transparent

66298 101

66298 102

Type	66298 ...
Hand dispenser	101
Stretch film	102

66299 Manual dispenser/Adhesive tape

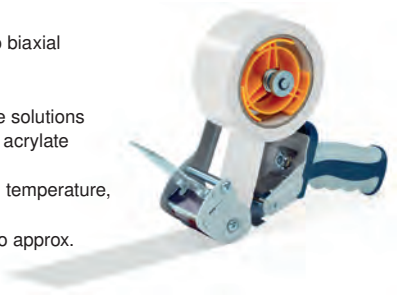
66299 101
Hand dispensers
Design
- Very robust metal dispenser
- Static strip always holds the adhesive tape onto the pressure roller
- With soft handle
- With adjustable roll brake

Applications
Suitable for 50 mm roll width.

Note:
Adhesive tape not included in scope of delivery.

66299 102
PP adhesive tape
Design
- Very high resistance to tearing due to biaxial stretching
- Resistant to UV and ageing
- Resistant to diluted acids and alkaline solutions
- Environmentally friendly water-based acrylate adhesive
- After storage and processing at room temperature, cold-resistant down to approx. -30 °C
- Heat-resistant - in the short term up to approx. +130 °C
- Adhesive strength: 2.2 +/- 0.6 N/cm
- Tear-out force: 40 N/cm
- Strength/thickness 50 µ
- Colour transparent

66299 101 66299 102



Type	66299 ...
Hand dispenser	101
PP adhesive tape	102

66300 - 66301 Chalk line roller/coloured powder

66300
Chalk line roller
- With 15 m plumb line in the housing and crank for winding up
- Can also be used as a plumb bob

66301
Coloured powder

66300 66301

		Chalk line roller		Coloured powder	
Colour	Content g	66300	...	66301	...
-	-		101		
blue	100				101
red	100				102

66306 Plumb bob

Design
- Made from steel
- With brass button

66306

Weight g	66306 ...
250	102
500	104

66307 Plumb line

Design
- Made from polyethylene
- 14 kg tear-out force
- Colour: red

66307

Length m	Ø mm	66307 ...
50	1	105

66500 - 66508 Shovels

66500 - 66503
Diamond pioneer shovel
- Made from hardened sheet steel
- Red powder-coated
- Made in Germany

66504
Halle aluminium-edged scoop shovel
- With professional-quality riveted steel edge
- Lightweight yet robust design allows for pleasant work at a low weight
- Broad range of uses

66500

66503

66504

Blade dimensions mm	Frankfurt shovel 66500 ...	Holstein shovel 66503 ...	Aluminium-edged scoop shovel 66504 ...
300 x 270	101		
270 x 250		101	
360 x 390			101

66508
Shovel handle
- Ash wood bent, premier Quality
- **DIN 20151**
- Surface ground

66508

Handle length mm	Handle diameter mm	66508 ...
1300	40	101

66525 Spades

IDEAL

Quality
Sand-blasted.

66525

Design
- **Double spring spades**
- Extremely wear-resistant
- Conical rolled blade, made from a single piece
- Sharpens itself in use
- With double riveted ash T-handle
- Gardener's shape
- Made in Germany

Blade dimensions mm	Handle length mm	66525 ...
285 x 185	850	101

66526 - 66527 Pickaxe (flat pickaxe)

66526
Pickaxe
Design
- **DIN 20109**
- Forged from steel and hardened
- With an oval eye
- Without handle

66527
Pickaxe handle
Design
- Ash wood
- Flat oval quality **DIN 6437**

66526

66527

Pick width mm	Total length mm	Weight approx. kg	Pickaxe 66526 ...	Pick handle 66527 ...
60	565	3.0	201	
-	950	-		101

66528 dustpans

Design
- Robust sheet steel shovel with wooden handle

Applications
For commercial and industrial use.

Design	Size mm	66528 ...
painted black	220 x 200	101
zinc-plated	220 x 200	102

66528

66529 Hand brush

Design
- Straight wooden body
- With rounded handle edges

66529 101
With coconut bristles, natural Unpainted wood.
For dry, coarse dirt.

66529 103
Long-handle hand brush
With coconut bristles, natural Unpainted wood.
For dry, coarse dirt.

66529 102
Industrial hand brush
Fine quality mix, unpainted wood.
For fine dirt.

Design	Total length mm	Bristles height approx. mm	Bristles rows	66529 ...
Coconut bristles	280	75	4	101
Coconut bristles	450	75	4	103
Quality mix	280	75	4	102

66529 101

66529 103

66529 102

66530 - 66533 factory and workshop broom

Design
- Flat wooden body, rounded
- With permanently mounted POWER-STICK handle holder
- Lightning fast assembly of all standard wooden handles
- Fixed seat, as the handle socket tapers conically

66530
- **Coconut,** for dry floors

66531
- **Arenga,** for coarse dirt, moisture-resistant
- Long service life

66532
- **Elaston,** for coarse dirt
- Resistant to oil and alkalis
- For concrete, industrial and wooden floors

66533
- **Fine quality mix**
- Arched bristle shape
- For fine dirt

	Coconut	Arenga	Elaston	Quality mix
Wood size mm	66530 ...	66531 ...	66532 ...	66533 ...
400 x 55	101			101
500 x 55		102		
600 x 55	103		103	

66530

66531

66532

66533

66534 Squeegee

66534 101-102
Design
- **Rugged design metal body** with double foam rubber lip
- Riveted steel handle holder for particularly strong handle grip

Applications
Suitable for broom handles with diameter 24 mm.
Broad range of uses, ideal for high oads.

66534 201-202
Design
- **Wooden body** with double foam rubber lip
- Heavy-duty design for a perfect contact surface
- Handle hole with additional metal handle holder for secure handle grip

Applications
Suitable for broom handles with diameter 24 mm.
Ideal for removing large amounts of water.

66534 301-302
Design
- **PVC body** with aluminium rail and hard rubber lip, can also be used with telescopic rods due to wooden handle
- Household squeegee

66534 101-102

Metal body

Length mm	66534 ...
550	101
750	102

66534 201-202

Wooden body

Length mm	66534 ...
600	201
800	202

66534 301-302

PVC body

Length mm	66534 ...
250	301 NEW
350	302 NEW

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66537 Broom handle

Design
- Knot-free pine, ground
- Cylindrical handle end

66537

Length mm	Ø mm	66537 ...
1400	24	101

66535 Street broom

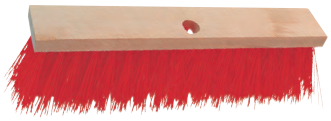
66535 101
Design
- Coarse, powerful street broom with red, strong Elaston fibre bristles, made in Germany
- Water-resistant and dimensionally stable
- Heat resistant up to 60 °C

Applications
Ideal for coarse and moist outdoor dirt.
For handles with 24 or 28 mm diameter (cone).

66535 102
Design
- Top quality wooden handle, made in Germany
- Very robust, durable and stable, produced from hardwood with very little residual moisture

Applications
Ideal for demanding applications with an increased material load. Suitable for brooms, scrubbing brushes and other devices with full length handle hole (not suitable for POWER-STICK PVC handle holder).

66535 101



66535 102

Bristle length mm	Bristle rows	Wood width mm	Handle length x diameter mm	Broom 66535 ...	Handle 66535 ...
100	6 x 18	400	-	101	
-	-	-	1400 x 28		102

66540 Dusting brush

Design
- Pocket sized
- Standard mix M1
- Single row
- Wooden body

66540

Width mm	Bristle length approx. mm	66540 ...
160	57	101

66541 Eco mop system

KÄRCHER
makes a difference

66541 101
Eco mop system with telescopic handle
Design
- High-quality and dimensionally stable dust mop (holder) with telescopic adjustable handle 97-184 cm
- The mop system facilitates working in this way due to individually adaptable ergonomics and easy handling
- This includes, in particular, the height-adjustable telescopic handle and the automatic clamping system
- The automatic clamping system allows mop covers to be replaced easily without touching
- Rounded corners make it noticeably easier to insert the mop cover
- The mop holder is opened simply and quietly using the round push button
- The lockable mop holder joint makes it easy to wipe on vertical surfaces
- The joint trough supports cleaning under furniture and installations

66541 102
Cotton mop
Design
- 40 cm with pockets for standard cleaning tasks

66541 103
Microfibre mop
- 40 cm with abrasive strips and pockets for stubborn dirt

NEW

66541 101

66541 102

66541 103

Type	66541 ...
Telescopic handle	101
Cotton mop	102
Microfibre mop	103

66542 Cleaning trolley

KÄRCHER makes a difference

Design
- Double bucket trolley made from 100% polypropylene
- Corrosion-free, very mobile and with jaw-type mop wringer
- Very hygienic and easy to clean
- Two colour-coded buckets (15 litres each)
- Broad and easily accessible sliding handle
- Easy-to-use universal mop wringer
- Jaws of the wringer close with the base (no inserts required)

NEW

66542

Volume Litre	66542 ...
2 x 15	101

66543 Glass and window cleaning set

KÄRCHER makes a difference

Design
- Glass and window cleaning set for professional use with complete basic equipment and sturdy nylon bag
- Designed for the professional user and especially torsion-resistant, the 3-part telescopic rod can be extended to up to 3 metres in length (3 x 100 cm)

Equipment:
- 1x telescopic rod (3 x 100 cm)
- 1x soft grip wiper handle
- 1x 25 cm rail with rubber blade
- 1x 35 cm rail with rubber blade
- 1x 45 cm rail with rubber blade
- 1x replacement rubber blade 25 cm soft
- 1x replacement rubber blade 35 cm soft
- 1x T-carrier 35 cm
- 1x single wash cover White Star 35 cm
- 1x single wash cover Blue Star 35 cm
- 1x safety scraper 4 cm
- 1x reinforced razor blade 5-series
- 1x joint for telescopic rod
- 1x blade holder including 10 blades in a box
- 1x pocket

NEW

66543

	66543 ...
	101

66545 Builder's bucket

Design
- Made from high-strength polyethylene
- Zinc-plated metal eyelet handle
- Low standing rim
- Black
- With a litre scale

66545

Content l	Size mm diameter	Height mm	66545 ...
12	310	235	101

66546 Metal bucket

Design
- Zinc-plated
- Extremely robust design
- Reinforced handle

66546

Content l	66546 ...
10	101

66547 Weighing shovel

Design
- Made of light metal

66547

Total length mm	66547 ...
310	101
350	102
400	103
430	104

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67145 Scraper

Design
- Rectangular
- Made from electric steel

Applications
Suitable for the superfinishing (cleaning) of hard-wood surfaces and edges. For the cleaning of sliced veneers and knotted wood, as well as to remove the smallest unevenness.

67145

Length x width mm	67145 ...
150 x 60	101

67160 Pricking awl

Design
- With round blade and plastic handle
- Blade made from tool steel

67160

Diameter x length mm	67160 ...
6 x 100	101

67194 Bevelled-edge chisel

Design
- Produced in line with DIN 5139
- Matt lacquered, flattened white beech handle in Ulm shape
- Precision-ground blade, sharpened ready for use

Quality
High-alloy chrome vanadium tool steel.

67194 301

			Set	
Set contents	1 piece each Blade width mm	Design	67194	...
6 pieces	6/10/12/16/20/26	in wooden box		301

	Single	
Blade width mm	67194	...
6		302
10		303
12		304

	Individual	
Blade width mm	67194	...
16		305
20		306
26		307

67194 302-307

67300 Carpenter's mallet

Design
- Hammer head made from steamed copper beech
- The edges are milled with a chamfer
- The shaft has a profiled, handy shape, is made of tough ash and is glued, wedged and pegged into the hammer head

Applications
Protects mortising tools where hard impacts encountered.

67300

Hammer head mm	67300 ...
140 x 80	201

67305 Marking gauge

Design
- Made from hornbeam
- With two individually adjustable scribing rods
- Slim scribing needles made from steel
- Integrated, easy-to-read millimetre scale

Applications
To mark planned cuts/pins.

67305

Measuring range mm	Total length mm	67305 ...
150	220	101

67310 Joiners' sliding bevel

Design
- Beech arm with brass-U-profile
- Blue, spring-loaded hard steel tongue

67310

Rail length mm	67310 ...
250	101

67313 Precision angle

Design
- With mitre
- Grooved brass rail
- Rosewood arm and lasered scale on blue, spring-loaded hard steel tongue
- Grooved brass rail

67313

Length mm	67313 ...
250	102
300	103

67325 Carpenter's square

Design
- Spring-loaded
- Arms polished, approx. 35 mm wide, with scribing opening

Quality
Special steel.

67325

Arm length mm	67325 ...
800 x 320	102

67327 Carpenter's pencil

Design
- Oval
- **By the dozen**

67327

Length mm	67327 ...
240	101

67340 Silver edge glass cutter

Design
- The original! Proven track record
- 6 cutting wheels made from alloyed steel
- Nickel-plated top plate and rosette, wooden handle

Applications
For glass thickness of 3-10 mm.
Straight edge distance 2.5 mm.

67340

	67340 ...
	101

67400 Hand axe DIN 5131

BAHCO

Design
- Forged head
- Cutting edge sharp ground, plastic wedged
- Suspension directly connected to the wedge
- Lacquered ash handle
- Cutting edge protection made from rubber

67400

Total weight g	Total length mm	67400	...
800	360		201

67405 Wood axe DIN 7294

BAHCO

Design
- Forged head
- Cutting edge sharp ground, plastic wedged
- Suspension directly connected to the wedge
- Lacquered ash handle
- Cutting edge protection made from rubber

67405

Total weight g	Total length mm	67405	...
1800	700		201

67406 Axe with fibreglass handle

BAHCO

Design
- Forged head made from carbon steel
- Fully hardened and tempered 51 HRC
- Sharpened edges ensure easy penetration into the wood
- Thin blade shape ensures clean, easy cutting
- Fibreglass handle with composite grip for pleasant handling and durability
- Comfortable grip made from thermoplastic elastomer with hanging eyelet
- Supplied with protective cover for the head

NEW

67406

Total weight g	Total length mm	67406	...
640	360		101

67407 Splitting axe with fibreglass handle

BAHCO

Design
- Forged head made from carbon steel
- Fully hardened and tempered 51 HRC
- Sharpened edges ensure easy penetration into the wood
- Wide, wedge-like framing to split wood
- Fibreglass handle with composite grip for pleasant handling and durability
- Comfortable grip made from thermoplastic elastomer with hanging eyelet
- Supplied with protective cover for the head

NEW

67407

Total weight g	Total length mm	67407	...
1550	710		101
2300	780		102

67620 Wood drill shape B

HSS

BOSCH

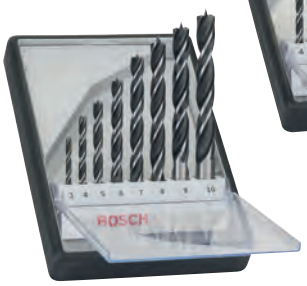
Design
- Precision-ground M-drill tip with two taper taps
- Guaranteed tear-free drilling, as well as smooth drill hole walls
- High cutting performance and chip removal thanks to special spiral shape

Applications
Suitable for hard and soft woods. For accurate production of through holes and blind holes.

NEW

67620 201

67620 202



67620 203-212

Set contents	Drilling diameter mm	Set 67620 ...
5 pieces	4/5/6/8/10	201
8 pieces	3/4/5/6/7/8/9/10	202

Drilling diameter mm	Total length mm	Shaft length mm	Individual 67620 ...
3	61	33	203
4	75	43	204
5	86	52	205
6	93	57	206
7	109	69	207
8	117	75	208
9	120	80	209
10	120	80	210
11	142	89	211
12	151	96	212

67660 Machine Forstner bits DIN 7483 G

BOSCH

Design
- Excellent service life thanks to the new cutting geometry
- Serrated wraparound cutting edges for less friction, no burns, clean cut and splinter-free drilling
- Blade hardness at least 50 HRC
- For use with 10 mm drill chuck

Applications
Forstner bits are used for splinter-free drilling of blind holes and marginal holes in softwood, hardwood and chipboard as well as for the attachment of hinges and for the removal of knot holes.

NEW

67660 300

Serrated wraparound cutting edges
Less friction/heating and thus an increased service life

67660 200-220

The 3-sided shaft
Prevents slipping in the chuck

Perfect cutting quality
Precision-ground lathe centre and large chip clearances for optimum chip removal

Set contents	Drilling diameter mm	Set 67660 ...
5 pieces	15/20/25/30/35	300

Drilling diameter mm	Individual 67660 ...
10	200
12	201
14	202
15	203
16	204
18	205
20	206

Drilling diameter mm	Individual 67660 ...
22	207
24	208
25	209
26	210
28	211
30	212
32	213

Drilling diameter mm	Individual 67660 ...
34	214
35	215
36	216
38	217
40	218
45	219
50	220

67670 Drill saw (hole making rasp)

Design
- With ground teeth

Applications
For working with wood, leather, rubber, plastics, pressed materials, etc.

67670

Diameter mm	Total length mm	67670	...
6.5	360		101

67700 Laplander wood saw

BAHCO

Design
- Superior quality with high fatigue strength, patented special anti-friction coating
- Resulting in 20% lower friction resistance and thus less force required
- 100% rust protection

- **Special XT teeth** with 7 teeth per inch
- Precision-ground, set and hardened
- Non-slip plastic handle
- Foldable with one-handed safety closure

67700

Length mm Folded/unfolded	67700	...
230/420		101

67720 - 67721 Ergonomic bow saw

BAHCO

Design
- Arms made from oval tube with easy-to-operate clamping mechanism
- Saw blade with raker toothing for fresh wood
- Painted tooth tips, hardened
- With ergonomic hand and knuckle guards

67720

	Bow saw		Replacement saw blade	
Blade length mm	67720	...	67721	...
760		201		201

67721

67722 Fretsaw elbows

BAHCO

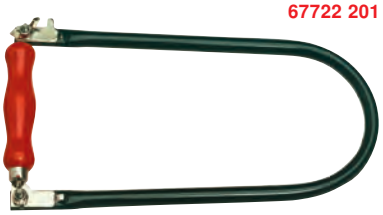
67722 101
Fretsaw elbows
Design
- Robust elbow made from 12 mm steel tube
- Wooden handle
- Overhang 300 mm

67722 102
Blade set (24 pieces)
Design
- 4 blades each of type 51W, 53W, 55W, 57W, 73M and 83S

Applications
For fretsaw elbows, art. no. 67722 101.

NEW

67722 201



67722 102

Type	Length mm	Weight g	67722	...
Fretsaw elbow	130	250		101
Blade set	-	-		102

67730 Ripsaws

BAHCO

Design
- Hardened tooth tips
- Precision-ground and set teeth
- Universal teeth for optimum cutting performance lengthwise and crosswise to bevels
- Sturdy plastic handle with 45° and 90° try square

Applications
All-purpose hand saw for all types of wood.

67730

Blade length mm	Teeth per inch	67730 ...
400	7/8	101
475	7/8	102

67737 Ripsaws

BAHCO

Superior 2600
Design
- Saw blade made of high-quality Swedish steel with XT teeth, induction-hardened
- With high fatigue strength, patented special anti-friction coating
- Resulting in lower friction resistance and thus up to 30% less force required
- Non-slip two-component plastic handle with 45° and 90° try square
- Rust resistant with safety tooth guard

Applications
Extremely powerful in medium coarse materials such as chipboard or plastic.

67737

Blade length mm	Teeth per inch	67737 ...
400	11/12	101
475	9/10	102

67740 Ripsaw

HHW

Design
- With 3-sided diamond cut
- Non-stick coating

Applications
Extremely powerful in fine and coarse materials. The precision grinding allows for quick and clean sawing in all woods, chipboard, plastics and gypsum.

67740

Blade length mm	Teeth per inch	67740 ...
450	8-12	202

67750 Fine saws

BAHCO

Design
- Fine teeth with hardened tooth tips
- With steel back for high stability

Applications
For wood and plastic.

67750 202

67750 203

Design	Blade length mm	Teeth per inch	67750 ...
Straight	250	13/14	202
Depressed centre, reversible	250	15/16	203

67753 Japanese pull saws

BAHCO

67753 101
Design
- **Double-sided** Japanese pull saws
- Toothed on both sides, extra-fine teeth on one side, medium-fine teeth on the other side
- Extra long handle for two-handed control and long reach
- The pulling operation leads to a precise cut, providing a narrow cutting joint and requiring less force

67753 102
Design
- **Back-supported** Japanese pull saws with extra-thin blade and extra-fine teeth
- Hardened tooth tips, triple ground, ensure a perfect fine cut in wood and plastic materials
- The flexibility of the blade permits a cut flat against the surface
- Two-component handle for high levels of working comfort and secure grip

67753 101

67753 102

Blade length mm	Teeth per inch	67753 ...
240	6-8.5/17	101
270	18.5	102

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68008 Skin protection cream LINDESA®

LINDESA®

Design
- Slightly greasy skin protection and care cream that contains natural beeswax and is absorbed quickly
- Strengthens the skin's defences
- Prevents damage to the skin caused by external sources
- Also contains chamomile
- Silicone-free and no greasy residue

Applications
To nourish slightly irritated skin.

68008

Content ml	Deisgn	68008 ...
50	Tube	201

68001 Skin protection cream pr88®/Skin protection fluid pr88® liquid

pr URSULA RATH Hautschutz · Hautreinigung · Hautpflege

Design
- Non-greasy, water-soluble, silicone-free skin protection cream with a barrier function between the skin and substance
- Leaves no greasy residue
- The skin's functions, such as releasing moisture and sense of touch, are not affected

Applications
For stubborn dirt caused by oil, paint, tar and bitumen products, synthetic resin, silicone and adhesives.

68001 101-102
Skin protection cream in a tin.

68001 103
Skin protection fluid in a spray bottle.

Content	Design	68001 ...
100 ml	Tin	101
150 ml	Spray bottle	103
1 l	Tin	102

68006 Skin protection cream/lotion GREVEN®

GREVEN

68006 101-102
GREVEN® REMO TEC
Design
- Water-soluble and residue-free skin protection cream
- A protective film prevents dirt from building up and makes cleaning your skin easier
- Grease-free and silicone-free.

Applications
For stubborn, oily or dry dirt such as waste oils, varnish, paint, tar and bitumen.

68006 201-202
GREVEN® MULTI TEC
Design
- Skin protection lotion with a barrier function against water-soluble and water-insoluble substances
- D-Panthenol and vitamin E also have an anti-inflammatory effect and support the skin's natural regeneration
- Silicone-free.

Applications
For undefined skin irritations or changing working substances, also for wearing gloves.

Product	Content ml	Design	68006 ...
REMO TEC	100	Tube	101
REMO TEC	2000	Collapsible bottle	102
MULTI TEC	100	Bottle	201
MULTI TEC	2000	Collapsible bottle	202

68002 - 68003 Skin protection ointment/cream

SC Johnson PROFESSIONAL A family company™

68002
Skin protection ointment Travabon® classic
Design
Water-soluble, grease-free and silicone-free, with high solids content, dirt-binding, scented. Dirt-binding emulsifier makes cleaning your skin easier. Improved protection thanks to protective skin pigments. The ability to grip is not lost.

Applications
To protect against oily, water-insoluble substances such as oil, paint, graphite, metallic dust, soot.

68003
Skin protection cream Stokoderm® aqua pure
Design
Soft cream with repair effect to protect skin when working in damp and wet conditions. Light moisturising properties and is absorbed quickly. Strengthens, stabilises and regenerates the skin barrier.

Applications
When coming into contact with water-based substances such as coolants and aqueous solutions, when wearing gloves and closed protective clothing.

Content ml	Design	Travabon® classic 68002 ...	Stokoderm® aqua pure 68003 ...
100	Tube	101	101
1000	Soft bottle	102	102

68000 Hand cleaner

REINOL®

Design
- Very effective hand cleaner with softwood flour as a natural abrasive
- Moisturising to provide optimum skin compatibility, even with repeated daily use

Applications
Light to medium soiling such as oil, grease, coolants, rubber abrasion or soot.

Content	Design	68000	...
500 ml	Tin		101
10 l	Bucket		102

68000 102

68000 101

68010 - 68011 Hand cleaner and dispenser

HHW

68010
Hand cleaner
Design
HHW hand cleaner now boasts natural corn cob meal to clean deep into the pores. It also moisturises your skin. With skin-friendly and pH-neutral blend of surfactants, dermatologically tested. Silicone-free.

Applications
Heavy soiling in industrial applications, such as oil, grease, dust, lubricants and paint.

68011 101
Dispenser
Includes wall bracket for three-litre tin.

68011 102
Dispenser
For ten-litre buckets.

68010 102 + 68011 102

68010 101 + 68011 101

Contents l	Design	Cleaner 68010	...	Dispenser 68011	...
3	Tin		101		101
10	Bucket		102		102

68024 Skin cleansing lotion GREVEN®

GREVEN

68024 101-102
GREVEN® SOFT B/RS
Design
- Skin cleansing lotion with no abrasives, but excellent cleaning performance and tailored to skin's pH-value
- Moisturises, free of soaps and solvents.

Applications
For moderate to heavy soiling caused by substances such as grease, oil, metal dust or soot.

68024 201-202
GREVEN® ACTIVE PEARLS
Design
- Hand cleaner with dirt-binding, soft castor wax pearls ASP (Active Soft Pearls)
- No sharp or hard abrasives, resulting in less damage to skin than when using conventional, coarse hand cleaners
- Free of soaps and solvents.

Applications
For heavy soiling caused by grease, oil, metallic dust, graphite or soot. Recommended when washing hands frequently.

68024 102

68024 202

68024 201 68024 101

Product	Content ml	Design	68024	...
SOFT B/RS	250	Tube		101
SOFT B/RS	2000	Collapsible bottle		102
ACTIVE PEARLS	250	Tube		201
ACTIVE PEARLS	2000	Collapsible bottle		202

68005 Hand cleaner

SC Johnson PROFESSIONAL A family company™

Note:
STOKO® collapsible dispenser for 1000-ml bottles or 2000-ml soft bottles, see art. no. 68030.

68005 101
Hand cleaner Kresto® Classic
Design
Contains special solvents. Paste with abrasive ASTOPON® (refined, ground walnut shells), with skin protection agent EUCORNOL®. Excellent at cleaning.

Applications
For extremely stubborn dirt such as oil, grease, lubricants.

68005 100+103
Hand cleaner Solopol® strong
Design
Paste with abrasive ASTOPON® (refined, ground walnut shells) and skin protection agent EUCORNOL® as well as aloe vera. Especially gentle on the skin, excellent at cleaning.

Applications
For solvent-free hand cleaning with a high abrasive content, for extreme soiling such as oil, grease, soot, graphite, lubricants.

68005 099+102
Hand cleaner Solopol® natural
Design
Paste with abrasive ASTOPON® (refined, ground walnut shells) and skin protection agent EUCORNOL® as well as aloe vera. Leaves skin feeling noticeably nourished.

Applications
For very heavy soiling such as oil, grease, soot, metallic dust, lubricants.

68005 099 68005 102 68005 103

68005 100

68005 101

Product	Content ml	Design	68005	...
Kresto® Classic	250	Tube		101
Solopol® strong	250	Tube		100
Solopol® strong	2000	Soft bottle		103
Solopol® natural	250	Tube		099
Solopol® natural	2000	Soft bottle		102

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68028 Skin care cream

GREVEN

68028 101-102
Special cream C
Design
- Cream is absorbed quickly to nourish and regenerate damaged skin
- Moisturising, silicone-free

Applications
For very damaged skin. Suitable for all skin types.

68028 202-301
GREVEN® UREA
Design
- Lightly moisturising skin care cream, which absorbs extremely well, for the hands and face
- Excellent regeneration effect on very damaged skin
- With urea and beeswax
- Silicone-free, unscented

Applications
For very damaged, dry and sensitive skin.

Product	Contents ml	Design	68028 ...
Special cream C	100	Tube	**101**
Special cream C	2000	Collapsible bottle	**102**
GREVEN® UREA	2000	Collapsible bottle	**202**
GREVEN® UREA	100	Tube	**301** NEW

68026 - 68027 Skin care

SC Johnson PROFESSIONAL A family company™

68026
Skin care cream Stokolan® Classic
Design
- Skin care cream that absorbs quickly, with soothing and regenerative effect for the hands and face
- Extremely gentle on the skin and provides outstanding skin care
- Silicone-free

Applications
For very damaged skin, suitable for all skin types.

Note:
STOKO® collapsible dispenser for 1000-ml bottles or 2000-ml soft bottles, see art. no. 68030.

68027
Skin care gel Stokolan® Light Gel
Design
- Intensive, moisturising and very fast-acting moisturising gel for hands and face
- Contains creatine - the skin's very own energy source - and glycerine and urea
- Silicone-free

Applications
For normal skin.

Product	Contents ml	Design	68026 ...	68027 ...
Stokolan® Classic	100	Tube	**101**	
Stokolan® Classic	1000	Soft bottle	**102**	
Stokolan® Light Gel	100	Tube		**201**

68030 STOKO® dispenser

SC Johnson PROFESSIONAL A family company™

STOKO Vario® mat
Design
- Stainless steel housing
- Coated in white

Applications
Wall dispenser for adjustable dispensing of 1000-ml and 2000-ml soft bottles for STOKO® products.

H x W x D mm	68030 ...
322 x 126 x 140	**101**

68075 Disposable nitrile gloves Dermatril®

Design
- Disposable nitrile glove, powder-free
- Fingertips lightly roughened to give a better grip
- Excellent resistance to tearing
- Non sterile, can be worn on either hand

Applications:
- Laboratories and research fields
- Chemical industry
- Food and electrical industries
- Cleaning and maintenance work
- Product protection

68075 100-101
Dermatril® 740
- With rolled edge
- **EN 420, EN 374:2016 KPT, EN 455, AQL 0.65, Cat. III**

68075 200-201
Dermatril® P 743
- With a long cuff
- **EN 420, EN 374:2016 JKLOPT, EN 455, AQL 0.65, Cat. III**

68075

Size	Overall length approx. mm	Layer thickness mm	Design	Pack = pieces	Dermatril® 740 68075	...	Dermatril® P 743 68075	...
9	250	0.11	In dispenser box	100		100		200
10	280	0.20	In dispenser box	50		101		201

68080 Disposable latex gloves

Design
- Seamless
- Powdered
- Can be worn on either hand

68080

Size	Design	Pack = pieces	68080	...
10	In dispenser box	100		101

68085 Cotton jersey gloves

Design
- Cotton jersey glove with gusset for increased flexibility and comfort
- White-bleached
- **EN 420, Cat. I**

Applications:
- Installation, maintenance and packaging tasks
- Product protection
- Can be worn as a liner glove

68085

Size	Pack = Pair	68085	...
M (7 - 8)	12		101
L (10)	12		102
XL (13)	12		103

68086 Assembly gloves

uvex
rubipor XS
Design
- Extremely lightweight, breathable assembly glove
- High level of dexterity and sense of touch thanks to new shape
- Fingertips, thumb and palm with NBR water-proofing

- **Lining:** cotton/interlock
- **Coating:** NBR special (nitrile rubber)
- **EN 388:2016 Level 1110X**

Applications:
- Precision/small parts assembly
- Sorting/quality control tasks
- Product protection

68086

Size	Length approx. cm	Colour	Pack = Pair	68086	...
9	27	White	1		101

68089 Protective gloves

uvex
rubiflex NB27
Design
- High-quality protective glove with excellent sense of touch
- Extremely durable, seamless coating
- **Lining:** cotton/interlock
- **Coating:** Special NBR (nitrile rubber)
- **EN 388:2016 Level 3111X**

Applications:
- Metalworking
- Maintenance
- Painting, maintenance and inspection tasks
- Good resistance to oil, grease and fuels

68089

Size	Length approx. cm	Pack = Pair	68089	...
9	27	1		101

68090 PVC gloves

Design
- High-quality glove with cotton jersey lining and PVC coating
- **EN 388, Cat. II**

Size	Length cm	Pack = Pair	68090 ...
10	40	12	**101**

68100 Work gloves

Design
- Long style with fabric on back of the hand and fabric cuff with wrist guard and elasticated band

68100 101
- Synthetic leather, lined palm, white drill
- Colour: yellow

68100 102
- Pig grain leather, lined palm
- **CE cat. I**

68100 103
- Upholstery leather, excellent quality, reinforced palm, canvas cuffs, bright colours

68100 104
-Stierkopf natural-
- Leather, excellent quality, rubberised cuffs, lined palm, minimum thickness of 1.2 mm
- **EN 388:2016 Level 2133X, Cat. II**

68100 101

68100 102

68100 103

68100 104

Size	Pack = Pair	68100 ...
10	12	**101**
10	12	**102**
10	12	**103**
10	1	**104**

68101 Cotton gloves Sahara® 100

KCL by Honeywell

Design
- High-quality cotton jersey glove with yellow special nitrile coating, open back of the hand and knitted cuff
- Excellent mechanical strength and breathability combined with a very good fit

- Moisture-repellent
- Free of plasticisers
- **EN 420, EN 388:2016 Level 3111X, Cat. II**

Applications:
- Automotive and metalworking industries
- Assembly and production
- Construction industry
- Working with oily and wet parts

68101

Size	Pack = Pair	68101 ...
7	10	**101**
8	10	**102**
9	10	**103**
10	10	**104**

68108 Nylon gloves Gripmaster®

Design
- Nylon glove with micro-porous latex coating on the palm
- Excellent tactile feel and provides very secure grip on oilyand slippery parts
- **EN 420, EN 388:2003 Level 2122, Cat. II**

Applications:
- Working with oily and slippery workpieces
- Assembly and maintenance
- Precision engineering
- Automotive industry

68108

Size	Pack = Pair	68108 ...
8	12	**101**
9	12	**102**
10	12	**103**

68103 Nylon gloves Camapur® Comfort 626

KCL by Honeywell

Design
- Nylon knitted glove with polyurethane coating on the palm and on the back of the hand over the knuckles
- High degree of mechanical resilience
- Excellent fit
- Extremely good sensitivity and breathability
- Provides an excellent grip
- **EN 420, EN 388:2016 Level 2121X, Cat. II**

Applications:
- The electrical industry
- Precision engineering
- Automotive industry
- Assembly and maintenance
- Working with greasy and oily workpieces

68103

Size	Pack = Pair	68103 ...
7	10	101
8	10	102
9	10	103
10	10	104

68109 Nylon fine knit gloves ActiveGrip™ Advance

TOWA

Design
- Nylon fine-knit glove with black Micro-Finish® nitrile coating on the palm
- Anatomical fit
- Excellent resistance to wear, non-slip, breathable
- **EN 420, EN 388:2016 Level 4121X, Cat. II**

Applications:
- Assembly and maintenance tasks in dry, damp or oily conditions
- Automotive industry
- Construction industry and mechanical engineering

68109

Size	Pack = Pair	68109 ...
9 (L)	12	101
10 (XL)	12	102
11 (XXL)	12	103

68110 Nitrile gloves

Design
- Cotton jersey glove with blue nitrile coating and open back of the hand for good breathability
- High degree of abrasion resistance with good fit
- **EN420, EN388, Cat. II**

Applications:
- Automotive and metalworking industries
- Assembly and production
- Transport and sorting tasks
- Construction industry

68100 100
Design
- With cuff

68100 101
Design
- With knitted cuff

68110 103
uvex
profi ergo ENB 20A
PROFI-CLASSIC protective gloves
Knitted cuff, DIN EN 388:2016 Level 2121X, excellent grip in dry/wet conditions, very comfortable.

68110 100 | 68110 101 | 68110 103

Size	Pack = Pair	68110 ...
10	12	100
10	12	101
9	1	103

68115 Protective heat gloves

Design
- Knitted cotton glove with double-sided, heat-resistant nitrile coating
- Contact heat protection up to 250 °C
- **EN 420, EN 388:2016 Level 1232X, EN 407 02XXXX, Cat. II**

Applications:
- Light to moderate thermal conditions

68115

Size	Pack = Pair	68115 ...
Men's size	1	102

68117 Cut protection gloves Camapur® Cut 620

Design
- HPPE high-performance fibre knitted glove with grey polyurethane coating on the palm
- Excellent fit and good sensitivity coupled with high level of cut protection properties
- Washable
- **EN 420, EN 388:2016 Level 4X42B, Cat. I**

Applications:
- Sheet metalworking and metalworking with moderate cutting hazards
- Automotive industry
- Assembly and maintenance

68117

Size	Pack = Pair	68117	...
8	1		101
9	1		102
10	1		103

68118 Dyneema® knitted gloves

Design
- Dyneema® fibre knitted glove with a polyurethane coating on the palm to give an excellent grip and added mechanical resilience
- Good sensitivity and tactile feel
- Washable
- **EN 420, EN 388:2016 Level 4343C, Cat. II**

Applications:
- Sheet metalworking and metal processing
- Working with sharp-edged, dry or oily workpieces
- Maintenance tasks that come with risk of being cut

68118

Size	Pack = Pair	68118	...
8	1		101
10	1		102

68120 Cut protection gloves

Design
- Kevlar® medium-knit glove with double-sided PVC nubs for improved grip
- Longer knitted cuff to protect the wrist
- **EN 420, EN 388:2003 Level 1340, Cat. II**

Applications:
- Working with sharp-edged and/or slippery workpieces
- Packaging and transportation

68120

Size	Pack = Pair	68120	...
10	1		102

Info HHW occupational safety catalogues

More gloves as well as general information regarding hand and skin protection can be found in our latest

PPE catalogue **Skin protection/Gloves/Cleaning**

Request your copy at info@hhw.de.

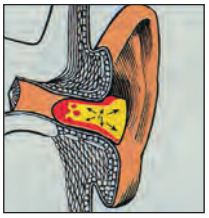
68150 Ear plugs

Honeywell HOWARD LEIGHT

68150 101
Foam ear plugs Laserlight
Design
- With a smooth outer skin
- Tapered and moulded
- Adapt perfectly to the contours of the ear canal and are easy to insert and seal
- **Sold in pairs in bags**

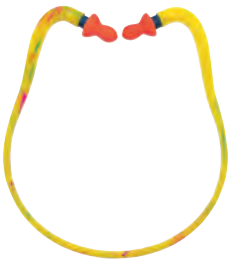
68150 201
Banded ear plugs QB1
Design
- Light and comfortable
- The special, ergonomic shape ensures the ear plugs are at the required distance, such as when placed on the work surface.

68150 202
Replacement ear plugs
For banded ear plugs, art. no. 68150 201.



68150 101

68150 201



Pack =	SNR value dB	68150 ...
200 pairs	35	101
1 pcs	26	201
50 pairs	-	202

68160 Hearing protection box

Design
- Made from ABS plastic, blue
- Dust- and splash-proof
- Easy to mount by screwing or gluing in place
- Incl. fastening materials

68160

Dimension cm	68160 ...
23.6 x 22.5 x 12.5	104

68161 - 68162 Ear defenders

Honeywell

68161
Leightning L2F High Visibility
Design
- Foldable headband allows for practical storage
- Luminous green defenders ensure excellent visibility in bad weather or in the dark
- Reflective headband is highly visible when light shines on it, offering greater safety
- Air Flow Control technology provides optimum insulation capacity at all frequencies
- **Tested in accordance with EN 352-1**

Applications
Ideal for wearing at night, in low lighting conditions and poor weather conditions.

68162 101
Leightning L2
Design
- Spring steel headband for working in extreme conditions
- The soft foam padding of the headband and the comfortable ear pads (replaceable) offer maximum comfort, even when worn for long periods of time
- A perfect fit on all head sizes is guaranteed thanks to the telescopic height adjustment
- **Tested in accordance with EN 352-1**

Applications
For moderate noise ranges and long periods of use.

68161

68162

Type	SNR value dB	Weight g	68161 ...	68162 ...
Leightning L2F	32	236	101	
Leightning L2	31	222		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

68163 Ear defenders Optime

3M PELTOR™

68163 101
Optime I
Design
- Very versatile and particularly lightweight (180 g)
- These ear defenders have a slim profile, but feature a generous depth inside
- Easy to combine with other equipment
- The ideal choice for those needing all-round ear defenders for short or longer periods of use
- **Tested in accordance with EN 352-1/352-3**

Applications
For low-level noise exposure. In workshops, plumbing tasks, in print shops, for hobbies and leisure use.

68163 201
Optime II
Design
- The Optime II has been developed for high-level noise exposure and provides effective protection, even at very low frequencies
- The sealing rings are filled with a mixture of liquid and foam and ensure an optimal seal when light pressure is applied
- Excellent comfort is maintained, even during longer periods of use
- The headbands are flexible and can be adjusted as required
- **Tested in accordance with EN 352-1/352-3**

Applications
For high-level noise exposure. When working with constructionequipment, pneumatic drills and in agricultural applications.

68163 301
Optime III
Design
- The Optime III is the best choice to protect against extreme noise exposure
- Double protectors keep resonance in the defender to a minimum. In doing so, maximum insulation at high frequencies is achieved yet signals and speech are still easy to perceive.
- The acoustic connection between the interior and the space between the protectors ensure optimum insulation at low frequencies
- Wide, softly padded band
- **Tested in accordance with EN 352-1/352-3**

Applications
For extreme noise exposure. For use in airports, mines and machine rooms.

68163 101

68163 201

68163 301

Type	SNR value dB	Weight g	68163 ...
Optime I	27	180	**101**
Optime II	31	210	**201**
Optime III	35	285	**301**

Info HHW occupational safety catalogues

More products and general information regarding head protection/breathing protection/eye protection and fall arresters can be found in our latest

PPE catalogue **Head protection/Fall arresters**

Request your copy at info@hhw.de.

Info — Respiratory protection - Protection levels according to EN 149:2001

Protection level	VGW*	Remark/Restriction
FFP1	4	Against non-toxic dusts and aerosols based on water and oil. Not against carcinogenic and radioactive substances and airborne biological agents of risk groups 2 and 3 and enzymes
FFP2	10	Against harmful and carcinogenic dusts, smoke and aerosols based on water and oil. Not against radioactive substances and airborne biological agents of risk group 3 and enzymes
FFP3	30	Against harmful and carcinogenic dusts, smoke and aerosols based on water and oil. Against radioactive substances and airborne biological agents of risk group 3 and enzymes

* Multiple of the limit value

68200 Breathing masks

ZVG

68200 201
Design
- Reinforced outer shell
- Soft inner shell
- Malleable nose clip
- **FFP1 D protection level, EN 149:2001**

Applications
Protects against solid, non-toxic particles.

68200 202
Design
- Solid outer casing, malleable nose clip, exhalation valve
- Low resistance, very comfortable
- Foam inner seal
- Tacked head strap
- **FFP2 D protection level, EN 149:2001**

Applications
Protects against solid, harmful, less toxic substances.

68200 201

Protection level	Pack = Units	68200 ...
FFP1 D	20	201
FFP2 D	10	202

68202 Breathing masks

Honeywell

68202 101
Design
- **FFP1 in accordance with EN 149:2001**
- Breathing mask with soft and gentle sealing lip for optimal tightness around the nose
- A tear-resistant and elasticated strap makes for a tight fit
- The mask is free of PVC, silicone and latex
- Colour of the nose clip: yellow

Applications
Solid and liquid aerosols (dust, aerosols) up to four times the limit value.

68202 102
Design
- **FFP2 in accordance with EN 149:2001**
- Breathing mask with soft and gentle sealing lip for optimal tightness around the nose
- A tear-resistant and elasticated strap makes for a tight fit
- The mask is free of PVC, silicone and latex
- Colour of the nose clip: green

Applications
Solid and liquid aerosols (dust, aerosols) up to 10 times the limit value.

68202 103
Design
- **FFP2 in accordance with EN 149:2001**
- Breathing mask with soft and gentle sealing lip for optimal tightness around the nose
- **With exhalation valve** for even more comfort
- A tear-resistant and elasticated strap makes for a tight fit
- The mask is free of PVC, silicone and latex
- Colour of the nose clip: green

Applications
Solid and liquid aerosols (dust, aerosols) up to 10 times the limit value.

68202 104
Design
- **FFP3 D in accordance with EN 149:2001**
- Folding mask in hygienic packs of one with both a supple, soft sealing lip around the nose and an exhalation valve
- The mask offers minimal breathing resistance, even when the filter material has to work hard to filter particles
- The mask is free of PVC, silicone and latex
- Colour of the nose clip: red

Applications
Solid and liquid aerosols (dust, aerosols) up to 30 times the limit value.

68202 101

68202 102

68202 103

68202 104

Protection level	Pack = Units	68202 ...
FFP1	20	101
FFP2	20	102
FFP2	20	103
FFP3 D	10	104

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68203 Breathing masks

3M

Design
- Moulded mask body
- The nose body is individually adaptable

68203 201
Breathing mask FFP2
Applications
Ten times the limit value for fine dust.

68203 202-203
Design
- Breathing masks with patented **Cool Flow exhalation valve** for maximum breathing comfort
- Glasses will not mist up

68203 202
Breathing mask FFP2
Design
- **With Cool Flow exhalation valve**
Applications
Ten times the limit value for fine dust.

68203 203
Breathing mask FFP2 D
Design
- **With Cool Flow exhalation valve, adjustable straps and sealing lip**
Applications
Ten times the limit value for fine dust.

68203 201

68203 202

68203 203

Protection level	Pack = Units	68203 ...
FFP2	20	201
FFP2	10	202
FFP2 D	5	203

68206 Breathing masks from the Aura™ 9300+Gen3 Series

3M

Design
The revamped breathing mask 3M™ Aura™ 9300+Gen3 is now in its third generation.

The new 3M™ Cool Flow™ comfort valve offers excellent dissipation of exhaled heat and moisture and significantly reduces exhalation resistance further.

New positioning aids allow wearers to open the mask hygienically, then mould it and put it on.
The new high-performance filter technology offers significantly improved respiratory comfort, coupled with reduced volume and weight. A durable and comfortable fabric strap guarantees the best fit. The three-piece design with integrated nose clip adapts to any face shape. Hygienic packs of one.

68206 101
Type 9312+Gen3
Design
- **FP1 NR D mV in accordance with EN 149:2001 + A1:2009**

68206 201
Type 9322+Gen3
Design
- **FFP2 NR D mV in accordance with EN 149:2001 + A1:2009**

68206 301
Type 9332+Gen3
Design
- **FFP3 NR D mV in accordance with EN 149:2001 + A1:2009**

68206 101

68206 201

68206 301

Protection level	Pack = Units	68206 ...
FFP1	10	101
FFP2	10	201
FFP3	10	301

68215 Breathing mask 4279 (maintenance-free)

3M

Design
- Maintenance-free mask for maximum safety and ease of use
- Two large active carbon filter elements ensure minimal breathing resistance
- Large field of vision thanks to low-profile design
- Parabolic exhalation valve reduces build up of heat
- Soft and gentle mask material
- Lightweight and well-balanced design
- Elasticated strap with head holder
- Easy-to-fasten neck straps

- **Protection level of FFABEK1P3D in accordance with EN 405:2002**
Applications
Organic vapours, inorganic and acidic gases, as well as ammonia up to ten times the MAK value or 1000 ml/m3, whichever value comes first.
Fine dusts up to 30 times the limit value.
When working with ammonia, methylamine, chlorine, bleach, hydrochloric acid, sulphur dioxide, hydrogen sulphide, solvents.

68215

	68215 ...
	101

68240 Safety goggles MAX T7

Design
- Lightweight, dual-lens safety goggles with flexible, non-slip sports temples for a comfortable fit
- Soft nose pads ensure a perfect fit
- The nose pads can be removed for cleaning
- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
For working indoors and outdoors.

68240 201

68240 202

Lens	Frame	68240 ...
Clear	Crystal/black	201
Tinted grey	Crystal/black	202

68242 Safety goggles MAX W3

Design
- Indoor/outdoor safety goggles with slightly silver, reflective polycarbonate lens for use in varying lighting conditions
- The soft nose bridge and flexible, length-adjustable temples offer a secure fit
- The large visor protects the eyebrow area and offers good, all-round vision
- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
For working in varying lighting conditions indoors and outdoors.

68242

Lens	Frame	68242 ...
Reflective silver	Black/orange	101

68246 Safety goggles MAX C4

Design
- Polycarbonate
- Very light
- Optimum fit and coverage
- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
In workshops, assembly areas and laboratories as well as for use as visitor goggles.

68246 101

68246 102

Lens	Frame	68246 ...
Clear	Clear	101
Grey	Grey	102

68248 Safety goggles MAX Z8

Design
- Sturdy metal temples
- Soft, PVC-coated temple ends for comfortable wearing
- Large visor protects the eyebrow area and offers good, all-round vision
- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
In workshops, assembly facilities, extreme operating conditions.

68248

Lens	Frame	68248 ...
Clear	Metal/silver	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

68249 Safety goggles MAX A1

Design
- The classic among safety goggles with elasticated nylon temples
- Two components form the flexible temple ends with very soft nubs, which ensure improved positioning of these goggles
- Temple length and tilt can be adjusted to fit the individual wearer
- Side guard offers optimum safety

- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
In workshops and laboratories. Protects during drilling, milling and grinding tasks.

68249 101

68249 102

Lens	Frame	68249 ...
Clear	Blue/red	101
Tinted grey	Blue/red	102

68243 Safety goggles MAX XR

Design
- Non-slip soft pads on the temple ends The ends can be tilted
- Unlimited all-round vision

- Lens with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
In workshops, assembly facilities and laboratories.

68243

Lens	Frame	68243 ...
Clear	Black/orange	101

68244 Safety goggles MAX SL

Design
- Casual dual-lens safety goggles with length-adjustable nylon temples and a soft, comfortable nose pad ensure a perfect fit

- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
In workshops and laboratories and for assembly tasks.

68244

Lens	Frame	68244 ...
Clear	Grey	101

68245 Safety goggles MAX K9

Design
- Mist-free polycarbonate lens
- Nylon temples, adjustable in length and can be tilted at the joint
- Soft PVC nose pads

- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168**

Applications
For working outdoors.

68245

Lens	Frame	68245 ...
Clear	Grey	101

68250 Safety goggles MAX V1

Design
- With durable polycarbonate side guard
- Extremely shock-resistant and scratch-resistant
- Can be worn over standard prescription glasses
- Tested in accordance with **EN 166-168**

Applications
Protects when sawing, planing, drilling, milling, grinding, polishing and for lab work.

68250 201

Lens	Frame	68250 ...
Clear	Transparent	201

68250 Safety goggles MAX V2

Design
- Goggles with clear polycarbonate temples and lenses
- Ideal for wearing over prescription glasses
- Tested in accordance with **EN 166**

68250 301

Lens	Frame	68250	...
Clear	Clear		301

68257 Safety goggles Terminator Plus

Design
- Modern safety goggles with a sporty design
- An additional rubber lip on the top edge of the frame stops foreign objects getting inside the goggles
- The temple lengths and tilt adjustment allow wears to adjust the goggles to suit them, thus ensuring a perfect fit
- Soft temples that do not pinch
- Polycarbonate lens, clear, 100% UV protection, scratch-resistant
- Tested in accordance with **EN 166-168, EN 170**

Applications
For grinding, turning and milling tasks, precision engineering tasks, assembly tasks and lab work.

68257 101

Lens	Frame	68257	...
Clear	Black/mint		101

68257 Safety goggles Terminator small

Design
- Specifically for **smaller head shapes,** goggles have an all-round, tight seal
- Soft temples
- Optimum wearer acceptance and a perfect fit thanks to the adjustable tilt and temple length
- Polycarbonate lens, clear, 100% UV protection, scratch-resistant
- Tested in accordance with **EN 166-168, EN 170**

Applications
For precision engineering tasks, assembly tasks and lab work, goggles for visitors.

68257 201

Lens	Frame	68257	...
Clear	White		201

68252 Safety goggles Millennia

Design
- Extremely comfortable safety goggles that are light to wear and offer a perfect fit
- Undistorted view
- Supplied with adjustable, flexible goggle strap
- Lens with 100% UV protection, scratch-resistant

Tested in accordance with **EN 166-168, EN 170**

Applications
When wearers' heads are in extreme positions; in workshops and in assembly facilities.

68252

Lens	Frame	68252	...
Clear	Blue		101

68253 Safety goggles XC®

Design
- Safety goggles with an integrated ventilation duct in the forehead strap
- The forehead strap is covered with a flexible, shock-resistant and non-slip elastomer to offer, together with the lens geometry, optimum protection
- The temple length and the tilt of the lens can be adjusted individually
- Lens with HydroShield lasting anti-fog coating
- Clear lens, UV 400, scratch-resistant and mist-free
- Tested in accordance with **EN 166-168, EN 170**

Applications
For grinding, milling and turning tasks, precision engineering tasks, in workshops and for assembly tasks and lab work.

68253

Lens	Frame	68253	...
Clear	Blue		101

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68280 Safety goggles pheos 9192

uvex

Design
- Safety goggles with modern, fashionable look
- Perfect, all-round protection
- Large field of vision thanks to duospheric lens
- Excellent ventilation thanks to integrated uvex climazone frame concept

- Goggles stay in place by means of hard/soft technology with non-slip components on the temple ends
- Lenses with 100% UV protection, scratch-resistant and mist-free
- Tested in accordance with **EN 166, EN 170**

68280

Lens	Frame	68280 ...
Clear	Light grey	101

68281 Safety goggles futura 9180

uvex

Design
- Lightweight safety goggles with virtually unlimited field of vision
- Maximum comfort and tight feel thanks to excellent fit

- Temples can be tilted as much/little as required
- Temple length can be adjusted to suit the wearer
- Tested in accordance with **EN 166-168, EN 170**

68281

		Goggles			
Lens	Frame	68281	...	68281	...
Clear	Brown/transparent	101		102	

68283 Safety goggles i-vo

uvex

Design
- Soft components in sensitive areas, as well as comfortable padding in the temples offer long-lasting comfort
- Lens with 100% UV protection, scratch-resistant and mist-free HC-AF
- Tested in accordance with **EN 166-168, EN 170**

Applications
For grinding, turning and milling tasks, precision engineering tasks, assembly tasks and lab work.

68283

		Goggles		Spare lens	
Lens	Frame	68283	...	68283	...
Clear	Blue/orange	101		201	

68284 Safety goggles skyper 9195

uvex

Design
- Super-lightweight safety goggles with unrestricted lateral perception
- Lens and temples made of high-impact-resistant plastic
- Highly flexible, comfortable temples mean the goggles fit without pinching

- Temple length individually adaptable with integrated stop lock
- The temples can be inclined to give a perfect goggle fit
- The frosted side guard provides added protection against glare
- 100% UV protection
- Tested in accordance with **EN 166-168, EN 170**

68284

		Goggles		Spare lens	
Lens	Frame	68284	...	68284	...
Clear	Black	101		102	

68271 Goggles for wearing over glasses

uvex
type 9161

Design
- Fit over all prescription glasses
- Unlimited peripheral perception through the super-panoramic lens with a 180° field of vision
- Excellent, pressure-free fit
- Effective indirect ventilation thanks to special temple design with optimal lateral guard

- The temple ends can be adjusted to four lengths, maximum comfort
- Tested in accordance with **EN 166-168, EN 170**

Applications
To provide protection during sawing, planing, drilling, milling, sanding and polishing tasks and lab work.

68271

Lens	Frame	68271 ...
Clear	Blue/black	101

68268 Full-vision safety goggles MAX V20

Design
- Chemical safety goggles with indirect ventilation via four button-shaped valves
- Mist-free polycarbonate lens
- Tested in accordance with **EN 166**

Applications
To provide protection in laboratories and when working with chemicals.

68268

Lens	Frame	68268 ...
Clear	Clear	101

68264 Panorama full-vision safety goggles ultravision 9301

Design
- Unrestricted peripheral view thanks to super-panoramic lens (colourless)
- With 180° field of vision
- Completely tight yet pressure-free fit
- Optimal fit and improved comfort thanks to the soft face pad and special nosepad
- Ventilation system, mist-free anti-fog lens
- Ideal for people who wear glasses

Tested in accordance with **EN 166-168, EN 170**

68264 102
Spare lens, clear
- Polycarbonate
- High degree of mechanical resilience

68264

		Goggles		Spare lens	
Lens	Frame	68264	...	68264	...
Clear	Grey/transparent	101		102	

68265 Full-vision safety goggles ultrasonic 9302

Design
- Extraordinarily comfortable: Thanks to the combination of two different materials (hard components/soft components), wearing the goggles for long periods does not lead to any pressure problems
- The flexible, soft components nestle against the wearer's individual face shape and guarantee all-round side protection of the eye area, even for glasses wearers
- The excellent ventilation ensures a pleasant feeling and no eye irritation
- Wide panoramic field of vision, plus faster and easier lens changes thanks to the innovative clip technology
- Tested in accordance with **EN 166-168, EN 170**

68265 101

68265 102

		Goggles		Spare lens	
Lens	Frame	68265	...	68265	...
Clear	Orange/grey	101		103	
Clear	Grey/black	102		103	

68289 Goggle cleaning wipes

Design
- Cleaning wipes, silicone-free
- Individually wrapped

Applications
Suitable for all lenses.

68289

Design	Pack = Units	68289 ...
In cardboard box	100	101

68290 Boxes for safety goggles

Design
- Made from ABS plastic, blue
- Dust- and splash-proof
- The box for safety goggles features two mounting holes and is designed to be permanently installed anywhere where users' eyes are at risk from sparks, chips, light flashes etc.
- Incl. fastening materials

Applications
Ideal for the clean and compact storage of safety goggles. Placed within easy reach at workstations, entrances to production areas, in laboratories, to be used by visitors.

68290 201

68290 202

68290 203

Dimensions cm	For safety goggles Quantity	68290 ...
23.6 x 12.0 x 12.0	1	201
23.6 x 22.5 x 12.5	4	202
23.6 x 31.5 x 20.0	12	203

Special tools / PPE

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

68330 Bump protection hats First Base 3 Classic and Elite

SCOTT SAFETY

Design
- The newly developed, flexible inner shell with micro-perforated sides and indirect ventilation in the crown area guarantees optimum air circulation
- The moulded shell design adapts perfectly to different head sizes and shapes, and boasts a secure and comfortable fit
- The machine-washable microfibre fabric with large ventilation mesh on the sides and the absorbent sweatband significantly reduce dampness and heat inside the bump protection hat
- Worn over the ears to further improve the individual fit and compatibility with other items of PPE
- **Tested in accordance with EN 812 A1**

68330 201-204
First Base 3 Classic
Design
- The third generation of the SCOTT bump protection hat

68330 301-302
First Base 3 Elite
Design
- The new First Base 3 Elite in bi-colour design for a modern appearance
- With additional ventilation mesh in the crown area
- Reflective piping goes around the hat to provide visibility in the dark and in low lighting conditions

68330 201 68330 202

68330 203 68330 204

	Classic		Elite	
Colour	68330	...	68330	...
Black		201		
Navy blue		202		
Royal blue		203		
Grey		204		
Black/grey				301
Navy blue/grey				302

68330 301 68330 302

68134 Back belt MAX

HHW

Design
- Hazard sources for spinal injury include monotonous assembly-line work, long periods of standing and lifting heavy loads
- In combination with the correct lifting technique, the belt helps to keep the risk of back injuries to a minimum
- The conical shape adapts perfectly to the wearer's body and is comfortable to wear
- The special hip and rib contour provides added comfort
- Furthermore, the tailored shape ensures a perfect fit
- The **one-way hook and loop system** and slid'n grip fastener not only guarantee added safety, but also **excellent ease of use**

68134

Size	Length cm	68134	...
S	69-81		101
M	79-91		102
L	89-104		103

Size	Length cm	68134	...
XL	101-114		104
XXL	112-124		105

Info SKYLOTEC Informed – fall arresters

Information on the use of personal protective equipment to prevent falls, to restrain users and to save lives.

The applicable rules and regulations of the employer's liability insurance coverage in compliance with regulations BGR 198 and BGR 199, as well as the accident prevention regulations, must be observed.
Fall arrester equipment must be in place (excerpt):

- At workplaces or traffic routes, at and over water or other liquid or solid substances in which it is possible to sink; this applies regardless of the height from which you can fall
- At a fall height of more than 1.0 m on stairways without railings and stairway landings, wall openings, machine control stations, in addition to openings (skylights, ventilation shafts etc.) not equipped with a load-bearing cover securely held in place
- At a fall height of more than 2.0 m at all other workplaces and traffic routes.

Notwithstanding this, the following applies:

- At workplaces and traffic routes on roofs from a fall height of 3.0 m and above
- On walls and tasks carried out on windows from a fall height of 5.0 m and above.

The fall arrest system

The fall arrest system is made up of various individual components, which can be combined depending on the area of application and requirement.

The attachment point

- In accordance with EN 795
- For example, tripod, webbing sling, minifix, permanent systems.

The lanyard

- In accordance with EN 353-2, EN 354/355, EN 360 or EN 358
- For example, guided type fall arresters, Shockyards, fall dampeners, retractable type fall arresters.

The harness

- In accordance with EN 364, EN 358 or EN 813
- For example, safety harness and rescue harnesses, tether, seat harness.

Applications:

- Industrial use
- Travel/overhead line construction
- Wind power plants
- Telecommunications
- Maintenance
- Steel construction
- Construction
- Fire departments
- Events

Standards

Depending on the area of application and the purpose, items of personal fall protective equipment are subject to various standards:

EN 358 Retaining straps

For holding in the working position and for restraint in areas where there is a risk of falling (such as when working on flat roofs). The retaining lugs are usually located on the side around the pelvic bone.

EN 361

For use in climbing protection in conjunction with guided type fall arresters including a rigid anchor line. Climbing protection (such as when working on towers, masts). The climbing protection eyelets are usually located on the abdominal belt, in the centre in front of the body.

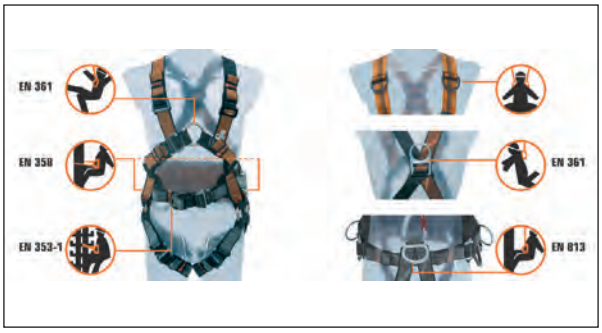
EN 361 Full body harness

For securing workers in areas with a risk of falling and for arresting falls (such as when working on towers, masts, building overhangs). The arrester eyelets are located on the back between the shoulder blades (dorsal) or on the chest area (sternal).

Rescue eyelet

Other components/selection:

EN 341	Descender devices
EN 353-1	Guided type fall arresters including a rigid anchor line
EN 353-2	Guided type fall arresters including a flexible anchor line
EN 354	Lanyards
EN 355	Energy absorbers
EN 360	Retractable type fall arresters
EN 363	Fall arrest systems
EN 795	Attachment point



68340 Fall arrest system

SKYLOTEC

Set comprises:
Safety harness EN 361, type CS 2 with front and rear arrester eyelet. Sling EN 354 and EN 795, type LOOP 22 kN, 2 m in length. Guided type fall arrester in accordance with EN 353-2, type SKN 10 m in length. Core sheath rope with carabiner FS 51, in a transport case.

Note:
For technical data relating to safety harnesses and fall arresters, refer to art. no. 68350 ff.

68340

	68340 ...
	301

68350 Safety harnesses

SKYLOTEC

68350 401-402
ARG 30
Design
Powerful all-round safety harness for industrial and trade use. Individually adjustable slotted buckles on the shoulders and legs make the harness faster to put on and take off. The central steel chest eyelet is permitted as a safety harness in accordance with **EN 361.**

68350 401

68350 402
ARG 30 HRS
Design
Lateral attachment points in accordance with **EN 358**, climbing protection eyelet in accordance with **EN 361** in combination with **EN 352-1**, back support.

68350 402

68350 403
ARG 31 Skyfizz Lifter Click
Design
The individually adjustable harness is ideal for working without positioning ropes or other aids. Extremely heavy-duty steel front and rear arrester eyelet in accordance with **EN 361**. The comfortable back pad distributes the load evenly. The click fasteners allow ease of use and make the harness easier to put on.

68350 403

Type	Weight approx. kg	68350 ...
ARG 30	1.1	401
ARG 30 HRS	1.6	402
ARG 31	1.6	403

68357 Lanyards

SKYLOTEC

68357 101-102
BFD SK 12
Design
- Lanyard with fall dampener
- Durable and abrasion-resistant core sheath rope with one FS-51 and one FS-90 steel carabiner
- Tested in accordance with **EN 354, EN 355**

68357 103
BFD Y SK 12
Design
- Dual-strand lanyard with fall dampener
- Durable and abrasion-resistant core sheath rope with one FS-51 and two FS-90 steel carabiners
- Tested in accordance with **EN 354, EN 355**

68357 101-102

68357 103

Type	Length m	68357 ...
BFD SK 12	1.5	101
BFD SK 12	2.0	102
BFD Y SK 12	1.5	103

68351 - 68353 Guided type fall arresters EN 353-2

SKYLOTEC

68351
Pole restraint rope
Design
Ergogrip SK 12 in compliance with **EN 358**, Ovaloy Tri and FS 51 carabiners. Rope diameter 12 mm. For use in the side retaining lugs in accordance with EN 358. The Ergogrip runner is very small, lightweight and ergonomic. It can be continuously adjusted on the rope.

Note:
Work positioning ropes are used only for the positioning of the workstation.

68352
Design
Guided type steel fall arrester, on flexible anchor line. Incl. automatic snap hook, type FS 51. Energy absorption takes place by gliding on a sheathed-core rope 11 mm in diameter. As soon as the fall arrester stops, it restrains the secured worker at height in an extremely short reaction time, with no unpleasant ripping noise. This reduces the shock of the fall significantly in the first moment. The worker feels safe. The impact is reduced.

68353
Ergogrip SK 16
Design
The Ergogrip is a length-adjustable fall arrester and is used for secure and flexible work positioning. It can be used as a guided type fall arrester or as a work positioning rope. The special, core-sheathed 16-mm rope can withstand edge loads and also heavy loads.
EN 353-2, EN 358.

68351

68352 68353

	Adjustable		Guided type		Adjustable	
Fall arrester Rope length m	68351	...	68352	...	68353	...
2		101				
5				301		301
10				302		302
15				303		303
20				304		

68355 Slings

SKYLOTEC

Design
- Can withstand edge loads
- Strength: 35 kN
- **EN 354, EN 795**

68355

Length m	68355	...
1		101
2		102

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Info — Excerpt from accident prevention regulations:

The new German technical occupational health and safety regulations ASR A4.3 „First aid rooms, resources and facilities" for first aid provide standardised and legally binding guidelines for all workplaces, whether in heavy industry, workshops, small businesses, the public sector or in educational institutions:

- In administrative companies and commerce:
Up to 50 employees, 1 x DIN 13157 small,
> 50 employees, 1 x DIN 13169 large,
> 300 employees, 1 x DIN 13169 per 300 employees.
- In manufacturing and processing plants:
Up to 20 employees, 1 x DIN 13157 small,
> 20 employees, 1 x DIN 13169 large,
> 100 employees, 1 x DIN 13169 per 100 employees.

- On construction sites:
Up to 10 employees, 1 x DIN 13157 small,
> 10 employees, 1 x DIN 13169 large,
> 50 employees, 1 x DIN 13169 per 50 employees.

One large first aid kit DIN 13169 can also be replaced with two small first aid kits DIN 13157.

68400 Large first aid kits in accordance with DIN 13169

SÖHNGEN®

68400 201
First aid kit MT-CD
Design
ABS plastic, orange in colour, wall bracket with 90° stop lock, sturdy handle and rotary catches, two halves of the case equal in size, perimeter rubber seal, transparent cover plates, adjustable internal dividers, sealing device, security seal.
Includes contents in accordance with DIN 13169.

68400 202
First aid cabinet Rome
Design
Sheet steel, white in colour, two doors, lockable, two adjustable shelves, two drawers, doors each have three storage trays, folding storage panel.
Includes contents in accordance with DIN 13169.

68400 203
First aid box Oslo
Design
Sheet steel, painted white, frame and lid from a single piece, rounded edges, profile seal, two case handles, two latches.
Includes contents in accordance with DIN 13169.

68400 211
Contents
Design
All contents in accordance with DIN 13169 for refilling and filling existing first aid kits.

68400 201

68400 202

68400 203

68400 211

DIN 13169

Type	Size mm	68400 ...
First aid box	400 x 300 x 150	201
First aid cabinet	404 x 462 x 170	202
First aid kit	350 x 250 x 100	203
Contents	-	211

68401 Small first aid kits in accordance with DIN 13157

SÖHNGEN®

68401 201
First aid kit Quick-CD
Design
ABS plastic, orange in colour, wall bracket with 90° stop lock, sturdy handle and rotary catches, two halves of the case equal in size, perimeter rubber seal, transparent cover plates, adjustable internal dividers, sealing device, security seal.
Includes contents in accordance with DIN 13157.

68401 202
First aid cabinet Heidelberg
Design
Sheet steel, painted white, single door, lockable, one adjustable shelf, folding storage panel, door with seal.
Includes contents in accordance with DIN 13157.

68401 203
First aid kit Kiel
Design
Made of high-impact-resistant plastic, white, with hinge and locking tabs.
Includes contents in accordance with DIN 13157.

68401 211
Contents
Design
All contents in accordance with DIN 13157 for refilling and filling existing first aid kits.

68401 201

68401 202

68401 203

68401 211

DIN 13157

Type	Size mm	68401 ...
First aid box	260 x 170 x 110	201
First aid cabinet	302 x 362 x 140	202
First aid kit	260 x 160 x 80	203
Contents	-	211

68402 Vehicle first aid kit DIN 13164

SÖHNGEN®

Design
- Made of highly impact-resistant plastic
- With hinge and locking tabs
- Colour: black
- Includes contents in accordance with DIN 13164

68402

Size mm	DIN 13164 68402 ...
260 x 160 x 80	101

68403 First-aid case SPEZIAL

SÖHNGEN®

Design
- **Includes basic equipment DIN 13157 plus extensions**
- Colour: orange
- Size: 400 x 300 x 150 mm
- Additional content includes more plasters, universal dressings, oculavNIT® eye rinse, hand and wound cleaning cloths, splinter tweezers, packs of pressure bandages, aluderm®-aluplast plaster dressings

Applications
In maintenance and repair businesses, technical workshops.

Note:
First aid kits for other occupations available on request.

68403

First aid kit for occupational group	DIN 13157 plus extensions 68403 ...
Workshop	102

68406 QuickFix plaster dispenser

plum

Design
The lockable QuickFix dispenser is just 23 cm wide and 13.5 cm high and, despite its compact size, can accommodate 90 plasters. The plasters are immediately to hand and **are automatically released when pulled out.** The system can therefore be operated with one hand, without getting other plasters dirty. QuickFix – quick, easy and hygienic first aid for minor injuries.

68406 101
Plaster dispenser Water Resistant
Design
Waterproof, ideal for wet working environments.
Filled with 2 x 45 plasters.

68406 102
Refill kit Water Resistant
Design
6 packs of 45 plasters.

68406 201
Plaster dispenser Elastic
Design
Particularly breathable and elastic fabric plasters that follow the movement of the skin. **Filled with 2 x 45 plasters.**

68406 202
Refill kit Elastic
Design
6 packs of 45 plasters.

68406 301
Plaster dispenser Detectable
Design
Elastic and visually striking blue plasters with integrated metal surface for detection by metal detectors. Suitable for use in the food industry.
Filled with 2 x 45 plasters.

68406 302
Refill kit Detectable
Design
6 packs of 45 plasters.

68406 101

68406 102

Type	Plaster dispenser 68406 ...	Refill kit 68406 ...
Water Resistant	101	102
Elastic	201	202
Detectable	301	302

68407 aluderm®-aluplast plaster dispenser

SÖHNGEN®

Design
ABS plastic practical dispenser with wall bracket and mounting kit, orange in colour. Three compartments, transparent, hinged lid with tunnel compartment.

Contains:
30 aluderm®-aluplast strips 7.2 x 1.9 cm,
30 aluderm®-aluplast strips 7.2 x 2.5 cm,
25 aluderm®-aluplast fingertip plasters,
20 aluderm®-aluplast finger bandages 12 x 2 cm,
10 aluderm®-aluplast knuckle dressings,
1 emergency treatment document block with 40 sheets.
All plasters are hygienically sealed in individual packs.

Note:
aluderm®-aluplast plasters do not stick to the wound, do not fray, are breathable, highly absorbent, promote healing and formation of new skin, are hypoallergenic, physiologically safe, free of optical brighteners and chemical binders.

68407

Dispenser H x W x D mm	68407 ...
160 x 122 x 57	101

68408 Accessories -First Aid-

SÖHNGEN®

68408 101
Set of additional plasters
Design
A total of 116 aluderm®-aluplast plaster dressings with aluminised wound dressing pads, each plaster is individually wrapped including finger dressings, fingertips and knuckle plasters, plaster strips, colourful children's plasters, silk adhesive plaster strips. In plastic box 161 x 118 x 50 mm, with hinged transparent lid, blue in colour.
Applications
Additional contents for first aid cabinet or stand-alone first aid kit in the workplace/office.

68408 102-103
oculavNIT®eye rinse
Ready-to-use sterile solution for instant rinsing of eyes and conjunctival sac, in particular following burns caused by acids, alkalis, pepper spray, CS tear gas.
250 ml per bottle, maintenance-free, shelf life of three years. Safety lock.

68408 102
oculavNIT® box
Design
Contents: 4 oculavNIT® eye rinse bottles, instant set for eye injuries.
In plastic box, 260 x 160 x 80 mm,
with practical wall bracket, orange in colour.

68408 103
Single bottle containing 250 ml of sterile solution.

68408 101

68408 102

68408 103

Type	Contents Quantity	Contents ml	68408 ...
Set of additional plasters	116	-	101
Eye rinse, box	-	4 x 250	102
Eye rinse, single	-	250	103

68500 - 68503 Disposable overalls (protective suits)

ZVG

68500
Secutex Pro 5/6
Design
Anti-static chemical protective overall that is dustproof with limited resistance to spray. Hood with elasticated band, dual zip, zip trim, elasticated back, arms and legs. The overall protects against splashes of aggressive, liquid chemicals and is permeable to air and water vapour. The combined polypropylene spunbonded fabric backing and polyatylene-laminate combine maximum protection and abrasion resistance.
Protection class: Cat. III, Type 5, 6.
Virus protection-certified to EN 14126.
Applications
Areas of application include production and bottling in the food, pharmaceutical and cosmetics industries, production in the chemical industry, veterinary protection.

68501
Tritex Pro blue
Design
Dustproof with limited resistance to spray. Anti-static finish. Breathable three-ply SMS material. Even when worn for long periods, the robust suit prevents the build up of heat and moisture. Hood with elasticated band, dual zip, zip trim, elasticated waist, arms and legs. **Protection class: Cat. III, Type 5, 6.**
Applications
For asbestos disposal, processing of material containing glass fibre, for maintenance and renovation work.

68502
Painttex-Plus
Protects against harmful fine dust. Durable, antistatic, wearproof and lint-free. Breathable three-ply SMS material. Hood with elasticated band, dual zip, zip trim, elasticated waist, arms and legs.
Protection class: Cat. III, Type 5.
Applications
For industrial and automotive painters, for renovation work, clean-up work and asbestos removal.

68503
Tritex Pro white
Design
Dustproof overalls made from three-ply SMS fabric, breathable, anti-static. Lightweight. Hood with elasticated band, dual zip, zip trim, elasticated waist, arms and legs.
Protection class: Cat. III, Type 5, 6.
Applications
For asbestos removal, processing of material containing glass fibre, for maintenance and renovation work, for use in the food industry.

68500

68501

68502

68503

Size	68500 ...	68501 ...	68502 ...	68503 ...
XL	101	101	101	101
XXL	102	102	102	102

68555 PVC hi-vis vests

Design
- Made of PVC-coated, knitted fabric
- Manufactured in accordance with EN 471 Class 2
- One size
- With a double ring fastener and reflective stripes
- Packaged in a PE bag

68555 101

68555 201

Size	Colour	68555 ...
One size fits all	Orange/red, fluorescent	101
One size fits all	Yellow, fluorescent	201

68563 Trucker waistcoat

Design
High collar, **kidney protection,** various external pockets, one internal pocket, concealed zip, red/black-check cotton lining.

Upper material: 65% polyester, 35% cotton.
Filling: 100% polyester.
Lining: 100% cotton flannel.

68563

Size	Colour	68563 ...
M	Black	101
L	Black	102
XL	Black	103
XXL	Black	104
XXXL	Black	105

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Info — Safety shoes in accordance with EN ISO 20345

The European Standards (EN) for shoes used in industrial and commercial fields.
EN ISO 20345 - Test energy of toe cap 200 joules,
EN ISO 20346 - Test energy of toe cap 100 joules,
EN ISO 20347 - no toe cap

EN ISO 20345	Areas of application
SB	Meets all basic requirements of EN ISO 20345. Open heel, protective toe caps with 200 joules of resistance.
S1	Full or split leather. In addition to the basic requirements: closed heel, energy absorption capacity, anti-static, protective toe cap with a resistance of 200 joules. Application: In industry, crafts and trade, dry areas.
S1P	Same as S1, but with the addition of a puncture-resistant midsole running through the shoe.
S2	Same as S1, suitable for working on wet floors, therefore impermeable to water, able to absorb water vapour. Application: In dry areas, indoors and outdoors.
S3	Meets all the requirements of S2, with the addition of a puncture-resistant midsole running through the shoe. Application: In dry/wet areas, indoors/outdoors, for use as construction shoes/boots and when there is the risk of nail punctures.

68713 Low-cut safety shoe Kayak Black S1P ESD

COFRA BORN TO WORK

Design
- **Shaft:** extremely breathable textile and microfibre
- **Lining:** breathable and wearproof textile lining, high degree of moisture absorption and release
- **Footbed:** EVANIT ESD, thermoformed, perforated footbed with breathable coating
- **Outsole:** EVA/TPU, with low electrical resistance
- **Midsole:** APT plate, metal-free
- **Protective cap:** Aluminium
- **Width:** 11 Mondopoint
- **Plus:** TPU front cap, anti-torsion support, ESD-tested, **DGUV 112-191**
- **EN ISO 20345 S1P SRC**

68713

German Size	68713 ...	German Size	68713 ...	German Size	68713 ...
36	101	40	105	44	109
37	102	41	106	45	110
38	103	42	107	46	111
39	104	43	108	47	112

68714 Low-cut safety shoe Potency S1P ESD BOA

COFRA BORN TO WORK

Design
- **Shaft:** extremely breathable textile and leather
- **Lining:** SANY-DRY® - breathable and wearproof textile lining, excellent moisture absorption and release
- **Footbed:** COFRA SOFT ESD, anatomically shaped, soft polyurethane with shock-absorbing effect and high degree of slip resistance
- **Outsole:** PU/TPU, with low electrical resistance
- **Midsole:** APT plate, metal-free
- **Protective cap:** Aluminium
- **Width:** 11 Mondopoint
- **Plus:** BOA® lacing system, ESD-tested
- **EN ISO 20345 S1P SRC**

boa Boa® Closure System

68714

German Size	68714 ...	German Size	68714 ...	German Size	68714 ...
36	101	40	105	44	109
37	102	41	106	45	110
38	103	42	107	46	111
39	104	43	108	47	112

68715 Low-cut safety shoe Cruiser Black S3

COFRA BORN TO WORK

Design
- **Shaft:** water-repellent nubuck leather, breathable material inserts
- **Lining:** SANY-DRY® - breathable and wearproof textile lining, excellent moisture absorption and distribution
- **Footbed:** COFRA SOFT ESD, anatomically shaped, soft polyurethane with shock-absorbing effect and high degree of slip resistance
- **Outsole:** PU/TPU
- **Midsole:** APT plate, metal-free
- **Protective cap:** Plastic
- **Width:** 11 Mondopoint
- **Plus:** Leather front cap, anti-torsion support, 100% metal-free
- **EN ISO 20345 S3 SRC**

68715

German Size	68715 ...	German Size	68715 ...	German Size	68715 ...
40	101	43	104	46	107
41	102	44	105	47	108
42	103	45	106		

68727 Low-cut safety shoe Zatopek S3

COFRA BORN TO WORK

Design
- **Shaft:** water-repellent leather
- **Lining:** SANY-DRY® - breathable, wearproof, high degree of moisture absorption and release
- **Footbed:** COFRA-Soft - anatomically shaped, soft polyurethane with shock-absorbing effect and high degree of slip resistance
- **Outsole:** PU/TPU
- **Midsole:** APT plate, metal-free
- **Protective cap:** Aluminium
- **Width:** 11 Mondopoint
- **Plus:** Extremely lightweight and flat outsole
- **EN ISO 20345 S3 SRC**

68727

German Size	68727 ...
36	101
37	102
38	103
39	104

German Size	68727 ...
40	105
41	106
42	107
43	108

German Size	68727 ...
44	109
45	110
46	111
47	112

Info HHW occupational safety catalogues

Many other safety shoes as well as accessories

can be found in our latest

occupational safety catalogue Safety shoes/Accessories

Request your copy at info@hhw.de.

Special tools / PPE

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Ultrasonic cleaning devices

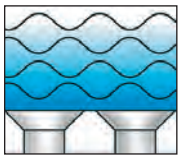
Applications:
- Ultrasonic cleaning is currently the state-of-the-art cleaning method
- This method achieves excellent cleaning results, even in hard-to-reach areas, yet is extremely gentle to the material being cleaned
- Suitable for removing grease, oils, fluxes, grinding and polishing abrasives, paint residue, oxide layers, etc.
- Can be used in industry, crafts, laboratories
- Can be used for ferrous and non-ferrous materials, plastics, glass etc. (mechanical, electronic, optical and medical components)

Ultrasonic cleaning terms:
Ultrasonic vibration systems
Specially designed ultrasonic vibration systems convert electrical energy into mechanical vibrations. These are transferred to the cleaning fluid via the stainless steel tub floor. In the process, tiny vacuum bubbles in the micrometre range form, which implode at high speed (cavitation). The resulting high-energy flows (jets) efficiently remove debris from the surfaces inserted into the cleaning bath.

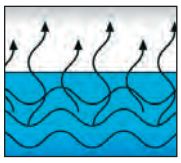
Sweep function
The sweep function is used for the continuous shifting of the sound pressure maxima, ensuring a homogeneous sound field distribution. In addition, standing waves are prevented. This leads to optimum distribution of the cavitation performance and cleaning performance throughout the cleaning bath and on the products being cleaned.

Degas and autodegas function
A function for the acceleration of fluid degassing after refilling the treatment chamber. For optimum effectiveness of the ultrasound cavitation in the cleaning fluids or in liquids assisting ultrasound.

Ultrasonic vibration systems



Sweep function



Degas function

69005 — Ultrasonic cleaning devices Elmasonic S

IP 20

Design
- Efficient 37-kHz ultrasonic power transducer
- Cleaning tub made of cavitation-resistant stainless steel
- User-friendly and easy-to-understand operating unit, sealed so that no liquid can penetrate the electronics
- LED display for the cleaning time with setpoint and remaining time display
- Rotary switch for convenient pre-selection of the cleaning time
- Continuous or short-term operation configurable between 1 and 30 minutes
- The cleaning process can be started immediately or in a temperature-controlled manner- Switchable **Sweep function** for optimised sound field distribution by means of frequency modulation
- **Degas function** for faster degassing of the cleaning fluid and for special applications in the laboratory
- Time-controlled **Autodegas function** can be selected
- Heating with dry run protection
- Temperature setting with rotary switch can be selected from 30° to 80° C in 5° steps
- LED display for setpoint and actual value of the liquid temperature
- Detachable power cord with IEC connector
- Side-mounted rotary knob for easy emptying of the cleaning fluid through the outlet valve on the rear of the device
- Carrying handles are made of ergonomically shaped plastic

Use
Ideal for degreasing, cleaning of lapping, polishing and sliding abrasives, cutting oils and drawing greases as well as high-performance cooling lubricants. The ultrasonic waves ensure gentle and thorough cleaning.

Note:
Accessories on request.

incl. cover and basket

69005 201

69005 202

69005 203

Art. no.	69005 201	69005 202	69005 203
Type	**Elmasonic S 30 H**	**Elmasonic S 100 H**	**Elmasonic S 300 H**
Mains voltage (Vac)	220-240 V	220-240 V	220-240 V
Ultrasonic frequency (kHz)	37	37	37
Total power consumption (W)	280	550	1500
Effective ultrasonic capacity (W)	80	150	300
Max. ultrasonic peak capacity (W)	320	600	1200
Heating capacity (W)	200	400	1200
Device external dimensions W x D x H (mm)	300 x 179 x 214	365 x 278 x 264	568 x 340 x 321
Tub internal dimensions W x D x H (mm)	240 x 137 x 100	300 x 240 x 150	505 x 300 x 200
Basket internal dimensions W x D x H (mm)	198 x 106 x 50	255 x 200 x 75	455 x 250 x 115
Max. filling volume (litres)	2.75	9.5	28
Weight (kg)	3.3	5.9	11

Type	69005 ...
Elmasonic S 30H	201
Elmasonic S 100 H	202
Elmasonic S 300 H	203

Ultrasonic cleaning concentrates, see page 69.4, art. no. 69010-69014 ▶

69006 Ultrasonic cleaning devices professionalCLEAN SF

ATORN®

69006 301-304
Ultrasonic cleaning devices
Design
- Efficient 37-kHz ultrasonic power transducer
- Cleaning tub made of cavitation-resistant stainless steel
- User-friendly and easy-to-use operating unit, sealed, so that no liquid can penetrate the electronics
- LED display for ultrasound function
- Rotary switch for convenient pre-selection of the cleaning time
- Continuous or short-term operation configurable between 1 and 30 minutes
- Permanent sweep function for optimised sound field distribution by means of frequency modulation
- Switchable dynamic function increases the ultrasonic peak capacity, and as a result the effectiveness of the cleaning is improved in order to remove very stubborn contamination
- Heating with dry run protection
- Temperature setting with rotary switch can be selected from 30° to 80° C in 5° steps
- LED display for heating function
- Removable power supply with IEC connector
- Limit temperature can be set, with a warning signal if this is exceeded
- Automatic safety shut-off after 8 hours or at a bath temperature of 90°C

NEW

- **Incl.** cover
- Optionally available without stainless steel basket (art. no. **69006 401-404**)

Stable vibration tub made of special stainless steel With filling level marking

Quick and easy drainage of the contaminated cleaning fluid via the ball valve drain

Clear control panel protected against spay water, with
- Individual time and temperature control
- Proven sweep function
- Start/stop and dynamic function
- Adjustable limit temperature with LED warning indicator

69006 401-404
Stainless steel baskets

	Ultrasonic devices		Stainless steel basket	
Type	**69006**	**...**	**69006**	**...**
professionalCLEAN SF 30H		**301**		**401**
professionalCLEAN SF 60H		**302**		**402**
professionalCLEAN SF 120H		**303**		**403**
professionalCLEAN SF 200H		**304**		**404**

Art. no.	**69006 301**	**69006 302**	**69006 303**	**69006 304**
Type	**CLEAN SF 30H**	**CLEAN SF 60H**	**CLEAN SF 120H**	**CLEAN SF 200H**
Mains voltage (Vac):	220-240 V	220-240 V	220-240 V	220-240 V
Ultrasonic frequency (kHz):	37	37	37	37
Total power consumption (W):	540	550	1000	1500
Effective ultrasonic capacity (W):	140	150	200	300
Max. ultrasonic peak capacity (W):	560	600	800	1200
Heating capacity (W):	400	400	800	1200
Device external dimensions W x D x H (mm):	360 x 230 x 250	420 x 250 x 300	440 x 340 x 350	420 x 390 x 330
Tub internal dimensions W x D x H (mm):	240 x 130 x 100	300 x 150 x 150	300 x 240 x 200	320 x 280 x 200
Basket internal dimensions W x D x H (mm):	196 x 112 x 39	257 x 132 x 74	262 x 222 x 114	280 x 250 x 114
Max. filling volume (litres):	3.0	6.5	14.0	18.0
Weight (kg):	6	10	11	13

ATORN®

69007 101-102
Ultrasonic cleaning devices
Design
- Ultrasound tub and stainless steel housing
- Tapered tub bottom for better emptying of the cleaning fluid
- Sandwich performance vibration systems
- Ultrasonic frequency can be switched between 25 kHz for coarse and pre-cleaning and 45 kHz for fine cleaning
- Heating with temperature control (30°C–80°C)
- Temperature-controlled ultrasonic function: Ultrasound starts automatically upon reaching the preset temperature
- Automatic safety shut-off after 12 hours of operation in order to avoid accidental continuous operation
- Automatic safety shut-off at a bath temperature of 90°C to protect the material to be cleaned against too high a temperature
- Display of the set values and actual values via the LED display
- Castors with parking brake for mobile use of the device in an unfilled state
- Stainless steel liquid outlet on the side of the device

Sweep function:
For continuous shift of the sound pressure maxima; produces a homogeneous sound field distribution in the tub

NEW

Pulse function:
Can be activated to intensify the ultrasonic cleaning effect for stubborn contamination. Also optimises operational readiness (reaching the cavitation threshold) when fresh cleaning fluid is added after a basket change (reduction of cleaning time).

Dynamic function:
Sweep and pulse function run in an automatically alternating manner. The ultrasonic capacity is increased temporarily by up to 20%. At the same time, the cleaning effect is distributed due to the even ultrasound distribution in the ultrasonic bath.

69007 101

Figure shows ultrasonic cleaning device incl. standard cover, art. no. **69007 201**
(Please order cover separately)

69007 102

Figure shows ultrasonic cleaning device incl. standard cover, art. no. **69007 202**
(Please order cover separately)

Art. no.	69007 101	69007 102
Type	**CLEAN MF 300H**	**CLEAN MF 600H**
Mains voltage (Vac):	230-240 V	230-240 V
Ultrasonic frequency (kHz):	25 / 45	25 / 45
Total power consumption (W):	2000	2400
Effective ultrasonic capacity (W):	480 (25 / 45 kHz)	800 (25 kHz) / 900 (45 kHz)
Max. ultrasonic peak capacity (W):	1920 (25 / 45 kHz)	3200 (25 kHz) / 3600 (45 kHz)
Heating capacity (W):	1400	1400
Device external dimensions W x D x H (mm):	500 x 550 x 936	670 x 580 x 936
Tub internal dimensions W x D x H (mm):	330 x 300 x 300	500 x 330 x 350
Max. filling volume (litres):	30	58
Weight (kg):	40	45

Ultrasonic cleaning devices Type	69007 ...
professionalCLEAN MF 300H	101
professionalCLEAN MF 600H	102

69007 201-202
Standard cover (to be placed on top)
Applications
For professionalCLEAN MF 300H and MF 600H ultrasonic cleaning devices
(art. no. 69007 101-102).

69007 301-302
Noise protection cover (flip cover)
Applications
For professionalCLEAN MF 300H and MF 600H ultrasonic cleaning devices
(art. no. 69007 101-102).

69007 401
Stainless steel basket
Design
- Internal dimensions W 257 x D 233 x H 166 mm
- Mesh size 10 x 10 x 1.6 mm

Applications
For ultrasonic cleaning devices professionalCLEAN MF 300H (art. no. 69007 101).

69007 402
Stainless steel basket
Design
- Internal dimensions W 257 x D 233 x H 366 mm
- Mesh size 10 x 10 x 1.6 mm

Applications
For ultrasonic cleaning devices professionalCLEAN MF 600H (art. no. 69007 102).

69007 201-202

69007 401-402

Accessories For type	Standard cover 69007 ...	Sound protection cover 69007 ...	Stainless steel basket 69007 ...
professionalCLEAN MF 300H	201	301	401
professionalCLEAN MF 600H	202	302	402

69010 - 69014 Ultrasonic cleaning concentrates

Design
- Elma Tec Clean cleaners are highly productive concentrates, specially designed for high-performance ultrasonic devices
- In addition to the task of solving specific industrial cleaning problems, the highly stressed vibrating baths of the ultrasonic devices need to be protected
- The ultrasound vibrating baths are exposed to a frequency of 25 to 130 kHz
- In the process, the ultrasound generates small cavitation bubbles that gently remove the dirt in combination with the right cleaning agents
- In this process, the vibration baths made of special stainless steels are subjected to strong bending stresses
- Cleaning products that are not designed for this application may contain lead ions, which promote material removal or corrosion
- Strong corrosion-formers that significantly reduce durability include halide ions
- Chlorides and fluorides in acid medium are the most aggressive in this respect
- **Elma Tec Clean extends the service life of the ultrasonic devices**

Note:
For Elma ultrasonic cleaning devices, see art. no. 69005–69006.

69010
Elma Tec Clean A1
- As electronics and precision optics cleaner
- Specially designed for the fine cleaning of PCBs and electro-mechanical assemblies
- Cleaning the parts of flux residues, fingerprints or dust
- Dosage of 3-10%

69010

69013
Elma Tec Clean A4
- Alkaline universal cleaner
- For metals, non-ferrous metals, light metals, glass, rubber, ceramics and alkali-resistant plastics
- Removes common contaminants such as oil, grease and polishing agent residues
- It causes the removed oils, greases and waxes to settle on the bath surface. These can then be washed away in an ultrasonic device with overflow strips
- Dosage of 1-5%

69013

69012
Elma Tec Clean A3
- Ideal for metal cleaning after mechanical processing
- For stainless steel, steel, iron, grey cast iron, titanium and precious metals after turning, milling, lapping, polishing, grinding, drawing and punching
- Effortlessly removes polishing compounds, oils, greases, chips etc., even from bores and hard-to-reach spots
- Dosage of 3-6%

69012

69014
Elma Tec Clean A5
- Powerful cleaner for iron and light metal
- Powder cleaner for cleaning stubborn contamination such as resin, coking, tar residues and paint and varnish residues
- For overhaul cleaning of car parts, cutting tools and other machine parts
- Dosage of 1-4%

69014

Content l	Content g		A1 69010	...	A3 69012	...	A4 69013	...	A5 69014	...
2.5	-			101		101		101		
10.0	-			102		102		102		
-	850									101

69040 Intensive cleaner

Design
- Powerful cleaning, making it well suited for machine applications
- Free from preservatives, not perfumed
- Can be used wherever strongly adhesive, oily dirt must be removed: In workshops as well as in industrial plants
- Does not corrode rubber, plastic and metals and is therefore suitable for universal use.

Applications
The intensive cleaner can be sprayed on, splashed on, applied with a brush or a sponge, and **is also suitable for use in high-pressure cleaning systems.**

It can be used pure or diluted depending on the level of soiling. For maintenance cleaning, a 2 to 10% solution is recommended. For basic cleaning, a 10% up to concentrated solution is recommended, depending on the severity of the soiling.

Wash and dry hands after finishing work. Then rub skincare cream (art. no. 68025) into hands. In the event of prolonged skin contact, protective gloves are recommended.

Note:
The intensive cleaner complies with the requirements of the German Foodstuffs and Commodities Act (LMBG). Biodegradable.

69040 100

69040 201

Content l	Design	69040	...
0.75	spray bottle		100
10	canister		201
200	barrel		203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

69100 HHW oil-free

Design
- Removes oil stains from virtually all materials and surfaces
- Converts oil into oil microparticles
- The encapsulated oil microparticles have no further holding effect on the substrate and can be easily removed from the surface

Features:
- Entirely environmentally friendly
- Biodegradable (over 99%)
- Solvent-free
- Neither combustible nor explosive
- No toxic steam development

Application areas:
- Oil and grease removal on tools, workpieces, machines, concrete floors and plastic coatings

Application:
- Apply or spray onto the oil or grease soiling
- Leave to soak for a few minutes, or a longer time in the event of more intensive soiling (subsequently spraying slightly with water increases the effect)
- Then simply wipe off or spray off with water and absorb or take up the mixture using an oil binder (art. no. 69215).

69100 102

69100 101

Before

After

Content l	Design	69100 ...
1	spray bottle	101
5	canister	102

69167 Scotch-Brite™ high-performance cleaning cloth

3M

Design
- With patented fibre combination of polyester and nylon
- This allows for extremely economical cleaning of both aqueous and greasy dirt with little effort
- The grease and dirt absorption is up to 100 times greater than for conventional cleaning cloths
- The cloth is machine washable up to 95 °C
- Colour: blue

Applications
Suitable for all surfaces. Cleans dry, damp or wet.

69167

Cloth size approx. cm	Pack = pieces	69167 ...
36 x 32	5	101

69168 Micro-fibre cloth

3M

Design
- Very versatile, reusable cloths that clean numerous surfaces by taking up dust, dirt, fingerprints and moisture
- Unlike conventional cloths, the loop-like fibres penetrate deep into uneven surfaces to the places where dirt, grease and bacteria accumulate
- Cloths can be machine washed up to 300 times at up to 95 °C
- Colour: green

69168

NEW

Cloth size approx. cm	Pack = pieces	69168 ...
40 x 40	10	101

69169 Micro-fibre cloth

Design
- High-quality green microfibre cloths
- Cleans deep into the pores
- Cleans and dries lint and streak-free, without the addition of detergents

Applications
Ideally suited for wet and dry cleaning as well as for cleaning kitchens, bathrooms, cars, LCD screens, etc.

69169

NEW

Cloth size approx. cm	Pack = pieces	69169 ...
40 x 40	5	101

69205 Damp cleaning cloths

Design
- Resealable dispenser bucket with damp Polytex® wipes
- Gentle, skin-friendly cleaning substances, highly effective
- Fresh, pleasant scent
- Colour: blue

Applications
Cleaning of surfaces and tools, without water, removal of oil, grease, tar and adhesives.

69205

No. of cloths approx. per bucket	Cloth dimension approx. cm	69205	...
72	25 x 25		101

69210 Folding towel dispenser/folding towels

69210 201
Folding towel dispenser
Design
- Plastic
- Lockable
- Easy removal and re-filling
- Colour: light grey

- W x D x H mm: 301 x 146 x 450.
Applications
For wall-mounting.

69210 202-203
Folded hand towels
Design
- Extra soft, absorbent and tear-resistant folding towels
- Hygienic and economical removal by means of special folding technique

69210 201

69210 202

69210 203

	No. of cloths	Cloth size approx. cm	69210	...
Folding towel dispenser	-	-		201
Folding towels, 2-ply	3,045	23.5 x 25		202
Folding towels, 3-ply	1,890	23.5 x 34		203

69175 Paper cleaning cloth roll

69175 102
Type: Advanced 420
Design
Stable, **2-ply,** blue cloth roll in **hybrid quality.** A layer of tissue connected to a voluminous TAD layer with a soft and highly absorbent exterior. The line embossing allows for increased absorption of liquids. **1500 sheets per roll.**
Applications
Ideally suited for cleaning all water-resistant surfaces where absorption of liquids is required; quick and efficient.

69175 101
Type: Advanced 430
Design
High-quality blue cleaning cloth roll made of **2-ply TAD material.** Double absorbency as well as exceptional wet strength provide a significant economic advantage. **1000 sheets per roll.**
Applications
Like art. no. 69175 102, but with even higher fluid absorption.

Note:
Dispenser for rolls, see art. no. 69201.

69175 102

69175 101

Type	Cloth size approx. cm	69175	...
Advanced 420	34 x 37		102
Advanced 430	34 x 37		101

69176 Paper cleaning cloth roll and dispenser

69176 101
Design
Highly absorbent, tear-proof wiping cloth in a fabric blend. This 2-ply white cloth is composed of a layer of TAD and a layer of tissue. The two layers are connected by a blue-coloured line embossing.
2 rolls of 750 sheets.

69176 102
Centre-feed dispenser system
Design
Wall bracket for centre feed, can be locked. Plastic, colour: opaque blue/black.
Applications
For wiping cloth rolls up to 43 cm.

69176 101

69176 102

Type	Cloth size approx. cm	H x W x D mm	69176	...
Cleaning cloth roll	24 x 34	-		101
Dispensing system	-	420 x 330 x 345		102

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69183 - 69184 Non-woven cleaning cloths

69183
Design
- excelClean® technology for faster professional cleaning results
- Strong structure enables excellent oil and water absorption
- Can be used in combination with most solvents and detergents to meet all cleaning requirements
- Since the cloths are free of silicone, no residue remains on the surface
- Colour: grey
- 1-ply, perforated

Applications
Perfect alternative to cleaning rags and rented textiles. Soft and flexible non-woven cloths, very durable, enable cleaning of confined spaces and complex components without scratching the surfaces. For all cleaning work in industry and workshops, metal processing industry, metalworking, punching, sheet metal processing, tinning works.

69183 101
Design
- Rolls in a cardboard box with the option to remove the cloths individually

69183 202
Design
- 120 cloths in a large bag
- Individually folded

69184
Design
- Colour: blue
- 1-ply, perforated
- 100 cloths in a large bag

Applications
Textile-like cloths for heavy-duty cleaning work and when using powerful solvents. Very tear-resistant and highly absorbent. Embossed surface ensures quick absorption of oil. High volume protects the hands from metal chips. Insulates against heat.

69183 101

69183 202

69184 102

Design	Number cloths	Cloth approx. cm	69183	...	69184	...
Box	390	32.0 x 38.0		101		
Large bags	120	35.5 x 42.8		202		
Large bags	100	35.5 x 42.8				102

69200 Cleaning cloths

69200 201
Non-woven cloths
Design
- Colourful, high cotton content

Applications
For cleaning coarse dirt.

69200 203
Non-woven cellulose soft cloth roll
Design
- White, extra-strong, water-resistant, very absorbent, solvent-resistant

Applications
For all applications in which lint-free results and wet strength are important.

69200 204+105
Cleaning cloth roll
Design
- Blue, high wet strength

Applications
For industry and trade, ideal for cleaning light and coarse dirt.

69200 204
Design
- **3-ply,** edge and surface embossing

69200 105
Multiclean®
Design
- **2 ply,** embossed point-to-point
- **Pack = 2 rolls**

69200 106
Tissue cleaning cloth roll
Design
- Highly absorbent, tear-resistant
- **3-ply,** blue
- Volume and surface-embossed,
- Layer-glued
- **Pack = 2 rolls**

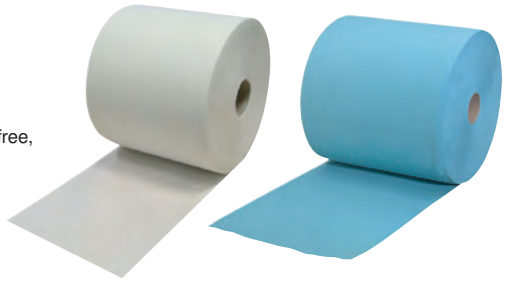
Applications
High absorbency, as well as fast and efficient uptake of liquids.

69200 206
Polytex® wet-wipe roll
Design
- Blue, washable, silicon-free, tear-resistant, lint-free, solvent resistant, anti-static.

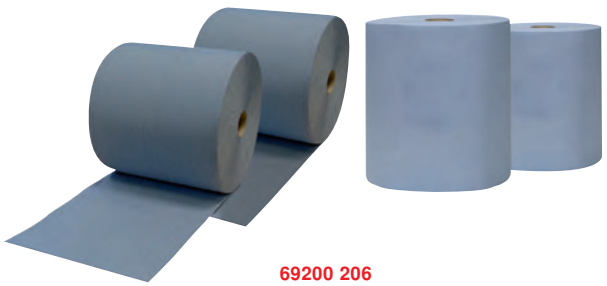
Applications
For cleaning and wiping in the food industry, automotive industry, industrial kitchens, trades, etc.

69200 201

69200 203 69200 204



69200 105 69200 106



69200 206

Design	Cloth size approx. cm	Number of cloths approx.	Number of tear-offs approx.	69200	...
Non-woven	35 x 33	415	-		201
Non-woven cellulose	36 x 27	-	500		203
3 ply	38 x 36	-	1000		204
Multiclean®, 2-ply	35 x 37	-	1000		105
Tissue	38 x 36	-	500		106
Polytex®	38 x 32	-	500		206

69201 Floor stand / wall holder

69201 101
Floor stand
Design
- Mobile
- With refuse bag holder
- Delivery without refuse bag and cleaning roll

Applications
For cleaning cloth rolls up to 42 cm roll width.

Note:
Plastic refuse bags, see art. no. 69195 + 85851.

69201 103
Floor stand
Design
- Metal/plastic, blue
- Without wheels

Applications
For cleaning cloth rolls up to 40 cm roll width.

69201 102
Wall bracket
Design
- Metal, blue

Applications
For cleaning cloth rolls up to 40 cm roll width.

69201 101

69201 103

69201 102

Type	Dimensions W x H x D mm	69201 ...
Floor stand, with wheels	480 x 1060 x 550	101
Floor stand, without wheels	460 x 900 x 440	103
Wall holder	500 x 312 x 23	102

69195 Refuse bags

TORK

Applications
For floor stand, art. no. 69201 101.

69195 101
Design
- HDPE material
- High load-bearing capacity
- Not suitable for sharp objects

69195 102
Design
- Standard design in tear-resistant LDPE material

69195 101

Colour	Content litres	Size H X W mm	Pack = pieces	69195 ...
blue	70	1000 x 575	50	101
transparent	70	1000 x 575	25	102

69215 Oil binder

69215 101
Design
- Fast-acting and highly absorbent
- Made from 100% polyurethane foam granulate
- Water-repellent

Applications
All-round oil and chemical binders for tiled and sealed industrial floors.

69215 102
Design
- Fast-acting and highly absorbent
- On the basis of magnesium hydroxysilicate / sepiolite
- A completely chemically inert product
- Non-flammable and non-toxic

Applications
Particularly well suited for all kinds of emulsions. Safely absorbs spilled chemicals, oils, greases, fuels and other hazardous liquids.

69215 101

69215 102

Grain size mm	1 sack binds approx. l	Content approx. l	Weight approx. kg	69215 ...
0.125 - 4	33	50	12	101
0.5 - 1	15	32	20	102

69220 Schlängel universal sorbent

Design
- Filled with high-quality polypropylene flakes

Applications
Versatile application for oil and chemicals.
For absorbing leaking liquids on machines. Ideal for a safe and clean workspace.

69220

Length m	Ø cm	Absorption litre	Pieces per carton	69220 ...
1.2	7.5	80	20	201

69225 - 69226 Sorbent absorbent cloths and rolls

Design
- Polypropylene non-woven fabric for the absorption of moisture and chemicals
- Highly absorbent, clean and safe
- High absorption capacity
- Easy disposal (residue-free combustion of the polypropylene)

Applications
Compatible with chemicals. Ideal for use on workbenches, on the floor, under machines and pipes, etc.

69225
Design
- **Pack = 2 rolls**
- Extra absorbent, 300 g/m²
- Length 40 m
- Width: 40 cm

Note:
For matching floor stands and wall holders, see art. no. 69201.

69226
Design
- **100 cloths,** 40 x 50 cm
- Extra absorbent, 300 g/m²

69225

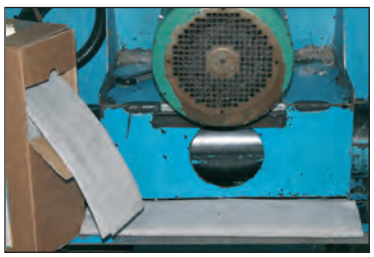
69226

Design	Absorption litres	69225 ...	69226 ...
Roll	180	201	
Cloths	113		101

69227 Sorbent roll, multi-format

Design
- Twice-folded roll
- Can be used as a winding or cloth
- Non-woven polypropylene, reinforced and lint-free
- In dispenser box

Applications
Ideal for a variety of applications in the workshop or for external maintenance and repair operations.
For all liquids and chemicals.



69227

Length m	Width cm	Width, folded cm	Absorption litres	69227 ...
15	40	14	24	101

69847 Caramba intensive industrial cleaner

caramba ...das wirkt!

69847 101

Quickly and thoroughly loosens and removes encrusted and resinified dirt, oil, grease and other residues. Quick-drying and residue-free ventilation. Non-corrosive, silicone-free. Acetone-rich. For cleaning and degreasing of machine parts, surfaces, steel cables, gears, etc.

Content ml	Design	69847	...
500	spray can		101

69847 Universal cleaner (Fast Dry Degreaser)

CRC

69847 201

Fast Dry Degreaser is the 5x strength universal cleaner and degreaser. The fast-acting cleaner contains five active components for reliable removal of a wide range of dirt such as soot, oil and grease residues. Fast Dry Degreaser quickly penetrates into the smallest cracks and dries without residue in minutes. It has a pleasant scent and is therefore particularly easy to use. In addition to its high loosening power, Fast Dry Degreaser also has good material compatibility with all metals and solvent-resistant plastic and painted surfaces. Fast Dry Degreaser is used for cleaning parts of machine elements and for degreasing prior to gluing or painting.

Content ml	Design	69847	...
500	spray can		201

69849 Caramba intensive brake cleaner

caramba ...das wirkt!

69849 301

Cleaning of brakes and other vehicle parts. Quick-drying and residue-free evaporation. Very good cleaning effect, acetone-free. Neutral with regard to rubber, plastic and painted surfaces. Silicone-free and degreasing.

Content ml	Design	69849	...
500	spray can		301

69849 Brake cleaner (BRAKLEEN PRO)

CRC

69849 201

BRAKLEEN PRO – Economical – the unique brake cleaner with Formula 5 has proven itself a million times over. The most effective way to clean brakes, transmission, engine parts, etc. quickly and without residue. BRAKLEEN PRO cleans up to 40 brake discs by means of the 5-component formula. The five active components ensure optimum cleaning for oil, grease, road dirt, brake dust and brake fluid. High yield by means of a balanced metering system. Pleasant to process due to its unique scent. Optimal application by a user-friendly spray head and 360° spray system. Dries quickly and without residue.

Content ml	Design	69849	...
500	spray can		201

69848 Stainless steel cleaner (INOX KLEEN)

INOX KLEEN is a special, aqueous cleaning and care foam for stainless steel, aluminium and chrome. Dirt, fingerprints and water spots are removed quickly. After cleaning, a uniformly shiny surface remains. An extremely– thin, water-repellent protective film creates long-lasting shine. INOX KLEEN is registered in accordance with NSF A7,C1 for use in food technology.

69848

Content ml	Design	69848 ...
500	spray can	201

69826 Contact cleaner (Contact Cleaner Plus)

Oxide-dissolving cleaner, lubricant and protection for electrical contacts. CONTACT CLEANER PLUS contains a cleaning and protective oil that is highly compatible with materials common in electronics. CONTACT CLEANER PLUS is not corrosive and has no ozone-depleting potential.

69826

Content ml	Design	69826 ...
500	spray can	201

69820 Caramba Super multi-function spray

Caramba Super – the original multi-function spray
Rust remover, lubricant, contact spray, corrosion protection, cleaner. Very good lubricity at high pressure (four-ball test value: 1,900 N). High moisture displacement and corrosion protection. Resistant to temperatures from -40 °C to +180 °C. Without solids, silicone-free, no resin deposits, good penetration.

69820 101

69820 102

Content ml	Design	69820 ...
500	spray can	101
5000	canister	102

69820 Multi-function oil (5-56 +PTFE)

5-56 +PTFE is the high-quality, multi-function oil with PTFE additive and 2-spray technology. The high-quality mechanical oil lubricates, loosens and protects. The PTFE lubricant additive ensures lasting protection against wear, high pressure absorption capacity and reliable lubrication even under extreme conditions. 5-56 + PTFE is silicone-free and does not resinify and can be used between -50 °C and +150 °C.

The 2-spray special spray head with folding spray tube allows for either whole-surface or precise spraying.

69820 201

69820 202

Content ml	Design	69820 ...
500	spray can	201
5000	canister	202

69823 Rust remover (Rust off IND)

CRC

RUST OFF IND is the capillary-action penetrating oil with molybdenum disulphide (MoS2) additive. The silicone-free fine oil quickly penetrates into the smallest cracks, moistens the surfaces and reduces the friction forces. Fasteners such as screws, bolts or nuts can be easily loosened. The MoS2 additive prevents parts from seizing again and facilitates future disassembly.

69823

Content ml	Design	69823 ...
500	spray can	201

69835 Rust remover with cold shock (Rost Flash)

CRC

ROST FLASH is twice as strong against rust. A refrigerant freezes the sprayed surface and splits the rust and dirt structure. This crack effect means that the penetrating oil can penetrate quickly and deeply, so that seized screws, bolts or sliders can be loosened easily. ROST FLASH is silicone-, resin- and acid-free and prevents future rust formation.

ROST FLASH quickly and non-destructively loosens rusted screws, bolts, connection elements and mounting parts of all kinds.

69835

Content ml	Design	69835 ...
500	spray can	201

69832 Silicone spray (Silicone IND)

CRC

SILICONE IND is the highly versatile synthetic oil spray. The silicone oil forms a thin, water-repellent sliding film, which is also highly compatible with plastic, rubber and paint. SILICONE IND refreshes plastic surfaces, protects rubber from icing and is a highly effective release agent. SILICONE IND does not resinify and can be used between -40 °C and +200 °C.

69832

Content ml	Design	69832 ...
500	spray can	201

69833 PTFE dry lubricant (Dry Lube-F)

CRC

DRY LUBE-F forms a dry sliding film based on PTFE. The PTFE film is oil-, grease- and silicone-free, has a good anti-adhesive effect and is temperature-resistant up to + 250 °C. DRY LUBE-F is registered for use in food technology in accordance with NSF H1 and can be used universally as a sliding and release agent on rails, transport rollers, cutting tools, etc.
With Permalock special spray head for maximum safety in food production.

69833

Content ml	Design	69833 ...
500	spray can	201

69844 Copper Paste

COPPER PASTE is the high-quality copper-based anti-fusing and assembly paste.
The particularly fine copper powder in combination with a drip-free basic grease guarantees long-term action even under extreme operating conditions from -30 °C to +1000 °C. COPPER PASTE PRO is drip-free and does not run, even at high temperatures.

The copper paste is an ideal anti-seize separating paste for protection against cold welding, also ensures uniform tightening torque during mounting of screw connections and allows for problem-free dismantling after exposure to high temperatures. It damps noise and vibrations and protects against corrosion.

69844 202

69844 201

Content ml	Design	69844	...
100	tube		201
500	spray can		202

69841 Zinc protective coating (Zinc)

ZINC is the zinc dust coating for the greatest rust protection for iron and steel. The protective coating contains a high proportion of 98.5% pure zinc, forming a galvanically active corrosion protection coating in accordance with **EN ISO 1461:1999.** ZINC is quick-drying and temperature-resistant. It can be welded and painted over and is matt grey in colour.

69841

Content ml	Design	69841	...
500	spray can		201

69842 Zinc-alu protective coating (Galva Brite)

GALVA BRITE is silver-coloured zinc repair spray. The bright zinc-aluminium protective coating is ideally suited for repairing hot-galvanised surfaces after welding or assembly. It is a universally applicable, decorative metal protective coating. GALVA BRITE is quick-drying, adhesive, weather-resistant and is a silver matt colour.

69842

Content ml	Design	69842	...
500	spray can		201

69829 Caramba active leak detector spray

caramba ...das wirkt!

Reliably indicates leaks on gas and air pressure lines. Reliable and fast diagnosis through strong foam formation. Suitable for all gas installation companies and test facilities. PH-neutral and compatible with all seals used in the installation field. Non-flammable, does not react with gases or refrigerants. Resistant to temperatures from -15 °C to +50 °C. DVGW-approved according to DIN 14291. **Not suitable for oxygen-conducting lines.**

69829 101

Content ml	Design	69829	...
400	spray can		101

69829 Leak detector spray (Eco Leak Finder)

ECO LEAK FINDER is the biodegradable leak detector with NSF-P1-registration for food technology. The aqueous test liquid forms easily visible foam bubbles at the gas leak and can be used for all types of gas. ECO LEAK FINDER is **DVGW certified** and meets the requirements in accordance with **DIN EN 14291**.

69829 201

Content ml	Design	69829	...
500	spray can		201

69838 Weld separating agent (Eco Bio Weld)

ECO BIO WELD is the weld release agent based on an aqueous emulsion. The solvent-free release agent contains no flammable ingredients.
It is biodegradable and silicone-free.
ECO BIO WELD reliably protects welding nozzles, workpiecesand surfaces from fusion of welding beads.

69838

Content ml	Design	69838	...
500	spray can		201

69846 Magnetic spray can storage

Design
- 6 strong magnets
- Magnetic retention force approx. 1.8 kg
- 10 holes Ø 19 mm in the base

Applications
For e.g. 3 spray cans of Ø 73 mm.

69846

Dimensions mm	69846	...
210 x 75 x 70		101

Info — Multi-function spray WD-40 Classic & Smart Straw™ art. no. 69850

WD-40 is silicone- and resin-free. It penetrates rust layers, loosens jammed mechanisms and seized vehicle and machine parts. Removes stubborn dirt, displaces moisture from electrical contacts and prevents leakage currents. WD-40 also leaves behind a thin layer of protective film that prevents new formation of moisture and rust on metal parts.

The innovative WD-40 Smart Straw™ is a perfect dual spray thanks to the innovative folding tube on the spray head.

For precise spraying, e.g. for use as a contact spray or in the care of locking cylinders, simply fold out the tube. For surface application, e.g. rim cleaning or care of garden tools, simply fold the tube in again.

With the innovative WD-40 Smart Straw™, you no longer have to spend time finding and attaching tubes. One hand always remains free.

WD-40 Smart Straw – The revolution in spray cans!

With the 5-in-1 active formula

1. Cleans and protects
- Loosens stubborn dirt, oil, grease and adhesive residue and can be easily removed
- Leaves a protective layer

2 applies as the year of use. Resolves squeaking
- For optimum running of movable parts
- Eliminates and prevents squeaking and creaking
- No silicone, so there is no bonding

3 applies as the year of use. Loosens rusted parts and jammed mechanisms
- Penetrates rust layers
- Quickly loosens jammed metal parts, screws and nuts

4 applies as the year of use. Protects against corrosion
- Leaves behind a thin layer of protective film that prevents formation of moisture and rust on metal parts

5 applies as the year of use. Displaces moisture
- Keeps electrical and electronic mechanisms free

For precise spraying, fold the tube upwards.

For surface application, simply fold in again.

69850 — Multi-function spray WD-40

Design
- Rust remover
- Lubricant
- Contact spray
- Cleaner
- Corrosion protection

… in one!

69850 202
Spray can, contents 400 ml.

69850 301-302
Smart Straw can
Design
Integrated tube on the spray head. For precise spraying, simply fold out. For surface applications, fold in again. Ideal for fast work without laborious searching or attaching.

69850 203
Canister, contents 5 litres.

69850 204
Hand sprayer/atomiser
Ideal for dosing and distribution of WD-40. **Without** contents. Capacity 500 ml. In addition to the 5-litre canister.

69850 301

69850 202

69850 302

69850 203

69850 204

Design	Contents ml	Contents litre	69850 ...
Smart Straw can	300	-	301
Spray can	400	-	202
Smart Straw can	500	-	302
Canister	-	5	203
Hand sprayer/atomiser	-	-	204

69855 — BALLISTOL universal oil

Design
Wide range of uses. Forms an alkaline protective film on metals, neutralises hand sweat and other acidic rust-promoting residues. Due to its low surface tension and enormous creep capacity, it reaches even the narrowest angles and finest cracks in the metal. Resin- and acid-free, non-ageing, bio-degradable and harmless to the environment. **Extremely well tolerated by the skin, and food safe.**

Applications
In the automotive sector, in trade and industry, for example as a preservative and care product for precision measuring instruments and tools of all kinds. Ideal for the storage of injection moulds and components and for the storage and maintenance of high-quality machines. Prevents fingerprints and corrosion. Also suitable for the care of wood, plastic and leather.

69855

Content ml	69855 ...
200	101

Info 69860–69875 adhesive systems

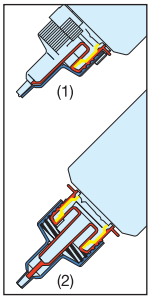
ergo.®

Modern adhesive technology has developed in a variety of areas into a safe and cost-effective connection method. High quality adhesives are available for a wide range of applications.

	Wood/leather	Balsa wood/cork	Metal	ABS	PVC	PMMA	GFRP	PE/PP/POM/ PTFE/PA12	TPO/TPE	Rubber
Wood/leather	5011	5039	5011	5011	5011	5889	5011, 5039	5889+ 5150	5011+ 5150	5300, 5925
Balsa wood/cork	5039	5039	5039	5039	5039	5889	5039, 5925	5889+5150	5011+5150	5300, 5925
Metal	5011	5039	5039, 5889	5889, 5925	5925	5889	5889	5889+5150	5011+5150	5925
ABS	5011	5039	5889, 5925	5950	5300	5889	5011, 5300	5300, 5889+5150	5300, 5889+5150	5300, 5925
PVC	5011	5039	5925	5300	5300	5889	5011, 5300	5300, 5889+5150	5300, 5889+5150	5925
PMMA	5889	5889	5889	5889	5889	5889	5889	5889+5150	5889+5150	5011
GFRP	5011, 5039	5039, 5925	5889	5011	5011	5889	5011, 5300	5889+5150	5889+5150	5925
PE/PP/POM/PTFE/PA12	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5925+5150
TPO/TPE	5011+5150	5011+5150	5011+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5925+5150	5925+5150
Rubber	5925	5925	5925	5925	5925	5011	5925	5925+5150	5925+5150	5925
Silicone rubber	-	-	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150

Rotating dosing cap
The patented rotating dosing cap is a special feature of the ergo.® adhesives and offers many advantages:
- One-handed operation: open and close with one hand, secure the components with the other free hand.
- The dosing opening does not stick: complete closure of the cap means that the nozzle is simultaneously cleaned and fully sealed.
- Extremely fine dosing: more or less adhesive can flow out, the more or less the cap is unscrewed.
- One-piece bottle: bottle and dosing cap form one unit; it is therefore impossible to lose a closure cap.

(1) = closed.
(2) = open.



Info Cyanoacrylate superglues

ergo.®

ergo.® cyanoacrylate adhesives are single-component products based on cyanoacrylic acid esters and harden under the influence of humidity. ergo.® cyanoacrylates are mainly used for bonding plastics, elastomers and metals. The main advantages of these modern adhesives are in the hardening speed, simple application and good mechanical strength of the bonds. In principle, ergo.® cyanoacrylate adhesives can be used in a temperature range from -55 to +120 °C (depending on type).

Safety precaution:
Cyanoacrylate vapours may cause irritation to the mucous membranes and eyes. It is therefore advisable to ensure good ventilation/extraction at the workplace as well as to wear protective gloves (not cotton) and safety goggles. Cyanoacrylate sticks the skin and eyes together in seconds. Keep out of the reach of children. Please contact us if you would like the corresponding safety data sheet and technical data sheet. Please note the further information on the containers.

Info 69861 SmartPen®

ergo.®

Clever adhesion with SmartPen®.

Accurate and complete:
With the SmartPen, you can glue precisely and effortlessly in the correct dosage. Together with our rotating and dosing cap, it makes bonding fast, easy and efficient. Pick up the Smart-Pen!

Clever adhesion. Easier and more precise than ever before. SmartPen®.

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

69860 - 69861 ergo: Cyanoacrylate superglues

69860 101 + 69861 101
ergo.® 5011 Universal
Design
Quick-hardening standard type with medium viscosity for a wide variety of applications: Plastic, rubber, metal, fabric, leather, wood, ceramics, etc.
NSF-approved.

69861 101
Design
With SmartPen®.

69860 102
ergo.® 5039 Universal– gel
Design
Superglue gel is characterised by perfect flow properties, ideal for use on vertical surfaces, larger workpieces or porous, absorbent materials: Wood, fabric, cork, leather, plastics, ceramics, etc.

69860 203 + 69861 103
ergo.® 5925 elastomer
Design
Quick-hardening, low-viscosity adhesive is suitable for almost all standard applications in the fields of plastic, elastomers and metal, as long as there are no special requirements.
NSF-approved.

69861 103
Design
With SmartPen®.

69860 204
ergo.® 5210 metal
Design
Medium-viscosity product with high resistance to shock and vibration. Good resistance to moisture, climate and solvents. Slow-hardening. Particularly well suited to metal-plastic joints.

69860 107
ergo.® 5100 activator
Design
Accelerates the hardening process. Use of the activator is recommended especially in the case of unfavourable porous, inactive (acidic), non-polar surfaces or large bonding gaps. In this case, the product is applied on one side (to the porous, inactive surface) before bonding.

69861 106
ergo.® 5014 Universal (high-viscosity)
Design
With SmartPen®. High-viscosity universal setting. It also makes it possible to bond porous or uneven surfaces together. Due to its good gap-closure properties, it is always recommended in cases of relatively imprecise work. It is therefore particularly suitable for the repair sector.

69860 101

69860 102

69860 107

69861 101

Type	Content g	Content ml	69860	...	69861	...
5011 Universal	20	-		101		
5011 Universal with SmartPen	30	-				101
5039 Universal gel	20	-		102		
5925 elastomer	20	-		203		
5925 elastomer with SmartPen	30	-				103
5210 metal	20	-		204		
5014 Universal with SmartPen	30	-				106
5100 activator	-	150		107		

Info Anaerobic adhesives and sealants

ergo.® anaerobic adhesives and sealants are liquid and one-component products that harden on creation of a hermetic seal and on contact with metal. Consequently, they can be used only for purely metal bonding. The ergo.® products are available in a range of strength classes, ensuring reliable connections in the desired strength without the need for additional aids. The hardening can be accelerated by heat and/or addition of the activator.

Safety precaution:
In case of contact with the skin, rinse immediately with soap and plenty of water and seek medical advice. Please contact us if you would like the corresponding safety data sheet and technical data sheet. Please note the further information on the containers.

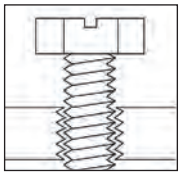
69865 ergo: Anaerobic adhesives for securing

69865 104-105
ergo.® 4052 medium-strength screw retainer.
Design
Outstanding resistance to media and heat. Can also harden at low temperatures, even without an activator. **NSF and DVGW-approved.**
Applications
Especially suitable for stainless, passivated and galvanised screws. Also fills gaps due to its higher viscosity.

69865 106-107
ergo.® 4101 high-strength screw retainer.
Design
High-strength connection to highly stressed threads and cylindrical parts. Medium viscosity allows for universal use. Increased media resistance. **NSF-approved.**
Applications
Fastens studs, ball and roller bearings in the sliding seat. Especially for highly stressed screw connections.

Note:
For ergo.®auxiliary products for anaerobic adhesives, see art. no. 69875.

69865 104-105



Type	Content g	69865	...
4052 medium-strength	50		104
4052 medium-strength	250		105
4101 high-strength	50		106
4101 high-strength	250		107

69866 ergo: Anaerobic adhesives for sealing

ergo®

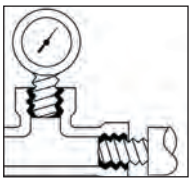
Note:
For ergo.®auxiliary products for anaerobic adhesives, see art. no. 69875.

69866 101
ergo.® 4202 hydraulic seal.
Design
Medium strength product for sealing cylindrical and conical threaded connections up to R 3/4 of an inch. Excellent resistance to hydraulic fluids.
Applications
For sealing all pneumatic and hydraulic screw connections. For small screw connections of all kinds, up to the bursting pressure.

69866 102+112
ergo.® 4207 universal pipe thread sealant.
Design
Neutral taste with respect to water, drinks, etc. Quick to harden, even at temperatures below 0 °C. Seals immediately at low pressure. Resistant to natural gas. DVGW-approved, BAM-approved.
Applications
Seals all conical/cylindrical tapered pipe thread connections up to R 3-inch, e.g. in sprinkler systems and gas pipeline systems.

69866 103
ergo.® 4253 universal surface seal.
Applications
This quick-hardening, slightly flexible surface sealant is especially suitable for inactive materials. The thixotropic adjustment allows for easy dosing with good stability following application to the product.
NFS approved.

Type	Content g	69866	...
4202 hydraulic sealant	50		101
4207 pipe thread sealant	50		102
4207 pipe thread sealant	250		112
4253 surface sealant	50		103



69866 101

69867 ergo: Anaerobic adhesives for fastening

ergo®

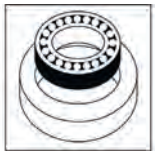
Note:
For ergo.®auxiliary products for anaerobic adhesives, see art. no. 69875.

69867 101
ergo.® 4401 medium-strength joint-retaining compound.
Applications
For securing bearings in bushings or wheels on shafts. Replaces mechanical fixing elements.

69867 202
ergo.® 4430 high-strength joint-retaining compound.
Design
Very good hardening, even on passive metal surfaces. Very strong on cylindrical parts such as bushings, bolts, gears. Prevents corrosion.
NSF-approved.
Applications
For securing shafts, bearings, bushings, sleeves, gears, etc. as supplied.

69867 106
ergo.® 4453 heat-resistant joint-retaining compound.
Design
Quick-hardening, high-strength and heat-resistant product. Good resistance to acids, alkalis and water. KTW and DVGW-approved, BAM-approved. NFS-listed.
Applications
For securing cylindrical bushings in engine blocks and bearing supports in heating furnaces. Excellent bonding on smooth surfaces.

Type	Content g	69867	...
4401 medium-strength joint-retaining compound	50		101
4430 high-strength joint-retaining compound	50		202
4453 heat-resistant joint-retaining compound	50		106



69867 101

69875 ergo: Auxiliary products for anaerobic adhesives

ergo®

69875 100
ergo.® 4900 activator.
Design
- Activator for accelerating the hardening of anaerobically hardening adhesives
- Recommended in unfavourable conditions, such as inactive surfaces, large gaps, significant roughness depths, low temperatures
- Accelerates the full adhesive hardening

Note:
Use of the activator reduces the achievable final strength by about 15%.

69875 101
ergo.® 9190 universal cleaner.
Applications
- Organic solvent-based cleaner for removing grease, cutting and corrosion protection oils and other impurities on metal surfaces
- Free of halogenated hydrocarbons
- Ideal for pre-treatment of adhesive surfaces

Type	Content g	69875	...
4900 activator	100		100
9190 universal cleaner	500		101

69875 100

69875 101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

69878 ergo. RTV silicones

ergo.

Design
- High-quality silicone sealant
- Excellent heat resistance (up to +315 °C)
- Excellent resistance to chemicals
- The non-acidic hardening system does not have a corrosive effect on aluminium, iron and steel

Applications
As a permanently elastic adhesive and as a sealant in electrical engineering, the automotive sector, machine tools and mechanical engineering, and in precision engineering.

69878 101-103
Design
- In a pressurised can: **The silicone flows evenly from convenient pressurised cans**
- Thanks to the ingenious design of the double-walled pressurised can, the silicone does not come into contact with the propellant (environmentally friendly air mixture) and remains ready for use for longer

69878 104
Design
- In Euro cartridge

69878 101-103

69878 104

Design	Colour	Content g	Content ml	69878	...
Pressurised can	black	256	-		101
Pressurised can	transparent	208	-		103
Euro cartridge	transparent	332	310		104

69880 Silicone (acetate)

Design
- Silicone sealant that remains elastic
- Anti-fungal and weather-resistant

Applications
Suitable for applications in accordance with IVD data sheet no. 3.

69880

Design	Colour	Content ml	69880	...
Cartridge	transparent	310		101

69882 Silicone (neutral) paint-compatible

Design
- Silicone sealant that remains elastic
- Anti-fungal
- Very good weather-, ageing- and UV-resistance
- **Neutral hardening, i.e. silicone is paint-compatible in accordance with DIN 52452**
- Meets the requirements of DIN 18545 Part 2, Stress Group D and DIN 18540 LEED®-compliant IEQ credits 4.1 adhesives and sealants

Applications
Suitable for applications in accordance with IVD data sheet no. 7 and 9.

69882

Design	Colour	Content ml	69882	...
Cartridge	transparent	310		101

69890 Hand-held application guns

69890 101
Design
- Robust toothed rack design for the professional
- Toothed rack hardened
- Black

Applications
For 310-ml cartridges.

69890 102
Design
- Robust push rod design with an open tube
- Orange

Applications
For 310-ml cartridges.

69890 103
Applications
For 400-ml silicone foil bags and 310-ml cartridges.

Note:
Pneumatic application guns on request.

69890 101

69890 102

69890 103

	69890	...
		101
		102
		103

90317 Cordless grease guns / Red Li-Ion caulking guns

12V

90317 101
M12 GG
Design
- Up to 7 cartridges per battery charge
- Balanced design only 355 mm in length
- REDLINK™ electronic overload protection for a long service life for the battery, motor and gears
- Bleed valve for fast work progress
- Capacity when filling from containers is 454 g and for cartridges 411 g
- Integrated hose stand and suspension device for shoulder strap
- Handle with soft-grip support
- Battery charge indicator

Applications
Ideal for lubrication of vehicles and machines in mobile applications.

Scope of delivery:
- Transport bag
- 1 x 12 V/4.0 Ah red Li-ion battery
- Quick charger C 12 C

Note:
For replacement charger, see art. no. 90318 103.

90317 102
M12 PCG 310 C
Design
- Discharge pressure of up to 178 kg/1780 N
- Optimised for all common adhesives and sealants
- REDLINK™ electronic overload protection for a long service life of battery, motor and gears
- Electronic control of the discharge speed by an adjusting wheel
- Electronic switch with speed control
- Automatic return of the pressure rod prevents the formation of drops
- Integrated pin to pierce glued cartridge holes
- Battery charge indicator

Scope of delivery:
- Transport bag
- 1 x 12-V/2.0-Ah Red Li-ion battery
- Quick charger C 12 C
- 310-ml cartridge holder
- Push bar

Note:
For replacement battery, see art. no. 90316 093.
For replacement charger, see art. no. 90318 093.

3 YEARS JAHRE ANNÉES WARRANTY GARANTIE GARANTIE

With online registration

REDLITHIUM-ION™

Type	V/Ah	Operating pressure bar	Flow g/min	Hose pressure bar	Hose length mm	Weight with battery kg	90317	...
M12 GG	12.0/4.0	562	74	690	914	3.3		**101**
M12 PCG 310 C	12.0/2.0	-	-	-	-	1.9		**102**

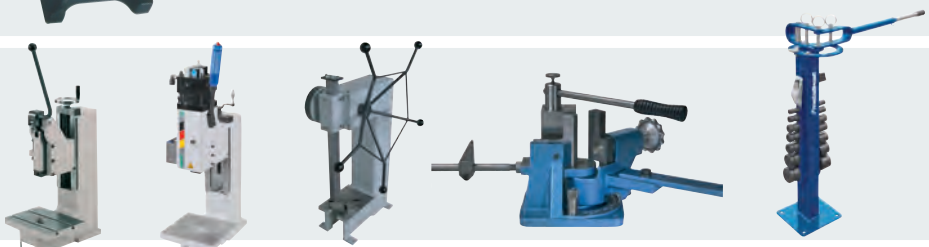
Workshop equipment

- *Soldering equipment*
- *Welding and cutting torches*
- *Welder's protective clothing*

70
70.3 – 70.26

- *Forging tools*
- *Test plates*

71
71.1 – 71.2

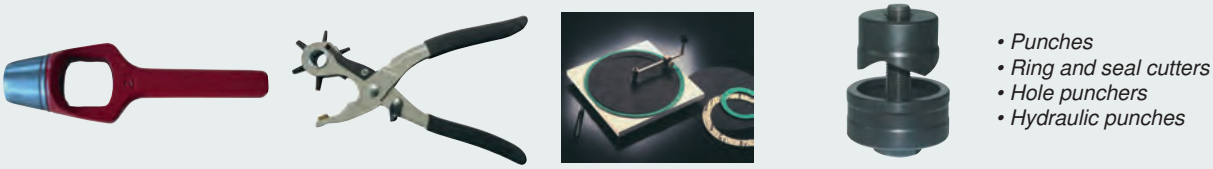


- *Presses*
- *Bending devices*

72
72.1 – 72.4

- *Scissors*
- *Scrapers*
- *Deburring tools*

73
73.1 – 73.20



- *Punches*
- *Ring and seal cutters*
- *Hole punchers*
- *Hydraulic punches*

74
74.1 – 74.4

The complete „compressed air technology" range can now be found in catalogue group 9, starting on page 9.129

75

- *Spraying devices*
- *Oil dispensers*
- *Funnels*
- *Collection bins*
- *Cleaning devices*
- *Drum and container pumps*
- *Grease guns*

77
77.1 – 77.12

- *Nut splitters*
- *Stud bolt inserters and extractors*
- *Extractors*
- *Marking stamps*
- *Labellers*
- *Magnets*

78
78.1 – 78.28

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Weller®

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

70010 Quick-action soldering gun Multi-Sprint

kurtz ersa

Type 960 ED

Design
Very light, transformerless quick-action soldering gun with internally heated ERSADUR continuous soldering tip type 0832 EDLF, chisel-shaped, 3.2 mm. Extremely short heat-up and cool-down times.

Applications
Service and repair.

Note:
For replacement soldering tips, see art. no. 70053 et seq.

70010

Type	Output approx. watt	Voltage V	Heat-up time approx. sec.	Heat output up to watt	Weight approx. g	70010 ...
960 ED	75	230	15	150	100	101

70021 - 70025 Fine electrical soldering iron

kurtz ersa

70021

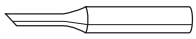
Design
Universal soldering iron. Connecting cable 1.5 m. Replaceable heater.

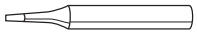
Applications
16 watt: slim pencil soldering iron for modern electronics (miniaturised circuits, etc.).
30 and 40 watt: With attachable support disc.
For radio and television technology, electronics.

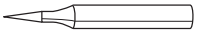
70021 101

70021 102-103

Soldering tip shapes:

LD, angled tip,  70025 101

KD, chisel-shaped,  70025 102

BD, pencil-shaped.  70025 104

KD, chisel-shaped, straight, 70025 105

BD, pencil-shaped tip. 70025 108

16 Watt – series 0162 – internally heated

30 and 40 watt – series 0032 – externally heated

Fine soldering iron

Type	Output approx. watt	Voltage V	Heat-up time approx. sec.	Soldering tip temperature approx. °C	Soldering tip Ø mm	Weight without cable g	70021 ...
260 BD	16	230	60	350	6	40	101
330 KD	30	230	120	380	5	80	102
340 KD	40	230	120	420	5	80	103

Replacement soldering tips

Type	Series	Output approx. watt	Ø mm	70025 ...
LD	0162	16	3.6	101
KD	0162	16	2.6	102
BD	0162	16	1.1	104
KD	0032	30/40	3.1	105
BD	0032	30/40	1.1	108

70027 Stand for fine soldering iron

kurtz ersa

Note:
For soldering iron art. no. 70021-70042.

Design
Metal with 2 spiral-shaped funnels.
Applications
For small and medium-sized soldering irons.

70027

Type	70027 ...
A 05	102

70032 Gas soldering iron sets INDEPENDENT

kurtz ersa

Design
Soldering iron with piezo ignition, infinitely variable output, operated with commercially available butane lighter gas.

Applications
The ergonomic gas soldering iron enables mains-independent soldering.

Set contents 70032 101	
1	**gas soldering iron INDEPENDENT 75** type G 070 KN with
1	**soldering tip 2.4 mm** chisel-shaped type G O72 KN,
1	**soldering tip 1.0 mm** chisel-shaped type G O72 CN,
1	**storage bracket** type A 20,
1	**cleaning sponge** type 006 G,
1	**sponge holder** type G 156.

Set contents 70032 102	
1	**gas soldering iron INDEPENDENT 130** type G 130 KN with
1	**soldering tip 2.4 mm** chisel-shaped type G 132 KN,
1	**soldering tip 1.0 mm** chisel-shaped type G 132 CN,
1	**cleaning sponge** type 006 G,
1	**sponge holder** type G 156.

Set contents 70032 202	
1	**gas soldering iron INDEPENDENT 130** type G 130 KN with
1	**soldering tip 2.4 mm** chisel-shaped type G 132 KN,
1	**soldering tip 1.0 mm** chisel-shaped type G 132 CN,
1	**soldering tip 3.2 mm** chisel-shaped type G 132 AN,
1	**soldering tip 4.8 mm** chisel-shaped type G 132 VN,
1	**flame nozzle** type G 132 BE,
1	**hot gas nozzle** type G 132 HE,
1	**hot knife** type G 132 MN,
1	**reflector plate** G 132 RE for hot gas nozzle G 132 HE for shrinking heat-shrink tubing,
1	**cleaning sponge** type 006 G,
1	**sponge holder** type G 156.

70032 101

70032 102

70032 202

Set	Output watt	Heat-up time to approx. 280°C approx. sec.	Max. soldering tip temperature approx. °C	Length approx. mm	Design	Weight approx. g	70032 ...
75 Basic	15-75	46	580	175	In plastic case	73	**101**
130 Basic	25-130	50	580	215	In plastic case	121	**102**
130 Profi	25-130	50	580	215	In plastic case	121	**202**

70033 Gas cartridge for gas soldering iron sets INDEPENDENT

kurtz ersa

Design
Butane lighter gas.

Applications
For gas soldering iron sets INDEPENDENT, art. no. 70032.

70033

Type	Contents ml	70033 ...
G 808 K	100	**201**

70036 - 70037 Fine electrical soldering iron

kurtz ersa

70036 101
Ersa 15+ soldering iron
Design
- Electrical
- Includes 1 soldering tip, straight, chisel-shaped 2.2 mm

70036 102
Ersa 25+ soldering iron
Design
- Ideal tool for cost-effective soldering
- Internally heated soldering tips guarantee high efficiency
- This difference in technology increases the efficiency of the entire soldering iron by 20%
- The ergonomic handle geometry supports the safe execution of fine soldering work
- Includes 1 soldering tip, straight, chisel-shaped 2.2 mm

70036 103
Ersa 35+ universal soldering iron
Design
- Ideal for soldering tasks with increased power consumption
- The larger, internally heated soldering tips ensure excellent, highly efficient heat transfer
- This difference in technology increases the efficiency of the entire soldering iron by 20%
- The ergonomic handle ensures a secure grip for all soldering work
- Includes 1 soldering tip, straight, chisel-shaped 2.2 mm

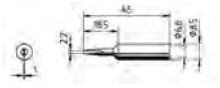
70037 101
Replacement soldering tip for ERSA 15.

70037 102
Replacement soldering tip for ERSA 25.

70037 103
Replacement soldering tip for ERSA 35.

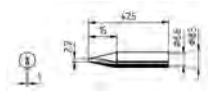
70036 101

70037 101



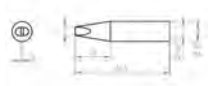
70036 102

70037 102



70036 103

70037 103



Type	Output approx. watt	Voltage V	Heat-up time approx. sec.	Soldering tip temperature approx. C°	Fine soldering iron 70036 ...	Replacement soldering tip 70037 ...
15 CD	15	230	180	400	**101**	**101**
25 CD	25	230	180	450	**102**	**102**
35 VD	35	230	180	450	**103**	**103**

70044 - 70046 Magnastat electrical soldering irons

Weller

70044
Mains voltage soldering iron
Design
With straight standard soldering tip. Constant temperature thanks to automatic control and high heat reserve.

70044 101
Magnastat soldering iron
Type W 61, **60 W.**

70044 102
Magnastat soldering iron
Type W 101, **100 W.**

70046 126-134
Longlife soldering tips.

70044 101

70044 102

70046 126-134

			Soldering iron	
Type	Output approx. watt	Voltage V	Temperature approx. °C	70044 ...
W 61	15 - 80	230	370	101
W 101	50 - 150	230	370	102

					Accessories	
Type	For model	Soldering tip shape	Width mm	Shank Ø mm	70046	...
Soldering tip	W 61	Straight	1.6	6.1		126
Soldering tip	W 61	Straight	2.4	6.1		127
Soldering tip	W 101	Straight	5.0	9.2		134

70047 - 70051 Soldering stations

Weller

70047 101
Magnastat
Design
WTCP51, consisting of: isolating transformer (class II) 230 x 24 V, soldering iron with automatic temperature control, soldering iron holder. The soldering iron has a 3-wire connection line. The third wire is routed directly to the equipotential bonding socket via the plug.
Applications
For soldering work in production and the laboratory.

70047 102
Temtronic
Design
WS81, consisting of: Supply unit 230 V, soldering iron 24 V, 80 W, with soldering iron stand. Anti-static housing. All Temtronic tools up to 80 W can be connected. With electrical, continuously variable temperature control 150 °C to 450 °C. Control tolerance +/- 2%. Visual control electronics via LED, equipotential bonding.
Applications
Particularly suitable for soldering SMD components and lead-free soldering.

70047 203
Design
The Weller WT 1013 soldering station has excellent functionality and flexibility. It is stackable for more space at the workplace. Its detailed LCD enables an unprecedented overview of all functions and is quick and easy to access via the new user-friendly menu button. Thanks to the usage sensor in the iron's handle, the soldering station automatically switches to standby mode.
- Single-channel supply unit with 90 watts
- Excellent functionality and flexibility
- Housing cover can be used for additional storage
- LCD backlight
- Stackable for minimal space requirements
- Increases service life of tips
- Compatible with a wide variety of soldering tools
- Perfect for individual soldering applications
- Maximum temperature accuracy
- Intuitive operation thanks to clear menu navigation
- Automatic switch-off possible
- Front power button on WT 1
- Cost-effective soldering tips available
- WP 80 with light, slim design
- Includes 2-in-1 safety rest
- ESD-safe

70048 101
Low-voltage soldering iron
Design
Single: type TCP-S, 24 V, 50 W, for art. no. 70047 101. For illustrations, see art. no. 70047.

70048 202
Soldering iron
Design
Single: Type WSP80, 24 V, 80 W, anti-static, for art. no. 70047 102 and 203.

70049 101
Replacement heater for TCP-S.

70049 202
Replacement heater for WSP80.

70051 101
LT M 3.2 mm
Replacement soldering tip for art. no. 70047 101.

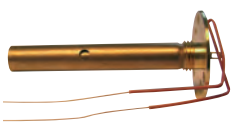
70051 102
LT B 2.4 mm
Replacement soldering tip for art. no. 70047 102 and 203.

70047 101

70047 102

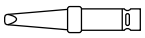
NEW

70047 203

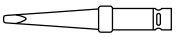

70049 101

	Soldering station	Soldering iron		E-heater		Replacement soldering tip	
Type	70047 ...	70048 ...		70049 ...		70051 ...	
WTCP51	101						
WS81	102 NEW						
WT1013	203						
TCP-S			101		101		
WSP80			202		202		
LT M 3.2							101
LT B 2.4							102

Flat design



Long design



Workshop equipment

70050 Electrical soldering station RDS 80

kurtz ersa

Design
Processor-controlled soldering station with direct selection of 3 programmable temperatures, standby and auto power off function as well as a large LCD. The powerful PTC heating element of soldering iron RT 80 (heat output up to 290 F) guarantees that the set temperature is reached quickly with suitable reserve capacity.
Scope of delivery:
Electrical station with soldering iron RT 80, 80 W and stand A 39.

Note:
For replacement soldering tips, 832 series, see art. no. 70053.

70050

Type	Output Watt	Voltage Volt	Temperature range °C	70050	...
RDS 80	80	230/24	150-450		101

70052 - 70053 Electrical soldering stations

kurtz ersa

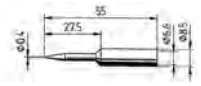
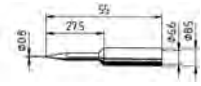
Note:
For replacement soldering tips, 832 series, see art. no. 70053.

70052 101
Design
Accurate temperature control due to ERSA RESISTRONIC (via PTC heating element). Equipotential bonding socket. Internally heated ERSADUR continuous soldering tip with innovative torsion guard. The soldering station can be calibrated. The stand also serves as a tip holder.
VDE/GS-approved.
Applications
For industrial use.

70052 102
Design
Completely anti-static in accordance with MILSPEC/ESA standard.

70053
Replacement soldering tips, 832 LF series.
For art. no. 70042, 70050, 70052 and 70054.
For lead-free soldering with a service life up to 3 times longer than previous ERSADUR soldering tips.

70052

70053 101

70053 102

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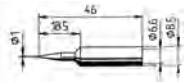
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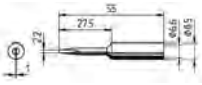
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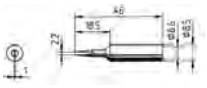
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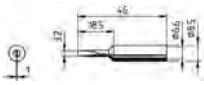
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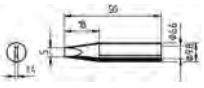


Soldering station

Type	Output watt	Primary voltage V	Secondary voltage V	Voltage Hz	Temperature range °C	70052	...
Analogue 60	60	230	24	50/60	150-450		101
Analogue 60 A	60	230	24	50/60	150-450		102

Soldering tips

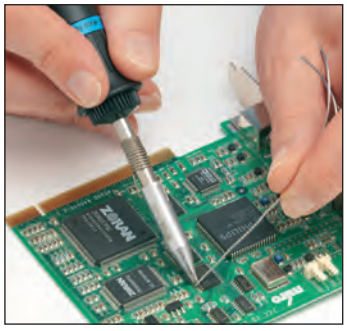
Shape	Dimensions mm	70053	...
UD LF, pencil-shaped tip, extended	Ø 0.4		101
SD LF, pencil-shaped tip, extended	Ø 0.8		102
BD LF, pencil-shaped tip	Ø 1.0		103
KD LF, chisel-shaped, extended	2.2		104
CD LF, chisel-shaped	2.2		105
ED LF, chisel-shaped	3.2		106
VD LF, chisel-shaped	5.0		107

70054 Electrical soldering iron

kurtz ersa

Design
Powerful, temperature-controlled soldering iron with sensitive temperature sensor positioned directly under the internally heated soldering tip. Quick heat-up characteristics, heat-resistant connecting cable, infinitely variable temperature range.

Note:
Replacement soldering tips, 832/842 series, see art. no. 70053.



70054

Type	Output watt	Voltage V	Heat-up time (to 280°C) approx. s	Temperature range °C	Weight g	70054	...
760 CD	75	230	34	250 - 450	60		101

70058 - 70059 Electrical soldering iron

kurtz ersa

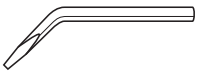
70058
Soldering iron
Design
With continuous soldering tips.
Applications
Ideal for fast soldering on wires with small to medium-sized cross sections.

70058 101

70058 102

70059 301-309

JD type



70058 103

Replacement soldering tips

Type/watts	70059	...
JD/50		301
JD/150		309

Output approx. watt	Voltage V	Heat-up time approx. min.	Soldering tip temperature approx. °C	Soldering tip Ø mm	Weight approx. g	Soldering iron 70058	...
50	230	3	400	5.0	160		101
80	230	3	410	7.8	220		102
150	230	3	450	9.8	245		103

70060 Electrical hammer-shape soldering iron

kurtz ersa

Design
With scale-free soldering tips.
Applications
Ideal for internal soldering in container and car body construction, as well as radiator repair and plumbing work.

70060 203-204

70060 205

Type	Output approx. watt	Voltage V	Heat-up time approx. min.	Soldering temperatures approx. °C	Soldering tip Ø mm	Weight approx. g	70060	...
200 MZ	200	230	5	470	18	550		203
300 MZ	300	230	5	470	25	870		204
550 MZ	550	230	7	600	35	1770		205

70088 - 70090 Desoldering device

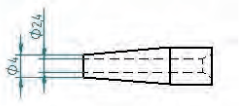
kurtz ersa

70088
Design
Plastic housing, anti-static with suction volume.
Applications
The anti-static properties of the device make it suitable for use with highly sensitive components. The double sealing ring system guarantees a constant suction power.

70090
Replacement desoldering tip
Pack = 2 units.

70088

70090



Type	Suction volume cm³	70088	...	70090	...
VACX	11.3		101		
Desoldering tip VACX2	-				101

70198 Butane gas soldering torch Laser 2

70198 201
Design
With high-performance torch. Basic body made of plastic. Without cartridge.
Applications
For all soft soldering and heat applications.

70198 208
Cartridge
Design
With 190-g butane gas.
Applications
Also suitable for virtually all standard cartridge soldering torches and camping equipment. Please note the instructions of the respective manufacturer.

70198 201

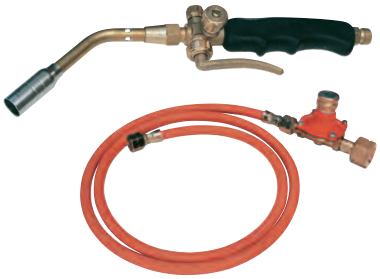
70198 208

	Flame temperature approx. °C	Working temperature approx. °C	70198	...
Basic unit	1,700	650		201
Cartridge	-	-		208

70215 Propane soldering equipment set

Applications
For hard and soft soldering work, burning off paint, bending and sealing, for connection to butane and propane gas.

70215



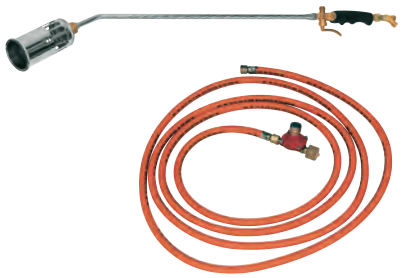
	Set contents
1	**propane gas handle** with eco-valve,
1	**turbo jet torch** 19 mm,
1	**1.5 m high-pressure hose line** G 3/8 inch left-hand x G 3/8 inch left-hand,
1	**low-pressure regulator** without manometer.

Set contents	70215	...
4 pieces		501

70218 High-performance propane gas torch set

Applications
Universal use for heating, burning off, defrosting, welding, for roof insulation, etc.

70218



	Set contents
1	**handle** with eco-valve and internally regulating pilot flame adjustment,
1	**connection pipe** 600 mm,
1	**stainless steel high-performance burner** Ø 60 mm,
1	**torch support,**
1	**low-pressure regulator,**
1	**5-m mounted hose line,** capacity 6 kg/h, Inlet: combination connection, hose safeguard, 6.3 x 5 G 3/8 l x G 3/8 l

Set contents	70218	...
8 parts		101

70220 - 70222 Small propane cylinder

70220
Cylinder with valve
Design
- Lightweight
- Small cylinder valve with overpressure safeguard and sealing cap
- Hanging hook and base
- Self-filling from supply cylinders via syphon connecting piece
- Small cylinder valve outlet **G 3/8 inch left-hand**
- Approved under 82D168B

70222
Syphon connecting piece for self-filling
Design
- Connection W 21.8 x 1/14 inch left-hand
- With profile nut
- Guide pin

Applications
For cylinders of 5 and 11 kg.

70220

70222

	For filling volume g	70220	...	70222	...
Propane cylinder	425		101		
Syphon connecting piece	-				101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

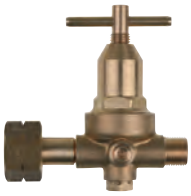
70225 Propane gas regulator

Design
- Compact design, for all soft and hard soldering work and for soldering guns
- Solid brass
- Connections in accordance with DIN 477

Note:
For propane hoses, see art. no. 70228.

70225 202

70225 204



Input	Cylinder contents	Throughput capacity kg/h	Gas pressure to bar	Outlet inch	70225	...
Hex nut G 3/8 inch left-hand with cone	425 g	4	1.5	G 3/8 left-hand		**202**
Profile nut W 21.8 x 1/14 inch left-hand with guide pin	5-11 kg	4	1.5	G 3/8 left-hand		**204**

70228 Propane gas high-pressure hoses DIN 4815

Design
With fabric insert, completely reinforced with hose connections, DVGW-tested.

70228

Hose length m	Inner Ø x wall	Pressure class	Hose connection	Colour	70228	...
5	4 x 4	30	G 3/8 left-hand, both sides	Orange		**204**

70400 Heat protection mat

Design
With aluminium insert, asbestos-free.

70400

Size mm	Heat-resistant to °C	70400	...
330 x 500	700		**101**

70360 Ammonium chloride soldering stone

Applications
For cleaning soldering tips.

70360

Size approx. mm	Weight approx. g	70360	...
65 x 40 x 45	165		**101**

70365 Soldering fluid

Design
DIN EN 29454-1, type 3.1.1. A
(DIN 8511, F-SW 12).
Applications
For soft soldering of iron, steel, copper, brass, lead and tin plate. Thoroughly rinse off flux residues with warm water.

70365

Content l	70365	...
0.5		**102**

70395 Soldering fluid brush

Design
With sheet metal handle and natural bristles.

70395

Total length mm	Cover width mm		70395	...
120	10	10 pcs.		**201**

70325 Tin solder DIN EN 29453

Design
Price per kg.

70325

Tin content %	Rods pcs.	Weight approx. g	70325	...
40	4	250		**101**

Workshop equipment

70303 - 70306 Soldering wires (lead-free)

70303
Design
DIN EN ISO 9453, S-Sn99Cu1 (Sn99.3Cu0.7 - eutectic), lead-free special alloy, silver-free, 2.5% flux content in accordance with DIN EN 29454, 1.1.2.B (EN 61190 - ROM1).
Applications
Standard soldering wire for fine soldering in electronics, electrical engineering, telecommunications engineering and electric motor manufacturing.

70304
Design
DIN EN ISO 9453, S-Sn99Cu1 (Sn99.3Cu0.7 - eutectic), lead-free special alloy, silver-free, 3.5 % flux content in accordance with DIN EN 29454, 1.1.3.B (EN 61190 - ROL0).
Applications
Soft soldering wire for the most demanding applications in electronics and electrical engineering.

70305
Design
DIN EN ISO 9453 S-Sn95Ag4Cu (SN95.5Ag3.8Cu0.7), lead-free special alloy, 2.5% flux content in accordance with DIN EN 29454, 1.1.2.B (EN 61190 - ROM1).
Applications
Standard soldering wire for fine soldering in electronics, electrical engineering, telecommunications engineering and electric motor manufacturing.

70306
Design
DIN EN ISO 9453 S-Sn95Ag4Cu (SN95.5Ag3.8Cu0.7), lead-free special alloy, 3.5 % flux content in accordance with DIN EN 29454, 1.1.3.B (EN 61190 - ROL0).
Applications
Soft soldering wire for the most demanding applications in electronics and electrical engineering.

70303 70304

70305 70306

Wire Ø mm	Weight g	70303 ...	70304 ...	70305 ...	70306 ...
0.50	250			097	
0.75	250			099	
0.75	500			100	
1.00	250	101	101	101	101
1.50	250	103	103	103	103
2.00	250	105	105	105	105

70310 - 70311 Soldering wires

70310
Design
S-Pb60Sn 40 (tin content 40%), S-Sn60Pb 40 (tin content 60%) DIN EN ISO 29453, flux DIN EN 29454, 1.1.2.B, flux content 2.5%.
Applications
For fine soldering in electronics, electrical engineering and telecommunications engineering.

70311
Design
S-Sn60Pb 40 (tin content ISO 60%), DIN EN ISO 29453, flux DIN EN 29454, 1.1.3.B, flux content 3.5%.
Applications
In electronics and electrical engineering.

70310 70311

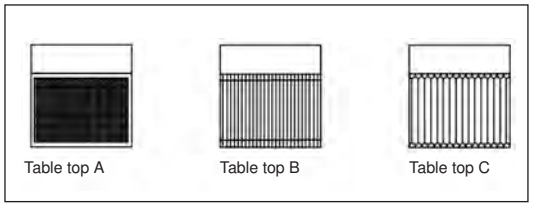
Wire Ø mm	Weight g	Tin content %	70310 ...
2.00	100	40	103
2.00	250	40	107
2.00	250	60	108
2.00	1000	40	113
2.00	1000	60	114
3.00	250	40	109
3.00	250	60	110
3.00	1000	60	115

Wire Ø mm	Weight g	Tin content %	70311 ...
0.50	250	60	197
0.75	250	60	199
1.00	100	60	201
1.00	250	60	205
1.00	1000	60	211
1.50	100	60	202
1.50	250	60	206
2.00	100	60	204

Info HW provides accessories for all areas of welding technology

Welding fume extraction systems for clean air at the workplace as well as dust extraction devices

- Extraction and filtering out of welding gases that occur during welding work in metalworking companies
- Extraction and filtering out of fumes that form when processing plastics
- Extraction and filtering out of vapours (not water vapour) that occur during casting



Welding tables
Deliverable with different table top types, e.g.
- **Table top A:** 4-mm perforated sheet steel
- **Table top B:** Upright grate bar grid
- **Table top C:** Exchangeable, cast-iron grate bars or
- With round, rotating table top

As additional accessories, tables are available w integrated radial fan, integrated motor and integrated changeover device for either downwards extraction through the tabletop or upwards extraction through the pivoting and height-adjustable suction funnel.Special equipment, e.g. accessories such as slag boxes, glare protection, throttle valves, engine protection switches, etc. is also available.

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92499 Electrode inverter CRAFT STICK

Design
- All devices are built in modern inverter technology
- Ideal for assembly work (on a ladder, on scaffolding, etc.) and generally for outdoor work thanks to degree of protection IP 23
- Suitable for use on generators, e.g. in operating workshops, harbours, chemical plants, schools, metal construction, on construction sites, ships or for farmers
- Sealed board ensures protection against moisture, salt spray and corrosion. Therefore also suitable offshore
- Hot start: By automatically increasing the welding current temporarily, the arc ignites safely and is instantly stable
- Anti-stick: If the electrode accidentally sticks, the welding current is automatically reduced, thus preventing the electrode from annealing
- Arc force control: Internal monitoring of the welding current and voltage eliminates short circuits quickly and safely. This stabilises the arc and allows the electrode to be easily processed
- Higher duty cycle than with EASY-STICK series devices

92499 102-103
CRAFT Stick 161 P +201 P promotional sets
Design
- Devices equipped with PFC (Power Factor Correction), VRD (voltage reduction in idling mode)
- TIG DC function = enables easy TIG welding with contact ignition
- Precise setting of the welding parameters via digital display
- Universal use for welding all common electrode types
- The quiet fans dissipate the heat effectively out of the devices to achieve a long duty cycle
- Consistent melt flow is achieved by constant welding current
- This allows small and light electrode devices to be manufactured
- At least 30% duty cycle for all devices

92499 101
Scope of delivery:
- 2 m welding cable 16 mm² with electrode holder
- 2 m earthing cable 16 mm² with earthing terminal 200 A

92499 102-103
Scope of delivery:
- 1 x Craft Stick 161p or 201P, including 3 m welding cable 16 mm² with 300 A
- 3 m earthing cable 16 mm² with earthing terminal 300 A
- Transport case

NEW

92499 101

92499 102

92499 103

Technical data		CRAFT-STICK 141 Art. no. 92499 101	CRAFT-STICK 161P Art. no. 92499 102	CRAFT-STICK 201P Art. no. 92499 103
Dimensions and weight				
L x W x H	**mm**	320 x 135 x 255	365 x 150 x 28	365 x 150 x 28
Weight (net) approx.	**kg**	4.6	6.6	6.6
Welded electrodes	**mm**	1.6 - 3.2	1.6 - 4.0	1.6 - 4.0
Sheet thickness	**mm**	1.0 - 6.0	1.0 - 7.0	1.0 - 8.0
Working temperature	**°C**	-10 - 40	-	-10 - 40
Mains				
Supply voltage	**V**	160 - 275	230	230
Phase(s)	**Ph**	1	1	1
Current type		AC	AC	AC
Mains frequency	**Hz**	50/60	50/60	50/60
Current consumption		34 A	MMA 22/ TIG 15	MMA 31/TIG 22
Total output	**kVA**	7.8	5/3.5	7/4.8
Required generator power	**kVA**	>7.8	>5.0	>7.0
Power plug	**A**	16	16	16
Open circuit voltage	**V**	60	14.5	14.5
Power consumption, electrode	**kVA**	4.5	5	7
Power consumption, TIG DC	**kVA**	-	3.5	4.8
Setting range				
Electrode	**A**	10 - 140	10 - 160	10 - 200
TIG DC	**A**	-	10 - 160	10 - 200
Duty cycle				
Duty cycle at max. current 40°C TIG DC	**%**	-	30	30
Duty cycle at max. current 40°C electrode	**%**	30	30	30
Current at 100% duty cycle 40°C TIG DC	**A**	-	90	110
Current at 100% duty cycle 40°C electrode	**A**	80	90	110
Standards and certifications				
Standard		EN 60974-1/EN 60974-10	EN 60974-1/EN 60974-10	EN 60974-1/EN 60974-10
Degree of protection		IP 23	IP 23	IP 23
Insulation class		H	H	H
EMC class		A	A	A
Marking		CE	CE	CE

Type	92499 ...
CRAFT-STICK 141	**101**
CRAFT-STICK 161P	**102**
CRAFT-STICK 201P	**103**

92501 TIG DC and AC/DC inverter CRAFT-TIG

92501 101+102
CRAFT-TIG 201 DC and AC/DC P PULSE set
Design
- All devices are built in modern inverter technology
- Ideal for assembly work (on a ladder, on scaffolding, etc.) and generally for outdoor work thanks to degree of protection IP 23
- Universal use for welding all common electrode types
- TIG pulses enable welding with reduced heat input
- HF high-frequency ignition ignites during TIG welding without touching the workpiece
- The quiet fan dissipates the heat effectively out of the devices, achieving a long duty cycle
- Sealed board ensures protection against moisture, salt spray and corrosion
- Therefore also suitable offshore
- Precise setting of welding parameters via digital display with job memory
- Device equipped with PFC (Power Factor Correction), enables optimal use even on cable drums

Applications
For workshop and mobile use.
Scope of delivery:
- Gas hose 4 m, including quick-action connector
- TIG torch 26 4 m
- Pressure reducer
- VarioProtect XXL W welding helmet

92501 101
CRAFT-TIG 201 DC P PULSE set
Scope of delivery:
- 3 m earthing cable 16 mm² with earthing terminal
- 3 m welding cable 16 mm² with electrode holder

92501 102
CRAFT-TIG 201 AC/DC P PULSE set
Scope of delivery:
- 3 m earthing cable 25 mm² with earthing terminal

NEW

92501 101

92501 102

Technical data		Art. no. 92501 101 CRAFT-TIG 201 DC P	Art. no. 92501 102 CRAFT-TIG 201 AC/DC P
Dimensions and weight			
L x W x H	mm	500 x 150 x 280	580 x 190 x 350
Weight approx.	kg	9	15
Sheet thickness	mm	1.0 - 8.0	1.0 - 8.0
Mains			
Supply voltage	V	90 - 275	90 - 275
Phase(s)	Ph	1	1
Current type		AC	AC
Pulse frequency	Hz	0.5 - 200	0.5 - 200
Total output	kVA	6.9/4.7	7.0/4.8
Open circuit voltage	V	66	67
Power consumption electrode	kVA	6.9	7
Power consumption TIG	kVA	4.7	4.8
Power factor	cos phi	0.999	0.995
Setting range			
Electrode	A	5 - 200	5 - 200
TIG	A	5 - 200	5 - 200
Duty cycle			
Duty cycle at max. current 40 °C electrode	%	30	35
Current at 100% duty cycle 40 °C TIG	A	145	155
Current at 100% duty cycle 40 °C electrode	A	135	110
Miscellaneous			
Ignition		High-frequency	High-frequency
Torch cooling		Air	Water
Standards and certifications			
Standard		EN 60974-1/EN 60974-10	EN 60974-1/EN 60974-10
Degree of protection		IP 23	IP 23

Type	92501 ...
CRAFT-TIG 201 DC P PULSE set	101
CRAFT-TIG 201 AC/DC P PULSE set	102

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92502 MIG/MAG inert gas welding devices

Design
- Cost-effective inert gas welding devices for DIY enthusiasts and semi-professionals
- For steel and stainless steel welding
- Easy operation and adjustment
- The soft and stable arc guarantees low-spatter welding results
- Infinitely adjustable wire feed
- Robust chassis with steering rollers for easy transport
- Chassis for self-assembly
- Practical gas bottle holder
- S sign: Approved for welding on narrow welding stations with increased electrical hazard
- With 4-roll wire feed
- With current and voltage indicator

Basic materials:
- Structural steels
- Ferritic/austenitic Cr-Ni steels
- Duplex steels

Applications
In bodywork, repairs, agriculture and tack welding.

Scope of delivery:
- Basket coil adapter
- Torch set SMB 25: Torch 4 m, earthing cable 2m, pressure reducer

NEW

92502

Technical data		Art. no. 92502 101 EASY-MAG 253-4	Art. no. 92502 102 EASY-MAG 303-4
Dimensions and weight			
L x W x H	**mm**	823 x 510 x 735	823 x 510 x 735
Weight approx.	**kg**	69	90
Sheet thickness (MAG)	**mm**	1.0 - 10	1.0 - 10
Sheet thickness (MIG)	**mm**	1.0 - 8	1.0 - 8
Mains			
Mains connection	**V**	3 x 400	3 x 400
Mains frequency	**Hz**	50/60	50/60
Power factor	**cos phi**	0.8	0.8
Effective power consumption	**kVA**	5.3	6.6
Required generator power	**kVA**	8	10
Open circuit voltage	**V**	16 - 32	16 - 35
Fuse (time-lag)	**A**	16	16
Setting range			
Setting range	**A**	30 - 250	30 - 300
Duty cycle at Imax. 40°C	**%**	35	
Welding current at 100% duty cycle	**A**	140	160
Switching stages		10	10
Feed and wire			
Wire Ø	**mm**	0.8 - 1.0	0.8 - 1.2
Wire feed		4 rolls	4 rolls
Wire feed speed	**m/min**	1 - 20	1 - 20
Cooling			
Cooling type		AF	AF
Torch cooling		Gas	Gas
Standards and certifications			
Standard		EN 60974-1; -10	EN 60974-1; -10
Degree of protection		IP 23	IP 23
Insulation class		H	H
EMC class		A	A

Type	92502	...
EASY-MAG 253-4 with SMB 25/4m		101
EASY-MAG 303-4 with SMB 25/4m		102

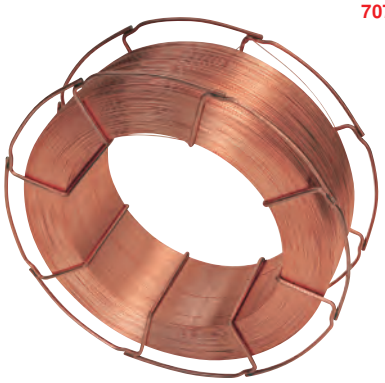
70730 - 70735 Welding wire for MIG/MAG inert gas welding devices

Design
Welding wire as wire electrode on basket coil.

70730
Copper-plated, SG 2.
Applications
For unalloyed and low-alloy steels.

70735
Material no. 1.4316/308 L
(stainless steel welding wire, V2A).
Applications
For stainless steels A2.

70730



			Unalloyed steels		V2A	
Ø mm	Weight kg	Design	70730	...	70735	...
0.8	15	On wire drum		201		201
1.0	15	On wire drum		202		202

92503 - 92504 TIG electrode welding inverter and MobilePower 1

LORCH

92503 101 + 92504 101
MicorStick 160 BasicPlus
MicorStick 160 Accu-Ready
Design
- Lightweight, robust and guaranteed to withstand drops from up to a height of 80 cm thanks to special crash protection
- Compact: The low weight and compact design enables flexible operation even in confined spaces
- Versatile: Ideal for welding with basic, rutile and special electrodes. In addition, it also offers a long duty cycle, high power reserves and, with ConTacTIG, the option of TIG welding
- The automatic adaptive hot start ensures perfect ignition
- Anti-stick system reliably prevents the electrodes from sticking
- Arc force control supports the welding process with increased arc stability and optimised material transfer
- Reliable and stable ignition even on generators and long wires
- State-of-the-art inverter technology with adaptive control technology ensures excellent welding results thanks to reduced splash formation, compensation of handling errors and simple operation
- Excellent efficiency and low energy consumption thanks to the latest power electronics and fan standby function
- Infinitely variable power setting
- Electrode preselection for standard and CEL for optimal welding parameters

92504 101
MicorStick 160 Accu-Ready
- Version for mains-independent welding with the MobilePower 1 battery pack

92503 102
Electrode assembly pack for MicorStick

92503 103
Empty assembly case
560 x 485 x 180 mm

92504 102
MobilePower 1 battery pack
Design
- Mobile welding in a new dimension
- Manufactured and certified to DIN EN 60974-1, with CE and S marks and IP 23
- 600 Wh energy reserve
- High-performance batteries with Li-ion technology enable up to 28 electrodes (2.5 mm) or up to 12 electrodes (3.2 mm) to be welded with just one battery charge
- Clear charge status indicator
- Energy reserve fully scalable through additional batteries
- Optional transport and carrying solutions for unrestricted mobility

Applications
For MicorStick 160 Accu-Ready.

92504 103
MobilePower charger
Applications
Mobile charger 115V/230V for MobilePower 1.

92504 104
Connection element for Easy Go 2
Applications
Wearing option for MicorStick and MobilePower.

92504 105
Weld backpack
Design
Backpack with hip and chest strap
Applications
For MicorStick and MobilePower.

92503 101 + 92504 101

92504 102

92503 102-103

92504 104

92504 105

Technical data		92503 101 MicorStick 160 BasicPlus	92504 101 MicorStick 160 Accu-Ready
Operation			
Battery		-	x
Mains		x	x
Generator		x	x
Electrode			
Welding range	A	10 - 150	10 - 150
Power setting		Infinitely variable	Infinitely variable
Weldable electrodes	mm	1.5 - 4.0	1.5 - 4.0
TIG			
Welding range	A	15 - 160	15 - 160
Duty cycle			
100% duty cycle	A	110	110
60% duty cycle	A	120	120
Duty cycle at max. current	%	30	30
Mains			
Mains voltage	V	230	230
Phases (50/60 Hz)		1~	1~
Positive mains tolerance	%	15	15
Negative mains tolerance	%	40	40
Mains fuse	A	16	16
Power plug		Schuko	
Dimensions and weights			
Dimensions (L x W x H)	mm	340 x 131 x 215	340 x 131 x 215
Weight	kg	4.9	4.9
Standards and certifications			
Standard		EN 60974-01	EN 60974-01
Degree of protection (EN 60529)		IP 235	IP235
Insulation class		F	F
Marking		CE, S	CE, S

Technical data		92504 102 MobilePower 1 battery pack
Energy	Wh	604.8
Service life	Charging cycles	approx. 1000
Charging time	min	150
Dimensions (L x W x H)	mm	323 x 131 x 215
Weight	kg	7.0

Type	92503 ...	92504 ...
MicorStick 160 BasicPlus	101	
Electrode assembly pack	102	
Empty assembly case	103	
MicorStick 160 Accu-Ready		101

Type	92503 ...	92504 ...
MobilePower 1 battery pack		102
MobilePower charger		103
Easy Go 2		104
Weld backpack		105

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70602 - 70603 Welding and cutting torch set

70602 101
Set
Design
- The most common size for welding, soldering, heating and cutting
- With an acetylene-oxygen flame at temperatures up to 3100 °C.

Applications
For all industrial and craft applications.
Contents:
- Handle
- 6 welding attachments, welding 0.5 - 14 mm
- Cutting insert with lever, 3 - 100 mm and accessories
- Key
- Gas lighter

70602 102
Handle
Design
- One shut-off valve and control valve each for oxygen and acetylene
- Detachable hose connections for these gases

Applications
For 17-mm shank with union nut for normal hoses. (Oxygen G 1/4 x LW 6; acetylene G 3/8LH x LW 9)
For holding welding attachments and cutting inserts.

70603 203
Welding attachments
Design
- Work according to the suction or injector principle
- Generally operated with an oxygen pressure of 2.5 bar and an acetylene pressure of 0.5 to 1 bar
- The design generally prevents flashback
- Marked in accordance with BGV D1 (VBG 15)
- Hammered jets

70603 204-205
Pipe welding attachments
Design
- Work like welding attachments and use the same pressures
- The thin copper mixing tube (Ø 6 mm) is easy to bend

Applications
Also suitable for inaccessible places.

70602 101

70602 102

70603 204-205

70603 203

	Nominal range mm	Consumption (l/h)+/- 10%	Length mm	70602 ...	70603 ...
Set	-	-	-	101	
Handle	-	-	-	102	
Welding attachment size 7	14.0 - 19.0	1600	315		203
Pipe welding insert size 3	2.0 - 4.0	315	250		204
Pipe welding insert size 4	4.0 - 6.0	500	255		205

70610 - 70612 Cylinder pressure reducer

ewo Seit 1914

70610 - 70611
Design
- With primary pressure and working pressure manometer.

70610
Acetylene pressure reducer
Design
- Single-stage, steel yoke connection, approved under no. 01 D-DE 52 172.

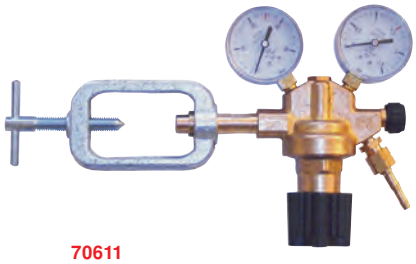
70611
Oxygen pressure reducer
Design
- Single-stage, approved under no. 1 BG 57, for all welding work and cutting up to 200 mm.

70612
Argon and carbon dioxide pressure reducer
Design
- Single-stage or two-stage for 200-bar bottles

Either a Lite manometer
- Lite manometer shows the flow rate in the outlet corresponding to a particular back pressure
- Regulation via normal pressure adjustment

Or a rotameter
- Set to a fixed pressure (e.g. 3.5 to 4 bar)
- Flow control via the shut-off valve
- Cylinder connection on the left-hand side.

70610



70611

70612

art. no.	Connection	Outlet inch	Hose connection mm LW	Manometer scales bar	Working pressure to bar	Cylinder pressure to bar
70610	-	G 3/8 left-hand	8	0/1.5/2.5 and 0/18/40	1.5	-
70611	Hexagonal nut G 3/4 inch	G 1/4	6	0/10/16 and 0/200/315	10	200
70612	W21.8 x 1/14 inch	G 1/4 left-hand	6	0 - 22/32	0 - 22 l/min	200

For	Colour	70610 ...	70611 ...	70612 ...
Acetylene	Yellow	101		
Oxygen	Blue		101	
Argon and carbon dioxide	Grey			101 NEW

70620 - 70621 Flashback arrestors

Applications
To protect individual cylinders in accordance with TRAC.

70620
Applications
For mounting on **pressure reducers.**

70620 101
Design
Connections: Inlet G 3/8 inch left-hand, outlet G 3/8 inch left-hand.

70620 102
Design
Connections: Inlet G 1/4 inch, outlet G 1/4 inch.

70621
Applications
For mounting on the **torch handle.**

70621 101
Design
With hose nozzle 9 mm LW and union nut G 3/8 inch left-hand.

70621 102
Design
With hose nozzle 6 mm LW and union nut G 1/4 inch.

70620 101

70621 101

70620 102

70621 102

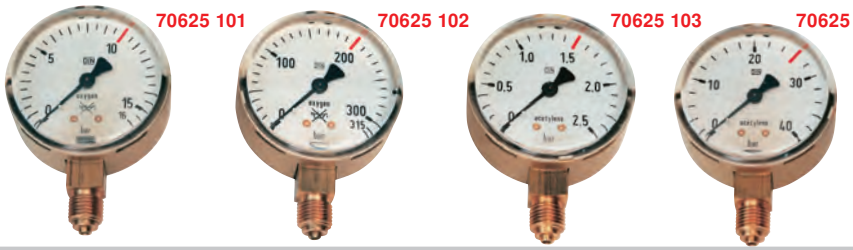
For	70620 ...	70621 ...
Acetylene	101	101
Oxygen	102	102

70625 Manometer DIN 8549

70625 101-102
Applications
For oxygen, with oxygen scale reading.

70625 103-104
Applications
For acetylene, with acetylene scale reading.

70625 101 70625 102 70625 103 70625 104



For	Scale end value bar	Pressure limit mark bar	Ø mm	Connection inch	70625 ...
Oxygen	16	10	63	G 1/4	101
Oxygen	315	200	63	G 1/4	102
Acetylene	2.5	1.5	63	G 1/4	103
Acetylene	40	25	63	G 1/4	104

70628 Rubber protection caps for manometer

Applications
Explosion opening in accordance with DIN.

70628

Colour	For manometer Ø mm	70628 ...
Blue	63	101
Red	63	102
Grey	63	103

70650 - 70651 Gas lighter

70650 102
Bracket gas igniter
Design
Painted, with roller.

70650 103
Pistol gas igniter
Zinc-coated.

70651 202
Flints
For bracket gas igniter.

70651 203
Flints
For pistol gas igniter.

70650 102

70651 202 70651 203

70650 103

Flint size mm	Flints Pack=pcs	Lighter 70650 ...	Flints 70651 ...
3 x 20	50	102	202
2.6 x 5	100	103	203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

70659 - 70661 Autogenous hoses EN 559

Note:
For gas cylinder transport trolley, see art. no. 81315. Hose connectors (hose clamps) DIN 3017, see art. no. 75062.

Design
Rubber hoses with fabric insert in flame-retardant rubber material.

70659
Acetylene hose, red.

70659

70660
Oxygen hose, blue.

70660

70661
Twin autogenous hose.
Firmly connected, but easily separated.
Twin hose clamp not required,
6 x 5 blue, 9 x 3.5 red.

70661

					Acetylene hose		Oxygen hose		Twin hose	
Length m	Clear width mm	Outer Ø mm	Wall thickness mm	For operating pressure to bar	70659	...	70660	...	70661	...
10	9	16	3.5	10		101				
20	9	16	3.5	10		102				
40	9	16	3.5	10		103				
10	6	16	5.0	20				304		202
20	6	16	5.0	20				305		203
40	6	16	5.0	20				306		204

70676 Electrode holder EN 60974-11

70676
Electrode holder
Design
Complies with the accident prevention regulations, fully insulated, impact-resistant, shock-resistant, highly heat-resistant, copper alloy base, copper alloy clamping lever, insulating jackets made of GFRP.

70676

For welding devices to amps	For electrodes to mm	70676	...
200	4		101
300	5		102
600	6		103

70685 - 70686 Welding electrodes FINCORD and FINCORD S

OERLIKON

70685 - 70686
Design
EN 499, E421 RR 12, DIN 1913, E 5121 RR6, **thick rutile-coated,** broad range of uses, excellent welding behaviour, well-suited for tacking work. Easy handling, also suitable for inexperienced welders, very smooth seams. Easy ignition and re-ignition, smooth, stable arc.

70685
FINCORD
Applications
For unalloyed structural steels St 33 to St 52-3, boiler plates H I, H II, 17 MN 4, tube steels to St 52.4, St 35.8 to 17 MN 4 ST, StE 210.7 to StE 355, steel casting GS-38 to GS-52.

Note:
Approved in accordance with TÜV, DB, ABS, BV, DNV, GL, LRS, Controlas.

70686
FINCORD S
Applications
For unalloyed structural steels St 33 to St 37, St 44, boiler plates H I, H II, tube steels to St 37.4, St 35.8, StE 210.7, steel casting GS-38 to GS-45.

Note:
Approved in accordance with TÜV, DB.

70685

			FINCORD	
Dimensions Ø x length mm	Current (A)	Pack= pieces	70685	...
2.0 x 250	50 - 70	170		201
2.5 x 350	65 - 90	210		202
3.2 x 350	100 - 140	125		203
3.2 x 450	100 - 140	118		204
4.0 x 450	140 - 180	78		205

			FINCORD S	
Dimensions Ø x length mm	Current (A)	Pack= pieces	70686	...
3.2 x 350	100 - 140	120		203

70700 Welding electrodes OVERCORD

OERLIKON

Design
EN 499, E 380 RC 11, DIN 1913, E 4322 R (C) 3, **rutile cellulose-coated,** universal electrode for assembly, workshop and repair welding, partticularly suitable for vertical down welding. Good crack bridging capability. Suitable for tacking work, galvanised, primed and rusted parts. Assembly work can be performed with continuous amperage in all positions.
Applications
For unalloyed structural steels St 33 to St 52-3, boiler plates H I, H II, 17 Mn 4, tube steels to St 52.4, St 35.8 to 17 Mn 4, StE 210.8 to StE 360.7 and the relevant TM grades, grain-refined steels WStE 255 to WStE 355, shipbuilding steels A, B. Cast steel GS-38 to GS-52.

Note:
Approved in accordance with TÜV, DB, ABS, BV, DNV, GL, LRS, Controlas.

Dimensions Ø x length mm	Current (A)	Pack= pieces	70700	...
2.5 x 350	60 - 85	275		201
3.2 x 350	90 - 130	160		202

70700

70705 Welding electrodes SPEZIAL

OERLIKON

Design
EN 499, DIN 1913, E 38 2 B 12 H 10, E 51 43 B (R) 10, AWS/ASME SFA-5.1, E 7016. **Basic-coated.** Versatile electrode for assembly, workshop and repair welding. Smooth, clean seams with notch-free transitions to the base material. Excellent crack bridging capability. The double jacket gives the electrode a stable, targeted arc, meaning it is well-suited for positional and root welding. Welding seams are x-ray-proof.
Applications
For unalloyed structural steels St 33 to St 52-3, boiler plates H I, H II, 17 Mn 4, tube steels to St 52.4, St 35.8 to 17 Mn 4, StE 210.8 to StE 360.7 and the relevant TM grades, grain-refined steels WStE 255 to WStE 355, shipbuilding steels A, B. D, E cast steel GS-38 to GS-52.

Note:
Approved in accordance with TÜV, DB, ABS, BV, DNV, GL, LRS, Controlas.

Dimensions Ø x length mm	Current (A)	Pack= pieces	70705	...
2.5 x 350	60 - 90	200		101
3.2 x 350	95 - 150	125		102

70705

70710 Welding electrodes CITOREX

OERLIKON

Design
EN 499, DIN 1913, E 38 2 RB 12, E 43 43 RR (B) 7, AWS/ASME SFA-5.1, E 6013. **Rutile basic-coated.** Rod electrode, particularly suitable for welding tube roots and positional welding in pipeline, boiler and container construction. Well-suited for bath safety during submerged arc welding. Particularly suitable for subsequent galvanising or enamelling due to low Si content.
Applications
For unalloyed structural steels St 33 to St 52-3, boiler plates H I, H II, 17 Mn 4, tube steels to St 52.4, St 35.8 to 17 Mn 4, StE 210.7 to StE 385.7 TM and the relevant TM grades, grain-refined steels WStE 255 to WStE 380, shipbuilding steels A, B, D, E, cast steel GS-38 to GS-52.

Note:
Approved in accordance with TÜV, DB, ABS, BV, DNV, GL, LRS, Controlas.

Dimensions Ø x length mm	Current (A)	Pack= pieces	70710	...
2.5 x 350	70 - 90	210		101
3.2 x 350	100 - 150	130		102

70710

70715 - 70720 Welding electrodes SUPRANOX

OERLIKON

Design
prEN 1600, DIN 8556, E 199 LR 12, E 199 LR 23, AWS/ASME SFA-5.4, E 308 L-16. **Rutile-coated.**

70715
SUPRANOX 308 L
Design
Comparable material 1.4316. Rod electrode for stainless austenitic chrome-nickel steel/cast steel with a low carbon content as well as stainless or heat-resistant chrome steels and cast steel. For operating temperatures up to + 350 °C, scale resistant to 800°. Fine-droplet material transfer, good moistening of the weld flanks, lightly rippled weld surface, easy slag removal. Simple to light and relight.

Applications
For high-alloy steels such as X 2 CrNi 1911 (1.4306), G-X2 CrNiN 189, X 6 CrNiTi 1810 (1.4541), X 6 CrNiNb 1810 (1.4550), GX 5 CrNiNb 189 (1.4552), X 5 CrNi 1810 (1.4301), GX 6 CrNi 189 (1.4308), X 12 CrNi 177 (1.4310), etc.

Note:
Approved in accordance with TÜV, DB, UDT.

70720
SUPRANOX 316 L
Design
As before, but comparable material 1.4430. For stainless austenitic chrome-nickel-**molybdenum** steel/cast steel with a low carbon content, for operating temperatures up to **+ 400 °C.**

Applications
For high-alloy steels such as X 2 CrNiMo 17132 (1.4404), G-X2 CrNiMoN 1810, X 2 CrNiMo 17122 (1.4406), X 2 CrNiMo 17133 (1.4429), X 5 CrNiMo 17122 (1.4401), X 6 CrNiMoTi 17122 (1.4301), GX 5 CrNiMoNb 1812 (1.4583), X 120 CrNiMoNb 17133 (1.4436), etc.

Note:
Approved in accordance with TÜV, VDT, DB, GL.

70715

Supranox Dimensions Ø x length mm	Current (A)	Pack= pieces	308 L 70715	...	316 L 70720	...
2.5 x 300	45 - 80	190		201		
2.5 x 300	45 - 80	190				201
3.2 x 350	70 - 120	120 (308 L) / 120(316 L)		102		102

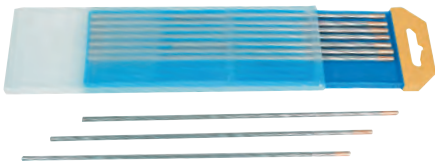
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

70722 - 70724 Tungsten electrodes

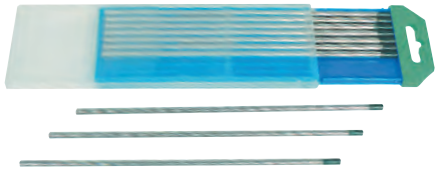
70722
Design
100% free of radiation. Lanthanated electrode. Fine, very even distribution of the lanthanum oxide both across the cross-section and the length. This ensures a high reproducibility of welding results.

70724
Applications
For welding light metals and their alloys. Operated with AC or DC current at low power.

70722



70724



Ø mm	Length mm	Pack= pieces	Gold type 70722	...	Type W/99.99%/. green 70724	...
1.6	178	10		102		102
2.4	178	10		103		103

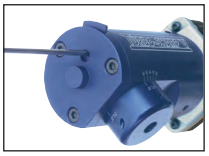
70725 Tungsten electrode grinding device

70725 101
TURBO-SHARP® X
Design
Fully encapsulated housing protects against dangerous grinding dust. Diamond sanding disc: 3-fold adjustment of the sanding disc via adapter ring for 6 benefits of double-sided use of the sanding disc. Multi-purpose cover with integrated opening slider for plane grinding electrodes or creating cone-shaped electrodes (ideal for welding aluminium). Can be connected to existing extractor fans as standard. Optional orbital set, suitable for grinding tungsten electrodes up to a maximum length of 15 mm.

70725 102
Replacement sanding disc
Design
Coated on both sides (doubles the service life!).
Applications
For tungsten electrode grinding device art. no. 70725 101.

70725 101

70725 102



	Set contents
1	**grinding device with sanding discs,**
1	**multi-purpose cover,**
1	**mounting bracket** for stationary use,
1	**standard head for electrodes** with Ø 1.6/2.0/2.4/3.2 mm,
1	**extractor connection** for connection to an extractor fan,
1	**Spannfix clamp holder** size 1,
1	**assembly tool and operating instructions.**

Type	Design	Grinding angle Infinitely variable	70725	...
Grinding device	In metal case	20°-60°		101
Replacement sanding disc	-	-		102

70750 Electric welding hammer (pick hammer) DIN 5133

Design
With steel tube handle.

70750

Weight approx. g	70750	...
430		101

70753 Welder's hammer

mob PEDDINGHAUS

Design
With ash handle, vertical cutting edge and tip.

70753

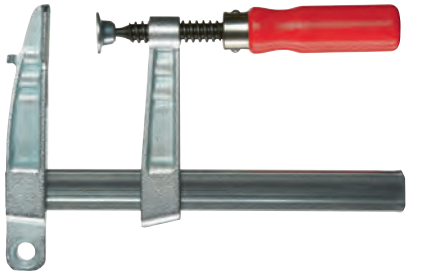
Weight approx. g	70753	...
330		101

Workshop equipment

70754 Pole welding clamp

Design
Malleable iron clamping arms, with pole connection hole 10.5 mm for electrical earthing cable, with wooden handle.

70754



Clamping width x overhang mm	Steel rail mm	Max. current load amps	70754	...
150 x 80	25 x 6	400		**201**

70755 Welding adhesive magnets

Design
With terminal connection for electrical earthing cable.

70755 102 70755 103

For welding devices up to amps	For cable cross-sections mm²	70755	...
400	35 - 50		**102**
600	50 - 70		**103**

70760 - 70762 Clamping elements TWV and TW for welding tables

70760 - 70761
Clamping elements TWV and TW for welding tables
Design
- Precise, individual clamping
- Tempered profile and sliding bar for flexible and elastic clamping
- Infinitely adjustable overhang
- **TWV** with variable overhang

Applications
For working on welding tables with 28 mm holes.

70760 101-103
Design
- High-quality 2-component handle
- Knob handle with rounded ends
- Each with smooth-running trapezoidal threaded spindle
- Pressure plate can be replaced without tools

70761 101-103
Design
- Lever handle with ratchet mechanism
- Regulated, fast and low-vibration clamping

70762
Vario table clamping attachment TW28VAD
Design
- With bolts for quick alignment and securing of the workpiece on the welding table

Applications
Specifically adapted to round, oval and square workpieces.Infinite angle adjustment from 60° internal to 60° external.

70760 101-102 70760 103

70761 101-102 70761 103

TW28VAD 70762

Type	For	70760	...	70761	...	70762	...
Clamping element TW28-30-12-2K	Welding table 300/120		**101**				
Clamping element TW28-30-14-2K	Welding table 300/140		**102**				
Clamping element TWV28-30-17-2K	Welding table 300/175		**103**				
Clamping element TW28-30-12H	Welding table 300/120				**101**		
Clamping element TW28-30-14H	Welding table 300/140				**102**		
Clamping element TWV28-30-17H	Welding table 300/175				**103**		
Vario clamping attachment TW28VAD	Welding table 300/120-175						**101**

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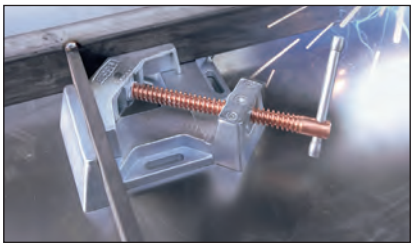
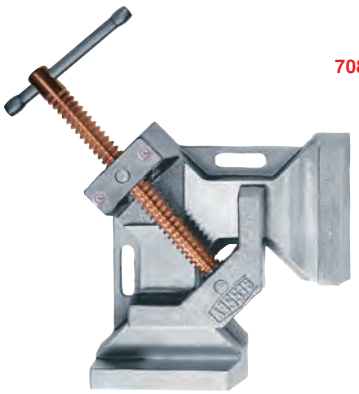
70803 Metal angle clamp

Design
Jaws and basic body made of high-grade cast iron, with 2 elongated holes for clamping on a machine table. Copper-plated spindle prevents adhesion of welding beads.
Applications
Versatile, suitable for precise clamping and alignment work. For holding, securing and aligning in the right angle of tubes and profiles of varying thickness.





70803

Jaw height x length mm	Max. clamping depth mm	Max. clamping width mm	Weight approx. kg	70803	...
35 x 110	60	2 x 90	3.8		**101**
61 x 120	100	2 x 120	7.8		**102**

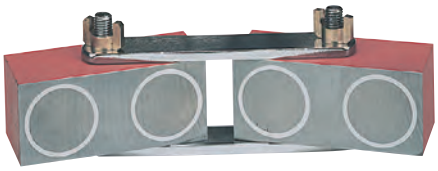
70812 Permanent magnetic joint

Design
Two magnetic blocks are connected by a joint and can be firmly clamped at any angle.

Applications
Welding aid for securing sheet metal, flat and profile strips. Particularly suitable for working in the most confined spaces thanks to the small dimensions.

Note:
Can also be used individually!

70812



L x W x H (single block) mm	Length approx. mm	Retention force up to max. kg	70812	...
60 x 25 x 25	130	Per block 10		**201**

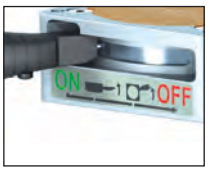
70823 Variable magnetic welding angle

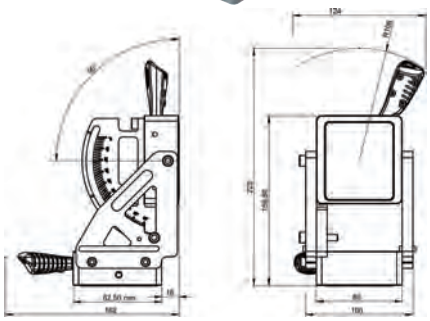
Design
- Tearing force 300 kg (on 6-mm sheet metal S 235)
- Shearing force 100 kg (on 6-mm sheet metal S 235, 1:3 safety factor)
- Angle side plates infinitely adjustable from 0° to 90° for holding and welding pieces of material
- Quick-action clamp for easy locking/adjustment
- Lightweight, simple and trouble-free handling
- Up to a maximum retention force of 300 kg, even on steel plate with a thickness of just 6 mm
- Ergonomic and easy one-handed activation
- Hardened steel bottom with TiN coating for a long service life time, while also ensuring a small air gap to prevent damage to the bottom

Applications
- Indispensable for anyone who has to weld heavy workpieces together at different angles
- The specially aligned magnetic field (patented) enables welding approx. only 15 mm from the outside of the magnet

Note:
Pre-tension of the magnets
This is a reduced magnetic field that the magnet radiates, even when it is not activated.
This „pre-tension" makes it possible to attach and position the magnet on a vertical surface or overhead, without it falling. The magnetic force is sufficient to bear the tare weight of the magnet. Consequently, the magnet can be moved into a perfect position for an optimal lifting process before the locking lever is pushed down. The locking mechanism of the magnet is optimised so that one-hand operation is possible.

70823



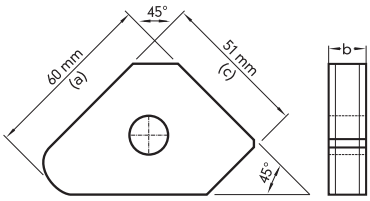


Type	Tearing force kg	Shearing force kg	Length mm	Width mm	Height mm	Weight kg	70823	...
TMA 300	300	100	162	124	223	2.7		**100**

70819 Permanent magnetic welding angle

Design
- Fixed, 45° and 90°
- Lightweight design
- Strong adhesive force
- Insensitive to welding temperatures
- Fully shielded magnetic system
- Pack = 1 pair

Applications
For effective clamping of welded parts.



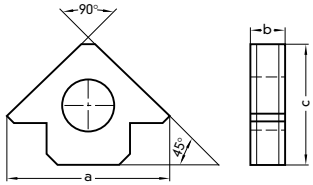
70819

Dimensions a x b x c mm	70819 ...
60 x 12 x 51	101

70820 Magnetic welding angle

Design
- Fixed, 45° and 90°
- Lightweight design
- Strong adhesive force
- Insensitive to welding temperatures
- Fully shielded magnetic system

Applications
For effective clamping of welded parts.



70820

Dimensions a x b x c mm	70820 ...
120 x 15 x 82	201
160 x 20 x 100	202

70836 Welder's goggles

Honeywell

70836 101
Applications
For easy flame cutting work.

70836 102
Applications
For welding, brazing and flame cutting.

70836 101

70836 102

Protection level DIN	Visor tint	70836 ...
3	green, scratch-resistant	101
5	green, scratch-resistant	102

70838 - 70839 Aluminium safety goggles EN 166/169

70838
Design
Athermal lenses, shatter-proof, 50 mm Ø, can be replaced by means of screw ring. Ventilation openings in the capsules, leather nose bridge, 10 mm wide, adjustable elasticated strap and foam rubber edges.
Applications
Protection level 5A DIN = for all gas welding work.

Note:
The goggles are not suitable for arc welding.

70839
Replacement lenses
Design
In pairs.

70838

70839

	Safety goggles		Replacement lenses	
Protection level DIN	70838	...	70839	...
5		102		102

70841 Covering glasses for welders

uvex

Design
Fits over all prescription glasses. Unrestricted side perception through super panoramic lens with 180° field of view. Excellent, pressure-free fit, effective indirect ventilation through special arm design with optimal side protection. Length of the arm ends can be adjusted to 4 different positions, maximum wearing comfort.

Note:
The goggles are not suitable for arc welding.

70841 103

70841 104

Protection level DIN	70841 ...
5	103
6	104

70851 - 70853 Electric welding protective shields EN 166/175

Design
No lenses. Made of ABS polyethylene PE or glass-fibre polyester.
Applications
For replaceable welding lenses 90 x 110 mm and colourless external lenses.

70851
Protective shield.
Angled design.

70853
Protective mask.
Design
Swivels over the head, infinitely adjustable, head strap with sweatband.

70851 101

70851 102

70853 101

Design	Protective shield 70851 ...	Protective mask 70853 ...
ABS polyethylene PE	101	101
Glass-fibre polyester	102	

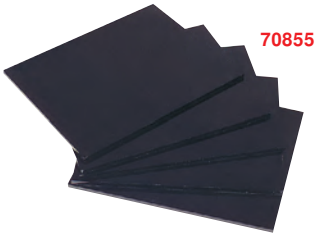
70855 - 70857 Protective and external lenses for electric welding protective shields EN 166/169

Design
DIN 4646–4647.
Applications
For electric welding protective shields art. no. 70851-70853.

70855
Protective lenses.
90 x 110 mm.

70856
Protective lenses, gold-mirrored.
90 x 110 mm.

70857
External lenses.
Colourless.



70855

70856

70857

Protection level DIN	Size mm		Normal 70855 ...	Mirrored 70856 ...	Colourless 70857 ...
9	90 x 110	-	201	101	
10	90 x 110	-	202	102	
11	90 x 110	-	203	103	
12	90 x 110	-	204	104	
-	90 x 110	10 pcs.			101
-	40 x 110	10 pcs.			102

70860 Speedglas™ 100 welding mask with automatic welding filter

Speedglas®

70860 301
Speedglas™ 100 welding mask
Design
Permanent protection against UV and IR radiation, whether the filter is in light or dark mode or the automatic darkening function is active. Three user-selected sensitivity levels for reliable arc detection. Five different shade levels: 8-12. Selectable opening time delay (100-250 ms). Excellent visibility in light mode level 3 for easy welding preparation and rework. Numerous setting options for maximum comfort of the mask, head band and welding filter.
The product complies with European standards EN 175, EN 166, EN 169, EN 379.
Scope of delivery:
Hard hat 100V with headband, automatic welding filter 100V DIN 8-12, 1 inner and 1 outer transparent polycarbonate external lens, 2 lithium 3-volt batteries (CR 2032).
Applications
The Speedglas™ 100 welding mask has been developed for most welding processes, such as electrode welding, plasma welding, TIG welding and MIG/MAG welding. It can also be used for grinding work.

Note:
Replacement batteries, see art. no. 39900 102.

70860 302
Automatic welding filter 100V
Five adjustable shade levels (8-12), light level (3). In addition, three sensitivity levels for optimum adaptation to different welding conditions. Level 1 if other welders are working in the immediate vicinity, level 2 as the default setting for the most common welding procedures and level 3 for TIG welding.
Applications
For welding mask, art. no. 70860 301.

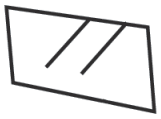
70860 303
Inner external lenses
Design
42 x 90 mm. Pack = 5 units.
Applications
For welding mask, art. no. 70860 301.

70860 304
Outer external lenses
Design
Standard. Pack = 10 units.
Applications
For welding mask, art. no. 70860 301.

70860 301

70860 302

70860 303



70860 304

	Dark-to-light time ms	Light-to-dark reaction time ms	Field of view mm	Shade level protection level	Light level protection level	70860	...
Speedglas 100V with filter	0.1	100-250	44 x 93	8-12	3		301
Automatic welding filter	0.1	100-250	44 x 93	8-12	3		302
Inner external lens (5 pieces)	-	-	-	-	-		303
Outer external lens (10 pieces)	-	-	-	-	-		304

70861 Welding mask 9100V/9100X/9100XX

Speedglas®

70861 101-103
Speedglas welding mask 9100V/9100X/9100XX
Design
Permanent protection (conforms with protection level 13) against UV and IR radiation. Seven different shade levels, divided into two groups 5, 8 and 9-13. Seven user-selected sensitivity levels for reliable arc detection. Constant permanently adjustable shade level or light level. Excellent visibility in light mode level 3 for easy welding preparation and rework. Welding filter with three optical sensors. Numerous setting options for maximum comfort of the mask, head band and welding filter. Compatible with maintenance-free 3M breathing masks for welding work. 2 lithium 3-volt batteries (CR 2032).
The product complies with European standards EN 175, EN 166, EN 169, EN 379.
Applications
Suitable for electrode welding, micro-plasma welding, TIG welding, MIG/MAG welding and autogenous welding/cutting.

Note:
Replacement batteries, see art. no. 39900.

70861 104-106
Automatic welding filter 9100V/9100X/9100XX
Design
Light-to-dark reaction time 0.1 ms (+23°C). UV/IR protection level 13 (permanent). Light level protection level 3. Dark level protection Level 5, 8, 9-13 (variable). Head size 50-64. Solar-assisted power supply (at 9100V and 9100X). 2 lithium 3-volt batteries (CR 2032).

70861 107
Inner external lens for 9100V
117 x 50 mm. Pack = 5 units.

70861 108
Inner external lens for 9100X
117 x 61 mm. Pack = 5 units.

70861 109
Inner external lens for 9100XX
117 x 77 mm. Pack = 5 units.

70861 110
Outer external lens
Standard. Pack = 10 units.

70861 111
Balaclava

70861 112
Sweatband
Pack = 3 units.

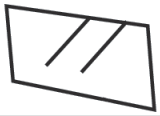
70861 104

70861 101-103

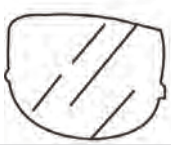
70861 105

70861 106

70861 107-109



70861 110



	Field of view mm	70861	...
Welding mask with filter 9100V	45 x 93		101
Welding mask with filter 9100X	54 x 107		102
Welding mask with filter 9100XX	73 x 107		103
Automatic welding filter 9100V	45 x 93		104
Automatic welding filter 9100X	54 x 107		105
Automatic welding filter 9100XX	73 x 107		106
Inner external lens 9100V (5 pieces)	-		107
Inner external lens 9100X (5 pieces)	-		108
Inner external lens 9100XX (5 pieces)	-		109
Outer external lens (10 pieces)	-		110
Balaclava	-		111
Sweatband (3 pieces)	-		112

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

70859 Breathing protection system Adflo DIN EN 379 / EN 175:B / EN 1666: BT

Speedglas®

70859 100
ADFLO FlexView breathing protection system
Design
3M Speedglas 9100X FX Air welding mask with 3M Adflo blower – breathing protection system now with improved breathing protection – TH3! Welder's hard hat as a complete combination with breathing protection and automatic welding filter 9100 X, protection level 5, 8, 9-13, and a 17 x 10 cm clear visor for preparation and rework. The ADFLO blower box is worn on the leather belt and includes the electronically controlled filter device with battery, pre-filter and particle filter and the connecting air hose from the ADFLO blower box to the hard hat. Automatic polyamide welding mask, black/silver with 50% larger field of view, replaceable welding protection filter cartridge, which switches from protection level 3 as the output level to the specified protection level when the arc is ignited. Darkening per protection level takes 0.1 ms. Once the welding process is complete, the automatic welding filter returns to light mode. The side viewing window can be covered with the supplied foil. Power supply: solar cells and batteries. If the battery or electronic system fails, the filter switches to protection level 5.
Scope of delivery:
Automatic welding helmet with FlexView function 9100 X with welding protection filter cartridge with 2 lithium 3-volt batteries (CR 2032). ADFLO blower box on belt, battery, QRS hose, electronic battery charger, air flow sensor, storage bag.

Note:
Replacement batteries, see art. no. 39900 102.

70859 101
Particulate filter
Design
Pack = 2 units.
Level P (SL).
Applications
For Adflo system

70859 107
Pre-filter
Design
Pack = 5 units.
Applications
For Adflo system

70859 108
Panoramic lens
Design
Pack = 5 units.
Applications
For 9100 FX

Note:
Further accessories, see art. no. 70861 108 and 70861 110.

70859 100

Type	Light-to-dark switching time ms	Dark-to-light switching time ms	Field of view mm	Dark level protection level	Light level protection level	70859	...
9100 FX/ADFLO	0.1	40-1300	54 x 107	5, 8, 9-13	3		100
Particle filter	-	-	-	-	-		101
Pre-filter	-	-	-	-	-		107
Panoramic lens for 9100 FX	-	-	-	-	-		108

70862 Welding helmet VarioProtect XXL-W

Schweißkraft Schweißtechnik

70862 101
Welder's hard hat VarioProtect XXL-W
Design
- Automatic welder's hard hat with extra large field of view (100 x 65 mm), powered by solar cells
- Complete protection of the face and front of the neck against radiation and sparks
- Fully automatic darkening in just 1/30,000 sec, as soon as the arc is ignited
- The built-in UV/IR filter keeps out harmful radiation
- The sensitivity can be infinitely adjusted and the dark-to-light reaction time can be set to multiple levels
- The VarioProtect helmet can also be used for grinding in „Grinding" mode
- Tested in accordance with EN 379 and EN 175

Applications
Suitable for MIG/MAG, TIG and electrode welding, as well as for grinding. Not suitable for use in laser welding, oxygen and acetylene welding or cutting processes.

Properties:
- Infinitely variable DIN 4-8 and DIN 9-13
- Reaction time 1/30,000 sec
- 4 sensors
- Extra-large field of vision
- Easy battery replacement

70862 102
External lenses for art. no. 70862 101
Design
- Pack of 10

70862 102

NEW

70862 101

Type	Reaction time s	Infinitely variable Protection level	Field of view mm	70862	...
Welder's hard hat VarioProtect XXL W	1/30,000	DIN 4-8 and 9-13	100 x 65		101
External lenses for art. no. 70862 101 Pack of 10	-	-	-		102

Workshop equipment

70863 - 70864 Automatic welding mask

70863 201
Design
Certified and tested according to European quality standards. EN 379 for the anti-glare cassette and EN 175 for the helmet shell. The ergonomic helmet shape ensures effortless work. Modern design, comfortable headband, very robust housing, easily replaceable cassettes (90 x 110 x 6 mm) and external lenses. Field of vision 38 x 94 mm. Maximum UV/IR protection for every state of the cassette. Solar energy means that an on/off switch and battery replacement are unnecessary. Opening time controller for convenient adjustment of the switching time from dark to light mode. The sensor bar eliminates the influence of ambient light and can be removed when welding in awkward spaces. Colour: black.
Applications
Suitable for all electrical welding processes such as electrode and MIG/MAG welding.
Caution: not suitable for TIG, gas or laser welding.

70864 101
External lenses
Design
90 x 110 mm. **Pack = 10 units.**
Applications
For welder's protective mask art. no. 70863.

70864 102
Sweatband
Design
Towelling, black, self-adhesive.
Applications
For welder's protective mask art. no. 70863.

70863

70864 101

70864 102

	Adjustment range	Protection level manual	70863 ...	70864 ...
Welding mask	4/9 - 13	9 - 13	201	
External lenses	-	-		101
Sweatband	-	-		102

70865 - 70867 Replacement welding and inspection mirror

Design
- Chrome-plated mirror
- Approx 1.0 mm thick

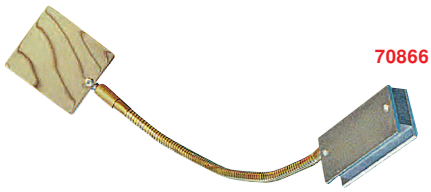
70865
Design
- Can be turned in all directions
- With wire handle

70866
Design
- With adhesive magnet
- Flexible, unbreakable, bolted arm
- Adhesive force approx. 400 N

70867
Replacement mirror
Applications
For art. no. 70865 and 70866.

70865

70866



		70865 ...	70866 ...	70867 ...
Mirror	-	101	101	
Replacement mirrors	10 pcs.			101

70875 - 70878 Welder's protective clothing

70875
Welder's apron
- Size approx. 80 x 100 cm
- Grade 1a split cowhide leather
- Strong core leather straps

70876
Welder's gloves (pair)
- Combined
- Full-grain leather palm
- Split leather backs of hands and cuffs
- CE cat. 2, stronghand®
- Standard DIN EN 12477
- Design A
- Length approx. 35 cm
- Size 10

70877
Argon welder's gloves (pair)
- Full-grain nappa leather
- Inset thumb
- Split leather cuff
- 35 cm long
- Cat. 2

70878
Welder's gaiters (pair)
- Height 30 cm
- Split leather

70875

70876

70877

70878

Apron		Gloves		Gloves		Gaiters	
70875	...	70876	...	70877	...	70878	...
	101		102		101		101

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71300 Standard anvil

RIDGID

Design
Die-forged, hardened face, with 2 horns.

Note:
Dimensional and weight deviations +/-10% reserved. Other sizes and forging anvils are available on request.

71300 202
Design
With 2x round holes.

71300 204+206
Design
With square hole to accommodate anvil tools.

71300

Size	Weight approx. kg	Width of face mm	Length of face mm	Horn length approx. mm (each)	Total length mm	Total height mm	Base size mm	71300	...
5	35	95	205	135	475	200	170 x 195		**202**
9	75	125	265	185	635	265	235 x 275		**204**
12	125	130	300	210	720	310	270 x 345		**206**

71505 - 71507 Blacksmith's tongs

Design
Forged, painted in black.

71505
Wolf's jaw.

71507
Flat jaw.

71505

71507

Length mm	For material thickness up to mm	Wolf's jaw 71505	...	Flat jaw 71507	...
300	6		**101**		
400	8		**102**		
500	12		**103**		
300	6				**101**
400	8				**102**
500	10				**103**

71705 - 71710 Test plates

Design
Surface and 4 sides finely planed.
Quality
Special cast iron with steel.

Note:
Other dimensions available on request.

71705
Solid, for tough straightening jobs.

71710
With rib, for easy straightening jobs.

71705 - 71710

Plate size mm	Plate thickness mm	Weight approx. kg	Solid 71705	...	With rib 71710	...
300 x 300	50	34		**101**		
400 x 400	50	60		**102**		
500 x 500	60	112		**103**		
800 x 800	100	480		**106**		
300 x 300	20/40	16				**101**
400 x 400	30/50	42				**102**
500 x 500	40/40	84				**103**
800 x 800	40/40	216				**106**

71730 - 71731 Universal base frames

Design
Welded angle iron construction. The frame is designed so that the upper surface of the plate is approx. 800 mm above floor level.

71730
Applications
For test plates, solid, art. no. 71705.

71731
Applications
For test plates with ribs, art. no. 71710.

71730 - 71731

For plate size mm	Weight approx. kg	71730	...	71731	...
400 x 400	16		**101**		**101**
500 x 500	27		**102**		**102**
800 x 800	46		**105**		**105**

72005 Arbor presses

Design
Consisting of a rigid grey cast-iron T-profile. The press ram is toothed and is controlled via a pinion using a hand lever. Rotating slotted disk (removable) With 4 holes for bolts of different diameters.
Colour:
Textured paint in green, similar to RAL 6011.Use For pressing in/out of bushings, arbors, bearings, bolts, pins etc.

Note:
Arbor presses with base frame for DP 1000 and DP 1500 deliverable on request.

72005

Technical data:	Type	DP 500	DP 1000	DP 1500
Compressive force	kN	5	10	15
Leverage	i	1:14	1:27	1:27
Overhang to middle of ram	mm	95	155	220
Ram diameter	mm	32	40	58
Max. installation height	mm	150	260	350
Ram stroke	mm	150	260	350
Slit width of clamping plate	mm	15–35	20–46	20–46
Height of the press body	mm	290	440	570
Weight	approx. kg	16	45	90

Type	72005 ...
DP 500	201
DP 1000	202
DP 1500	203

72030 Universal knuckle joint presses

Design
360° adjustable hand lever, stable cast-iron body with very precise prism guide with no play at the press ram. The crimping head is quick and easy to position using a hand crank. Gripping is achieved by means of several hexagonal bolts through the complete press body. Large table clamping surface with T-slots. Cat. no. 203 and 204 with reversible bearing bolts on the knuckle joint to increase the compressive force.

Note:
Knuckle joint presses with higher pressure performance and pneumatic drive deliverable on request.

201

202

203

204

Technical data:	Type	2.5 kN HKP/V	5 kN HKP/V	8/12 kN HKP/V	8/16 kN HKP/V
Max. compressive force only in the bottom dead centre	approx. kN	8	14	16/20	24/32
Max. comp. force when leverage is at perm. tensile force	N	280	320	350/340	420/420
Max. stroke length	mm	0–42	0–40	0–45	0–58
Overhang	mm	90	90	120	160
Installation height	mm	75–190	70–195	75–240	100–320
Location hole, ram	Ø mm	10 H7	10 H7	10 H7	15 H7
Table size	mm	150 x 100	180 x 110	200 x 168	300 x 230
Total height	mm	480–600	595–715	655–820	930–1150
Weight	kg	11.5	20	32	79

Type	72030 ...
2.5 kN HKP/V	201
5 kN HKP/V	202
8/12 kN HKP/V	203
8/16 kN ICPS/V	204

72031 Hand-lever presses with air support and defined start

Design
- The operator uses the hand lever to extend the press slide over a knee joint
- In this position, the operator can implement a 5.9-mm-long pneumatic power stroke by pressing a button or by turning the hand lever slightly
- The operating pressure is 2 to 7 bar
- The pneumatic connection line measures 1/4 inch

NEW

72031 101

72031 102

72031 103

Technical data:	Type	4kN HKP/L DS	12 kN HKP/L DS	20kN HKP/L DS
Max. compressive force	kN	4	12	20
At X bar	kN	7.7	7.7	7
Max. stroke length	mm	6–46	6–46	6–58
Overhang	mm	120	120	160
Installation height	mm	73–240	73–240	100–320
Location hole, ram	Ø mm	10 H7	10 H7	15 H7
Table size	mm	200 x 169	200 x 169	300 x 230
Total height	mm	678	729	988
Weight	kg	36	40	92
Air consumption	L	0.07	0.14	0.25
Pneumatic connection line	Inches	1/4	1/4	1/4

Type	72031 ...
4 kN HKP/L DS	101
12 kN HKP/L DS	102
20 kN HKP/L DS	103

72035 Mechanical high-performance assembly and broaching press

Design
Very stable and torsion-resistant welded construction. The shape and profile have been designed in such a way that all operating loads are safely absorbed. The system is driven via a handwheel with 5 spokes that controls a planetary gear on the drive spindle. Thanks to the high transmission ratio, only a little effort on the handwheel is required. The guides of the square working spindle are equipped with adjustable bars.
Colour: RAL 7035 Light grey.
Applications
Especially suitable for efficiently and securely producing keyways using push-type broaching tools, but also for pressing in/out of bushings and bolts, as well as for installing pre-tensioned assemblies.

Note:
Depth stop can be delivered with fine adjustment on request. For suitable push-type broaching tools, see HHW Catalogue Volume 1 (Machining and Clamping Technology) cat. no. 16880 FF. For matching cabinet base, see cat. no 70036. All machines are also available in special versions with a larger stroke and a larger installation space on request.

72035

Technical data:	Type	T5
Square working spindle	mm	55
Location hole in the working spindle	-	Ø 20 H7
Max. pressure performance	kN	50
Max. spindle motion	mm	550
Table surface	mm	350 x 250
Ø of the rotating table	mm	235
Base area	mm	550 x 350
Total height when toothed rack extended	mm	1,650
Weight	kg	195

Type	72035 ...
T5	102

72036 Cabinet base for assembly and broaching presses

Design
Cabinet base with a door and an intermediate compartment.

Applications
For mechanical high-performance assembly and broaching presses cat. no. 72035.

72036

Base area mm	Height mm	72036 ...
480 x 580	750	101

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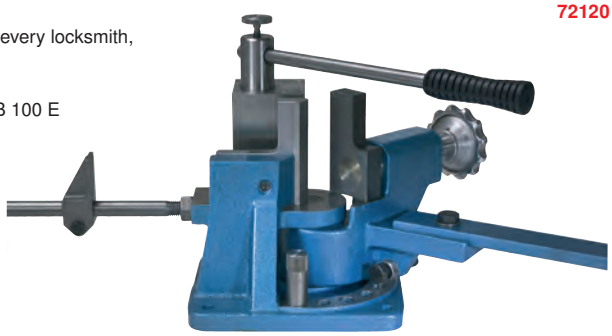
72120 Angle benders

Design
Basic body and bending arm cast from spheroidal graphite iron (no grey cast iron) and milled. For this reason, when the machine's tare weight is low it provides optimum bending performance. Thanks to the use of high-grade steel that has undergone heat treatment, the dimensions of the bending jaws can be kept small. Very tight Z- and U-bends are therefore possible. For the same reason, this equipment can be used to perform warm bending in addition to cold bending. No special jaws are required for warm bending!

Applications
The universal model is suitable for every locksmith, forge or repair workshop.

Scope of delivery:
- 1 x KARNASCH angle bender WB 100 E
- 1 x sharp-edged jaw
- 1 x radius jaw r = 4
- 1 x longitudinal stop
- 1 x longitudinal stop

72120



Technical data:		
Bending performance**	cold	warm
Flat steel	100 x 6 mm or 50 x 12 mm	100 x 12 mm or 60 x 20 mm
Round steel	18 mm	30 mm
Flat copper*	100 x 12 mm	-
Angle steel, notched**	60 x 8 mm	100 x 12 mm

* Special jaws no. 4, no. 5 and no. 6 are required for these materials.
** Bending performance relates to material cross-sections with a strength of 40 N/mm

The types of bending performance available are limited to bending using the mounted radius jaw. This model is also supplied with a sharp-edged jaw, which can only be used for bending sheets up to 2 mm thick. If stronger material needs to be bent at a sharp angle, then the wide, fixed panel no. 5 is required, as this jaw is not hollowed out so much in the angle.

Base area mm	Width mm	Length without operating lever mm	Dimensions of the operating lever mm	Longitudinal stop mm	Weight net kg	72120	...
205 x 175	290	260	710 x 40 x 12	440	24		**101**

72121 Universal bender for round and flat material

metallkraft Metallbearbeitungsmaschinen

Design
- Universal bender for bending flat or square material to form angular, rounded or spiralling bends
- Cold bending up to an angle of 180°
- Adjustable bending angle for high repetition accuracy
- With additional option UB 11, bending in spirals also possible
- Screw-on stand for a secure hold
- Extending handle for greater leverage
- Easy to transport, and ideal for workshops, assembly tasks and use in service trolleys
- Removable bending unit, with optional gripping plate, can also be used on vice
- High quality, made in Europe

Scope of delivery:
- 2 bending rollers:
- For bending radius of 24 mm
- For bending radius of 30 mm
- For bending radius of 37 mm
- For bending radius of 43 mm
- For bending radius of 49 mm
- For bending radius of 62 mm
- For bending radius of 75 mm

NEW

72121 101

Round-bending max. Flat steel mm	Sharp-edged bending max. Flat steel	Round pipe Ø max.	Bending capacity, round Steel/aluminium/copper mm	Bending capacity, round V2A mm	Bending capacity, square steel/aluminium/copper mm	Bending capacity, square V2A mm	L x W x H mm	Weight approx. kg	72121	...
10 x 50	6 x 50	G 3/4	16	14	16 x 16	14 x 14	325 x 1100 x 1010	32		**101**

72121 Pipe bender

metallkraft Metallbearbeitungsmaschinen

Design
- For cold bending of thin-walled pipes made of brass, copper, steel and other materials
- Simple cold bending of thin-walled tubes even without supporting elements
- For bending into simple and complex shapes
- Screw-on stand for a secure hold
- Extending handle for greater leverage
- Easy to transport, and ideal for workshops, assembly tasks and use in service trolleys
- Removable bending unit, with optional gripping plate, can also be used on vice
- High quality, made in Europe
- Further bend segments on request

Scope of delivery:
- 6 of each bend segment
- Ø 14 mm, bending radius 56 mm
- Ø 16 mm, bending radius 64 mm
- Ø 18 mm, bending radius 72 mm
- Ø 20 mm, bending radius 80 mm
- Ø 22 mm, bending radius 88 mm
- Ø 25 mm, bending radius 100 mm

NEW

72121 102

Round-bending max. Flat steel mm	Sharp-edged bending max. Flat steel mm	Wall thickness max. mm	Round pipe Ø max. mm	Bending capacity, square Steel/aluminium/copper mm	Bending capacity, square V2A mm	L x W x H mm	Weight approx. kg	72121	...
10 x 50	6 x 50	2	25	20 x 20 x 2	20 x 20 x 2	240 x 240 x 960	32		**102**

73001 - 73002 Goldsmith's scissors

Quality
Special steel.

73001
With open arms.

73002
With finger holes.

73001

73002

Total length mm	Blade	73001 ...	73002 ...
180	straight, with screw	101	101

73007 Special sheet metal shears

Quality
Nickel-plated.

73007

Total length mm	Blade	73007 ...
100	straight	101

73008 Electrician's shears

Design
PVC handles.

73008

Total length mm	Blade	73008 ...
140	straight	101

73030 Telephone scissors

Design
Nickel-plated, with wire cutter.

73030

Total length mm	Blade	73030 ...
125	serrated	101

73050 - 73053 Paper scissors/work scissors

73050
Paper scissors
Nickel-plated, lower blade serrated.

73052
ATORN®
Work scissors
Blades polished, handles painted.

73053
ATORN®
Multi-purpose scissors
Blades made of stainless steel, impact-resistant plastic handle.
Applications
For right-handed and left-handed people.

73050

73052

73053

Total length mm	Paper scissors 73050 ...	Work scissors 73052 ...	Multi-purpose scissors 73053 ...
200	101	101	
210			101
250	103	102	

73056 Household and work scissors

Design
Ergonomic design. Handles made of shatterproof plastic with **skin-friendly soft rubber inserts**. The scissors can be adjusted with a screw. Suitable for right-handed and left-handed people.
Quality
Stainless steel, rust-proof, cold-hardened.

73056 101

73056 102

73056 103

Total length mm	73056 ...
130	101
150	102
250	103

73060 Multi-purpose scissors

Erdi

Design
One blade toothed, stainless steel cutting head, rust-proof, with spring and lock, impact-resistant plastic handles.

Applications
For cutting paper, cardboard, fabric, leather, fine sheet metal, plastic, carpet, twine, flowers, branches, etc.

73060 101

73060 102

Total length mm	Blades	73060 ...
190	straight	101
190	angled	102

73065 Multi-purpose scissors Combinox

Erdi

Design
Ergonomic handles with soft insert, one-hand locking, opening spring, integrated wire stripper for conductor cross-section 1.0 and 1.5 mm². Wire cutter, hanging eyelet.

Applications
For cutting paper, plastic, carpet, cardboard, wire made of soft materials (not steel), thin copper and aluminium sheets and much more.

Quality
All metal parts rust-proof stainless steel.

73065

Total length mm	73065 ...
190	201

Info *Erdi* Blade qualities

The service life of the blades is in direct proportion to the qualities of steel used and their finish. In particular, the high performance scissors with HSS blades meet the highest standards for service life and long-lasting cutting performance. The shear heads of quality HSS TiN are additionally coated with wear-reducing, extremely hard titanium nitride. Depending on the application and frequency of use, special stainless steel, stainless steel and quality steel are available as further blade materials.

Blade qualities	Hardness min. HRC	Service life
HSS-TiN	65	+++++
HSS	65	++++
Special stainless steel	61	+++
Stainless steel	59	++
Quality steel	56	+

The higher the quality of the steel of the cutting edge, the longer the service life of the scissors!

Blade quality Normal sheet metal shears	For maximum sheet thickness at tensile strength of: 400 N/mm²	600 N/mm²	800 N/mm²	1100 N/mm²
HSS	1.2 mm	1.0 mm	0.8 mm	0.6 mm
Stainless steel	1.2 mm	1.0 mm	0.8 mm	-
Quality steel	1.2 mm	1.0 mm	0.8 mm	-

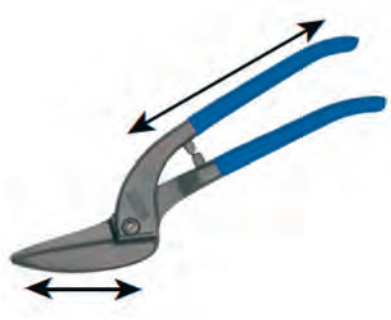
Blade quality Manual sheet metal shears with leverage	For maximum sheet thickness at tensile strength of: 400 N/mm²	600 N/mm²	800 N/mm²	1100 N/mm²
HSS-TiN	1.5 mm	1.2 mm	1.0 mm	0.8 mm
HSS	1.5 mm	1.2 mm	1.0 mm	0.8 mm
Special stainless steel	2.0 mm	1.5 mm	1.2 mm	
	1.5 mm	1.2 mm	1.0 mm	-
	1.2 mm	1.0 mm	0.8 mm	
Stainless steel	1.5 mm	1.2 mm	1.0 mm	-

***When cutting folds, the scissors can briefly cut up to 3 x 0.6 mm (1.8 mm).**

PLEASE NOTE! Manual sheet metal shears may only be used for cutting thin sheets of soft metals and steel. Not suitable for cutting round and square metal shapes such as wire.

1. The types

Standard sheet metal shears



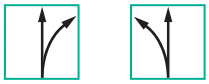
In the case of normal plate shears, the blade and handle are traditionally forged in one piece. The cutting force is derived from the ratio of blade length to handle length.

Manual sheet metal shears with leverage

Manual sheet metal shears with leverage consisting of a cutting head and handle. Both parts are articulated to provide additional leverage.

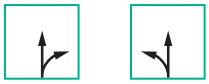
2. The models

Ideal shears (sheet metal shears)



These shears are aptly named. Because ideal shears are real all-rounders. You can use them to cut through a metal sheet (continuous cut) and to cut large and small contours or radii (shape cut). It does not matter whether your cutting work is on the sheet edge (trim cut), or in the middle of the panel. Of course, you can also do simple notching work with ideal shears.

Shape-cutting shears



Shape-cutting shears are best if you want to make fine, tight curved cuts at the edge of the sheet. The fine blade shape of these shears allows you to cut extremely tight shapes or curves with ease.

Straight-cut shears

Do you want to cut through a metal sheet in the middle and/or in the edge area? Then the straight-cut shears are the right tool for you. The long blades of these tools allow you to notch and cut even large sheets to length quickly, with little effort and yet precisely.

3. Left or right-hand cutting scissors. What is the difference?

Left-cut shears

Right-cut shears

Right-cut shears are ground and constructed to allow easy cutting of curves to the right. Curved cuts from right to left are best done with left-cut shears.

It is often believed that right-cut shears are for right-handed people and left-cut shears are for left-handed people. This is not true. On the contrary, if you are a right-hander cutting a radius with a pair of right-cut shears (see above, from left to right), cut outwards from your wrist. With the left-cut shears (radius from right to left), cut inwards from your wrist. This is much more ergonomic. Give it a try!

73070 Universal straight-cut shears

Erdi

MULTISNIP Longstyle D 22 A

Design

2-component grip sleeves. Long blade for extra-long cuts. Offset at the side for continuous cutting. Cutter head made of drop-forged stainless steel, tempered. Heavy wearing for a long service life through additional inductive hardening of the blades. The angled cutting head always guides the hand over the workpiece and minimises the risk of injury. Double leverage for high cutting performance with little effort.

Applications

Cuts aluminium/copper sheets up to 1.2 mm, standard sheet metal up to 1 mm, stainless steel sheets up to 0.8 mm and wire mesh up to a diameter of 1 mm.

Quality

Stainless steel shears.

73070

Total length mm	Blade length mm	73070	...
280	64		101

73075 Universal straight-cut shears

Erdi

MULTISNIP Master D 51 A
Design
Fibreglass-reinforced plastic handles with soft insert. Long blade for long cuts. Offset at the side for continuous cutting. Cutter head and all metal parts made from rust-proof stainless steel, tempered. The angled cutting head always guides the hand over the workpiece and minimises the risk of injury. One-handed locking, opening spring.

Applications
Cuts aluminium sheet up to 0.75 mm, copper/standard sheet metal up to 0.6 mm and stainless steel sheet metal up to 0.4 mm.
Quality
Stainless steel blades, rust-proof.

73075

Total length mm	Blade length mm	73075	...
235	50		101

73080 Ideal shears (short version 180 mm)

Erdi

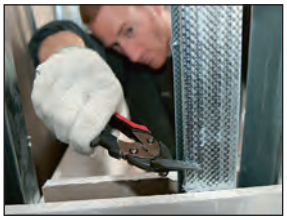
Design
Extremely manoeuvrable and compact ideal shears, double leverage. Metal handle with moulded grip covers and soft insert.
Quality
Special stainless steel blades (HRC 61).

73080 101
Design
Right-handed use.

73080 102
Design
Left-handed use.

73080 102

73080 101



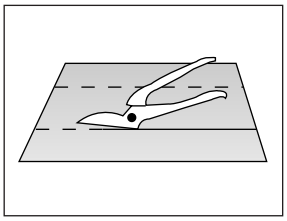
Total length mm	Blade length mm	Cutting thickness up to mm stainless steel/standard sheet metal	73080	...
180	20	1.0/1.2		101
180	20	1.0/1.2		102

73095 - 73096 Pelican shears

Erdi

Design
Right-handed use, drop-forged, open arms, inductively hardened.
Applications
For long, straight and continuous cuts.
Also suitable for rust-proof stainless steel sheets.

73096



Total length mm	Cutting thickness up to mm stainless steel/standard sheet metal	Quality steel 73095	...	Stainless steel 73096	...
300	1.0/1.2		101		101
350	1.0/1.2				102

73117 Shape-cutting shears DIN 6438

Design
Straight cut, **with lever action**.
Ergonomically shaped 2-component handles.
Applications
Cuts metal sheets up to 1.2 mm and stainless steel up to 0.7 mm.

Quality
Blades made from forged chromium-vanadium steel, toothed, inductively hardened.

73117

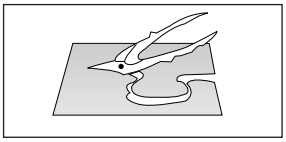
Total length mm	73117	...
250		201

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

73133 - 73134 Shape-cutting shears with leverage

Erdi

Design
Right-handed or left-handed use. Self-opening, with locking, heavy-duty design, drop forged stainless steel cutter head, double-hardened blades, fine toothed. Ergonomically shaped handle with slip guard, plastic-coated with soft insert.
Applications
For shape cuts (including very tight radii) and short, straight cuts, for cutting sheets up to 1.2 mm (rust-proof stainless steel sheets up to 1.0 mm).



73133

73134

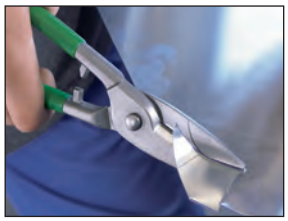
Total length mm	Right 73133	...	Left 73134	...
260		101		101

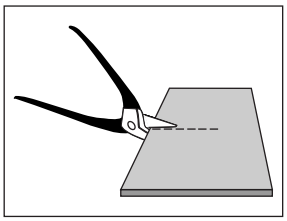
73099 - 73100 Berlin shears

Erdi

Design
Right-handed use, drop-forged, open arms, inductively hardened.
Use
For long, straight cuts and sheet metal strips; also suitable for rust-proof stainless steel sheets.

73100





Total length mm	Blade width up to max. mm	Cutting thickness up to mm stainless steel/steel/copper/aluminium	Quality steel 73099	...	Stainless steel 73100	...
250	50	0.8/1.0/1.2		101		201
300	50	0.8/1.0/1.2		102		202

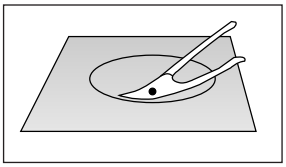
73103 - 73106 Punch snips

Erdi

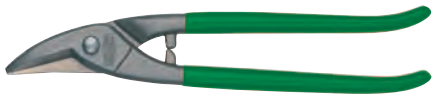
Design
Right-handed or left-handed use. Drop forged, open arms.
Applications
For short, straight cuts, hole cut-outs and shape cuts.

73103 - 73104
Quality
Quality steel.

73105 - 73106
Quality
Stainless steel.

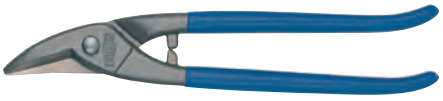


73103



73104

73105



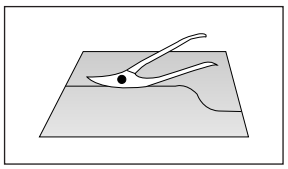
73106

Total length mm	Quality steel right 73103	...	Quality steel left 73104	...	Stainless steel right 73105	...	Stainless steel left 73106	...
250		101		101		101		
275						102		102
300						103		103

73110 - 73113 Sheet metal shears

Erdi

Design
Right-handed or left-handed use, drop forged, open arms.
Applications
As hole, shape and straight cut shears.



73110 - 73111
Quality
Quality steel.

73112 - 73113
Applications
For rust-proof stainless steel sheets.
Quality
Stainless steel, inductively hardened.

73110

73111

73112

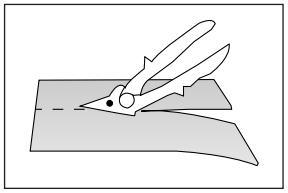
73113

Total length mm	Quality steel right 73110	...	Quality steel left 73111	...	Stainless steel right 73112	...	Stainless steel left 73113	...
260						101		101
280		102		102		102		102

73130 - 73131 Straight-cut shears with leverage

Erdi

Design
Right-handed or left-handed use. Self-opening, with locking, heavy-duty design, drop-forged cutter head, double-hardened blades, fine toothed. Ergonomically shaped handle with slip guard, plastic-coated with soft insert.
Applications
For long, straight cuts, for cutting sheet metal up to 1.2 mm (rust-proof stainless steel sheets up to 1.0 mm).
Quality
Cutter head made from stainless steel.



73130

73131

Total length mm	right 73130	...	left 73131	...
260		101		101

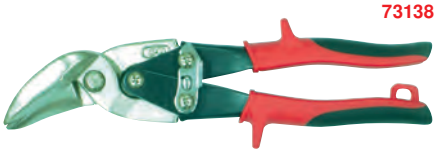
73138 - 73139 Sheet metal shears with lever action

HHW

Design
Ergonomically shaped 2-component handles. Self-opening arms, with locking.
Applications
Cuts metal sheets up to 1.2 mm and stainless steel up to 0.7 mm. For shape cuts and short, straight cuts.
Quality
Blades made from forged chromium-vanadium steel, toothed, inductively hardened.

73139

73138



Total length mm	right 73139	...	left 73138	...
240		101		101

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73140 - 73145 Sheet metal shears with lever action

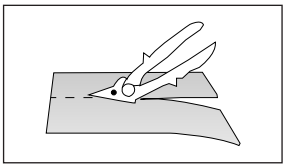
Erdi

Design
For right- or left-handed use, drop forged, open arms.
Applications
As hole, shape and straight cut shears.
Quality
Cutter head made from stainless steel.

73140 - 73141
Design
Lightweight, handy design, made of drop-forged stainless steel, double-hardened blades, fine toothed, pressed steel handles, plastic handle sleeves with slip guard and soft inlay.
Applications
For cutting sheet metal up to 1.2 mm in thickness (rust-proof stainless steel sheets up to 1.0 mm).

73142 - 73143
Design
Self-opening arms, with locking, robust design, cutter head made of drop-forged stainless steel. Double-hardened blades, fine toothed, pressed steel handles with slip guard and soft inlay, PVC-coated.
Applications
For cutting sheet metal up to 1.2 mm in thickness (rust-proof stainless steel sheets up to 1.0 mm).

73144 - 73145
Design
Like art. no. 73142-143, but **with steel handles and slip guard.** Robust, for industrial use.
Applications
For cutting sheet metal up to 2.0 mm in thickness (rust-proof stainless steel sheets up to 1.2 mm).



73140

73141

73142

73143

73144

73145

	right		left		right		left		right		left	
Total length mm	73140	...	73141	...	73142	...	73143	...	73144	...	73145	...
230		101		101								
240										101		101
260						101		101				

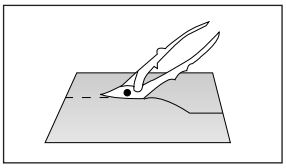
73146 - 73148 High-performance sheet metal shears with lever action

Erdi

Design
For right-handed use, drop forged, open arms.
Use
As hole, shape and straight cut shears.

73146
Design
Drop-forged shear head, handles with soft inlay and slip guard. **With soldered HSS blades**, for heavy-duty use, up to 15x longer service life

73148
Design
Drop-forged shear head, **with soldered HSS blades with titanium nitride (TiN)** coating. Hardness at least 2300 HV, improved sliding properties through hard and smooth surfaces, reduced tendency to form built-up edges, multiple improvements in service life compared to HSS.
Use
Specifically designed to cut hard stainless steels. For straight, continuous and shaped cuts.



73146

73148

	HSS right		HSS/TiN right	
Total length mm	73146	...	73148	...
260		101		101

Workshop equipment

73150 - 73151 Sheet metal shears

Erdi

Design

For right- or left-handed use. Drop forged stainless steel. The optimised tuning of the leverage and blade geometry further reduces the effort by 25%. Comfortable, ergonomically designed handle with soft insert. Cuts stainless steel sheets up to 1.0 mm, steel sheets up to 1.2 mm, folded sheets up to 1.8 mm, aluminium/copper sheets up to 1.8 mm, wire mesh up to wire diameter 1 mm.

Applications

For straight, continuous and shaped cuts.

73150

73151

Total length mm	Right 73150 ...	Left 73151 ...
260	101	101

73152 Sheet metal shears

Erdi

Design

- With lever action

- Optimised design

The reduced grip opening angle ensures better handling for the same length of cut. And thanks to the more compact cutting head with partially recessed head fitting, curved cuts are even easier and more precise. The spring is maintenance-free.

- Extremely robust joint

The joint with sintered steel insert makes the shears especially smooth and resistant to wear. The bolted joint with a stud bolt is very robust.

- Centric locking bolt

The locking bolt can be operated easily and without grasping by both right- and left-handed users due to its central location on the upper handle.

- Double leverage

The double leverage results in a noticeable reduction in the amount of force applied. At the same time, cutting performance is significantly increased as a result.

Applications

For continuous straight and shaped cuts.

Quality

Special stainless steel blade quality.

73152 102

Total length mm	Right 73152 ...	Left 73152 ...
230	101	102

73161 Mitre snips

LÖWE

Design

With two 45° stops and markings for 15°, 30° and 90°.

Applications

Wherever skirting and profiles made of plastic, rubber or wood need to be mitred. All parts are easily replaceable.

73161 101

	73161 ...
Mitre snips assembly	101
Replacement blade	102
Replacement pad	103

73161 102

73161 103

73168 Band shears

Design

Forged from a single piece. Inductively hardened blades (58-61 HRC). Handles coated in plastic.

Applications

For steel packaging straps up to 0.8 x 28 mm.

73168

Total length mm	73168 ...
305	101

73169 Safety steel band shears

ATORN®

Design

With lever action.

Hold-down clamp prevents the packaging strap from springing up. Comfortable grip covers with slip guard.

Applications

For cutting steel and plastic strapping band.

73169 101

73169 102

Total length mm	For tape width up to mm	For tape thickness up to mm	73169 ...
250	25	0.5	101
600	50	1.2	102

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73170 Safety steel band shears

Erdi

Design
With lever action.
Cutter head made from precision casting, tempered. Inductively hardened blades. Small size for one-handed operation. Flat lower part can easily be pushed under the stretched steel band. **2K handle with slip guard.**
Applications
For hardened steel packaging straps up to 32 mm in width and 1.0 mm in thickness.

Quality
Special stainless steel.

Note:
The restraining device prevents the sudden lifting of steel band ends during continuous cutting – greatly reduces the risk of injury.

73170

Total length mm	73170 ...
260	101

73167 Crate pliers

ATORN®

Design
- Pushing the arms together raises the spring out of the stop cam groove
- With a bolt-shutter, the jaws pull the bolt from the stop cam groove when the arms are pressed together
- Optimised leverage
- Ergonomically shaped 2-component handle

Advantage:
- Time saving
- Increased safety at work
- No risk of injury when using these pliers

Applications
For easy opening of crates.
Quality
Chrome-plated surface and material handle made of plastic.

73167

Total length mm	73167 ...
220	102

73270 - 73275 Safety scraper

73270
Design
With safety cover and slip-resistant handle.
Applications
For cleaning smooth surfaces.

73275
Spare blades.
Pack = 5 units.

73270

73275

Blade width mm	Scraper 73270 ...	Spare blades 73275 ...
88	101	101

73280 Blade scrapers

martor

73280 101
Scrapex Argentax
Design
With large, rounded handle and protective cap over the blade.
Applications
For removing residues on all smooth surfaces.

73280 201
Scrapex Cleany
Design
Made of plastic with retractable blade.
Applications
For cleaning all smooth surfaces.

73280 102
Reinforced razor blade
Replacement blades for Scrapex Argentax and Cleany.

73280 101

73280 201

73280 102

	Blade width mm	73280 ...
Argentax blade scrapers	39	101
Cleany blade scrapers	39	201
Replacement blades, 10 units	39	102

Scraper

73300 - 73302 Triangular scraper

Design
With wooden handle and polished work surface.
Quality
Tool steel.

73300
Hollow-ground scraper
Complies with DIN 8350 C.

73302
Solid scraper
Complies with DIN 8350 B.

Hollow-ground scraper		
Blade length mm	73300	...
100		101
150		102
200		103
250		104
300		105

Solid scraper		
Blade length mm	73302	...
100		101
150		102
200		103

73300

73302

73305 Flat scraper according to DIN 8350 A

Design
With wooden handle and polished work surface.

Quality
Tool steel.

73305

Blade length mm	Blade width mm	73305	...
100	20		101
150	20		102
200	20		103
250	25		104
300	25		105

73306 Flat scrapers

HAZET

Design
Square blade with plastic handle, black.

Quality
Special steel, galvanised.

73306 101

73306 102

Blade length mm	Blade width mm	73306	...
150	23		101
55	23		102

73308 - 73310 Cemented carbide flat scraper

73308 201-203
Design
- Carbide flat scraper
- Alloyed tool steel
- With replaceable, four-edged cemented carbide indexable insert
- Painted shaft
- Wooden handle

73310 201-203
Design
- Spare cemented carbide inserts

73308

NEW

73310

Blade length mm	Blade width mm	Thickness mm	Flat scraper 73308	...	Spare cemented carbide inserts 73310	...
300	20	5		201		201
330	25	5		202		202
330	30	5		203		203

73311 Knife scraper set

Design
Practical storage system with replaceable blades. Easy blade change by loosening the knurled thumb screw on the scraper handle chuck.
Scope of delivery:
1 x 2K scraper handle, 1 x professional universal knife, 5 x trapezoidal blades, 5 x 12 mm wide/straight blades, 5 x 16 mm wide/straight blades, 5 x 20 mm wide/straight blades, 5 x 16 mm wide/53° angled blades.

Applications
Ideal for removing stickers, sealing and adhesive residues, e.g. on windscreens.

73311

Content	73311	...
27 pieces		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

73312 Universal scraper

Design
With easily replaceable blade.

Applications
For removing sealing and adhesive residues, film, labels.

	73312 ...
Scraper including 10 replacement blades	201
10 replacement blades, 12 mm wide	202

73312 201

73312 202

73315 Precision mechanical scraper

BAHCO

Quality
Vanadium extra steel.

Design
Finely polished, encased with hollow blade up to the top, plastic handle with hand guard.

Blade length mm	Total length mm	73315 ...
80	165	101

73315

73316 Fine scraper

Design
Triple-edge, hollow-profile scraper blade, with black plastic protective cap and black plastic handle.

Blade length mm	Blade width mm	Weight approx. g	73316 ...
25	8	40	101

73316

73317 - 73318 ERGO pocket paint scraper

BAHCO

73317 101
Design
Ergonomic pocket paint scraper. Two-component handle for comfort while working. Narrow front section with thumb recess for increased precision. Complete with triangular blade and holster.
Applications
Specially designed for precision work, e.g. on windows or hard-to-reach areas. Cemented carbide blades allow the scraping of paint, glue, lacquer and rust on any surface, e.g. wood, metal and concrete.

Note:
For replacement triangular blade, see art. no. 73318 104.

73317 102
Design
Ergonomic universal paint scraper. Two-component handle for comfort while working. Narrow blade holder for better accessibility in hard-to-reach areas.
Applications
Cemented carbide blades allow the scraping of paint, glue, lacquer and rust on any surface, e.g. wood, metal and concrete.

Note:
For straight replacement blade, see art. no. 73318 105.

73318 104
Triangular blade
Design
The Coromat cemented carbide spare blade prevents scratches or scoring and ensures a service life up to 50 times longer.
Applications
For pocket paint scraper, art. no. 73317 101. Can be used on three sides. For removing paint, lacquer and rust on the respective surface.

73318 105
Straight blade
Design
The Coromat cemented carbide spare blade prevents scratches or scoring and ensures a service life up to 50 times longer.
Applications
For universal paint scraper, art. no. 73317 102. Can be used on both sides. For removing paint, lacquer and rust on the respective surface.

73317 101

73317 102

73318 104

73318 105

	Working width mm	Scraper 73317 ...	Replacement blade 73318 ...
Scraper 625	25	101	
Scraper 650	50	102	
Triangular blade	25		104
Straight blade	50		105

73329 Deburring tool for external thread/rod material

Design
- Powerful deburring tool with drive E 6.3
- For deburring damaged screws, stud bolts, threaded rods and rod-shaped parts with a diameter of 3-19 mm

Applications
Suitable for deburring steel, stainless steel, aluminium, copper, brass, wood, plastic.

NEW

73329 101

Type	73329 ...
Uni reamer for threaded rods	101

73330 Triangular bearing scraper

Design
With wooden handle and polished work surface.
Quality
Tool steel.

73330

Blade length mm	Spoon length mm	73330 ...
200	85	101

73340 Hook tool set

Applications
Ideal for removing and inserting O-rings and seals.

	Contents
1	hook tool **straight,**
1	hook tool **S-shaped,**
1	hook tool **90°,**
1	hook tool **round.**

73340

Contents	Version	73340 ...
4-piece	in bag	101

73405 Replacement blades B, shank diameter 2.6 mm

Applications
For art. no. 73400-73402.

Note:
For plastic handles, see art. no. 73469.
For spare blade holder B, see art. no. 73402.

73405 101
Shape B 10, HSS
For normal deburring work on steel, aluminium and plastic.

73405 102
Type B 10 L, HSS
For left-handed use.

73405 103
Type B 10, TiN-coated
To extend the service life.

73405 104
Type B 10 plus
For stainless steel.

73405 105
Type B 10 C, solid carbide
For stainless steel and plastics.

73405 106
Shape B 20, HSS
For normal deburring work on brass and cast iron. Right- and left-hand cutting.

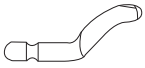
73405 108
Shape B 30, HSS
For simultaneous removal of inside and outside burrs.

73405 109
Shape B 60, HSS
For cross-drilled holes in poorly accessible places.

73405 101

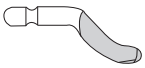
73405 105

73405 102

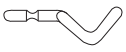


73405 106

73405 103



73405 108



73405 104

73405 109

Type	73405 ...
B 10 HSS	10 pcs. 101
B 10 L, HSS left	10 pcs. 102
B 10 TiN	10 pcs. 103
B 10 plus	10 pcs. 104
B 10 C solid carbide	10 pcs. 105
B 20 HSS	10 pcs. 106
B 30 HSS	10 pcs. 108
B 60 HSS	10 pcs. 109

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

73400 - 73402 Deburring tools

Applications
For precise deburring work on drilled holes as well as on straight, concave and convex edges.

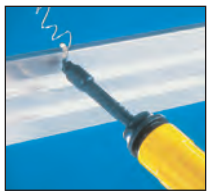
Note:
For replacement blades, see art. no. 73405.

73400
Deburring tool set B
Set contents:
Universal plastic handle EL 1000 with adjustable blade holder B for blades with shank diameter 2.6 mm. Including rotating HSS blades B 10 and B 20.

73402
Blade holder B, adjustable length. For all rotating blades, shank diameter 2.6 mm.

73400

73402



Type	Length mm	Deburring set 73400 ...	Blade holder B 73402 ...
B set	-	101	
Blade holder B	131		101

73410 Deburring tool set E

Set contents:
Universal plastic handle EL 1000 with adjustable blade holder E for blades with shank diameter 3.2 mm. Including rotating HSS blades E 100, E 200 and E 300.

Applications
For medium and heavy-duty deburring work on drilled holes as well as straight, concave and convex edges.

Note:
For replacement blades, see art. no. 73420.
For spare blade holder E, see art. no. 73417.

73410

Type	73410 ...
E set	101

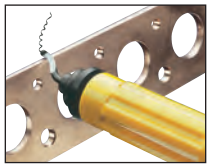
73413 Compact set EL 6000

Set contents:
Compact handle EL 2100 with wear-resistant steel blade guide for shank diameter 3.2 mm. Including rotating HSS blades E 100, E 200 and E 300.

Applications
For all deburring work on the workpiece surface, where no length-adjustable blade holder is required.

Note:
For replacement blades, see art. no.73420.
For plastic handle, see art. no. 73469.

73413



Type	73413 ...
EL 6000 set	101

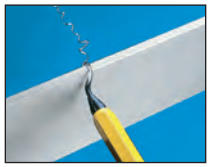
73415 Quick deburring tool RB 1000

Design
Aluminium handle with replaceable HSS blade E 100.

Applications
For universal deburring work.

Note:
For replacement blades, see art. no. 73420.

73415



Type	73415 ...
RB 1000 set	101

73417 Blade holder E

Applications
For all rotating blades, shank diameter 3.2 mm.

73417

Type	Length mm	73417 ...
Blade holder E	131	101

73490 Deburring tool handle

Design
SOFTGRIP handle with twin blade storage for all blades with 2.6-mm and 3.2-mm shank.

73490

Type	For blades art. no.	73490 ...
SG 3000	73405, 73420, 73476, 73478, 73479	201

73420 Replacement blades E, shank diameter 3.2 mm

Applications
For art. no. 73410 to 73417.

Note:
For plastic handles, see art. no. 73469.
For spare blade holder E, see art. no. 73417.

73420 101
Type E 100, HSS
For heavy-duty deburring work on steel, aluminium and plastic.

73420 102
Type E 100 L, HSS
For left-handed use.

73420 103
Type E 100, TiN-coated
To extend the service life.

73420 104
Type E 100 plus
Particularly suitable for stainless steels.

73420 105
Type E 100 C
With cemented carbide blade for stainless steel and plastic.

73420 107
Type E 101
With thick shank and thin blade for steel, aluminium and plastic.

73420 108
Type E 101 L
For left-handed use.

73420 109
Type E 101, TiN-coated
For extended service life.

73420 110
Type E 150, HSS
With thick shank and thin cutting edge for small holes from a diameter of 1.2 mm.

73420 111
Type E 200, HSS
For heavy-duty deburring work on brass and cast iron. Right- and left-hand cutting.

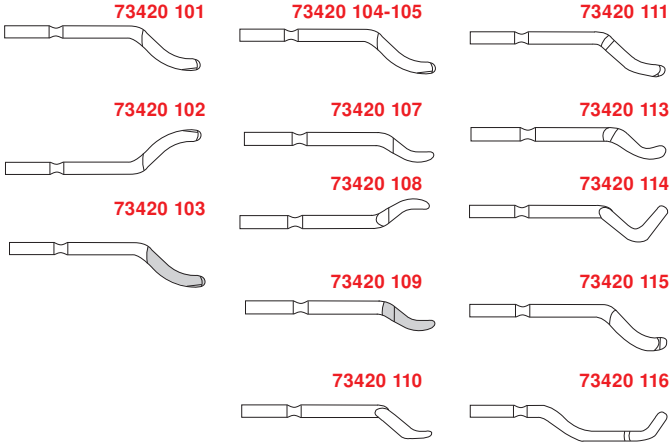
73420 113
Type E 202, HSS
With thick shank and thin cutting edge for brass and cast iron.

73420 114
Type E 300, HSS
For simultaneous removal of large internal and external burrs on holes in sheet metal and tubes.

73420 115
Type E 350, HSS
For large burrs on straight edges.

73420 116
Type E 600, HSS
For large burrs on cross-drilled holes.

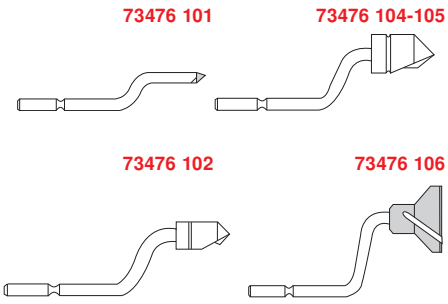
Type		73420	...
E 100, HSS	10 pcs.		101
E 100 L HSS, left	10 pcs.		102
E 100, TiN	10 pcs.		103
E 100 plus	10 pcs.		104
E 100C	10 pcs.		105
E 101	10 pcs.		107
E 101 L, left	10 pcs.		108
E 101 TiN	10 pcs.		109
E 150, HSS	10 pcs.		110
E 200, HSS	10 pcs.		111
E 202, HSS	10 pcs.		113
E 300, HSS	10 pcs.		114
E 350, HSS	10 pcs.		115
E 600, HSS	10 pcs.		116



73476 Deburring tools

Applications
For crank countersinks and chamfers.

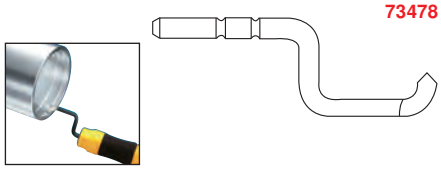
Type	Diameter mm	73476	...
BC 3200 for drilled holes	3.2		101
BC 6300 for drilled holes	6.3		102
BC 1040 for drilled holes	10.4		104
BC 1650 for drilled holes	16.5		105
EX 2000 for external diameter	18.0		106



73478 Recess deburring blade type BO 1000

Applications
For deburring grooves for O-rings on inner diameters.

Type	73478	...
BO 1000		102



73479 Deburring blade type BC 1000

Applications
For cleaning and deburring internal threads with a diameter of at least 9 mm, all pitches. For all 55° and 60° thread flanks.

Type	73479	...
BC 1000		102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

73425 - 73430 Countersink deburring tool set EL 1300

Applications
For deburring and chamfering drilled holes with a diameter up to 30 mm.

73425
Countersink deburring tool EL1300
Set contents:
Universal plastic handle EL 1000 with adjustable blade holder C and HSS countersunk head C 20.

73428
Spare blade holder C
For all type C countersink tools, with M7 external thread.

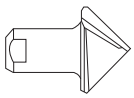
73430
Replacement type C HSS countersinks, 90°.

73425

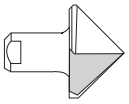
73428

73430 101

73430 102



73430 103



Type	Length mm	Diameter mm	Deburring set 73425 ...	Blade holder C 73428 ...	Countersink C 73430 ...
Countersink deburring tool EL 1300	-	-	101		
Blade holder C	131	-		101	
Countersink C 12	-	12			101
Countersink C 20	-	20			102
Countersink C 30	-	30			103

73435 - 73436 Mini deburring tool

Design
With Softgrip holder.

73435
Mini set FT 3000
3 pieces.
Set contents.
1 crank countersink,
1 triangular scraper,
1 x universal deburring tool.

73436 101
Crank countersink
Applications
For drilled holes with a diameter of up to 3.2 mm.

73436 102
Triangular scraper
Applications
For fine and difficult work.

73436 103
Universal deburring tool
Applications
For drilled holes, edges and contours.

73435

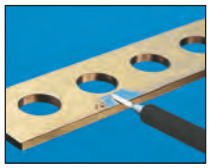
Type	73435 ...
Set FT 3000	101

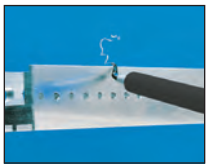
73436 101

73436 102

73436 103

Type	73436 ...
Crank countersink	101
Triangular scraper	102
Universal deburring tool	103





73440 - 73446 Groove deburring tool set EL 1400

Applications
For deburring longitudinal slots, slots and keyways in shafts and hubs.

73440
Groove deburring tool EL 1400
Set contents:
Universal plastic handle EL 1000 with adjustable blade holder N and 1 HSS blade N 80 K.

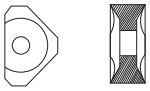
73446
Replacement HSS blades type N.

73440

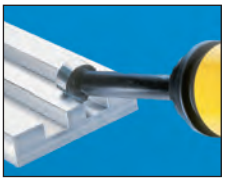
73446 101

73446 102

73446 103



Type	Groove width mm	Deburring set 73440 ...	Blades N 73446 ...
Groove deburring tool EL 1400	-	101	
N 70 K	1.2–8		101
N 80 K	2.4–11		102
N 90 K	3.0–15		103



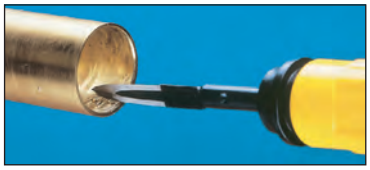
73450 - 73455 Maxi triangular scraper set EL 1601

Applications
For local material removal and deburring more difficult areas.

73450
Maxi triangular scraper set EL 1601
Set contents:
Universal plastic handle EL 1000 with adjustable blade holder T and 1 HSS triangular scraper blade T 60 with external thread.

73453
Spare blade holder T
with internal thread.

73455
Spare triangular scraper blades type T, HSS
with external thread.

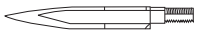


73450

73453

73455 101

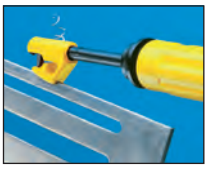
73455 102



Type	Length mm	Size mm	Set 73450	...	Holder 73453	...	Blades 73455	...
EL 1601	-	-		101				
Blade holder T	112	-				101		
T 40, HSS	-	5 x 40						101
T 60, HSS	-	7 x 60						102

73460 - 73461 Edge deburring tool set EL 1700

Applications
For 45° chamfers on workpiece edges.

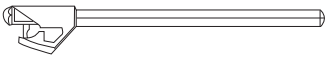


	Set contents for 73460
1	**Universal plastic handle** EL 100 with adjustable blade holder EL 0750,
1	**Adjusting screw** for chamfer size, guide shoe is firmly attached to the blade holder,
1	**Blade** L-1.

73460

73461
Spare blade holder EL 0750.

73461



Type	Deburring set 73460	...	Blade holder 73461	...
Deburring set EL 1700		101		
Blade holder EL 0750				101

73463 - 73464 Double deburring tool DB

73463
Design
Plastic handle with hand guard and 2 HSS round cutting blades N 80.
Applications
For simultaneous two-sided deburring of narrow bars up to 12 mm, sheet metal parts and edges. Suitable for almost any material. The round cutting blades can be used to the full extent of both edges by turning.

73464 102
For stainless steel.

73463

Type	Pack = pieces	Deburring tool 73463	...	Round cutting blade 73464	...
Deburring tool DB	-		101		
Spare round cutting blade N 80	10				101
Spare round cutting blade N 80 M 42	10				102

73464 101

73464 102

73465 Deburring tool set

Applications
For precise, safe and fast deburring of drilled holes, straight, concave and convex edges and metal sheets.

73465

	Set contents
1	**Universal plastic handle** EL 1000,
1	**Type B blade holder** with
1	**HSS blade B 10** for normal deburring work, for steel, aluminium and plastic
1	**HSS blade B 20** for regular deburring work, for brass and cast iron
1	**Type E blade holder** with
1	**HSS blade E 100** for heavy-duty deburring work, for steel, aluminium and plastic
1	**HSS blade E 200** for heavy-duty deburring work, for brass and cast iron
1	**HSS blade E 300** for heavy-duty deburring work, for drilling holes in sheet metal and tubes
1	**Type N blade holder** with
1	**HSS blade,** for keyway width 2.4–11 mm
1	**Type C blade holder** with
1	**HSS countersunk head C 20,** 20 mm diameter
1	**Type D blade holder** with
2	**HSS triangular scrapers** 3.2 x 50 mm
1	**D 66 blade** for inside and cross-drilled holes
1	**D 50 blade** for fine deburring work, with protective cap
1	**Double deburring tool** DB 2000 with
2	**HSS round cutting blades** for narrow workpieces and metal sheets
	With spare screws and T-handle wrench

Design	73465 ...
in plastic box	101

73466 Deburring tool sets

73466 101
Deburring tool set E.
For medium and heavy-duty deburring work on drilled holes as well as straight, concave and convex edges.

	Set contents 73466 101
1	**Universal plastic handle** EL 1000,
1	**Blade holder E** for blades with shank diameter 3.2 mm,
	3 HSS blades, for difficult deburring work:
1	**E 100 blade** for steel, aluminium and plastic,
1	**E 200 blade** for brass and cast iron,
1	**E 300 blade** for drilled holes in sheet metal and pipes,
10 each of	Additional E 100 and E 200 blades,
10	**E 300 blades** for large burrs on straight edges.

Note:
For replacement blades E (shank diameter 3.2 mm), see art. no. 73420.

73466 102
Deburring tool set B.
For precise deburring work on drilled holes as well as on straight, concave and convex edges.

	Set contents 73466 102
1	**Universal plastic handle** EL 1000,
1	**Blade holder B** for blades with shank diameter 2.6 mm,
	2 HSS blades, for normal deburring work:
1	**B 10 blade** for steel, aluminium and plastic,
1	**B 20 blade** for brass and cast iron,
10 each of	additional B 10 and B 20 blades.

Note:
For replacement blades B (shank diameter 2.6 mm), see art. no. 73405.

73466 101

73466 102

	Content	Design	73466 ...
Deburring tool set E	35 piece	in plastic box	101
Deburring tool set B	24 piece	in plastic box	102

73456 Deburring tool set NB1402GT

Applications
Starter set for ambitious hobby craftsmen and mechanics. Ideal for deburring and countersinking aluminium.

73456

NEW

	Set contents
1	EL-YT1200
1	NB1000GT handle
1	GT-E100 blade
1	GT-E200 blade
1	GT-E300 blade
1	GT-E100S blade
1	GT-BC1040 countersink

Type	Contents	73456 ...
NB1402GT	7-piece	101

73468 Deburring tool set EL-7000

	Set contents
1	EL-1200 **E set**
1	EL-1100 **B set**
1	EL-1300 **Countersink deburring tool**
1	EL-1400 **Groove deburring tool**
1	EL-1501 **Internal deburring tool**
1	EL-1601 **Maxi triangular scraper**
1	EL-RB1000 **Rapid deburring tool**

Type	Contents	Version	73468 ...
EL-7000	7-piece	in case	101

73468

73467 Deburring multitool 4 pcs.

Design
- Practical and handy as a pocket knife
- Contains the four most popular deburring tools
- Light and space-saving in your pocket
- All blades are replaceable
- Central lock for easy unlocking and securing of all tools

- Our multi-tool is equipped with:
1) **GT-E100**: HSS blade for heavy-duty deburring work on steel, aluminium and plastic
2) **GT-B20:** HSS blade for normal deburring work on brass and cast iron
3) **GT-D50:** HSS triangular scraper 3.2 x 50 mm for fine deburring work
4) **GT-BC1040:** Patented crank countersink made of HSS steel for drilled holes up to a diameter of 10.4 mm

	73467 ...
Deburring multitool	101

73467

73469 Plastic handles

Design
Length 112 mm, diameter 25 mm. Blade holder in the qhollow handle.

73469 101
Type EL 1000 GT
Applications
For blade holders B, C, D, E, L, N and T.

73469 102
Type EL 2100 GT compact handle
Applications
For direct attachment of rotating blades with 3.2 mm diameter (art. no. 73420) and crank arm blades art. no. 73476 and 73478 102.

73469 103
Type NB 1000 GT
Applications
Deburring tool holder for all blades with a blade shank diameter of 3.2 mm.

Type	73469 ...
EL 1000 GT	101
EL 2100 GT	102
NB 1000 GT	103 NEW

73469 101

73469 102

NEW

73469 103

73350 Ceramic deburring tool

73350 101
KERAMICUT CR 2000
Design
Long service life thanks to wear-resistant ceramic blade (thickness 1.7 mm). Blunt blade angle, so no risk of injury.

Applications
For damage-free deburring without rejection of plastic parts and NF metals such as aluminium. Precision work on straight, concave and convex edges, as well as drilled holes.

73350 102
Spare ceramic blade

	73350 ...
Ceramic deburring tool	101
Spare ceramic blade	102

73350

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73352 Deburring tool set NB1401GT

Applications
Ideal for scraping and cleaning surfaces, as well as deburring work on edges and pipe or workpiece sections made from aluminium, copper or plastic.

73352

	Set contents
1	NB1000GT
1	CR1500GT
1	GT-E100 blade
1	GT-E100TIN blade
1	GT-E350 blade
1	GT-E100S blade
1	GT-E150 blade

Type	Contents	73352 ...
NB1401GT	7-piece	101

73480 Triangular scraper SC 8000

73480 201
Design
Triangular scraper SC 8000 with 4 x 80 mm double-sided, hollow-ground scraper blade. The projection of the blade is adjustable.

73480 202
Spare triangular scraper blade type T 80, double-sided.

73480 201

73480 202

Type	73480 ...
SC 8000	201
Blade T 80/4x80	202

73481 - 73483 Reverse deburring tool

Applications
For deburring the front and back sides of drilled holes. By pressing on the shank head, the deburring blade can be placed in a vertical position for inserting into the drilled hole.

73481
EL-RC3000 DRILLING patent protected.
Design
3-piece. 1 reverse deburring tool each for diameters 3-5.5/5-10/10-22 mm. Hexagon socket screwdriver for blade changes included in the shank. In storage box.

73482 101
Design
Swivelling HSS blade BR1000 for diameters 3-5.5 mm. With retractable blade and hex key to change the blade.

73482 102
Design
Swivelling HSS blade BR2000 for diameters 5.5-10 mm. With retractable blade and hex key to change the blade.

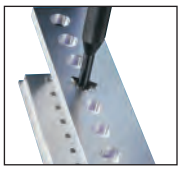
73482 103
Design
Swivelling HSS blade BR2200 for diameters 10-22 mm. With retractable blade and hex key to change the blade.

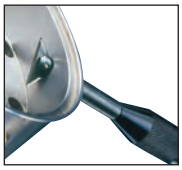
73483
Replacement blades for reverse deburring tool art. no. 73481-73482.

73481

73482

	Set		Individual		Replacement blades	
Application range diameter mm	73481	...	73482	...	73483	...
3–22		101				
3–5.5				101		101
5.5–10				102		102
10–22				103		103





73610 - 73612 Hand lever sheet metal shears

Design
Robust, stable construction made from quality steel. Levers with strong springs make cutting easier. The high-quality, durable cutting blades are hardened and tempered.
Applications
For sheet metal plates and round steel bars.

Note:
Long cutting blades 300, 400 or 500 mm and circular blade deliverable on request.

73611
Replacement upper blade. 73611

73612
Replacement lower blade. 73612

73610

Model	Blade length mm	plates	Cutting performance round bars	mm metal sheets	weight kg	Metal shears 73610	...	Upper blade 73611	...	Lower blade 73612	...
2BR4	120	4	11	50 x 4	8		201		201		201
2BR5	150	5	11	60 x 5	10		202		202		202
2BR6	180	6	13	70 x 6	18		203		203		203

73613 Table sheet metal shears

metallkraft
Metallbearbeitungsmaschinen

Design
- Heavy-duty manual table sheet metal shears
- Extremely stable and heavy cast iron construction
- Open design, large cast iron workbench
- The standard retainer ensures good cutting results
- Detachable mitre stop on workbench
- Adjustable side stop via hand crank

Applications
For sheet metal panels of up to 1.5 mm and continuous lengths up to a width of 1250 mm.

NEW

73613

Type	Width of cut max. mm	Max. sheet thickness mm tensile strength 400 N/mm²	Limit stop range mm	Workbench (L x W) mm	Dimensions (L x W x H) mm	Weight approx. kg	73613	...
BSS 1020 E	1050	1.50	0–600	1280 x 600	2000 x 850 x 1500	435		101

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74000 - 74001 Leather wad punch

Design
Special steel, die-forged, with plain pipe, stove-enamelled.

Applications
For punching holes in cardboard, leather, plastic, sealant material, etc.

74000 301

74000 302

74000 303

	Set contents 74000 301
1	**Leather wad punch** 2 / 4 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 22 / 24 / 26 / 28 / 30 mm Ø.

	Set contents 74000 302
1	**Leather wad punch** 3 / 5 / 6 / 8 / 10 / 12 / 13 / 14 / 16 / 19 / 22 / 25 mm Ø.

	Set contents 74000 303
1	**Leather wad punch** 3 / 6 / 8 / 10 / 12 / 16 / 20 / 25 mm Ø.

74001

Set contents	Design	74000 ...
15 pieces	in wooden case	301
12 pieces	in synthetic leather bag	302
8 pieces	in plastic bag	303

Individual Hole diameter mm	74001 ...
2	102
3	103
4	104
5	105
6	106
7	107
8	108
9	109
10	110
11	111
12	112
13	113
14	114
15	115
16	116
17	117
18	118

Individual Hole diameter mm	74001 ...
19	119
20	120
21	121
22	122
23	123
24	124
25	125
26	126
27	127
28	128
29	129
30	130
31	131
32	132
33	133
34	134
35	135

Individual Hole diameter mm	74001 ...
36	136
37	137
38	138
39	139
40	140
42	142
44	144
45	145
46	146
48	148
50	150
52	152
60	156
65	157
70	158

74010 Revolving punch pliers

Design
With lock, made from sheet steel, 6 pipes 2–5 mm Ø.

Applications
For punching holes in cardboard, leather, fabric, rubber, etc.

74010

Length mm	74010 ...
240	101

Workshop equipment

74040 Punch sets

Design
Heavy-duty impact holder with easily replaceable inserts. Attach two inserts in the size required to precision-manufacture a sealing ring in just one step.

Applications
Suitable for use as a punch and for producing sealing rings made of leather, rubber, cardboard, felt, plastic, cork, etc.
Quality
Special steel.

74040 101

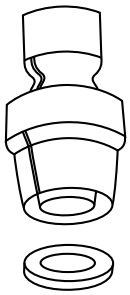
74040 102

74040 103

	Set contents 74040 101
1	**Impact holder,**
10	**Inserts** 3 / 4 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 mm.

	Set contents 74040 102
1	**Impact holder,**
20	**Inserts** 3 / 4 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 22 / 24 / 26 / 28 / 30 / 32 / 34 / 36 / 38 / 40 mm.

	Set contents 74040 103
1	**Circular cutter,**
2	**Impact holder,**
30	**Inserts** 3 / 4 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 22 / 24 / 26 / 28 / 30 / 32 / 34 / 36 / 38 / 40 / 42 / 44 / 46 / 48 / 50 / 52 / 54 / 56 / 58 / 60 mm.



Set contents	Design	74040 ...
11 pieces	in metal box	101
21 pieces	in metal box	102
33 pieces	in metal box	103

74120 - 74121 Ring cutters and seal cutters

74120
Design
Complete with cutting base, centring pin, blade and cutting circle. Cuts everything from 300 mm outer Ø up to 25 mm inner Ø.
Applications
For the efficient production of sealing rings from any material that can be cut, such as rubber, plastic, cardboard, leather, etc. up to approx. 6 mm thickness to suit your chosen material.

74120

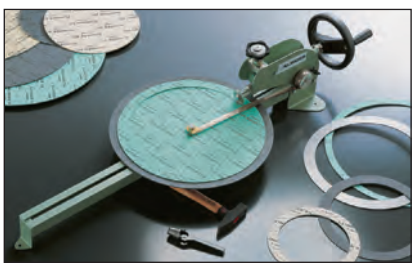
74121

Weight approx. kg	74120 ...	Spare blade 74121 ...
1.5	101	102

74125 Ring and seal cutting machine

74125 101
Design
With hand crank, without drive.
Accessories:
1 cutting mat 400 mm Ø, 3 mm thick,
1 circular blade, 1 punch.
Applications
For the efficient production
– including in large quantities – of sealing rings out of any material that can be cut, such as rubber, PTFE, PVC, cardboard, leather, etc. up to approx. 9 mm thickness to suit your chosen material.

74125 101



	74125 ...
Machine	101
Spare blade	102

Technical data:	
L x H x W	1100 x 250 x 170 mm
Weight	6.5 kg
Cutting speed	5.5–6.5 m/min.
Ring diameter min.–max.	approx. 80–1250 mm
Ring width min.–max.	approx. 1–160 mm
Max. cutting depth	approx. 9 mm

74125 102

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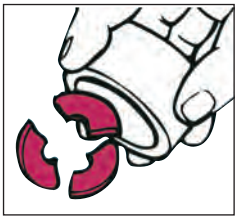
74330 - 74331 Hole puncher TRISTAR

74330
Hole puncher
Design
Hole puncher with splitting punch that divides the waste piece into three equal-sized pieces. The hole puncher consists of three pieces: the die, the stamp and a ball bearing connecting screw.
Applications
Can be used with a ball bearing screw for manual operation using a wrench, or with a tension bolt for operation using hydraulic equipment.
Pre-drill sheets as follows:
Ø 6.0 mm screws = 6.2–6.5 mm hole,
Ø 9.5 mm screws = 9.7–10.0 mm hole,
Ø 19.0 mm screws = 19.5–20.0 mm hole.

74331
Spare ball bearing screws
Applications
For hole puncher TRISTAR, art. no. 74330.



74330

74331 101

74331 102

74331 103

74331 104

Splitting punch Ø mm	For thread size	Screw size mm	Max. thickness of sheet carbon steel St 37 to mm	Hole puncher 74330 ...	Spare screws 74331 ...
12.5	M 12	6.0 x 40	2	**101**	**101**
16.2	M 16	9.5 x 50	2	**102**	**102**
20.4	M 20	9.5 x 50	2	**103**	**102**
25.4	M 25	9.5 x 50	2	**104**	**102**
32.5	M 32	19.0 x 55	2	**105**	**103**
40.5	M 40	19.0 x 75	2	**106**	**104**
50.5	M 50	19.0 x 75	2	**107**	**104**
63.5	M 63	19.0 x 75	2	**108**	**104**

74333 3-point hole puncher (screw hole puncher)

Design
Precision design with **3-point support,** which prevents the sheet becoming deformed. Precise alignment with the cross line with the help of 4 notches on the die.
Applications
For sheet thickness of 2 or 3 mm in St 37. For punching holes in aluminium, copper, brass and iron sheets, plastics, hardboard, rubber, leather, etc. For manual and hydraulic actuation.

Note:
For spare draw bolts, see art. no. 74334.

74333

Punch Ø mm	Punch Ø for PG	Draw bolt thread Ø mm	74333 ...
15.2	9	9.5	**102**
16.0	-	9.5	**103**
17.0	-	9.5	**104**
18.0	-	9.5	**106**
18.6	11	9.5	**107**
20.0	-	9.5	**108**
20.4	13	9.5	**110**
22.0	-	9.5	**111**
22.5	16	9.5	**112**
24.0	-	9.5	**114**
25.0	-	9.5	**115**
28.3	21	9.5	**118**
30.0	-	9.5	**120**

Punch Ø mm	Punch Ø for PG	Draw bolt thread Ø mm	74333 ...
31.0	-	9.5	**121**
32.0	-	9.5	**122**
35.0	-	9.5	**125**
37.0	29	19.0	**127**
38.0	-	19.0	**128**
40.0	-	19.0	**130**
43.0	-	19.0	**133**
45.0	-	19.0	**135**
47.0	36	19.0	**137**
51.0	-	19.0	**142**
54.0	42	19.0	**144**
60.0	48	19.0	**146**

74334 Spare draw bolts

Applications
For 3-point hole puncher art. no. 74333.

74334 101

74334 103

74334 102

74334 104

Draw bolt thread Ø mm	Screw length mm	74334 ...
9.5	40	**101**
9.5	50	**102**
19.0	55	**103**
19.0	75	**104**

74335 - 74336 Set of compact manual hydraulic punches

74335 201
Applications
For round holes up to:
60 mm Ø punching capacity,
3-mm sheet with F = 37 kp/mm².
For round holes up to max.:
75 mm Ø punching capacity,
2-mm sheet with F = 37 kp/mm².
For round holes up to:
54 mm Ø punching capacity,
INOX sheets, 2.0 mm.
Ideal for workshop use and assembly tasks.
ONE-HANDED OPERATION.

Note:
For suitable hole puncher, see art. no. 74333.
Control devices with higher performance available on request.

74335

	Set contents
1	**Manual hydraulic punch made of aluminium** (40% less weight), with overload valve,
1	**Punching die** 19.0 mm,
1	**Punching die, stepped** 19 x 9.5 mm,
1	**Spacer bushing set,**
1	**Special drill for pre-drilling** HSS Co 11 mm.

74336 101

74336 102

74336 103

		Spare parts			
	Version	74335	...	74336	...
Hydraulic punch set	in a transport case		201		
Hydraulic screw 19 mm Ø	-				101
Hydraulic screw 19 x 9.5 mm Ø	-				102
Spacer bushing set	-				103

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77098 Initial pressure sprayer

HAZET

Design
- Clear durable tank with level indicator
- Built-in safety valve (2.5 bar)
- Including 3 nozzles to adjust the foam quality, as well as for different exposure times (black = normal, green = dry, orange = wet)
- Increasing the contact time between the chemical and the surface to be cleaned ensures increased effectiveness of the chemical product

Applications
For cleaning/disinfecting surfaces, workpieces, vehicles, sanitary facilities.
Suitable for neutral cleaners as well as diluted acidic and alkaline cleaners.
Particularly suitable for cleaning vehicles, work surfaces and machine parts.

77098

Net volume l	Total volume l	Operating pressure bar	77098	...
0.75	1.5	3		101

77099 Sprayer

Design
Translucent container, with a long neck and adjustable nozzle, DIN thread 28-400.

Applications
Specially designed for the use of low-viscosity substances.

77099

Fill volume l	Weight g	77099	...
1	90		101

77100 Spraying device

Design
Translucent container, stainless-steel pump unit, seal made of special Viton material.

Applications
For use in industry and trade.

77100

Fill volume l	Weight g	77100	...
0.5	140		101

77101 Spraying device

Design
Translucent container, made of high-quality materials, seals made of special Viton material.

Applications
For use in industry and trade.

77101

Fill volume l	Weight g	Operating pressure bar	Displacement volume l/min.	77101	...
2.0	500	3	0.4-1.2		101

77102 Compressed air spray device

ATORN®

Design
- 360° rotating spray tube
- The stream and volume are controlled by turning the nozzle
- Spray material container 0.7 l made of plastic
- Air connection with connector for quick-action coupling

Applications
According to the suction principle for highly fluid media.

77102

Max. operating Pressure bar	Recommended Working pressure bar	Nozzle diameter mm	Spray cone approx. °	Operating Temperature °C	77102	...
10	2 - 6	3	40	+5 - +50		101

77103 Spray bottle

HAZET

Design
- Cost savings due to the use of large containers
- Safety valve
- Viton seals
- Including 155 mm long jet nozzle and short spray nozzle
- Easy cleaning thanks to two-piece design
- Easy filling via the neck of the bottle (diameter 25 mm) or into the lower section (diameter 54 mm)
- Environmentally friendly: CFC-free and reusable
- The valve located in the bottom is used exclusively for filling with compressed air

Applications
For use with multifunction sprays, such as penetrating oil and rust remover, as well as rim and brake cleaner.

77103

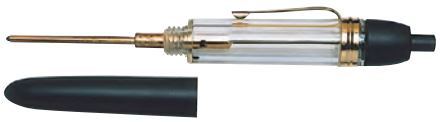
Capacity ml	Max. operating pressure bar	Weight kg	77103	...
227	8	0.4		101

77105 Drip oil dispenser

Design
Made of transparent Cellidor, push-button operation, fountain-pen-shaped, with clip and cap.

Applications
Wherever you want to oil drop by drop, e.g. on precision engineering apparatus or hinges.

77105



Contents ml	Length mm	Weight g	77105 ...
5	140	20	102

77115 Plastic oil dispenser

Design
Resistant to oil, petrol and acid.
Size 1: flat container with fixed spray tube.
Size 2 and 3: round polyethylene containers with brass spray tube.

Applications
For trade and industry.

77115 202-203

77115 101

Size	Contents ml	77115 ...
1	75	101
2	125	202
3	250	203

77135 - 77141 Oil spray cans

Design
With 130 mm long brass spray tube including brass nozzle. Drip catcher and hanging loop, oil release in drops by raising the pressure lever, all parts replaceable – easy to clean.

77135 - 77136
Design
Simple brass pump unit.

77135
Design
Seamless aluminium container.

77136
Design
Polyethylene container.

77140 - 77141
Design
Double metal pump unit with rotary piston, even for particularly inaccessible places. Oils in every position imaginable, **even overhead.**

77140
Design
Seamless aluminium container.

77141
Design
Polyethylene container.

77135

77136

77140

77141

Contents ml	77135 ...	77136 ...	77140 ...	77141 ...
200	102	102	101	101
300	103	103	102	102

77142 - 77144 Oil spray cans

77142 301-303
Design
- Made from sheet steel
- Painted blue
- With brass pump
- With rigid and flexible metal spray tube
- Non-slip handle
- High stability

Applications
- For industrial and workshop use.

77144 301-303
Design
- Made from polyethylene
- Transparent
- With brass pump
- With rigid metal spray tube
- Non-slip handle
- Conical shape for stability

Applications
For industry, workshop and hobby applications.

77142

77144

Contents ml	Sheet steel 77142 ...	Polyethylene 77144 ...
200	301	301
300	302	302
500	303	303

77145 Special oil spray can

Design
With high-pressure pump, round tinplate container and metal spray tube, oil delivery also adjustable drop by drop, intermediate base to prevent oil leaks, thus **lubricates in every situation.**

77145

Contents ml	Spray tube length mm	Container height mm	77145	...
250	170	130		102

77180 Hand pump

Design
Double-action hand pump, with intake and outlet hose. Full metal construction made of light metal, resistant to wear and temperature. With safety handle.

Applications
Can be used in all industry and trade applications to fill heating oils, mineral, synthetic and biological oils, washing solvent, coolant, anti-freeze, spirit, petroleum etc.

77180

Pumping performance ml/stroke	Pipe Ø mm	Hose length mm	77180	...
260	40	600		102

77181 Manual dispensing pumps

Design
With transparent cylinder made of rigid PVC, graduation in cl for controlled filling and emptying of any fluid. Smooth running, high suction capacity and fast.

77181 101

77181 101
Design
Including 300 mm flexible hose and 130 mm straight tube.

77181 102

77181 102
Design
Including 750 mm flexible hose.

Pumping performance ml/stroke	Pipe Ø mm	Pump stroke mm	Weight g	77181	...
150	40	208	645		101
1000	60	420	768		102

77185 - 77187 Oil and petrol suction syringes

Design
Suction and pressure effect, aluminium cylinder tube, wear-resistant and smooth with PTFE piston rings.

Note:
Art. no. 77186 - 77187 suitable for both suction syringes.

77185 102
Suction syringe.
Design
Size 2 including 3 small connecting tubes 90/140 and 250 mm long, Ø 10 mm.

77185 103
Suction syringe.
Design
Size 3 including 1 straight tube 300 mm long, diameter 12 mm.

77186
Additional tube.
Applications
For viscous oil.

77187
Flexible metal tube.

77185 102

77186

77187

Size	Contents approx. ml	Ø mm	Pump stroke mm	Length mm	Pipe Ø mm	77185	...	77186	...	77187	...
2	750	60	255	-	10		102				
3	1000	60	363	-	12		103				
-	-	-	-	200	12				101		
-	-	-	-	250	10						101

77190 Oil miser

Design
Transparent, impact resistant, weather resistant. The liquid that flows from the main reservoir into the brush container is enough that only the bristles of the brush are soaked; clean and economical. Complete with swivel bracket and 2 brushes.

Applications
Only suitable for lubricating and drilling oils, petrol, petroleum, ether, soapy water (not for acids, acetone etc.).

77190

Container capacity approx. l	77190	...
0.5		101

77193 Storage container

Design
Equipped with a brush for applying glue, paint, contact adhesive and various solvents.
Advantages:
- Significant adhesive savings
- No costs for disposal of dried adhesive as hazardous waste
- High resistance to chemicals
- Long service life through impact-resistant plastic
- Quality-tested joining of the base to the housing
- Optimised sealing cap with seal groove prevents evaporation, even of low-viscosity liquids

Applications
For universal use in production, shipping, trade and hobbies.

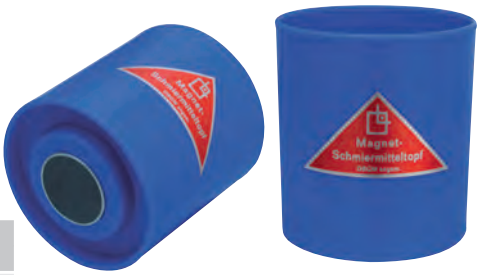
77193

Volume l	Dimensions mm	77193	...
1.5	215 x 105 x 130		101

77194 Magnetic lubricant pot

Design
Made from unbreakable plastic.
With permanent magnet on the bottom.

77194



Capacity ml	Height mm	Width mm	Weight g	77194	...
250	80	80	100		101

77300 Multi-purpose tub

Design
Break-proof, with sturdy carrying handles. Safe pouring through full perimeter overflow edge and spout. With raised section for placing dirty parts.

Applications
For changing oil or cleaning parts.
Quality
Polyethylene.

77300

Capacity l	Height mm	Length mm	Width mm	Colour	77300	...
6	100	360	360	Black		101

77303 Measuring cup set

Design
Transparent, coloured and raised scale. Resistant to oil and acid, food safe. With ergonomic handle, stackable, safe pouring.

Quality
Polypropylene.

77303

Set	Volume l	Area of application from to °C	77303	...
3 pieces	0.5/1.0/2.0	- 10 + 120		101

77305 - 77306 Liquid measures

Design
With a funnel-shaped spout.

77305
Design
Tinplate, **can be calibrated**.

77306
Design
Zinc-plated sheet steel, swivelling carry handle.

77305

77306

Contents l	77305 ...	77306 ...
1	102	
10		102

77319 - 77321 Funnel

77319
Design
Tinplate with overflow edge, air groove in the tube, with removable sieve.

77321
Flexible extension tube.

77319 - 77321

	Funnel	Extension tube
Upper Ø mm	77319 ...	77321 ...
160	101	101

77323 Funnel set

Design
Ø 160 mm with removable brass sieve.
Quality
Polyethylene.

77323

Set	Funnel Ø mm	77323 ...
6 pieces	50/75/100/120/150/160	101

77325 Funnel

Design
Red, with black, lockable lid.
Applications
For metal drums. Suitable for standard 60 or 200 l oil drums. Funnel for waste oil or chemical disposal (polyethylene).

77325

Drum screw connection	Ø mm	Volume l	77325 ...
2 inch outer	250	3.2	101

77350 Oil supply cans DIN 6425

Design
Made from tinplate, with hinged lid and captive pipe closure, strong carrying handle.

77350

Volume l	Height mm	77350 ...
5	290	102
10	350	103

77370 Fuel canister

Design
With flexible outlet. Robust and insensitive to impact. Cap protected against loss with fixing band. Outlet tube with integrated vent. **Outlet tube is kept in the canister: Contamination caused by transport is prevented and** loss of the outlet tube is made more difficult. High stability through large base area. With solid handle for easy carrying. Design optimised and dimensionally stable through all-round tank reinforcements. TÜV tested, UN/BAM approval.

Applications
For liquid fuels.
Quality
Material HDPE.

Volume l	H x L x W mm	Outlet tube length mm	Outlet tube Ø mm	Colour	77370	...
5	237 x 331 x 185	195	20	red		101
10	319 x 329 x 195	195	20	red		102
20	410 x 385 x 229	195	20	red		103

77371 Metal canister MK 20

77371 101
Design
Interior painted, without outlet tube, can be ventilated.
Applications
For all types of motor vehicles as well as for unleaded petrol.

77371 102
Outlet tube
Design
Flexible, zinc-plated.

Type	Volume l	Colour	Weight approx. kg	77371	...
Canister	20	Green	3.6		101
Outlet tube	-	Olive	0.23		102

77405 Washing bowl

Design
With a removable perforated plate insert, the lid closes tightly and prevents evaporation of the washing fluid; engages when opening. In case of fire, the lid closes automatically and the flame is suffocated. Black metal painted on the outside.

Applications
For washing small parts with flammable cleaning agents.

Volume approx. l	Ø mm	Height mm	77405	...
5	300	125		101

77415 Professional used oil collection devices

77415 201-202
Collector 70 + 100
Design
- Mobile devices with 70 l or 100 l reservoirs
- Compact and rounded with separate side level indicator
- Container surface is powder-coated, impact-resistant and colour stable, white
- Chassis consists of two large driving wheels and two steering wheels with reinforced wheel support
- Collection hopper with sieve insert, centralised or decentralised mounting possible
- Pressure emptying via a separate discharge hose with a pressure safety valve, max. 8 bar

Applications
For the collection and/or suction of waste oils or other non-corrosive liquids with a flash point above 55 °C from vehicles or machines.

Scope of delivery:
- Used oil collection cart with pressure drainage
- 2 m rubber discharge hose with discharge pipe and drip protection
- Collection hopper Ø 440 mm, H 180 mm

77415 202
Collector 100
Design
- Additionally with storage for small tools, filters, additional adapter, handles
- Innovative running gear with wheel guard and bracket
- Decentralised additional attachment for existing oil drip pan, can be rotated 360°
- Additional spray protection

NEW

Type	Container content l	Discharge hose m	Collection hopper Ø mm	77415	...
COLLECTOR 70	70	2	440		201
COLLECTOR 100	100	2	440		202

77420 - 77421 Small parts cleaner

Design
Table-top model with 4 feet, work surface and spray guards zinc-plated.
With safety foot-operated switch and cleaning brush, with electric pump, connecting cable and plug.
Tested in accordance with ZH 1/562 04.82, DIN VDE 0700 T1A6 12.91 and DIN VDE 0700 T236 03.84. **Delivered without drum.**
Applications
For cleaning machine parts and implements with commercial cold cleaners.

Note:
The cleaning agent is transferred directly into the cleaning brush by a self-priming drum pump. The dirty cleaner flows directly back into the drum, where the dirt particles settle at the base. The intake of fresh fluid is always in the upper area. Version with compressed-air pump and cold cleaner deliverable on request.

77421
Replacement hollow-shaft brush, Ø 30 mm.

77420

77421

External dimensions H x W x D mm	Working height mm	Performance l/min.	77420	...	Replacement brush 77421	...
1350 x 800 x 550	950	3 - 5		101		
-	-	-				101

85590 Safety collection container

Design
Made of sheet steel, interior tin plated for flammable solids. Easy to open with foot pedal. Self-closing lid. Perforated bottom rim prevents warming of the base/self-ignition. No leakage of accumulated liquids. High stability. Container labelling prepared according to GefStoffV and BGV A8. Tested safety product.

Applications
For safe collection of used cleaning materials.

85590

Volume l	Ø x height mm	Paint on outer	85590	...
20	290 x 397	Powder-coated, red		101

85593 Eco-moistener

Design
Made of sheet steel, interior tin plated. Spring-mounted soaking tray with flame arrester. Economical removal of cleaning fluid, unneeded fluid flows back to the tank. Reduction of escaping vapours to a minimum. Good media resistance, even with contaminated materials. High stability. Container labelling prepared according to GefStoffV and BGV A8. Tested safety product.

Applications
For economical moistening of a cleaning cloth where only small quantities of solvent are required.

85593

Volume l	Ø x height mm	Soaking tray diameter mm	Paint on outer	85593	...
0.5	120 x 135	75	Powder-coated, red		101
2.0	180 x 190	135	Powder-coated, red		104

77500 High-pressure push guns

SAMOA-HALLBAUER

77500 101-102
- Made from steel
- With universal nosepiece

Applications
For greases and oils.

77500 102
- With universal and pointed nosepiece.

77500

Volume ml	Pressure capacity approx. bar	77500	...
60	200		101
150	200		102

77540 - 77543 Grease guns

Applications
For loose greases, cartridges and grease filling devices. Connecting thread M10 x 1.

77540 101
Single-handed gun PEP500/D
Design
- With nozzle pipe 103/R with 4-jaw professional nosepiece
- Made of precision steel
- Plastic display bag
- Filling nipple
- Quick refilling with the Füllmeister® or with 400 g grease cartridges (DIN 1284)
- Volume 500 cm³/400 g
- Connecting thread G 1/8 inch
- Weight 1.4 kg

Applications
For use in hard-to-reach greasing locations.

77540 302
Professional lever gun X-TRA 701/M DIN 1283
- Steel, strong and durable
- Display box
- Filling nipple
- Safety handle
- Quick refilling with the Füllmeister® or with 400 g grease cartridges (DIN 1284)
- Volume: 500 ccm/400 g
- Connecting thread M10 x 1
- Weight 1.3 kg

77540 203
Hand-lever grease gun
Design
- With die-cast zinc head Z 410,
- Burst pressure testing at approx. 1200 bar,
- Filling volume 500 cm³,
- Displacement volume/stroke approx. 1.2 cm³,
- Supply pressure up to 400 bar,
- No misleading signs of lubrication through precise fit of pumping piston and cylinder,
- Incl. armoured hose 11 x 300 mm,
- Nozzle pipe, bent 150 mm and
- 2 x nosepiece with 4 turned jaws.

77540 301
Pneumatic grease gun DL Plus
Design
- Pressure transmission 1:50,
- Recommended working pressure 6 bar,
- Displacement per stroke 0.8 cm³,
- Nominal volume 500 cm³,
- Complete with armoured hose,
- 4-jaw nosepiece,
- Hanging eyelet and
- Filling nipple.

77543 101-104
- Accessories for art. no. 77540.

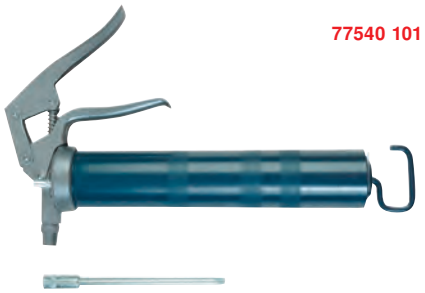
77543 101
Nozzle pipe
- Bent, with hydraulic gripper coupling.

77543 102
Armoured hose
- Ø 11 mm,
- 300 mm long,
- Made from polyamide with hydraulic nosepiece.

77543 103
Nosepiece assortment
- Made from steel,
- Bright nickel-plated,
- Comprising: Hollow nosepiece, pointed nosepiece and hydraulic nosepiece.

77543 104
Hydraulic nosepiece
- 4 jaws with wrench surface.

77540 101



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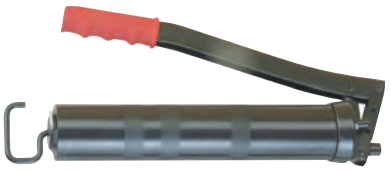

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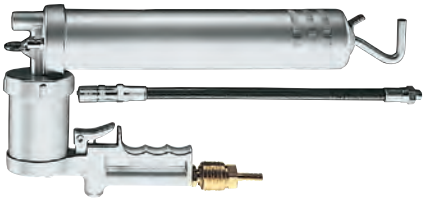


77543 101

77543 102

77543 103

77543 104

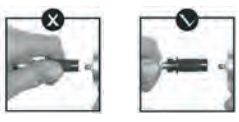
Grease guns		Accessories	
77540	...	77543	...
	101		101
	302		102
	203		103
	301		104

77545 QUICK-FIX professional nosepiece

Design
- Self-locking automatic 7-ball quick-action mechanism
- Spring-supported quick-action coupling with easy-grip and non-slip surface for coupling and releasing
- Rotationally symmetrical design
- No separate swivel required
- Steel bronzed
- No larger than a conventional professional 4-jaw nosepiece

Applications
For all hydraulic grease nipples in accordance with DIN and SAE. Can be used together with all common manual, pneumatic and battery-operated grease guns.

77545



Type	Decouple up to max. bar working pressure	Leak-free sealing up to bar	77545	...
Version M 10 x 1	700	700		100

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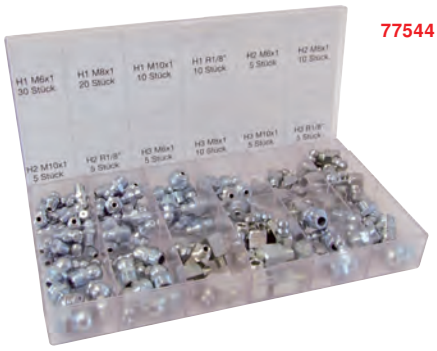
77544 Grease nipple assortment box

Design
Professional conical grease nipples in accordance with DIN 71412.

Content	77544	...
120 pieces		101

	Set contents
30	Straight (180°) M 6 x 1
20	Straight (180°) M 8 x 1
10	Straight (180°) M 10 x 1
10	Straight (180°) R 1/8 inch
5	Angled (45°) M 6 x 1
10	Angled (45°) M 8 x 1
5	Angled (45°) M 10 x 1
5	Angled (45°) R 1/8 inch
5	Angled (90°) M 6 x 1
10	Angled (90°) M 8 x 1
5	Angled (90°) M 10 x 1
5	Angled (90°) R 1/8 inch

77544



90317 Cordless grease guns Red Li-ion

Note:
For replacement charger, see art no. 90318 103.

90317 101
M12 GG
Design
- Up to 7 cartridges per battery charge
- Balanced design only 355 mm in length
- REDLINK™ electronic overload protection for a long service life for the battery, motor and gears
- Bleed valve for fast work progress
- Capacity when filling from containers is 454 g and for cartridges 411 g
- Integrated hose stand and suspension device for shoulder strap
- Handle with soft-grip support
- Battery charge indicator

Applications
Ideal for lubrication of vehicles and machines in mobile applications.

Scope of delivery:
- Transport bag
- 1 x 12 V/4.0 Ah red Li-ion battery
- Quick charger, C12 C

90317 102
M12 PCG 310 C
Design
- Discharge pressure of up to 178 kg/1780 N
- Optimised for all common adhesives and sealants
- REDLINK™ electronic overload protection for a long service life of battery, motor and gears
- Electronic control of the discharge speed by an adjusting wheel
- Electronic switch with speed control
- Automatic return of pressure rod prevents drops emerging
- Integrated spike to pierce glued cartridge openings
- Battery charge indicator

Scope of delivery:
- Transport bag
- 1 x 12-V/2.0-Ah Red Li-ion battery
- Quick charger, C12 C
- 310-ml cartridge holder
- Push bar

90317 101

3 YEARS WARRANTY GARANTIE 3 JAHRE GARANTIE 3 ANNÉES

REDLITHIUM-ION™

90317 102

Type	Volt/Ah	Operating pressure bar	Flow rate g/min	Hose pressure bar	Hose length mm	Weight with battery kg	90317	...
M12 GG	12.0/4.0	562	74	690	914	3.3		101
M12 PCG 310 C	12.0/2.0	-	-	-	-	1.9		102

77550 Professional single-handed guns

77550 101-102
Professional single-handed guns
Design
Display box. Quick and clean refilling with screw-in cartridge PAT 100 (2 pieces in scope of delivery), filled with approximately 100 g of lithium-saponified grease, consistency 2. Connecting thread M10 x 1. With 4-jaw professional nosepiece.

77550 103
Refill set
Design
4 grease cartridges Optimol PD2, 100 grams each.

Applications
To fill the professional single-handed gun **PEP200** and the professional push gun **K100.**

77550 102

77550 101

77550 103

	Type	Version with	77550	...
Single-handed gun	PEP200 D	Nozzle pipe 103/M		101
Single-handed gun	PEP200 G	Safety armoured rubber hose 110/M		102
Refill set	Optimol PD2	-		103

77551 Multi-purpose grease in cartridge

Design
For grease guns art. no. 77540 and other commercial guns.

77551

Content approx. g	77551 ...
400	101

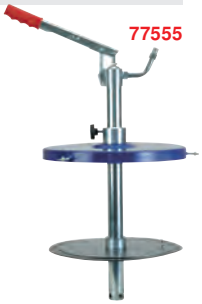
77555 Grease filling device

Design
Increased suction performance with longer stroke and larger intake and valve openings. Stable and wear resistant due to reinforced steel lever. Environmentally friendly, economical, air-free filling. Bucket emptying sequence with special grease follower cover.

Scope of delivery:
Grease follower cover, dust protection cover, fill tube with sleeve.

Applications
For filling grease guns. Suitable for organic lubricating greases, long-lasting greases with adhesive additives and for greases up to consistency class 2 (low-viscosity greases).

77555



For containers kg	Inner Ø mm	Delivery rate ccm/stroke	Pump pipe Ø mm	77555 ...
15 - 18	255 - 282	50	40	102

77605 Pneumatic lubrication device

PM 15 mobile

Design
- With safety lubrication hose 4 m.
- Incl. conditioning unit for low-wear operation and drum fitting with 2 inch thread.
- Pre-feed system for secure feeding of long-lasting greases.
- High delivery rate through transformation ratio of 1:55, suction connection and safety lubrication hoses with a large inner diameter.
- Grease follower cover for buckets with inner Ø 260 - 290 mm.
- Steel dust cover for buckets with outer Ø 265 - 310 mm.
- High-pressure lubrication gun with ball bearing-mounted pro-Z joint, exceptionally smooth under pressure.
- Compressed air connection/grease outlet G 1/4 inch female thread.
- Trolley.

Applications
Suitable for oils and greases up to consistency class 2, also organic greases (multi-purpose greases).

77605

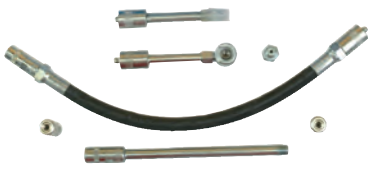
Air pressure min./max. bar	Lubrication pressure max. bar	Burst pressure bar	Delivery rate* approx. ccm/min	77605 ...
3/10	400	1600	600	101

*With open discharge and 7 bar input pressure.

77620 Professional quick change set SWS

Design
In sturdy plastic case with oil-resistant inlay.

77620



	Set contents
1	**Nozzle pipe** 103/M, straight, with 4-jaw professional nosepiece,
2	**4-jaw professional nosepieces** 120/M,
1	**Quick-change armoured rubber hose** 2200,
1	**Quick-change nozzle pipe** with thrust coupling 2070/M 1,
1	**Quick-change nozzle pipe** with combi nosepiece,
1	**Connecting piece** R 1/8 inch inside, M 10 x 1 outside.

Design	Weight approx. kg	77620 ...
In plastic case	0.80	102

77705 Multi-purpose pumps

Design
- Handy pumps for diesel, heating oil, hydraulic oil and engine oil
- For 200 l drums
- 1 m plastic hose with outlet nozzle, suction tube

77705

Pump	Delivery rate l/stroke	77705 ...
MZE-02	0.2	101
MZE-04	0.4	102

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77720 Drum and container pumps

FLUX

Note
Other immersion depths and versions deliverable on request.

77720 101
Pump set for low delivery rates
Design
- IP 24
- With 2-stage switch for precision filling

Applications
For filling, transferring and metering of acids and alkalis like battery acid, ammonia water, glycols, sodium hydroxide and soap solution.

77720 202
Pump set for acids
Design
- Drum screw fitting and FLUX clip for secure fixation of the nozzle onto the pump
- IP 24
- With speed adjustment and under-voltage tripping.

Applications
For dispensing acids such as boric acid, fruit acids, phosphoric acid, hydrochloric acid and sulphuric acid (up to 80%).

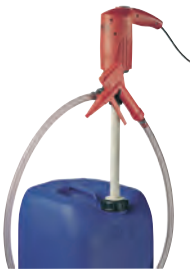
77720 103
Pump set for mineral oil products
Design
- Drum screw fitting and FLUX clip for secure fixation of the nozzle onto the pump
- IP 24
- With under-voltage tripping

Applications
For dispensing mineral oil products such as diesel, heating oil, hydraulic oil, mechanical oil and engine oil.

77720 104
Pump set for highly flammable liquids
Design
- Base Ø 43 mm
- Drum screw fitting and FLUX clip for secure fixation of the nozzle onto the pump
- Motor explosion-protected in accordance with II 2 G EEx de IIC T6, in accordance with the ATEX Directive 94/9/EC
- Category 2 with under-voltage tripping

Applications
For dispensing flammable liquids such as acetone, petrol, butanol, ethanol, methanol, toluene, xylene etc. For safely dispensing low-viscosity, neutral, corrosive and flammable liquids. Pumps used for transporting flammable liquids may only be made of stainless steel in combination with an explosion protected **(only up to a maximum of 40 °C!)** collector motor or pneumatic motor.

77720 101



77720 202

77720 103

77720 104

Technical data:		Pump F 314 PP	Pump F 430 PP	Pump F 430 AL	Pump F 424 S
Material		Polypropylene	Polypropylene	Aluminium	Stainless steel 1.4571
Outside Ø	mm	25	40	41	41
Pressure joint		G 1 A	G 1 1/4 A	G 1 1/4 A	G 1 1/4 A
Hose line *		PVC DN 13	PVC DN 19	Mineral oil DN 25	Universal DN 21
Length *	m	1.5	2.0	2.0	2.0
Nozzle		PP	PP	AL	Brass
Seal		FKM	FKM	NBR	PTFE
Collector motor	W/V/Hz	230/230/50	500/230/50	800/230/50	460/230/50
Connecting cable	m	5, 2-pin connector	5, 2-pin connector	5, 2-pin connector	5, grounding contact plug (not ex-protected)

Pump type	Collector motor type	Flow rate max. l/min.	Flow rate max. l/min.*	Delivery height max. m	Viscosity max. mPas	Temperature max. °C	Immersion depth mm	Weight kg	77720 ...
F 314 PP	FEM 3070	40	15	5.2	250	45	700	2.4	**101**
F 430 PP	FEM 4070	165	40	9.5	600	50	1000	5.1	**202**
F 430 AL	F 457	220	80	12.0	800	80	1000	7.8	**103**
F 424 S	F 460 Ex	200	50	9.5	600	100	1000	10.9	**104**

* With hose and nozzle

77721 Pump set COMBIFLUX

77721 101

FLUX

77721 101
Design
- COMBIFLUX pump set for filling, transferring and metering acids and alkalis, water, ammonia water, low-viscosity oils and chemically neutral fluids
- Also suitable for dispensing small quantities
- Can dispense from narrow-necked and hard-to-reach containers
- Comprising: Motor, IP 44, charger, seal-less pump design, shaft made of Hastelloy C, hose line, nozzle with seals
- Charging time: 55 min.

Technical data:		Pump 314 PP-25
Material		Polypropylene
Outside Ø	mm	25
Hose line		PVC DN13
Length	m	1.5
Nozzle		PP
Seal		FKM
Battery motor	V/Ah/Wh	18/2.5/45
Charger	V/Hz	220-240/50-60

77721 102
Design
- Replacement lithium-ion battery for COMBIFLUX pump set
- Nominal voltage: 18 V
- Nominal capacity 2.5 Ah and 45 Wh
- Charging time: 55 min.

77721 102

Type	Battery motor	Flow rate l/min.	Delivery height max. m	Viscosity max. mPas	Immersion depth mm	Weight kg	77721 ...
FP 314 PP-25	FBM-B3100	12-60	8.5	250	700	2.4	**101**
Battery B15-3100	-	-	-	-	-	0.35	**102**

Workshop equipment

Info — Lubrication systems art. no. 77810 - 77822

The clever way to lubricate.
perma lubricant dispensers are closed dispenser systems without an external power supply for automatic and location-independent single-point lubrication of roller bearings and plain bearings, industrial chains, open gears and slide guides.

Lubricant types
SF 01 Universal grease for all areas at operating temperatures of -30 °C to +130 °C.
SF 04 High-temperature grease for high operating temperatures from -20 °C to +160 °C.
SO 14 High-performance oil for high lubrication demands of industrial chains at temperatures from -20 °C to +250 °C.

Technical data

Code	Lubricant	NLG class	Thickener	Basis	Temperature range	Application	DIN
SF 01	Universal grease	2	Li/Ca	Mineral	-30 °C to +130 °C	Universal	KP2K-30
SF 04	High-temperature grease	0/1	PHS	Mineral + PAO	-20 °C to +160 °C	High operating temperatures	K1S-20
SO 14	High-performance oil	—	—	Synthetic	-20 °C to +250 °C	Industrial chains	CLPE320

77810 - 77822 Lubricant dispenser perma CLASSIC

77810
perma CLASSIC
Design
Electrochemically operated lubricant dispenser, **metal housing with 120 cm³ filling volume** with empty level indicator.
Applications
Depending on the lubricant required, select an activation screw, which uses a gas generator to build up a pressure, which drains the lubricant tank in the desired period of time (1, 3, 6 or 12 months) and thus guarantees a uniform dosage. The maximum pressure is 4 bar with an operating temperature range from 0 °C up to +40 °C.

Note:
An activation screw is required in each case.

77822
Activation screws
Design
Black sealing ring as an identification. Dosage duration at +20 °C reference temperature.
Applications
For lubricant dispensers perma CLASSIC and FUTURA.

77810

Lubricant type	Dosage duration Months	Screw colour	77810	...	77822	...
SF 01	-	-		101		
SF 04	-	-		102		
SO 14	-	-		103		
-	1	Yellow				101
-	3	Green				102
-	6	Red				103
-	12	Grey				104

77822 102

77820 - 77822 Lubricant dispenser perma FUTURA

77820
perma FUTURA
Design
Electrochemically operated lubricant dispenser, **transparent plastic housing with 120 cm³ filling volume.**
Applications
Depending on the lubricant required, select an activation screw, which uses a gas generator to build up a pressure, which drains the lubricant tank in the desired period of time (1, 3, 6 or 12 months) and thus guarantees a uniform dosage. The maximum pressure is 4 bar with an operating temperature range from 0 °C up to +40 °C.

Note:
An activation screw is required in each case.

77822
Activation screws
Design
Black sealing ring as an identification. Dosage duration at +20 °C reference temperature.
Applications
For lubricant dispensers perma FUTURA and CLASSIC.

77820

Lubricant type	Dosage duration Months	Screw colour	77820	...	77822	...
SF 01	-	-		101		
SF 04	-	-		102		
-	1	Yellow				101
-	3	Green				102
-	6	Red				103
-	12	Grey				104

77822 101

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78010 Mechanical nut splitter

- With a chisel
- Easy retraction of the chisel from the split nut through **pull-back technology**
- No catching
- Very sharp cutting edge through chamfer cut

Applications
For splitting nuts up to quality class 6 that are jammed and cannot be loosened.

Size	AF mm	Length mm	78010	...
0	4 - 10	75		101
1	10 - 18	100		102
2	19 - 27	130		103
3	27 - 36	150		104

78015 Mechanical nut splitter

- With double splitting effect through 2 chisels, zinc-plated
- Easy retraction of the chisel from the split nut through **pull-back technology**
- No catching
- Very sharp cutting edge through facet cut

Applications
For removing nuts up to quality classes 5, 6 and 8 that are jammed and cannot be loosened.
Quality
Chromium-vanadium steel.

AF mm	Length mm	78015	...
10 - 27	130		101
17 - 36	160		102

78018 Hydraulic nut splitter

- Very sharp cutting edge through chamfer cut

Applications
For splitting nuts up to quality classes 5, 6, 8 and 10 that are jammed and cannot be loosened. The double shoulder facilitates use even in narrow spaces. Only a small amount of force needs to be applied due to the hydraulics.
Quality
Special steel.

78018 101

78018 102

Size	For AF mm	For AF inch	For thread M	78018	...
1	7 - 22	9/32 - 7/8	-		101
2	22 - 36	7/8 - 1.7/16	-		102

78020 Stud bolt inserter and extractor

Hardened and tempered, the stud bolt is securely clamped against the internal teeth by a knurling wheel in eccentric arrangement with a groove, operated by open-ended wrench or box wrench.

Applications
For stud bolts with right-hand and left-hand threads.

78020

Size	For bolts mm	Inch	AF mm	78020	...
1	5 - 10	3/16 - 3/8	17		101
2	8 - 19	5/16 - 3/4	27		102
3	18 - 25	3/4 - 1	36		103

78025 Stud bolt inserter and extractor

Design
General purpose, continuously adjustable.

Applications
Can be used in extremely tight spaces, ideal even for rusted or scaled screws.

78025

Clamping range mm	78025	...
6 - 12		101

78029 Stud bolt insert and extractor set

1/2"

Design
For inserting and extracting stud bolts. For clockwise and anti-clockwise tightening. Strong steel body with a continuous longitudinal bore. The stud bolts are carefully gripped by three rollers in an eccentric arrangement. Simply place the device on the stud bolt and turn. The stud bolt is gripped and held automatically.

Applications
For bolts, express screws and stud screws.
Quality
CV steel, chrome-plated.

78029 101

Set contents	For bolt Ø mm	Square drive inch	Version	78029	...
4 pieces	6/8/10/12	1/2	In box		101

78030 Stud bolt inserters and extractors

1/2"

Design
For inserting and extracting stud bolts. For clockwise and anti-clockwise tightening. Strong steel body with a continuous longitudinal bore. The stud bolts are carefully gripped by three rollers in an eccentric arrangement. Simply place the device on the stud bolt and turn. The stud bolt is gripped and held automatically.

Applications
For bolts, express screws and stud screws.
Quality
CV steel, chrome-plated.

78030 206-208

78030 210-212

For bolt Ø mm	Outer Ø mm	Hex shoulder AF mm	Length mm	Square drive inch	78030	...
6	24	22	65	1/2		206
7	24	22	65	1/2		207
8	24	22	65	1/2		208
10	28	22	75	1/2		210
12	28	22	75	1/2		212

78050 - 78060 Two-arm and three-arm puller sets

Design
- Quality tool steel, with 2 or 3 sliding, constantly parallel pullers in each size
- Good running properties and fixing of the hooks onto the cross beam through the new Glide & FIX technology
- The ARM-LOCK technology guarantees maximum stability of the suspension in the sliding piece through the cross hooks
- This prevents the puller from slipping off the part to be extracted
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip).

Applications
For universal use, interchangeable puller hooks for each required clamping depth.
For hard-to-reach areas. Can be used as an internal and external extractor for centric and eccentric extraction.

78050

78060

Clamping width mm	Clamping depth mm	2-arm 78050	...	3-arm 78060	...
120	100/200 + 250		101		
120	100/200 + 250				101

78070 Two-arm and three-arm universal extractor set

KUKKO BOXX SYSTEM

Design
- The set allows the assembly of 8 different extraction models through the combination of pullers and extensions
- Can be used as external or internal extractor by turning the pullers
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip)

Applications
For narrow spaces at multiple clamping depths.

78070

	Comprising
1	**Two-arm puller** with 3 pairs of puller hooks, clamping width 120 mm,
1	**Three-arm puller** with 3 pairs of puller hooks, clamping width 130 mm.

Clamping width mm	Clamping depth mm	Weight approx. kg	Version	78070	...
120	100/200/250	8.5	In L-BOXX		101

78101 - 78102 Two-arm and three-arm pullers

Design
- With automatic quick-action clamping
- Automatic guidance and centring of the hooks
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip)

Applications
For ball bearings, pinions, gear wheels, pulleys, pole terminals etc.

78101

78102

Size	Clamping width mm	Clamping depth mm	2-arm 78101	...
3/1	60	50		101
3/2	70	70		102
3/3	80	80		103
4/1	100	100		104
4/2	120	120		105
4/3	160	160		106
4/4	250	200		107

Size	Clamping width mm	Clamping depth mm	3-arm 78102	...
3/11	60	50		101
3/12	70	70		102
3/13	80	80		103
5/1	100	100		104
5/2	120	120		105
5/3	160	160		106
5/4	250	200		107

78103 Three-arm combi-puller set

NEW

Design
- Universal application through the use of 2-arm and 3-arm cross beam
- 2 pairs of puller hooks for internal and external extraction included
- Self-locking retaining pins ensure fast and easy replacement of the puller hooks without the need to relieve the compression spring
- Puller hook position is fixed via easily accessible locking lever
- Innovative spring technology allows for a compact and maintenance-free construction
- Ergonomic design for better handling
- Long durability through encapsulated mechanism
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip)
- The puller can also be used with a slide hammer

Applications
Changing the puller hooks enables use as both an internal and external extractor.

78103

Clamping width outer mm	Clamping width inner mm	Slide hammer length mm	Connecting thread	Load max. t	Version	Weight kg	78103	...
22 - 160	55 - 180	320	M 16x1.5	4.5 (5.5 US)	In L-BOXX	2.4		101

78105 Two-arm puller

Design
- Quality tool steel
- Good running properties and fixing of the puller hooks onto the cross beam through Glide & FIX technology
- The ARM-LOCK technology guarantees maximum stability of the suspension in the sliding piece through the cross hooks
- This prevents the puller from slipping off the part to be extracted
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip)

Applications
Can be used as an internal and external extractor.

78105

Size	Clamping width mm	Clamping depth mm	78105	...
1	90	100		101
10	120	100		102
2	160	150		103
20	200	150		104
3	250	200		105
30	350	200		106
4	520	200		107

78106 Spare hook for two-arm puller art. no. 78105

Design
Complete with sliding piece, **in pairs.** Quality tool steel.

78106

For size	Clamping depth mm	Standard 78106	...
1/10	100		101
2/20	150		102
3/30/4	200		103

78108 Two-arm puller with quick adjustment

Design
- Quality tool steel
- Mechanical puller with standard hooks and lengths and **Quik-adjust** for quickly releasing and moving the hooks on the beam without a wrench
- Good running properties and fixing of the hooks onto the cross beam through the **Glide & FIX technology**
- The **ARM-LOCK technology** guarantees maximum stability of the suspension in the sliding piece through the cross hooks
- This prevents the puller from slipping off the part to be extracted
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip).

Applications
Can be used as an internal and external extractor.

78108

Size	Clamping width mm	Clamping depth mm	78108	...
1	90	100		101
10	120	100		102
2	160	150		103
20	200	150		104
3	250	200		105
30	350	200		106

78110 Hydraulic ancillary presses

Design
Steel body with hydraulic mechanism.

Applications
These presses are good tools to significantly increase the pressure capacity of mechanical pullers when removing particularly seized parts. To prevent overloading, use only with pullers with a minimum spindle diameter of 25 or 30 mm.

Operation:
Place press with screwed-back spindle between the shaft and the puller spindle and clamp with the puller spindle. The hydraulic system is activated by tightening the spindle.

78110

Size	Force kN	Maximum torque Nm	Stroke mm	Height mm	Ø mm	For spindles from Ø mm	78110	...
9/1	100	35	10	62	37	25		101
9/2	150	50	12	80	50	30		102

78115 Separators and pullers

Design
- Quality tool steel

Applications
Gripper for normal use and for releasing flush-fitted parts.

Note:
The blades are pressed behind the parts by the clamp and then removed.

78115

Size	Clamping width mm	Clamping depth mm	78115	...
1	95	170		101
2	135	270		102

78125 Three-arm puller

Design
Quality tool steel, with slim puller arms for difficult-to-reach locations.

Applications
For extracting ball bearings, gear wheels, pulleys etc.

Note:
The clamping width is adjusted with a wrench. It is not possible for the hooks to slip from the parts to be extracted.

78125 101-103

78125 104-105

Size	Clamping width mm	Clamping depth mm	78125	...
1	100	100		101
2	150	125		102
3	200	180		103
4	250	225		104
5	350	275		105

78126 Three-arm puller

Design
- Three-arm universal puller with standard puller hooks guarantees uniform load distribution with a particularly secure hold
- Good running properties and fixing of the hooks through the new **Glide & FIX technology**
- Puller hooks parallel in any position
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip).

Applications
Can be used as external or internal extractor by turning the puller hooks.

78126

Size	Clamping width mm	Clamping depth mm	78126	...
1	90	100		101
10	120	100		102
2	160	150		103
20	200	150		104
3	250	200		105

78128 Three-arm universal extractor with quick adjustment

Design
- Quality tool steel
- Mechanical puller with standard puller hooks in standard lengths and **Quik-adjust** for quickly releasing and moving the hooks on the cross beams without a wrench
- Good running properties and fixing of the hooks onto the cross beam through the **Glide & FIX technology**
- **The ARM-LOCK technology** guarantees maximum stability of the suspension in the sliding piece through the cross hooks
- This prevents the puller from slipping off the part to be extracted by 2-sided spindle tip
- Optimal adjustment of the spindle to the shaft through 2-sided spindle tip (ball and tip)

Applications
Can be used as an internal and external extractor.

78128 101-106

Size	Clamping width mm	Clamping depth mm	78128	...
1	90	100		101
10	130	100		102
2	160	150		103
20	200	150		104
3	250	200		105
30	350	200		106

78129 Three-arm puller

Design
- Quality tool steel
- With mechanical pressure spindle

Applications
For heavy-duty use, for careful extracting of heavy gear wheels, pulleys etc. Can be used as internal and external extractor.

78129

Size	Clamping width mm	Clamping depth mm	78129	...
11/0	375	200		101
11/1	520	200		102
11/2	650	200		103

78140 - 78141 Ball bearing internal extractors

Design
Made of quality tool steel.
Applications
For extracting ball bearings, ball bearing outer rings, bushings etc.

Note:
Even bearings seated fully on the rear wall are securely gripped and quickly extracted. The complete extraction device consists of an internal extractor and counter-support.

78140
Internal extractor

78141
Counter-support
Design
Easy actuation of the counter-support nut through integral pressure bearing. The friction resistance is reduced to a minimum **(easy-screw technology).** Smooth, adjustable hooks through the internal spring **(Light-Shift technology).**
Applications
For internal extractor, art. no. 78140.

78140 78141

Internal extractor

Size	For bores mm	78140 ...
0	5 - 8	201
00	6 - 10	202
01	8 - 12	203
02	10 - 14	204
1	12 - 16	205
2	14 - 19	206
3	18 - 23	207

Internal extractor

Size	For bores mm	78140 ...
4	20 - 30	208
5	28 - 40	209
6	36 - 46	210
7	45 - 58	211
8	56 - 70	212
9	70 - 100	213

Counter-support

Size	For Size	78141 ...
1	0 - 5	101
2	3 - 8	102
3	9	103

78150 Ball bearing puller and extractor sets

Design
- Quality tool steel
Applications
For extracting ball bearings, ball bearing outer rings, bushings etc.

Note:
Even bearings seated fully on the rear wall are securely gripped and quickly extracted.

78150 101

78150 102

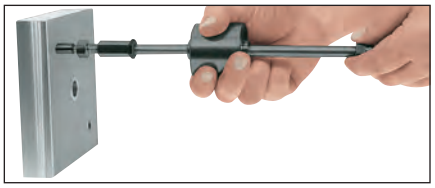
78150 103

78150 104

Type	No. of parts	For ball bearing inside Ø mm	Version	Weight approx. kg	78150 ...
25-K	4	6 - 19	In i-BOXX	3.5	101
25-A	8	12 - 46	In L-BOXX	7.0	102
25-B	10	12 - 70	In L-BOXX	9.9	103
25-C	11	12 - 110	In L-BOXX	17.8	104

78165 Puller with slide hammer

Design
Complete with thread inserts M3/M4/M5/M6/M8/M10/M12/M14/M16/M18 and slide hammer device.
Applications
For pulling and extracting pins with female thread (DIN 7978/ISO 8736 or DIN 7979/ISO 8735) and parts with thread holes. The corresponding thread insert is screwed into the thread hole of the part to be extracted and extracted with knocks of the slide hammer.



78165

For thread	78165 ...
M3 - M18	101

78164 Sleeking hammer device for internal extractor

Design
Very practical, since the sleeking hammer device can also be used where space is limited because no support surface is required. Suitable for many workshop applications, especially if a strong shock effect is required.

Applications
For extracting close-fitting ball bearings, ball bearing outer rings and bushings.
For art. no. 78140.

Note:
With 78164 103, the striking weight and thus the impact force can optionally be increased by screwing in one or more additional weights.

78164 101

78164 102

78164 103

L mm	Striking length mm	Sliding piece weight approx. kg	Weight approx. kg	78164 ...
250	150	0.50	0.70	**101**
340	230	1.70	2.50	**102**
530	340	5.00	6.50	**103**

78166 Slide hammer set

Design
Contents:
1 slide hammer,
6 adapters, bronzed, each with M12 connecting thread to attach onto the slide hammer base. The interchangeable set screws on the adapter end side have thread sizes M3/M4/M5/M6/M8 and M10.

3 adapters, zinc-plated, for attaching all KUKKO internal extractors from size 00 to 9.

Applications
For KUKKO internal extractor art. no. 78140 and other applications. The stop in the impact weight optimally utilises the length of the slide hammer guide rod with low space requirement and prevents injuries from crushing.

78166

Contents	Version	78166 ...
10 pieces	In plastic case with foam insert	**101**

78168 Ball joint puller

Design
- Quality tool steel

Applications
For pressing out the ball pins when removing the ball joints.

78168 104

78168 101-103+105

Size	Clear height A mm	Clear width B mm	Opening C mm	78168 ...
1	38	36	18	**101**
2	48	45	23	**102**
3	60	60	29	**103**
4	80	60	40	**104**
5	100	75	46	**105**

78170 Ball bearing puller and extractor sets

Applications
For universal use for extracting ball bearings, bearings, gear wheels, separable bearing inner rings, deep groove ball bearings, etc.
For extracting close-fitting ball bearings, outer rings and bushings.

Set consisting of:	
Art. no. 78170 101, size 1	
6 internal extractors (sizes 1-6) 12-46 mm	**art. no. 78140,**
2 counter-supports (sizes 1 and 2)	**art. no. 78141,**
1 battery terminal puller size 1	**art. no. 78101,**
1 two-arm puller (size 1) 90 mm	**art. no. 78105,**
1 pull-off chuck	**art. no. 78160.**
Art. no. 78170 102, size 2	
As with size 1, in addition:	
2 internal extractors (sizes 7 and 8) 45-70 mm,	**art. no. 78140,**
1 two-arm puller (size 2) 160 mm.	**art. no. 78105.**
Art. no. 78170 103, size 3	
As with size 1, in addition:	
1 internal extractor (size 7) 45-58 mm,	**art. no. 78140,**
1 internal extractor (sizes 8 and 9) 56-110 mm	**art. no. 78140,**
1 counter-support (for sizes 8 and 9),	**art. no. 78141,**
1 two-arm puller (size 2) 160 mm.	**art. no. 78105.**

78170

Size	Version	78170 ...
1	In L-Boxx	**101**
2	In L-Boxx	**102**
3	In L-Boxx	**103**

78182 Ball bearing extractor set

KUKKO BOX SYSTEM

Applications
For extracting deep-groove ball bearings. Selection table with ball bearing numbers in the case lid.
Operation:
Place the hooks with claws between the balls in the outer bearing ring. Squeeze the hooks together at the top and press with the recesses around the hub collar. Tighten the tension disk, sliding the retaining bushing over the hooks. The ball bearing can only be extracted if the tension disk is securely tightened.

Version	78182	...
In L-Boxx	101	

	Set consisting of:
1	**Puller size 1 and 1 set of hooks 150 mm in length,** for ball bearings 6000-6003, 6200,
1	**Set of hooks 150 mm in length,** for ball bearings 6004-6006, 6201-6203, 6300,
1	**Set of hooks 170 mm in length,** for ball bearings 6204-6205, 6301-6303,
1	**Puller size 2 and 1 set of hooks 180 mm in length,** for ball bearings 6007-6010, 6013,
1	**Set of hooks 180 mm in length,** for ball bearings 6011-6012, 6206-6207, 6304-6306,
1	**Puller size 3 and 1 set of hooks 217 mm in length,** for ball bearings 6208-6210, 6307, 6403, 6407,
1	**Set of hooks 217 mm in length,** for ball bearings 6211-6212, 6308-6311, 6404-6406, 6408,
26	**Support rings.**

78182

78183 Deep-groove ball bearing extractor set

KUKKO BOX SYSTEM

Applications
For extracting deep-groove ball bearings both seated on a shaft and embedded in a housing due to the installation conditions. Simple mounting in the inner ring is possible due to the guide ring.

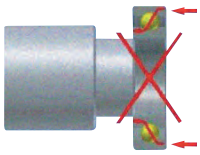
	Comprising
7	**Set of puller hooks with ball heads,**
	1 set of hooks, 3 pieces, 150 mm in length, for ball bearings 6000-6003, 6200,
	1 set of hooks, 3 pieces, 150 mm in length, for ball bearings 6004-6006, 6201-6203, 6300,
	1 set of hooks, 3 pieces, 170 mm in length, for ball bearings 6204, 6205, 6301-6303,
	1 set of hooks, 4 pieces, 180 mm in length, for ball bearings 6007-6010, 6013,
	1 set of hooks, 4 pieces, 180 mm in length, for ball bearings 6011, 6012, 6206, 6207, 6304-6306,
	1 set of hooks, 4 pieces, 217 mm in length, for ball bearings 6208-6210, 6307, 6403, 6407,
	1 set of hooks, 4 pieces, 217 mm in length, for ball bearings 6211, 6212, 6308-6311, 6404-6406, 6408,
2	**Index plates** with jam nut and spindle,
2	**Guide rings** and
26	**Different support rings.**

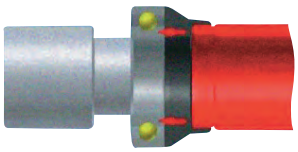
Version	78183	...
In L-Boxx	101	

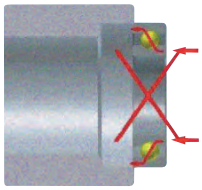
78183

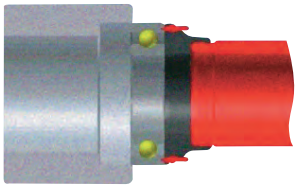
Info Expert installation of roller bearings

Roller bearings can be damaged by improper installation.
This leads to premature bearing failure and thus to machine or plant downtime.
For this reason, skilled operators and specialist companies use an installation tool set!









Improper installation
When installing a roller bearing, it is important to ensure that the installation forces are not transferred to the bearing seat via the rolling element.

Professional installation of rolling bearings
Through an installation tool set, the installation forces are transferred directly to the inner or outer ring of the bearing. The recoil-free soft-face hammer ensures a clean distribution of the force.

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

78185 Roller bearing installation tool set

Applications
For safe, fast and precise mounting of bearings, bushings, sealing rings and pulleys with hole diameter 10-50 mm. For SKF, FAG, Timken, NTN and corresponding bearings from other manufacturers. The light design makes it especially suitable for use on construction sites and off-site assembly.

	Comprising
33	**Impact rings** made of extremely impact-resistant plastic,
3	**Impact tubes** made of anodised aluminium,
1	**Recoil-free hammer,**
1	**Selection table for roller bearings.**

Set contents	Version	78185 ...
38 pieces	In L-BOXX	201

78185

78187 Roller bearing installation tool set

Applications
For fast and safe installation of roller bearings with hole diameter up to 50 mm and problem-free mounting of bushings, sealing rings, pulleys and similar parts. For SKF, FAG, NTN and corresponding bearings from other manufacturers.

	Set contents
33	Different hardened **impact rings,**
5	**Impact sleeves,** which can be slid up to 220 mm over the end of each shaft,
1	**Recoil-free hammer** 0.7 kg with sparkless soft head (nylon).

Set contents	Version	78187 ...
39 pieces	In L-BOXX	101

78187

78189 Separator and puller sets

Design
- With 2-screw tightening
- Quality tool steel

Applications
For extracting close-fitting ball bearings, inner rings, etc. The blades of the separator jaws press behind the parts to be extracted and release them from their seat.

Note:
The separator is connected with a suitable puller for extraction.

78189

Article no.	Separator size	Puller size	Extension (1 pair) length mm
78189 101	0	0	100
78189 102	1	1	100
78189 103	2	2	100
78189 104	3	3	100

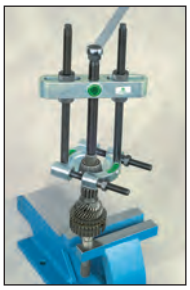
Clamping range mm	Weight approx. kg	Version	78189 ...
60	2.7	In L-Boxx	101
75	4.7	In L-Boxx	102
115	8.4	In L-Boxx	103
155	14.7	In L-Boxx	104 NEW

78190 - 78192 Separators and pullers

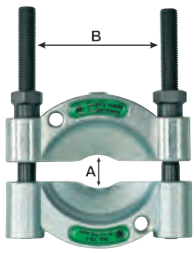
Design
- With 2-screw tightening
- Quality tool steel

Applications
For extracting close-fitting ball bearings, inner rings, etc. The blades of the separator jaws press behind the parts to be extracted and release them from their seat.

Note:
To connect with the separators, the tension bolts are screwed into the thread holes of the separator jaws.



78190



78192

Size	A mm	B mm	Clamping width mm	Length of tension bolt mm	Separators 78190 ...	Pullers 78192 ...
0	8 - 60	60	50 - 110	150	101	101
1	12 - 75	75	60 - 150	200	102	102
2	22 - 115	115	60 - 200	250	103	103
3	25 - 155	155	80 - 300	300	104	104

78399 Punch holder

Design
- Creates a safe distance between the user's hand and the hammer head of the manual drive-in punch
- Protects against injuries caused by missed strikes and slips
- Spring-locked quick change device
- Suitable for all manual drive-in punches with a maximum shaft cross-section of 20 x 20 mm

Applications
Stable and durable metal construction for industrial use.

78399

Weight kg	78399 ...
0.45	101

78400 - 78401 Number and letter punch sets extra quality

Design
Font DIN 1451 medium-narrow up to 5 mm, larger = narrow. With visible engraving, bright-drawn material in satin-gloss-matt finish, normal version left engraved – legible impression.

Applications
For normal requirements up to strengths of approx. 800 N/mm². For punching in iron, steel, leather, wood and plastic.

Note:
Right engraving – mirror-image impression for moulds and dies available on request.

78400 - 78401

DIN 1451 narrow
123
ABCD abcd

DIN 1451 medium-narrow
123
ABCD abcd

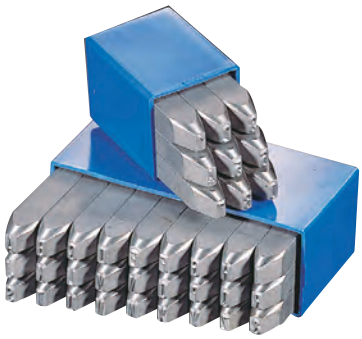
Font height mm	Hardness engraving HRC	Version	0 - 9 78400	...	A - Z 78401	...
2	58 - 60	In plastic box		102		102
3	58 - 60	In plastic box		103		103
4	58 - 60	In plastic box		104		104
5	58 - 60	In plastic box		105		105
6	58 - 60	In plastic box		106		106
8	58 - 60	In plastic box		107		107
10	58 - 60	In plastic box		108		108
12	58 - 60	In plastic box		109		109
15	58 - 60	In plastic box		110		

78403 - 78404 Number and letter punch sets extra extra quality

Design
Plain polished, font DIN 1451 medium-narrow up to 5 mm, higher = narrow. Normal design left engraved, legible impression.

Applications
For rigorous requirements up to strengths of approx. 1200 N/mm².

78403 - 78404



Font height mm	Hardness engraving HRC	Version	0 - 9 78403	...	A - Z 78404	...
2	58 - 60	In plastic box		102		102
3	58 - 60	In plastic box		103		103
4	58 - 60	In plastic box		104		104
5	58 - 60	In plastic box		105		105
6	58 - 60	In plastic box		106		106
8	58 - 60	In plastic box		107		107
10	58 - 60	In plastic box		108		108

78406 - 78407 Number and letter punch sets special class

Design
Plain polished according to DIN 7353/1451 narrow, hardened and tempered impact head. Normal design left engraved, legible impression.

Applications
For the toughest requirements, workpieces up to 2000 N/mm².

78406 - 78407

Font height mm	Hardness engraving HRC	Hardness at impact end HRC	Version	0 - 9 78406	...	A - Z 78407	...
2	58 - 60	38 - 46	In plastic box		102		102
3	58 - 60	38 - 46	In plastic box		103		103
4	58 - 60	38 - 46	In plastic box		104		104
5	58 - 60	38 - 46	In plastic box		105		105
6	58 - 60	38 - 46	In plastic box		106		106
8	58 - 60	38 - 46	In plastic box		107		107
10	58 - 60	38 - 46	In plastic box		108		108

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

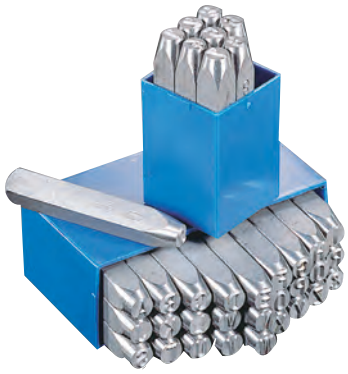
78412 - 78413 Number and letter punch sets with depth limit

Design
With depth limit, plain polished, with visible engraving and tempered impact head, typeface in accordance with DIN 1451 medium. Normal design left engraved – legible impression.

Applications
For the most demanding applications, for punching in steel.

Note:
Right engraving – mirror-image impression for moulds and dies available on request.

78412 - 78413



Font height mm	Hardness engraving HRC	Hardness at impact end HRC	Version	0 - 9 78412 ...	A - Z 78413 ...
2	58 - 60	38 - 46	In plastic box	103	103
3	58 - 60	38 - 46	In plastic box	104	104
4	58 - 60	38 - 46	In plastic box	105	105
5	58 - 60	38 - 46	In plastic box	106	106
6	58 - 60	38 - 46	In plastic box	107	107
8	58 - 60	38 - 46	In plastic box	108	108
10	58 - 60	38 - 46	In plastic box	109	109

78415 Number and letter punch

Design
Precision design made of CrMo special steel. The punched mark is directly legible.

Applications
Suitable for marking steel with strength up to 1300 N/mm². Several types of steel can be inserted next to each other in the steel holder (see table).

Set composition

A	A	A	B	B	C	C	D	D	E	E	E	E	F	F	G	G	H	H	I
I	I	J	J	K	K	L	L	L	M	M	N	N	N	O	O	O	P	P	Q
R	R	R	S	S	S	T	T	U	U	U	V	W	W	X	X	Y	Z	&	/
/	-	-	.	.	·	·	1	1	1	1	2	2	2	2	3	3	3	4	4
4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	0	0	0

78415

	Set contents
1	Hand holder,
100	Individual steel types A-Z and 0-9, / (forward slash), . (full stop), , (comma) and - (hyphen).

Font height mm	Max. mounting options per holder	Version	78415 ...
1.5	12	In plastic box	202
2.5	12	In plastic box	203
3.0	9	In plastic box	204
5.0	8	In plastic box	205

78420 Marking stencil sets

Design
Made of aluminium, block letters.

Applications
For signing, identification, marking etc. with paint or ink.

78420 201-207

78420 210-216

Font height mm	0 - 9 78420 ...	A - Z 78420 ...
20	201	210
30	202	211
40	203	212
60	205	214
80	206	215
100	207	216

78422 Metal etcher

Design
With 2 refills. Green universal etching solution.

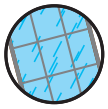
Applications
For identification, marking and signing in precision engineering, tool manufacture and mechanical engineering, storage and in the warehouse. For steel, copper, nickel, tin and lead, as well as their alloys.

78422

	Pack = Units	78422 ...
Etcher	-	101
Spare refills	5	102

Info

Overview of pictograms for chalk and markers

	Rough and oily Iron		Glass, porcelain
	Smooth and clean iron		Rubber, tyres
	Hot iron		Paper, cardboard
	Stainless steel		Dry wood
	Stone, brick		Damp wood
	Asphalt, macadam		Textiles
	Plastic		

67330 Oil pastel pencils

Markal®

67330 101
Oil pastel pencil
Design
- Hex
- Without paper sleeve

Applications
Versatile oil chalk. For signing/marking cold or warm steel, metals, wood, paper, cardboard.

67330 102
Holder with push button
Design
- The metal teeth of the holder keep the chalk fixed during use and thus secure the marker
- The push mechanism makes it easy to extend and retract the chalk

67330 101

67330 102

Colour	Length cm	Pack = pieces	Oil pastel pencil 67330	...	Holder 67330	...
Yellow	-	12		101		
-	11.4	-				102

78424 Blackboard chalk

Markal®

Design
Square.

Applications
For writing on blackboards.

78424

Colour	Dimensions mm	Pack = pieces	78424	...
White	90 x 13 x 13	12		101

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78419 Soapstone chalk

Markal®

Natural soapstone chalk, square.

Applications
For marking metal before welding.

78419

Dimensions mm	Pack = pieces	78419	...
100 x 10 x 10	50		101

78421 Solid paint markers Markal B Paintstik

Markal®

- The real paint formula has superior marking performance on oily, icy, wet, dry or cold surfaces and is weather-resistant and UV-resistant
- The real paint provides permanent, clearly visible markings
- The solid paint marker eliminates replacement tips, sharpening or priming, increasing productivity
- Easy-to-hold, recyclable paperboard holder protects Paintstik for maximum use

Applications
Can be used for marking rough, rusty, smooth and dirty surfaces.

78421 101

78421 102

Colour	Standard size mm	Standard size inch	Temperature range °C	78421	...
White	17	11/16	-46 to 66		101
Yellow	17	11/16	-46 to 66		102

78423 Quik Stik® Mini paint marker

Markal®

- Compact solid paint marker in a convenient twist-up, plastic holder that is ideal for finer line marking on smooth or rough surfaces
- Plastic holder with clip-cap stores easily in a pocket and keeps hands and clothing clean
- Easily advances by turning the knob, allowing for full extension and retraction of the marker
- The colour paint dries quickly (5-7 minutes) and leaves bold, permanent marks on virtually any surface, whether wet, smooth, rough or hot, weather-resistant and UV-resistant paint

78423 101

78423 102

Colour	Size mm	Temperature range °C	78423	...
White	6	-18 to 200		101
Yellow	6	-18 to 200		102

78426 Permanent marker

Markal®

Applications
Indelible marking on all smooth surfaces, such as paper, cardboard, plastic and metal. Rounded tip.
Long service life.

78426

Colour	Line thickness up to mm	Pack = pieces	78426	...
Black	3	12		101
Blue	3	12		102
Red	3	12		103

78427 Industrial paint marker

Markal®

- Universal, quick-drying paint marker
- Pigmented ink without the addition of toluene and xylene, low odour
- For lightfast, water-resistant and wipe-off-resistant marking of dark and transparent material
- Valve-controlled ink flow for uniform lines
- Line thickness 2-4 mm

78427

Colour	Pack = Units	78427	...
Black	12		101
Blue	12		102
Red	12		103
Yellow	12		104
White	12		105

78429 CD marker

Markal®

Indelible ink. Quick-drying, UV-/water resistant. Nylon tip Ø 10 mm.

Applications
On clean, smooth surfaces: CDs, paper, metal, plastic.

78429

Colour	Heat resistance up to approx. °C	78429	...
Black	100		101

78425 Tube markers

78425 101-103
Disposable tube markers
Design
- Disposable marker with hardened steel ball tip for quick and easy marking
- Perfect adhesion to all surfaces (rusty, rough, oily, damp etc.) and all materials (metal, wood, rubber, concrete, plastic etc.)
- Paint without halogens (chlorine), heavy metals (Pb, Zn, Cd) or hydrocarbons, so environmentally friendly
- Resistant to mineral oil and salt fog, weather resistant, indelible, quick-drying
- 1-year guarantee on writing quality!

78425 201
Stainless steel tube marker
Design
- Metal-ball tube marker that meets the requirements of the European nuclear industry
- The low-sulphur and low-chloride contents allow safe marking on stainless steel
- May be safely used on stainless steel and other alloy metals where corrosion resistance is important
- The aluminium squeeze tube and thick paint make it suitable for vertical and overhead surfaces
- The low-sulphur and low-chloride paints are resistant to weather, water and UV

78425 301
High-temperature tube marker
Design
- Metal-ball tube marker is ideal for hardening and heat treatments
- Markings applied at ambient temperature hold at temperatures up to 1000 °C
- The aluminium squeeze tube and thick paint make it suitable for rough, vertical and overhead surfaces with excellent adhesion on oily and wet surfaces

Applications
High-temperature paint, ideal for welding seams, ingots, casting, forging and other hardening parts.

78425 101

78425 102

78425 103

78425 201

78425 301

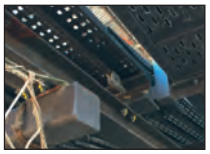
Colour	Content ml	Writing thickness mm	Heat resistance °C	78425 ...
White	60	3	200	101
Yellow	60	3	200	102
Red	60	3	200	103
White	60	3	200	201
White	60	3	1000	301

78431 Screw locking varnish

NEW

Design
- Maximum-visibility locking varnish for quick and easy visual inspection: Security checks or changes to original settings on assemblies, facilitates identification of any accidental or deliberate adjustment movements
- Outstanding adhesion to a wide variety of surfaces
- Ideal for use on connectors, bolts, nuts, parts and assemblies after they have been set to the correct tension or position
- The sealing varnish suitable for alloys, free of heavy metals for safe use on metal
- Significantly more content compared with other products on the market (50 ml paint) for a longer service life and reduced work downtime

Applications
In industry and trades.



78431 101

78431 102

78431 103

78431 104

Colour	Content ml	Ambient temperature °C	Temperature resistance °C	78431 ...
White	50	-20 to 70	200	101
Yellow	50	-20 to 70	200	102
Red	50	-20 to 70	200	103
Orange	50	-20 to 70	200	104

35448 Pica Dry deep hole marker

35448 101
Pica Dry deep hole marker
Design
- Marks and writes on almost all material surfaces (on dry, damp, smooth, rough, dusty, oily, bright or dark surfaces)
- Replaceable special lead made of graphite
- Automatic lead feed - Stainless steel tube
- Integrated sharpener on the front in the protector
- Practical quiver protector with special clip
- Marking on smooth surfaces can be wiped off with a damp cloth

35448 102-105
Pica Dry replacement lead set
Design
- For all surfaces
- Can be wiped off with a damp cloth
- Best output
- Best contrast
- Already sharpened
- Lead diameter 2.8 mm
- In a practical and robust plastic box

35448 102
Comprising:
- 4 graphite leads
- 2 red leads
- 2 yellow leads

35448 103
Comprising:
- 10 graphite leads

35448 104
Comprising:
- 10 red leads

35448 105
Comprising:
- 10 yellow leads

Note:
Red and yellow colour protect against high temperatures.

35448 101

35448 102

35448 103

35448 104

35448 105

	Colour	Pack = pieces	35448	...
Marker	-	-		101
Refill set	Graphite, red, yellow	8		102
Lead set	graphite	10		103
Lead set	red	10		104
Lead set	yellow	10		105

35449 Pica Ink deep hole marker

Design
- Ideal for hard-to-reach areas
- Writes on all dry material surfaces
- Permanent ink, removable with alcohol and spiri
- Marking width 1–2 mm
- Can be left open for 1 day
- Self-adjusting patented stainless steel telescopic tip
- Practical quiver protector with special clip for one-handed operation

35449 101

35449 102

	Colour	35449	...
Marker	red		101
Marker	black		102

Labellers

78428 Labeller

2-axis labeller Markierteufel (MarkingMaster)
Design
Dot peen marking machine for labelling, identifying and marking nameplates and solid materials. Pneumatic dot peen marking head, 2-axis stepper motor - path control integrated in the housing. Serial interface for PC connection. Standard software with operation in standard Windows if desired, with pull-down menus, hotkeys and toolbar and status bar. Easily create the labelling layout: Texts, graphic elements (circles, squares and much more), counting function, free scaling of the objects, automatic date marking and much more.

Applications
Labels steel, non-ferrous metals, plastics and much more.

78428

Dimensions approx. mm	Connection V	Compressed air bar	Labelling field mm	78428	...
250 x 260 x 160	240	6	80 x 50		101

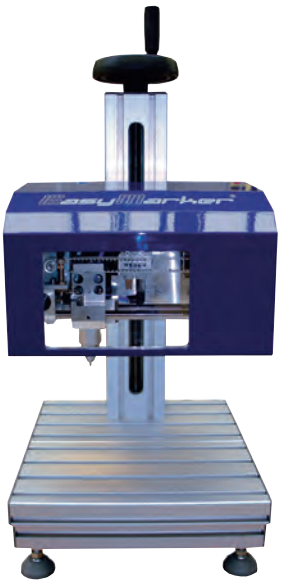
78430 Labelling devices

Note:
Further labelling systems and flexible identification systems available on request.

78430 101
2-axis labeller EasyMarker
Design
With LED work area lighting. CNC-controlled needle marker. Labelling system for directly marking iron and non-ferrous metals, plastics, hardened materials. Especially in light of ISO 9000, this instrument facilitates marking, identification and traceability of workpieces. Simply enter the data using the keyboard (included). The input can be controlled on the LC display. Input data - insert workpiece - press start - finished!
Functions:
Fixed text, continuous numbers, automatic date, linear- angle- and circular marking, automatic zero-setting, teach in, variable type height (in increments of 0.1 mm), CE logo marking, mm/inch conversion. Software in three languages.

78430 102
3-axis labeller EasyMarker with easyROT80
Design
Similar to art. no. 78430 101, additionally for labelling cylindrical or multi-edge parts. Full software support for path-controlled cylinder marking as well as for timed operation with freely selectable timing angle. Can also be used as a 2-axis instrument for marking workpieces on table surfaces.

78430 101



78430 102

Technical data: Type		78430 101 EasyMarker	78430 102 EasyMarker with easyROT80
Speed in	mm/sec	100	100
Height adjustment	mm	300	300
Impact frequency up to	Hz	400	400
Imprinting force	N	100	100
Stroke	mm	5	5
Labelling speed	up to	4 characters/sec	4 characters/sec
Connection	Volt	240	240
Compressed air	bar	6	6
Travel paths	x/y/z	100 x 100	100 x 100 x 200
Max. workpiece Ø	mm	-	200
Max. workpiece weight	kg	50	10
Table size	mm	300 x 300	500 x 300
Chuck Ø	mm	-	80
Tip height	mm	-	120
Dimensions	mm	300 x 650 x 350	500 x 650 x 350
Weight approx.	kg	18	25

Type	78430	...
EasyMarker		101
EasyMarker with easy ROT80		102

78450 - 78454
Design
Labellers for high-speed production of self-adhesive labels.
1 + 1 year warranty for art. no. 78450.
2 + 1 year warranty for art. no. 78452-78454.

Note:
For label tape cassettes see art. no. 78456 to 78459. For batteries see art. no. 39900.

78450
Rhino 5200 in case
Design
Meets all ANSI, TIA/EIA-606-A- labelling standards. Direct access keys automatically adjust size, spacing and format of labels for wires and cables, terminal blocks, patch panels and applications with vertical and fixed length. Pre-programmed symbol library. Non-slip rubber coating protects device from damage. Belt loop keeps your hands free. Backlit display. Nylon tape 19 mm white, quick start guide, Li-ion batteries or 6 AA batteries (not included).
Applications
For fast, professional printing of barcodes, labelling of wires, cables, buttons, modules and fixed lengths using quick access keys in industry, audio/video, security, maintenance, construction, electrical engineering and data communication and radio/television.

78452
LabelManager 360 D
Design
In a box with tape 19 mm, black/white. Supplied with a Li-ion battery and charger.

78453
LabelManager 280
Design
- Professional portable labeller
- Computer-style QWERTZ keyboard
- With PC connection capability

With labelling tapes 12 mm/9 mm, black/white. Supplied with a Li-ion battery, mains power supply adapter, transport case, USB cable.

Applications
Use standalone or connected to a PC or MAC via USB to print barcodes, logos, labels etc. with the DYMO Label software.

78454
LabelManager 210 D
Design
In a box with tape 12 mm/3 m, black/white. Batteries not included.

78455
Mains power supply adapter
Applications
For art. no. 78454.

78450

78452

78453

78454

78455

Art. no.	78450	78452	78453	78454
Features	**Rhino 5200 in case**	**LabelManager 360 D**	**LabelManager 280**	**LabelManager 210 D**
Printing method	Thermal transfer	Thermal transfer	Thermal transfer	Thermal transfer
Print resolution dpi	180	180	180	180
Max. number of lines	5	2	2	2
Max. print height mm	18	13.5	8.1	9.6
Printing speed mm/s	-	10.0	10.0	6.8
Cassette type	IND	D1	D1	D1
Tape width mm	6, 9, 12, 19	6, 9, 12, 19	6, 9, 12	6, 9, 12
Keyboard type	ABC	QWERTZ	QWERTZ	QWERTZ
Number of keys	61	63	58	57
RACE (quick key input)	x	x	x	x
Display number of characters	2 x 15	2 x 16	2 x 14	2 x 13
LC display size mm	-	66 x 36	56 x 28	60 x 17
Number of characters/symbols	> 100	221	221	132
Number of fonts	-	3	3	1
Number of font sizes	7	7	6	6
Number of font styles	5	7	18	7
Effects	x	x	x	x
Memory last label	x	x	x	x
Label memory	> 100	9	9	9
Dynamic memory	x	x	x	x
Preferred formats	x	x	x	x
Tape section	Manual	Manual	Manual	Manual
Device dimensions W x D x H mm	235 x 295 x 105	215 x 245 x 85	107.5 x 206 x 46.5	155 x 165 x 65
Batteries	6 Mignon AA/Li-ion	Li-ion	Li-ion	5 Mignon AA
Mains power supply adapter (optional)	x	x	x	x

DYMO Rhino 5200 in case		DYMO LM 360 D		DYMO LM 280		DYMO LM 210 D		Mains power supply adapter	
78450	...	78452	...	78453	...	78454	...	78455	...
	201		301		301		101		101

78456 Label tape cassettes IND for DYMO Rhino 5200

Applications
Label tape cassettes IND for Rhino 5200.

78456

Label tape Material	Colour	Width mm	Tape length m	78456	...
Nylon	Yellow	12	3.5		201
Nylon	Yellow	19	3.5		202
Nylon	White	12	3.5		203
Nylon	White	19	3.5		204
Polyester	White	12	5.5		301
Polyester	White	19	5.5		302
Vinyl	White	12	5.5		401
Vinyl	White	19	5.5		402
Vinyl	Yellow	12	5.5		403
Vinyl	Yellow	19	5.5		404

78457 - 78459 Label tape cassettes for DYMO

Design
In tape cassette D1.

Note:
Also suitable for DYMO labellers type Pocket, 1000, 2000, 3500, 4500, 5000, 5500.

78457 - 78459

Tape width		9 mm	12 mm		19 mm	
Label tape cassette Colour	Tape length m	78457	...	78458	...	78459	...
Black/transparent	7		101		201		101
Black/white	7		104		204		104
Black/yellow	7		109		209		109

78460 - 78464 Electric engraver (marking device)

Design
- Cable,
- Plug,
- Earthing plate.

78462 101

78462 102

78461

78460
Design
- Including stylus with 3 scriber points.

Applications
For labelling metal.

78463

78464

78461
Design
- Including metal stylus with 3 scriber points,
- 1 branding pencil with 3 hot loops.

Applications
For labelling metal, leather, plastic and wood.

Alternating current V	Transformer VA	Stylus mm	Version	78460	...	78461	...
230	40	1.2 x 25	In wooden case		201		301

	Use for	Dimensions mm	Pack = pieces	78462	...	78463	...	78464	...
Spare stylus	Metal labelling	-	-		101				
Spare stylus	Wood labelling	-	-		102				
Spare stylus	-	1.2 x 25	10				201		
Spare stylus	-	1.5 x 25	10				202		
Earth terminal	-	-	-						101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

78465 Engraving device

Markal

Design
- Electric drive based on the vibrating anchor system, with double insulation and no maintenance
- Very easy-to-handle moulded plastic housing
- Continuous and precise adjustment of the maximum stroke length (impact strength)

Applications
For clean, hands-free labelling and marking, as well as for engraving of all metals, glass, plastic, stone, wood and leather, etc.

Scope of delivery:
- 1 diamond graver
- 1 carbide graver
- 1 modelling graver for wood, plastic
- 1 graver adapter

78465

Type	Stroke length mm	Volt	Hz	Version	78465	...
Vibogravc VG490	3	230	50/60	Plastic case		101

78466 Compressed-air marker

PFERD

78466 101
Marker MST 31 M
Design
- Exhaust air to the front,
- Air consumption 25-30 l/min.,
- Clear air supply hose Ø 4 mm,
- Frequency 500-600 strokes/sec,
- Hose length 2000 mm,
- Operating pressure 6-7 bar,
- Air supply hose included,
- The compressed-air marker is patented based on a new principle with approximately 3x the frequency of previous compressed-air-operated markers,
- With cemented carbide engraving needle,
- No harmful vibrations are transferred to the hand while working.

Applications
For applying markings and labels to metal, glass, plastic and even hardened tool steel.

78466 101

78466 201-203

Type	Tape width mm	Valve type	Needle size	78466	...
MST 31 M	Medium	Rotary valve	-		101
Spare carbide engraving needle	-	-	Fine		201
Spare carbide engraving needle	-	-	Medium		202
Spare carbide engraving needle	-	-	Coarse		203

78474 Metal marking device

78474 201
Model PICO 10-30-3/Timer
Design
With time control, acoustic signal, overload and short-circuit protection, temperature limiter. Power 30 VA, input 220 V~ - 50/60 Hz, output 12 V~/AC.
Applications
For permanent dark product marking on plain metals. Suitable for tools, e.g. dies, cutters, drills, turning tools, saw blades, steel and cutlery, surgical instruments, parts for the chemical industry, cooking and catering technology, heating and plumbing fixtures.

	Set contents
1	Marking punch,
1	Electronic stencil set,
1	Contact plate,
1	Container for electrolyte,
1	Marking device,
1	Cable for marking punch,
1	Bottle of electrolyte,
1	Bottle of Neutralin,
1	Cable for contact plate with
1	Alligator clip.

78474

	Application	Contents	Version	78474	...
PICO 10-30-3/Timer	-	-	In plastic case		201
Electrolyte	General purpose	500 ml	-		102
Electrolyte	Non-rusting materials	500 ml	-		103
Neutralin	Neutralising	500 ml	-		108
Wax template	For self-labelling	100 pieces	-		109

78475 Tool tag sets

Design
Stamped aluminium, with hole and sequential numbering. Round, with knurled ring.

78475

Set numbered from - to	Thickness mm	Ø mm	Set = pieces	78475	...
1 - 10	1	27	10		101
11 - 20	1	27	10		102
21 - 30	1	27	10		103
31 - 40	1	27	10		104

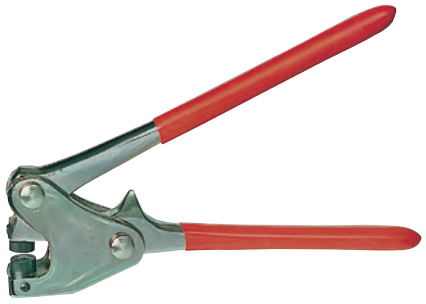
Set numbered from - to	Thickness mm	Ø mm	Set = pieces	78475	...
41 - 50	1	27	10		105
51 - 60	1	27	10		106
61–70	1	27	10		107
Without no.	1	27	10		111

78480 - 78490 Sealing pliers

78480
Sealing pliers
Design
Nickel-plated, with elbow lever transmission and plastic-coated handles, without engraving.
Applications
For lead seals.

78485
Lead seals (cylinder seals).
Pack = 1000 units.
78490
Seal wire
Zinc-plated, 0.5 x 0.3 mm thickness, in 20 cm long pieces, **bundle approx. 1/2 kg (= 1000 pieces).**

78480



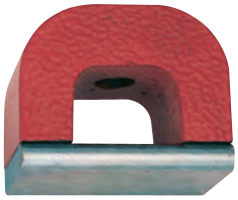
		Sealing pliers		Lead seals		Seal wire	
Seal Ø mm	Length mm	78480	...	78485	...	78490	...
8	125		101		201		
10	175		102		202		
-	-						101

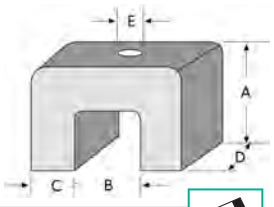
78605 Strong magnets

Design
Bridge-shaped magnet with high adhesive force and through-bore for mounting.
Applications
For holding, lifting, positioning and installation purposes.

Note:
Size 4 with 2 bores.

78605





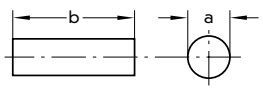
Size	A mm	B mm	C mm	D mm	E mm	Adhesive force N	Application temp. of magnet max.°C	Paint max. °C	78605	...
1	20.0	15.0	7.5	20.0	5.2	45	450	300		201
2	25.0	20.0	10.0	25.0	5.0	90	450	300		202
3	30.0	23.0	11.0	30.0	5.0	118	450	300		203
4	34.9	34.9	11.1	44.5	7.9	235	450	300		204

78606 Bar magnets

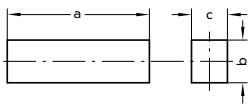
Design
Pack = 2 units.
Axial magnetised through the length. Cross-section/Ø: unmachined. Tolerances: Length +/- 0.1 mm, cross-section round +0/-0.2 mm, cross-section flat +/-0.2 mm.
Applications
By lining up individual magnets, bar magnets can be formed in any length.

78606 201-208
In pairs.

78606 201-203



78606 204-208



Size	Shape	a mm	b mm	c mm	Adhesive force N	Application temp. of magnet max.°C	Paint max. °C	78606	...
11	Round	6	20	-	4	450	300		201
12	Round	8	24	-	7	450	300		202
13	Round	10	30	-	12	450	300		203
14	Flat	20	10	5	6	450	300		204
16	Flat	60	15	5	20	450	300		206
18	Flat	75	15	10	14	450	300		208

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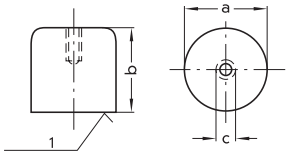
78607 Pot magnets

Design
Shielded with threaded hole M 6.
Applications
Suitable for installation in fixtures, for holding, clamping, mounting etc.

Note:
Sketch
1 = adhesive surface.



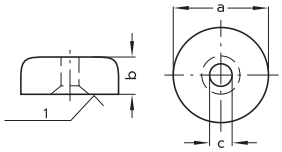
78607

Size	a x b Ø x height mm	c	Adhesive force N	Application temp. of magnet max. °C	Paint max. °C	78607	...
21	17.5 x 16.0	M 6	26	450	300		101
22	20.6 x 19.0	M 6	40	450	300		102
23	27.0 x 25.0	M 6	61	450	300		103
24	35.0 x 30.0	M 6	147	450	300		104

78608 Flat pot magnets

Design
Shielded with through-bore and countersink on the adhesive surface.
Applications
For installation in fixtures with minimal space requirements, holding etc.

Note:
Sketch
1 = adhesive surface.

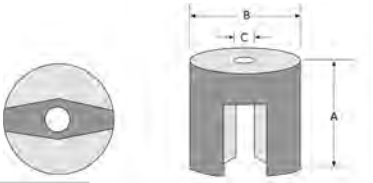


78608

Size	a x b Ø x height mm	c mm	Adhesive force N	Application temp. of magnet max.°C	Paint max. °C	78608	...
31	19.1 x 7.5	3.7	30	450	300		101
32	28.6 x 8.5	4.8	50	450	300		102
33	38.1 x 10.4	4.8	130	450	300		103

78611 Button magnets

Design
With split magnetic surface and through-bore.
Applications
For holding and positioning.

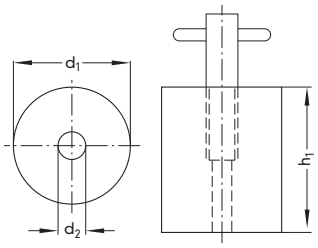


78611

Size	A X B mm	C mm	Adhesive force N	Application temp. of max. °C	Paint max. °C	78611	...
61	9.5 x 12.7	4.4	7	450	300		201
62	12.7 x 19.1	4.8	19	450	300		202
63	15.9 x 25.4	4.8	34	450	300		203

78730 Permanent pot magnets

Design
With push-off spindle for simple removal. Nickel-plated protective plate.
Applications
For holding and clamping even heavy workpieces, for production of rigid or jointed connections, also as a fixed clamping device for large and heavy workpieces during welding and fabrication work, for any particular application.



78730

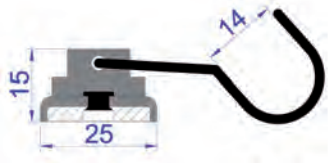
Size	d1 mm	h1 mm	d2 mm	Adhesive force N	Max. application temp. of magnet °C	Paint °C	78730	...
73	70	64	M 8	880	450	300		203

78613 Rotating magnetic hook

Design
- This magnetic hook always points in the desired direction because the hook is free to rotate
- Particularly suitable for installation on the bottom of a steel girder so that the load force acts vertically downwards.

Applications
When mounted on the wall, the adhesive force depends on the smoothness of the surface.
Kitchen towels or light tools can easily be hung on it.

Note:
Two pot magnets cannot be placed exactly on top of one another, because they strongly repel each other. The pot magnets can only be arranged offset to the side.



78613

Type	Retention force kg	Height mm	Max. expansion with hook mm	Weight g	78613	...
FTNT-25	20	15	63	36		101

52002 Magnetic storage tray

Design
Round, made from stainless steel. Due to the double-sided magnetic effect, the tray can be secured to all iron surfaces, such as workshop trolleys, tool racks or lifting platforms. To protect the surface, the magnetic surface is covered with rubber.
Applications
Universally usable magnetic storage with strong magnet that securely holds small parts such as screws or wheel bolts.

Ø mm	52002 ...
150	101

78619 Magnetic holder

ATORN®

Design
- Solid plastic version
- High retention force thanks to 6 neodymium magnets in pot magnet (diameter 65 mm)
- Rubber-coated magnet avoids scratches and is oil-resistant

Advantage
Special shape
- Allows 2 separate usable zones
- Prevents accidental slipping or falling of attached items

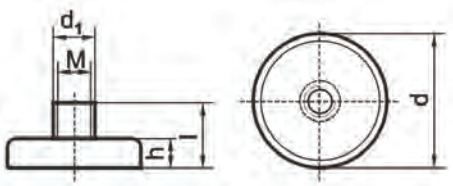
Applications
Cable, barrier tape, blow guns, clothes and other items can be easily secured or hung up.

NEW

Ø mm	78619 ...
65	101

78620 Flat grip magnets, hard ferrite material

Design
Hard ferrite material, zinc-plated surface, with insert nut.
Applications
Universal use in tools, moulded parts and as an adhesive element.

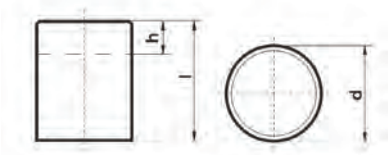


Ø d mm	h mm	Ø d_1 mm	l mm	Thread	Length mm	Weight approx. g	Adhesive force N	Application temperature up to °C	Recommended application temperature °C	78620 ...
10	4.5	6	11.5	M 3	5	3	4	200	100	201
13	4.5	6	11.5	M 3	5	5	10	200	100	202
16	4.5	6	11.5	M 3	5	6	18	200	100	203
20	6.0	6	13.0	M 3	5	11	30	200	100	204
25	7.0	8	15.0	M 4	6	22	40	200	100	205
32	7.0	8	15.0	M 4	6	32	80	200	100	206
40	8.0	10	18.0	M 5	8	60	125	200	100	208
50	10.0	12	22.0	M 6	10	110	220	200	100	210
63	14.0	15	30.0	M 8	14	240	350	200	100	212
80	18.0	20	34.0	M 10	14	520	600	200	100	213
100	22.0	22	43.0	M 12	20	940	900	200	100	214

78621 Bar grip magnets material AlNiCo 500

Design
With round AlNiCo magnetic core. Smooth. Surface zinc-plated, shielded system. Fastening option: Pressing in, shrinking or gluing in place.

Note:
The total length l can be shortened by the dimension h.



d h6 mm	l mm	h mm	Weight approx. g	Adhesive force N	Application temperature up to °C	Fit tolerance	78621 ...
6	10	2	2	1.7	220	h6	201
8	12	3	4	4.0	220	h6	202
10	16	6	9	8.5	220	h6	203
13	18	7	17	12.0	220	h6	204
16	20	5	29	20.0	220	h6	205
20	25	6	57	40.0	220	h6	206
25	30	5	110	80.0	220	h6	207

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78622 Flat grip magnets neodymium material (NdFeB)

Design
Neodymium material (NdFeB), extremely high retention force, zinc-plated surface, without thread.

Applications
Universal use in tools, moulded parts and as an adhesive element.

78622

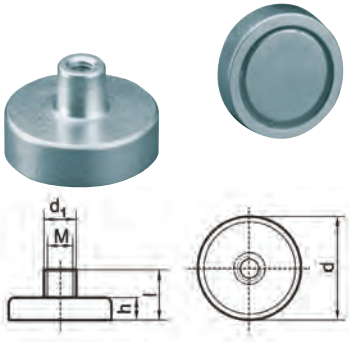
d mm	h mm	Weight approx. g	Adhesive force N	Application temperature °C up to max.	78622	...
6	4.5	1.0	5	80		101
8	4.5	1.5	13	80		102
10	4.5	2.5	25	80		103
13	4.5	4.5	60	80		104
16	4.5	6.5	95	80		105
20	6.0	15.0	140	80		106
25	7.0	22.0	200	80		107
32	7.0	40.0	350	80		108

78623 Flat grip magnets neodymium material (NdFeB)

Design
Neodymium material (NdFeB), extremely high retention force, zinc-plated surface, with insert nut.

Applications
Universal use in tools, moulded parts and as an adhesive element.

78623



d mm	h mm	l mm	d_1 mm	Thread	Weight approx. g	Adhesive force N	Application temperature °C up to max.	78623	...
6	4.5	11.5	4.5	M 3	1.5	5	80		101
8	4.5	11.5	4.5	M 3	2.0	13	80		102
10	4.5	11.5	4.5	M 3	3.0	25	80		103
13	4.5	11.5	4.5	M 3	5.0	60	80		104
16	4.5	11.5	4.5	M 4	7.5	95	80		105
20	6.0	13.0	6.0	M 4	16.0	140	80		106
25	7.0	14.0	7.0	M 4	25.0	200	80		107
32	7.0	15.5	7.0	M 5	48.0	350	80		108

78624 Bar grip magnets neodymium material (NdFeB)

Design
Neodymium material (NdFeB), extremely high retention force. Smooth. Shielded by brass coating. Fastening option: Pressing in, shrinking or gluing in place.

Note:
The total length l can be shortened by the dimension h.

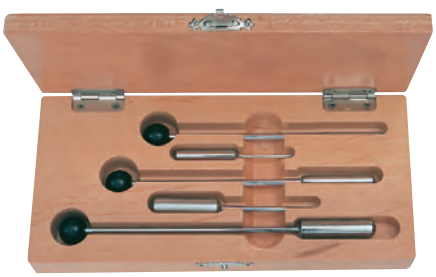
78624

d h6 mm	l mm	h mm	Weight approx. g	Adhesive force N	Application temperature °C up to max.	Fit tolerance	78624	...
6	20	10	4.5	10	80	h6		101
8	20	10	8.0	25	80	h6		102
10	20	8	12.5	45	80	h6		103
13	20	6	20.0	70	80	h6		104
16	20	2	32.0	150	80	h6		105
20	25	6	60.0	280	80	h6		106
25	35	7	135.0	450	80	h6		107
32	40	5	250.0	700	80	h6		108

78632 - 78633 Bar magnets

Applications
For removing steel shavings and small ferrous parts from blind holes, threaded holes and other hard-to-reach places.

78632



78632
Design
Blind hole magnets with large scattering effect.

Set contents	Magnet Ø mm	Version	78632	...
5 pieces	1.6-11.0	In wooden case		101

78633

Individual Magnet Ø x length mm	78633	...
1.6 x 65		201
3.0 x 90		202
5.0 x 130		203

Individual Magnet Ø x length mm	78633	...
8.0 x 150		204
11.0 x 180		205

19390 Magnetic chip lifter

Applications
1 tool, 2 uses:
1. Removing chips,
2. Lift small parts
A magnet moves up and down within a stainless-steel round bar. The strong magnet attracts metal chips. Pull the knob and the chips fall off.

19390

Length mm	19390	...
400		101

78634 Telescopic pick-up magnet

78634

Adhesive force N	Length mm	Magnet Ø mm	Version	78634	...
6	575	6	With pocket clip		101

78635 Mini pick-up magnet

Design
Flexible, for removing metal items, even from the smallest cracks.

78635

Adhesive force N	Length mm	Magnet Ø mm	78635	...
3	400	4		201

78637 Pick-up magnet

Design
With flexible stem and plastic handle.
Applications
For removing small iron and steel parts such as split pins, screws, nuts, rings, bolts etc., even in hard-to-reach places.

78637

Adhesive force N	Length mm	Magnet Ø mm	78637	...
10	460	9		101
18	520	12		102

78703 Flexible gripper

Design
With flexible stem, chrome-plated.
Applications
For placing split pins, small pins, screws and nuts in hard-to-reach places and for gripping and picking up dropped parts.

78703

Length of flexible shaft mm	Claw opening max. mm	78703	...
465	15		101

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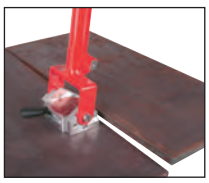
78739 Positioning magnet Mag-Pry

Design
- Pressing-off force 200 kg (on 3 mm steel S 235)
- Up to a maximum of 300 kg retention force
- Long and stable lever arm
- Solid support for perfect pressing on

Applications
- For alignment of sheet steel panels or sheet metal panels that have to be welded on the same level.
- Use in tank construction, mould and prefabrication building and in shipyards.

NEW



78739 300

Type	Retention force kg	Pressing-off force kg	Upright height mm	Horizontal height mm	Width outside edge of lever to bottom of support mm	Width mm	Depth mm	Weight kg	78739	...
MAG-PRY 300	300	200	505	564	79	139	80	2.27		300

78739 Positioning magnets

78739 100+200

Design
- Tear-off force 300 kg (on 6 mm sheet S 235)
- Up to a maximum of 300 kg retention force, even on a 6 mm thick steel plate
- Ergonomic and easy one-handed activation
- M5 and M6 threads on the top and side allow easy attachment of handling accessories such as cutting guides, angled side panels, handles and much more
- Hardened steel bottom with TiN coating for a long service life together with a small air gap prevents damage to the bottom
- Incredible shear force for a better grip, including for vertical applications

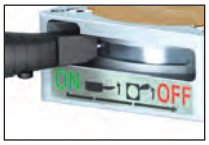
Applications
- Ideal work assistance e.g. for plate levelling, platform construction, fixing and clamping of any kind!
- The specially aligned magnetic field (patented) enables welding approx. only 15 mm from the outside of the magnet

Note:
Pre-tension of the magnets
This is a reduced magnetic field that the magnet radiates, even when it is not activated.
This „pre-tension" makes it possible to attach and position the magnet on a vertical surface or overhead, without it falling. The magnetic force is sufficient to bear the tare weight of the magnet. The magnet can thus be moved into a perfect position before the locking lever is pushed down.
The locking mechanism of the magnet is optimised so that one-hand operation is possible.

78739 200

Design
- With prism and curved surfaces
- Suitable for tubes from 25 mm to 200 mm

78739 100



78739 200

NEW

Type	Retention force kg	Tear-off force kg	Length mm	Width mm	Height mm	Weight kg	78739	...
TMC 300	300	300	82.5	80.0	32.5	1.0		100
TMC 300 R	300	300	82.5	80.0	32.5	1.1		200 NEW

78739 Permanent lifting magnets with handle

ALFRA

78739 102+202

Design
- Max. load capacity 50 kg (even with 3 mm sheet S 235)
- Ergonomic and easy one-handed activation
- Protects hands and fingers from hot and sharp-edged steel
- Indispensable for anyone who needs to move welded parts etc. from one location to another (max. temperature: 60°)
- Hardened steel bottom with TiN coating for a long service life together with a small air gap prevents damage to the bottom
- Incredible shear force for a better grip, including for vertical applications

Applications
- Ideal work assistance e.g. for plate levelling, platform construction, fixing and clamping of any kind!
- The specially aligned magnetic field (patented) enables welding approx. only 15 mm from the outside of the magnet

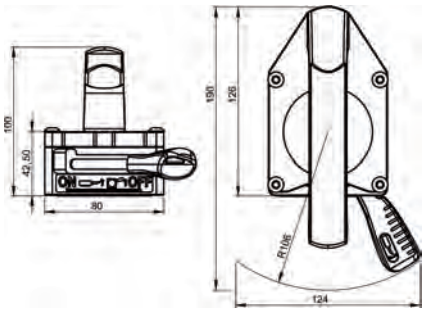
Note:
Pre-tension of the magnets
This is a reduced magnetic field that the magnet radiates, even when it is not activated.
This „pre-tension" makes it possible to attach and position the magnet on a vertical surface or over-head, without it falling. The magnetic force is sufficient to bear the tare weight of the magnet.

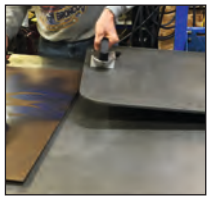
Consequently, the magnet can be moved into a perfect position for an optimal lifting process before the locking lever is pushed down.
The locking mechanism of the magnet is optimised so that one-hand operation is possible.

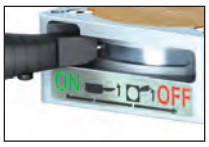
78739 202
Design
- With prism and curved surfaces
- Lifts tubes from 25 mm to 200 mm in diameter

78739 102

NEW 78739 202







Type	Max. load kg	Tear-off force kg	Length mm	Length with lever mm	Width mm	Width with lever mm	Height mm	Weight kg	78739	...
THM 50	50	150	126	190	80	124	100	1.6		102
TMH 50 R	50	>300	126	190	80	124	100	1.6		202 NEW

78739 Permanent lifting magnets

ALFRA

78739 101+201

Design
- Tear-off force 300 kg (from 6 mm sheet S 235)
- Max. load for vertical lifting 30 kg at 90° (3-fold safety factor)
- Max. lifting force of 50 kg at 3 mm material thickness and 100 kg lifting force from 6 mm (plus 3-fold safety factor)
- Outstanding performance on thin-walled materials (can be used from 1 mm)
- Twist stop can be rotated and swivelled through 360° (even under full load)
- Ergonomic and easy one-handed activation
- Hardened steel bottom with TiN coating for a long service life together with a small air gap prevents damage to the bottom
- Incredible shear force for a better grip, including for vertical applications

Applications
- Ideal work assistance e.g. for plate levelling, platform construction, fixing and clamping of any kind!
- The specially aligned magnetic field (patented) enables welding approx. only 15 mm from the outside of the magnet

Note:
Pre-tension of the magnets
This is a reduced magnetic field that the magnet radiates, even when it is not activated.

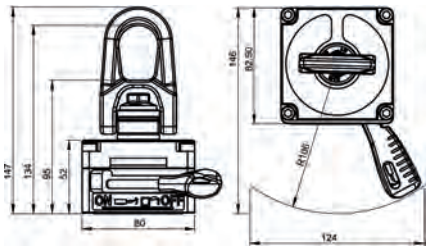
This „pre-tension" makes it possible to attach and position the magnet on a vertical surface or over-head, without it falling. The magnetic force is sufficient to bear the tare weight of the magnet.
Consequently, the magnet can be moved into a perfect position for an optimal lifting process before the locking lever is pushed down.
The locking mechanism of the magnet is optimised so that one-hand operation is possible.

78739 201
Design
- With prism for tubes and curved surfaces
- Lifts tubes from 25 mm to 200 mm in diameter

78739 101

78739 201

NEW



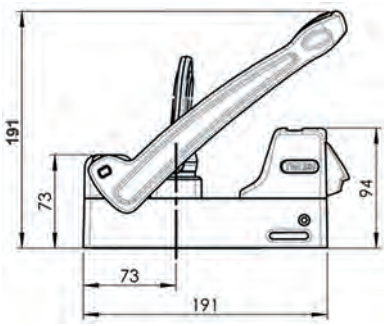
Type	Max. load kg	Tear-off force kg	Length mm	Width mm	Height (twist stop folded in) mm	height (twist stop folded up) mm	Weight kg	78739	...
TML 100	100	300	82.5	80	85	147	1.7		101
TML 90 R	90	270	82.5	80	88	150	1.8		201 NEW

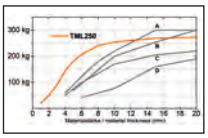
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

78739 103

78739 103-104+203
TML 250/TML 500/TML 400 R
Design
- Up to 70% lower tare weight with at least equal performance when compared with conventional magnets
- Ergonomic activation with minimal effort
- Completely new operating concept enables greater action radius
- Twist stop can be rotated and swivelled through 360°
- Hardened, TiN-coated magnetic surface

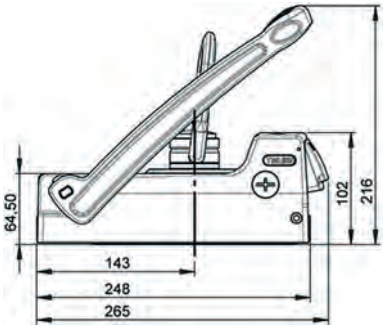
Note:
Pre-tension of the magnets
This is a reduced magnetic field that the magnet radiates, even when it is not activated.
This „pre-tension" makes it possible to attach and position the magnet on a vertical surface or overhead, without it falling. The magnetic force is sufficient to bear the tare weight of the magnet. Consequently, the magnet can be moved into a perfect position for an optimal lifting process before the locking lever is pushed down.
The locking mechanism of the magnet is optimised so that one-hand operation is possible.



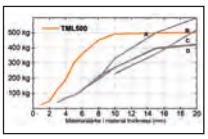


78739 104

78739 103
TML 250
Design
- Max. load up to 250 kg (3-fold safety factor)
- Up to 250 kg lifting force from 10 mm material thickness and 90 kg lifting force from 3 mm material thickness (specified load capacity plus 3-fold safety factor in the lifting operation, i.e. the force to tear off the plate must correspond to three times the maximum lifting force)
- Outstanding performance on thin-walled materials

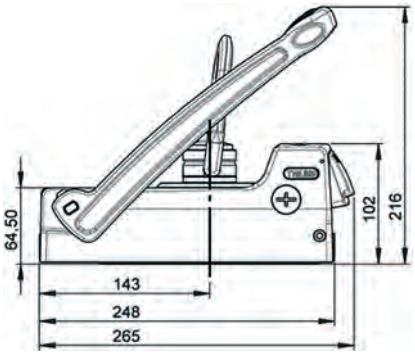


78739 104
TML 500
Design
- Max. load up to 500 kg (3-fold safety factor)
- Max. load for vertical lifting 150 kg at 90° (from 15 mm S 235 with 3-fold safety factor)
- 300 kg lifting force from 5 mm material thickness and 490 kg lifting force from 10 mm material thickness (specified load capacity plus 3-fold safety factor in the lifting operation, i.e. the force to tear off the plate must correspond to three times the maximum lifting force)
- Outstanding performance on thin-walled materials (can be used from 2 mm)



78739 203

78739 203
TML 400 R
Design
- With prism for tubes and curved surfaces
- Lifts tubes from 50 mm to 400 mm in diameter
- Max. load up to 400 kg (with 3-fold safety factor)
- Outstanding performance on thin-walled materials (can be used from 2 mm)



NEW

Type	Max. load kg	Tear-off force kg	Length (closed lever) mm	Width mm	Height (open lever) mm	Magnet contact surface L X W mm	Weight kg	78739	...
TML 250	250	750	240	91	191	135 x 62	3.5		103
TML 500	500	1500	295	118	216	185 x 88	7.3		104
TML 400 R	400	1200	295	118	216	-	8.2		203 NEW

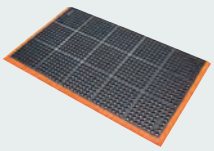
Factory equipment

- *Hoists*
- *Lashing straps*
- *Crowbars*
- *Hydraulic tools*

80
80.3 – 80.20

- *Transport chassis*
- *Transport trolleys*
- *Pallet trucks*
- *Table trolleys*
- *Tool trolleys*
- *Tool scanners*

81
81.1 – 81.38

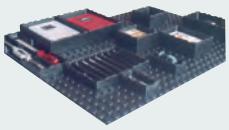


- *Workbenches*
- *Tool cabinets*
- *Workstation furniture*
- *Floor coverings*
- *Chairs*
- *Perforated and slotted plates• Tool holders*

82
82.1 – 82.60

- *Storage bins • Partitions*
- *Trolleys*
- *Organisational cabinets*
- *Organisational shelving*
- *Vertical cabinets*
- *Rotary stands*
- *CNC storage system*

83
83.1 – 83.24

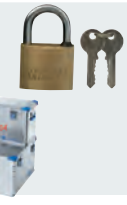


- *Equipment systems*
- *Drawer tool cabinets*
- *HHW service box*
- *Computer cabinets*
- *Workplace cabinets*

84
84.1 – 84.36

- *Hinged-door tool cabinets*
- *Heavy-duty cabinets*
- *Lockers*
- *Shelves*
- *Hazardous material storage*
- *Collection bins*
- *Ladders • Scaffolding*

85
85.1 – 85.54



- *Tool cases*
- *Tool bags*
- *Tool boxes*
- *Transport containers*
- *Locks*
- *Key cabinets*

86
86.1 – 86.24

- *Hoop barriers*
- *Wall belts*
- *Warning stands*
- *Mirrors*
- *Markings*
- *Labelling pockets*
- *Cable bridges*

NEW

87
87.1 – 87.14

- *Workshop lamps*
- *Halogen spotlights*
- *LED spotlights*
- *Multiple socket outlets*
- *Cable drums*

88
88.1 – 88.14

Our suppliers for FACTORY EQUIPMENT:

ATORN®

HHW

ABUS Security Tech Germany

ANKE Werkbänke

apfel

AQURADO® MODULARES ORDNUNGSSYSTEM

bedrunka+hirth Betriebseinrichtungen

bimos

brennenstuhl®

COBA europe

cp Möbel für Menschen

DURABLE

ENERPAC

FACOM

fetra® Transportgeräte

GEDORE WERKZEUGE FÜRS LEBEN

GKS® PERFEKT

mit Grips! Steigtechnik GÜNZBURGER STEIGTECHNIK

HAZET®

KAPPES®

KNIPEX

META

NOTRAX® MATS FOR PROFESSIONAL USE

PARAT®

mob PEDDINGHAUS

raaco

Sortimo® Intelligente Mobilität

STAHLWILLE®

TRESTON

WEBER-HYDRAULIK

Yale®

ZARGES

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80140 - 80141 Manual trolleys with or without reel drive

Yale

Design
Compact design with low overall height, can be adjusted to different beam flange widths, optimum running properties due to ball bearing-mounted runners.

Note:
All models are also available in explosion-protected design.
Larger flange widths deliverable on request.

80140
Model HTP
Design
Roller trolley.

80141
Model HTG
Design
Reel trolley with manual chain for 3 m track height.

80140

80141

Load kg	Beam flange width mm	Smallest curve radius mm	Weight approx. kg	HTP 80140	...
500	50 - 220	900	8.0		301
1000	50 - 220	900	9.0		303
2000	66 - 220	1150	16.0		308

Load kg	Beam flange width mm	Smallest curve radius mm	Weight without chain approx. kg	HTG 80141	...
500	50 - 220	900	9.7		501
1000	50 - 220	900	11.2		503
2000	66 - 220	1150	18.0		508

80145 Support clips

Yale

Model YC
Design
Flexible handling through a wide setting range. Simple mounting on the carrier through spindle mechanism.
Applications
For rapid setup of an attachment point to accommodate hoists, pulleys and loads.

80145

Capacity kg	Beam flange width mm	Weight kg	80145	...
1000	75 - 230	3.8		101
2000	75 - 230	4.6		102
3000	80 - 320	9.2		103
5000	90 - 320	11.0		104

80127 Cylinder gear block and tackles

Yale

Model Silverline Stira S
Design
- End-to-end stud bolts between the side plates and cover mounting ensure stability
- Chain guide rollers allow for faultless execution of the load chain
- The design prevents blocking and the hand chain from slipping off
- Bearings in the side plates guarantee durability and ease of maintenance
- The standard zinc-plated load chain provides additional corrosion protection
- Forged suspension and load hooks in high-alloyed, heat-treated steel that is resistant to ageing, will open without breaking in the event of an overload

Note:
This hoist is not intended for transporting persons and must not be used for this purpose.

NEW

80127

Load capacity kg	Chain strands quantity	Chain dimensions d x t mm	Stroke per 1 m of uncoiling of hand chain mm	Lifting force at rated load daN	Weight kg	80127	...
500	1	6 x 18	29	23	12		101
1000	1	6 x 18	27	31	14		102
1500	1	8 x 24	20	32	19		103
2000	1	8 x 24	15	36	21		104
3000	2	8 x 24	5	34	27		105
5000	2	10 x 30	3	41	43		106

80128 Cylinder gear block and tackles

Yale®

Model VSIII

Design

- End-to-end stud bolts between the side plates and cover mounting, as well as the reinforced hand-wheel cover, provide increased stability.
- Precision-machined guide rollers allow for optimum execution of the load chain.
- Ball bearings and needle bearings in the gear, in the side plates and in the load chain wheel guarantee durability and ease of maintenance.
- Zinc-plated and yellow chromated brake parts and chain guide rollers ensure increased corrosion protection.
- The standard zinc-plated load chain provides additional corrosion protection.

Note:

Overload protection and chain storage available as an option.

Higher load capacities up to 50 t deliverable on request.

80128

Load capacity kg	Chain strands quantity	Chain dimensions d x t mm	Stroke per 1 m of uncoiling of hand chain mm	Lifting force at rated load daN	Weight kg	80128	...
250	1	4 x 12	50	20	3.9		401 NEW
500	1	5 x 15	26	21	9.0		402
1000	1	6 x 18	24	24	11.5		403
2000	2	6 x 18	15	29	17.3		405
3000	2	8 x 24	10	37	27.0		410

80120 Cylinder gear block and tackles

Yale®

Model Yale Lift 360

Design

- Stable sheet-steel housing
- Encapsulated ball bearings and slide bushings
- Surface-protected round steel chain
- The brake system produces less noise and wear than conventional brakes
- 1 load-bearing chain strand

Applications

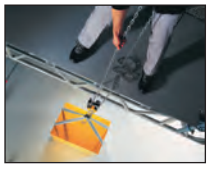
The 360° **rotating hand chain guide** enables the operator to operate the device from all directions with no further need to work in the direct hazard zone.

This results in increased safety through greater location flexibility.

Note:

All models are also available in explosion-protected design.

Larger load capacities deliverable on request.



80120

Load kg	Lift height m	Lifting force at rated load daN	Weight kg	80120	...
500	3	21	9		101
1000	3	30	13		105
2000	3	32	20		106

Info Cylinder gear block and tackles with integrated roller trolley

Yale®

Model YaleLift 360 ITP

Fixed connection of the innovative YaleLift 360 (art. no. 80120) with a roller trolley.
Compact and robust unit with the advantages of **very small dimensions** (smallest hook dimension).
Stable sheet-steel housing, encapsulated ball bearings and slide bushings.
Surface-protected round steel chain.
The brake system produces less noise and wear than conventional brakes.
1 load-bearing chain strand.

Please contact us for information!

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80172 Cylinder gear block and tackles with hand lever

Yale®

Model YaleERGO 360®

Design

The YaleERGO 360® redefines the world of hoists. The design of its **revolutionary hand lever with an integrated folding handle** makes it possible to work efficiently in tight spaces for both lifting and pulling applications.

The ergonomic and safety-enhancing design of the YaleERGO 360® allows the operator **to work up to 12 times faster** and can do this with **up to 30% less lifting force**.

- Hand lever with integrated folding handle:

The concept of transforming the hand lever into a crank handle by unfolding a handle is unique and will revolutionise the use of hand hoists.

It ensures the ideal power transmission for any application, and for the first time enables a working range of 360°, resulting in increased productivity and a reduced risk of injury to the operator.

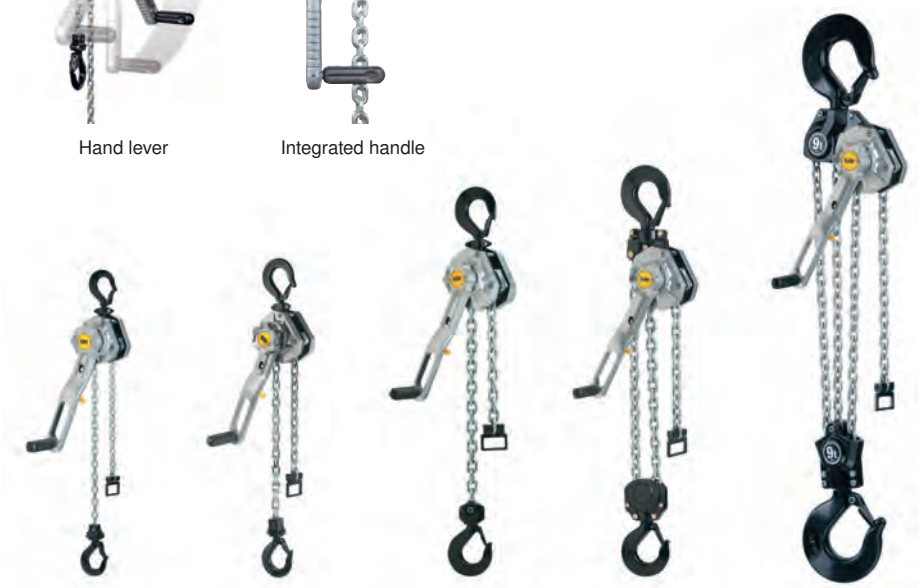
- The ergonomic design of the device allows the user to adopt a safe and comfortable body posture
- The patent-pending hand lever with integrated folding handle allows for 360° crank movement with a safe grip position
- When using the folding handle, the lifting force is reduced by up to 30%.

Hand lever

Integrated handle

NEW

80172



Load capacity kg	Chain strands quantity	Chain dimensions d x t mm	Stroke with one lever turn mm	Lifting force at rated load daN	Weight kg	80172	...
750	1	5.6 x 17.1	27.2	17.3	6.7		101
1500	1	7.1 x 21.0	21.7	26.5	9.6		102
3000	1	10.0 x 28.0	20.1	36.0	17.2		103
6000	2	10.0 x 28.0	10.1	38.0	28.9		104
9000	3	10.0 x 28.0	6.7	46.0	49.5		105

80173 Multi-purpose devices

Yale®

Model Silverline HZ S

Design

- A low-maintenance, easy-to-use device
- Cost-effective and economical
- End-to-end stud bolts between the side plates and cover mounting ensure stability
- Chain guide rollers allow for faultless execution of the load chain
- Bearings in the side plates guarantee durability and ease of maintenance
- The standard zinc-plated load chain provides additional corrosion protection
- Forged suspension and load hooks in high-alloyed, heat-treated steel that is resistant to ageing, will open without breaking in the event of an overload

Note:

This hoist is not intended for transporting persons and must not be used for this purpose.

NEW

80173

Load capacity kg	Chain strands quantity	Chain dimensions d x t mm	Stroke with one lever turn mm	Lifting force at rated load daN	Weight kg	80173	...
750	1	6 x 18	20	20	7		101
1500	1	8 x 24	10	36	10		102
3000	1	10 x 30	17	38	18		103
6000	2	10 x 30	9	39	27		104

80159 - 80167 Multi-purpose devices

Yale®

Design
Automatic threaded mechanical brake with hand wheel for fast passage of the unloaded chain, with dustproof, closed housing.
Standard lift 1.5 m. 1 load-bearing chain strand.
Applications
For pulling, lifting and clamping by means of a hand lever.

Note:
Further pull-lift multi-purpose devices, 6 t and 10 t load capacity, deliverable on request.

80159
Model Yale Handy
Design
The smallest and lightest multi-purpose device. With round steel chain, sheet-steel housing, short hand lever, zinc-plated, free-chaining.

80162
Model UNOplus
Design
Made of sheet steel in a compact design with high-strength, zinc-plated round steel chain. Lightweight, free-chaining, low force required on the hand lever.

Note:
UNOplus models are also available in explosion-protected versions.

80166
Model AL
Design
With round steel chain, zinc-plated, housing made of –light metal with particularly short hand lever. Free chaining. Particularly light with maximum stability.

80167
Model PT
Design
With round steel chain, zinc-plated. Robust sheet steel housing for high demands at low weights. High-quality finish. Smooth-running free-chaining, small hook dimension. Lift height 1.50 m.

Model	Load kg	Lifting capacity at rated load daN	Lowest hook dimension mm	Weight kg	80159	...
Handy 250	250	25	240	2.2		101
Handy 500	500	25	282	2.8		102
Model	**Load kg**	**Lifting capacity at rated load daN**	**Lowest hook dimension mm**	**Weight kg**	**80162**	**...**
UNOplus	750	20	340	7.2		201
UNOplus	1500	35	410	12.5		202
UNOplus	3000	40	510	21.5		203
Model	**Load kg**	**Lifting capacity at rated load daN**	**Lowest hook dimension mm**	**Weight kg**	**80166**	**...**
AL	750	16	315	6.4		101
AL	1500	18	380	10.0		102
AL	3000	28	455	18.0		103
Model	**Load kg**	**Lifting capacity at rated load daN**	**Lowest hook dimension mm**	**Weight kg**	**80167**	**...**
PT	800	26	290	5.5		101
PT	1600	30	330	9.6		102
PT	3200	38	430	16,0		103

80166

Model AL application example

80168 - 80170 Cable winch devices

Yale®

80168
Model LP
Design
Sheet steel, lightweight and high performance. Complete with hook, pull cable and hand lever.

80170
Model YaleTrac
Design
High-strength aluminium alloy, low tare weight, highest level of stability. Complete with pull cable, reel and hand lever.

80168 - 80170

Tensile force kg	Leverage at rated load daN	Cable Ø mm	Cable length m	Cable feed m	Weight without cable kg	80168	...	80170	...
500	15	8.3	10	35	4		201		
800	24	8,4	20	60	7				201
1600	30	11,5	20	60	14				202
3200	50	16.0	10	40	21				203

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80059 - 80060 Sheet metal grippers

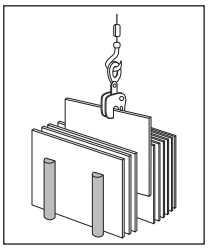
Yale®

80059
Tigrip TBLplus with safety lock
Design
The fitted gripper remains connected through the safety lock.
Applications
For vertical transportation of individual plates and steel plates, as well as for lifting and turning up to 180°. The surface hardness of the transported material must be less than HRC 30!

Note:
Larger load capacities deliverable upon request.

80060
Tigrip TBSplus with swivelling eye and safety lock
Design
The sliding slant of the swivelling eye creates a sufficiently high clamping force for the oblique load.
Applications
Thanks to the gimbal, the gripper can be hinged in different positions on the plate. The surface hardness of the transported material must be less than HRC 30!

Note:
Larger load capacities deliverable upon request.



80059

		TBLplus		
Load kg	Gripping range mm	Weight approx. kg	80059	...
1500	0 - 20	3.0		201
2000	0 - 32	9.3		202
3000	0 - 32	9.3		203

		TBSplus		
Load kg	Gripping range mm	Weight approx. kg	80060	...
1000	0 - 20	4.6		201
2000	0 - 32	14.3		202
3000	0 - 32	14.3		203

80060

80100 Spring balances

Design
Robust design with cable output downwards.

Applications
For counterweighting tools and devices of all kinds up to the specified maximum load capacity. Load capacity can easily be set on the respective tool.

80100 201

80100 207

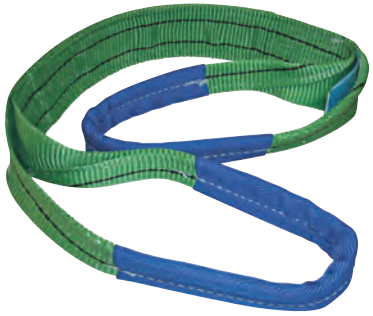
Load capacity kg	Cable extension max. m	Weight kg	Housing	80100	...
0.5 - 1.5	0.5	0.2	ABS		201
1.0 - 3.0	1.3	1.4	Die-cast aluminium		202
2.5 - 5.0	1.3	1.5	Die-cast aluminium		203
4.5 - 9.0	1.3	3.4	Die-cast aluminium		204
9.0 - 15.0	1.3	3.8	Die-cast aluminium		205
15.0 - 22.0	1.5	7.2	Die-cast aluminium		206
22.0 - 30.0	1.5	7.6	Die-cast aluminium		207
30.0 - 40.0	1.5	9.8	Die-cast aluminium		208
40.0 - 50.0	1.5	10.4	Die-cast aluminium		209
50.0 - 60.0	1.5	11.6	Die-cast aluminium		210
60.0 - 70.0	1.5	11.8	Die-cast aluminium		211

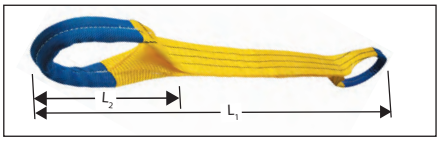
80250 Lifting straps

Design
Two-layer, coated on both sides with reinforced loop, made of polyester (PES), according to EN 1492-1, with load label, colour coding and interwoven tonnage strips.

Note:
Other load-bearing capacities and useful lengths deliverable on request.

80250





Load capacity kg	Length L_1 m	Colour coding	Loop length L_2 mm	Strap width mm	80250	...
1000	1	Violet	200	30		200
1000	2	Violet	200	30		201
1000	4	Violet	200	30		206
2000	2	Green	300	60		202
2000	3	Green	300	60		210
2000	4	Green	300	60		215
3000	3	Yellow	350	90		203
3000	4	Yellow	350	90		220
3000	6	Yellow	350	90		225
4000	4	Grey	425	120		230
4000	6	Grey	425	120		235
5000	4	Red	500	150		204
5000	6	Red	500	150		240

80255 Round slings

Design
Double jacket, made of polyester (PES), EN 1492-2 with double seamless protective sleeve, load label, printed load capacity, colour-coded/woven tonnage strips, 1 strip per tonne of capacity (only for round slings to 10 tonnes).

Note:
Other load-bearing capacities and useful lengths deliverable on request.

80255

Load capacity kg	Useful length L_1 m	Colour	80255	...
1000	1.0	Violet		200
1000	1.5	Violet		210
1000	2.0	Violet		201
1000	3.0	Violet		215
1000	4.0	Violet		202
2000	1.0	Green		203
2000	1.5	Green		204
2000	2.0	Green		205
2000	3.0	Green		220
2000	4.0	Green		206
3000	1.0	Yellow		225

Load capacity kg	Useful length L_1 m	Colour	80255	...
3000	1.5	Yellow		230
3000	2.0	Yellow		235
3000	3.0	Yellow		208
3000	4.0	Yellow		237
3000	6.0	Yellow		209
4000	1.0	Grey		240
4000	1.5	Grey		241
4000	2.0	Grey		242
4000	3.0	Grey		244
4000	4.0	Grey		245
4000	6.0	Grey		247

80260 - 80264 Lashing straps

80260
Design
Polyester, two pieces with claw hooks and ratchet tool. In accordance with EN 12195-2.

80260

80261
Design
Polyester, one piece with ratchet tool. In accordance with EN 12195-2.

80261

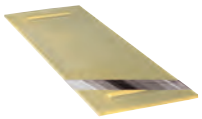
80262
Design
Polyester, one piece with clamping lock. In accordance with EN 12195-2.

80262

80263
Ratchet pad
Design
From cut-resistant polyurethane, with integrated slots for a secure fit of the ratchet pad on the belt strap.
Applications
For lashing straps art. no. 80260 - 80261 from belt width 35 mm.

80264
Edge protector
Design
From cut-resistant polyurethane, with integrated slots for a secure fit of the edge protector on the belt strap.
Applications
For lashing straps art. no. 80260 - 80262.

80263



80264

LC daN	Belt width mm	Belt length m	For belt widths mm	2 pieces 80260	...	1 piece 80261	...	1 piece 80262	...	80263	...	80264	...
250	25	4	-						101				
250	25	6	-						102				
350	25	4	-			208							
350	25	6	-			209							
500	25	4	-			203							
500	25	6	-			204							
700	25	4	-					209					
700	25	6	-					210					
1000	25	4	-					203					
1000	25	6	-					204					
1000	35	6	-			205							
1000	35	8	-			106							
2000	35	6						205					
2000	35	8						206					
2000	50	8				206							
2000	50	10				207							
4000	50	8						207					
4000	50	10						208					
-	-	-	35 - 50								101		
-	-	-	up to 50										101

Factory equipment

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80265 Lashing strap sets

80265 101
„Allround" load securing set
Comprising:
2x 4 m lashing straps made from 100% PES, 1 piece, EN 12195-2, 250 daN perm. tensile force in the strapping, with belt clamp, LC = 250 daN, 25 mm strap width, elongation < 5%
2x 4 m lashing straps made from 100% PES, 1 piece, with mini ratchet tool, 700 daN perm. tensile force in the strapping, GS V05060, SHF 266 daN, SHF 25 daN, in accordance with EN 12195-2
2x 6 m lashing straps made from 100% PES, 1 piece, EN 12195-2, 2000 daN perm. tensile force in the strapping, pressure ratchet, LC = 2000 daN, 35 mm strap width, elongation < 5%
2x 4 m lashing straps made from 100% polyester, EN 12195-2, 2 pieces, with profile hooks, FE: 0.5 m, with mini pressure ratchet, LC = 250 daN, 25 mm strap width, elongation < 5%
2x 6 m lashing straps made from 100% polyester, EN 12195-2, 2 pieces, with profile hooks, FE: 0.3 m, pressure ratchet, LC = 1000 daN, 35 mm strap width, elongation < 5%, STF = 220 daN
4x 8 m lashing straps made from 100% polyester, EN 12195-2, 2 pieces, with profile hooks, FE: 0.5 m, pressure ratchet, LC = 2500 daN, 50 mm strap width, elongation < 5%, STF = 300 daN
4x edge protection corners made of polyethylene, for 50 mm strap, dimensions 90 x 90 x 140 mm, with slot, colour: black
8x accessories for lashing straps in accordance with EN 12195-2, non-slip mat 180 x 120 x 8 mm, granulate, in accordance with the requirements of the VDI guideline 2700 B. 14+15
1x sports bag

80265 102
PES round sling set (DIN EN 1492-2)
Comprising:
2x 1 m, violet, 1000 kg
4x 2 m, violet, 1000 kg
2x 3 m, violet, 1000 kg
4x 4 m, violet, 1000 kg
2x 2 m, green, 2000 kg
2x 4 m, green, 2000 kg
2x 6 m, green, 2000 kg
2x 4 m, yellow, 3000 kg
1x sports bag

80265 103
Load securing set (EN 12195-2)
Comprising:
2x 50 mm lashing strap 8 m
2x 35 mm lashing strap 6 m
4x 25 mm lashing strap 4 m
1x net 3.5 x 5 m
1x sports bag

NEW

80265 101

80265 102

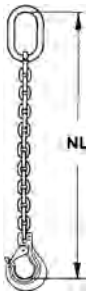
80265 103

	80265 ...
„Allround" load securing set	101
PES round sling set	102
Load securing set	103

80300 - 80310 Attachment chains

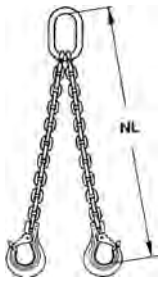
Design
In accordance with EN 818-4. With master link and coupling load hook, quality class 8. Chain with durable corrosion protection.
Applications
Proven, reliable and robust sling for all areas of application, even angular freight.

Note:
Art. no. 80305 and 80310 tilt angle max. 60 °.



80300

		1-strand		80300	...
Chain nominal Ø mm	Load capacity kg directly	Load capacity kg single noosed	Useful length UL m		
6	1120	900	1		101
8	2000	1600	1		102
10	3150	2500	1		103



80305

		2-strand		80305	...
Chain nominal Ø mm	Load capacity kg direct 0-45°/45-60°	Load capacity kg noosed 0-45°/45-60°	Useful length UL m		
6	1600/1120	1250/900	1		101
8	2800/2000	2240/1600	1		102
10	4250/3150	3350/2500	1		103
8	2800/2000	2240/1600	2		105
10	4250/3150	3350/2500	2		106

80310

		4-strand		80310	...
Chain nominal Ø mm	Load capacity kg 0-45°	Load capacity kg 45-60°	Useful length UL m		
6	2360	1700	1		101
8	4250	3000	1		102
10	6700	4750	1		103
6	2360	1700	2		104
8	4250	3000	2		105
10	6700	4750	2		106

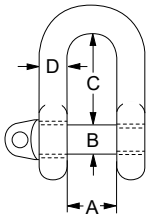
Factory equipment

80320 Shackle similar to DIN 82101, shape A

Design
With screw bolt, zinc-plated.

Note:
Other sizes available on request.

80320



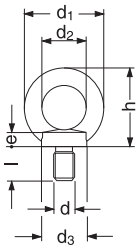
Load capacity kg	D mm	B mm	A mm	C mm	80320	...
160	6	6	8	18		102
250	8	8	11	24		103
400	10	10	14	30		104
600	12	12	17	36		105
1000	15	16	21	49		106
1600	19	20	27	61		107
2000	21	22	30	67		108

80323 Ring bolts and nuts

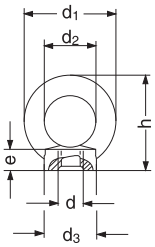
80323 101-107
Ring bolt similar to DIN 580 C 15 with collar and groove, zinc-plated.

80323 201-207
Ring nut similar to DIN 582 C 15, zinc-plated.

80323 101-107



80323 201-207



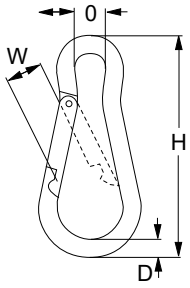
d mm	l mm	d_1 mm	d_2 mm	d_3 mm	h mm	e mm	80323	...
M 6	13	28	16	17	31	6		101
M 8	13	36	20	20	36	6		102
M 10	17	45	25	25	45	8		103
M 12	20.5	54	30	30	53	10		104
M 16	27	63	35	35	62	12		105
M 20	30	72	40	40	71	14		106
M 24	36	90	50	50	90	18		107
M 6	-	28	16	17	31	8.5		201
M 8	-	36	20	20	36	8.5		202
M 10	-	45	25	25	45	10		203
M 12	-	54	30	30	53	11		204
M 16	-	63	35	35	62	13		205
M 20	-	72	40	40	71	16		206
M 24	-	90	50	50	90	20		207

80330 Snap hook similar to DIN 5299 C

Design
Zinc-coated.

Note:
Other sizes deliverable on request.

80330



Load capacity kg	Nominal thickness D mm	H mm	O mm	W mm	80330	...
230	8	80	10	10		104
350	10	100	15	11		106
450	11	120	18	16		107

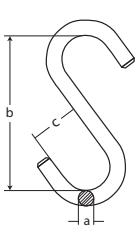
80335 S hook

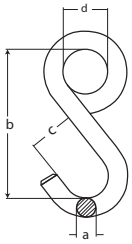
80335 101-103
Design
High-strength, quality class 8. Open on both sides, large opening width for special applications.

80335 201-205
Design
High-strength, quality class 8. Closed on one side, not welded. Large opening width for special applications. Painted red.

80335 101-103

80335 201-205





Load capacity kg	a mm	b mm	c mm	d mm	80335	...
750	18	160	50	-		101
2000	32	260	80	-		102
3000	36	320	95	-		103
200	10	80	25	25		201
300	13	100	30	30		202
500	16	130	40	40		203
750	18	160	50	50		205

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80004 Nail puller GORILLA BAR!

Design
- Extremely robust nail puller – GORILLA BAR!
- The oval shape withstands maximum loads
- With polished working ends on claw and cutting edge
- The wide footprint and claw position effectively prevent tilting to the side under load

80004

Length mm	Length inch	80004 ...
600	24	201
900	36	202

80006 Crowbars

Design
- With curved blade and tip
- Special steel

80006

Length mm	Ø mm	80006 ...
1250	30	101
1500	30	102

80093 Vacuum lifters

VERIBOR

Applications
For all smooth and gas-tight surfaces.

Note:
Other designs deliverable on request.

80093 201
blue-line vacuum lifter
Design
- Aluminium body
- 1 suction disc Ø 120 mm
- One-handed operation
- Suction by shifting the handle
- Load capacity/perpendicular direction of force approx. 30 kg

80093 205
blue-line vacuum lifter
Design
- Aluminium body
- 2 suction discs Ø 120 mm
- Suction by shifting the two tilt levers
- Load capacity/parallel direction of force approx. 60 kg

80093 125
Vacuum lifters
Design
- Aluminium body
- 2 suction discs Ø 130 mm
- One-handed operation
- Load capacity/perpendicular direction of force approx. 60 kg

80093 127
Vacuum lifters
Design
- With integrated hand pump
- 1 suction disc Ø 214 mm
- High load capacity
- Plastic-coated handle
- Release lever protected against accidental actuation
- The vacuum lifter is ready for use with a few pumps
- With a profiled rubber disc with 4 sealing lips
- Integrated reinforcing ring
- Load capacity/parallel direction of force approx. 120 kg
- Supplied in a plastic case

80093 301
Spare rubber disc
For vacuum lifter art. no. 80093 201.

80093 305
Spare rubber disc
For vacuum lifter art. no. 80093 205.

80093 132
Spare rubber disc
For vacuum lifter art. no. 80093 125.

80093 133
Spare rubber disc
For vacuum lifter art. no. 80093 127.

80093 201

80093 205

80093 125

80093 127

	Vacuum lifter	Spare disc
Retention force approx. kg	80093 ...	80093 ...
30	201	301
60	205	305
60	125	132
120	127	133

80400 Steel winches DIN 1494

mob PEDDINGHAUS

Design
With lifting housing and safety crank.
Applications
For lifting and lowering loads.

80400

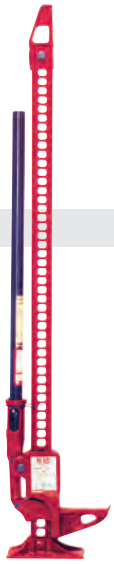
Lifting load kg	Stroke mm	Overall height mm	Weight approx. kg	80400	...
1500	350	600	13.3		201
3000	430	720	21.0		202
5000	430	720	28.3		203

80401 Universal winch

mob PEDDINGHAUS

Applications
For lifting, pulling and tensioning up to 2 tonnes.

80401



Lifting load kg	Lift height mm	Overall height mm	Weight approx. kg	80401	...
2000	1150	1520	14		101

80526 Hydraulic jack DIN 76024

WEBER-HYDRAULIK

Design
With pressure-limiting valve according to VBG 8, zinc-plated pump rods, 3 pieces, 700 mm long.
With a hydraulic piston and a threaded spindle to adjust the required height when closed.

Applications
For cars and lorries, can also be used horizontally (pump setup below the jack), lower the jack by opening the drain valve.

80526

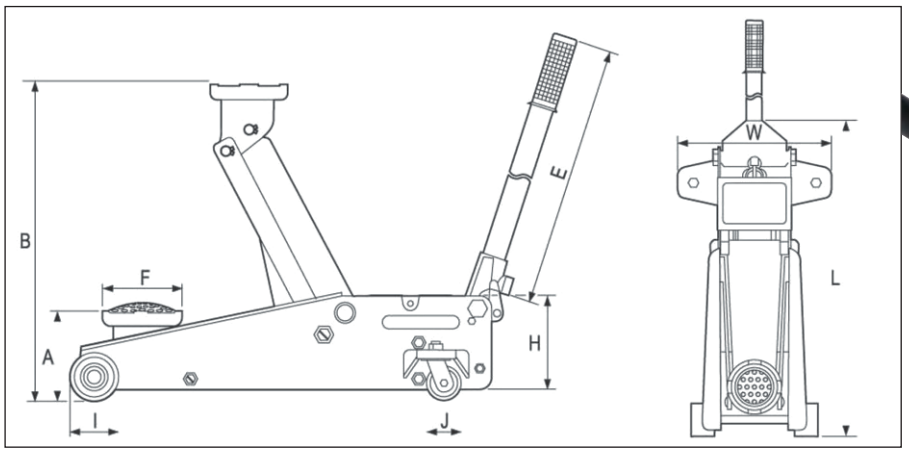
Perm. load max. kg	Height mm	Hydr. stroke mm	Spindle adjustment mm	End height mm	80526	...
2000	170	115	92	377		101
3500	170	115	92	377		102
5000	212	150	100	462		103
8000	220	150	110	480		105
10000	220	150	110	480		106
15000	230	155	110	495		108
20000	240	155	110	505		109
30000	240	142	100	482		110

80540 Hydraulic floor jack (semi-professional)

Design
- Gear transmission
- Saddle with rubber pad
- Solid construction with steel wheels
- Outstanding price/performance ratio

Applications
An entry-level model for private and semi-professional use.

80540



Load capacity kg	Lift height mm	Weight kg	A mm	B mm	E mm	F mm	H mm	I mm	J mm	L mm	W mm	80540	...
2250	140 - 476	30.8	140	476	1030	130	130	90	60	645	341		301

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80541 Aluminium floor jack

Design
- Light and flexible jack made of aluminium
- Double piston allows up to 50% faster lifting (6x pumps = maximum lift height)
- Piston and spring protected from dust and contamination
- Rubber pad protects vehicle paint from damage and prevents slipping
- Practical storage compartment for storage of nuts, bolts and other small parts
- Safety valve prevents accidental overload
- Safety release for risk-free lowering even under full load

Applications
Ideal for racing operations or mobile use.

80541 101
Design
- Made of aluminium, therefore very low tare weight (12 kg)
- Large rubber pad (98 mm)
- Bag for storage included in scope of delivery

80541 102
Design
- Made of aluminium, therefore very low tare weight (25 kg)
- Large rubber pad (120 mm)
- Easy to transport with side grip

80541 101

80541 102

Load capacity max. t	Ground clearance min. mm	Lift height max. mm	Jack length mm	Weight kg	80541 ...
1.5	82	375	567	12	101
2.5	95	485	740	25	102

80560 Hydraulic workshop cranes

Model HWK KL S SILVERLINE
Design
- Standard with rotating hydraulics and sensitive drain valve
- With space-saving folding device used to stow away the device
- With fast speed

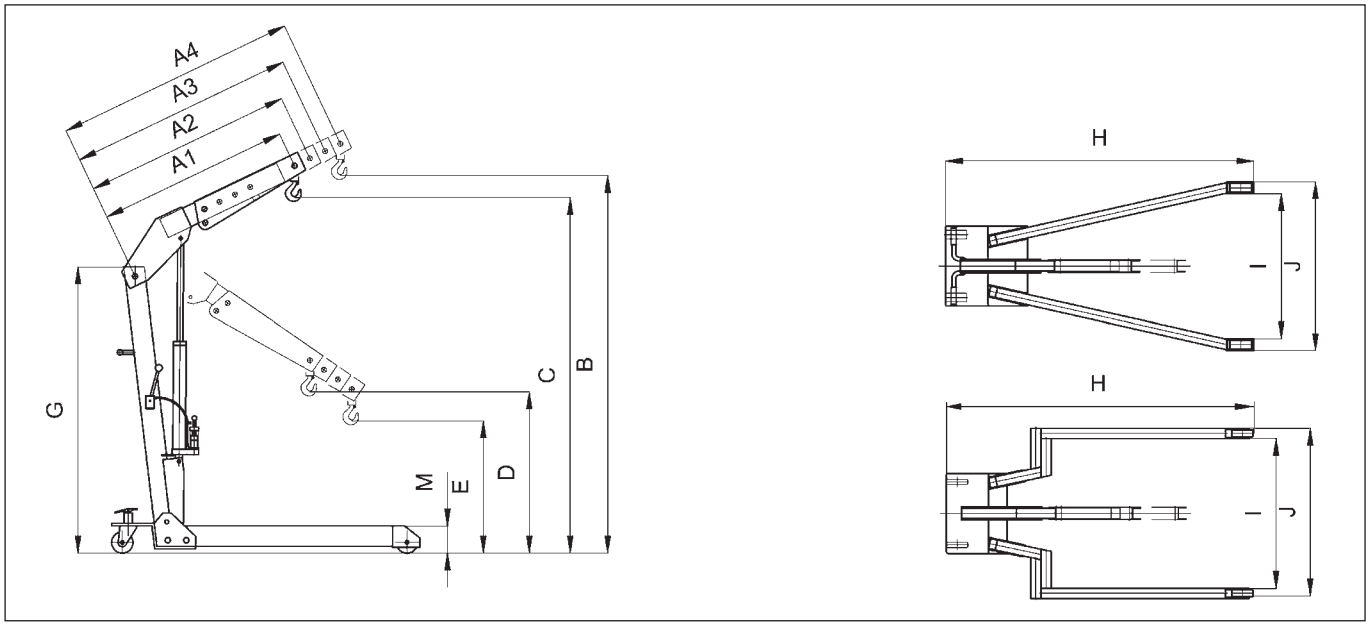
Applications
For the removal and installation of engines and for loading and unloading pallets.

80560 301+401
Design
Running gear in parallel.

80560 301+401

80560 302+402
Design
Running gear v-shaped.

80560 302+402



Technical data:	80560 301	80560 302	80560 401	80560 402
A1 kg/mm	500/1130	500/1130	1000/1130	1000/1130
A2 kg/mm	400/1,230	400/1,230	800/1,230	800/1,230
A3 kg/mm	350/1,330	350/1,330	700/1,330	700/1,330
A4 kg/mm	250/1,430	250/1,430	500/1,430	500/1,430
B mm	2200	2200	2200	2200
C mm	2080	2080	2080	2080
D mm	940	940	940	940
E mm	770	770	770	770
Stroke per pump action with/without load mm	20/80	20/80	20/80	20/80
Operating pressure bar	150	150	290	290
Manual force at nominal load daN	16	16	32	32
Drive-through height G mm	1680	1680	1680	1680
Ground clearance M mm	160	160	160	160
Running gear length total H mm	1820	1820	1820	1820
Running gear width, internal/external I/J mm	850/990	850/990	850/990	850/990
Weight kg	138	132	156	150

Load capacity kg	Running gear shape	80560 ...
500	Parallel	301
500	V-shaped	302
1000	Parallel	401
1000	V-shaped	402

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ENERPAC

Here is a selection of the system hydraulic tools: For lifting, pushing, pulling, holding, bending etc.
Whatever size, performance, stroke length or model type you need, we will be happy to help.
The high-quality ENERPAC hydraulic tools will successfully solve your problems too.
We will be happy to provide you with a system brochure that describes the applications and other accessories as a supplement.

80601 Powerbox hydraulic tool sets

ENERPAC

Design
- Complete, ready-to-use hydraulic tool sets
- Comfortable to carry, sturdy tool box
- All components of the tool box will be shipped as one package

NEW

80601

Powerbox set contents Art. no.	P 77 PGH 80601 101	SCR 106 PGH 80601 102	SCR 154 PGH 80601 103	SRS 200 PGH 80601 104
1x P77 steel hand pump	x	-	-	-
1x P392 lightweight hand pump (art. no. 80660 102)	-	x	x	x
1x RC106 cylinder (art. no. 80600 107)	-	x	-	-
1x RC154 cylinder (art. no. 80600 109)	-	-	x	-
1x RSM200 cylinder (art. no. 80630 103)	-	-	-	x
1x manometer	x	x	x	x
1x 1.80 m hose	x	x	x	x
1x box	x	x	x	x
incl. all the necessary connections	x	x	x	x

Powerbox set	Incl. cylinder type (art. no.)	Cylinder type t (kN)	Oil volume cm³	Usable oil volume cm³	80601	...
P77PGH	-	-	-	-		101
SCR106PGH	RC106 (80600 107)	10 (101)	226	901		102
SCR154PGH	RC154 (80600 109)	15 (142)	205	901		103
SRS200PGH	RSM200 (80630 103)	20 (201)	32	901		104

80600 RC type multi-purpose cylinders

ENERPAC

Design
Single-acting.
Max. operating pressure 700 bar. Piston made of hard-chrome-plated, quality steel. With replaceable, grooved pressure piece, powerful retraction spring, wiper ring. Male thread on the cylinder head, piston rod internal thread and mounting thread on the cylinder bottom. Coupling sleeve with dust cap.

80600

Type	Cylinder type t (kN)	Stroke mm	Effective piston area cm²	Oil volume cm³	Retracted height mm	Weight kg	80600	...
RC51	5 (45)	25	6.5	16	110	1.0		101
RC53	5 (45)	76	6.5	50	165	1.5		102
RC55	5 (45)	127	6.5	83	215	1.9		103
RC57	5 (45)	177	6.5	115	273	2.4		104
RC102	10 (101)	54	14.5	78	121	2.3		105
RC104	10 (101)	105	14.5	152	171	3.3		106
RC106	10 (101)	156	14.5	226	247	4.4		107
RC108	10 (101)	203	14.5	294	298	5.4		108
RC154	15 (142)	101	20.3	205	200	5.0		109
RC156	15 (142)	152	20.3	308	271	6.8		110
RC158	15 (142)	203	20.3	411	322	8.2		111
RC252	25 (232)	50	33.2	166	165	6.4		112
RC254	25 (232)	102	33.2	339	215	8.2		113
RC256	25 (232)	158	33.2	525	273	10.0		114
RC258	25 (232)	210	33.2	697	323	12.2		115

80630 Short-stroke cylinder type RSM

ENERPAC

Design
Single-acting.
Max. operating pressure 700 bar. Piston made of hard-chrome-plated, quality steel. Coupling sleeve with dust cap. Compact **flat design** for use where other cylinders are too large. Grooved piston end pieces mean that pressure pieces are not necessary.

80630

Type	Cylinder type t (kN)	Stroke mm	Effective piston area cm²	Oil volume cm³	Retracted height mm	Extended height mm	80630	...
RSM50	5 (45)	6	6.5	4	32	38		101
RSM100	10 (101)	12	14.5	18	42	54		102
RSM200	20 (201)	11	28.7	32	51	62		103
RSM500	45 (435)	16	62.1	99	66	82		104

80631 Telescopic cylinder type RLT

ENERPAC

Design
- Single-acting, without spring return
- Nitro-carburised surface treatment inside and outside offers a high level of corrosion protection
- Holes for mounting bolts for easy fixation
- Up to 3% lateral load at full capacity load
- Design safety coefficient corresponds to ASME B30.1 and EN1494
- CR400 coupling for compatibility with standard product

Applications
For use under limited space conditions: For positioning equipment and mounting tools.
Quality
High-strength, alloyed steel.

80631

NEW

Type	Cylinder capacity at minimum stroke t (kN)	Maximum stroke mm	Oil volume cm³	Retracted height mm	Extended height mm	80631	...
RLT41	4.4 (43)	23	51	54.0	77.0		101
RLT110	11.4 (111)	18	48	54.5	72.5		102
RLT111	11.4 (111)	40	241	89.0	129.0		103
RLT231	23.7 (232)	32	303	96.0	128.0		104

80635 Short-stroke cylinder type RCS

ENERPAC

Design
Single-acting.
Max. operating pressure 700 bar. **Lightweight cylinder**, for use in confined spaces.
With piston wiper ring, grooved pressure piece with 2 mounting holes for the mounting of movable pressure pieces, with coupling sleeve and dust cap.

80635

Type	Cylinder type t (kN)	Stroke mm	Effective piston area cm²	Oil volume cm³	Retracted height mm	Extended height mm	80635	...
RCS101	10 (101)	38	14.5	55	88	126		101
RCS201	20 (201)	45	28.7	129	98	143		102
RCS302	30 (295)	62	42.1	261	117	179		103

80640 Hollow piston cylinder type RCH

ENERPAC

Design
Single-acting.
Max. operating pressure 700 bar. The hollow piston design allows the cylinder to be used for pressure and traction work. Fastening thread on the cylinder head for easy installation. Coupling sleeve with dust cap.

Note:
Also available in an aluminium version.

80640

Type	Cylinder type t (kN)	Stroke mm	Effective piston area cm²	Oil volume cm³	Retracted height mm	Extended height mm	Centre hole Ø mm	80640	...
RCH123	13 (125)	76	17.9	136	184	260	19.6		101
RCH206	20 (215)	155	30.7	476	306	461	26.9		102
RCH306	30 (326)	155	46.6	722	330	485	33.3		103
RCH603	60 (576)	76	82.3	626	247	323	53.8		104

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80660 Hydraulic hand pumps type P

ENERPAC

Design
Max. operating pressure 700 bar. Two-stage for single acting cylinder. Lightweight and compact design. Nylon tank and nylon-coated aluminium housing. Hand lever lock, integrated safety valve for protection against overloading.

Note:
The P142 type is required to connect a FZ1055 type intermediate piece (art. no. 80720 114).

80660 104

80660 101-103

Type	Usable oil volume cm³	Max. pressure level bar 1st level	Max. pressure level bar 2nd level	Feed volume 1st level	Per piston stroke cm³ 2nd level	Oil connection thread	Leverage max. kg	80660	...
P142	327	13	700	3.62	0.90	1/4 inch - 18 NPT	35.4		**101**
P392	901	13	700	11.26	2.47	3/8 inch - 18 NPT	42.2		**102**
P802	2540	27	700	39.33	2.47	3/8 inch - 18 NPT	43.1		**103**
P80	2200	25	700	16.22	2.46	3/8 inch - 18 NPT	47.0		**104**

80665 Air-operated hydraulic pumps XA series

ENERPAC

Design
- Max. operating pressure 700 bar
- Ergonomic design prevents operator fatigue
- Variable feed volume and adjustment for precise control
- High feed volume for greater productivity
- Closed hydraulic system prevents contamination and allows the pump to be used in any position
- Pedal locking function for withdraw position
- Earthing screw for optimised ATEX explosion protection
- Externally adjustable pressure valve

Applications
For use with single-acting cylinders or tools

Easy to operate with your foot. Your foot does not need to be fully raised - body weight remains on the heel and ensures a stable working position while keeping your hands.

80665

Type	Pressure-manometer	Useful oil volume l	Feed volume no load l/min	Feed volume load l/min	Dynamic air pressure bar	Oil connection thread	Weight kg	80665	...
XA11	-	1.0	2.0	0.25	2.1 - 8.6	3/8 inch - 18 NPTF	8.6		**201**
XA11G	x	1.0	2.0	0.25	2.1 - 8.6	3/8 inch - 18 NPTF	8.8		**202**
XA12	-	2.0	2.0	0.25	2.1 - 8.6	3/8 inch - 18 NPTF	10.2		**203**
XA12G	x	2.0	2.0	0.25	2.1 - 8.6	3/8 inch - 18 NPTF	10.4		**204**

80671 Cordless pumps type XC

ENERPAC

Design
- Lightweight design with integrated handle and a comfortable carry strap
- Bladder tank prevents contamination and allows the pump to be used in any position
- Powerful 0.37 kW motor and a 28 V lithium-ion battery offer exceptional speed and running time
- Durable, fibreglass-reinforced composite housing for outstanding durability in demanding work environments
- Cordless technology prevents a tripping hazard that exists with other electrical or with air-operated pumps

80671 101
Type XC1201ME
Design
- With a single-acting control valve for single-acting cylinders

80671 102
Type XC1401ME
Design
- With a double-acting control valve for double-acting cylinders

80671

Type	Pump type for cylinder	Useful oil volume l	Feed volume l/min with no load	Feed volume 140 bar l/min	Feed volume 700 bar l/min	Valve function	80671	...
XC1201ME	Single-acting	1	2	0.5	0.25	3-way, 2-pos.		**101**
XC1401ME	Double-acting	1	2	0.5	0.25	4-way, 3-pos.		**102**

80685 Accessories for ENERPAC cylinders and pumps

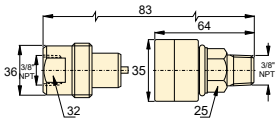
80685 104
High-flow hydraulic coupler type C604
Design
- Complete (coupling sleeve and plug)
- Thread 3/8 inch NPT
- Nominal flow rate of 40 l/min
- Max. operating pressure 700 bar

80685 105
CR400 coupling sleeve
- Individual

80685 106
CH604 coupling plug
- Individual

80685 201-202
Four-way distributor unit
Design
- Complete with manometer
- Combines smooth mobility and ease of use with ergonomic and robust design, ready for immediate use
- The CR400 coupling sleeves from Enerpac allow for quick connection of the distributor on up to 4 cylinders at all connections
- With glycerine-filled manometer (700 bar) to ensure safe conditions for the operator
- All components are protected by the robust protective frame

80685 105-106



80685 201-202

	Type	80685 ...
High-flow hydraulic coupler	C604	104
Coupling sleeve	CR400	105
Coupling plug	CH604	106
Four-way distributor unit, single-acting	AMGC41	201 NEW
Four-way distributor unit, double-acting	AMGC42	202 NEW

80695 Hydraulic oil

Design
Maximum pump effect, highest internal heat transfer, prevents cavitation in the pump, additives prevent rust and sludge formation and keep oxidation low, high viscosity index, very good lubricating properties.

80695

Content l	80695 ...
1	101
5	102

80700 Thermoplastic hydraulic hoses type HC

Design
Four-layer design including two sturdy layers of wire mesh. External layer made of polyurethane for enhanced resistance against wear caused by friction. Exhibits low volumetric expansion under pressure to enhance overall system efficiency. Pressed-on rubber strain relief for long service life and durability.

Applications
For heavy-duty use with a safety factor of 4:1. Max. approved operating pressure 700 bar.

80700

Type	Hose length m	Inner Ø mm	Hose connection inch NPT	Coupling plug inch NPT	Weight kg	80700 ...
HC7203	0.9	6.4	3/8	3/8	0.8	101
HC7206	1.8	6.4	3/8	3/8	1.0	102
HC7210	3.0	6.4	3/8	3/8	1.5	103
HC7220	6.1	6.4	3/8	3/8	2.9	104

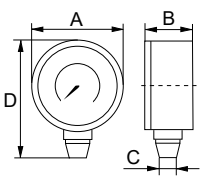
80705 Hydraulic glycerine manometer type G

Design
All of the pressure-sensitive internal parts are insulated and dampened by the glycerine to ensure long, trouble-free use. Including safety blow-out disc and pressure compensation membrane. Pressure range 0–700 bar,lowest value = 10 bar, highest value = 100 bar,accuracy of +/- 1-3% of the scale.

80705 101
Bottom connection 1/4 inch NPTF, Ø 63 mm.

80705 102
Bottom connection 1/2 inch NPTF, Ø 100 mm.

80705



Type	A mm	B mm	C mm	D mm	80705 ...
G2535L	63	37	1/4 inch NPTF	84	101
G4039L	100	49	1/2 inch NPTF	136	102

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80705 Manometer 45° type GA

ENERPAC

Design
- 45° angled manometer for optimal visibility
- Sleek and narrow design
- Easy integration into a variety of systems
- Maximum controlled load movement
- Glycerine-damped manometer with dual scale
- Enerpac coupling sleeve for high feed volumes

80705

Type	Manometer connection 1/4 inch NPTF	Plug NPTF	Sleeve 3/8 inch NPTF	Manometer bar	Manometer psi	80705	...
GA 45 GC	G 2535 L	3/8 inch - 18	CR400	0 - 700	0 - 10,000		103

80750 Hydraulic bench-mounted and workshop presses

ENERPAC

Design
The new ENERPAC workshop presses are characterised by their strength and their longevity and offer excellent quality at an affordable price. Each of these presses is powerful enough to execute the required job with precision and strength. These presses also set themselves apart through their ease of use. The optimised clear heights and table dimensions offer more than enough space for a wide range of applications.

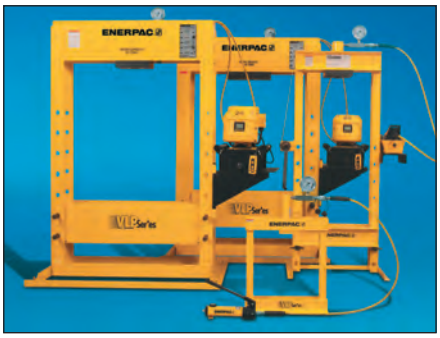
Note:
The frames of the workshop presses are designed exclusively for pressing, not for pulling. Pulling applications deliverable on request.

80750 101
Design
Bench-mounted press 10 t
With single-acting cylinder with spring return. The bench-mounted press is equipped with a hand pump, hose, manometer and manometer connecting piece.

80750 102
Design
Workshop press 25 t
With single-acting cylinder. The lower yoke can be adjusted using a winch. The workshop press is equipped with a hand pump, hose, manometer and manometer connecting piece.

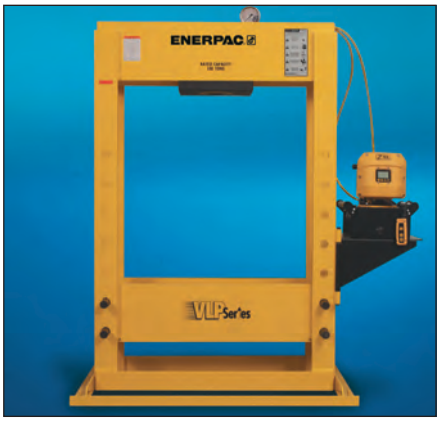
80750 103-107
Design
Workshop presses 50 and 100 t
With double-acting cylinder. The lower yoke can be adjusted using the unique -Hydrajust- positioning device. The workshop press is equipped with an electric pump unit, hoses, manometer and manometer connecting piece.

80750



80750 101

80750 103



Type	Compressive force approx. t (kN)	Max. clear height mm	Max. clear width mm	Stroke mm	Overall height without cylinder mm	Weight approx. kg	80750	...
VLP106P142	10 (101)	430	432	155	620	49		101
XLP256P392	25 (232)	1225	510	159	1622	165		102
XLP506ZESM	50 (498)	994	1000	155	1879	675		104
XLP5013ZESM	50 (498)	994	1000	333	1879	700		107
VLP1006ZES	100 (933)	989	1000	168	1879	962		103

Info Hydraulic tools

ENERPAC

Spreaders, machine jacks and screwing devices
Please contact us for information!

Factory equipment

80751 Hydraulic workshop presses

NEW

metallkraft
Metallbearbeitungsmaschinen

80751 101-103

Design
- Hydraulic workshop press with movable cylinder and hand pump
- Sturdy welded construction
- Rugged frame with holes for adjusting the press table
- Reliable, high-precision hydraulics from European production
- Chrome-plated cylinder pistons
- Pressure can be read on the manometer
- Automatic return of the piston with safety valve to protect against overload
- High quality, made in Europe

Applications

For all repair and assembly work, e.g.:
- Alignment of axles, beams, shafts etc.
- Removal and press-fitting of bearings, bolts and bushings
- Pressing and crimping work
- Load tests
- Welding sample tests and much more.

Note:

When processing flat material, press-fitting bearings, bolts and similar, it is essential to use the optional perforated plates.

80751 101

80751 102

80751 103

80751 104

Design
- Heavy, hydraulic workshop press with movable piston and two pistons feed speeds
- Pressure control by means of the throttle screw
- Manometer for pressure display
- Heavy machine frame made of steel profiles to absorb the pressure force of the cylinder
- The hydraulics work extremely precisely in both electric and manual operation
- Adjustment of the cylinder via toothed rack on the handwheel
- Heavy and robust welded construction
- Extensive range of accessories
- High quality, made in Europe

Features:
- Comfortable and clear operation of the hydraulic unit
- Sturdy frame design and also flatter
- Quick and easy adjustment of the cylinder via toothed rack and handwheel
- Simple table height adjustment with the help of the hydraulic cylinder and mounting bolt

Applications

For assembly and straightening work as well as for workpiece tests or the pressing in/out of bearings and other components.
Ideal for technical workshops, repair facilities and technical training institutions.

80751 104

Technical data: Art. no.		WPP 20 80751 101	WPP 30 80751 102	WPP 50 BK 80751 103	WPP 100 HBK 80751 104
Max. load prism jaw	t	5.0	7.5	12.5	-
Piston stroke	mm	160	160	150	320
Clear width	mm	610	710	790	1030
Max. installation height	mm	1000	1000	1000	1000
Frame depth	mm	150	150	210	265
Piston travel distance	mm	380	450	500	550
Approach speed	mm/s	-	-	-	10
Pressing speed	mm/s	-	-	-	1.5
Motor power	kW	-	-	-	1.5
Electrical voltage	V	-	-	-	400
Phases	Ph	-	-	-	3
Cylinder transverse path	mm	-	-	-	550
Hydraulic oil tank capacity	l	-	-	-	30
Hydraulic oil operating content	l	-	-	-	25

Model	Press force t	Length approx. mm	Width approx. mm	Height approx. mm	Weight approx. kg	80751 ...
WPP 20	20	600	950	1900	140	101
WPP 30	30	1150	600	1980	230	102
WPP 50 BK	50	1400	650	2000	360	103
WPP 100 HBK	100	1600	850	2280	980	104

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81910 - 81912 Material support stands

81910
Design
- **With steel roller**
- Stable and solid construction
- Ball bearing-mounted and plastic coated, thick-walled steel roller with stops that can be pivoted to the side
- All parts are powder-coated

81912
Design
- Stable and solid construction
- Ball bearing guide
- All parts are powder-coated

Applications
For pipes and round material for easy movement in all directions.

81910 81912

Load capacity kg	Adjustment height mm	Contact surface width mm	Support for round material up to inch	81910 ...	81912 ...
200	405 - 720	200	-	302	
200	705 - 1210	400	-	303	
500	680 - 1200	-	4		201

81913 Work trestle

Design
- Extremely sturdy design
- Height of feet can be adjusted individually (600-1000 mm)
- Non-slip and material-conserving contact surface
- Collapsible to 970 x 115 x 70 mm

81913

Load capacity kg	Adjustment height mm	Contact surface width mm	Weight kg	81913 ...
200	600 - 1000	970	8.9	101

81914 Assembly trestle

Design
- Extremely sturdy design
- Folding

Quality
Steel.

NEW

81914

Height mm	Load capacity kg	81914 ...
750	500	101
900	500	102

81915 Metal support stands

Design
- **Folding legs** ensure quick setup, space-saving storage and convenient transport
- Metal rail for attaching screw clamps
- Load capacity up to **340 kg per pair** (with uniform distribution)
- Non-slip rubber pad

Advantage
- Twin pack: Click mechanism permits **two stands to be transported in one hand**

NEW

Twin pack collapsible

81915

Dimensions open H x W x L mm	Dimensions folded H x W x L mm	Dimensions of twin pack H x W x L mm	Weight per pair kg	81915 ...
736 x 424 x 855	105 x 96 x 794	207 x 96 x 794	5.4	101

81155 Machine shoes, zinc-plated design

Design
Machine shoes ensure the stability of machines and isolate vibrations in two respects:
1. They isolate the vibrations generated by a machine from the environment
2. They isolate precision machines against externally generated vibrations

Advantages:
You achieve a higher workpiece quality.
They reduce maintenance and repair costs, since premature wear caused by vibrations is reduced.

Applications
For presses, injection moulding machines, lathes, milling machines, saws and other machines.

How to select the right machine shoe:
1. Determine the weight of the machine.
2. Divide the weight of the machine by the number of mounting holes. Determine the maximum load per machine shoe.
3. The table below shows the corresponding sizes of the machine shoes.

Note:
Sizes 4 and 5 are especially suitable for machines in which large vertical and horizontal forces are generated, e.g. injection moulding machines and presses.

Size	81155 ...
1	101
2	102
3	103
4	104
5	105

81155

Art. no.	81155 101	81155 102	81155 103	8155 104	81155 105
Sizes	**1**	**2**	**3**	**4**	**5**
Diameter (mm)	80	120	160	160	200
Height incl. levelling plate (mm)	41	49	59	59	69
Level compensation (mm)	18	18	25	25	25
Stud bolt	M12x1.25x120	M16x1.5x120	M20x1.5x170	M20x1.5x170	M20x1.5x170
Load per machine shoe (kg)	**50 - 500**	**400 - 1000**	**800 - 2500**	**1500 - 4000**	**3000 - 5500**
Load per machine shoe (kg)					
For presses					
with stroke count/min. 160 - 200	50 - 120	120 - 250	250 - 800	750 - 1400	1300 - 2400
with stroke count/min. 125 - 160	60 - 140	120 - 350	350 - 1100	950 - 2100	1950 - 3500
with stroke count/min. < 125	70 - 200	200 - 400	400 - 1400	1600 - 2800	2700 - 4000
For injection moulding machines	Max. 180	Max. 360	Max. 990	Max. 2475	Max. 3735

81140 Hydraulic lifting devices

GKS PERFEKT

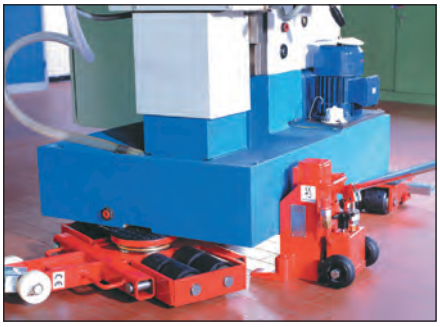
Design
Test mark UVV7-BGV8 for loads from 5 to 30 t. All hydraulic lifting devices can also be operated with an external hydraulic hand pump.

Applications
Safe lifting, easy to transport even in the tightest spaces.

Note:
All variants are also deliverable in a nickel-plated version.

81140 202

81140 201 + 81151 102



Technical data:	Type	V5	V10	V15	V20
Art. no.		**81140 201**	**81140 202**	**81140 204**	**81140 203**
Full load capacity	**t**	**5**	**10**	**15**	**20**
Working pressure	bar	520	520	520	520
Lowest application height with toe	mm	15	20	25	30
Lifting height	mm	140	160	160	160
Adjustability of the lifting toe		3 x	4 x	4 x	3 x
External dimensions L x W x H	mm	285 x 235 x 252	320 x 240 x 310	353 x 278 x 310	455 x 320 x 325
Tare weight with oil filling	approx. kg	21	32	53	72

Type	81140 ...
V5	201
V10	202
V15	204
V20	203

Factory equipment

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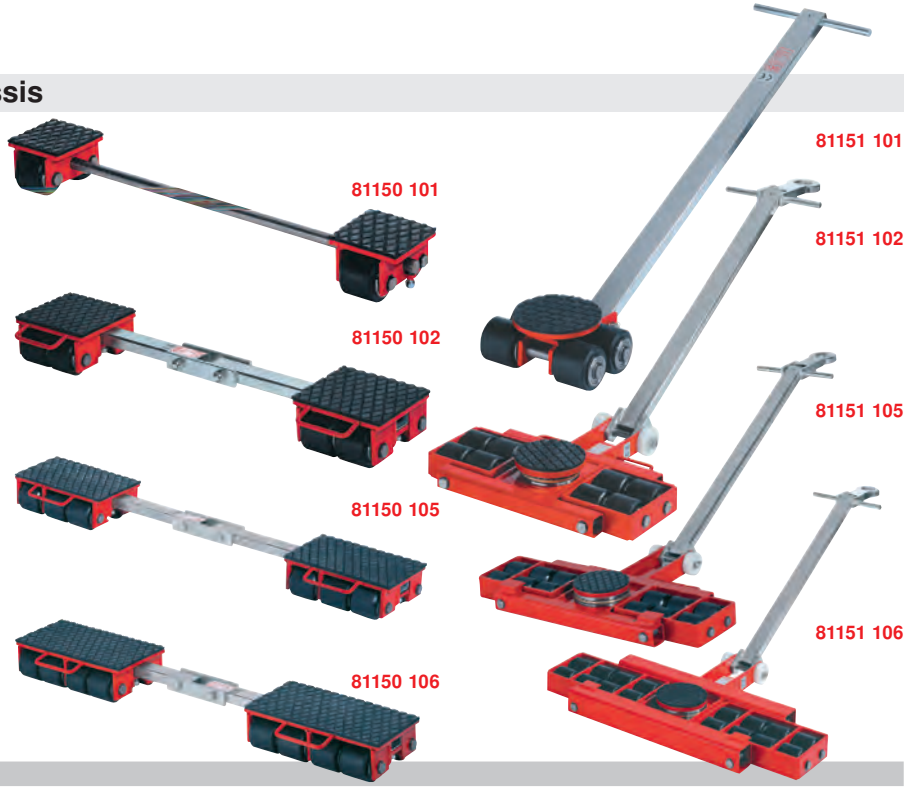
81150 - 81151 Transport chassis

Design
2 versions of each transport chassis are available:
Type F with transversally adjustable frames and type L as a steerable chassis.
Applications
A transporting unit always consists of one model each of the F-type and L-type series.
E.g. total load of F 3 and L 3 = 6 t.

81150
Design
Type F Adjustable transport chassis.
The frames of the F-Type series should always be used with connecting rods.

81151
Design
Type L Steerable transport chassis.

Note:
Variants with a total weight of 6 t to 200 t and special designs deliverable on request. Also deliverable in nickel-plated version for clean rooms.



Technical data:								
Art. no.	81150 101	81150 102	81150 105	81150 106	81151 101	81151 102	81151 105	81151 106
Type	F 3, adjustable	F 6, adjustable	F 9, adjustable	F 12, adjustable	L 3, steerable	L 6, steerable	L 9, steerable	L 12, steerable
Load t	3	6	9	12	3	6	9	12
Load rollers 85 x 85 mm	4	8	12	16	4	8	12	16
Installation height of load rollers mm	110	110	110	110	110	110	110	110
Contact surface per frame with non-slip waffle rubber pad mm	150 x 150	200 x 220	200 x 320	200 x 407	-	-	-	-
Spacer rod, adjustable mm	300 - 1000	640 - 1030	840 - 1230	1014 - 1430	-	-	-	-
Turntable with axial thrust bearing, swivelling, steering angle 180° mm Ø	-	-	-	-	170	170	170	170
Steering rod mm	-	-	-	-	950	1080	1080	1080
	-	-	-	-	-	With pulling eye	With pulling eye	With pulling eye
Length x width mm	-	-	-	-	270 x 230	610 x 520	583 x 840	620 x 1030
Weight kg	15	30	43	52	12	41	59	80

		Adjustable		Steerable	
Type	Load t	81150	...	81151	...
F 3	3		101		
F 6	6		102		
F 9	9		105		
F 12	12		106		
L 3	3				101
L 6	6				102
L 9	9				105
L 12	12				106

Figures show 81150 102 and 81151 102

81144 - 81145 Rotating chassis

81144
Design
Can be rotated 360°. Contact surface of the turntable with non-slip waffle rubber pad Ø 170 mm.
ApplicationsParticularly suitable for transporting machines and heavy goods that have to be manoeuvred into or out of narrow gaps. Loads can be moved and rotated in all directions. Multiple chassis can be used simultaneously depending on the contact point on the machine and weight.

Note:
All variants are also deliverable in a nickel-plated version.

81145
Design
Steering rod with pulling eye including coupling.
Length 1,080 mm.

Note:
Connecting rods with lengths of 1500 mm and 2000 mm deliverable on request.

						Chassis	Steering rod	
Type	Load per frame t	Number of castors/ Ø mm	Installation height mm	Dimensions L x W x H mm	Weight approx. kg	81144 ...	81145	...
RL 2	2	3 pieces/85 x 85	110	685 x 515 x 110	30	101		101
RL 4	4	5 pieces/85 x 85	110	760 x 560 x 110	55	103		101

81304 CLAX folding trolley

81304 101
Design
- Handy and versatile
- Can be folded/unfolded at the touch of a button on the handle
- Wheels can be removed in a few steps and stowed in the floor platform to save space
- Upper platform can be folded up to transport bulky goods
- Strong aluminium and plastic structure
- Wheels: 2 steering rollers and 2 fixed castors with locking brake, solid rubber tyres on plastic rim
- **Includes matching folding box with 46 litre capacity**
- Colour: grey/green

81304 102
Folding box, individual
Applications
For CLAX folding trolley, art. no. 81304 101.

81304 102

81304 101

Total load kg	Load of upper/lower platform kg	Overall dimensions L x W x H mm	Dimensions folded mm	Folding box dimensions L x W x H mm	Folding trolley 81304	...	Folding box 81304	...
60	20/40	550 x 890 x 1025	470 x 670 x 110	530 x 370 x 270		**101**		**102**

81305 Transport trolleys

fetra Transportgeräte

Design
- First-class processed aluminium steel-tube construction
- Aluminium base plate
- High-quality plastic parts
- Hubs with roller bearing
- Hand grip made of comfortable, non-slip material
- Elastic tensioning strap and clamping bar for securing the transported goods
- Base plate and wheels foldable in one move
- Retractable grip
- Ready for use in just a few seconds

81305 200-201
Design
With blue-grey polymer tyres (trackless).

81305 202
Design
With pneumatic tyres.

Easy transport

Quick setup

81305 200

81305 201

81305 202

Load capacity kg	Height mm	Base-plate length mm	Base-plate width mm	Total width mm	Folded H x W x D mm	Polymer tyres mm	Pneumatic tyres mm	Weight approx. kg	81305	...
50	1030	300	385	390	595 x 390 x 50	127 x 30	-	3.2		**200**
125	1090	320	480	488	765 x 488 x 64	170 x 35	-	5.2		**201**
250	1190	450	595	660	855 x 660 x 135	-	220 x 70	12.6		**202**

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81310 Steel-tube trolleys/aluminium trolley

fetra
Transportgeräte

81310 201-403 + 501
Steel-tube trolleys
Design
- Handy steel-tube trolley with sheet-steel base plate
- Sturdy welded construction
- Powder-coated
- Safety handles
- Sheet-steel base plate can be screwed on and, thus, replaced
- Wheels with pneumatic tyres on plastic rims
- Hubs with roller bearings
- Delivered disassembled
- **Art. no. 81310 401 and 501 with replaceable plastic skids**

81310 405
Aluminium trolley
Design
- Aluminium-tube trolley with aluminium base plate
- Very light and manageable
- Cleanly welded with natural finish
- Safety handles
- With replaceable plastic skids
- Aluminium-sheet base plate can be screwed on and, thus, replaced
- Wheels with pneumatic tyres on plastic rims
- Hubs with roller bearings
- Delivered disassembled

81310 403

81310 201

81310 401

81310 501

81310 405

Load capacity kg	Height mm	Base plate L x W mm	Total width mm	Pneumatic tyres mm	Tare weight kg	RAL 5007 81310	...	RAL 7016 81310	...	Aluminium 81310	...
200	1150	250 x 320	570	260 x 85	11		403				
250	1150	150 x 400	590	260 x 85	12		201				
300	1300	250 x 320	580	260 x 85	15		401		501 NEW		
200	1300	250 x 320	590	260 x 85	9						405

81312 Aluminium stairway trolley/stairway trolley

fetra
Transportgeräte

Applications
For the safe transport of round goods such as rolls, cans, buckets etc.

81312 200
Aluminium stairway trolley
Design
- Aluminium-tube with aluminium base plate
- Handy welded construction
- Safety handles
- Delivered disassembled
- 2 three-spoke wheel centres
- Each with 3 TPE wheels
- Hub with ball bearing
- Upper frame and cross braces bent

81312 100
Steel-tube stairway trolley
Design
- Sturdy welded construction
- Sheet-steel base plate
- Powder-coated, blue RAL 5007
- Safety handles
- Delivered disassembled
- 2 three-spoke wheel centres
- Each with 3 TPE wheels
- Hub with ball bearing
- Upper frame and cross braces bent

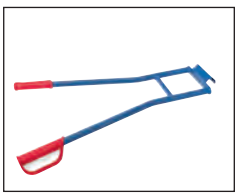
81312 103
Carry handle
Design
- 2 tubular handles
- Suspension hook
- Cross braces
- Welded
- Powder-coated, blue RAL 5007

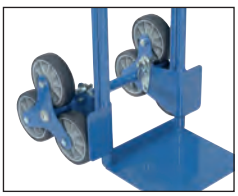
Applications
For stairway trolleys, art. no. 81312 100 and 200.

81312 104
Star locking device
Applications
Attachment kit for stairway trolleys, art. no. 81312 100 and 200.
For problem-free trips on 2 wheels on even surfaces.
Easy self-assembly.

81312 200

81312 100


81312 103


81312 104

	Load capacity kg	Height x width mm	Base plate W x L mm	TPE tyres mm	Tare weight kg	Aluminium 81312	...	RAL 5007 81312	...
Aluminium stairway trolley	200	1300 x 590	320 x 250	160 x 40	14.0		200 NEW		
Steel-tube stairway trolley	200	1300 x 590	320 x 250	160 x 40	18.0				100
Carry handle	350	850 x 570	-	-	3.2				103
Star locking device	-	-	-	-	2.0				104

81315 Steel bottle carts

fetra Transportgeräte

Design
- **Solid rubber tyres**
- Tubular steel construction
- Powder-coated, blue RAL 5007
- Bottle holders with chain lock
- Wheels with roller bearings

81315 201 | 81315 202 | 81315 203 | 81315 204

Number of bottles x size Litres	Ø mm	Wheel Ø x width mm	Tyres	Weight approx. kg	81315 ...
2 x 10	140	200 x 50	Solid rubber	6.0	**201**
2 x 20	204	250 x 60	Solid rubber	20.0	**202**
2 x 40 - 50	204 - 229	400 x 80	Solid rubber	30.0	**203**
1 x 20 - 50	204 - 229	250 x 60	Solid rubber	12.5	**204**

81400 - 81406 Sheet-steel steering rollers and fixed castors with screw-on plate

Blickle

81400
Sheet-steel steering rollers
Design
- Screw-on plate
- „stop-fix" locking device
- **Wheel with standard solid rubber tyre**
- Sheet-steel rim
- **Electrically conductive** (art. no. 81400 202-205)

Housing:
- Pressed from sheet steel
- Twin ball bearings in rotating assembly
- Special shape of the floor panel and spherical washer protects the ball bearings
- The special dynamic Blickle riveting of the rotating assembly ensures that the rotating assembly has minimal play, runs smoothly and has a long service life thanks to the cold hardening of the ball tracks
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

81401
Sheet-steel fixed castors
Design
- Screw-on plate
- **Wheel with standard solid rubber tyre**
- Sheet-steel rim
- **Electrically conductive** (art. no. 81401 202-205)

Housing:
- Pressed from sheet steel
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

Solid rubber	
Rolling resistance	Satisfactory
Rolling noise	Very good
Ground protection	Very good
Surface hardness	80° Shore A
Bearing type	Roller bearing
Tread colour	Black
Wheel body colour	Blue-passivated

Steering roller — **Electrically conductive**

Wheel	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81400 ...	81400 ...
Solid rubber	100	30.0	70	125	100 x 85	**102**	**202** NEW
Solid rubber	125	37.5	100	150	100 x 85	**103**	**203** NEW
Solid rubber	160	40.0	135	195	140 x 110	**104**	**204** NEW
Solid rubber	200	50.0	205	235	140 x 110	**105**	**205** NEW

Fixed castor — **Electrically conductive**

Wheel	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81401 ...	81401 ...
Solid rubber	100	30.0	70	125	100 x 85	**102**	**202** NEW
Solid rubber	125	37.5	100	150	100 x 85	**103**	**203** NEW
Solid rubber	160	40.0	135	195	140 x 110	**104**	**204** NEW
Solid rubber	200	50.0	205	235	140 x 110	**105**	**205** NEW

Continued

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81400 - 81406 Sheet-steel steering rollers and fixed castors with screw-on plate

Continued

Blickle
we innovate mobility

81403
Sheet-steel steering rollers
Design
- Screw-on plate
- „stop-fix" locking device
- **Wheel made of high-quality, break-resistant polyamide 6**

Housing:
- Pressed from sheet steel
- Twin ball bearings in rotating assembly
- Special shape of the floor panel and spherical washer protects the ball bearings
- The special dynamic Blickle riveting of the rotating assembly ensures that the rotating assembly has minimal play, runs smoothly and has a long service life thanks to the cold hardening of the ball tracks
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

81404
Sheet-steel fixed castors
Design
- Medium-duty design
- Screw-on plate
- **Wheel made of high-quality, break-resistant polyamide 6**

Housing:
- Pressed from sheet steel
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

Polyamide	
Rolling resistance	Excellent
Rolling noise	Satisfactory
Ground protection	Satisfactory
Surface hardness	70° Shore D
Bearing type	Plain bearing
Tread colour	Natural white
Wheel body colour	Natural white

Steering roller

Fixed castor

Wheel	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81403 ...	81404 ...
Polyamide	100	37	150	125	100 x 85	102	102
Polyamide	125	40	150	150	100 x 85	103	103
Polyamide	160	50	300	195	140 x 110	104	104
Polyamide	200	50	300	235	140 x 110	105	105

81407 - 81408 Apparatus steering rollers and fixed castors with bolt hole

NEW

Blickle
we innovate mobility

81407
Apparatus steering rollers
Design
- Bolt hole
- **Plastic „stop-fix" locking device** (art. no. 81407 101 and 201)
- **Wheel made of high-quality, thermoplastic rubber elastomer (TPE)**
- Substance-to-substance, inseparable bond with the wheel body
- Wheel body made of high-quality, break-resistant polypropylene
- **Electrically conductive, trackless** (art. no. 81407 201-202)

Housing:
- Pressed from sheet steel
- Twin ball bearings in rotating assembly
- Special shape of the floor panel and spherical washer protects the ball bearings
- The special dynamic Blickle riveting of the rotating assembly ensures that the rotating assembly has minimal play, runs smoothly and has a long service life thanks to the cold hardening of the ball tracks
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

81408
Apparatus fixed castors
Design
- Bolt hole
- **Wheel made of high-quality, thermoplastic rubber elastomer (TPE)**
- Substance-to-substance, inseparable bond with the wheel body
- Wheel body made of high-quality, break-resistant polypropylene
- **Electrically conductive, trackless** (art. no. 81408 201-202)

Housing:
- Pressed from sheet steel
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

Rubber (TPE)	
Rolling resistance	Very good
Rolling noise	Good
Ground protection	Good
Surface hardness	85° Shore A
Bearing type	Plain bearing
Tread colour	Grey/Dark grey
Wheel body colour	Grey

Steering roller — **Electrically conductive**

Wheel	Locking device stop-fix	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81407 ...	81407 ...
Rubber (TPE)	Yes	50	19	50	69	43	101	
Rubber (TPE)	Yes	50	19	30	69	43		201
Rubber (TPE)	No	75	25	75	98	43	102	
Rubber (TPE)	No	75	25	50	98	43		202

Fixed castor — **Electrically conductive**

Wheel	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81408 ...	81408 ...
Rubber (TPE)	50	19	50	69	43	101	
Rubber (TPE)	50	19	30	69	43		201
Rubber (TPE)	75	25	75	98	43	102	
Rubber (TPE)	75	25	50	98	43		202

81409 - 81410 Apparatus steering rollers and fixed castors with screw-on plate

NEW

Blickle
we innovate mobility

81409
Apparatus steering rollers
Design
- Screw-on plate
- **Plastic „stop-fix" locking device** (art. no. 81409 101 and 201)
- **Wheel made of high-quality, thermoplastic rubber elastomer (TPE)**
- Substance-to-substance, inseparable bond with the wheel body
- Wheel body made of high-quality, break-resistant polypropylene
- **Electrically conductive, trackless** (art. no. 81409 201-202)

Housing:
- Pressed from sheet steel
- Twin ball bearings in rotating assembly
- Special shape of the floor panel and spherical washer protects the ball bearings
- The special dynamic Blickle riveting of the rotating assembly ensures that the rotating assembly has minimal play, runs smoothly and has a long service life thanks to the cold hardening of the ball tracks
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

81410
Apparatus fixed castors
Design
- Screw-on plate
- **Wheel made of high-quality, thermoplastic rubber elastomer (TPE)**
- Substance-to-substance, inseparable bond with the wheel body
- Wheel body made of high-quality, break-resistant polypropylene
- **Electrically conductive, trackless** (art. no. 81410 201-202)

Housing:
- Pressed from sheet steel
- Bolted wheel axle
- Zinc-plated
- Blue-passivated
- Cr6-free

Rubber (TPE)	
Rolling resistance	Very good
Rolling noise	Good
Ground protection	Good
Surface hardness	85° Shore A
Bearing type	Plain bearing
Tread colour	Grey/Dark grey
Wheel body colour	Grey

Steering roller

Wheel	Locking device stop-fix	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81409 ...	Electrically conductive 81409 ...
Rubber (TPE)	Yes	50	19	50	71	60 x 60	101	
Rubber (TPE)	Yes	50	19	30	71	60 x 60		201
Rubber (TPE)	No	75	25	75	100	60 x 60	102	
Rubber (TPE)	No	75	25	50	100	60 x 60		202

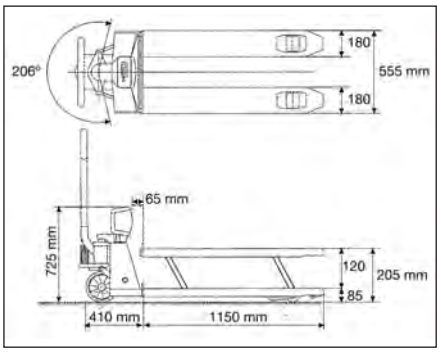
Fixed castor

Wheel	Wheel Ø mm	Wheel width mm	Load capacity kg	Total height mm	Plate size mm	81410 ...	Electrically conductive 81410 ...
Rubber (TPE)	50	19	50	71	60 x 60	101	
Rubber (TPE)	50	19	30	71	60 x 60		201
Rubber (TPE)	75	25	75	100	60 x 60	102	
Rubber (TPE)	75	25	50	100	60 x 60		202

81508 Hand pallet truck with scales

KERN

Design
- Steering wheels: Solid rubber on aluminium rims
- Tandem tyres to drive over thresholds and obstacles more easily
- Evaluation unit: Plastic, dust and splash protection IP 65
- PRE-TARE function for manual subtraction of a known container weight, useful for fill level checks
- Swivel range of 206°
- Load forks: Dust and splash protection IP 67, short-term use in wet areas possible
- Large LCD, digit height of 28 mm
- Permissible ambient temperature range -10°C/+40°C



NEW

81508

Load kg	Fork length mm	Carrying width mm	Lifting height mm	81508 ...
2000	1150	555	85 - 205	601

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81511 Hand pallet truck

fetra Transportgeräte

NEW

Design
- Frame and forks in torsion-resistant shell construction
- Yellow powder coating, black tiller
- Hydraulic hand pump, maintenance-free mounting
- Control lever for the following functions: Lifting - Moving - Lowering
- Strong tubular steel tiller with counter bearing for pushing operation
- Steering deflection 2 x 100°

81511 301

81511 302

Load kg	Steering wheels	Steering wheels wheel Ø x width mm	Tandem fork rollers wheel Ø x width mm	Fork length mm	Carrying width mm	Lifting height min.-max. mm	Tare weight kg	81511	...
2500	Polyurethane	200 x 50	80 x 70	1150	540	85 - 200	76		**301**
2500	Solid rubber	200 x 50	80 x 70	1150	540	85 - 200	76		**302**

81517 Scissor pallet truck

Design
- Load of 1000 kg with evenly distributed load
- Robust, durable welded steel construction
- Overload protection as standard
- Automatic stabilisers safely support the pallet truck in raised position
- 2 lifting speeds: quick for light loads, slow for heavy loads
- High-quality wheels: Steering wheels and scissor rollers with polyurethane tyres
- Yellow paintwork, black tiller

81517

Load kg	Max. lifting height mm	Min. lifting height mm	Fork length mm	Fork width mm	Carrying width mm	Steering rollers mm	Scissors rollers mm	Tare weight kg	81517	...
1000	800	85	1150	163	540	180 x 50	75 x 50	118		**201**

81512 High-lift truck

Design
- Hydraulic high-lift truck
- Solid and durable, permanently welded steel construction
- One-hand operation via safety tiller
- Lifting/Neutral/Lowering triple function in the handle
- Additional foot pedal to raise the forks without load
- Wheels with polyurethane tyres
- Both steering rollers with locking devices
- High-quality yellow and black powder coating

Applications
For easy work with pallets and bins.

Note:
Optional loading platform is deliverable as an accessory.

81512 101

81512 102

81512 103

Art. no.		81512 101	81512 102	81512 103
Load	**kg**	**500**	**1000**	**1000**
Distance from centre of gravity	mm	600	600	600
Lifting height	**mm**	**1000**	**1600**	**2500**
Lowered height	mm	90	90	90
Lift	mm	910	1510	2410
Overall height	mm	1490	2080	* 1838/2925
Fork length	mm	1150	1150	1150
Carrying width	mm	550	550	580
Fork width	mm	170	170	170
Fork profile height	mm	61	61	61
Device length	mm	1705	1705	1705
Device width	mm	755	755	860
Turning radius	mm	1380	1380	1380
Min. aisle width	mm	1945	1945	1945
Wheel base	mm	1240	1240	1240
Steering rollers	Ø x width mm	150 x 40	150 x 40	150 x 40
Tandem fork rollers	Ø x width mm	82 x 60	82 x 60	82 x 60
Lift/pump action	mm	25	25	25
Weight	kg	185	210	286

* Telescopic mast

Lifting height mm	Load kg	81512	...
1000	500		**101**
1600	1000		**102**
2500	1000		**103**

Lifting tables

81526 HTH hydraulic handling lifting tables

PFAFF silberblau

Design
- Height-adjustable platform
- Single-scissor construction for evenly distributed loads
- Controller between the scissors
- Operated via pendant station
- Maintenance supports
- Circumferential contact strip
- Line-break safety device
- Lowering brake valve
- Operating voltage of 400V - 50 Hz
- Indoor ambient temperature range of 0 °C to +40 °C
- DIN EN 1570-1
- EC Machinery Directive 2006/42/EC

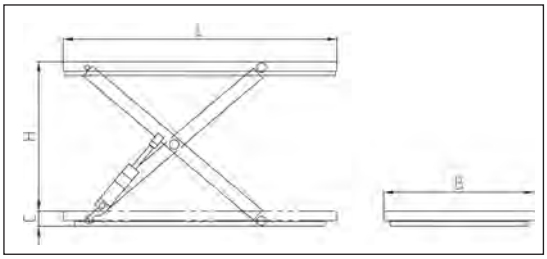
Advantage
- Ergonomic workstations

Applications
For assembly, packaging and maintenance work.
Indoor operation.

Quality
Smooth, sheet-steel platform.

NEW

81526



Model	Lifting load kg	Lifting height H mm	Platform L x W mm	Overall height C mm	Lifting time sec.	Motor output kW	Weight approx. kg	81526	...
HTH 5-820	500	820	1300 x 800	190	15	0.75	160		**100**
HTH 10-820	1000	820	1300 x 800	190	25	0.75	220		**101**
HTH 20-820	2000	820	1300 x 800	190	40	0.75	280		**102**
HTH 30-800	3000	800	1300 x 800	220	26	1.50	320		**103**

81520 Hand-operated lifting table trolleys

Design
- Pump action via foot lever
- Lowering via handle on the push handle
- High-quality polyurethane tyres as standard
- 2 steering rollers with locking device and 2 fixed castors
- Wheel Ø 125 mm, wheel width 35 mm
- Paintwork: yellow and black

Applications
For the internal transportation of loads.

81520 100

81520 101-102

81520 103

Version	Load kg	Platform L X W mm	Retracted height mm	Extended height mm	Max. number of pedal movements	Tare weight kg	81520	...
Single scissor	150	740 x 450	225	740	< 25	44		**100**
Single scissor	500	855 x 500	340	900	< 45	87		**101**
Single scissor	800	1000 x 510	420	1000	< 70	115		**102**
Double scissor	350	910 x 500	350	1300	< 60	105		**103**

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xetto

81303 101
xetto® mobile lifting table
Design
xetto® moves, lifts and loads cargo and goes everywhere you go

xetto® moves
- With xetto®, you can easily transport up to 250 kilogrammes of cargo, without physical strain
- Thanks to its 160 mm rollers, it easily overcomes thresholds and uneven terrain as high as 25 mm
- The system negotiates vehicle sills, steps and comparable obstacles of up to 800 mm
- Measuring 1175 by 800 mm, the load area offers space for most things that might be transported as part of the daily routine
- Locking brakes prevent it from rolling away
- Special xetto® accessories optimise usage possibilities, provide protection against dirt and moisture and ensure cargo is transported safely

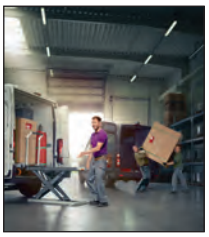
xetto® lifts
- The xetto® lifts heavy equipment and materials up to a height of more than one metre
- This allows tools and materials to be used ergonomically at eye level and working height with ease
- This turns the xetto® into a mobile assembly aid or a height-adjustable workbench at the job site

xetto® loads
- The core of the xetto® is the powerful micro hydraulic and kinematic system
- For loading, the xetto® lifts its load to a maximum sill height of 800 mm and into the vehicle, „climbs" in behind it and stows itself beneath the cargo
- Unloading is equally simple: xetto® extends out of the vehicle and creates a solid footing for itself
- This allows the cargo to be conveniently unloaded and moved at the destination

...and goes where you go

NEW

81303 101



Technical data:	xetto® mobile lifting table	
Maximum payload	kg	250
Lifting time	approx. sec.	20
Loading area	mm	1175 x 800
Sill height	max. mm	800
Weight	approx. kg	95
Drive unit	Li-Ion battery 14.4V/6 Ah	hydraulic, electronic

81303 102

81303 103

81303 104

81303 105

81303 106

81303 107

81303 108

81303 109

81303 110

81303 111

81303 112

81303 113

81303 102
Airline-style lashing strap
Automatic lashing strap to easily and securely fix the load.

81303 103
Airline-style lashing strap with hook
Automatic lashing strap to ensure xetto® is secured easily and safely in the vehicle.

81303 104
Charger, 230 V
For charging the rechargeable xetto® battery using a power outlet.

81303 105
Car charger, 12-24 V
For the 12-volt socket in the vehicle.

81303 106
Additional battery
Original xetto® additional battery.

81303 107
Loading ramp
For loading and unloading.
Aluminium ramp with side roll protection and carry handle.

81303 108
Support foot
Enables the use of the xetto® as a mobile workbench.

81303 109
Loading bridge
For loading and unloading with raised loading platform.

81303 110
Roll-off protection
Prevents the load from rolling off sideways from the xetto®.

81303 111
Airline-style cord netting
Secures cargo to prevent it from sliding and/or falling out of bins.

81303 112
Airline-style tarpaulin
Protects the cargo against moisture and dirt.

81303 113
Edge protection
For the uniform distribution of lashing forces.

	81303 ...
Mobile lifting table	101
Lashing strap	102
Lashing strap with hook	103
Charger 230 V	104
Car charger 12-24 V	105

	81303 ...
Additional battery	106
Loading ramp	107
Support foot	108
Loading bridge	109
Roll-off protection	110

	81303 ...
Cord netting	111
Tarpaulin	112
Edge protection	113

81699 Service trolley

ATORN®

Design
- Work surface height of 845 mm
- 15-way height-adjustable middle shelf, e.g. in order to adjust canister
- Robust steering handle, permanently mounted on the body
- Easy movement even with high dynamic loads
- Large ball bearing-mounted wheels (Ø 100 mm)
- 2 steering rollers (1x with double stopper)
- 2 fixed castors
- With thread protection to protect the bearings against dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Made in Germany

Advantage
- Flexible and robust for all purposes

Quality
Robust sheet-steel design.

Note:
Other shelves and non-slip mat (2x 180-38) deliverable on request.

NEW

81699

Dimensions mm	Shelves quantity	Load capacity per shelf kg	81699	...
899 x 890 x 542	3	50		101

81705 Hand trolleys

fetra Transportgeräte

Design
- Welded steel tube
- Powder-coated
- Platform with wooden plates in frame
- Screw-on handles
- TPE tyres, 125 x 32 mm
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81705 201
Design
- 1 steering roller and 2 fixed castors
- 1 wooden platform

81705 202 + 402
Design
- 2 steering rollers and 2 fixed castors
- 1 wooden platform

81705 203 + 403
Design
- 2 steering rollers and 2 fixed castors
- 2 wooden platforms
- Load capacity of upper loading area 100 kg

81705 201

81705 202

81705 203

81705 402

81705 403

Load capacity kg	Length mm	Width mm	Height mm	Total length mm	Total Height mm	Tare weight kg	RAL 5007 81705	...	RAL 7016 81705	...
200	600	450	195	860	860	10		201		
250	600	500	195	890	860	11		202		402 NEW
250	600	450	195/770	860	875	19		203		403 NEW

Factory equipment

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81700 Folding trolley

fetra

Transportgeräte Design
- Steel-tube trolley
- Powder-coated
- With wooden plate
- Push handle folds onto platform
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81700 101-102

81700 201-202

Load capacity kg	Wheel Ø mm	Loading area L x W x H mm	Outer dimensions L x W x H mm	Tare weight kg	RAL 5007 81700 ...	RAL 7016 81700 ...
250	125	720 x 450 x 205	815 x 470 x 930	15	101	201 NEW
250	160	900 x 600 x 230	995 x 620 x 965	24	102	202 NEW

81706 Warehouse trolley

fetra

Transportgeräte
Design
- Steel tube, welded construction
- Powder-coated
- Platform made of wooden plate
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81706 200-201

81706 400-401

Load capacity kg	Wheel Ø mm	Loading area L x W x H mm	Outer dimensions L x W x H mm	Tare weight kg	RAL 5007 81706 ...	RAL 7016 81706 ...
250	125	850 x 450 x 206	1100 x 450 x 910	14	201	401 NEW
250	125	1000 x 600 x 206	1250 x 600 x 910	19	200	400 NEW

81706 Push handle trolley

fetra

Transportgeräte
Design
- Steel tube and **profile steel,** welded
- Powder-coated
- **Permanent surface protection**
- **Impact-resistant and scratch-resistant**
- Platform made of wooden plates
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81706 100-203

81706 300-303

Load capacity kg	Wheel Ø mm	Loading area L x W x H mm	Outer dimensions L x W x H mm	Tare weight kg	RAL 5007 81706 ...	RAL 7016 81706 ...
500	160	850 x 500 x 228	975 x 509 x 948	23	100 NEW	300 NEW
600	200	1000 x 600 x 270	1125 x 609 x 990	27	101 NEW	301 NEW
600	200	1000 x 700 x 270	1125 x 709 x 990	30	202	302 NEW
600	200	1200 x 800 x 270	1325 x 809 x 990	35	203	303 NEW

81707 Heavy table trolleys

fetra Transportgeräte

Design
- Steel tube and **profile steel,** welded
- Powder-coated
- **Permanent surface protection**
- **Impact-resistant and scratch-resistant**
- Platforms made of wooden plates
- **Load capacity of upper and middle loading areas 200 kg**
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81707 101-102+201+203

81707 501-504

81707 103-104+202

Load capacity kg	Wheel Ø mm	Loading area L x W mm	Outer dimensions L x W x H mm	Shelves quantity	Shelf height mm	Tare weight kg	RAL 5007 81707	...	RAL 7016 81707	...
500	160	850 x 500	1047 x 509 x 860	2	228/860	37		101		501 NEW
600	200	1000 x 600	1197 x 609 x 900	2	270/900	44		102		502 NEW
600	200	1000 x 700	1197 x 709 x 900	2	270/900	49		201		503 NEW
600	200	1200 x 800	1397 x 809 x 900	2	270/900	58		203		504 NEW
500	160	850 x 500	1047 x 509 x 860	3	228/544/860	50		103		
600	200	1000 x 600	1197 x 609 x 900	3	270/585/900	61		104		
600	200	1200 x 800	1397 x 809 x 900	3	270/585/900	79		202		

81707 Lightweight table trolleys

fetra Transportgeräte

Design
- Steel tube and **profile steel,** welded
- Powder-coated
- Bolted construction
- **Upright sliding handle**
- Shelves made of wooden plates
- In steel frame, edge height of 12 mm
- **Load capacity of upper and middle loading areas 80 kg**
- 2 steering rollers and 2 fixed castors with TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81707 301-302

81707 601-602

81707 401-402

81707 603-604

Load capacity kg	Wheel Ø mm	Loading area L x W mm	Outer dimensions L x W x H mm	Shelves quantity	Shelf height mm	Tare weight kg	RAL 5007 81707	...	RAL 7016 81707	...
300	125	850 x 500	985 x 500 x 1040	2	200/820	28		301		601 NEW
300	125	1000 x 600	1135 x 600 x 1040	2	200/820	36		302		602 NEW
300	125	850 x 500	985 x 500 x 1040	3	200/510/820	35		401		603 NEW
300	125	1000 x 600	1135 x 600 x 1040	3	200/510/820	49		402		604 NEW

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81705 Hand trolley

fetra Transportgeräte

Design
- Welded steel tube
- Powder-coated, blue RAL 5007
- Platform with flush-mounted, 2-mm thick, welded sheet steel
- Screw-on handles
- 2 steering rollers and 2 fixed castors
- TPE tyres, 125 x 32 mm
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81705 301
Design
- 1 sheet-steel platform

81705 301

81705 302
Design
- 2 sheet-steel platforms
- Load capacity of upper loading area 100 kg

81705 302

Load capacity kg	Length mm	Width mm	Height mm	Total length mm	Total height mm	Tare weight kg	81705	...
250	600	500	195	890	860	13		301
250	600	450	195/770	860	875	20		302

81706 Push handle trolley

fetra Transportgeräte

Design
- Steel tube and **profile steel,** welded
- Powder-coated, blue RAL 5007
- **Permanent surface protection**
- **Impact-resistant and scratch-resistant**
- Sheet-steel platform flush with frame, neatly welded in
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81706 205-207

Load capacity kg	Wheel Ø mm	Loading area L x W x H mm	Outer dimensions L x W x H mm	Tare weight kg	81706	...
500	160	850 x 500 x 228	975 x 509 x 948	28		205
600	200	1000 x 600 x 270	1125 x 609 x 990	35		206
600	200	1200 x 800 x 270	1325 x 809 x 990	47		207

81702 Heavy table trolleys

fetra Transportgeräte

Design
- Steel tube and **profile steel,** welded
- Powder-coated, blue RAL 5007
- **Permanent surface protection**
- **Impact-resistant and scratch-resistant**
- Sheet-steel platforms flush with frame, neatly welded in
- Load capacity of upper loading area 200 kg
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81702 201

81702 202-204

Load capacity kg	Wheel Ø mm	Loading area L x W mm	Outer dimensions L x W x H mm	Shelves quantity	Shelf height mm	Tare weight kg	81702	...
500	160	600 x 600	737 x 609 x 860	2	228/860	41		201
500	160	850 x 500	1047 x 509 x 860	2	228/860	44		202
600	200	1000 x 700	1197 x 709 x 900	2	270/900	58		203
600	200	1200 x 800	1397 x 809 x 900	2	270/900	75		204

81702 Table trolley with trays

fetra Transportgeräte

Design
- Welded steel structure
- Bolted steel tube handle and sheet steel trays
- Oil-proof trays
- Edge height of 40 mm
- Powder-coated
- Load capacity of upper and middle shelves 200 kg
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81702 101-102

81702 301-302

81702 105-106

81702 303-304

Load capacity kg	Wheel Ø mm	Loading area L x W mm	Outer dimensions L x W x H mm	Shelves quantity	Shelf height mm	Tare weight kg	RAL 5007 81702	...	RAL 7016 81702	...
400	160	850 x 500	1021 x 500 x 870	2	207/829	36		101		301 NEW
400	200	1000 x 700	1171 x 700 x 910	2	248/870	47		102		302 NEW
400	160	850 x 500	1021 x 500 x 870	3	207/519/829	46		105		303 NEW
400	200	1000 x 700	1171 x 700 x 910	3	248/560/870	61		106		304 NEW

81701 Table trolley with trays and grating

fetra Transportgeräte

Design
- Welded steel structure
- Bolted steel tube handle and sheet steel trays
- Oil-proof trays
- Powder-coated, blue RAL 5007
- **Upper sheet steel tray 100 mm high**
- Shelf with conical drain and 1/2 inch drain valve
- Grating mesh width 31 x 31 mm, loosely inserted, flush at the top
- Load capacity of upper shelf 100 kg
- **Lower sheet steel tray 25 mm high**
- 2 steering rollers and 2 fixed castors, TPE tyres
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

81701

Load capacity kg	Wheel Ø mm	Loading area L x W mm	Shelves quantity	Shelf height mm	Total height mm	Tare weight kg	81701	...
300	125	1000 x 600	2	181/901	1030	51		101

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fetra
Transportgeräte

81708 201-403
Pallet trucks
Design
- Robust angle steel welded construction
- 4 corner braces
- Powder-coated
- 2 steering rollers and 2 fixed castors
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

Applications
For flat pallets and crates.

Note:
For mounting frame, clip-on tubular push handle, tiller and coupling pin, see art. no. 81708 202-206.

81708 201+401
Design
- TPE tyres
- Standard wheels for medium loads

Advantage
- Quiet running

81708 301+402
Design
- Polyamide wheels

Advantage
- Low rolling resistance
- High degree of resistance to chemicals
- Non-chalking = trackless
- Rolling noises

81708 302+403
Design
- Elastic, solid rubber tyres

Advantage
- Low rolling resistance
- Smooth running
- No rolling noise

81708 202-204
Mounting frames
Design
- Angle steel welded construction
- 4 corner braces
- Strong support tubes with base plates
- Can be inserted into the corner sleeves on the mounting frame
- Powder-coated, blue RAL 5007

Applications
For placing flat pallets and crates at a reasonable ergonomic height.
For pallet trucks art. no. 81708 201-302 (blue RAL 5007).

Note:
Mounting frames can be screwed to the pallet truck via the base plates using the screw set (included in scope of delivery).

81708 205
Clip-on tubular push handle
Design
- Extremely robust steel tube construction with strong connecting cleats
- Handle and cross tube with softgrip casing
- Moves effortlessly when released thanks to 2 auxiliary rollers
- Powder-coated, blue RAL 5007
- Utility model: 20 2014 010 367

Applications
For conveniently moving empty and loaded pallet trucks without damaging your back
Art. no. 81708 201-302 (blue RAL 5007).

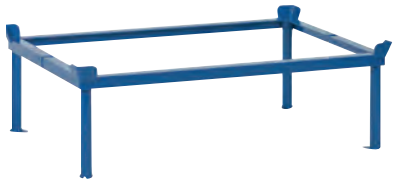
81708 206
Tiller and coupling pin
Design
- Profiled flat steel tiller
- Automatically moves to vertical neutral position by means of torsion springs
- Stable coupling pin on the fixed castor side
- Connection via foot actuation possible
- Powder-coated, blue RAL 5007

Applications
For transporting with towing vehicles at up to 6 km/h.
Pulls up to 5 pallet trucks, art. no. 81708 201-302 (blue RAL 5007).
Maximum pull weight of 2000 kg.

Pallet truck with clip-on tubular push handle

81708 205

81708 202-204



81708 206

81708 201

81708 401

81708 301

81708 402

81708 302

81708 403

	Load capacity kg	Loading height mm	Loading area L x W mm	Outer dimensions L x W x H mm	Tyres mm	Tare weight kg	RAL 5007 81708	...	RAL 7016 81708	...
Pallet truck	**750**	282	1210 x 810	1255 x 855 x 329	TPE 200 x 40	34.0		201		401 NEW
Pallet truck	**1050**	282	1210 x 810	1255 x 855 x 329	Polyamide 200 x 50	33.0		301 NEW		402 NEW
Pallet truck	**1200**	282	1210 x 810	1255 x 855 x 329	Elastic 200 x 50	35.0		302 NEW		403 NEW
Mounting frame	**1200**	140/422	1210 x 810	-	-	17.0		202		
Mounting frame	**1200**	270/552	1210 x 810	-	-	18.0		203		
Mounting frame	**1200**	370/652	1210 x 810	-	-	19.0		204		
Clip-on tubular push handle	**-**	-	-	-	-	7.5		205		
Tiller and coupling pin	**-**	-	-	-	-	6.0		206 NEW		

81709 Shelf trolley

fetra Transportgeräte

Design
- Steel tube and **profile steel,** welded
- Powder-coated
- Bolted construction
- 1 fixed shelf and 3 loose shelves made of strong, rigid sandwich panels
- Loose shelves can be adjusted in 100-mm grid for versatile use
- Load capacity per loose shelf 90 kg
- 2 steering rollers and 2 fixed castors
- TPE wheels 200 x 40 mm
- Hubs with deep groove ball bearings
- Locking devices on the steering rollers, **according to European standard EN 1757-3 (safety of platform trucks)**

Note:
Reinforcing braces for shelf trolley
- *With flanges for two-point screw connection*
- *Stabilise the structure*
- *Increase the load capacity of the loose shelves*
- ***1 pair is supplied with each trolley***
- ***Load capacity of 150 kg per shelf instead of 90 kg***
- *The shelf above the reinforcing braces can bear 150 kg thanks to the support*

- *To increase the load capacity of additional shelves, please order reinforcing braces accordingly*

81709 401-413
Design
- Front walls without vertical tubular struts

81709 102-104
Design
- Front walls with vertical tubular struts at a distance of approx. 130 mm

81709 401-403 | 81709 411-413 | 81709 102-104

Strut braces	Load capacity kg	Wheel Ø mm	Loading area L x W mm	Outer dimensions L x W x H mm	Shelf height mm	Tare weight kg	RAL 5007 81709 ...	RAL 7016 81709 ...
Without	600	200	1000 x 600	1169 x 609 x 1800	269/669/1069/1469	64	401	411 NEW
Without	600	200	1000 x 700	1169 x 709 x 1800	269/669/1069/1469	69	402	412 NEW
Without	600	200	1200 x 800	1369 x 809 x 1800	269/669/1069/1469	86	403	413 NEW
With	600	200	1000 x 600	1169 x 609 x 1800	269/669/1069/1469	73	104	
With	600	200	1000 x 700	1169 x 709 x 1800	269/669/1069/1469	83	103	
With	600	200	1200 x 800	1369 x 809 x 1800	269/669/1069/1469	100	102	

81709 Cabinet trolley

fetra Transportgeräte

Design
- Angle steel construction with tubular push handle
- Powder-coated
- Double hinged door made of angle steel
- Vertical locking rod, swivelling lever and built-in cylinder lock
- 1 fixed shelf and 4 loose shelves made of strong, rigid sandwich panels
- Distance between shelves of 280 mm
- Load capacity per loose shelf 90 kg
- 2 steering rollers and 2 fixed castors
- Wheels with TPE tyres (thermoplastic elastomer)
- Hubs with precision deep-groove ball bearings
- TOTALSTOP central braking system on the steering rollers as standard, **according to European standard EN 1757-3 (safety of platform trucks)**

The highest level of comfort:
- Very low starting, rolling and swivelling resistance
- Tyres are non-chalking = trackless
- Low noise on level surfaces

81709 201-212
Design
Front walls, 1 longitudinal wall, hinged door and roof:
- Covered with wire grid, 40 x 40 x 4 mm
- Fully welded
- Powder-coated

Note:
Close-mesh wire grid, 40 x 40 x 4 mm: 20% more wire than the standard mesh size of 50 x 50 x 4 mm on the market. This significantly increases stability and access reliability.

81709 301-302
Design
Front walls, 1 longitudinal wall, hinged door and roof:
- Covered with 1-mm thick zinc-plated sheet steel

81709 201-202 | 81709 211-212 | 81709 301-302

	Load capacity kg	Wheel Ø mm	Loading area L x W mm	Outer dimensions L x W x H mm	Shelf height mm	Tare weight kg	RAL 5007 81709 ...	RAL 7016 81709 ...
Wire grid	750	200	1000 x 680	1170 x 745 x 1792	292/582/882/1182/1482	144	201	211 NEW
Wire grid	750	200	1200 x 780	1370 x 845 x 1792	292/582/882/1182/1482	175	202	212 NEW
Sheet steel	750	200	1000 x 680	1170 x 745 x 1792	292/582/882/1182/1482	159	301	
Sheet steel	750	200	1200 x 780	1370 x 845 x 1792	292/582/882/1182/1482	196	302	

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59629 Workshop trolley with 7 OPT-I-STORE inserts and 151 pcs. tool assortment

ATORN®

Workshop trolley

Design

- 6 drawers height 80 mm
- 1 drawer height 165 mm
- Robust sheet steel construction
- Solvent-resistant plastic worktop with 2 integrated storage compartments
- Drawers with roller guides
- **Drawer 100% full extension**
- Internal dimensions of drawers (W x D) = 527 x 348 mm
- Load capacity 20 kg per drawer
- Total trolley capacity 300 kg
- Individual locking elements prevent unintentional opening of drawers
- **All drawers can be used for OPT-I-STORE hard foam inlays (art. no. 59604-59692)**
- Individual fastening possibilities thanks to rectangular hole grid on the side walls, e.g. with hooks for tools or other add-on parts such as can holder, document holder, suspended boxes, waste basket, etc. (art. no. 81725 103-105)
- Inserted side walls protect the additionally attached add-on parts from damage, since these are suspended within the trolley dimensions
- Central locking with cylinder lock secures all drawers, incl. 2 articulated wrenches
- Plastic-coated metal sliding handle attached directly to frame
- Wheeled by 2 ball bearing-mounted fixed castors and 2 steering rollers ∅ 100 mm, with locking brake
- Powder-coated surface: Body RAL 7035 light grey, drawers RAL 5010 gentian blue
- **Delivery includes 1 separating plate per drawer** (additional separating plates art. no. 81725 106-107)

OPT-I-STORE hard foam inlays

Design

- Two-tone support frame made of polyethylene (PE)
- Lightweight, durable, water resistant, oil resistant
- With shock-absorbing properties
- Colour black/blue

The hard foam is durable, odour-free and suitable for use with foodstuffs.

Applications

For clearly arranged, easily organised and protected storage of tools in drawers.

NEW

(1)

	59629	...
Complete price	101	

(1)	Saw and striking tool set, 18 pcs.
	OPT-I-STORE hard foam inlay 520 x 345 mm
1	**machinist's hammer** 500 g
1	**soft-face hammer** no recoil, Ø 30 mm
2	**flat chisel** 125/150 mm
1	**cross-cut chisel** 125 mm
1	**centre punch** 120 mm
2	**drift punches** 2/3 mm
6	**pin punches** 3 / 4 / 5 / 6 / 7 / 8 x 150 mm
1	**scriber** 150 mm
1	**aluminium saw bow** 300 mm
1	**pack = 10 hand saw blades** 24 teeth
1	**universal knife** blade width 9 mm

(2)	Combination spanner set 17 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
	Sizes 6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/22/24 mm

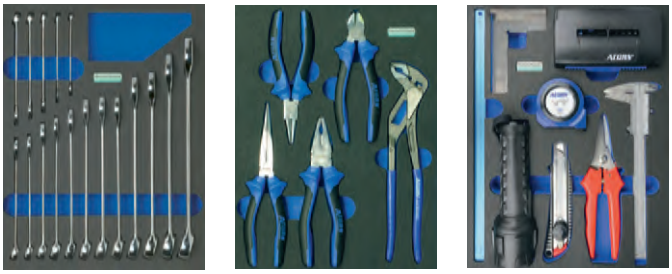
(3)	pliers set, 5 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**round-nose pliers** 160 mm
1	**snipe nose pliers** 200 mm
1	**Combination pliers** 180 mm
1	**Side cutters** 160 mm
1	**water pump pliers** 250 mm

(4)	Tool set, 39 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
1	**vernier calipers** 150 mm
1	**try square** 100 x 70 mm
1	**pocket tape rule** 3 m
1	**precision rule** 300 mm
1	**bit box** 32-piece
1	**universal knife** blade width 18 mm
1	**LED rubber lamp** 175 mm
1	**multi-purpose scissors** 190 mm

(5)	TORX® screwdriver set with bore hole, 11 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
	T 6 / 7 / 8 / 9 / 10 / 15 / 20 / 25 / 27 / 30 / 40 (T 10 and above with bore hole)

(6)	screwdriver/T-handle wrench set 17 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
9	**T-handle wrenches** size 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10 mm
3	**workshop screwdrivers** 5.5 x 100 / 6.5 x 125 / 8 x 150 mm
3	**Phillips screwdrivers** PH 1 / 2 / 3
2	**Phillips screwdrivers** PZ 1 / 2

(2) (3) (4)



(5) (6) (7)

(7)	1/4+1/2 inch hexagon socket wrench set 35 pcs.
	OPT-I-STORE hard foam inlay 260 x 345 mm
5	**hexagon inserts with energy profile** size 5.5 / 7 / 8 / 10 / 13 mm
3	**inserts for hexagon socket screws** size 3 / 4 / 5 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 50/105 mm
11	**hexagon inserts with energy profile**
	Sizes 10 / 13 / 16 / 17 / 18 / 19 / 22 / 24 / 27 / 30 / 32 mm
6	**inserts for hexagon socket screws**
	Sizes 6 / 8 / 10 / 12 / 14 / 17 mm
1	**reversible ratchet**
1	**handle with sliding piece**
1	**cardan joint**
2	**extensions** 125/250 mm

Factory equipment

81725 Tip-proof workshop trolley (empty)

ATORN®

Design
- Robust sheet steel construction

- Enlarged storage and work surface made of plastic (art. no. 81725 111-113) or stainless steel (art. no. 81725 201-202 and 301-302)

- Fully sealed work surface protects trolley interior against spilled liquids

- Drawers with ball bearing-mounted telescopic rails
- **Drawer 100% full extension**

- Total load capacity of the trolley 540 or 1000 kg

- Individual locks prevent drawers from accidentally opening

- **With individual drawer pull-out locking, which means that only one drawer can be opened, protecting the trolley against tipping**

- Vertical, end-to-end edge protection on all 4 corners of the trolley

- Individual fastening possibilities thanks to rectangular hole grid on the side walls, e.g. with hooks for tools or other add-on parts such as can holder, document holder, suspended boxes, waste basket, etc. (art. no. 81725 103-110)

- Sidewall inserts protect the additionally attached add-on parts from damage, since they are within the trolley dimensions

- Central locking with cylinder lock secures all drawers, incl. 2 articulated wrenches

- Metal sliding handle attached directly to frame

- Wheeled by 2 ball bearing-mounted fixed castors and 2 steering rollers ∅ 125 mm, with locking brake

- Powder-coated surface: Body RAL 7035 light grey, drawers RAL 5010 gentian blue

- MADE IN GERMANY

NEW

81725 112

81725 112
- **Width: 786 mm**
- 5 drawers height 77 mm
- 2 drawers, 162 mm high

81725 201

81725 201
- **Width: 959 mm**
- 5 drawers height 77 mm
- 2 drawers, 162 mm high

81725 301

81725 301
- **Width: 1133 mm**
- 5 drawers height 77 mm
- 2 drawers height 162 mm

Tip-proof due to single-locking drawers
- only one drawer can be opened

Central locking with cylinder lock, incl. 2 keys

Heavy-duty wheels with precision ball bearings

H x W x D mm	Drawers quantity	Drawers quantity x panel height mm	Internal drawer dimensions width x depth mm	Load capacity per drawer kg	Total load capacity (static) kg	81725	...
1020 x 785 x 518	6	3 x 77/3 x 162	522 x 398	25	540		111
1020 x 785 x 518	7	5 x 77/2 x 162	522 x 398	25	540		112
1020 x 785 x 518	8	7 x 77/1 x 162	522 x 398	25	540		113

XL

H x W x D mm	Drawers quantity	Drawers quantity x panel height mm	Internal drawer dimensions width x depth mm	Load capacity per drawer kg	Total load capacity (static) kg	81725	...
1020 x 959 x 518	7	5 x 77/2 x 162	696 x 398	40	1000		201
1020 x 959 x 518	8	7 x 77/1 x 162	696 x 398	40	1000		202

XXL

H x W x D mm	Drawers quantity	Drawers quantity x panel height mm	Internal drawer dimensions width x depth mm	Load capacity per drawer kg	Total load capacity (static) kg	81725	...
1020 x 1133 x 518	7	5 x 77/2 x 162	870 x 398	40	1000		301
1020 x 1133 x 518	8	7 x 77/1 x 162	870 x 398	40	1000		302

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ATORN®

Design
- Robust sheet steel construction
- Solvent-resistant plastic worktop with 2 integrated storage compartments
- Work surface height of 881 mm
- Drawers with roller guides
- **Drawer 100% full extension**
- Internal dimensions of drawers (W x D) = 527 x 348 mm
- Load capacity 20 kg per drawer
- Total load capacity (static) of the trolley 300 kg
- Individual locking elements prevent unintentional opening of drawers
- **All drawers can be used for OPT-I-STORE hard foam inlays (art. no. 59604-59692)**
- Individual fastening possibilities thanks to rectangular hole grid on the side walls, e.g. with hooks for tools or other add-on parts such as can holder, document holder, suspended boxes, waste basket, etc. (art. no. 81725 103-105)
- Inserted side walls protect the additionally attached add-on parts from damage, since these are suspended within the trolley dimensions
- Central locking with cylinder lock secures all drawers, incl. 2 keys
- Plastic-coated metal sliding handle attached directly to frame
- Mobile thanks to 2 ball bearing-mounted fixed castors and 2 steering rollers Ø 100 mm, 1 steering roller with locking brake
- Rollers with thread protection to protect the bearings against dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Powder-coated surface: Body RAL 7035 light grey, drawers RAL 5010 gentian blue
- **Delivery includes 1 separating plate per drawer** (additional separating plates art. no. 81725 106-107)
- MADE IN GERMANY

81725 101
Design
- 4 drawers height 80 mm
- 2 drawers height 165 mm

81725 102
Design
- 6 drawers height 80 mm
- 1 drawer height 165 mm

81725 122
Design
- 8 drawers height 80 mm

81725 101

81725 102

Factory equipment

H x W x D mm	Number of drawers	Internal drawer dimensions width x depth mm	Drawer panel height mm	Total load capacity (static) kg	81725 ...
915 x 780 x 498	6	527 x 348	4 x 80/2 x 165	300	101
915 x 780 x 498	7	527 x 348	6 x 80/1 x 165	300	102
915 x 780 x 498	8	527 x 348	8 x 80	300	122 NEW

Info

Tool modules

See cat. group 59

Workshop trolley with OPT-I-STORE hard foam inserts

See art. no. 59628 - 59630

ATORN®

81725 Accessories for ATORN workshop trolley art no. 81725

ATORN®

81725 103
Can holder
Design
- Includes assembly kit

Applications
For 3 cans.

81725 104
Document holder
Applications
For working documents DIN A4.

81725 105
Suspended box

81725 106
Separating plate set
Design
- 5 pieces

Applications
For a drawer panel height of 80 mm.

81725 107
Separating plate set
Design
- 5 pieces

Applications
For a drawer panel height of 165 mm.

81725 110
Clear-view boxes
Design
- Stable, transparent clear-view boxes
- Housing made of impact-resistant polystyrene
- Resistant to most acids and oils
- Temperature resistance (-20° to +80°C)
- Food-safe

Applications
Elements for storing and transporting small parts.

Note:
The drawers must be removed to fit the boxes.

81725 103

81725 104

81725 105

81725 110

Accessories	81725 ...
Can holder	103
Document holder	104
Suspended box	105

Accessory	H x L mm	W x H x D (incl. handle) mm	81725 ...
Separating plate set	60 x 347	-	106
Separating plate set	120 x 347	-	107
Clear-view boxes	-	600 x 242 x 163 (203)	110

81726 „Grey Edition" workshop trolley

HHW

Design
- Robust sheet steel construction
- 5 drawers with a height of 75 mm, 2 drawers with a height of 160 mm
- Total trolley capacity 440 kg

Colour:
- Body RAL 7016
- Drawers RAL 9006

2-step locking concept:
- Central locking, lockable by means of cylinder lock with bending keys
- Individual locking prevents drawers from accidentally opening

Robust and technically sophisticated:
- Stable steering handle for maximum traction, firmly mounted on the cabinet
- Edge protection corners at the top and bottom of all four sides
- Solvent-resistant plastic worktop (resistant to oil, brake fluid, Skydrol) with compartments for small parts and labelling field (e.g. individual personalization for mechanics)
- Edging prevents parts from falling

Drawer design:
- Suitable for all ATORN OPT-I-STORE hard foam inserts art. no. 59604-59692
- All drawers with smooth-running, ball bearing-mounted telescopic rails
- Drawer 100% full extension
- Drawer internal dimensions WxD 527x348 mm
- Load capacity 25 kg per drawer

Various additional mounting options:
- Individual fastening possibilities thanks to rectangular hole grid on the side walls, for example, can holder, paper role holder, waste basket etc.
- Side wall inserts protect the attached add-on parts against damage, as they are attached within the carriage dimensions

High-quality chassis:
- High-quality, large, heavy-duty ball bearing rollers (Ø 125 mm) ensure simple movement even with dynamic load
- All wheels with thread protection (protects the bearings against dirt and threads)

Made in Germany

NEW

81726

H x W x D mm	Number of drawers	Drawer internal dimensions width x depth mm	81726 ...
1040 x 817 x 502	7	527 x 348	201

Factory equipment

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

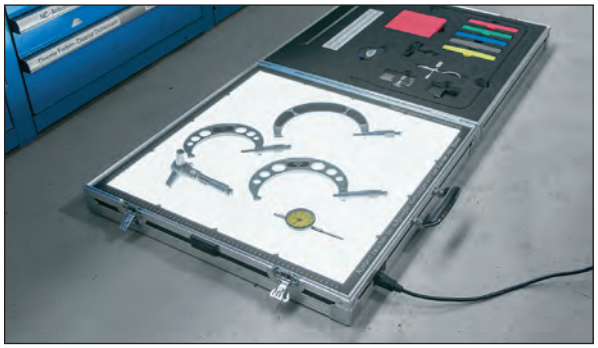
81200 THE HHW TOOLSCANNER

To design your own custom hard foam insert, order the fully equipped HHW Toolscanner - equipped with everything you need for rapid scanning. This enables you to create your own individual OPT-I-STORE hard foam inserts for your existing tools, directly on your premises.

The scanners are easy to use:

You determine the distribution and arrangement of the tools in your future hard foam insert and position them within the reference frame on the white surface. Then take a photo. Send a test photo to betriebseinrichtung@hhw.de. After you send your data, your responsible contact person will contact you by telephone or email to discuss the test image. The existing tools from your warehouse inventory are recorded, the handle recess for easier removal is adjusted automatically. The contours of the photographed objects are digitized and your hard foam insert is created - your product will be delivered within 10 working days of your order.

HHW CASE TOOLSCANNER
- Outer dimensions (WxDxH) 620 x 620 x 130 mm, total weight 15 kg
- LED panel 600 x 600 mm incl. transformer and plug
- Lid with hard foam insert for all accessories
- Digital camera with memory card and accessories
- Flight case with combination lock for reusable secure transport with no additional packaging required



Art. no. 81200 101
HHW case Toolscanner
Scope of delivery: 1 unit

Art. no. 81200 104
Case scanner rental
Scope of delivery: 1 unit for 5 working days
Free of charge (return costs are borne by the customer)

HHW TRAY TOOLSCANNER
- Outer dimensions (WxD) 646 x 721 mm, total weight 15 kg
- LED panel 600 x 600 mm incl. transformer and plug
- In hard foam insert

Art. no. 81200 103
HHW tray Toolscanner
LED panel 600 x 600 mm
In hard foam insert
Without a digital camera and without accessories
Scope of delivery: 1 unit

The folding scan template is ideal for taking your initial quick pictures and can be ordered free of charge.

	81200 ...
HHW case Toolscanner	101
Case scanner rental (free of charge, return costs are borne by the customer)	104
HHW tray Toolscanner	103

81730 Tool assembly trolley (empty)

ATORN®

Design
- Can be lowered, with swivelling columns to save space during transport, low height (500 mm)
- Locked with padlock
- Black table top, powder-coated structure with rubber profile and rubber mat
- 2 intermediate boxes with adjustable partitions
- All-round rubber profiles
- Sheet-steel base box with traverses, stove-enamelled
- 4 double ball bearing-mounted wheels with solid rubber tyres and dirt and thread protection
- 2 of which are steering wheels, which can be locked in longitudinal and transverse directions
- Static load capacity of 300 kg
- Moving (lowered) load capacity of 150 kg

Colour:
RAL 7035 light grey, powder-coated.

81730

H x W x D mm	81730 ...
965 x 650 x 415	101

81732 Tool assembly trolley

ATORN®

Design
- ABS work surface and storage space
- With practical storage compartments
- Total load capacity of 300 kg
- Central locking for padlock (art. no. 86931 ff.)
- **6 drawers that pull out on both sides with ball bearing cage guides, load capacity of 25 kg**
- 6 drawers (4 x 75 mm, 1 x 120 mm, 1 x 210 mm).
- Broad-gauge rear axle with solid rubber wheels
- 2 rollers Ø 140 mm on axle
- 2 steering rollers Ø 100 mm, one of which is lockable

Colour:
RAL 7035 light grey, powder-coated.

Note:
For drawer partitioning, see art. no. 81770.

81732

H x W x D mm	Drawers quantity	Weight kg	81732 ...
930 x 605 x 375	6	39	101

81711 Tool assembly trolley (empty)

HHW

Design
ABS working surface and storage space with practical storage compartments. Total load capacity of 300 kg. Compact steering handle. Central locking for padlock (art. no. 86931 ff.). Sturdy construction made of electrolytically zinc-plated, powder-coated sheet steel, optimum corrosion protection.
6 drawers that pull out on both sides with ball bearing cage guides. Load capacity of 25 kg, 4 drawers can be partitioned individually, 1 drawer with movable small parts compartment, basic equipment includes 2 longitudinal partitions and 8 cross-partitions. Broad-gauge rear axle with solid rubber wheels.
2 rollers Ø 140 mm on axle, 2 steering rollers Ø 100 mm, one of which is lockable. With perforated sidewalls; for matching hooks, see art. no. 82480.

Note:
For side storage tray, see art. no. 81710 010.
For drawer partitioning, see art. no. 81770.

81711

H x W x D mm	Paintwork of housing	Paintwork of drawers	Weight kg	81711 ...
930 x 605 x 375	RAL 5012	RAL 7001	39	501

81770 Drawer partitions

HHW

Design
Sheet steel, zinc-plated and powder-coated.

Applications
Suitable for art. no. 81711 and 81732.

81770 101

81770 201

81770 202

81770 203

Longitudinal partition 317 mm	Cross-partition 120 mm	Cross-partition 80 mm	Cross-partition 40 mm
81770 ...	81770 ...	81770 ...	81770 ...
101	201	202	203

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81727 Side table Multi Table 167T

Design
- Table can be folded downwards 90°
- 15-way height-adjustable (grid: 25 mm)
- Robust welded construction
- Ball bearing-mounted wheels (Ø 50 mm)
- 4 steering rollers, including 2 rollers with brake
- Easy movement even with high dynamic loads
- Grey, trackless elastic rollers allow smooth running
- Fits under vehicles and workbenches with a ground clearance greater than 130 mm
- Delivered flat-packed (HxWxD approx. 110x930x780 mm)
- Colour: HAZET BLUE
- Made in Germany

Length mm	Height mm	Width mm	Load capacity kg	Weight kg	81727	...
740	950 - 1300	750	35	17.9		102

81716 - 81717 Tool, materials and assembly trolley (empty)

81716
Type 162 C
Design
With rigid columns, can be lowered. Cover with an integrated, exchangeable beech panel. Middle boxes with additional tray, movable, can be integrated in the middle boxes, e.g. for vernier calipers and small parts. Spacious sheet-steel base box, all-round rubber profiles, large rollers for better rolling characteristics over uneven surfaces, including 2 steering rollers that can be locked in longitudinal and transverse directions.

81717
Type 166 C
Design
Similar to art. no. 81716 but with swivelling columns, 647 mm at lowest height, for space-saving transport.

H x W x D mm	81716	...	81717	...
1099 x 725 x 398		201		
1102 (647) x 725 x 398				201

81728 Tool, materials and assembly trolley (empty) and add-on case (empty)

81728 201
Tool, materials and assembly trolley
Type 178 N-7
Design
- 7 drawers (5 flat and 2 high)
- Flat drawers: 5x 80x527x348 mm
- High drawers: 2x 165x527x348 mm
- Drawer size for organisation system/modules: 3/3
- Robust steering handle, permanently mounted on the body

2-step locking concept:
- Central locking, lockable by means of cylinder lock with 2 bending keys
- Individual locking prevents accidental opening
- 100% extension with roller guide
- Large ball bearing-mounted wheels, easy movement even with high dynamic loads
- Number of fixed castors: 2 (Ø 125 mm)
- Number of steering rollers: 2 (Ø 125 mm)
- With thread protection to protect the bearings against dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Individual fastening possibilities thanks to rectangular hole grid on the sidewalls, for can holder, paper roll holder, paper basket, etc.
- **Worktop:** Plastic, solvent-resistant, with integrated storage compartments
- Colour: HAZET BLUE
- Made in Germany

Note:
For suitable add-on case, see art. no. 81728 202.

81728 202
Add-on case, type 178 NK-3
Design
- 3 drawers
- Flat drawers: 3x 80x527x348 mm
- Drawer size for organisation system/modules: 3/3
- **2-step locking concept**
- 100% extension with roller guide
- 2 carry handles integrated in the body
- Colour: HAZET BLUE
- Made in Germany

Applications
For tool, materials and assembly trolley, art. no. 81728 201.

81728 201

81728 202

Type	Length mm	Height mm	Width mm	Worktop height mm	Load per drawer kg	Total load capacity (static) kg	Weight kg	81728	...
178 N-7	781	1037	498	1035	20	480	74.1		201
178 NK-3	696	390	488	-	20	145	33.7		202

81718 Tool, materials and assembly trolley (empty/equipped)

Type 179 N

Design
- Made in Germany

Worktops
- Significantly enlarged plastic storage and work surface
- Fully sealed work surface protects trolley interior against spilled liquids
- Interfaces integrated into the worktop for accessories such as laptop holders and add-on modules

Body/steering handle
- Extremely robust design due to double-walled construction
- Completely welded construction of the entire body for daily rigorous use in the workshop
- Optimised, yielding edge protection on all four corners with real impact protection thanks to internal damping concept
- Ergonomically optimised steering handle for improved manoeuvrability

Locking concept
- Ergonomically arranged side lock position for better operability protects keys and lock against damage
- Highly secure locking system with central locking technology for optimum protection of your property
- 2-step locking
- Central locking, lockable by means of cylinder lock with 2 bending keys
- Mutual drawer lock for minimum tipping risk

Drawer concept
- Self-closing and reciprocal locking of the drawers prevents accidental opening
- 100% extension with ball bearing-mounted telescopic rails
- Drawer design for optimum use of the interior
- New drawer fronts for optimised handling
- New dirt-repellent drawer coating for easy cleaning
- 25 kg load per drawer
- Drawer size for organisation system 3/3+

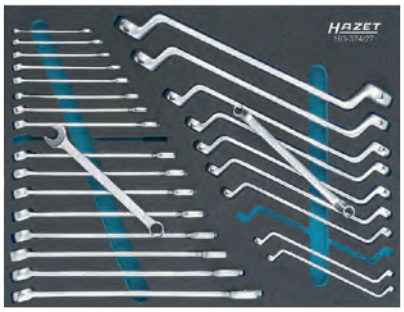
High-performance chassis
- Large, heavy-duty wheels (Ø 125 mm) with precision ball bearings and double ball collar in the pivot bearing
- Easy movement even with high dynamic loads
- 2 steering rollers with double stopper
- Braked roller prevents rolling away
- Fixed swivel bearing prevents the steering rollers from swivelling, e.g. on inclined surfaces
- Guard ring prevents the ingress of dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Total load capacity (static): 540 kg
- Colour: HAZET BLUE

81718 301 Empty

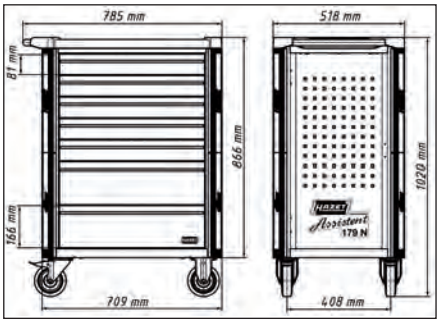
81718 302 Empty

NEW

81718 303 Equipped



Type	Contents	Drawers quantity x height mm	Drawer internal dimensions width x depth mm	81718 ...
179 N-7	Empty	5 x 77/2 x 162	522 x 398	301
179 N-8	Empty	7 x 77/1 x 162	522 x 398	302
179 N-7/137	Equipped	5 x 77/2 x 162	522 x 398	303



Factory equipment

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Type 179 NXL

Design
- Made in Germany

Worktops
- Significantly enlarged **stainless-steel storage and work surface**
- Fully sealed work surface protects trolley interior against spilled liquids
- Interfaces integrated into the worktop for accessories such as laptop holders and add-on modules
- **With stainless-steel work surface**
- Extra protection through high-quality plastic end caps

Body/steering handle
- Extremely robust design due to double-walled construction
- Completely welded construction of the entire body for daily rigorous use in the workshop
- Optimised, yielding edge protection on all four corners with real impact protection thanks to internal damping concept
- Ergonomically optimised steering handle for improved manoeuvrability
- Brushed stainless-steel steering handle

Locking concept
- Ergonomically arranged side lock position for better operability protects keys and lock against damage
- Highly secure locking system with central locking technology for optimum protection of your property
- 2-step locking
- Central locking, lockable by means of cylinder lock with 2 bending keys
- Mutual drawer lock for minimum tipping risk

Drawer concept
- Self-closing and reciprocal locking of the drawers prevents accidental opening
- 100% extension with ball bearing-mounted telescopic rails
- Drawer design for optimum use of the interior
- New drawer fronts for optimised handling
- New dirt-repellent drawer coating for easy cleaning
- 40 kg load per drawer
- Drawer size for organisation system 4/3+

High-performance chassis
- Large, heavy-duty wheels (Ø 125 mm) with precision ball bearings and double ball collar in the pivot bearing
- Easy movement even with high dynamic loads
- 2 steering rollers with double stopper
- Braked roller prevents rolling away
- Fixed swivel bearing prevents the steering rollers from swivelling, e.g. on inclined surfaces
- Guard ring prevents the ingress of dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Total load capacity (static): 1000 kg
- Colour: HAZET BLUE

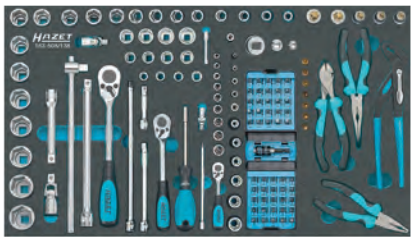
81714 301 Empty

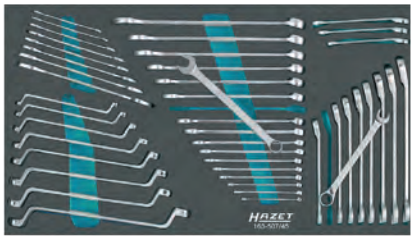
81714 302 Empty

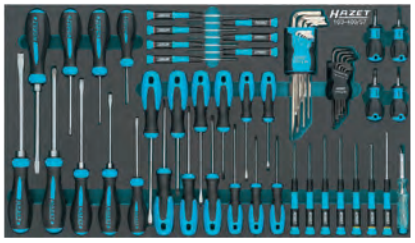
NEW

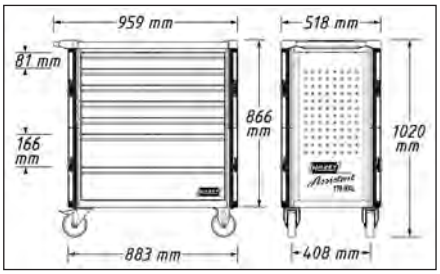
81714 303 Empty

81714 304 Equipped









Type	Contents	Drawers quantity x height mm	81714 ...
179 NXL-6	Empty	3 x 77/3 x 162	**301**
179 NXL-7	Empty	5 x 77/2 x 162	**302**
179 NXL-8	Empty	7 x 77/1 x 162	**303**
179 NXL-7/265	Equipped	5 x 77/2 x 162	**304**

81724 Tool, materials and assembly trolley (empty/equipped)

HAZET

NEW

Type 179 NXXL

Design
- Made in Germany

Worktops
- Significantly enlarged **stainless-steel storage and work surface**
- Fully sealed work surface protects trolley interior against spilled liquids
- Interfaces integrated into the worktop for accessories such as laptop holders and add-on modules
- **With stainless-steel work surface**
- Extra protection through high-quality plastic end caps

Body/steering handle
- Extremely robust design due to double-walled construction
- Completely welded construction of the entire body for daily rigorous use in the workshop
- Optimised, yielding edge protection on all four corners with real impact protection thanks to internal damping concept
- Ergonomically optimised steering handle for improved manoeuvrability
- Brushed stainless-steel steering handle

Locking concept
- Ergonomically arranged side lock position for better operability protects keys and lock against damage
- Highly secure locking system with central locking technology for optimum protection of your property
- 2-step locking
- Central locking, lockable by means of cylinder lock with 2 bending keys
- Mutual drawer lock for minimum tipping risk

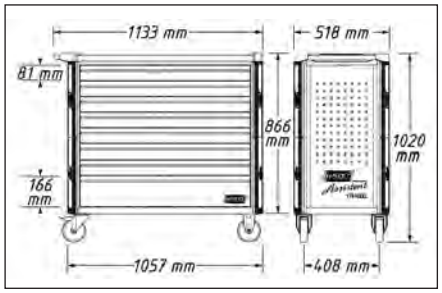
Drawer concept
- Self-closing and reciprocal locking of the drawers prevents accidental opening
- 100% extension with ball bearing-mounted telescopic rails
- Drawer design for optimum use of the interior
- New drawer fronts for optimised handling
- New dirt-repellent drawer coating for easy cleaning
- 40 kg load per drawer
- Drawer size for organisation system 5/3+

High-performance chassis
- Large, heavy-duty wheels (Ø 125 mm) with precision ball bearings and double ball collar in the pivot bearing
- Easy movement even with high dynamic loads
- 2 steering rollers with double stopper
- Braked roller prevents rolling away
- Fixed swivel bearing prevents the steering rollers from swivelling, e.g. on inclined surfaces
- Guard ring prevents the ingress of dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Total load capacity (static): 1000 kg
- Colour: HAZET BLUE

81724 302 Empty

81724 303 Empty

81724 304 Equipped



Type	Contents	Drawers quantity x height mm	81724	...
179 NXXL-7	Empty	5 x 77/2 x 162		302
179 NXXL-8	Empty	7 x 77/1 x 162		303
179 NXXL-7/340	Equipped	5 x 77/2 x 162		304

Factory equipment

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81719 203
Laptop holder, complete
- Load: 5 kg
- In accordance with Vesa 75 and 100

81719 205
Tablet holder
- Can be mounted on round tubes (up to Ø 30 mm) and worktops
- Tension spring enables fast insertion and removal in an instant
- Adjustable fixing bracket

81719 206
Adapter for tablet holder
- For fixing the tablet holder (art. no. 81719 205) onto workbench worktops
- Easy to use

81719 104
Document holder
- For working documents

81719 113
Suspended box
- Hung in the sidewall

81719 204
Can holder
- For at least 4 cans

81719 115
Waste containers
- Tiltable and easily removable bin
- Design with 2 pieces and a bin volume of approximately 30 litres
- Clamp for standard bin liners
- Net weight of 7 kg

81719 112 + 201 + 202
Perforated plate for tools
For types 179 N, 179 NXL and 179 NXXL
- Attachable
- Accommodates additional tools
- Includes assortment of 8 holders

81719 111
Door for type 179 N
- For right sidewall
- Lockable, incl. 2 keys
- Clear depth approx. 80 mm
- Usable height approx. 785 mm

81719 114
Door for types 179 NXL and 179 NXXL
- For right sidewall
- Lockable, incl. 2 keys
- Clear depth approx. 80 mm
- Usable height approx. 770 mm

Note:
For suitable hooks and hook assortments, see art. no. 82471-82483.

81719 203

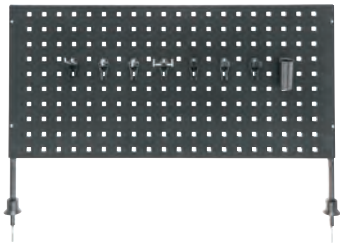
81719 205

81719 104

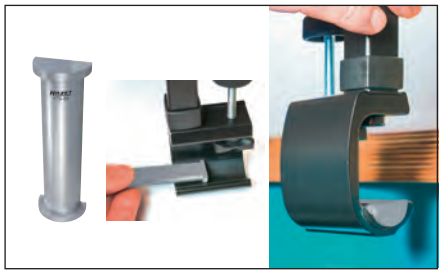
81719 113

81719 112

81719 201



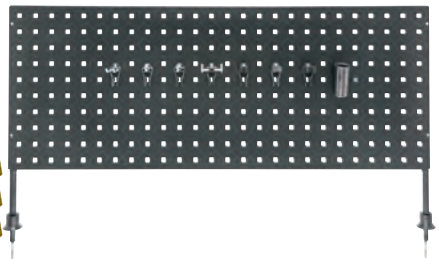
81719 206



81719 204

81719 115

81719 202



	For type 179 N Art. no. 81718	For type 179 NXL Art. no. 81714	For type 179 NXXL Art. no. 81724	81719 ...
Laptop holder	x	x	x	203 NEW
Tablet holder	x	x	x	205 NEW
Adapter for tablet holder	x	x	x	206 NEW
Document holder	x	x	x	104
Suspended box	x	x	x	113
Can holder	x	x	x	204 NEW
Waste container	x	x	x	115
Vertical perforated plate for tools	x	-	-	112
Vertical perforated plate for tools	-	x	-	201 NEW
Vertical perforated plate for tools	-	-	x	202 NEW
Side door	x	-	-	111
Side door	-	x	x	114

81719 111

81719 114

Factory equipment

Info Tool modules

See cat. group 59

81713 Wheeled workbench with 6 drawers

81713 101

Design
- Made in Germany
- Large ball bearing-mounted wheels (Ø 125 mm), easy movement even with high dynamic loads
- Steering rollers with double stopper
- Braked roller prevents rolling away
- Fixed swivel bearing prevents the steering rollers from swivelling, e.g. on inclined surfaces
- With thread protection to protect the bearings against dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Two-step locking concept:
- Central locking, lockable by means of cylinder lock with 2 keys
- Individual locking prevents accidental opening
- 100% extension with roller guide
- Side fastening area, for article group 12 in the HAZET hook range, can holders, etc.
- Storage areas in shelf unit:
  Load top: 15 kg/bottom: 35 kg
- Adjustable shelf
- Optional: 177 W-21: Door for right-hand shelf unit, lockable, incl. 2 keys
- Total load capacity (static): 750 kg
- Worktop: Birch multiplex wood
- Load per drawer: 20 kg
- Colour: HAZET BLUE
- **With 6 drawers** (4x flat drawers and 2x high drawers with 2 storage areas in shelf unit)
  Flat drawers: 4x 80 x 527 x 348 mm
  High drawers: 2x 165 x 527 x 348 mm
  Number of separating plates: 6
- Drawers are equipped with one separating plate per compartment as standard
- Worktop height: 934 mm
- Number of fixed castors: 2 (Ø 125 mm)
- Number of steering rollers: 2 (Ø 125 mm)

Width mm	Height mm	Depth mm	Net weight kg	81713	...
1040	934	520	85		**101**

81713 Wheeled workbench with 7 drawers

81713 102

Design
- Made in Germany
- Large ball bearing-mounted wheels (Ø 125 mm), easy movement even with high dynamic loads
- Steering rollers with double stopper
- Braked roller prevents rolling away
- Fixed swivel bearing prevents the steering rollers from swivelling, e.g. on inclined surfaces
- With thread protection to protect the bearings against dirt and threads
- Grey, trackless elastic rollers allow smooth running
- Two-step locking concept:
- Central locking, lockable by means of cylinder lock with 2 keys
- Individual locking prevents accidental opening
- 100% extension with roller guide
- Side fastening area, for article group 12 in the HAZET hook range, can holders, etc.
- Storage areas in shelf unit:
  Load top: 15 kg/bottom: 35 kg
- Adjustable shelf
- Optional: 177 W-21: Door for right-hand shelf unit, lockable, incl. 2 keys
- Total load capacity (static): 750 kg
- Worktop: Birch multiplex wood
- Load per drawer: 20 kg
- Colour: HAZET BLUE
- **With 7 drawers** (6x flat drawers and 1x high drawer with 2 storage areas in shelf unit)
  Flat drawers: 6x 80 x 527 x 348 mm
  High drawers: 1x 165 x 527 x 348 mm
  Number of separating plates: 7
- Drawers are equipped with one separating plate per compartment as standard
- Worktop height: 934 mm
- Number of fixed castors: 2 (Ø 125 mm)
- Number of steering rollers: 2 (Ø 125 mm)

Note:
Suitable for OPT-I-STORE hard foam inserts art. no. 59750-59756.

Width mm	Height mm	Depth mm	Net weight kg	81713	...
1040	934	520	85		**102**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

81713 301-302
Wheeled workbench type 179 NW
Design
- Made in Germany
- Replaceable birch multiplex wood worktop
- Incl. 9-way adjustable intermediate shelf and permanently mounted door
- Cable opening in rear wall allows, for example, charging of battery devices when the door is closed
- Completely welded construction of the entire body for daily rigorous use in the workshop
- Additional hole grid for tool holders, e.g. HAZET 112-230
- Optimised, yielding edge protection on all four corners with real impact protection thanks to internal damping concept
- Flexible vice assembly (front, right, left), e.g. HAZET 2175 N according to drilling template specification

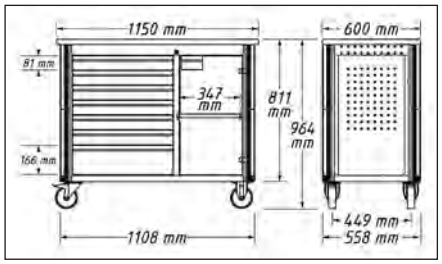
Chassis
- Large, heavy-duty wheels (Ø 125 mm) with precision ball bearings and double ball collar in the pivot bearing
- Easy movement even with high dynamic loads
- 2 steering rollers with double stopper
- Braked roller prevents rolling away
- Fixed swivel bearing prevents the steering rollers from swivelling, e.g. on inclined surfaces
- Guard ring prevents the ingress of dirt and threads
- Grey, trackless elastic rollers allow smooth running

Locking concept
- Mutual drawer lock for minimum tipping risk
- Central lock (central locking and cylinder lock) simultaneously locks door and drawers
- Only one key for simultaneous locking of door and drawers (scope of delivery: 2 keys)
- 180° rotation, prevents the key from breaking off
- 100% extension with ball bearing-mounted telescopic rails
- Self-closing
- 1 heavy-duty drawer, load capacity 40 kg, 161 mm high
- 6 drawers, load capacity 25 kg, 76 mm high
- 2 storage areas in the shelf unit, top: 15 kg/ bottom: 35 kg
- Total load capacity (static): 750 kg
- Colour: HAZET BLUE

Cable opening on rear wall

81713 301 Empty

NEW



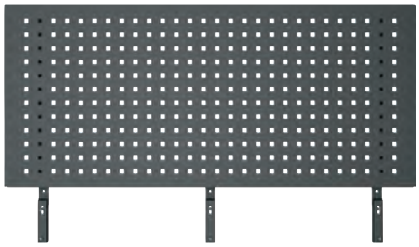
81713 302 Equipped

81713 401
Perforated plate for tools
- Attachable
- Accommodates additional tools
- Includes assortment of 8 holders

81713 402
Shelf drawer
- Load: 25 kg
- Self-closing
- W x D x H 318 x 398 x 77 mm

81713 403
Laptop holder, complete
- Load: 5 kg
- In accordance with Vesa 75 and 100

81713 401 **81713 402** **81713 403**



	Type	Contents	Drawers quantity x height mm	Drawer internal dimensions width x depth mm	81713 ...
Wheeled workbench	179 NW-7	Empty	6 x 76/1 x 161	522 x 398	301
Wheeled workbench	179 NW-7/230	Equipped	6 x 76/1 x 161	522 x 398	302
Vertical perforated plate for tools	179 NW-26	8 pieces	-	-	401
Shelf drawer	179 NM-22	-	-	-	402
Laptop holder	179 W-42	-	-	-	403

81722 Tool trolley with 4 drawers

GEDORE
WERKZEUGE FÜRS LEBEN

type 1580

Design
- Fully closable thanks to metal blinds on both sides
- Working platform with ABS plastic cover
- Steering handle for manoeuvrability and easy control
- Sidewalls with Euro standard perforation 10 x 38 mm for attaching hooks and tools
- Heel protection and all-round crash protection for personal safety and environment
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE blue

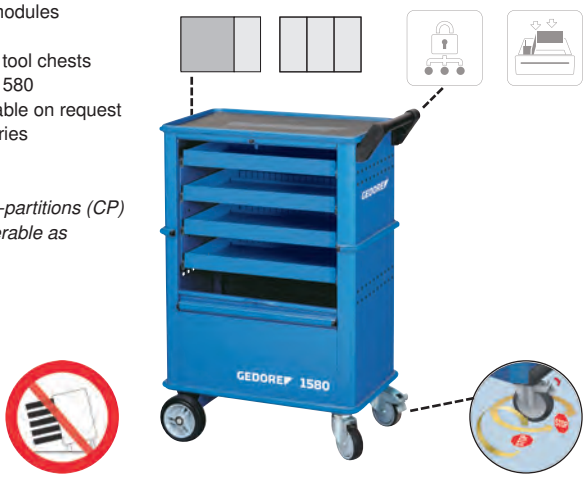
Drawers:
- Central locking with cylinder lock
- 4 wide drawers (W 480 x D 325 x H 45 mm), all drawers extendible on both sides
- 1 large storage compartment at the bottom
- Ball bearing guide rails with middle and end stops
- Can be individually fitted with longitudinal and cross-partitions (also deliverable separately)
- Load capacity per drawer 20 kg
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE silver

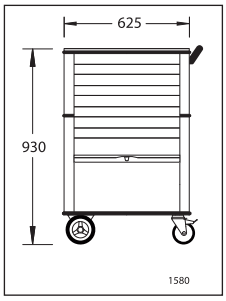
GEDORE chassis
- 2 roller-mounted GEDORE high-performance wheels (fixed castors Ø 140 mm)
- 2 ball bearing-mounted GEDORE smooth-running wheels (steering rollers Ø 100 mm), including one with total locking device
- Even with maximum loads, GEDORE trapezoidal axle construction ensures: smooth running, manoeuvrability and good tracking

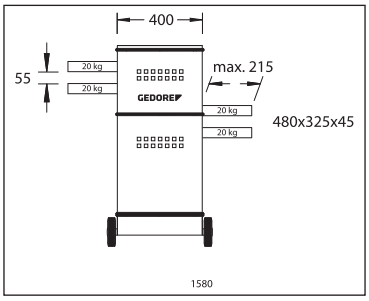
Options:
- Optimally fitted with GEDORE tool modules (1500 ES/1500 CT)
- Can be extended with GEDORE top tool chests 1430, 1431, additional drawer KSF 1580
- Special colours and designs deliverable on request
- Delivered without tools and accessories

Note:
Longitudinal partitions (LP) and cross-partitions (CP) made of zinc-plated sheet steel deliverable as accessories.

81722







H x W x D mm	Load capacity kg	LP	CP	Weight approx. kg	81722	...
930 x 625 x 400	300	8 x	2 x	40.0		**101**

81733 Tool trolley with 9 drawers

GEDORE
WERKZEUGE FÜRS LEBEN

type 2004

Design
- ABS plastic shelf board with 3 storage compartments for small parts, 2 can storage points, 8 screwdriver storage points
- Storage space with perforated metal plate lining (Euro standard perforation 10 x 38 mm) and two removable drawers for small parts and door on the handle side
- Steering handle for manoeuvrability and easy control
- Front end with Euro standard perforation 10 x 38 mm for attaching hooks and tools
- Heel protection and edge crash protection for personal safety and environment
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE blue

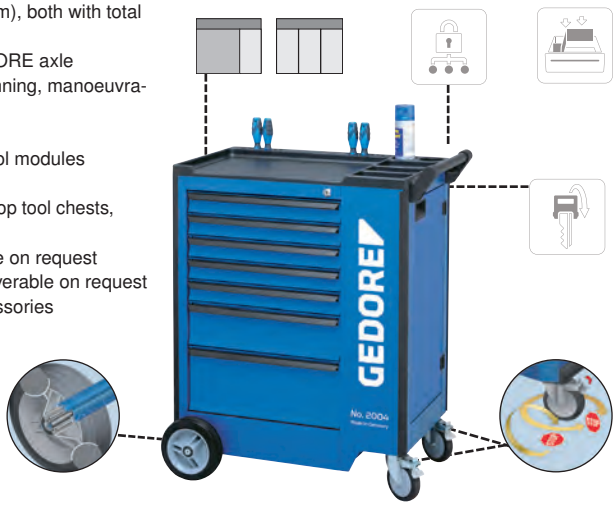
Drawers:
- Central locking with cylinder lock
- Wide, removable drawers (W 480 x D 400 mm) with full extension
- Safety lock on each drawer and compartment, one-hand operation
- Ball-bearing guide rails
- Can be individually fitted with longitudinal and cross-partitions (also deliverable separately)
- Load capacity per drawer 40 kg, lower heavy-duty drawer 60 kg
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE silver

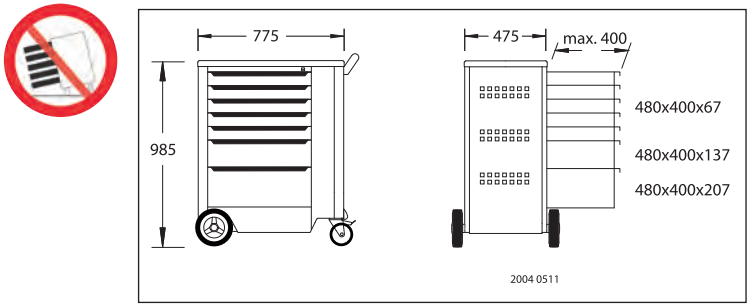
GEDORE high-performance chassis:
- 2 roller-mounted GEDORE high-performance wheels (fixed castors Ø 200 mm)
- 2 ball bearing-mounted GEDORE smooth-running wheels (steering rollers Ø 125 mm), both with total locking device
- Even with maximum loads, GEDORE axle construction ensures: smooth running, manoeuvrability and good tracking

Options:
- Optimally fitted with GEDORE tool modules (1500 ES/1500 CT)
- Can be extended with GEDORE top tool chests, rear panels and tool holders
- Other drawer versions deliverable on request
- Special colours and designs deliverable on request
- Delivered without tools and accessories

Note:
Longitudinal partitions (LP) and cross-partitions (CP) made of zinc-plated sheet steel deliverable as accessories.

81733





H x W x D mm	Load capacity kg	LP	CP	Weight approx. kg	81733	...
985 x 775 x 475	500	15 x	3 x	91.0		**101**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

81735 Wheeled workbench with 7 drawers

GEDORE
WERKZEUGE FÜRS LEBEN

type 1504

Design
- 30-mm thick beech multiplex laminated wood panel, surface additionally protected by linseed oil varnish
- Large storage space with shelf and door
- Heel protection for personal safety
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE blue

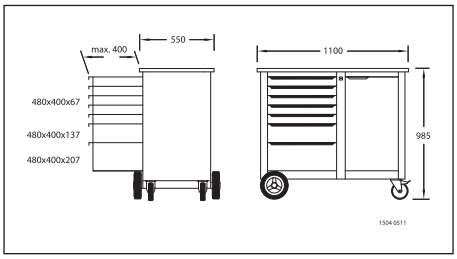
Drawers:
- Central locking with cylinder lock
- Wide, removable drawers (W 480 x D 400 mm) with full extension
- Safety lock on each drawer, one-hand operation
- Ball-bearing guide rails
- Can be individually fitted with longitudinal and cross-partitions (also deliverable separately)
- Load capacity per drawer 40 kg, lower heavy-duty drawer 60 kg
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE silver

GEDORE high-performance chassis:
- 2 roller-mounted GEDORE high-performance wheels (fixed castors Ø 200 mm)
- 2 ball bearing-mounted GEDORE smooth-running wheels (steering rollers Ø 125 mm), both with total locking device
- Even with maximum loads, GEDORE trapezoidal axle construction ensures: smooth running, manoeuvrability and good tracking

Options:
- Optimally fitted with GEDORE tool modules (1500 ES/1500 CT)
- Can be extended with rear panel R 1504 L or rear panel board RT 1504 L
- Other drawer versions deliverable on request
- Special colours and designs deliverable on request
- Delivered without tools and accessories

Note:
Longitudinal partitions (LP) and cross-partitions (CP) made of zinc-plated sheet steel deliverable as accessories.

81735



H x W x D mm	Load capacity kg	LP	CP	Weight approx. kg	81735	...
985 x 1100 x 550	700	10 x	2 x	103.0		201

81737 Wheeled workbench with 6 drawers

GEDORE
WERKZEUGE FÜRS LEBEN

type 1502

Design
- 25-mm thick beech multiplex laminated wood panel, surface additionally protected by linseed oil varnish
- Large, freely accessible shelves for bulky parts
- Heel protection for personal safety
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE blue

Drawers:
- Central locking with cylinder lock
- 6 wide, removable drawers (W 480 x D 400 mm) with full extension
- Safety lock on each drawer, one-hand operation
- Ball-bearing guide rails
- Can be individually fitted with longitudinal and cross-partitions (also deliverable separately)
- Load capacity per drawer 40 kg, lower heavy-duty drawer 60 kg
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE silver

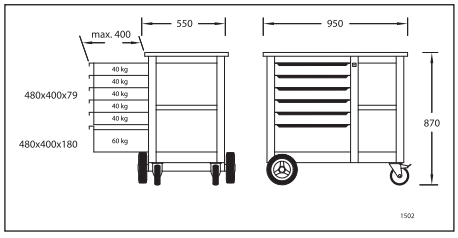
GEDORE high-performance chassis:
- 2 roller-mounted GEDORE high-performance wheels (fixed castors Ø 200 mm)
- 2 ball bearing-mounted GEDORE smooth-running wheels (steering rollers Ø 125 mm), both with total locking device
- Even with maximum loads, GEDORE trapezoidal axle construction ensures: smooth running, manoeuvrability and good tracking

Options:
- Optimally fitted with GEDORE tool modules (1500 ES/1500 CT)
- Special colours and designs deliverable on request
- Delivered without tools and accessories

Accessories:
2 distance modules no. 1500 ED-70K and longitudinal partitions (LP) and cross-partitions (CP) made of zinc-plated sheet steel deliverable as accessories.

Note:
Longitudinal partitions (LP) and cross-partitions (CP) made of zinc-plated sheet steel deliverable as accessories.

81737



H x W x D mm	Load capacity kg	LP	CP	Weight approx. kg	81737	...
875 x 950 x 550	500	10 x	2 x	78.0		101

81739 Wheeled workbench with 5 drawers

GEDORE
WERKZEUGE FÜRS LEBEN

type 1505

Design
- 40-mm thick beech multiplex laminated wood panel, surface additionally protected by linseed oil varnish
- Large storage space with shelf and door
- Easy, safe movement thanks to pulling handle
- Heel protection for personal safety
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE blue

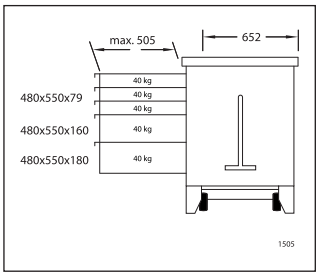
Drawers:
- Central locking with cylinder lock
- 5 wide, removable drawers (W 480 x D 550 mm) with partial extension (505 mm)
- Safety lock on each drawer, one-hand operation
- Ball-bearing guide rails
- Can be individually fitted with longitudinal and cross-partitions (also deliverable separately)
- Load capacity per drawer 40 kg
- Sheet steel, corrosion-resistant and scratch-resistant, powder-coated, GEDORE silver

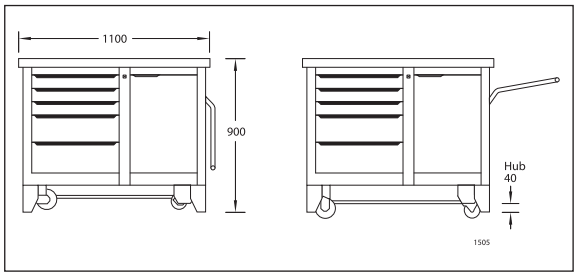
GEDORE Jumbo heavy-duty chassis:
- 4 roller bearing-mounted GEDORE rollers with independent wheel suspension
- Absolutely stable standing when lowered
- Mobile due to hydraulically damped lifting mechanism, triggered by lifting or lowering the pull handle
- High ground clearance

Options:
- Optimally fitted with GEDORE tool modules (1500 ES/1500 CT)
- Can be extended with rear panel R 1504 L
- Special colours and designs deliverable on request
- Delivered without tools and accessories

Note:
Longitudinal partitions (LP) and cross-partitions (CP) made of zinc-plated sheet steel deliverable as accessories.

81739





H x W x D mm	Load capacity kg	LP	CP	Weight approx. kg	81739	...
900 x 1100 x 652	500	9 x	9 x	138.0		**101**

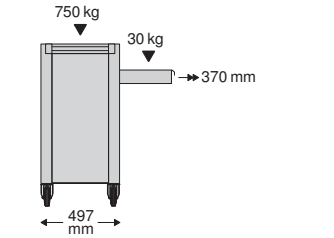
81791 Workshop trolley

STAHLWILLE

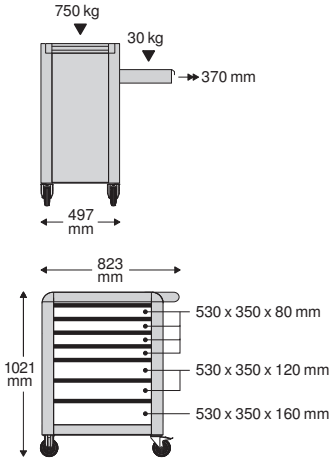
Design
- Easily removable drawers with full extension and ball cage guide
- **Three-level safety concept:**
- Central locking by means of side cylinder lock with bending key
- Individual locks prevent accidental opening while in motion
- Tip protection prevents multiple drawers from opening at the same time
- Stainless steel handle with reinforced body connection
- All-round crash protection with shock absorption
- Hard-wearing, oil-resistant and Skydrol-resistant ABS plastic storage tray with compartments for small parts
- Oil-resistant and acid-resistant wheels (Ø 125 mm) with thread guards to protect the bearings against dirt and threads, with 2 locking brakes
- Paper roll holder
- Two-colour drawers (silver with black handle strip)
- Body colour: green
- Double-sided hole grid for hooks, e.g. for larger tools
- Can be equipped with STAHLWILLE standard and TCS inserts
- **Total load capacity (static) 750 kg**
- Load per drawer 30 kg

81791 201
Design
- **6 drawers:**
  2x 80 x 530 x 350 mm
  2x 120 x 530 x 350 mm
  2x 160 x 530 x 350 mm

81791 202
Design
- **7 drawers:**
  4x 80 x 530 x 350 mm
  2x 120 x 530 x 350 mm
  1x 160 x 530 x 350 mm



81791 201



81791 202

Drawers quantity	Width mm	Height mm	Depth mm	Weight kg	81791	...
6	823	1021	497	65.5		**201**
7	823	1021	497	69.5		**202**

Factory equipment

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

81765 Workshop trolley with 3 modules per drawer

FACOM

Design
- **Worktop:** Aluminium (2 mm), grooved, 15 mm thick wooden panel, protective caps made of impact-resistant polypropylene
- **2 retractable edges:** Under a heavy load, the edges lower into the worktop
- **2 fixed edges** front and rear
- **Worktop with integrated handle:** The worktop can accommodate 16 screwdrivers, optional accessories and, for example, a vice
- **Handles:** Corrosion-resistant, anodised aluminium, serve as a label holder
- **Drawers:** High-pressure die-cast aluminium hook, reinforcing ribs and shot-peened for a long service life (thickness 8 mm), 100% extension
- **Soft buffer:** Enhanced protection made of shock-absorbing thermoplastic elastomer on the 4 edges and drawers to protect the aluminium hook
- **Lock:** The lock is embedded in a special holder to prevent the key from breaking, central locking, lock with folding key
- **Wheels:** Less than 7 kg thrust when pushing, resistant to common workshop chemicals, high load-bearing capacity, Ø 125 mm, 2 fixed and 2 swivelling, including 1 with locking brake
- **Epoxy powder coating,** black
- **Static load capacity 900 kg**

81765 501
Type JET.5GM3
Design
- **5 drawers = 12 modules,** divided into 60 and 130 mm drawers
- 3 modules per drawer
- 2 drawers, height 60 mm = 6 modules
- 2 drawers, height 130 mm = 6 modules
- 1 drawer, height 270 mm (can also accommodate modules)
- Supplied with 4 partitions for 60 mm drawers and 4 partitions for 130 mm drawers

81765 502
Type JET.6GM3
Design
- **6 drawers = 15 modules,** divided into 60 and 130 mm drawers
- 3 modules per drawer
- 4 drawers, height 60 mm = 12 modules
- 1 drawer, height 130 mm = 3 modules
- 1 drawer, height 270 mm (can also accommodate modules)
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers

81765 503
Type JET.7GM3
Design
- **7 drawers = 18 modules,** divided into 60 and 130 mm drawers
- 3 modules per drawer
- 5 drawers, height 60 mm = 15 modules
- 1 drawer, height 130 mm = 3 modules
- 1 drawer, height 200 mm (can also accommodate modules)
- Supplied with 6 partitions for 60 mm drawers and 2 partitions for 130 mm drawers

81765 504
Type JET.8GM3
Design
- **8 drawers = 24 modules,** divided into 60 and 130 mm drawers
- 3 modules per drawer
- 6 drawers, height 60 mm = 18 modules
- 2 drawers, height 130 mm = 6 modules
- Supplied with 10 partitions for 60 mm drawers

81765 505
Type JET.9GM3
Design
- **9 drawers = 27 modules,** divided into 60 and 130 mm drawers
- 3 modules per drawer
- 8 drawers, height 60 mm = 24 modules
- 1 drawer, height 130 mm = 3 modules
- Supplied with 10 partitions for 60 mm drawers

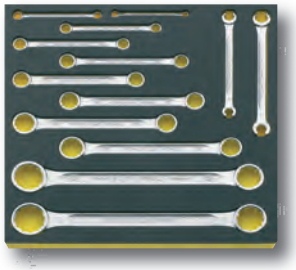
Type	JET.5GM3	JET.6GM3	JET.7GM3	JET.8GM3	JET.9GM3
Art. no.	81765 501	81765 502	81765 503	81765 504	81765 505
Payload of drawers					
Drawer height 60 mm:	2 x 20 kg	4 x 20 kg	5 x 20 kg	6 x 20 kg	8 x 20 kg
Drawer height 130 mm:	2 x 25 kg	1 x 25 kg	1 x 25 kg	2 x 25 kg	1 x 25 kg
Drawer height 200 mm:	-	-	1 x 30 kg	-	-
Drawer height 270 mm:	1 x 35 kg	1 x 35 kg	-	-	-
Total payload of drawers:	125 kg	140 kg	155 kg	170 kg	185 kg
Capacity of drawers					
Drawer height 60 mm:	2 x 15 litres	4 x 15 litres	5 x 15 litres	6 x 15 litres	8 x 15 litres
Drawer height 130 mm:	2 x 30 litres	1 x 30 litres	1 x 30 litres	2 x 30 litres	1 x 30 litres
Drawer height 200 mm:	-	-	1 x 50 litres	-	-
Drawer height 270 mm:	1 x 65 litres	1 x 65 litres	-	-	-
Total capacity of drawers:	155 litres	155 litres	155 litres	150 litres	150 litres

Drawers quantity	Overall dimensions L x W x H mm	Useful dimensions of drawers L x W x H mm	Weight approx. kg	81765 ...
5	774 x 546 x 971	569 x 421 x 60/130/270	73.5	501
6	774 x 546 x 971	569 x 421 x 60/130/270	75.5	502
7	774 x 546 x 971	569 x 421 x 60/130/270	77.5	503
8	774 x 546 x 971	569 x 421 x 60/130	79.5	504
9	774 x 546 x 971	569 x 421 x 60/130	81.5	505

Info Tool modules, see cat. group 59

GEDORE WERKZEUGE FÜR'S LEBEN

STAHLWILLE



FACOM

69846 Magnetic spray can storage

Design
- 6 strong magnets
- Retention force approx. 1.8 kg
- 10 holes Ø 19 mm in the base

Applications
For e.g. 3 spray cans of Ø 73 mm.

Dimensions mm	69846 ...
210 x 75 x 70	101

69846

81729 Magnetic paper roll holder and universal tray set

81729 101
Magnetic paper roll holder
Design
- Paper roll holder with powerful magnets
- Magnetic retention force approx. 2 kg
- Roll holder Ø 33 mm
- Outer roll Ø up to 140 mm

Applications
For standard paper rolls.

Adhere perfectly to workshop trolleys

81729 101

81729 102
Magnetic universal tray set
Design
- 3 magnetic trays with powerful magnet
- Individually attachable
- Adheres to magnetic surfaces
- One tray in each of the following sizes:
  150 x 120 mm, max. load of up to 0.60 kg
  210 x 120 mm, max. load of up to 0.77 kg
  310 x 120 mm, max. load of up to 1.17 kg

Applications
Perfect storage compartment for tools, spray cans and other aids.

	81729 ...
Magnetic paper roll holder	101
Magnetic universal tray set	102

81729 102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

81742 Mobile drawer cabinets series 50

Design
- Work and assembly trolley
- 5 ball bearing-mounted drawers
- **Drawer 100% full extension**
- Drawers with a panel height of 50 mm and load capacity of 70 kg
- Drawers with a panel height from 75 mm and load capacity of 100 kg
- Aluminium handle strips with labelling strips
- Central locking with individual drawer pull-out lock
- Drawers are doubly secure due to individual locking
- Plastic push handle
- 2 steering rollers with locking device
- 2 fixed castors, Ø 125 mm

Advantage:
- The mobile workplace for use anywhere

Note:
The colour combination RAL7035/7016 can be ordered via the HHW online shop.
Other colours deliverable on request.
For ribbed rubber support, see art. no. 84376 101.
For fitting assortments, see art. no. 84310 103-105.

81742

H x W x D mm	Drawer installation dimensions mm	Drawer usable dimensions mm	RAL paint of housing/drawers	81742	...
975 x 555 x 736	700	450 x 600	7035/5012		101
975 x 555 x 736	700	450 x 600	7035/5010		201

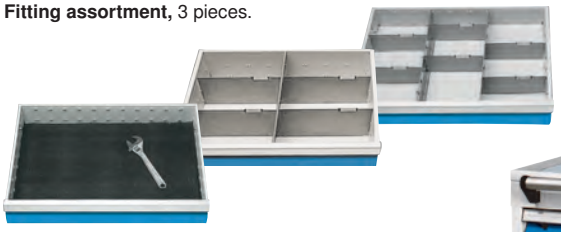
81746 Mobile drawer cabinets

81746 501+401
Design
- 4 drawers 3x100 and 1x200 mm front height
- **Drawer 100% full extension**
- Load capacity per drawer 50 kg
- Individual locking of drawers
- Handle
- Anti-roll-off edging
- Ribbed rubber support
- 2 steering rollers with locking device
- 2 fixed castors

Note:
The colour combination RAL7035/7016 can be ordered via the HHW online shop.
Other colours deliverable on request.

81746 201
Fitting assortment, 3 pieces.

81746 201



81746 501

Fits under every workbench

	H x W x D mm	Drawer usable dimensions mm	RAL paint of housing/drawers	81746	...
Cabinet	750 x 530 x 500	450 x 400	7035/5012		501
Cabinet	750 x 530 x 500	450 x 400	7035/5010		401
Assortment	-	-	-		201

81784 Workshop trolley

Design
- Beech multiplex worktop 25 mm
- Left: 4 drawers, 150 mm high
- **Drawer 100% full extension**
- Load capacity per drawer 100 kg
- Individual locks
- Right: 1 hinged door, 1 shelf
- Cylinder lock with two keys
- Sliding handle
- 4 steering rollers Ø 125 mm, 2 with locking devices
- Useful height of housing 600 mm
- Total load capacity of 500 kg

Note:
The colour combination RAL7035/7016 can be ordered via the HHW online shop.
Other colours deliverable on request.
For drawer fitting assortments, see art. no. 84310 104.

81784

H x W x D mm	Drawer usable dimensions mm	RAL paint of housing/drawers	81784	...
935 x 1250 x 750	450 x 600	7035/5012		101
935 x 1250 x 750	450 x 600	7035/5010		201

Factory equipment

81750 - 81760 Workshop/table trolleys

Design
- Steel tube welded construction 30 x 30 x 2 mm
- 2 steering rollers and 2 fixed castors
- Both steering rollers with wheel blocks
- Hubs with roller bearings
- Solid rubber tyres 200 x 50 mm
- Beech multiplex worktop 1200 x 600 x 25 mm
- Surface ground
- Load of approx. 500 kg

Note:
The colour combination RAL7035/7016 can be ordered via the HHW online shop.
Other colours deliverable on request.
For fitting assortments, see art. no. 81780 and 81782.

81750
Design
- **Left:** 1 lockable door
- **Right:** 2 wooden shelves

81755
Design
- **Left:** 1 centrally lockable drawer cabinet with 4 roller-mounted drawers
- Front height per drawer 100 mm
- Drawer useful dimensions 449 x 524 mm
- Load capacity per drawer 35 kg
- **Right:** 2 wooden shelves

81760
Design
- **Left:** 1 centrally lockable drawer cabinet with 4 roller-mounted drawers
- Front height per drawer 100 mm
- Drawer useful dimensions 449 x 524 mm
- Load capacity per drawer 35 kg
- **Right:** 1 lockable door

81750

81755

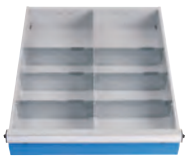
81760

H x W x D mm	RAL paint of housing/drawers	81750 ...	81755 ...	81760 ...
820 x 1200 x 600	7035/5012	502	502	502
820 x 1200 x 600	7035/5010	402	402	402

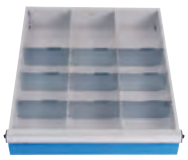
81780 Drawer fitting assortments

Design
Slotted walls and separating plates made of zinc-plated sheet steel, edges rounded.
Applications
For workshop/table trolleys art. no. 81755 - 81760.

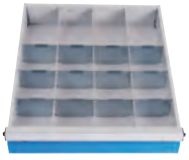
81780 201



81780 202



81780 203

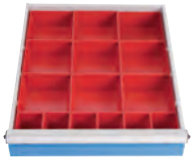


Number of compartments	Number of central compartment rails	H x L mm	Number of dividers	H x L mm	81780 ...
8	1	80 x 522	6	80 x 222	201
12	2	80 x 522	9	80 x 147	202
16	3	80 x 522	12	80 x 110	203

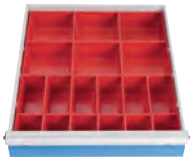
81782 Plastic drawer trays

Applications
For workshop/table trolleys art. no. 81755 - 81760.

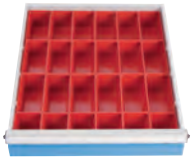
81782 201



81782 202



81782 203



Number of inserts	L x W x H mm 150 x 150 x 65	L x W x H mm 150 x 75 x 65	L x W x H mm 75 x 75 x 65	81782 ...
15	9 pieces	-	6 pieces	201
18	6 pieces	6 pieces	6 pieces	202
24	-	24 pieces	-	203

82079 Cabinet workbenches 800 mm series V

Design
- **Worktop in solid beech (BMP)**
- Oiled surface
- Worktop thickness: 50 mm
- Re-sandable with extremely long service life
- Robust and highly resilient, thanks to **special and unique tie bonding:** ties mortised and bonded lengthways with approximately 60% greater glue surface ensure optimum cross-bracing and load values
- Total workbench load 1500 kg with evenly distributed surface load
- **TÜV/GS tested**

- Housing in robust welded sheet steel construction
- Useful height of housing 540 mm (= clear internal dimension)
- Base made of square steel tube 45 x 45 x 2 mm, 1 x with level compensation
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- 2 door heights to choose from 360 mm/540 mm
- Central lock: DOM alternating cylinder
- Lock is master key compatible
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core

- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:
- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*
- *Cabinet workbenches with universal worktop (UBP) or zinc-plated sheet steel surfacing (ZBP) are listed in the HHW online shop*
- *Colour combination RAL 7035 light grey/7016 anthracite grey can be ordered via the HHW online shop*

82079 201-202

82079 203-204

82079 205-206

82079 207-208

82079 209-210

Worktop L x D mm	Height to top of worktop mm	Worktop thickness mm	Drawers quantity x height mm	Doors quantity x height mm	Weight approx. kg	RAL 7035/5012 82079	...	RAL 7035/5010 82079	...
800 x 700	850	50	-	1x540	63		101		201
800 x 700	900	50	-	1x540	63		102		202
800 x 700	850	50	1x90/1x180/1x270	-	86		103		203
800 x 700	900	50	1x90/1x180/1x270	-	86		104		204
800 x 700	900	50	1x60/1x120/1x360	-	84		105		205
800 x 700	850	50	1x60/1x120/1x360	-	84		106		206
800 x 700	850	50	1x180/1x360	-	77		107 NEW		207 NEW
800 x 700	900	50	1x180/1x360	-	77		108 NEW		208 NEW
800 x 700	850	50	2x90/2x180	-	92		109 NEW		209 NEW
800 x 700	900	50	2x90/2x180	-	92		110 NEW		210 NEW

Factory equipment

82030 Workbenches 1500/2000 mm

Design
- Solid beech worktop, oiled on both sides, glued structure
- Worktop thickness: 40 mm
- Substructure/housing fixed welded frame produced from square steel tubing (45x45x2 mm), with level control
- Self-supporting with welded integrated housings
- Drawers 4x ball bearing mounted with attached handle strip (incl. labelling strips)
- Load capacity 70 kg, extension 85%
- Internal dimensions of drawers W x D 490 x 600 mm
- Hinged doors with attached handle strip (incl. labelling strips), self-closing
- Compartment internal dimensions: W x D 560 x 620 mm
- Central lock, each lock with two keys, keyed alike
- Standard paint finish on housing RAL 7035 light grey, fronts RAL 5012 light blue
- Environmentally friendly powder coating

82030 203+303

82030 204+304

82030 208+308

82030 205+305

82030 201+301

82030 212+312

82030 202+302

82030 213+313

82030 207+307

82030 211+311

82030 210+310

82030 206+306

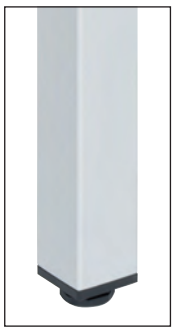
Continued

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82030 Workbenches 1500/2000 mm

Continued

82030 201-213
Design
- With fixed 840 mm working height

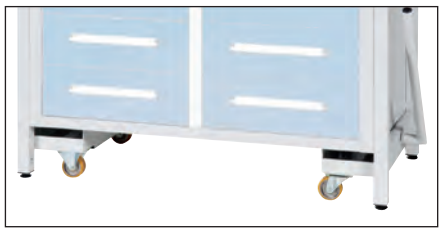


Fixed

82030 301-313
Design
- With adjustable working height of 840-1040 mm

Adjustable

82030 401-414
Design
- Transport wheels can be lowered
- By simply shifting a lever, the workbench is alternated to the moving or rest position
- Total load capacity of the workbench:
  Stationary 800 kg
  Moving with lowered transport wheels 400 kg



With transport wheels

Worktop L x D mm	Drawers quantity x height mm	Doors quantity x height mm	Shelves quantity	Fixed 82030	...	Adjustable 82030	...	With transport wheels 82030	...
1500 x 700	1x180	1x360	-		203		303		
1500 x 700	1x180	1x360	1		208		308		408
1500 x 700	2x180	2x360	-		201		301		401
1500 x 700	3x180	1x540	1		202		302		402
1500 x 700	6x180	-	-		207		307		407
1500 x 700	1x60, 2x90, 1x120, 1x180	-	-		210		310		
2000 x 700	2x180	2x360	1		204		304		404
2000 x 700	3x180	1x540	1		205		305		405
2000 x 700	3x180	2x540	2		212		312		413
2000 x 700	5x180	2x360	2		213		313		414
2000 x 700	6x180	-	1		211		311		411
2000 x 700	1x60, 2x90, 1x120, 1x180	1x540	1		206		306		406

82035 - 82037 Drawer fitting assortments for workbenches art. no. 82030

82035
Design
- 1 longitudinal partition
- 4 cross-partitions

82036
Design
- 2 longitudinal partition
- 9 cross-partitions

82037
Design
- 3 longitudinal partition
- 12 cross-partitions

For drawer height mm	Drawer internal dimensions W x D mm	82035	...	82036	...	82037	...
60	480 x 588		201		201		201
90	480 x 588		204		204		204
120/150	480 x 588		202		202		202
180-270	480 x 588		203		203		203

82038 Anti-roll-off edging for workbenches art. no. 82030

Design
- Material: MDF

For workbench length mm	Height mm	82038	...
1500	100		201
2000	100		202

82075 Cabinet workbenches 1500/2000 mm series V

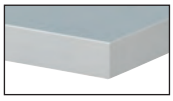
ANKE Werkbänke

Design
- **Worktop in solid beech (BMP)**
- Oiled surface
- Worktop thickness: 50 mm
- Re-sandable with extremely long service life
- Robust and highly resilient, thanks to **special and unique tie bonding:** ties mortised and bonded lengthways with approximately 60% greater glue surface ensure optimum cross-bracing and load values
- Total workbench load 1500 kg with evenly distributed surface load
- **TÜV/GS tested**

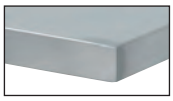
- Housing in robust welded sheet steel construction
- Useful height of housing 540 mm (= clear internal dimension)
- Base made of square steel tube 45 x 45 x 2 mm, 1 x with level compensation
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- 2 door heights to choose from 360 mm/540 mm
- Central lock: DOM alternating cylinder
- Lock is master key compatible
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core
- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:
- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*
- *Colour combination RAL 7035 light grey/7016 anthracite grey can be ordered via the HHW online shop*

Alternative worktops:



Universal worktop (UBP) with ABS edge:
- Abrasion-resistant and anti-static surface
- Resistant short-term to weak acids, alkalis and heat of up to 250 °C
- Resistant long-term to greases and oils



Worktop with zinc-plated sheet steel surfacing (ZBP):
- Sheet thickness 1.5 mm
- Easy-care and therefore ideal for working with oil
- Hot-dip zinc-plated, long-lasting corrosion resistance
- Sheet steel flanged on all sides

Factory equipment

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
1500 x 700	850	BMP	125	105	405 NEW
1500 x 700	850	UBP	125	106	406 NEW
1500 x 700	850	ZBP	125	107	407 NEW
1500 x 700	900	BMP	126	108	408 NEW
1500 x 700	900	UBP	126	109	409 NEW
1500 x 700	900	ZBP	126	110	410 NEW

Model: 106 V

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
1500 x 700	850	BMP	132	140	440 NEW
1500 x 700	850	UBP	132	141	441 NEW
1500 x 700	850	ZBP	132	142	442 NEW
1500 x 700	900	BMP	133	143	443 NEW
1500 x 700	900	UBP	133	144	444 NEW
1500 x 700	900	ZBP	133	145	445 NEW

model: 205 V

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
1500 x 700	850	BMP	149	210	411
1500 x 700	850	UBP	147	211	412
1500 x 700	850	ZBP	161	212	413
1500 x 700	900	BMP	150	213	414
1500 x 700	900	UBP	147	214	415
1500 x 700	900	ZBP	161	215	416

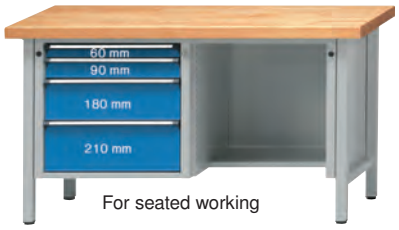
model: 108 V

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Cabinet workbenches 1500/2000 mm series V

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
1500 x 700	850	BMP	124	180	480 NEW
1500 x 700	850	UBP	124	181	481 NEW
1500 x 700	850	ZBP	124	182	482 NEW
1500 x 700	900	BMP	125	183	483 NEW
1500 x 700	900	UBP	125	184	484 NEW
1500 x 700	900	ZBP	125	185	485 NEW

model: 341 V



For seated working

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
1500 x 700	850	BMP	138	230	430
1500 x 700	850	UBP	135	231	431
1500 x 700	850	ZBP	150	232	432
1500 x 700	900	BMP	139	233	433
1500 x 700	900	UBP	136	234	434
1500 x 700	900	ZBP	150	235	435

model: 256 V

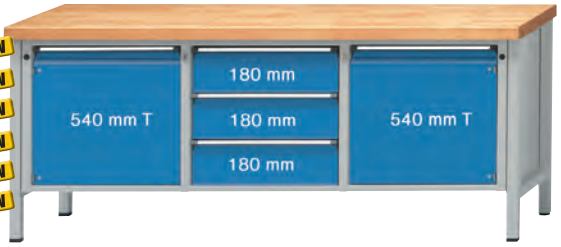
NEW

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
2000 x 700	850	BMP	177	220	420 NEW
2000 x 700	850	UBP	177	221	421 NEW
2000 x 700	850	ZBP	177	222	422 NEW
2000 x 700	900	BMP	178	223	423 NEW
2000 x 700	900	UBP	178	224	424 NEW
2000 x 700	900	ZBP	178	225	425 NEW

model: 120 V

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
2000 x 700	850	BMP	157	240	450 NEW
2000 x 700	850	UBP	157	241	451 NEW
2000 x 700	850	ZBP	157	242	452 NEW
2000 x 700	900	BMP	158	243	453 NEW
2000 x 700	900	UBP	158	244	454 NEW
2000 x 700	900	ZBP	158	245	455 NEW

model: 122 V



Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
2000 x 700	850	BMP	180	280	490 NEW
2000 x 700	850	UBP	180	281	491 NEW
2000 x 700	850	ZBP	180	282	492 NEW
2000 x 700	900	BMP	181	283	493 NEW
2000 x 700	900	UBP	181	284	494 NEW
2000 x 700	900	ZBP	181	285	495 NEW

model: 223 V

Worktop L x D mm	Height to worktop top mm	Worktop	weight approx. kg	7035/5012 82075 ...	7035/5010 82075 ...
2000 x 700	850	BMP	200	270	470
2000 x 700	850	UBP	196	271	471
2000 x 700	850	ZBP	215	272	472
2000 x 700	900	BMP	200	273	473
2000 x 700	900	UBP	197	274	474
2000 x 700	900	ZBP	215	275	475

model: 282 V

( ) = Items with prices in brackets partly available from stock.

82076 Cabinet workbenches 2800 mm series V

ANKE Werkbänke

Design

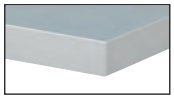
- Worktop in solid beech (BMP)
- Oiled surface
- Worktop thickness: 50 mm
- Re-sandable with extremely long service life
- Robust and highly resilient, thanks to **special and unique tie bonding:** ties mortised and bonded lengthways with approximately 60% greater glue surface ensure optimum cross-bracing and load values
- Total workbench load 1500 kg with evenly distributed surface load

- TÜV/GS tested

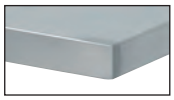
- Housing in robust welded sheet steel construction
- Useful height of housing 540 mm (= clear internal dimension)
- Base made of square steel tube 45 x 45 x 2 mm, 6 x with level compensation
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- 2 door heights to choose from 360 mm/540 mm
- Central lock: DOM alternating cylinder
- Lock is master key compatible
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core
- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:
- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*
- *Colour combination RAL 7035 light grey/7016 anthracite grey can be ordered via the HHW online shop*

Alternative worktops:

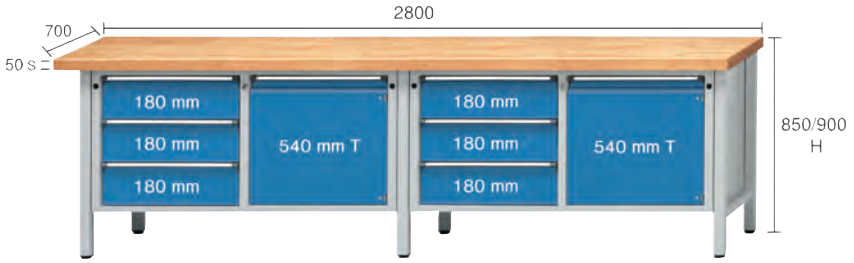


Universal worktop (UBP) with ABS edge:
- Abrasion-resistant and anti-static surface
- Resistant short-term to weak acids, alkalis and heat of up to 250 °C
- Resistant long-term to greases and oils



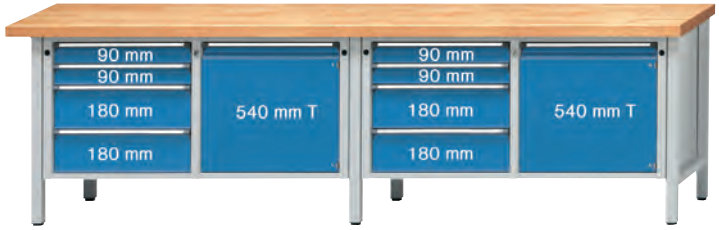
Worktop with zinc-plated sheet steel surfacing (ZBP):
- Sheet thickness 1.5 mm
- Easy-care and therefore ideal for working with oil
- Hot-dip zinc-plated, long-lasting corrosion resistance
- Sheet steel flanged on all sides

model: 106 V



Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82076 ...	7035/5010 82076 ...
2800 x 700	850	BMP	238	100	400 NEW
2800 x 700	850	UBP	238	101	401 NEW
2800 x 700	850	ZBP	238	102	402 NEW
2800 x 700	900	BMP	239	103	403 NEW
2800 x 700	900	UBP	239	104	404 NEW
2800 x 700	900	ZBP	239	105	405 NEW

model: 131 V



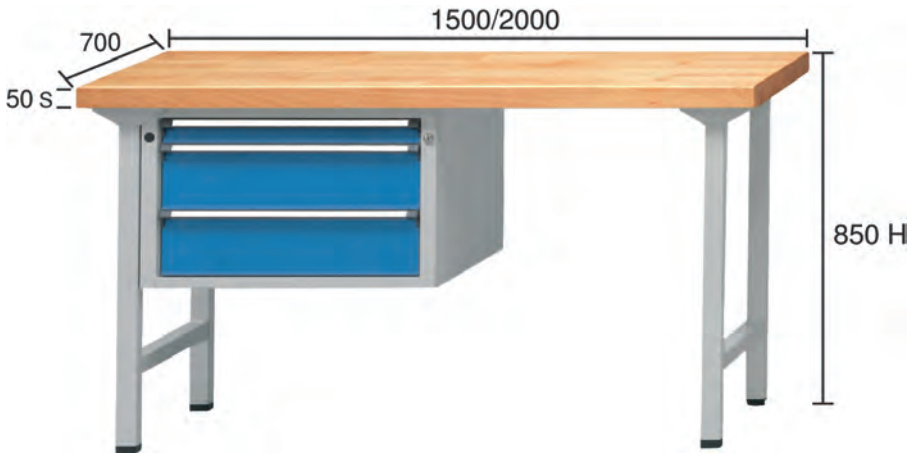
Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82076 ...	7035/5010 82076 ...
2800 x 700	850	BMP	249	120	420 NEW
2800 x 700	850	UBP	249	121	421 NEW
2800 x 700	850	ZBP	249	122	422 NEW
2800 x 700	900	BMP	250	123	423 NEW
2800 x 700	900	UBP	250	124	424 NEW
2800 x 700	900	ZBP	250	125	425 NEW

model: 205 V

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82076 ...	7035/5010 82076 ...
2800 x 700	850	BMP	251	140	440 NEW
2800 x 700	850	UBP	251	141	441 NEW
2800 x 700	850	ZBP	251	142	442 NEW
2800 x 700	900	BMP	252	143	443 NEW
2800 x 700	900	UBP	252	144	444 NEW
2800 x 700	900	ZBP	252	145	445 NEW

ANKE Werkbänke

Design
- **Worktop in solid beech (BMP)**
- Oiled surface
- Worktop thickness: 50 mm
- Re-sandable with extremely long service life
- Robust and highly resilient, thanks to **special and unique tie bonding:** ties mortised and bonded lengthways with approximately 60% greater glue surface ensure optimum cross-bracing and load values
- Total workbench load with suspended undercounter cabinet 800 kg with evenly distributed surface load
- Total workbench load with floor-standing undercounter cabinet 1000 kg with evenly distributed surface load
- **TÜV/GS tested**

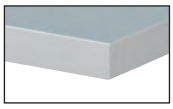


- Undercounter cabinets in 4 heights: Useful height 270 mm/360 mm/540 mm/720 mm (= clear internal dimension)
- Housing design in robust welded sheet steel construction
- Useful height 270-540 mm as suspended undercounter cabinet
- Useful height 720 mm as floor-standing undercounter cabinet
- Base frame made of square steel tubing 45 x 45 x 2 mm, 1 x with level compensation
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- 2 door heights to choose from 360 mm/540 mm
- Central lock: DOM alternating cylinder
- Lock is master key compatible

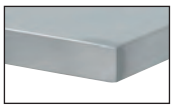
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core
- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:
- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*
- *Colour combination RAL 7035 light grey/7016 anthracite grey can be ordered via the HHW online shop*

Alternative worktops:



Universal worktop (UBP) with ABS edge:
- Abrasion-resistant and anti-static surface
- Resistant short-term to weak acids, alkalis and heat of up to 250 °C
- Resistant long-term to greases and oils



Worktop with zinc-plated sheet steel surfacing (ZBP):
- Sheet thickness 1.5 mm
- Easy-care and therefore ideal for workingwith oil
- Hot-dip zinc-plated, long-lasting corrosion resistance
- Sheet steel flanged on all sides

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82078 ...	7035/5010 82078 ...
1500 x 700	850	BMP	94	100	400 NEW
1500 x 700	850	UBP	94	101	401 NEW
1500 x 700	850	ZBP	94	102	402 NEW
2000 x 700	850	BMP	106	103	403 NEW
2000 x 700	850	UBP	106	104	404 NEW
2000 x 700	850	ZBP	106	105	405 NEW

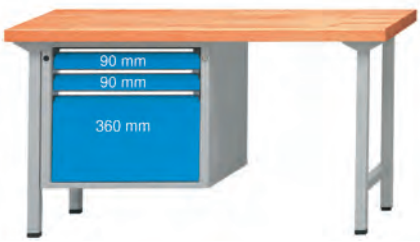
Model: 502/522 V

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82078 ...	7035/5010 82078 ...
1500 x 700	850	BMP	98	120	420 NEW
1500 x 700	850	UBP	98	121	421 NEW
1500 x 700	850	ZBP	98	122	422 NEW
2000 x 700	850	BMP	111	123	423 NEW
2000 x 700	850	UBP	111	124	424 NEW
2000 x 700	850	ZBP	111	125	425 NEW

Model: 602/622 V

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82078 ...	7035/5010 82078 ...
1500 x 700	850	BMP	103	160	460 NEW
1500 x 700	850	UBP	103	161	461 NEW
1500 x 700	850	ZBP	103	162	462 NEW
2000 x 700	850	BMP	128	163	463 NEW
2000 x 700	850	UBP	128	164	464 NEW
2000 x 700	850	ZBP	128	165	465 NEW

Model: 702/722 V



Continued

82078 Combi workbenches 1500 mm + 2000 mm series V

NEW

Continued ▶

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82078 ...	7035/5010 82078 ...
1500 x 700	850	BMP	104	150	450
1500 x 700	850	UBP	108	151	451
1500 x 700	850	ZBP	116	152	452
2000 x 700	850	BMP	117	153	453
2000 x 700	850	UBP	121	154	454
2000 x 700	850	ZBP	131	155	455

Model: 706/726 V

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82078 ...	7035/5010 82078 ...
1500 x 700	850	BMP	119	170	470
1500 x 700	850	UBP	117	171	471
1500 x 700	850	ZBP	131	172	472
2000 x 700	850	BMP	132	173	473
2000 x 700	850	UBP	128	174	474
2000 x 700	850	ZBP	147	175	475

Model: 810/830 V

82084 Heavy-duty workbenches BMP 100 mm series VS

ANKE Werkbänke

Design

- **Worktop in solid beech (BMP)**
- Oiled surface
- Worktop thickness: 100 mm
- Re-sandable with extremely long service life
- Robust and highly resilient, thanks to **special and unique tie bonding:** ties mortised and bonded lengthways with approximately 60% greater glue surface ensure optimum cross-bracing and load values
- Total workbench load 4200 kg with evenly distributed surface load
- **TÜV/GS tested**

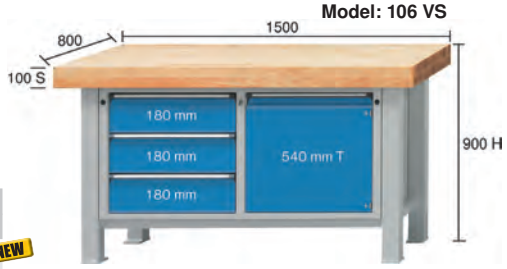
- Housing in robust welded sheet steel construction
- Useful height of housing 540 mm (= clear internal dimension)
- Base frame made of square steel tubing 80 x 80 x 3 mm
- Welded floor attachment lugs
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- 2 door heights to choose from 360 mm/540 mm
- Central lock: DOM alternating cylinder
- Lock is master key compatible
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core
- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:

- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*
- *Colour combination RAL 7035 light grey/7016 anthracite grey can be ordered via the HHW online shop*

Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	Workbench 82084 ...
1500 x 800	900	BMP	125	301
2250 x 800	900	BMP	174	303 NEW

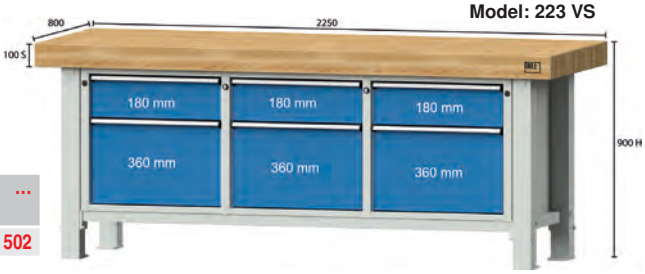
Model: 106 VS



Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82084 ...	7035/5010 82084 ...
1500 x 800	900	BMP	196	201	401 NEW

NEW

Model: 223 VS



Worktop L x D mm	Height to worktop top mm	Worktop	Weight approx. kg	7035/5012 82084 ...	7035/5010 82084 ...
2250 x 800	900	BMP	289	501	502

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

ANKE Werkbänke

Drawer partitioning material	Front height mm	82075	...
1/2 division	For 60		900
1/2 division	For 90 to 150		901
1/2 division	For 180 to 360		903
1/3 division	For 60		904
1/3 division	For 90 to 150		905
1/3 division	For 180 to 360		907
1/4 division	For 60		908
1/4 division	For 90 to 150		909
1/4 division	For 180 to 360		911
1/2 - 1/4 division	For 60		912
1/2 - 1/4 division	For 90 to 150		913
1/2 - 1/4 division	For 180 to 360		915
Small parts box set	For 60		960 NEW
Small parts box set	For 90 to 150		961 NEW
Plastic compartment insert	From 90		924
5-trough insert made of plastic with 10 comp. dividers	From 90		925
6-trough insert made of plastic with 10 comp. dividers	From 90		926
Non-slip mat	90 to 360		923

Accessories	Length mm	Height mm	82075	...
Anti-roll-off edging	1270	90		966 NEW
Anti-roll-off edging	1500	90		916
Anti-roll-off edging	2000	90		917
Anti-roll-off edging	2800	90		927
Insert shelf, height adjustable	-	-		919
Pull-out shelf, height adjustable	-	-		920
Document compartment	-	-		918
Central lock, electronic	-	-		921
System panel for base frame	-	-		922

1/2 division

1/3 division

1/4 division

1/2 - 1/4 division

Small parts box set

Compartment insert

5-trough insert

6-trough insert

Non-slip mat

Anti-roll-off edging

Shelf

Pull-out shelf

Document compartment

Central lock

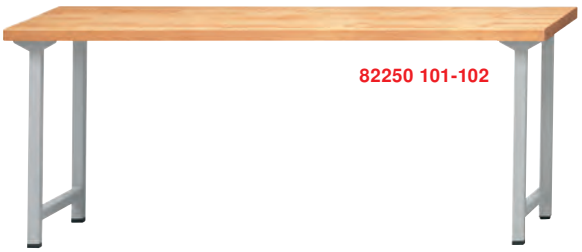
System panel

Factory equipment

82250 Workbenches

Design
BMP - ANKE solid beech worktop
Thanks to unique manufacturing process:
- Extremely long service life
- Robust and resistant
- Can be subjected to extremely high loads
- Can be repeatedly sanded down
- Oiled surface
- Ties mortised and bonded lengthways

- Base frame produced from square tubing 45/45/2 mm
- RAL 7035
- All feet with abrasion-resistant ANKE special foot caps
- One for height-adjustable levelling (20 mm)
- Delivered fully assembled!

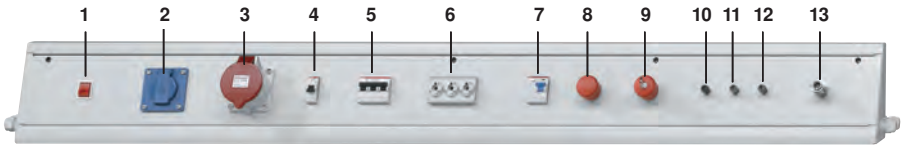

82250 101-102

82250 103

Worktop L x D mm	Height to worktop top mm	Worktop	Worktop thickness mm	No. of base frames	82250	...
1500 x 700	840	BMP	40	2		101
2000 x 700	840	BMP	40	2		102
2800 x 700	840	BMP	40	3		103

Info Power supply panel

For installing any fittings, manufactured from quality fine sheet steel, painted.



1 Illuminated on/off switch, 2-pin,
2 SCHUKO socket with cover, 2-pin + E 10/16 A 230V,
3 CEE socket with cover, 5-pin 16 A 380V,
4 Circuit breaker, 1-pin L 16 A,
5 Circuit breaker, 3-pin G 16 A,
6 Screw fuse element Neozed, 3-pin, without fuse,
7 Residual current circuit breaker, 25 A, 30 mA, 230/380V,
8 Emergency stop button without key,
9 Emergency stop button with key,
10 Pole terminal, 4 mm, red,
11 Pole terminal, 4 mm, black,
12 Earthing socket, 4 mm, yellow-green,
13 Quick-action coupling for compressed air.

Power supply panels are supplied unwired. Length 750 mm/1250 mm/1500 mm/2000 mm/2800 mm (2 pieces) and 4050 mm (3 pieces). Price on request. When ordering, please specify location and type of fittings.

82309 Power strips

Design
- Wired by means of plug-in system
- Colour: RAL 7035, light grey

82309 101 + 201
Design
Equipped with:
- 2 x double Schuko socket 230V/50 Hz, 10/16A, 2-pin

82309 101 + 201

82309 102 + 202
Design
Equipped with:
- 1 x double Schuko socket 230V/50 Hz, 10/16A, 2-pin
- 1 x CEE socket 400V/50 Hz, 16A, 5-pin

82309 102 + 202

82309 103 + 203
Design
Equipped with:
- 1 x double Schuko socket 230V/50 Hz, 10/16A, 2-pin
- 2 x quick-action coupling for compressed air

82309 103 + 203

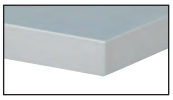
Dimensions W x D x H mm	Equipment	82309	...
1500 x 90 x 170	4 x 230V		101
1500 x 90 x 170	2 x 230V/1 x CEE		102
1500 x 90 x 170	2 x 230V/2 x comp. air		103

Dimensions W x D x H mm	Equipment	82309	...
2000 x 90 x 170	4 x 230V		201
2000 x 90 x 170	2 x 230V/1 x CEE		202
2000 x 90 x 170	2 x 230V/2 x comp. air		203

82251 Workbenches LIFT

82251 101-106
Workbenches LIFT
Design
- With the tough LIFT workbench system, you always have the right working height for ergonomic working at the push of a button
- The reinforced rear wall ensures stability in all positions, allows solid work and creates space, for example, for „parking" a roll container beneath the bench
- **Worktop in solid beech (BMP)**
- Oiled surface
- Worktop thickness: 40 mm
- Re-sandable with extremely long service life
- Robust and highly resilient, thanks to **special and unique tie bonding:** ties mortised and bonded lengthways with approximately 60% greater glue surface ensure optimum cross-bracing and load values
- Height adjustment by means of an electric-motor spindle lifting system
- Capacity of 300 kg per lifting column
- Total lifting capacity 600 kg (with evenly distributed surface load)
- Lifting range: 400 mm from 740 mm to 1140 mm

Note:
For suitable roll containers, see art. no. 82252 101-403.



Alternative worktop:
Universal worktop (UBP) with ABS edge
- Abrasion-resistant and anti-static surface
- Resistant short-term to weak acids, alkalis and heat of up to 250 °C
- Resistant long-term to greases and oils

82251 101+103

82251 105

82251 107
Side plate
Design
- 1 pair, consisting of left and right design

Applications
With side-by-side installation of workbenches, a side plate is required at the front.

82251 107

Worktop L x D mm	Height mm	Worktop	Worktop thickness mm	No. of base frames	82251 ...
1500 x 800	740 - 1140	BMP	40	2	101
1500 x 800	740 - 1140	UBP	40	2	102
2000 x 800	740 - 1140	BMP	40	2	103
2000 x 800	740 - 1140	UBP	40	2	104
2800 x 800	740 - 1140	BMP	40	3	105
2800 x 800	740 - 1140	UBP	40	3	106
Side plate	-	-	-	-	107

82252 Roll container for LIFT workbenches

Design
- Housing in robust welded sheet steel construction
- Useful height of housing 360 mm (= clear internal dimension)
- With practical deposit tray as standard (4-sided anti-roll-off edging) and non-slip mat
- 2 fixed castors, 2 steering rollers with locking device, Ø 125 mm
- 200 kg load capacity per roller
- Possible maximum load weight 600 kg including tare weight
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- Central lock: DOM alternating cylinder
- Lock is master key compatible
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core

- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:
- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*

82252 101

82252 102

82252 103

Model	Drawer panel height mm	W x D x H mm	7035/5012 82252 ...	7035/5010 82252 ...
17 V	2 x 90/1 x 180	570 x 615 x 575	101	401
18 V	1 x 90/1 x 120/1 x 150	570 x 615 x 575	102	402
19 V	3 x 120	570 x 615 x 575	103	403

82253 Undercounter cabinets for LIFT workbenches

ANKE Werkbänke

Design
- Housing in robust welded sheet steel construction
- Useful height of housing either 270 mm or 360 mm (= clear internal dimension)
- Drawers as standard with full extension
- Individual pull-out lock
- Drawer load capacity 100 kg
- Internal drawer dimensions W x D 500 x 540 mm
- High-quality aluminium handle strip with labelling strips
- 11 selectable front heights from 60 mm to 360 mm in 30 mm grid
- Central lock: DOM alternating cylinder
- Lock is master key compatible
- When creating locking systems, the standard locking core can simply be replaced for a locking system-compatible locking core
- Surface is powder-coated in either
- Housing RAL 7035 light grey/ fronts RAL 5012 light blue
- Housing RAL 7035 light grey/ fronts RAL 5010 gentian blue
- Other colours on request at extra cost

Note:
- *To order customised hard foam inserts, please use the following clear internal dimensions: W x D 490 x 530 mm*
- *Load information with evenly distributed surface load in all cases*

NEW

82253 101

82253 103

82253 102

Model	Drawer panel height mm	W x D x H mm	7035/5012 82253 ...	7035/5010 82253 ...
903 V	1 x 90/1 x 180	570 x 615 x 330	101	401
905 V	1 x 50/1 x 90/1 x 120	570 x 615 x 330	102	402
1205 V	2 x 90/1 x 180	570 x 615 x 420	103	403

82254 Workbench superstructures for LIFT workbenches

ANKE Werkbänke

Design
- The Connect 800 mm-high structure support is an intricately edged support with suspension slots in a 50 mm grid on both the front and back
- The support is bolted in 2 locations from below through the worktop, thereby achieving extremely high stability
- Braced gusset plates are not required

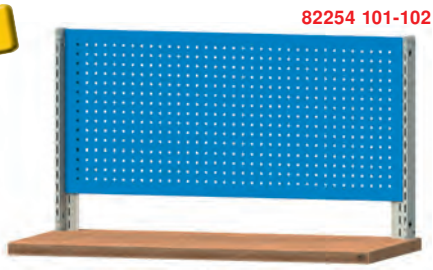
The structure support can be equipped with:
- **Perforated metal plate** in heights 400 mm and 650 mm, perforated metal plate with 10 mm square holes and 38 mm axis distance, conventional hook systems are therefore compatible
- **Energy channel** with 2x Schuko socket 230V/ 50Hz plug wired ready for connection, 10/16 A, 2-pin and 2x compressed-air quick-action coupling

Note:
Further add-on modules or other structure heights available on request.

82254 101-104
Design
Equipped with
- 1x perforated metal plate, height 650 mm

NEW

82254 101-102

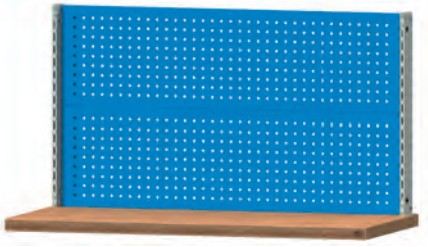


82254 201-204
Design
Equipped with
- 1x perforated metal plate, height 650 mm
- 1x energy channel, height 150 mm with 2x 230V, 10/16 A, 2-pin and 2x compressed-air quick-action coupling

82254 201-202

82254 301-304
Design
Equipped with
- 2x perforated metal plate, height of each 400 mm

82254 301-302



Equipped with	Width x height mm	7035/5012 82254 ...	7035/5010 82254 ...
1x perforated metal plate **height 650 mm**	1500 x 800	101	103
1x perforated metal plate **height 650 mm**	2000 x 800	102	104
1x perforated metal plate **height 650 mm** and 1x energy channel **height 150 mm**	1500 x 800	201	203
1x perforated metal plate **height 650 mm** and 1x energy channel **height 150 mm**	2000 x 800	202	204
2x perforated metal plate **height of each 400 mm**	1500 x 800	301	303
2x perforated metal plate **height of each 400 mm**	2000 x 800	302	304

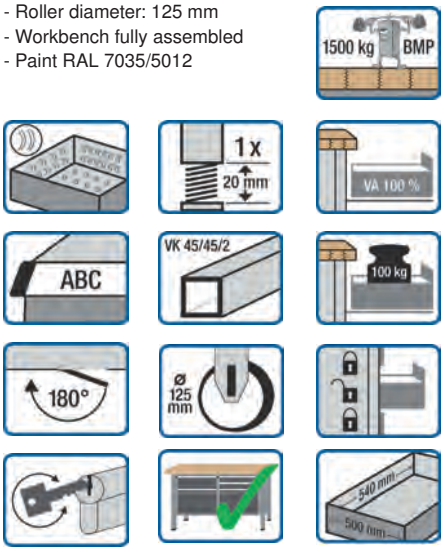
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82131 Mobile assembly workbenches series V with vice + folding device

Design
BMP - original ANKE solid beech worktop
- 50 mm thick
- Ties mortised and bonded lengthways
- Extremely long service life
- Robust and resistant
- Can be subjected to extremely high loads
- Can be repeatedly sanded down
- Oiled surface

Scope of delivery:
- Workbench
- Vice (jaw width 100 mm)
- Hinged lift (can be rotated 360°, height adjustable)

Standard features
- Stationary workbench load capacity: max. 1500 kg
- Workbench load capacity when mobile: max. 450 kg (including the tare weight of the bench)
- Drawer 100% full extension
- Drawer load capacity max. 100 kg
- Individual pull-out lock
- Internal drawer dimensions W 500 x D 540 mm
- Perforated bases and slotted walls
- Handle profile with labelling strip
- Door opening angle 180°
- Central lock
- With interchangeable cylinder and 2 keys
- Integration into DOM® locking system possible on request by replacing locking core
- Level compensation 1 x 20 mm
- Feet produced from square tubing 45 x 45 x 2 mm
- Roller diameter: 125 mm
- Workbench fully assembled
- Paint RAL 7035/5012



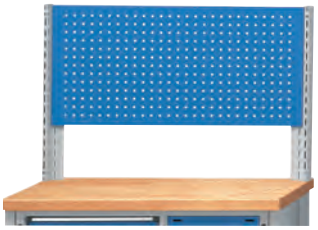
82131 102

82131 103

Model	Number of drawers x front height mm	Worktop	Worktop size mm	Working height mm	82131	...
701V	1x180/1x360	BMP	1270 x 700 x 50	850		**102**
706V	3x180	BMP	1270 x 700 x 50	850		**103**

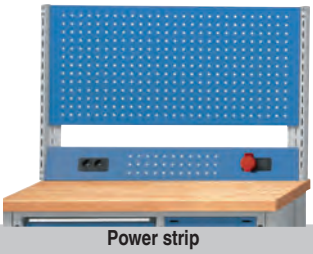
82132 Superstructures for assembly workbenches series V

Applications
For assembly workbenches series V, art. no. 82131.

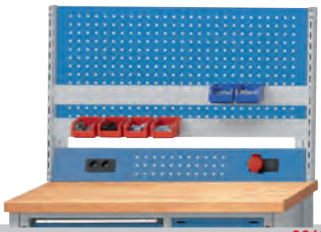


82132 101
Version A

82132 103
Version D



82132 102
Version B



82132 104
Version E

Superstructure version	Perforated metal plate W x H mm	Power strip equipment	Support rail quantity	82132	...
A	1165 x 550	-	-		**101**
B	1165 x 550	2 x Schuko 230 V/1 x CEE 400 V	-		**102**
D	1165 x 550	-	2		**103**
E	1165 x 550	2 x Schuko 230 V/1 x CEE 400 V	2		**104**

Info Transport wheels for cabinet workbenches

Deliverable for all ANKE cabinet workbenches in the V, VH and BL series up to 2000 mm in length with a working height of 840 mm or 850 mm.

By simply shifting a lever, the cabinet workbench is alternated to the moving or rest position. Roller Ø 100 mm, load capacity of the cabinet workbench on rollers including tare weight max. 450 kg.

Transport wheels offer optimal manoeuvrability with extended chassis thanks to steering rollers and, in the rest position on 4 feet, optimal stability (1500 kg with evenly distributed surface load).

Note:
Transport wheels delivered ex works only in conjunction with cabinet workbench. Subsequent assembly is not possible.

82290 - 82295 Hexagonal workbenches as group workstation

Design
1. Worktop
40 or 50 mm thick, distortion resistant **made of beech multiplex,** waterproof bonding, **or solid beech**. Supplied in 2 parts, centred edge to edge with tongue and groove and Lamello screw fitting.

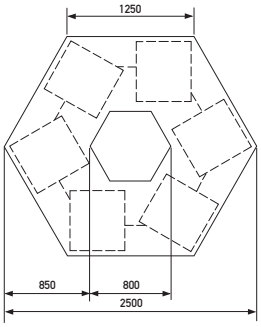
2. Drawer cabinet
800 x 572 x 600 mm, made of sturdy sheet steel, central lock, drawers on roller bearings, 60 kg load capacity, 85% extendible. Pull-out stop, inside with slotted strips and perforated base for variable partitioning. For usable surface areas and partitioning material, see art. no. 82345. Space between the cabinets covered by sheet metal.

Total height of the workbench, without power supply panel, 840 mm with 40 mm worktop and 850 mm with 50 mm worktop.
Internal dimensions of drawers W x D 450 x 525 mm.
Standard colour:
Housing RAL 7035 light grey, drawers RAL 5012 light blue, powder-coated.
Scope of delivery: without assembly.

Power supply panel available as an option

This workbench version offers the means to configure effective workstations in training institutions.

6 workstations provided per workbench.



82290
Design
6 drawer cabinets, each with 6 drawers, panel height 1 x 60, 3 x 90, 1 x 180 mm and 1 x 210 mm, per workstation.

82295
Design
6 drawer cabinets, each with 2 drawers, panel height 1 x 60, 1 x 90 mm and 1 door 570 mm, per workstation.

Note:
Other combinations of drawers, drawer cabinets with full extension, octagon design and power supply panel deliverable on request.
Other paints in RAL 3020, 5010 and 7016 deliverable without surcharge.

Worktop

82290

Cabinet type with 6 drawers

82295

Cabinet type with 2 drawers and 1 door

Hexagonal workbench with worktop	82290 ...	82295 ...
Beech multiplex 40 mm	505	505
Beech multiplex 50 mm	506	506
Solid beech 40 mm	507	507
Solid beech 50 mm	508	

82300 Modular workstation

Design
- Beech multiplex worktop
- Base frame made of sturdy square tubing 45 x 45 x 2 mm, 800 mm high
- Drawer cabinet complete with 6 roller-mounted drawers

Paint
- Housing/base frame RAL 7035 light grey
- Drawers RAL 5012 light blue
- Powder-coated.

Note:
Unassembled, easy self-assembly.
For fitting assortments, see cat. page 82.16, art. no. 82345.

82300

Worktop L x D mm	Height to worktop top mm	Worktop	worktop thickness mm	Drawers quantity x height mm	Drawer internal dimensions W x D mm	82300	...
1500 x 700	840	Beech multiplex	40	1x60, 2x90, 2x150, 1x180	437 x 513		502

82315 Workbench base

Design
Made of robust U profile steel 80 x 50 x 2 mm.
Standard colour:
RAL 7035 light grey, powder-coated.

82315

H x D mm	82315	...
800 x 600		602

82316 Cross strut

Design
Produced from sheet steel, painted, incl. mounting material. Adjustable.

Applications
For stabilising self-assembly workbenches.
For workbench widths 1500 mm and 2000 mm.

82316

Width mm	82316	...
1500 - 2000		201

82318 Workbench base, height adjustable

Design
Made of robust U profile steel 80 x 50 x 2 mm. Adjustable in increments of 25 mm. With screw connection.

Standard colour:
RAL 7035 light grey, powder-coated.

82318

H x D mm	82318	...
600 - 950 x 600		602

82320 Base part for folding vice (empty)

Design
Made from sheet steel.
Standard colour:
RAL 7035 light grey, powder-coated.
Scope of delivery **without** vice and height adjustment device.

Note:
For Brockhaus Heuer vices, see art. no. 53632 and 53633.
For folding and height-adjustable devices, see art. no. 53650.

82320

External dimensions H x W x D mm	82320	...
800 x 300 x 600		602

82310 - 82312 Workbench top panels

82310
Design
Beech multiplex plywood panel
- Produced from multi-layered, waterproof, glued beech wood
- With even strength in longitudinal and transverse direction

82311
Design
BMP - ANKE solid beech worktop
Thanks to unique manufacturing process:
- Extremely long service life
- Robust and resistant
- Can be subjected to extremely high loads
- Can be repeatedly sanded down
- Oiled surface
- Ties mortised and bonded lengthways

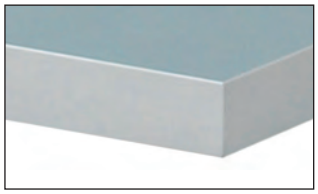
Note:
Beech panels up to 4.20 m per piece deliverable. Other dimensions deliverable on request.

82312
Design
UBP universal worktop
- With ABS edge
- Abrasion-resistant and anti-static
- Resistant short-term to weak acids, alkalis and heat up to 250 °C
- Resistant long-term to greases and oils

82310

82311

82312



	Multiplex		Beech		Universal	
Worktop size L x W x T mm	82310	...	82311	...	82312	...
1500 x 700 x 40		401		101		101
1500 x 700 x 50		404		201		102
1500 x 750 x 40		407				
2000 x 700 x 40		402		102		103
2000 x 700 x 50		405		202		104
2000 x 750 x 40		408				
2500 x 700 x 40		403		103		
2500 x 700 x 50		406		203		
2500 x 750 x 40		409				
3000 x 700 x 40				104		
3000 x 700 x 50				204		

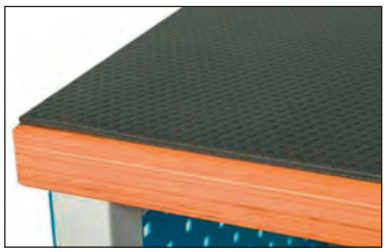
82358 - 82360 Worktop covers

82358
Non-slip safety mats
Design
Heavy-duty non-slip mat for use as a worktop cover, transport safeguard and flooring cover, consisting of extremely tear-resistant PES backing fabric with PVC soft foam special coating. The „Panther" non-slip mat is manufactured according to the latest EU regulation „List of prohibited hazardous substances" and is free of azo dyes, formaldehyde, silicone and toxic heavy metals such as lead and cadmium.
Advantages:
- Temperature resistant from approx. -40 °C to +120 °C
- Closed surface, no absorption of liquids
- Stays in place
- Very good resistance to acids, alkalis, oil, petrol and diesel
- Melting temperature of approx. 250 °C
- Self-ignition temperature of approx. 350 °C
- **Cleaning:** Wipe down with a damp cloth and a solvent-free cleaner. Rinse well with water and allow to dry

82360
Soft PVC workbench covers
Design
- Transparent
- Bluish
- **Processing:** PVC material made of soft PVC can be cut with a cutter, perforated with a punch, nailed, riveted and bonded with special adhesive
- **Properties:** Soft PVC PTK 35 transparent colourless (bluish), shiny, rounded edges, flexible, approx. 75° Shore A, highly abrasion resistant, temperature resistant from -20 °C (normal quality) up to +60 °C , UV-stabilised (not permanently UV-resistant)
- **Carrier fabric** with coarse-meshed, highly tear-resistant, reinforced fibreglass cloth for hard daily use. High wear resistance, ageing-stabilised and UV-stabilised

Advantages:
- Particularly long service life
- High wear resistance
- Easy to clean
- Recyclable
- VOC values according to the European standard

82358



82360

			Non-slip mat		PVC cover	
Width mm	Depth mm	Height mm	82358	...	82360	...
1000	750	4		101		201
1200	750	4		102		202
1500	750	4		103		203
2000	750	4		104		204
2500	750	4		105		205

82313 Corner workbench top panels

Design
- Solid beech
- Oiled on both sides
- Tie-like bonding
- Chamfered
- Delivery without superstructure

82313 101

82313 102

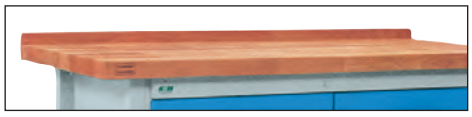
Corner	Workbench thickness mm	82313	...
90°	40		101
135°	40		102

82075 Anti-roll-off edging

ANKE Workbänke

Design
- Laminated beech wood
- Oiled

82075



Length mm	Overall height mm	Worktop overhang mm	Thickness mm	82075	...
1270	90	50	14	966 NEW	
1500	90	50	14	916	

Length mm	Overall height mm	Worktop overhang mm	Thickness mm	82075	...
2000	90	50	14	917	
2800	90	50	14	927	

82325 Suspended drawer

Design
Sheet steel housing, drawer lockable.
With slotted strips and perforated base for partitioning, cylinder lock with 2 keys.
Standard colour:
RAL 7035/5012 powder-coated.

82325

Housing dimensions H x W x D mm	Internal drawer dimensions W x D mm	Panel height mm	Useful height mm	Load capacity kg	82325	...
150 x 557 x 600	437 x 513	150	130	60		502

82328 Drawer cabinet empty housing

Design
Central lock and individual pull-out lock. Housing in sheet steel, reinforcements internally at sides supporting guide rails to ensure a high level of stability. **Base area 572 x 600 mm.** Without drawers (see art. no. 82330). Variable installation of drawers with variable front height.
Standard colour:
RAL 7035 light grey, powder-coated.

Note:
The sum of drawer front heights must add up to the useful height of the housing.
Other paints in RAL 3020, 5010, 7016, 5012 and 6011 deliverable without surcharge (not in stock).

82328

External dimensions H x W x D mm	Housing useful height mm	82328	...
380 x 572 x 600	300		701
470 x 572 x 600	390		702
650 x 572 x 600	570		703
800 x 572 x 600	720		704

Continued

82330 Drawers

Continued

Design
- Made from sheet steel
- Roller guiding
- On ball bearings
- Complete with guide rails
- Base perforated
- Sidewalls with slotted strips
- Internal dimensions of drawers W x D 437 x 513 mm

Standard colour:
RAL 5012 light blue, powder-coated.

82330 701-707
Design
- Drawers 85% extendible, load capacity of up to 60 kg

82330 101-106
Design
- Drawers 100% extendible, load capacity of up to 100 kg

Note:
For drawer fitting assortments, see art. no. 82345.

82330

Other paints in RAL 3020, 5010 and 7016 deliverable without surcharge (not in stock).

Front height mm	Useful height mm	Box height mm	82330 ...	82330 ...
60	40	40	701	
90	70	70	702	101
120	100	100	703	102
150	130	100	704	103

Front height mm	Useful height mm	Box height mm	82330 ...	82330 ...
180	160	130	705	104
240	220	130	706	105
300	280	130	707	106

82335 Drawer cabinets

Design
- Central lock and individual pull-out lock

Housing
- Made from sheet steel
- Reinforcements internally at sides supporting guide rails to ensure a high level of stability
- **Base area 572 x 600 mm**

Drawers
- Made from sheet steel
- Roller guiding
- On ball bearings
- Complete with guide rails
- Base perforated
- Sidewalls with slotted strips
- Internal dimensions of drawers W x D 437 x 513 mm

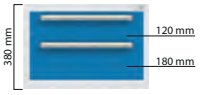
Standard colour:
Housing: RAL 7035 Light grey,
Drawers RAL 5012 light blue,
powder-coated.

82335 701-735
Design
- Drawers 80% extendible, load capacity of up to 100 kg

82335 901-935
Design
- **Drawers 100% extendible,** load capacity of up to 100 kg

Note:
For panel for drawer cabinets, see art. no. 82356.
For drawer fitting assortments, see art. no. 82345.
Wall-mounted cabinets H 380 - 655 can be mounted underneath a workbench top panel.
Other paints in RAL 3020, 5010 and 7016 deliverable without surcharge (not in stock).

82335 701

82335 702


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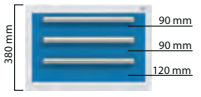

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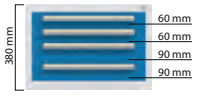

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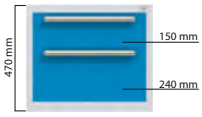

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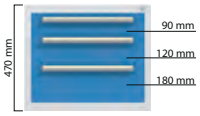

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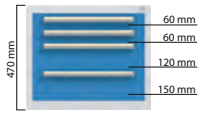

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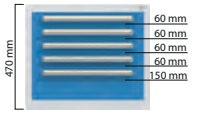

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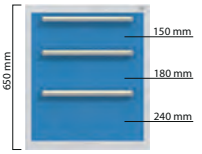

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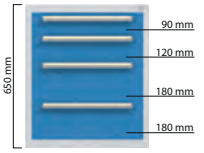

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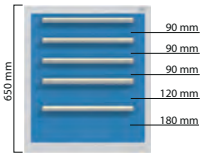

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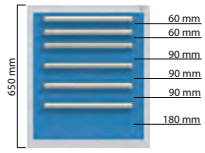

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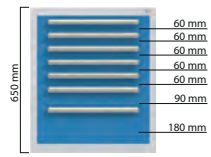

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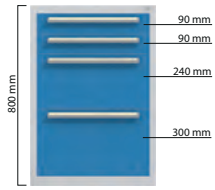

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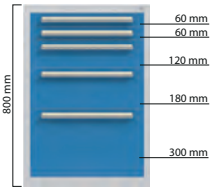

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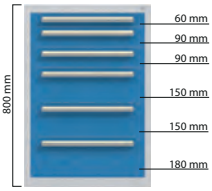

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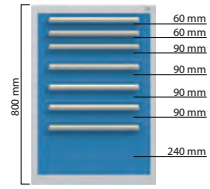

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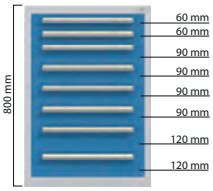


H x W x D mm	82335 ...	82335 ...
380 x 572 x 600	701	901
380 x 572 x 600	702	902
380 x 572 x 600	703	903
380 x 572 x 600	704	904
470 x 572 x 600	711	911
470 x 572 x 600	712	912
470 x 572 x 600	713	913
470 x 572 x 600	714	914
650 x 572 x 600	721	921

H x W x D mm	82335 ...	82335 ...
650 x 572 x 600	722	922
650 x 572 x 600	723	923
650 x 572 x 600	724	924
650 x 572 x 600	725	925
800 x 572 x 600	731	931
800 x 572 x 600		932
800 x 572 x 600	733	933
800 x 572 x 600	734	934
800 x 572 x 600	735	935

82340 Drawer/door cabinets

Design
Complete with roller-mounted drawers. Reinforced doors, door stop on left, strong hinges, lockable with cylinder lock, 2 keys. Internal dimensions of drawers W x D 437 x 513 mm.
Standard colour:
Housing RAL 7035, drawers and doors RAL 5012, powder-coated.

Note:
For a detailed description, see art. no. 82328 empty housing and art. no. 82330 drawers.
Other paints in RAL 3020, 5010 and 7016 deliverable without surcharge (not in stock).

82340 703

Dimensions H x W x D mm	Drawer panel height mm 60	90	120	82340 ...
470 x 572 x 600	-	-	-	702
650 x 572 x 600	-	-	1 x	703
800 x 572 x 600	-	-	1 x	704
650 x 572 x 600	-	1 x	1 x	710
800 x 572 x 600	1 x	-	1 x	712

82342 Base for drawer cabinets

Design
Colour:
RAL 7035 light grey, powder-coated.
Applications
For drawer cabinets art. no. 82328, 82335 and 82340.

Quality
Sheet steel.

82342 603

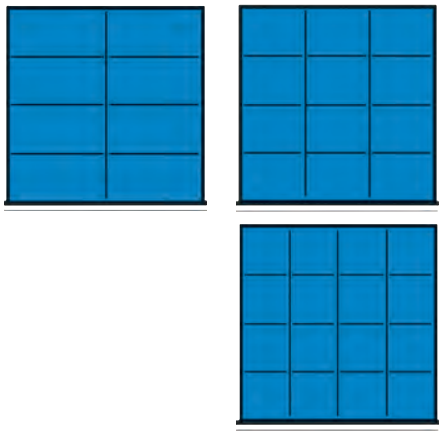
82342 604

H x W x D mm	82342 ...
50 x 570 x 600	603
100 x 570 x 600	604

82345 Drawer fitting assortments

Design
Sheet-steel slotted walls, powder-coated, separating plates made of zinc-plated sheet steel, edges rounded.

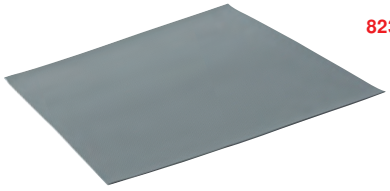
82345



Division	No. of slotted walls	No. of separating plates	For drawer panel height mm	82345 ...
1/2	1	6	60	207
1/3	2	9	60	208
1/4	3	12	60	209
1/2	1	6	90	201
1/3	2	9	90	202
1/4	3	12	90	203
1/2	1	6	120/150	204
1/3	2	9	120/150	205
1/4	3	12	120/150	206

82354 Ribbed rubber support

82354



W x D mm	82354 ...
545 x 600	201

82356 Panel

Design
With 2 steering rollers Ø 100 mm with locking device and 2 fixed castors.
Colour: RAL 7035 Light grey.

Applications
For converting drawer cabinets art. no. 82335 and 82340 into mobile workshop trolleys.

82356

H x W x D mm	Load capacity approx. kg	82356 ...
120 x 557 x 600	300	201

82371 workergo work tables

NEW

MADE IN GERMANY

bedrunka+hirth

Design
- workergo - the versatile choice
- Base frame with 4 feet
- No workstation system series is as versatile as the workergo
- 6 different frame widths, 3 different frame depths and 4 different types of height adjustment make the workergo 4-feet a convertible workbench
- Base made of tubular steel 45 x 45 mm
- Traverses made of aluminium profiles 40 x 40 mm
- Multi-wall construction and optional accessories (art. no. 82370)
- Working height without worktop: 670-1015 mm, 345 mm stroke
- Lifting speed 6.25 mm/s

82371 300-301

82371 300-301
Design
- Height adjustment by means of **clamp fastening**
- Load capacity of 200 kg with evenly spread load

82371 302 -303
Design
- Height adjustment by **crank fastening**
- Load capacity of 200 kg with evenly spread load

82371 304 -305
Design
- Height adjustment **electrically by 1 motor**
- Load capacity of 180 kg with evenly spread load

Note:
Please note that workergo workbenches are delivered disassembled. Simple self-assembly!

Height adjustment	Width mm	Depth mm	Height without worktop mm	Worktop thickness mm	Load capacity kg	82371 ...
Clamp fastening	1500	750	670 - 1015	40	200	**300**
Clamp fastening	2000	750	670 - 1015	40	200	**301**
Crank fastening	1500	750	670 - 1015	40	200	**302**
Crank fastening	2000	750	670 - 1015	40	200	**303**
1 motor electrically	1500	750	670 - 1015	40	180	**304**
1 motor electrically	2000	750	670 - 1015	40	180	**305**

82370 Multi-wall construction for workergo workbenches art. no. 82371

Applications
For ergonomic and custom workstation design with the modular system.
Mounting accessories on workbenches and supporting columns.

82370 164-167
Supporting columns
- 30 x 60 mm
- Reinforced by U-profile tube
- Incl. fastening materials
- Suitable for mounting on worktops with a worktop thickness of at least 40 mm
- Thinner worktop thicknesses deliverable on request
- When mounting on 2-m work surfaces, 3 supporting columns are required (for central supporting columns, see art. no. 82370 165+167)

82370 140-141+173
Top frames
- With bolted bracing traverses

82370 172
Equipment rail
- Screwed beneath top frames
- Used to support lighting (art. no. 82370 242), the carriage or a spring balance (available as an option)

82370 242
System light SL 108 eco-line
- System output approx. 96.1 W
- Lighting luminous flux approx. 3471 lm
- Average illuminance 1597 lx*

82370 164-167 82370 140-141+173

82370 172

82370 242

Description	Height mm	Width mm	82370 ...
Supporting column, right	950	-	**164**
Supporting column, left and centre	950	-	**165**
Supporting column, right	1250	-	**166**
Supporting column, left and centre	1250	-	**167**
Top frame	-	1000	**140**
Top frame	-	1500	**141**
Top frame	-	2000	**173**
Equipment rail	-	2000	**172**
System light SL 108 eco-line	-	1199	**242** NEW

82370 105-110
Shelves
- Adjustable in inclination (0°, 10° and 20°) and height
- Incl. anti-roll-off edging

82370 105-110

Description	W x D x H mm	82370 ...
Shelf	1000 x 220	**105**
Shelf	1000 x 320	**106**
Shelf	1000 x 420	**107**
Shelf	1500 x 220	**108**
Shelf	1500 x 320	**109**
Shelf	1500 x 420	**110**

Continued

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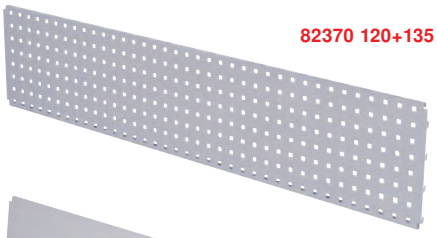
Continued

82370 120-136
Perforated and magnetic walls
- For installation between supporting columns

Description	W x D x H mm	82370 ...
Perforated wall	1000 x 12 x 302	120
Perforated wall	1500 x 12 x 302	135
Magnetic wall	1000 x 12 x 302	121
Magnetic wall	1500 x 12 x 302	136

82370 120+135



82370 121+136

82370 150
Energy-channel bracket
- For installing energy channels art. no. 82370 168-171.

82370 168+152
Energy channels
- 3 Schuko sockets
- 1 on/off switch
- Unwired
- For installation between supporting columns with bracket art. no. 82370 150.

82370 170-171
Energy channels
- 3 Schuko sockets
- 1 on/off switch
- 2 compressed air connections
- Unwired
- For installation between supporting columns with bracket art. no. 82370 150.

82370 150

82370 168+152

82370 170-171

Description	W x D x H mm	82370 ...
Energy-channel bracket	33 x 38 x 117	150
Energy channel, 3x Schuko, 1x on/off switch	1000 x 60 x 130	168
Energy channel, 3x Schuko, 1x on/off switch	1500 x 60 x 130	152
Energy channel, 3x Schuko, 1x on/off switch, 2x compressed air	1000 x 60 x 130	170
Energy channel, 3x Schuko, 1x on/off switch, 2x compressed air	1500 x 60 x 130	171

82370 255
Swivel-arm holder, standard
- For side mounting on the supporting column
- Used to support swivel arms

82370 255

82370 256-263
Swivel arms
- For attachment to the supporting column with swivel-arm holder art. no. 82370 255

82370 256

82370 256
Swivel arm with swivel frame and shelves
- 2 tilting shelves

82370 257

82370 257
Swivel arm with perforated and slotted wall
- One side with perforated wall, second side with slotted wall
- For hooks and small parts boxes

82370 258
Swivel arm with deposit tray

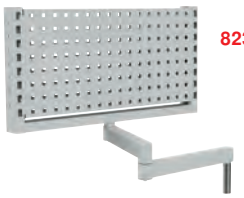
82370 258

82370 259
Swivel arm with DIN A4 document holder
- Anti-roll bar at the bottom and side

82370 259

82370 260
Swivel arm with swivel frame and perforated walls
- Perforated wall on 2 sides

82370 260



82370 261
Swivel arm with monitor bracket and keyboard mount
- VESA 75/100 mm
- Storage shelf, beech multiplex, 15 mm

82370 261

82370 262
Swivel arm with storage and ribbed rubber support

82370 263
Swivel arm with support plate
- Beech multiplex, 25 mm

NEW

82370 262

82370 263

Description	W x D x H mm	82370 ...
Swivel arm holder, standard	-	255
Swivel arm with swivel frame and shelves	680 x 287 x 400	256
Swivel arm with perforated and slotted wall	600 x 40 x 500	257
Swivel arm with deposit tray	400 x 300 x 48	258
Swivel arm with DIN A4 document holder	215 x 35 x 330	259
Swivel arm with swivel frame and perforated walls	600 x 40 x 500	260
Swivel arm with monitor bracket and keyboard mount	700 x 355 x 322	261
Swivel arm with storage and ribbed rubber	420 x 300 x 20	262
Swivel arm with support plate	600 x 350	263

82326 Packing tables

Design
- Robust table construction with level compensation
- 19 mm melamine resin coated worktop
- Surface load-bearing capacity up to 100 kg
- Shelves of table attachments made of zinc-plated sheet steel
- Cutting device with removable cartridge
- Titanium-coated blade
- High degree of functionality
- Selected range of accessories

82326

Item	W x D x H mm	Description	82326 ...
1	2000 x 800 x 850	**Packing table 2000,** 19 mm melamine resin coated worktop, surface load-bearing capacity up to 100 kg	101
2	40 x 40 x 1226	**Securing strut,** in pairs	203 NEW
3	1430 x 400 x 58	**Storage shelf**, made of zinc-plated sheet steel for mounting between struts	106
4	1420 x 300 x 400	**Magazine attachment** made of zinc-plated sheet steel, including 8x compartment dividers, surface load max. 50 kg	207 NEW
5	1425 x 20 x 20	**Axle** between struts, for mounting rollers, capacity max. 20 kg	218 NEW
6	513 x 530 x 160	**Drawer** made of sheet steel, lockable, load capacity max. 12.5 kg	209 NEW
7	1500 x 175 x 20	**Cutter attachment,** cutting width 1250 mm incl. axle set	113
8	650 x 600 x 750	**Side table,** surface load max. 100 kg	114
9	1415 x 300 x 415	**Undertable cardboard magazine,** including 8x compartment dividers, mobile with 4x lockable steering roller	216 NEW
10	500 x 400	**Digital tabletop scales** for weighing without calibration	219 NEW
No ref.	1600 x 800 x 850	**Packing table 1600,** 19 mm melamine resin coated worktop, surface load-bearing capacity up to 100 kg	102
No ref.	1435 x 253 x 114	**Form storage** made of zinc-plated sheet steel	105
No ref.	1425 x 500 x 445	**Magazine attachment** made of zinc-plated sheet steel, including 6x compartment dividers	107
No ref.	1525 x 650 x 19	**Intermediate shelf** made of wood, surface load max. 100 kg	108
No ref.	200 x 100 x 100	**TFT screen bracket,** VESA 75/100 mm	112
No ref.	600 x 490 x 675	**Drawer unit,** including 4x drawers, mobile	117
No ref.	640 x 708 x 120	**Keyboard and mouse rest table,** with articulated arm	211 NEW

82327 - 82329 Packing tables - combinations from practical applications

Design
- Robust square steel tube frame 40 x 40 mm
- Beech multiplex worktop 25 mm
- Incl. shelf for forms and utensils
- Cardboard magazine on supporting columns, height adjustable
- Level compensation for uneven flooring

82327
Single packing table
Design
- 1x basic table (height 820 mm)
- 2x supporting columns
- 1x 600 mm perforated shelf
- 1x 350 mm shelf
- 1x retaining bracket 250 mm
- 1x retaining bracket 450 mm

82329
Double packing table
Design
- 2x basic tables (height 820 mm)
- 2x supporting columns
- 1x 600 mm perforated shelf
- 1x 350 mm shelf
- 1x retaining bracket 250 mm
- 1x retaining bracket 450 mm

82327

82329

Width mm	Depth mm	Height mm	Single 82327 ...	Double 82329 ...
1500	930	1846	201	
2000	930	1846	202	
1500	1500	1846		201
2000	1500	1846		202

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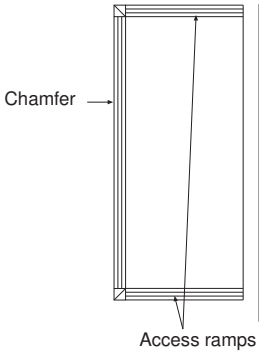
82405 Wooden safety floor grates

Design
- With non-slip system
- Solid beech wood
- Safe to step on
- Can be rolled up
- Flexible
- Insulating
- Maintenance-free
- Wooden slats artificially dried
- Warp-free and tension-free
- Significant damping
- Elastic
- Long-lasting
- Rubber feet resistant to petrol and oil
- Stainless-steel tension cables
- 5-year warranty

Applications
For maximum requirements within occupational health and safety.

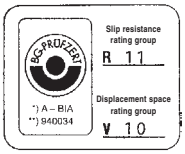
82405 101-104
With access ramp on short sides and **with chamfered edge** on one long side.

82405 101-104



82405 201-204
Without access ramp on short sides and **without chamfered edge** on one long side.

82405 201-204



Dimensions L x W mm	Strip width mm	Grate height mm	Support rubbers	82405	...	82405	...
1500 x 800	80	35	2-row		**101**		**201**
2000 x 800	80	35	2-row		**102**		**202**
1500 x 1000	80	35	3-row		**103**		**203**
2000 x 1000	80	35	3-row		**104**		**204**

82410 - 82412 Plastic floor grilles

Design
- Robust floor grilles made of polyethylene
- Material thickness 25 mm
- Easy to install and easy to clean
- Individual panels can be combined to form larger surfaces
- Surface with ribbed profile for a firm grip
- Can be driven over by pallet trucks and trolleys, easy to clean
- Max. load of up to 40,000 kg/m²
- Temperature resistant from -10 °C to +80 °C
- Corners and access ramps available as an option.

Applications
- In a wide variety of industrial areas, ideally located in front of machine tools
- Insulate against cold and wet conditions on industrial floors
- Also suitable for sanitary rooms.

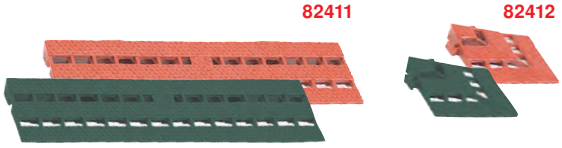
82410
Floor grilles, 1200 x 600 x 25 mm.

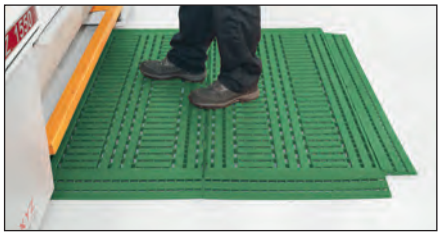
82411
Access ramps, 600 x 112 mm.

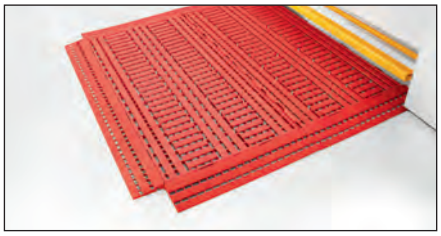
82412
Corner pieces, 112 x 112 mm.

82410

82411 82412







Colour	Floor grilles 82410	...	Access ramps 82411	...	Corner pieces 82412	...
Green		**101**		**101**		**101**
Orange		**102**		**102**		**102**

82413 Workplace mats, flame-retardant

ATORN®

Design
- Made of polyurethane
- Flame-retardant
- All-round bevelled edges for safe access
- Fire protection class B1 according to DIN 54332/DIN 4102
- Anti-fatigue
- Non-slip

Advantage
- Relief for back and leg muscles during extended periods of standing

Applications
For optimum movement at stand-up work stations. For industrial work areas, e.g. welding workstations.

Note:
Not suitable for wet areas.

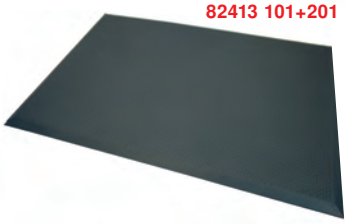
82413 101+201
Design
- Disc profile

82413 102+202
Design
- Hemisphere profile

NEW

82413 102+202

82413 101+201



Length mm	Width mm	Material thickness mm	Hardness Shore	Colour	Weight kg	Discs 82413	...	Spheres 82413	...
960	660	13	25-30	Anthracite grey RAL 7016	2.9		**101**		**102**
1200	900	13	25-30	Anthracite grey RAL 7016	2.9		**201**		**202**

Factory equipment

( ) = Items with prices in brackets partly available from stock.

Info — Definition of the Notrax® mat symbols

Anti-fatigue
Mats that stimulate blood circulation and reduce strain on the bottom of feet, the back, the legs and muscle groups.

Non-slip
These mats ensure increased slip resistance by means of a special surface structure.

Protection
Minimises damage if struck by falling objects and protects the floor.

Insulation
Insulation against cold, heat, vibration and noise.

Access for wheeled vehicles
Mats suitable for access by wheeled vehicles (e.g. trolleys).

High load capacity
Recommended for heavy-duty work in industrial areas.

Medium load capacity
Recommended for medium-duty work in industrial areas.

RedStop™
This unique technology prevents the mats from slipping on floors.

NFSI®
Tested and certified by the National Floor Safety Institute.

ESD
Electrostatic charge is absorbed and dissipated. Protects sensitive technical devices.

Fire protection
The mats prevent the spread of fire and are heat resistant (backed up by tests by independent test institutes).

Welding
Suitable for welding workstations, made of wear-resistant rubber.

Plug-in systems
Plug-in tiles facilitate installation on site in the desired shape. Can be laid as a loose mat or over the entire floor.

Drainage
The open structure allows liquids and dirt to drain away. Ensures safe walking in wet environments.

Oil-resistant
Suitable for environments in which gearbox oil is used.

82414 Long-lasting Cushion Trax® anti-fatigue mats

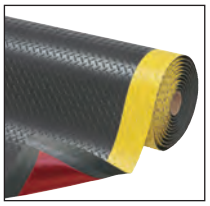
Design
- 4.7 mm PVC surface is firmly attached to the 9.3 mm thick, tough micro-cell backing
- Material thickness 14 mm
- Fire safety class Bfl-S1 in line with EN 13501-1
- Delivered with 4 chamfered safety edges
- Non-slip surface R10 to DN 51130 and BG Rule BGR181
- With RedStop™: Non-slip underlay to prevent displacement of mats

Applications
- For heavy-duty work
- For dry, industrial environments
- Checker plate design offers good traction while turning
- For ergonomic benefits with intensive use

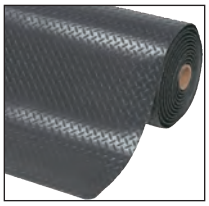
Note:
Sold by the metre 0 - 22.8 m on request.

Colour	Black/yellow		Black	
Dimensions L x W mm	82414	...	82414	...
600 x 910		201		301
910 x 1500		202		302
910 x 3000		204		304
910 x 6000		205		305

82414 201-205



82414 301-305



82415 Bubble Sof-Tred™ anti-fatigue mats

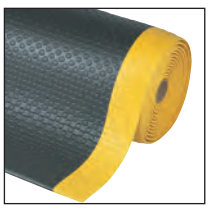
Design
- Material thickness 12.7 mm
- Delivered with 4 chamfered safety edges
- Non-slip surface R10 to DIN 51130 and BG Rule BGR181

Applications
- For medium-duty work
- For dry areas
- Hard-wearing Dyna-Shield™ surface increases durability by 50% compared with conventional micro-cell vinyl flooring
- For ergonomic benefits with moderate use

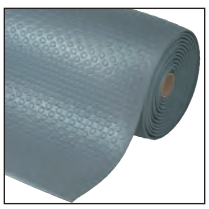
Note:
Sold by the metre 0 - 18.3 m on request.

Colour	Black/yellow		Grey	
Dimensions L x W mm	82415	...	82415	...
600 x 900		301		401
910 x 1500		302		402

82415 301-302



82415 401-402



Factory equipment

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82406 Durable, dissipative anti-fatigue mats Diamond Stat™

Design
- Non-slip surface R10 to DIN 51130 and BG Rule BGR181
- With RedStop™: Non-slip underlay to prevent displacement of mat
- Fire rating Cfl-S1 in accordance with EN 13501-1
- Fulfils IEC 61340-4-1 (category DIF), measured resistance Rg 10^6-10^9 ohms, Rp 10^6-10^9 ohms
- Material thickness 14 mm (4.7 mm PVC laminated on 9.3 mm microcellular vinyl)
- Delivered with 4 chamfered safety edges

Applications
- For heavy-duty use
- For dry, industrial environments
- Safe and fast dissipation of static charge to prevent overvoltage damage in the case of sensitive electronic parts or devices
- Checker plate profile ensures high slip resistance

Note:
Equipped with a 10 mm female socket and earthing cable. Sold by the metre 0 - 22.8 m on request.

82406

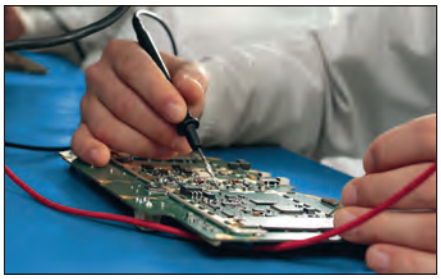
Colour	Black	
Dimensions L x W mm	82406	...
600 x 910		101
910 x 1500		102
910 x 3000		103

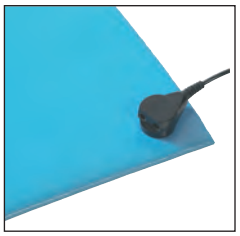
82407 ESD protective table mats Anti-Stat P.O.P.™

Design
- Material thickness 6.4 mm
- Fulfils EOS/ESD-S4, measured resistance of surface Rg 107 ohms, Rp 108 ohms
- Electrostatic charging (walk test), satisfies ISO 6356 and EN 1815
- Micro-cellular vinyl foam with dissipative properties

Applications
- With earthing cable and female socket on request
- Work surface made of vinyl that absorbs electro-static charge
- Protects workbenches and avoids overvoltage damage to sensitive equipment

Note:
Sold by the metre 0 - 12.2 m on request.





82407

Colour	Blue	
Dimensions L x W mm	82407	...
600 x 1000		101
760 x 1000		102
910 x 1000		103

82408 ESD accessories

82408 101
Earthing cable
Design
- Length: 4.5 m
- Meets the requirements of ANSI/ESD S-20.20, EIA 625 and ANSI/ESD S61

Applications
- Connects 1 to 2 wrist straps and a table mat to earth
- Easy to install: Simply attach via socket to the mat, connect to the spiral cable and then earth

82408 102
Earthing connector
Design
- 1 Meg resistor 3 x 10 mm push connection

Applications
- Connects the earthing cable to the earthing point

82408 103
Spiral cable
Design
- Length: 1.8 m
- 1 Meg resistor 10 mm socket

Applications
Connects the wrist strap to the earthing socket on the table mat

82408 104
Wrist strap
Design
- Meets the requirements of EOS/ESD S1, MIL-STD-1686 and EIA 625

Applications
- Connects the user to earth, thereby controlling the electrostatic charge
- Safe discharging from body

82408 101

82408 102

82408 103

82408 104

Description	82408	...
Earthing cable		101
Earthing connector		102
Spiral cable		103
Wrist strap		104

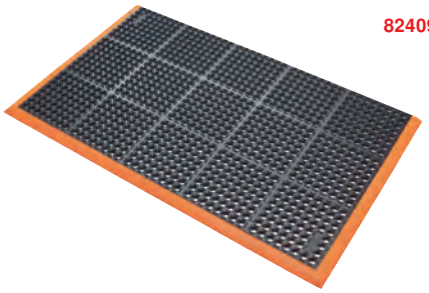
82409 Ergonomic workplace mats 100% nitrile rubber Safety Stance™

Design
- 100% nitrile rubber
- Resistant to most industrial oils and chemicals
- Firm grip, non-slip surface R10 to DIN 51130 and BG Rule BGR181
- Delivered with 3 integrated, chamfered orange safety edges
- Silicone-free and therefore suitable for car paint shops
- Material thickness 22 mm

Applications
- For heavy-duty use
- For damp, oily, industrial areas
- Robust rubber compound suitable for multi-shift operations
- Mat does not move

Note:
Customisation by request.

82409



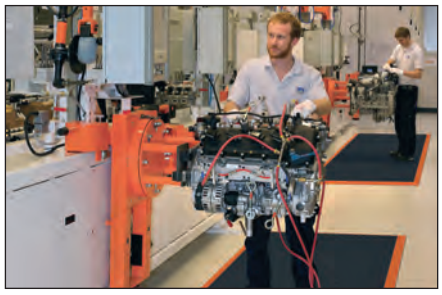
	Nitrile rubber	
Dimensions L x W mm	82409	...
660 x 1020		101
970 x 1630		102
970 x 3150		103

82418 Ergonomic workplace mats 100% nitrile rubber Safety Stance Solid™

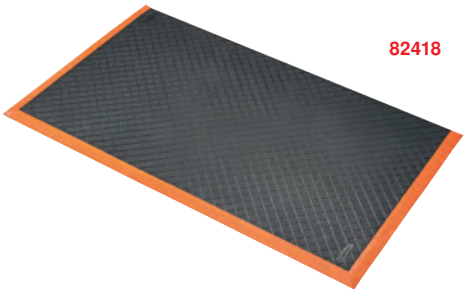
Design
- 100% nitrile rubber
- Resistant to most industrial oils and chemicals
- Firm grip, non-slip surface R10 to DIN 51130 and BG Rule BGR181
- Delivered with 3 integrated, chamfered orange safety edges
- Silicone-free and therefore suitable for car paint shops
- Material thickness 20 mm

Applications
- For heavy-duty use
- For dry, industrial areas
- The unique Diamond Grid™ surface structure provides good grip
- Can be placed individually and does not have to be installed

Note:
Customisation by request.



82418



	Nitrile rubber	
Dimensions L x W mm	82418	...
660 x 1020		101
970 x 1630		102
970 x 3150		103

82419 Ergonomic, individual mats Skystep™

Design
- Individual mat that does not need to be installed on site
- With integrated edge strips on all 4 sides
- Material thickness 13 mm
- Produced from high-quality rubber compound
- Non-slip surface R9 to DIN 51130 and BG Rule BGR181

Available in 3 different rubber compounds:
- Natural rubber
- 100% nitrile rubber, oil-resistant
- Natural rubber with ESD

Applications
- For medium-duty work
- For dry, individual standing workstation areas

82419

	Natural rubber		Nitrile rubber		ESD	
Dimensions L x W mm	82419	...	82419	...	82419	...
600 x 900		101		201		301
900 x 1200		102		202		302
900 x 1500		103		203		303

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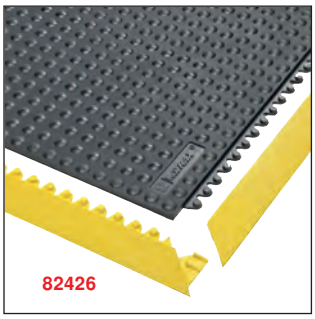
82426 Ergonomic connector system with textured surface Skywalker HD™

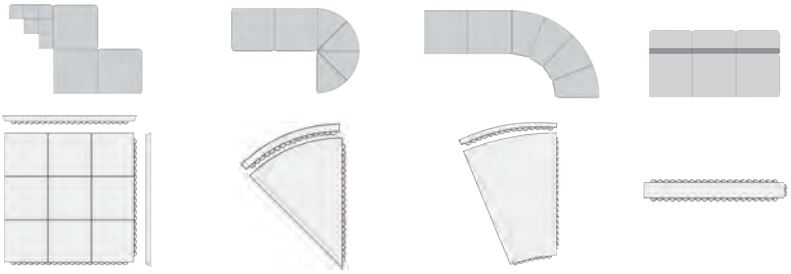
Design
- Slip resistance R9 in accordance with DIN 51130
- Easy to install thanks to its unique design
- Rubber tiles 910 x 910 mm easy to connect with each other
- Material thickness 13 mm

Available in 5 different rubber compounds:
- Natural rubber
- 100% nitrile rubber
- Natural rubber with ESD
- Nitrile rubber with ESD, oil-resistant, Bfl-S1
- 100% nitrile rubber, oil-resistant, Bfl-S1

Applications
- For heavy-duty use
- For dry areas
- Easy customisation with 300 x 300 mm grid on the underside

Note:
Accessories and customisation deliverable on request.





	Square 910 x 910 mm		45° inner angle 910 mm x 45°		22.5° outer angle 910 mm x 22.5°		Safety marking 910 x 100 mm	
Rubber compound	82426	...	82426	...	82426	...	82426	...
Natural rubber		201		301		401		
100% nitrile rubber		202		302		402		501
ESD natural rubber		203		303		403		
ESD nitrile rubber oil-resistant Bfl-S1		204		304		404		
100% nitrile rubber oil-resistant Bfl-S1		205		305		405		

	910 x 50 mm		45° inner angle			
Edge strips	82426	...	82426	...	82426	...
Male, yellow		601		801		901
Male, black		603		802		902
Female, yellow		602				
Female, black		604				

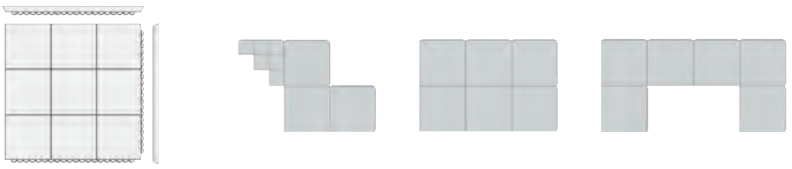
82427 Ergonomic connector system Cushion Ease Solid™

Design
- Slip resistance R9 in accordance with DIN 51130
- Material thickness 19 mm
- Non-slip orange skin surface for maximum anti-fatigue effect
- 910 x 910 mm connector system allows unique made-to-measure options

Available in 5 different rubber compounds:
- Natural rubber
- 100% nitrile rubber
- Natural rubber with ESD
- Nitrile rubber with ESD, oil resistant, Bfl-S1
- 100% nitrile rubber, oil-resistant, Bfl-S1

Applications
- For heavy-duty use
- For dry, industrial use

Note:
Customisation by request.



	Square 910 x 910 mm	
Rubber compound	82427	...
Natural rubber		201
100% nitrile rubber		202
ESD natural rubber		203
ESD nitrile rubber oil-resistant Bfl-S1		205
100% nitrile rubber oil-resistant Bfl-S1		204

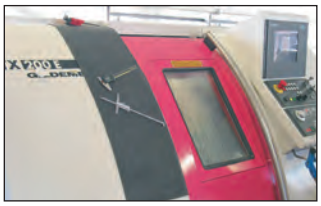
	910 x 50 mm	
Edge strips	82427	...
Male, yellow		302
Male, black		301
Female, yellow		304
Female, black		303

82420 - 82425 Non-slip mats -BLACK-CAT-

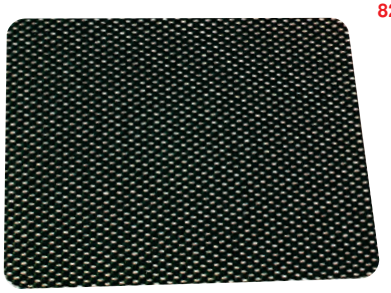
Design
-BLACK-CAT- has been developed according to the latest findings in occupational health and safety.
The non-slip mats stick without bonding, in almost any position, on virtually all materials.
Manufactured from raw materials that are food safe.
Fully washable up to 60 °C, simply lay out to dry.
Form-accurate cutting with scissors, highly tear-resistant and extremely durable.
Temperature resistant from -25 °C to +50 °C.
Colour: Black.

Applications
-BLACK-CAT-, one product with thousands of applications such as:Workshop trolleys, workbenches, tool boxes, tool storage on machines, luggage compartment, caravans, conveyor belts, load and transport securing, drawers of all kinds, vehicle interior equipment.
As a non-slip surface when planing, drilling, grinding, sawing, filing etc.

Note:
Other mat dimensions or rolls in special sizes deliverable on request.



82420



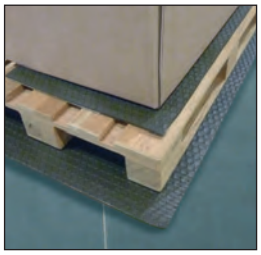
82425

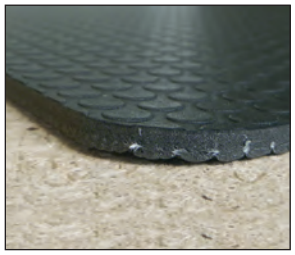
Dimensions L x W x T mm	Mat 82420 ...	10 m roll 82425 ...
1200 x 600 x 4	101	
1200 x 800 x 4	102	
10,000 x 500 x 4		110
10,000 x 600 x 4		111
10,000 x 1000 x 4		112

82429 Non-slip mats Black-Cat-Panther

Design
- Fully meets legal load securing requirements in accordance with § 22 StVO and VDI 2700
- Tested sliding friction coefficients in dry application of at least µ 0.94 - 1.49 depending on friction surface/surface pressure up to 10 t/m²
- Suitable for heavy-duty transport up to 82.5 t/m² acc. to Flog
- Versatile application, highly tear-resistant yet rolls up tight
- Can be cut to size as required
- Easy to clean
- Can be driven over

Applications
For load securing on lorries and vans, as a luggage compartment insert, flooring mat for assembly lines, durable workbench and trolley lining.





82429 101-103

Length mm	Width mm	4 m roll 82429 ...
4000	600	101
4000	800	102
4000	1200	103

82430 - 82431 Workshop stools

82430
Workshop stools
Design
- 4-leg frame, solid, from moulded strip steel
- Round wooden seat, multi-layer bonded and coated with natural varnish
- Manufactured in accordance with DIN 68877

82431
Swivel work stool
Design
- With height adjustment using concealed spindle
- Double spindle guide
- Round wooden seat
- Manufactured in accordance with DIN 68877

82430 82431

Seat height mm	Seat Ø mm	Stool 82430 ...	Swivel stool 82431 ...
500	350	201	
450 - 570	350		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82447 Pneumatic assembly rolling stool

Design
- High-quality pneumatic height adjustment facilitates effortless work at seat heights of 38 - 51 cm
- Generous tool storage unit with 420 mm Ø accommodates small tools and repair materials
- 2 tool storage units with 360° rotation
- Easy to manoeuvre

82447

Seat height mm	Load capacity kg	Wheel Ø mm	Weight kg	82447	...
380 - 510	150	75	6.5		201

82435 Plastic roller stool

Design
- Made of break-resistant, recyclable plastic
- Super easy to move thanks to three rollers mounted on steel springs
- When loaded, the unit remains in place on its integrated rubber rim
- Assembled in a matter of seconds: Top and bottom part simply fit together
- No tools required

82435

Height unloaded approx. mm	Height loaded approx. mm	Top Ø approx. mm	Bottom Ø approx. mm	Load capacity kg	Weight approx. kg	82435	...
430	425	290	440	150	2.6		101

82433 Swivel stool DIN 68877

bimos

GERMAN INNOVATION

Design
- Cross base made of high-quality profile steel tubing.
- Seat height can be adjusted by means of safety gas spring.
- Easy-to-use all-round handle under the seat.
- Generously sized seat.
- Load-dependent braked rollers for hard floors. Stable and firm.
- Long-term warranty of 10 years

82433 101
Design
Synthetic leather surface, washable, soft, comfortable. Extra edge protection.

82433 301
Design
Integral foam surface, durable, washable, resistant.

82433 101 82433 301

Surface	Seat height approx. mm	Seat Ø mm	Rollers	82433	...
Synthetic leather	460 - 630	400	x		101
Integral foam	460 - 630	350	x		301

82454 Standing/sitting chairs DIN 68877 Flex

bimos

GERMAN INNOVATION

Design
- Infinitely height adjustable via gas pressure spring
- Rotates through 360°
- Built-in back support for maximum relief
- Soft, washable and resistant thanks to new Soft-Touch PU foam
- Structured wave seating surface ensures optimal support and sufficient ventilation
- GS mark for tested safety
- Long-term warranty of 10 years

Applications
Equally suitable for sitting, standing and combined workstations.

82454 201
Design
Cross base with rollers for hard floors.

82454 202-203
Applications
Can be used as a work stool and as a standing aid. For working heights from 720 to 1000 mm. Foot ring height adjustable without the need for tools (art. no. 82454 203 only).

82454 202 82454 201 82454 203

	Seat height mm	Glide runners	Rollers	Foot ring	82454	...
Work stool	450 - 650	-	x	-		201
Standing/sitting chair	510 - 780	x	-	-		202
Standing/sitting chair	510 - 780	x	-	x		203

82437 - 82440 Work swivel chairs DIN 68877 Fit Special

GERMAN INNOVATION

bimos

Design
- With permanent contact technology
- Cross base made of high-quality profile steel tubing. Extra-flat design
- Seat height can be adjusted by means of safety gas spring
- Backrest conveniently and infinitely tilt adjustable. Can be locked in any position
- Backrest with pendulum support, automatically adjusts to sitting position
- Infinitely height-adjustable backrest
- Ergonomically shaped backrest with good lumbar support
- Gas spring cover for protecting against dust and dirt
- Long-term warranty of 10 years

Optionally with:
- Glide runners: Large abrasion-resistant glide runners. Stable and firm
- Rollers: Load-dependent braked rollers for hard floors
- Foot ring: High version with foot ring. Height adjustable, chrome-plated

Note:
For suitable armrests, see art. no. 82444 201.

82437
Design
Laminated beech wood surface, washable, robust, resistant.

82438
Design
Synthetic leather surface, washable, soft, comfortable.

82439
Design
Fabric surface, breathable, soft, comfortable.

82440
Design
Integral foam surface, durable, washable, resistant to mechanical stress.

82437 101

82438 102

82439 102

82440 403

82437 102

82437 103

82438 101

82438 103

82439 101

82439 103

82440 401

82440 402

Seat height mm	Glide runners	Rollers	Foot ring	Beech 82437 ...	Leather 82438 ...	Fabric 82439 ...	Foam 82440 ...
430 - 600	x	-	-	101	101	101	401
430 - 600	-	x	-	102	102	102	402
590 - 910	x	-	x	103	103	103	403

82444 Armrests for work swivel chairs Fit Special

bimos

Applications
For work swivel chairs Fit Special, art. no. 82437 - 82440.

82444

Version	82444 ...
In pairs	201

82466 Work swivel chairs

ATORN®

Design
- High quality and robust
- Infinitely adjustable seat height with Toplift
- Ergonomic spinal-disc seat for a healthy and comfortable sitting posture
- Synthetic leather upholstery, colour: black
- Backrest with mesh covering provides air circulation to the back and ergonomic support in any sitting position
- Height-adjustable backrest
- Permanent contact mechanics, infinitely lockable
- High stability and safety due to welded steel body
- Polyamide cross base, black
- Load capacity 120 kg
- 3-year warranty

Applications
For universal use in industry, trade, production and workshops.

NEW

82466 103

82466 102

82466 101

Seat height mm	Glide runners	Rollers	Foot ring	Leather 82466 ...
420 - 550	x	-	-	101
420 - 550	-	x	-	102
590 - 840	x	-	x	103

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82452 Work swivel chairs ECONOMY DIN 68877

GERMAN INNOVATION

bimos

Design
- Spacious seat and backrest ensure comfortable seating
- Infinitely variable and easy-to-use seat height adjustment with gas spring
- Gas spring with dust protection
- Ergonomically shaped permanent-contact backrest
- Tip-proof base made of sturdy plastic, black
- Long-term warranty of 10 years

Optionally with:
- Glide runners: large, made of plastic
- Rollers: load-dependent braked double rollers
- Foot ring: High version with foot ring, chrome-plated, provides support through the wide stepping surface and can be adjusted in height easily and quickly

PU foam upholstery:
- Extra-large backrest
- Stands up to mechanical stress
- Resistant against dilute acids and alkalis
- Washable and easy to clean
- Upholstery colour: black

82452 103

82452 102

82452 101

Seat height mm	Glide runners	Rollers	Foot ring	Foam 82452	...
440 - 610	X	-	-		101
440 - 610	-	X	-		102
580 - 850	X	-	X		103

82436 Work swivel chairs DIN 68877 All-In-One

GERMAN INNOVATION

bimos

Design
Ergonomics and setting options
- Ergonomically shaped seat and back cushions
- Seat height adjustment
- Backrest height adjustment
- Backrest tilt adjustment
- Seat tilt adjustment
- Synchronous technology
- Body weight adjustment
- Seat depth adjustment

Technical features
- Seat height adjustment with gas spring
- Extra-large, ergonomically shaped backrest
- Stable steel cross base, black
- GS mark for tested safety
- Long-term warranty of 10 years

Optionally with:
- Glide runners: large, made of plastic
- Rollers: load-dependent braked double rollers
- Foot ring: High version with foot ring. Height adjustable, chrome-plated, scratch-resistant

Note:
For suitable armrests, see art. no. 82436 701.

82436 301+401+501
Design
Synthetic leather upholstery, soft and comfortable, washable and easy to care for.
Upholstery colour: black.

82436 302+402+502
Design
Fabric upholstery, soft, breathable and durable.
Upholstery colour: black.

82436 303+403+503
Design
PU foam, extremely resistant, washable and easy to clean.
PU foam colour: black.

82436 701
Arm rests
Design
Height adjustable, black. In pairs.
Applications
For work swivel chairs All-In-One, art. no. 82436 301-503.

82436 401 82436 301 82436 501

82436 701

82436 402 82436 302 82436 502 82436 403 82436 303 82436 503

Seat height mm	Glide runners	Rollers	Foot ring	Leather 82436	...	Fabric 82436	...	Foam 82436	...	Armrests 82436	...
450 - 600	X	-	-	401		402		403			
450 - 600	-	X	-	301		302		303			
620 - 900	X	-	X	501		502		503			
-	-	-	-								701

Factory equipment

82455 Work swivel chairs ESD basic DIN 68877

GERMAN INNOVATION

bimos

Design
- Infinitely variable and easy-to-use seat height adjustment with gas spring
- Gas spring with dust protection
- Ergonomically shaped, permanent-contact backrest, height-adjustable
- Tilt-proof, flat-design five-feet base made of polished aluminium
- **ESD-capable according to DIN EN 61340-5-1**
- Long-term warranty of 10 years

Optionally with:
- Glide runners: large, made of plastic
- Rollers: load-dependent braked double rollers
- Foot ring: High version with foot ring, chrome-plated, provides support through the wide stepping surface and can be adjusted in height easily and quickly

82455 103-104
Design
Synthetic leather upholstery, washable, easy-care, insensitive to oils and disinfectants, soft and comfortable.
Upholstery colour: black.

82455 101-102
Design
Fabric upholstery, breathable, comfortable, soft and hard-wearing.
Upholstery colour: black.

82455 103 | 82455 104

82455 101 | 82455 102

Seat height mm	Glide runners	Rollers	Foot ring	Leather 82455 ...	Fabric 82455 ...
460 - 620	-	x	-	103	101
620 - 870	x	-	x	104	102

82448 Heavy-duty work swivel chairs DIN 68877

GERMAN INNOVATION

bimos

Design
Robust and safe design:
- Reinforced, extra-large cross base made of aluminium, Ø 740 mm
- Safety gas spring
- Gas spring cover made of steel
- Heavy-duty chair mechanism design

Technical features:
- Infinitely lockable backrest, height and incline individually adjustable
- Ergonomically shaped seat and backrest
- Transport and carry handle made of steel
- Infinitely adjustable seat height:
  With 450 - 600 mm glide runners
  With 490 - 640 mm rollers
- **Scope of delivery includes 1 set of gliders and 1 set of rollers**
- Long-term warranty of 10 years

82448 102
Design
Synthetic leather upholstery, extra-strong padded with 25% higher foam density. Easy to clean and extremely durable.
Upholstery colour: black.

82448 101
Design
Fabric upholstery, extra-strong padded with 25% higher foam density. Breathable and extremely robust. 10x more durable than conventional upholstery fabric.
Upholstery colour: black.

82448 103
Design
PU foam cushioning, washable and extremely durable.
Upholstery colour: black.

82448 104
Arm rests
Design
- **Makes getting up and sitting down easier**
- Extra stable and safe
- Plenty of space between armrests = 570 mm
- Width adjustable

82448 102 | 82448 101

82448 103 | 82448 104

Seat height mm	Glide runners	Rollers	Foot ring	Leather 82448 ...	Fabric 82448 ...	Foam 82448 ...	Armrest 82448 ...
450 - 640	x	x	-	102	101	103	
-	-	-	-				104

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bimos

GERMAN INNOVATION

Garantie 10 Jahre

Design
- Seat height adjustment with gas spring
- Backrest made of plastic with innovative 3D flex function
- Flex function at the seat front edge
- Seat shell made of durable plastic, choice of three colours
- Integrated handle ensures maximum mobility
- Easy handling thanks to its low weight
- Tilt-proof, flat-design, aluminium cross base, polished
- The chrome-plated foot ring on high versions provides grip with its wide stepping surface, infinitely height-adjustable
- Optionally with load-dependent braked double rollers, large glide runners or sit-stop rollers

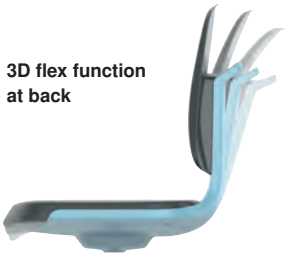
Applications
- Production workstations
- Research and development, quality assurance
- Training centres, training facilities, education
- Laboratories, clean rooms, health care

NEW

82499 100-105

82499 106-111

82499 112-117



3D flex function at back

Flex function at front edge of seat

Synthetic leather upholstery, black:
- Washable
- Easy-care
- Insensitive to oils and disinfectants
- Soft and comfortable

Integral foam, black:
- Extremely robust
- Long-lasting
- Washable
- Withstands mechanical influences
- Resistant to flying sparks
- Insensitive to dilute acids and alkalis

						Synthetic leather		PU foam		Armrest	
Seat height mm	Rollers	Glide runners	Sit-stop rollers	Foot ring	Seat shell colour	82499	...	82499	...	82499	...
450 - 650	x	-	-	-	Anthracite		100				
450 - 650	x	-	-	-	Blue		101				
450 - 650	x	-	-	-	White		102				
450 - 650	x	-	-	-	Anthracite				103		
450 - 650	x	-	-	-	Blue				104		
450 - 650	x	-	-	-	White				105		
520 - 770	-	x	-	x	Anthracite		106				
520 - 770	-	x	-	x	Blue		107				
520 - 770	-	x	-	x	White		108				
520 - 770	-	x	-	x	Anthracite				109		
520 - 770	-	x	-	x	Blue				110		
520 - 770	-	x	-	x	White				111		
560 - 810	-	-	x	x	Anthracite		112				
560 - 810	-	-	x	x	Blue		113				
560 - 810	-	-	x	x	White		114				
560 - 810	-	-	x	x	Anthracite				115		
560 - 810	-	-	x	x	Blue				116		
560 - 810	-	-	x	x	White				117		
-	-	-	-	-	-						118

82463 Office swivel chair X-Pander

Design
- Designer swivel chair with mesh style
- Infinitely adjustable seat height with Toplift
- Backrest with breathable mesh covering in black, height adjustable via up-and-down system
- Backrest side with elastic rubber bands
- Comfortable flat seat with comfortable knee roll
- Point synchronous mechanism, spring force can be adjusted individually to body weight, multi-locking
- Polyamide cross base in black incl. load-dependent braked double safety rollers for carpeted flooring
- **Including height-adjustable armrests type T2** with Softpad arm supports, chrome shaft
- Cover 100% Trevira CS

Note:
Hard-floor rollers and additional fabric colours deliverable on request.

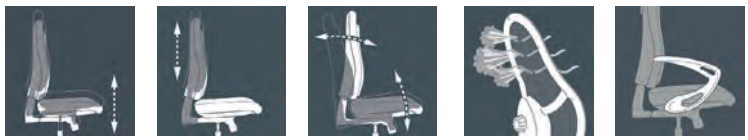
82463

Seat height cm	Seat width cm	Seat depth cm	Backrest height cm	Overall height cm	Cover fabric colour	82463	...
41 - 53	48	48	60	96 - 114	Blue		201

82441 Office swivel chair Open Point® SY

Design
- Modern syncro spinal-disc swivel chair in a fashionable mesh look
- Infinitely adjustable seat height with Toplift
- Designer backrest with breathable mesh cover in black, height and tilt adjustable via ratchet mechanism
- Comfortable spinal-disc seat for optimum support in the pelvic region
- Point synchronous mechanism, spring force can be adjusted individually to body weight, infinitely adjustable locking
- Polyamide cross base in black incl. load-dependent braked double safety rollers for carpeted flooring
- **Including armrests type Q3(B)**
- Cover 100% polypropylene

Note:
Hard-floor rollers and additional fabric colours deliverable on request.



82441

Seat height cm	Seat width cm	Seat depth cm	Backrest height cm	Overall height cm	Cover fabric colour	82441	...
43 - 51	48	48	60	103 - 111	Blue		401

82450 - 82451 Office swivel chair Century Pro 6

82450
Design
- Classic spinal-disc swivel chair with backrest in trapezoidal shape
- Infinitely adjustable seat height with Toplift
- Ergonomic backrest in trapezoidal shape, with built-in lumbar support, infinitely height-adjustable via ratchet mechanism
- Special spinal-disc seat, orthopaedic shape for optimum support in the pelvic area
- Point synchronous mechanism for synchronous adjustment of seat and backrest tilt, infinitely adjustable, spring force adjustable to body weight
- Polyamide cross base in black incl. load-dependent braked double safety rollers for carpeted flooring
- Cover 100% polypropylene

Note:
For armrest, see art. no. 82451 301.
Hard-floor rollers and additional fabric colours deliverable on request.

82451
Armrest type M
Design
In pairs, **height adjustable,** black.
Applications
For office swivel chair Century Pro 6, art. no. 82450 301.

82451

82450

Seat height cm	Seat width cm	Seat depth cm	Backrest height cm	Overall height cm	Cover fabric colour	Swivel chair 82450	...	Armrest 82451	...
45 - 55	48	48	54	99 - 105	black		301		301

Factory equipment

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82456 Folding standing aid Flex DIN 68877

bimos

GERMAN INNOVATION

Design
- Seat height adjustment with gas spring
- Seat made of integral foam with integrated carry handle
- Seating surface can be rotated 360°
- Seat can be tilted forwards by 10°
- With chrome-plated, folding foot rest
- Long-term warranty of 10 years

82456

Seat height mm	82456 ...
680 - 840	201

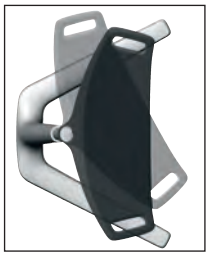
82457 Standing aid FIN with aluminium standing column DIN 68877

bimos

GERMAN INNOVATION

Design
- 500 mm wide, comfortable seat made from robust soft-touch PU foam, colour: black
- Infinitely variable height adjustment with convenient gas spring
- Aluminium standing column inclined at 4° for optimal support
- Stable base incl. exchangeable skid base in plastic and felt, depending on floor type
- Long-term warranty of 10 years

Advantages:
- Slim, space-saving design
- Easy handling due to integrated plastic handles
- Stable, secure stand



Seat can swivel 20° to the left and right

82457

Seat height mm	Seat colour	82457 ...
620 - 850	Black	101

82460 - 82461 Tubular steel tables and stackable chair

Applications
Ideal for canteens and break rooms.

82460 201

82460 205

82460
Tubular steel table
Design
Tabletop 25 mm thick, scratch-resistant, coated with a laminate edge band. In accordance with DIN 68765 E 1 quality. Grey design, steel frame 30 x 30 mm powder-coated with RAL 7035 light grey structured surface. Feet with height-adjustable glide runners. Disassembled to save space, packed in box, simple self-assembly.

82461
Stackable chair
Design
Round tube frame 22 mm plastic-coated RAL 7035 light grey. Seat and backrest made of beech wood.

82461

		Table		Chair	
Table dimensions L x W x H mm	Chair dimensions W x H x D mm	82460	...	82461	...
1200 x 800 x 720	-		201		
1600 x 800 x 720	-		205		
-	420 x 440 x 400				201

Factory equipment

82462 Wall display panel system Vario® Wall 5

DURABLE

Design
- Wall holder with waterproof and scanner-compatible display panels made of polypropylene
- Incl. mounting material and 5 display panels in DIN A4 format

Applications
Easy replacement of documents.
Clear view panels protect the document.

82462 201 82462 202 82462 203

Colour	Dimensions mm	82462 ...
Red	360 x 325 x 260	201
Blue	360 x 325 x 260	202
Orange	360 x 325 x 260	203

82462 Wall display panel system Vario® Magnet Wall 5

DURABLE

Design
- Wall holder made of metal with magnetic back
- Waterproof and scanner-compatible display panels made of polypropylene
- Includes 5 display panels in DIN A4 format

Applications
Quick and easy mounting on metallic substrates.

82462 204

Colour	82462 ...
Black	204

82464 Self-adhesive magnetic frame DURAFRAME® for DIN A4 format

DURABLE

Design
- Information frame made of PVC hard film with self-adhesive back and lift-up, magnetic front
- Sticks to all smooth, load-bearing surfaces such as glass

Applications
Ideal for machine instructions, operating instructions, operating information.
Fast and easy replacement of documents.
Can be used in either portrait or landscape orientation.

82464 101-104

Colour	Pack	82464 ...
Red	Bag = 2 pieces	101
Blue	Bag = 2 pieces	102
Orange	Bag = 2 pieces	103
Silver	Bag = 2 pieces	104

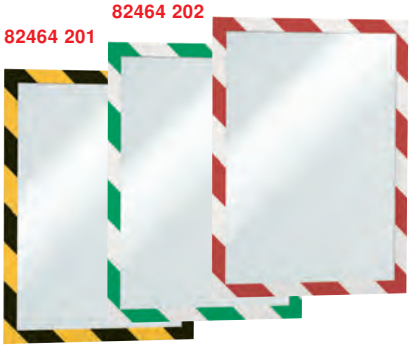
82464 Self-adhesive magnetic frame DURAFRAME® SECURITY A4

DURABLE

Design
- Self-adhesive information frame with lift-up, magnetic front
- Two-colour frame in accordance with ISO 3864-4 for safety colours
- Safety markings and instructions can be replaced quickly and easily

Applications
Ideal for alarm plans, warning and safety instructions, hazardous substance regulations.
Fast and easy replacement of documents.
Can be used in either portrait or landscape orientation.

82464 201 82464 202 82464 203



Colour	Pack	82464 ...
Yellow/black	Bag = 2 pieces	201
Green/white	Bag = 2 pieces	202
Red/white	Bag = 2 pieces	203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82500 Wall brochure holder for DIN A4 (portrait)

DURABLE

Design
- Brochure holder made of impact-resistant polystyrene
- Set consisting of 12 brochure racks with compartments for DIN A4 format
- Fill depth per compartment approx. 24 mm
- Delivery incl. installation material

Applications
Organisation and presentation of information, documents, order pockets, catalogue and advertising material etc.

82500 101

82500 102

Figure shows 2 sets

Colour	82500	...
Transparent		101
Black		102

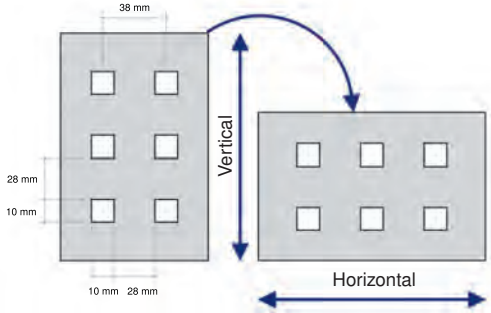
82465 RasterPlan perforated plate system

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

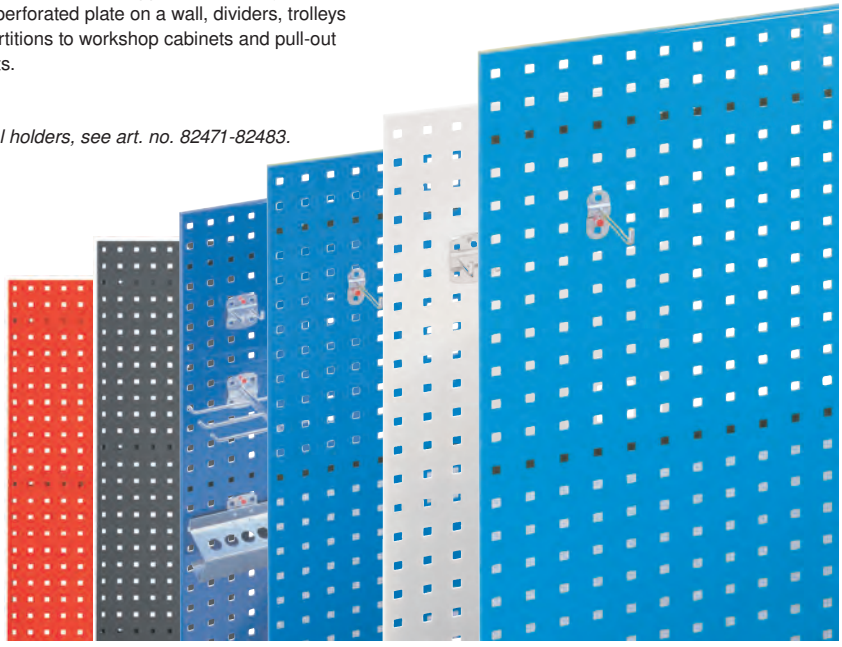
Design
- Systematic method to achieve tidiness with RasterPlan perforated plates
- Clearly arranged tool storage
- Fast access
- Systematic and colour-based organisation
- Impact-resistant and scratch-resistant plastic coating
- Specially shaped beams
- Sheet steel 1.25 mm
- Concealed screw holes
- 6 brilliant colours
- 4 sizes, 8 flexible applications
- Compatible with RasterPlan slotted plates
- Delivery without tool holder



Applications
Can be combined and applied universally, from a single perforated plate on a wall, dividers, trolleys and partitions to workshop cabinets and pull-out cabinets.

Note:
For tool holders, see art. no. 82471-82483.

82465



Dimensions W x H mm	500 x 450		1000 x 450		1500 x 450		2000 x 450	
Plate colour	82465	...	82465	...	82465	...	82465	...
RAL 5012 light blue		310		401		501		701
RAL 7035 light grey		306		406		506		706
RAL 5015 sky blue		311		402		502		702
RAL 5010 gentian blue		312		403		503		703
RAL 7016 anthracite grey		316 NEW		416 NEW		516 NEW		716 NEW
RAL 3020 traffic red		304 NEW		404 NEW		504 NEW		704 NEW

82471 Tool holder assortments for perforated plates

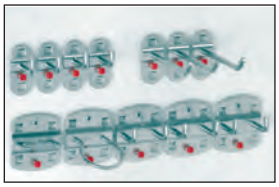
KAPPES

Design
The right hook for any tool, plastic-coated, aluminium-coloured. The hooks are simply inserted into the required hole and fixed in place with a small plastic screw.

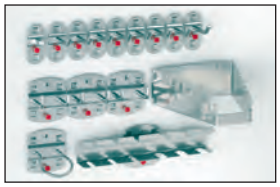
Tool holder assortments	82471	...
10 pieces		100
12 pieces		101
15 pieces		102
18 pieces		103
28 pieces		104
40 pieces		105

82471 100

82471 101



82471 102



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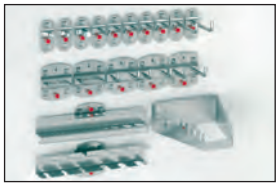

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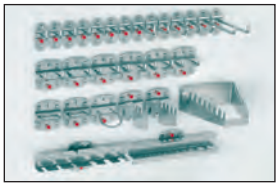


82471 105

82480 Tool holders for perforated plates

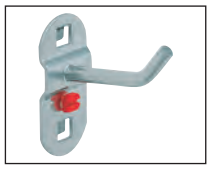
KAPPES

Design

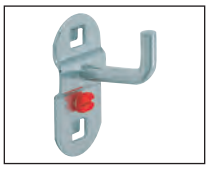
Tool holders create order and clarity.

- Impact-resistant and scratch-resistant plastic coating, aluminium-coloured
- Embossed base plate 1.5 mm thick
- Including RasterPlan plastic screw

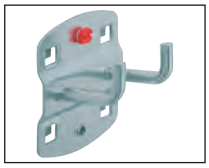
82480 101-104



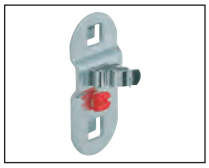
82480 105-107



82480 108-111



82480 112-116



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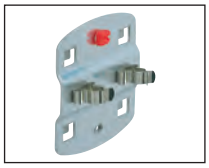

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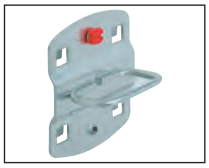

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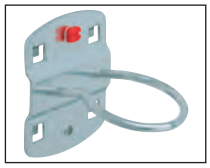

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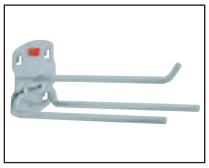

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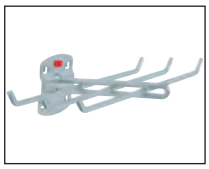

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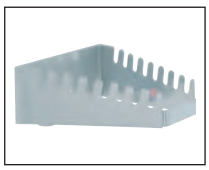
82480 131



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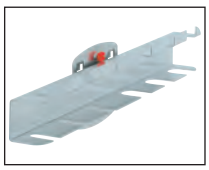

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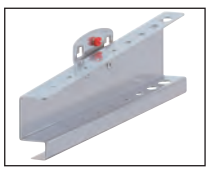

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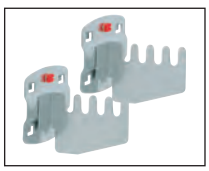

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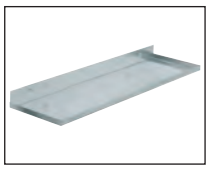

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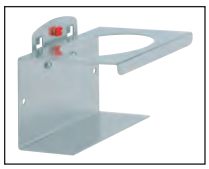

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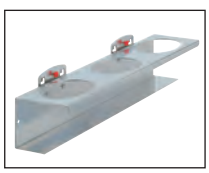

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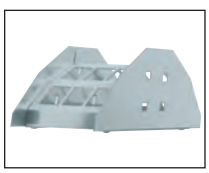

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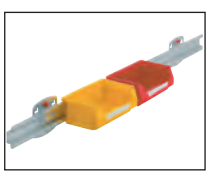

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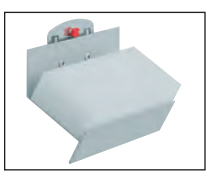
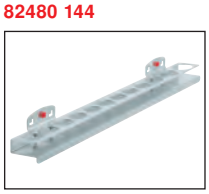


82480 143

82480 144



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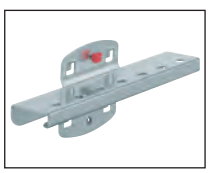

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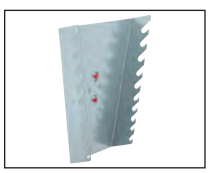
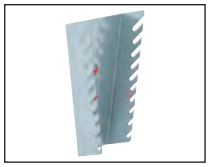


	Size mm	Ø mm	Pack= pieces	82480	...
Tool holder with angled hook end	50	6	5		101
Tool holder with angled hook end	100	6	5		102
Tool holder with angled hook end	150	6	5		103
Tool holder with angled hook end	200	6	5		104
Tool holder with vertical hook end	35	6	5		105
Tool holder with vertical hook end	75	6	5		106
Tool holder with vertical hook end	125	6	5		107
Tool holder, double	35 x 35	6	5		108
Tool holder, double	50 x 35	6	5		109
Tool holder, double	75 x 35	6	5		110
Tool holder, double	150 x 35	6	5		111
Tool clamp, single	-	6	5		112
Tool clamp, single	-	10	5		113
Tool clamp, single	-	13	5		114
Tool clamp, single	-	16	5		115
Tool clamp, single	-	19	5		116
Tool clamp, double	-	6	5		117
Tool clamp, double	-	10	5		118
Tool clamp, double	-	13	5		119
Tool clamp, double	-	16	5		120
Tool clamp, double	-	19	5		121
Pliers holder	35 x 20	-	5		122
Pliers holder	55 x 20	-	5		123
Pliers holder	75 x 20	-	5		124
Machine holder	-	40	1		125
Machine holder	-	60	1		126
Machine holder	-	80	1		127
Tool holder 3x	150 x 45	-	1		128
Tool holder 6x	140 x 240	-	1		129
Combination holder, 2 pieces	150 x 55	-	1		130
Wrench holder, horizontal	For 8 wrenches	-	1		131
Screwdriver holder	For 6 parts	-	1		132
Screwdriver holder	For 12 parts	-	1		133
Drill holder	For 14 parts	-	1		134
Drill holder	For 28 parts	-	1		135
Saw holder	For 4 saws	-	2		136
Shelf	350 x 125	-	1		137
Round can holder 1x	100	70	1		138
Round can holder 3x	300	70	1		173
Hose holder	230 x 125	-	1		139
Easy-view storage bin holder 5x for size 7	550 x 58	-	1		140
Easy-view storage bin holder 5x for size 8	550 x 38	-	1		141
Tool holder for self-drilling	120 x 45	-	1		142
Tool holder for self-drilling	390 x 45	-	1		143
Socket holder tray 12 holes	390 x 30	-	1		144
Bit holder 7 pieces	150 x 35	-	1		150
Box wrench holder, vertical	For 10 wrenches	-	1		151
Wrench holder, vertical	For 10 wrenches	-	1		152
Brochure holder DIN A4, RAL 7035 light grey	220 x 310	-	1		160
Brochure holder DIN A3, RAL 7035 light grey	440 x 310	-	1		174

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82480 152



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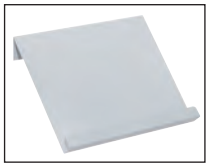
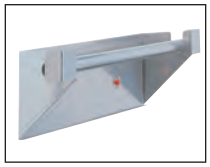
82480 174



82480 165

82480 166

82480 171



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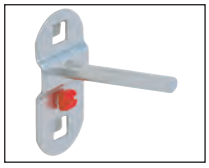
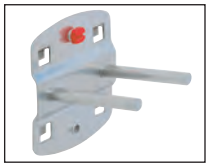
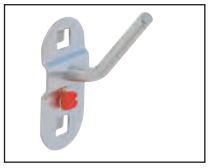


82480 178-180



82480 181

82480 182



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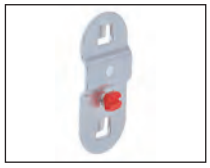
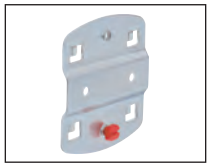


82480 184



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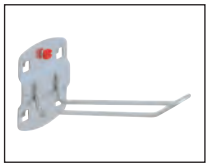
82480 186-187

82480 188



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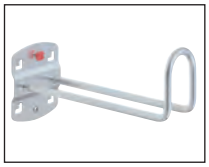

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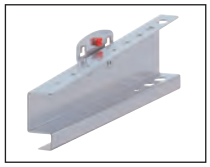

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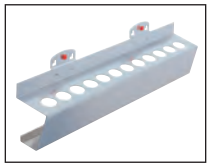

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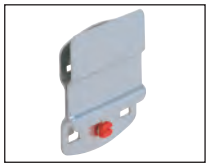

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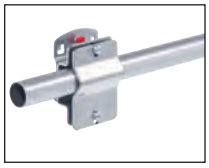

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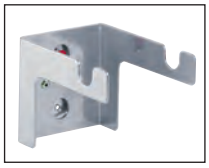

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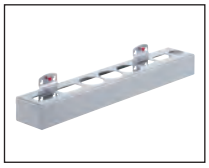

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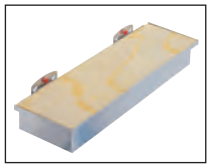

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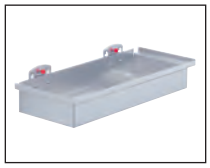

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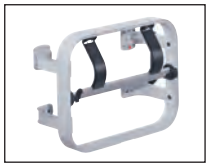

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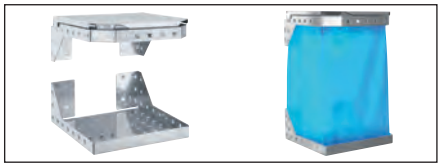
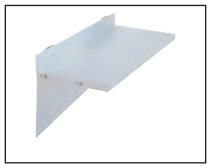


82480 172

82480 202

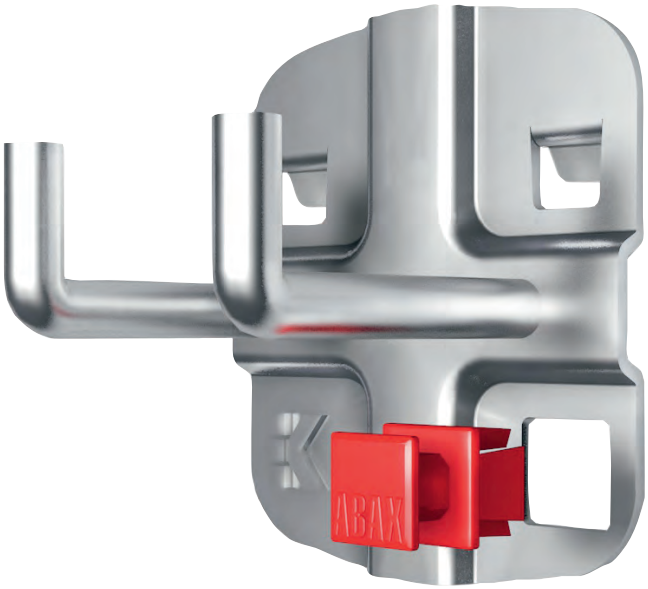
82480 203



	Size mm	Ø mm	Pack= pieces	82480	...
Form holder DIN A4, RAL 7035 light grey	220 x 310	-	1		165
Spare screws	-	-	100		166
Paper dispenser for width 295 mm	355 x 120	-	1		171
Tool holder with straight pin, single	50	6	5		175
Tool holder with straight pin, single	100	6	5		176
Tool holder with straight pin, single	150	6	5		177
Tool holder with straight pin, double	50	6	5		178
Tool holder with straight pin, double	100	6	5		179
Tool holder with straight pin, double	150	6	5		180
Magnetic holder	-	40	1		181
Angled hook for socket-wrench and screwdriver bits	14/40	6	1		182
Base plate for building your own	Small	-	1		183
Base plate for building your own	Large	-	1		184
Round holder	65 x 25	-	1		185
Pipe holder	35	60	1		186
Pipe holder	35	100	1		187
Tool holder, self-service	125 x 30	-	1		188
Cable holder	150 x 37	6	1		189
Cable holder	200 x 37	6	1		190
Hexagon socket holder	For 9 wrenches	1 - 11	1		191
Tool holder for MK2	85 x 395	17	1		192
Tool holder for MK3	85 x 395	23	1		193
Easy-view storage bin holder 1x	For sizes 7 + 8	-	1		194
Clamping piece holder	55	From 19	1		195
Coil holder axle 17 mm	Max. 78	170	1		196
Holder for oval cans	50 x 500	-	1		197
Tool holder box with wooden panel	320 x 135 x 55	-	1		198
Storage box	55 x 320 x 135	-	1		199
Dispenser holder for width 300 mm, core Ø min. 22 mm, RAL 7035 light grey	310 x 384	220	1		200
Bin-liner holder, 2 pieces, aluminium-coloured, size bottom H 305 x W 300 x D 120 mm	top H 350 x W 305 x D 130	-	1		201
Sandpaper dispenser holder, aluminium-coloured (2 rolls W 120 mm - max. 4 rolls W 55 mm)	H 265 x W 342 x D 290	-	1		172
Steel shelf with anti-roll-off edging, RAL 7035 light grey	490 x 243	-	1		202
Steel shelf storage, RAL 7035 light grey	435 x 250	-	1		203

Info — Tool holder for perforated plates RasterPlan powered by ABAX®

KAPPES



ABAX® connects RasterPlan tool holders to all Kappes products with RasterPlan system perforation in seconds and without the need for tools.

Design
RasterPlan tool holders with ABAX®connection are an innovative and fully compatible extension of the well-known RasterPlan tool holder.

ABAX® connects RasterPlan tool holders to all Kappes products with RasterPlan system perforation in seconds and without the need for tools.

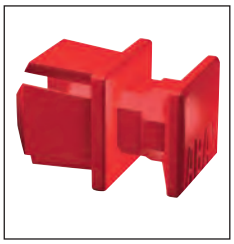
Positive locking and securing is performed after mounting by fixing the ABAX® connection and pressing on the locking pin.

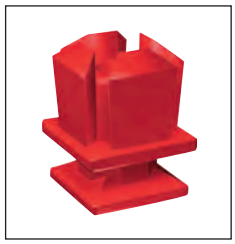
By simply pulling out the locking pin without the use of tools, the ABAX® connection can be released and re-used. ABAX® enables fast and flexible positioning of RasterPlan tool holders. RasterPlan and ABAX® – a strong connection!

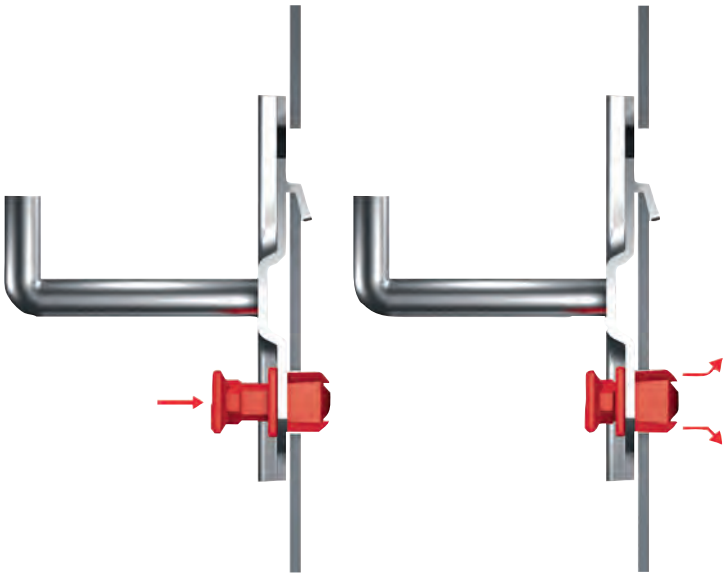
Advantages:
- Tool-free installation
- Simple and safe handling
- Maximum flexibility as dismantled without tools
- Impact-resistant and scratch-resistant plastic coating
- Embossed base plates 1.5 mm thick
- 2 organisational colours, aluminium-coloured or anthracite grey (deliverable on request)
- Including original ABAX® connection

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND







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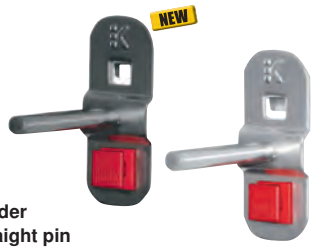
KAPPES

Tool holder with angled hook end

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
50	6	301	101
100	6	302	102
150	6	303	103
200	6	304	104

Tool holder with vertical hook end

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
35	6	305	105
75	6	306	106
125	6	307	107

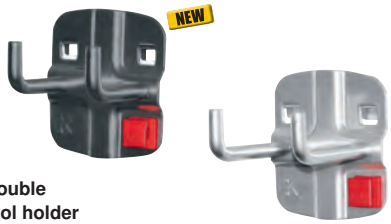


Tool holder with straight pin single

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
50	6	308	108
100	6	309	109
150	6	310	110

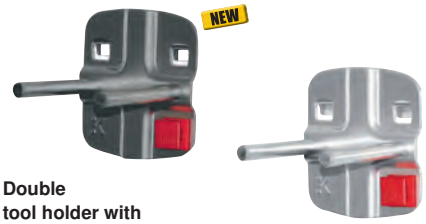
Double tool holder with angled hook end

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
50	6	312	112
75	6	313	113
150	6	314	114



Double tool holder with vertical hook end

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
35	6	315	115
50	6	316	116
75	6	317	117
150	6	318	118

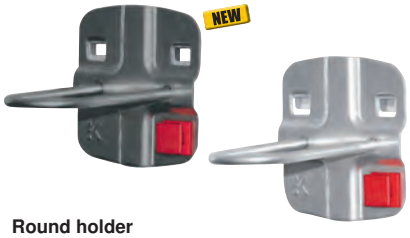


Double tool holder with straight pin

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
50	6	319	119
100	6	320	120
150	6	321	121

Machine holder

Inner Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
40	323	123
60	324	124
80	325	125



Round holder

Length mm	Width mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
65	25	326	126

Pliers holder

Width mm	Depth mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
35	20	335	135
40	50	336	136
50	75	337	137
55	20	338	138
75	20	339	139

Angled hook for sockets and socket wrenches

Length mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
14/40	6	342	142

Base plate for individual solutions

	Anthracite 82481 ...	Aluminium-coloured 82481 ...
Small	385	185
Large	386	186

Magnetic holder

Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
40	322	122

Continued

82481 Tool holder for perforated plates RasterPlan powered by ABAX®

KAPPES

NEW

Tool clamp, single, small base plate

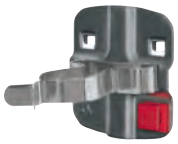
Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
6	380	180
10	381	181
13	382	182
16	383	183
19	384	184

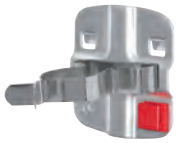
NEW

Double tool clamp

Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
6	327	127
10	328	128
13	329	129
16	330	130
19	331	131

NEW





Tool clamp, single, large base plate

Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
25	332	132
28	333	133
32	334	134

NEW

Saw holder (please order in pairs)

	Anthracite 82481 ...	Aluminium-coloured 82481 ...
For 4 saws	351	151

NEW

Pipe holder also for hoses, cables etc.

Width mm	Ø mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
70	62	349	149
70	100	350	150

NEW

Tool holder for self-service packaging

Length mm	Width mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
125	30	347	147

NEW

Cable holder

Length mm	Width mm	Hook end height mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
100	37	50	348	148
150	37	50	345	145
200	37	50	346	146

NEW

Tool holder, 3x

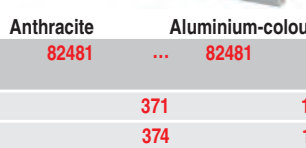
Length mm	Width mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
150	45	344	144

NEW

Tool holder, 6x

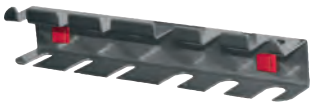
Length mm	Width mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
140	240	343	143

NEW



Drill/hexagon socket holder (var. Ø)

	Height mm	Width mm	Depth mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
For 14 parts	35	200	30	371	171
For 28 parts	35	390	30	374	174



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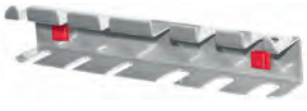

Screwdriver holder

	Height mm	Width mm	Depth mm	Anthracite 82481 ...	Aluminium-coloured 82481 ...
For 6 parts	40	200	30	369	169
For 12 parts	40	390	30	370	170

Continued ▶

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Tool holder for self-drilling

Holder mm	Length mm	Anthracite 82481	...	Aluminium-coloured 82481	...
390 x 58	390		388		188

Tool holder for self-drilling

Holder mm	Length mm	Anthracite 82481	...	Aluminium-coloured 82481	...
110 x 58	110		387		187

Hexagon socket holder Ø 2-11 mm

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 9 wrenches 50/70	200	25		368		168

Tool holder for MK-2 and MK-3

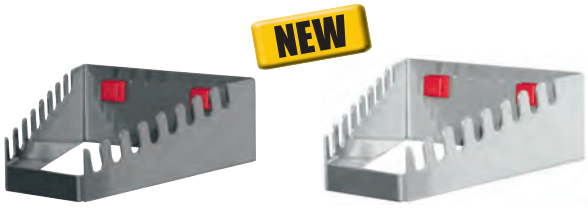
Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
MK-2 (15x Ø 17 mm) 85	395	60		340		140
MK-3 (12x Ø 23 mm) 85	395	60		341		141

Wrench holder, vertical

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 10 wrenches 220	145/75	50		364		164

Box wrench holder, vertical

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 10 wrenches 255	225/125	50		365		165



Wrench holder, horizontal

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 8 wrenches 50	130/60	150		363		163

Coil holder

For axle dimensions to mm	Width max. mm	Ø mm	Anthracite 82481	...	Aluminium-coloured 82481	...
17	78	170		357		157

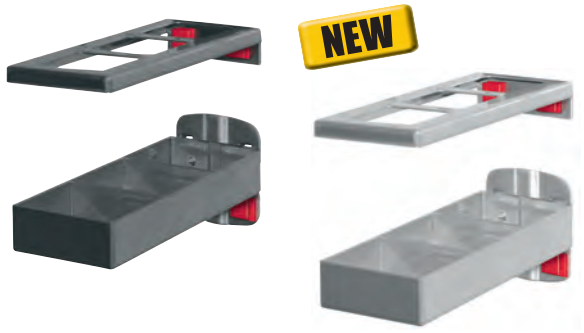
Continued

82481 Tool holder for perforated plates RasterPlan powered by ABAX®

KAPPES

Pipe holder, 3x

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
400	150	85		379		179



Combination holder, 2 piece

Length mm	Width mm	Anthracite 82481	...	Aluminium-coloured 82481	...
150	55		354		154

Easy-view storage bin holder 1x for box size 7 and 8

	Anthracite 82481	...	Aluminium-coloured 82481	...
For 1 bin		352		152

Delivery without easy-view storage bin

Easy-view storage bin holder for bin size 7 and

	Length mm	Height mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 5 bins	525	38		353		153

Bit holder

	Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 7 bits	10	150	35		366		166

Shelf

Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
350	125		361		161
445	150		362		162

Tool holder box with wooden panel for self-drilling

Shelf mm	Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
340 x 135 x 55	55	340	135		389		189

Storage box, large

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
55	340	135		359		159

Storage box, small

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
35	250	80		375		175

Socket holder

	Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 12 socket	30	390	45		367		167

Continued

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Steel shelf/storage

Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
435	250		358		458

Steel shelf with anti-roll-off edging

Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
490	243		360		460

Spray-bottle holder, 1x

Width mm	Ø mm	Anthracite 82481	...	Aluminium-coloured 82481	...
76	52		376		176

Pen holder

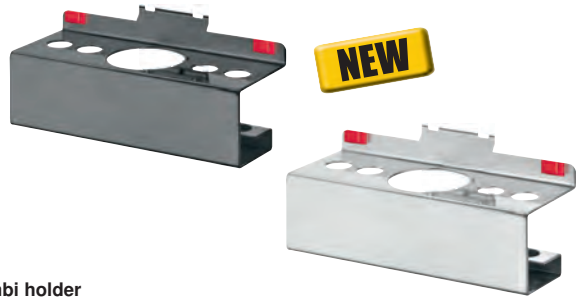
	Width mm	Ø mm	Anthracite 82481	...	Aluminium-coloured 82481	...
For 4 pens	112	17		377		177

Can holder, 1x

Width mm	Ø mm	Anthracite 82481	...	Aluminium-coloured 82481	...
100	70		355		155

Round can holder, 3x

Width mm	Ø mm	Anthracite 82481	...	Aluminium-coloured 82481	...
300	70		356		156



Combi holder for pens/spray bottle

Width mm	4x Ø mm	1x Ø mm	Anthracite 82481	...	Aluminium-coloured 82481	...
176	17	52		378		178

Hose holder

Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
230	125		372		172

Bin-liner holder, 2 pieces

Ø top mm	Height top/ bottom mm	Width top/ bottom mm	Depth top/ bottom mm	Aluminium-coloured 82481	...
250	350/305	305/300	130/120		192

Continued

82481 Tool holder for perforated plates RasterPlan powered by ABAX®

KAPPES

Sandpaper dispenser holder

Max. number of rolls For width up to 120/55 mm	Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
2/4	170	370	320		373		173

Dispenser holder

Core Ø min. mm	Roll width max. mm	Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
22	295	120	355	100		390		190

Square perforation compatible with ABAX® tool holder

Pen box

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
110	63	70		393		193

Brochure holder DIN A5

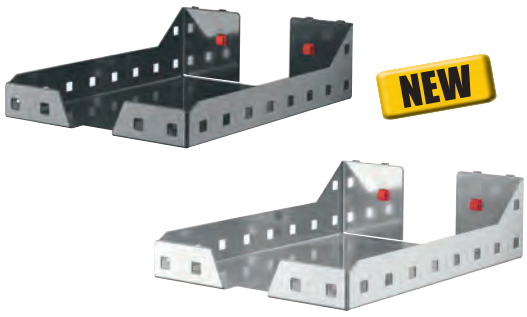
Height mm	Width mm	Anthracite 82481	...	Aluminium-coloured 82481	...
230	150		391		491

Brochure holder DIN A4

Height mm	Width mm	Anthracite 82481	...	Aluminium-coloured 82481	...
330	220		397		497

Brochure holder DIN A3

Height mm	Width mm	Anthracite 82481	...	Aluminium-coloured 82481	...
330	440		396		496



File holder

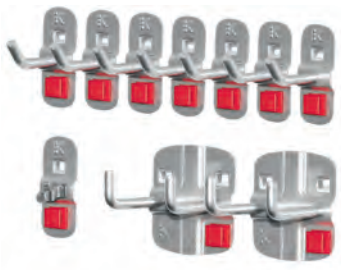
Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
310	85	220		394		194

Document tray

Height mm	Width mm	Depth mm	Anthracite 82481	...	Aluminium-coloured 82481	...
85	225	310		395		195

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

KAPPES



	Assortment, 10 pieces
7	Tool holder with angled end
2	Double tool holder
1	Tool clamp

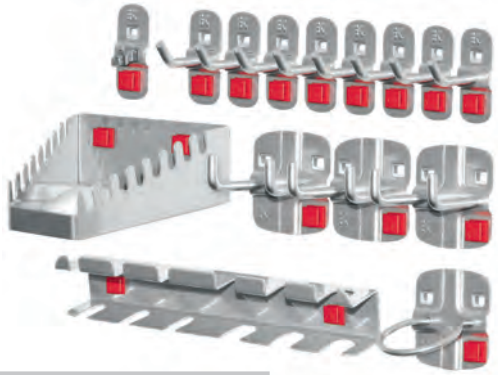
NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
10 pieces	301	101

	Assortment, 12 pieces
4	Tool holder with vertical end
3	Double tool holder
1	Pliers holder
1	Machine holder
3	Tool holder with angled end

NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
12 pieces	302	102



	Assortment, 15 pieces
8	Tool holder with angled end
1	Screwdriver holder
3	Double tool holder
1	Wrench holder
1	Tool clamp
1	Machine holder

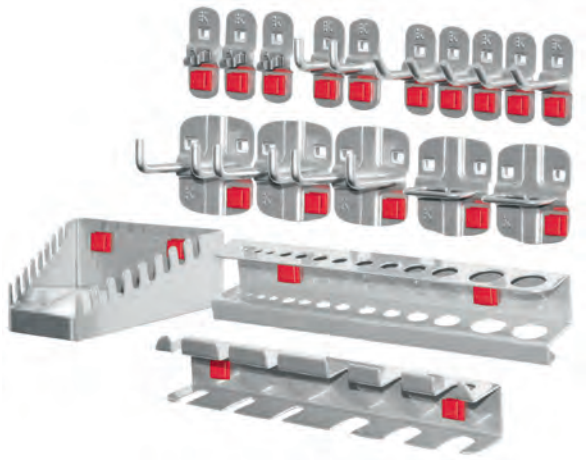
NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
15 pieces	303	103

	Assortment, 17 pieces
8	Tool holder with angled end
4	Double tool holder
5	Tool clamps

NEW

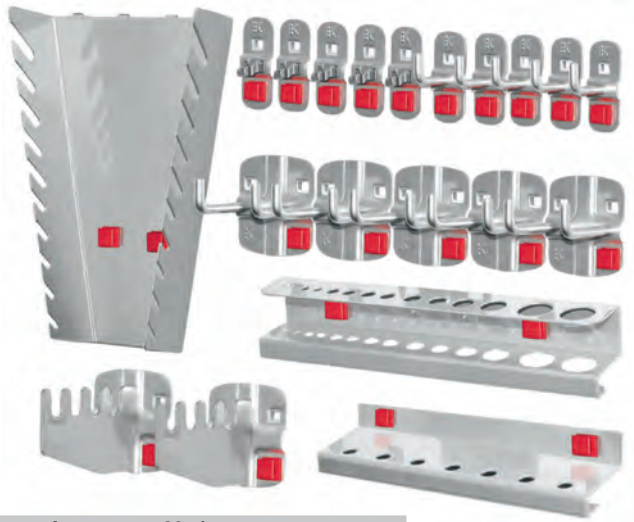
Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
17 pieces	307	107



	Assortment, 18 pieces
5	Tool holder with angled end
2	Pliers holder
2	Tool holder with vertical end
1	Drill holder
3	Double tool holder
1	Wrench holder
3	Tool clamps
1	Screwdriver holder

NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
18 pieces	304	104



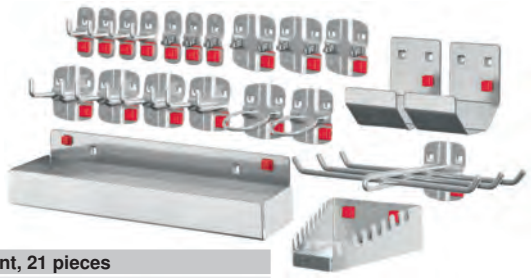
	Assortment, 20 pieces
5	Tool holder with vertical end
1	Bit holder
5	Double tool holder
1	Drill holder
5	Tool clamps
1	Wrench holder, vertical
2	Saw holder

NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
20 pieces	308	108

82483 Tool holder assortments for perforated plates RasterPlan powered by ABAX®

KAPPES



	Assortment, 21 pieces
4	Tool holder with vertical end
1	Tool holder, 6x
4	Double tool holder
2	Pipe holder
3	Tool clamps
1	Wrench holder
3	Double tool clamps
1	Storage box, small
2	Machine holder

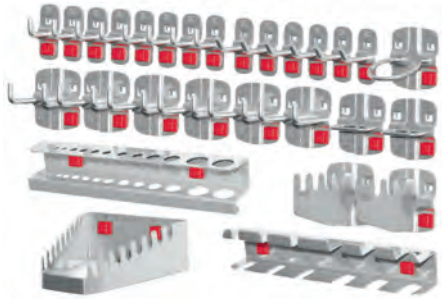
NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
21 pieces	309	109

	Assortment, 25 pieces
5	Tool holder with angled end
10	Tool holder with vertical end
5	Double tool holder
5	Tool clamps

NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
25 pieces	310	110



	Assortment, 28 pieces
6	Tool holder with angled end
1	Wrench holder
8	Tool holder with vertical end
1	Screwdriver holder
6	Double tool holder
1	Drill holder
2	Pliers holder
2	Saw holder
1	Machine holder

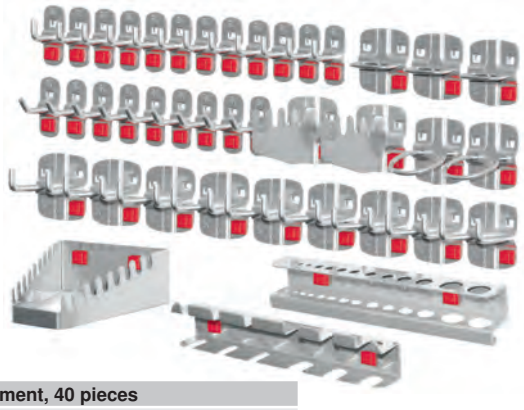
NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
28 pieces	305	105

	Assortment, 35 pieces
5	Tool holder with angled end
5	Tool holder with vertical end
10	Double tool holder
15	Tool clamps

NEW

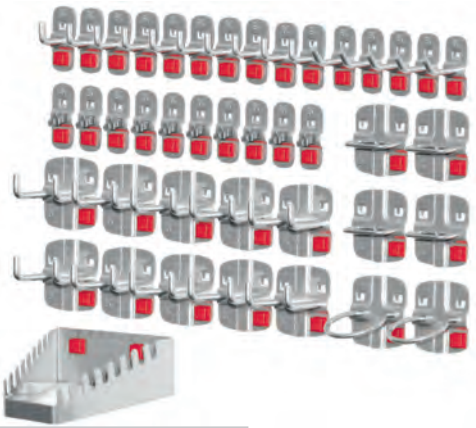
Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
35 pieces	311	111



	Assortment, 40 pieces
9	Tool holder with angled end
1	Wrench holder
12	Tool holder with vertical end
1	Screwdriver holder
9	Double tool holder
1	Drill holder
3	Pliers holder
2	Saw holder
2	Machine holder

NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
40 pieces	306	106



	Assortment, 42 pieces
5	Tool holder with angled end
2	Machine holder
10	Tool holder with vertical end
4	Pliers holder
10	Double tool holder
1	Wrench holder
10	Tool clamps

NEW

Assortment contents	Anthracite 82483 ...	Aluminium-coloured 82483 ...
42 pieces	312	112

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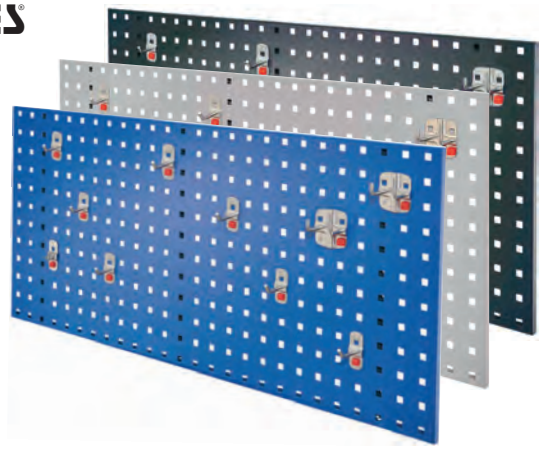
KAPPES

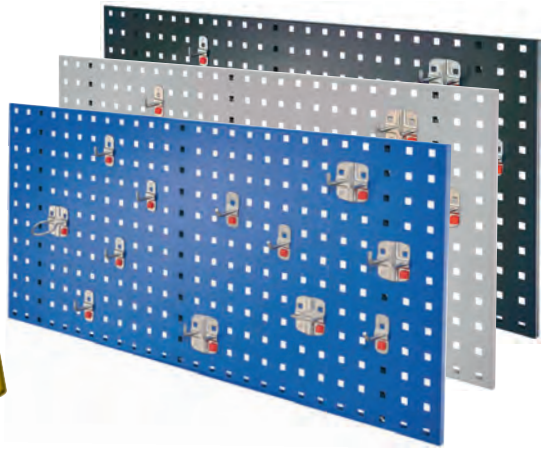


NEW

Equipment ®RasterPlan/ABAX® starter set 1

1x Perforated plate, height x width 450 x 1000 mm
1x Tool holder assortment, 10 pieces

	Anthracite		Light grey		Gentian blue	
Starter set 1	82484	...	82484	...	82484	...
11 pieces			103		203	303

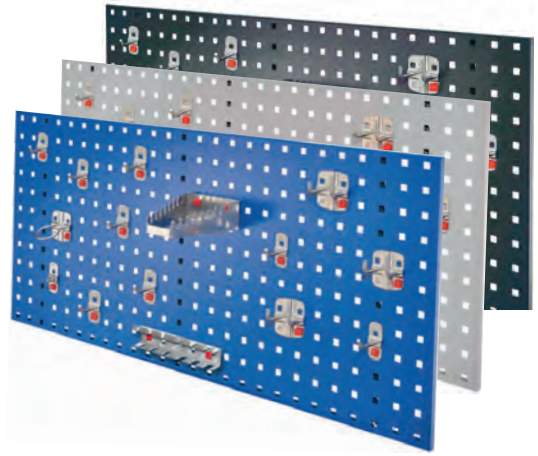


NEW

Equipment ®RasterPlan/ABAX® starter set 2

1x Perforated plate, height x width 450 x 1000 mm
1x Tool holder assortment, 12 pieces

	Anthracite		Light grey		Gentian blue	
Starter set 2	82484	...	82484	...	82484	...
13 pieces			104		204	304

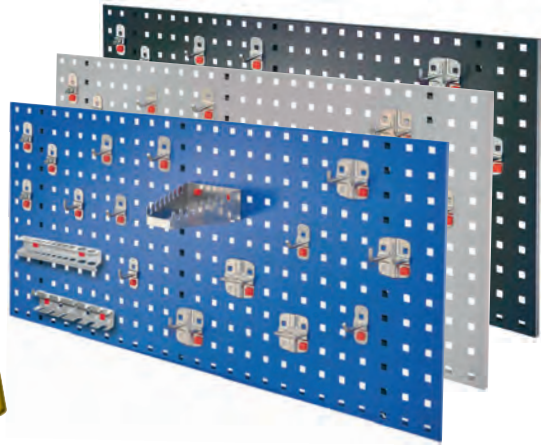


NEW

Equipment ®RasterPlan/ABAX® starter set 5

1x Perforated plate, height x width 450 x 1000 mm
1x Tool holder assortment, 15 pieces

	Anthracite		Light grey		Gentian blue	
Starter set 5	82484	...	82484	...	82484	...
16 pieces			101		201	301

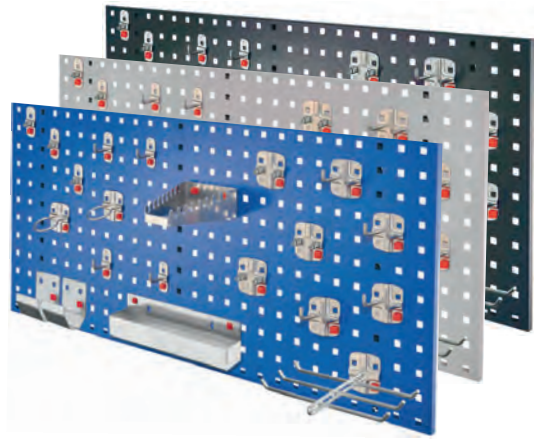


NEW

Equipment ®RasterPlan/ABAX® starter set 6

1x Perforated plate, height x width 450 x 1000 mm
1x Tool holder assortment, 18 pieces

	Anthracite		Light grey		Gentian blue	
Starter set 6	82484	...	82484	...	82484	...
19 pieces			102		202	302

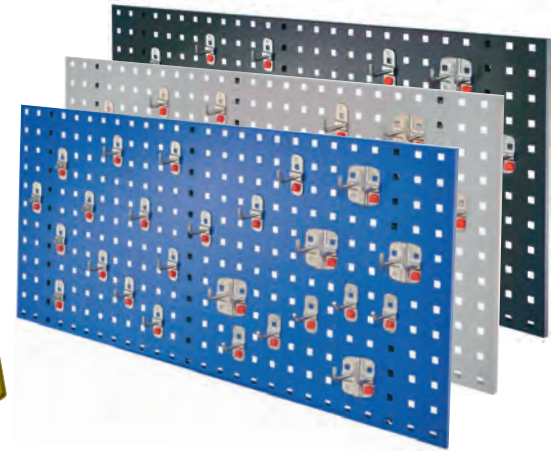


NEW

Equipment ®RasterPlan/ABAX® starter set 7

1x Perforated plate, height x width 450 x 1000 mm
1x Tool holder assortment, 21 pieces

	Anthracite		Light grey		Gentian blue	
Starter set 7	82484	...	82484	...	82484	...
22 pieces			105		205	305



NEW

Equipment ®RasterPlan/ABAX® starter set 8

1x Perforated plate, height x width 450 x 1000 mm
1x Tool holder assortment, 25 pieces

	Anthracite		Light grey		Gentian blue	
Starter set 8	82484	...	82484	...	82484	...
26 pieces			106		206	306

82482 RasterPlan slotted plate system (empty)

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

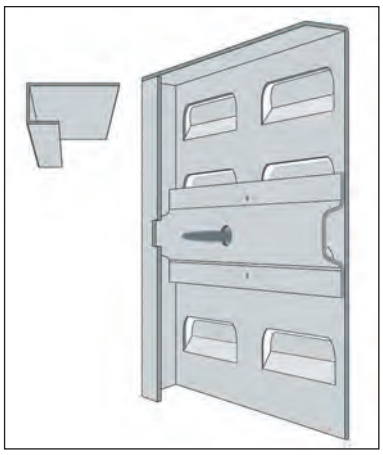
KAPPES

Design
Systematic method to achieve tidiness with original RasterPlan slotted plates. **A fundamental element of the RasterPlan system.** Universal holders, easy-view storage bins, steel shelves and many other holders can be hooked into the stamped perforation of the slotted plates easily and at any time. RasterPlan slotted plates can be combined and used universally, on walls, as backs of workbenches, in partition walls, trolleys, even installed in cabinets, all in a single system.

- Clearly arranged tool storage
- Fast access
- Systematic and colour-based organisation
- For HHW easy-view storage bins size 5 - 8
- Impact-resistant and scratch-resistant plastic coating
- Specially shaped beams
- Sheet steel 1.25 mm
- Concealed screw holes
- 4 brilliant colours
- 7 sizes, 7 applications
- Compatible with RasterPlan perforated plates

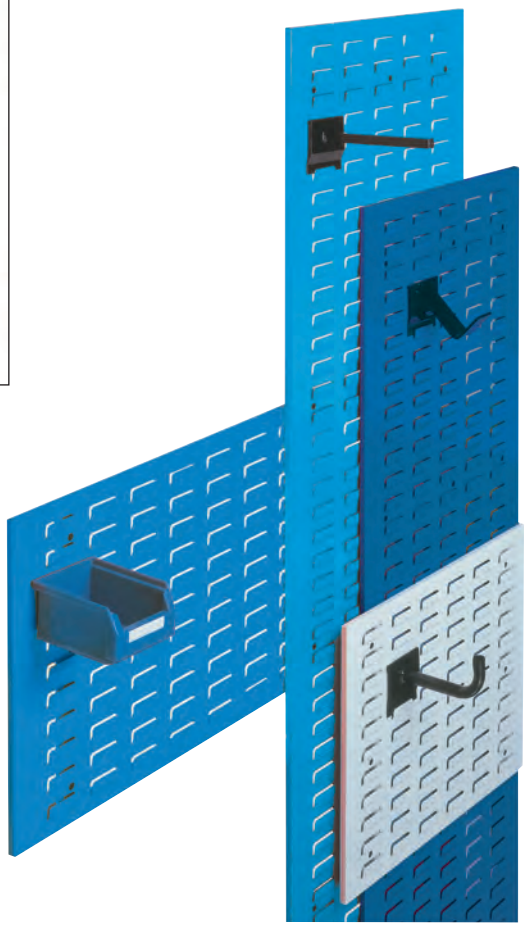
82482 201-406
Design
Wide format.

82482 501-806
Design
Portrait format.



Structure of the rear:
RasterPlan slotted plates are braced at the rear with specially shaped trusses, double-sided spot welded, for maximum loading.

82482



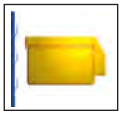
Dimensions W x H mm	500x450	1000x450	1500x450	2000x450	450x1000	450x1500	450x2000
Plate colour RAL	82482 ...	82482 ...	82482 ...	82482 ...	82482 ...	82482 ...	82482 ...
5012 light blue		301	401	201	210	801	501	701
5015 sky blue		302	402	202	211	802	502	702
5010 gentian blue		303	403	203	212	803	503	703
7035 light grey		306	406	206	215	806	506	706

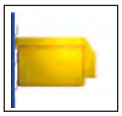
Info Open-fronted storage bins for slotted panels

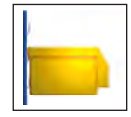
HHW

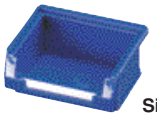
The special construction of the suspension bar allows the open-fronted storage bins to be hung up and down absolutely horizontally even when they are filled. So no more spillage of the stored goods.

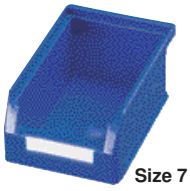
See catalogue pages 83.1 and 83.2 for open-fronted storage bins.


Horizontal


Vertical


Snap in and ready


Size 8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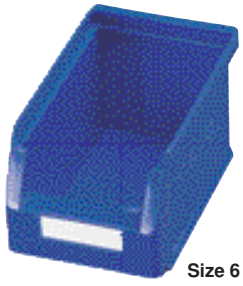
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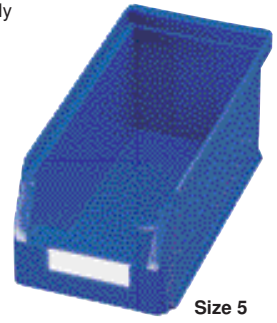

Size 5

Size	Length x Width x Height ca. mm	Red 83401 ...	Blue 83402 ...	Grey 83403 ...	Green 83404 ...	Yellow 83405 ...
8	85 x 105 x 45	101	101	101	101	101
7	160 x 105 x 75	102	102	102	102	102
6	230 x 140 x 130	103	103	103	103	103
5	290 x 140 x 130	104	104	104	104	104

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82485 RasterPlan tool holder for slotted plates

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

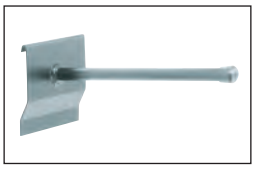
KAPPES

Applications

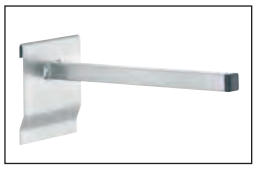
For hooking into the slotted plate of the RasterPlan system. Universal holders, easy-view storage bins, steel shelves and form holders etc. can be hooked into the stamped perforation of the slotted plates easily and at any time. Robust and stable, designed for long-lasting industrial use.

- Impact-resistant and scratch-resistant plastic coating
- Embossed base plate 1.5 mm thick
- High load capacity

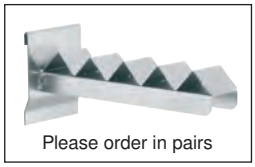
82485 101-102



82485 103-104



82485 105

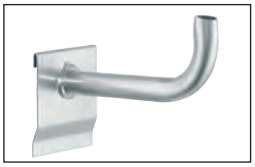


Please order in pairs

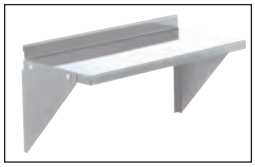
82485 106

Please order in pairs

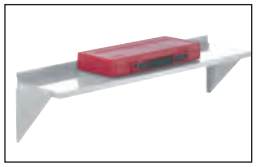
82485 107



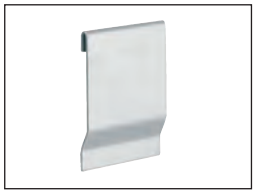
82485 108



82485 109

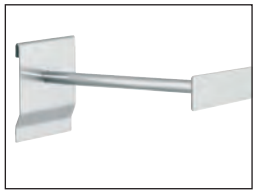


82485 113



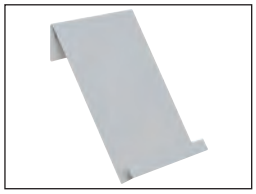
82485 114

82485 115



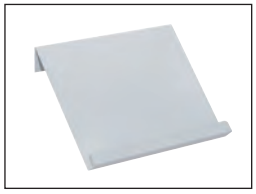
82485 116

82485 117



	Size mm	Ø mm	Pack= pieces	82485	...
Universal holder round load capacity 10 kg	200	12	1		101
Universal holder round load capacity 10 kg	300	12	1		102
Universal holder square load capacity 17 kg	200	15 x 15	1		103
Universal holder square load capacity 17 kg	300	15 x 15	1		104
Wave-form holder, wave spacing 55 mm load capacity 17 kg	200	-	1		105
Spike holder load capacity 17 kg	140 x 60	-	1		106
Pipe holder load capacity 17 kg	160	20	1		107
Steel shelf RAL 7035	500 x 250	-	1		108
Steel shelf RAL 7035	1000 x 250	-	1		109
Base plate with labelling field	-	-	1		113
Adapter for perforated-plate tool holder	-	-	1		114
Universal holder with labelling field load capacity 10 kg	200	12	1		115
Form holder DIN A4, RAL 7035 light grey	-	-	1		116
Brochure holder DIN A4, RAL 7035 light grey	-	-	1		117
Brochure holder DIN A3, RAL 7035 light grey	-	-	1		118

82485 118



Factory equipment

82470 RasterPlan slotted plates, starter sets

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Design

Ready-to-use starter packs relieve you of initial decisions and help to create and maintain order.

Note:

Easy-view storage bins sorted by colour, from stock, colour illustration non-binding.

82470 101+201

Design

Comprising:

- 1 slotted plate H 450 x W 1000 mm
- 6 easy-view storage bins size 6
- 16 easy-view storage bins size 7
- 8 easy-view storage bins size 8

82470 102+202

Design

Comprising:

- 1 slotted plate H 450 x W 500 mm
- 8 easy-view storage bins size 7
- 12 easy-view storage bins size 8

82470 101+201

82470 102+202

Dimensions H x W mm	Plate colour	82470	...
450 x 1000	RAL 7035 light grey		101
450 x 1000	RAL 5012 light blue		201
450 x 500	RAL 7035 light grey		102
450 x 500	RAL 5012 light blue		202

82470 RasterPlan combination plates

RasterPlan von Kappes

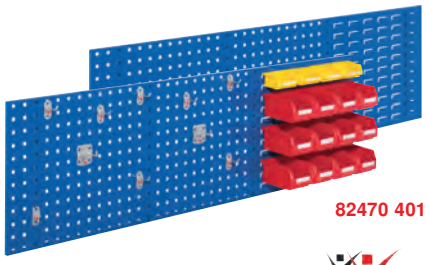
FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Design
2/3 perforated and 1/3 slotted plate.

Note:
For an extensive range of accessories for perforated and slotted plates, see art. no. 82471, 82480, 82481, 82485 and 82467.

82470 403+401
Starter sets
Comprising:
- 1 combination plate
- 12 easy-view storage bins size 7
- 4 easy-view storage bins size 8
- 1 tool holder assortment, 10 pieces



Dimensions H x W mm	Plate colour	Unfilled 82470 ...	Starter set 82470 ...
450 x 1500	RAL 7035 light grey	303	403
450 x 1500	RAL 5012 light blue	301	401

82467 RasterPlan workbench brackets

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Design
With fastening material.
Applications
For attachment to workbenches and plates one on top of the other. For plates, 2 brackets each are required. **Price per item.**

Workbench bracket For wide-format plates	82467 ...
For 1 plate	101
For 2 plates one on top of the other	105

82490 RasterPlan LogoChart storage

RasterPlan von Kappes

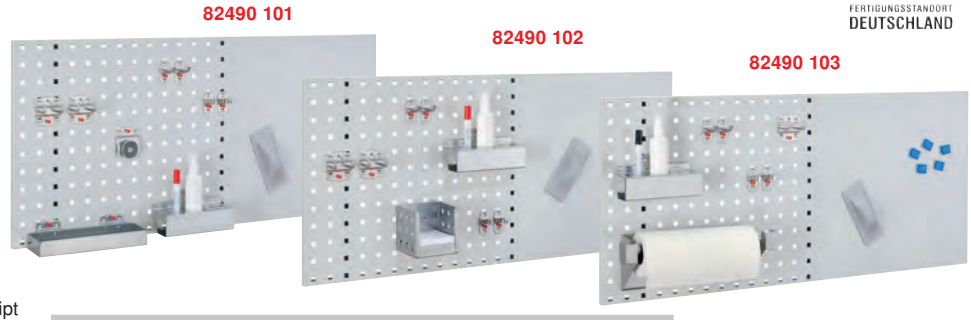
FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Design
- Multi-functional and flexible
- Impact-resistant and scratch-resistant plastic coating
- Can be used horizontally or vertically
- H 450 x W 1000 mm, RAL 7035 light grey
- Marking area can be wiped off without a trace (do not use permanent markers)
- Magnetic

Applications
Innovative solution for setting up service rooms, storage areas, goods issuing facilities, goods receipt facilities, workshops and many other areas.
The smooth board surface is ideal for sketches, brainstorming, planning, instructions, drawings and other visualisations directly at workstations.
Unique combination of proven whiteboard and perforated plate, which adapts seamlessly to existing RasterPlan systems.

Note:
For an extensive range of perforated-plate accessories, see art. no. 82471, 82480 and 82481.



	82490 101 Set 1	82490 102 Set 2	82490 103 Set 3
1 LogoChart	x	x	x
2 double tool holders	x	x	x
2 tool holders, angled end	x	x	x
2 tool clamps	x	x	x
1 magnetic holder	x	-	-
1 combination holder	x	x	x
1 storage box	x	-	-
1 note box	-	x	-
1 dispenser holder	-	-	x
5 magnets	x	x	x
1 wiper, magnetic	x	x	x
1 cleaning spray	x	x	x
2 non-permanent markers, black	x	x	x

LogoChart storage	82490 ...
Set 1	101
Set 2	102
Set 3	103

Accessories

	Width mm	Height x depth mm	Ø mm	Colour	82490 ...
Spray-bottle holder	76	-	1 x 52	Aluminium-cooured	201
Pen holder	112	-	4 x 17	Aluminium-coloured	202
Comb. holder for pens+spray bottle	176	-	4 x 17/1 x 52	Aluminium-coloured	203
Storage box	250	35 x 80	-	Aluminium-coloured	204

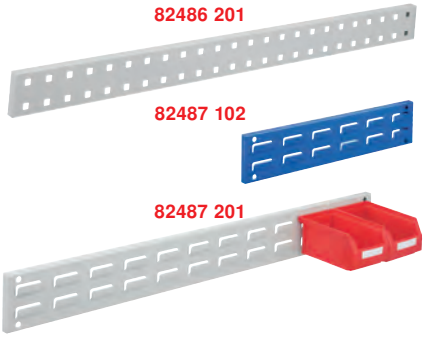
82486 - 82487 RasterPlan wall rails (empty)

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Note:
For accessories for perforated and slotted plates, see art. no. 82471, 82480, 82481, 82485 and 82467.



Dimensions length x height mm	Plate colour	Perforated plate 82486 ...	Slotted plate 82487 ...
460 x 70	RAL 7035 light grey	101	
920 x 70	RAL 7035 light grey	201	
460 x 100	RAL 7035 light grey		101
460 x 100	RAL 5012 light blue		102
920 x 100	RAL 7035 light grey		201
920 x 100	RAL 5012 light blue		202

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

RasterPlan drawer cabinets

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Design

- RasterPlan drawer cabinets for professional, practical storage and organisation of high-quality tools and materials
- With drawers (100 mm panel height) and integrated worktop or multiplex workbench top panels (30 mm thick) equipped individually
- **H x W x D 1950 x 1000 x 600 mm**
- Robust sheet steel construction
- Impact-resistant and scratch-resistant plastic coating
- Body RAL 7035 light grey
- Doors either RAL 5012 light blue or RAL 7035 light grey
- Rear wall with RasterPlan system perforation or slot stamping
- Smooth fronts with pre-assembled doors
- Door opening angle over 200°
- Continuous rod guiding
- Double-walled, reinforced doors
- Telescopically guided drawers with full extension, can also be retrofitted on request
- Drawer load capacity 110 kg with evenly distributed load
- Zinc-plated shelves, load capacity 80 kg with evenly distributed load
- Shelves adjustable in 25 mm grid
- Three-bar security cylinder lock

Note:
Wall or floor anchoring is recommended.
For additional drawers, shelves and workbench top panels, see art. no. 82556 599-609.

Model	Shelves quantity	Drawers quantity	Workbench top panels quantity
1	3	2	-
3	1	4	1
4	2	4	-
5	2	3	-
6	2	2	1
7	-	9	1

Model: 1

Model: 3

Model: 4

Model: 5

Model: 6

Model: 7

82556 599

82556 603

82556 600

82556 604

Factory equipment

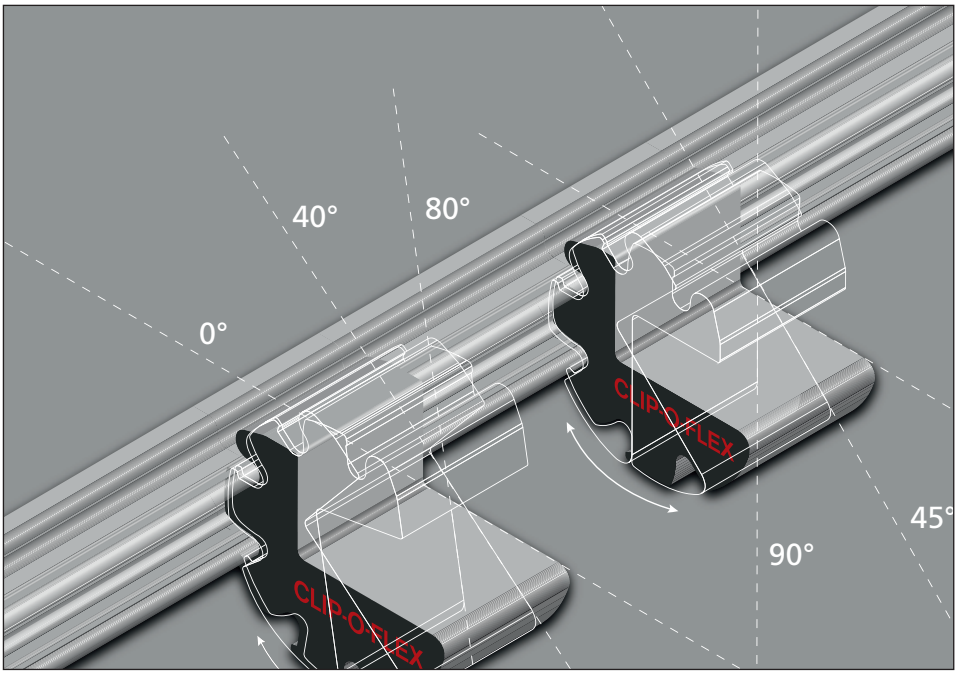
	Perforated plate doors				Slotted plate doors				Doors with viewing window			
	RAL 7035/5012		RAL 7035		RAL 7035/5012		RAL 7035		RAL 7035/5012		RAL 7035	
Model	82555	...	82555	...	82555	...	82555	...	82555	...	82555	...
1		102		202		100		201		501		701
3		106		206		105		205		502		702
4		101		208		112		212		503		703
5		107		209		110		213		504		704
6		108		210		111		214		505		705
7		104		204		103		219		506		706

	RAL 5012		RAL 7035			
Accessories	82556	...	82556	...	82556	...
Drawer 100 mm panel height		600		599		
Drawer 125 mm panel height		606		607		
Drawer 175 mm panel height		608		609		
Zinc-plated shelf, load capacity 80 kg with evenly distributed load						603
Multiplex workbench top panel, 30 mm thick						604

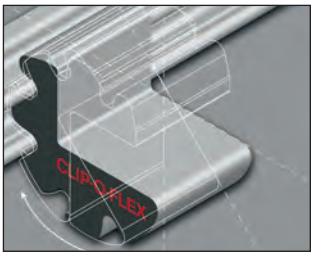
( ) = Items with prices in brackets partly available from stock.

Info CLIP-O-FLEX

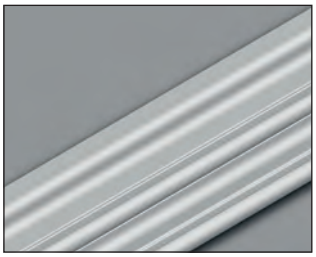
The flexible CLIP-O-FLEX hook-in system is available on its own (hook-in rail and hook-in profile) and also as part of a storage compartment/drawer or in combination with tool trolleys, workbenches, serving trolleys etc.
You can secure or release your work surface/storage area or your existing organisation system in a single hooking action.
You can make your workplace ergonomic with various angles of inclination 0/40/80° or 0/45/90° - or use lateral movement options.



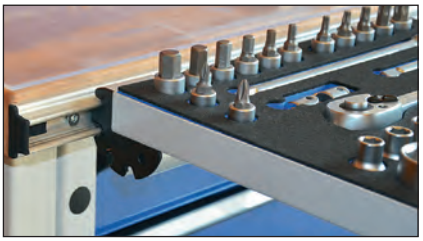
CLIP-O-FLEX fixes your work surface/storage area or your organisation system using only one clip yet with the highest level of horizontal and vertical flexibility!



The flexible hook-in profile allows variable suspension or hooking configurations at angles of 0/40/80° or 0/45/90° and lateral movement at all times.



The robust hook-in rail is made of aluminium and is very lightweight, durable and stylish.



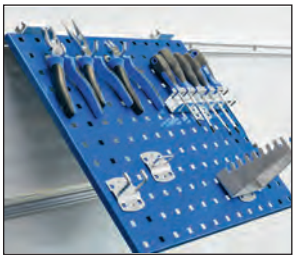
Lateral movement possible.

Prefabricated trays in various sizes, e.g. in combination with a hard foam insert or as a storage area.

Order the hook-in rail and hook-in profile individually and customise your own individual and flexible components, work surfaces or storage areas.

The benefits of CLIP-O-FLEX!

- Fast access to work equipment
- Flexible workstation design
- Excellent clarity
- Quick exchange and replacement
- Ergonomic workstation design
- Quick retrofitting
- Cutting down on travel paths
- Optimum work surface utilisation without loss



Determine angle, attach clip and your work surface/storage area is secured. Possible tilt angles 0/40/80° or 0/45/90°.

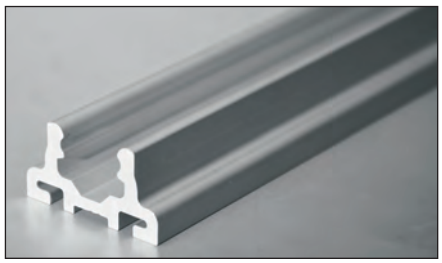
82373 CLIP-O-FLEX hook-in rails

Design
- **Total length = nominal length + 5 mm cover caps**
- Pre-drilled
- The scope of delivery includes cover caps, plus fastening material

Applications
For mounting on RasterPlan perforated walls (centre-to-centre distance 38 mm), workbenches, tool trolleys, wall/workbench superstructures. As a holder for CLIP-O-FLEX hook-in profiles and trays.

Quality
Aluminium, natural anodised.

82373



Length mm	Cover caps colour	82373 ...
495	Black	101
695	Black	102
745	Black	103

Length mm	Cover caps colour	82373 ...
795	Black	104
985	Black	105
1400	Black	106

Length mm	Cover caps colour	82373 ...
1495	Black	107
1995	Black	108

82374 CLIP-O-FLEX hook-in profiles

Design
- 3 x Ø 4.1 mm drilled or, alternatively, with M5 thread
- Pre-drilled
- Drilling template included

Applications
For attachment to CLIP-O-FLEX hook-in rails. Different materials can be glued, bolted or riveted to the hook-in profiles.

Quality
Aluminium, natural anodised.

Note:
Packing unit (pack) 2 pieces.
Price per pack.

82374

Hook-in angle degrees	Width mm	Cover caps colour	Pack (pieces)	Hole 82374 ...	M5 thread 82374 ...
0/40/80°	50	Black	2	101	301
0/45/90°	50	Black	2	201	401

82375 CLIP-O-FLEX plastic corner elements

Applications
For attachment onto hook-in rails. For connecting two hook-in rails for use at a 90° angle, for instance on a workbench top panel.

Quality
Plastic.

Note:
Packing unit (pack) 4 pieces.
Price per pack.

82375

Colour	Pack (pieces)	82375 ...
Black	4	101

82376 CLIP-O-FLEX plastic cover caps

Design
- With engaging mechanism

Applications
For attachment onto hook-in rails.

Quality
Plastic.

Note:
Packing unit (pack) 10 pieces.
Price per pack.

82376

Dimension mm	Colour	Pack (pieces)	82376 ...
2.5	Black	10	101

CLIP-O-FLEX hook-in system

82377 CLIP-O-FLEX trays

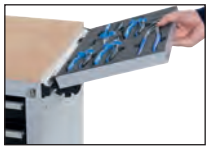
Design
- Includes 2 hook-in profiles 0/40/80° or 0/45/90°
- Powder coating: RAL 9006 white aluminium

Applications
For hooking into CLIP-O-FLEX hook-in rails at different angles. For mobile use and flexible workstation design.

Quality
Sheet steel.

Note:
Trays can be combined with OPT-I-STORE hard foam inserts (see art. no. 59603 - 59692).

82377



L x W x H Mm	Suitable TCS insert size	0/40/80° 82377 ...	0/45/90° 82377 ...
345 x 260 x 30	1/2	101	
345 x 260 x 30	1/2		201
260 x 345 x 30	1/2	102	
260 x 345 x 30	1/2		202
520 x 345 x 30	2/2	103	
520 x 345 x 30	2/2		203

82378 CLIP-O-FLEX workbenches

Design
Workbench comprising:
- Multiplex worktop
- Cabinet
- Base
- Workbench superstructure (only end no. 102, 103, 202 and 203)

Multiplex worktop
- Painted 40 x 1500 x 750 mm
- Right, left and front with bolted-on CLIP-O-FLEX hook-in rails

Cabinet
- 2 x drawers with full extension, front height of 90 mm, load capacity 35 kg
- 6 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door H = 540 mm, hinged onthe left
- Cabinet can be locked via central lock
- Colour of housing: RAL 9006 white aluminium
- Colour of drawers/front: RAL 9005 jet black
- H x W x D = 840 x 1500 x 750 mm

Base
- 1 x base H x D = 800 x 680 mm
- Made from robust U-profile steel
- 80 x 50 x 2.0 mm with cross-bracing
- Base without level adjustment
- 1 x trim with cross brace

82378 101-103
Design
- 6 pairs of fixed support brackets for CLIP-O-FLEX trays

82378 201-203
Design
- 6 pairs of extension systems for CLIP-O-FLEX trays

With fixed support bracket

Trays can be easily placed on the support bracket.

Extension system

The convenient extensions allow easy removal and insertion of the trays by also pulling out the rail.

82378

The undercounter cabinet is equipped with 6 CLIP-O-FLEX trays. These can be easily removed and stowed away neatly and clearly in the undercounter cabinet again after use.

Trays can be fitted anywhere at the side of the workbench. Tools and other material do not require space on the workbench top panel.

Workbench superstructure height mm	Workbench superstructure	Fixed support brackets for trays 82378 ...	Extensions for trays 82378 ...
-	Without	101	
-	Without		201
470	Included	102	
470	Included		202
820	Included	103	
820	Included		203

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

82379 CLIP-O-FLEX roll container

Design
- Right and left on cover with bolted-on CLIP-O-FLEX hook-in rails
- Incl. 30 mm multiplex top panel varnished
- 1 x steering roller with stop
- 1 x steering roller without stop
- 2 x fixed castors Ø 125 mm
- Colour of housing: RAL 9006 white aluminium
- Colour of drawers/front: RAL 9005 jet black

Cabinet equipped with:
- 6 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door, hinged on the right
- Cabinet can be locked via central lock

82379 101
Design
- 6 pairs of fixed support brackets for CLIP-O-FLEX trays

82379 201
Design
- 6 pairs of extension systems for CLIP-O-FLEX trays

Fixed support brackets

Trays can be easily placed on the support brackets.

Extension systems

The convenient extensions allow easy removal and insertion of the trays by also pulling out the rail.

82379

Includes 6 trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°

H x W x D mm	Trays W x D x H mm	Door height mm	Weight kg	Fixed support brackets for trays 82379	...	Extensions for trays 82379	...
778 x 474 x 405	345 x 260 x 30	540	50		101		
778 x 474 x 405	345 x 260 x 30	540	59				201

82380 CLIP-O-FLEX assembly trolley

Design
- Right and left on cover with bolted-on CLIP-O-FLEX hook-in rails
- Incl. 30 mm multiplex top panel varnished
- 1 x steering roller with stop
- 1 x steering roller without stop
- 2 x fixed castors Ø 125 mm
- Colour of housing: RAL 9006 white aluminium
- Colour of drawers/front: RAL 9006 jet black

Fixed support brackets

Trays can be easily placed on the support brackets.

Extension system

The convenient extensions allow easy removal and insertion of the trays by also pulling out the rail.

82380 101+201
Cabinet equipped with:
- 2 x drawers with full extension
- 6 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door, hinged on the right
- Cabinet can be locked via central lock

82380 101
Design
- 6 pairs of fixed support brackets for CLIP-O-FLEX trays

82380 201
Design
- 6 pairs of extension systems for CLIP-O-FLEX trays

82380 101+201

2 drawers with full extension, front height of 90 mm, load capacity 35 kg
6 trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°

82380 102+202
Cabinet equipped with:
- 8 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door, hinged on the right
- Cabinet can be locked via central lock

82380 102
Design
- 8 pairs of fixed support brackets for CLIP-O-FLEX trays

82380 202
Design
- 8 pairs of extension systems for CLIP-O-FLEX trays

82380 102+202

Includes 8 trays, each with 2 CLIP-O-FLEX hook-in rails 0/40/80°

H x W x D mm	Trays W x D x H mm	Door height mm	Drawers front height mm	Drawers load capacity kg	Weight kg	Fixed support brackets for trays 82380	...	Extensions for trays 82380	...
958 x 474 x 405	345 x 260 x 30	540	90	35	69		101		
958 x 474 x 405	345 x 260 x 30	540	90	35	78				201
958 x 474 x 405	345 x 260 x 30	720	-	-	62		102		
958 x 474 x 405	345 x 260 x 30	720	-	-	71				202

82381 CLIP-O-FLEX wheeled workbenches

Design
- Right and left on cover with bolted-on CLIP-O-FLEX hook-in rails
- Incl. 30 mm multiplex top panel varnished
- 1 x steering roller with stop
- 1 x steering roller without stop
- 2 x fixed castors Ø 125 mm
- Colour of housing: RAL 9006 white aluminium
- Colour of drawers/front: RAL 9005 jet black

Left cabinet equipped with:
- 2 x drawers with full extension
- 6 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door, hinged on the left
- Cabinet can be locked via central lock

Right cabinet equipped with:
- 2 x drawers with full extension
- 6 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door, hinged on the right
- Cabinet can be locked via central lock

82381 142
Design
- 12 pairs of fixed support brackets for CLIP-O-FLEX trays

82381 143
Design
- 12 pairs of extension systems for CLIP-O-FLEX trays

Fixed support brackets

Trays can be easily placed on the support brackets.

Extension system

The convenient extensions allow easy removal and insertion of the trays by also pulling out the rail.

82381

2 drawers with full extension, front height of 90 mm, load capacity 35 kg
Includes 6 trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°

H x W x D mm	Trays W x D x H mm	Door height mm	Drawers front height mm	Drawers load capacity kg	Weight kg	Fixed support brackets for trays 82381	...	Extensions for trays 82381	...
958 x 953 x 405	345 x 260 x 30	540	90	35	125		**142**		
958 x 953 x 405	345 x 260 x 30	540	90	35	136				**143**

82382 CLIP-O-FLEX wheeled workbenches

Design
- Right and left on cover with bolted-on CLIP-O-FLEX hook-in rails
- Incl. 30 mm multiplex top panel varnished
- 1 x steering roller with stop
- 1 x steering roller without stop
- 2 x fixed castors Ø 125 mm
- Colour of housing: RAL 9006 white aluminium
- Colour of drawers/front: RAL 9005 jet black

Left cabinet equipped with:
- 2 x drawers with full extension
- 6 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door = H 540 mm, hinged on the left
- Cabinet can be locked via central lock

Right cabinet equipped with:
- 8 x landscape trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°
- 1 x door = H 720 mm, hinged on the right
- Cabinet can be locked via central lock

82382 101
Design
- 14 pairs of fixed support brackets for CLIP-O-FLEX trays

82382 201
Design
- 14 pairs of extension systems for CLIP-O-FLEX trays

Fixed support brackets

Trays can be easily placed on the support brackets.

Extension system

The convenient extensions allow easy removal and insertion of the trays by also pulling out the rail.

82382

2 drawers, full extension, front height of 90 mm, load capacity 35 kg
Includes 6 trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80° Includes 8 trays, each with 2 CLIP-O-FLEX hook-in profiles 0/40/80°

H x W x D mm	Trays W x D x H mm	Drawers front height mm	Drawers load capacity kg	Weight kg	Fixed support brackets for trays 82382	...	Extensions for trays 82382	...
958 x 953 x 405	345 x 260 x 30	90	35	119		**101**		
958 x 953 x 405	345 x 260 x 30	90	35	129				**201**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

KAPPES

Design
- Solid frame construction RAL 5010 gentian blue
- Powder-coated perforated plates on 4 sides RAL 7035 light grey
- Hole spacing: 38 mm
- Square perforation 10 x 10 mm

Applications
For equipping with RasterPlan tool holder range and RasterPlan accessories. For the systematic and central storing and provisioning of tools, small parts and organisation materials.

Note:
Delivery without accessories and without decoration! Optional additional mobile versions are available with additional usable interior space with further perforated plates, shelves and door with cylinder lock and 2 keys.

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

82388 101-105
ToolTower, stationary
Design
- 4 RasterPlan perforated plates

82388 101

82388 102

82388 103

82388 104

82388 105

Art. no. 82388 ...	101	102	103	104	105
H x W x D mm	1100 x 700 x 700	2015 x 700 x 700	2015 x 700 x 700	2015 x 700 x 700	2015 x 700 x 700
Equipment	3 x perforated plates	4 x perforated plates	3 x perforated plates	3 x perforated plates	3 x perforated plates
Stationary	1 x perforated plate door	3 x trays	1 x perforated plate door	1 x perforated plate door	1 x perforated plate door
	1 x form holder DIN A4	1 x hook set	3 x trays	2 x trays	1 x form holder DIN A4
	1 x combination holder			1 x shelf	2 x shelf
				1 x dispenser holder	1 x hook set
				1 x hook set	

82388 201-205
ToolTower, mobile
Design
- 4 RasterPlan perforated plates
- Chassis with 4 steering rollers, 2 of which have a locking device

82388 201

82388 202

82388 203

82388 204

82388 205

Art. no. 82388 ...	201	202	203	204	205
H x W x D mm	1260 x 700 x 700	2175 x 700 x 700	2175 x 700 x 700	2175 x 700 x 700	2175 x 700 x 700
Equipment	3 x perforated plates	4 x perforated plates	3 x perforated plates	3 x perforated plates	3 x perforated plates
Mobile	1 x perforated plate door	3 x trays	1 x perforated plate door	1 x perforated plate door	1 x perforated plate door
	1 x form holder DIN A4	1 x hook set	3 x trays	3 x trays	3 x trays
	1 x combination holder	4 x steering rollers, 2 of which have locking device	1 x hook set	4 x steering rollers, 2 of which have locking device	1 x shelf
	4 x steering rollers, 2 of which have locking device		1 x shelf		4 x steering rollers, 2 of which have locking device
			4 x steering rollers, 2 of which have locking device		

Model	82388 ...	82388 ...	82388 ...	82388 ...	82388 ...
ToolTower, stationary	101	102	103	104	105
ToolTower, mobile	201	202	203	204	205

Easy-view storage bins

83401 - 83405

Design
- Polyethylene material and break-proof construction, dimensionally stable and highly durable
- Safe and ergonomic handling thanks to generously dimensioned, multiple reinforced recessed handles on both short sides (size 2-4), can also be retrofitted with gripping rod (art. no. 83411)
- Specially shaped rear support strip, facilitating attachment and detachment to/from RasterPlan slotted plates (starting from art. no. 82482) (size 5-8) even when full, thus no spilling of the contents
- Peripheral stack edge
- Temperature resistant from -40 °C to +80 °C
- Resistant to acids, oils and bases
- Easy, problem-free cleaning thanks to smooth inner walls, food-safe
- Rib reinforcement at bottom edges
- Label holder with special clamps, preventing labels from slipping out
- Environmentally friendly, fully recyclable
- GS-tested easy-view storage bins

Applications
Designed for use on conveying and roller tracks.

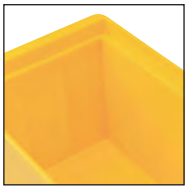
Note:
Delivery without lid and labels.
For accessories for easy-view storage bins, see art. no. 83406 ff.
For DYMO labellers, see art. no. 78450 ff.
ESD version deliverable on request.

Support strip size 5-8

Recessed handle at rear size 2-4

Recessed handle at front

Smooth inner walls

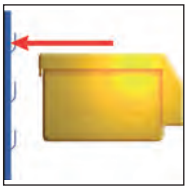


Rib reinforcement

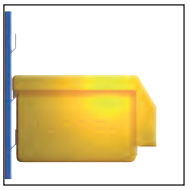
Stack edge

Label holder

Horizontal



Vertical



Engage and you're done

GS-tested

Safe suspension - safely applied! No spillage!
The special design of the support strip enables easy-view storage bins to be attached and detached in a horizontal position even when full. No spilling of the contents of the box.
Easy-view storage bins of sizes 5 to 8 allow absolutely horizontal attachment and detachment to/from slotted plates when filled.

Size	L x W x H approx. mm	Load capacity kg	Extra load kg	Red 83401	...	Blue 83402	...	Grey 83403	...	Green 83404	...	Yellow 83405	...
8	85 x 105 x 45	40	40		101		101		101		101		101
7	160 x 105 x 75	40	40		102		102		102		102		102
6	230 x 140 x 130	40	40		103		103		103		103		103
5	290 x 140 x 130	40	40		104		104		104		104		104
4	350 x 200 x 150	40	40		105		105		105		105		105
3	350 x 200 x 200	40	40		106		106		106		106		106
2	500 x 300 x 200	40	40		107		107		107		107		107

Continued

83406 - 83411 Accessories for easy-view storage bins

Continued

KAPPES

83406
Supporting cover
Design
- Crystal-clear polystyrene

83407
Longitudinal partition
Design
- Produced from fine sheet metal

83408
Labels
Design
- 10 pack = 1 unit

83408 204
Labels
Design
- 9 pack = 1 unit

83409
Protective film
Design
- 10 pack = 1 unit

83411
Gripping rod

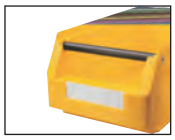
83406

83407

83408

83409

83411



For size	Cover 83406 ...	Longitudinal partition 83407 ...	Labels 83408 ...	Protective film 83409 ...	Gripping rod 83411 ...
8			201	101	
7	101		202	102	
6	102		203	103	
5	103		203	103	
4	104	101	204	104	101
3	105	102	204	104	101
2	106	103	205	105	102

83300 Tool boxes

Design
Robust plastic, colour: blue.

83300 101
Tool boxes
Applications
Can be equipped with 4 inserts (art. no. 83300 102-104).

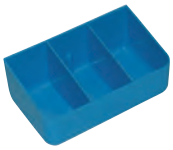
83300 102
3-way insert
Applications
For tool box art. no. 83300 101.

83300 103
2-way insert
Applications
For tool box art. no. 83300 101.

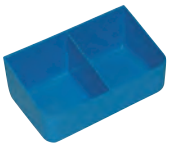
83300 104
1-way insert
Applications
For tool box art. no. 83300 101.

83300 101

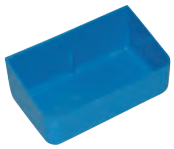
83300 102



83300 103



83300 104



Type	Dimensions W x D mm	83300 ...
Tool box	420 x 250	101
3-way insert	210 x 120	102
2-way insert	210 x 120	103
1-way insert	210 x 120	104

83305 Tool box, ESD version

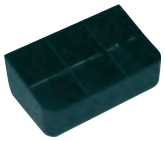
Design
Robust plastic, conductive, colour: black.

83305 101
Tool boxes
Applications
Can be equipped with 4 inserts (art. no. 83305 105).

83305 105
3-way insert
Applications
For tool box art. no. 83305 101.

83305 101

83305 105



Type	Dimensions W x D mm	83305 ...
Tool box	420 x 250	101
3-way insert	210 x 120	105

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83425 RasterPlan partitions with easy-view storage bins

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

KAPPES

Design

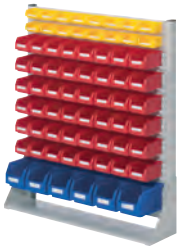
Modular design. Impact- and scratch-resistant plastic coating. Stand module RAL 7035 light grey. Horizontal attachment and detachment of easy-view storage bins. Equipped with HHW easy-view storage bins made of highly impact-resistant polyethylene, art. no. 83401-83405, assorted colours, from stock, colour illustration non-binding.

Note:

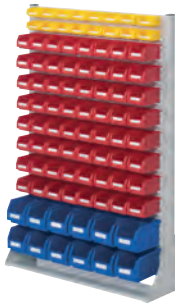
Other paints for slotted plates in RAL 3020, 5010, 5015, 7015, 9005 and 9010 deliverable without surcharge (not in stock).
For suitable easy-view storage bins, see art. no. 83401-83405.

RasterPlan partitions are generally provided with covered screw holes for floor anchoring

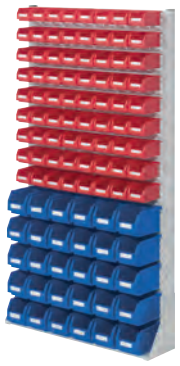
83425 595



83425 598



83425 601



83425 610

83425 611

Fitting	Dimensions H x W x D mm	Fitting with easy-view storage bins size 6	size 7	size 8	83425	...
One-sided	760 x 1000 x 240	-	-	-		594
One-sided	760 x 1000 x 240	12	16	24		595
One-sided	760 x 1000 x 240	12	32	-		596
One-sided	1100 x 1000 x 240	-	-	-		597
One-sided	1100 x 1000 x 240	6	48	16		598
One-sided	1100 x 1000 x 240	-	72	-		599
One-sided	1450 x 1000 x 240	-	-	-		600
One-sided	1450 x 1000 x 240	12	64	16		601
One-sided	1450 x 1000 x 240	36	16	24		602
One-sided	1790 x 1000 x 240	-	-	-		603
One-sided	1790 x 1000 x 240	30	72	-		610
One-sided	1790 x 1000 x 240	66	-	-		611
Double-sided	760 x 1000 x 430	-	-	-		613
Double-sided	760 x 1000 x 430	24	32	48		614
Double-sided	760 x 1000 x 430	24	64	-		615
Double-sided	1100 x 1000 x 430	-	-	-		616
Double-sided	1100 x 1000 x 430	12	96	32		617
Double-sided	1100 x 1000 x 430	-	144	-		618
Double-sided	1450 x 1000 x 430	-	-	-		619
Double-sided	1450 x 1000 x 430	24	128	32		620
Double-sided	1450 x 1000 x 430	72	32	48		621
Double-sided	1790 x 1000 x 430	-	-	-		622
Double-sided	1790 x 1000 x 430	60	144	-		623
Double-sided	1790 x 1000 x 430	132	-	-		624

83416 RasterMobil trolleys with easy-view storage bins

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

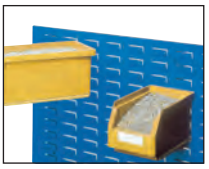
KAPPES

Design

- Modular design
- Impact-resistant and scratch-resistant plastic coating
- RAL 7035 light grey
- Double-sided use
- Ergonomic handles
- 2 fixed castors and 2 steering rollers with locking devices
- Equipped with HHW easy-view storage bins made of highly impact-resistant polyethylene, art. no. 83401-83405, assorted colours, from stock, colour illustration non-binding.

Note:

For suitable easy-view storage bins, see art. no. 83401-83405.
For DYMO labellers, see art. no. 78450 ff.



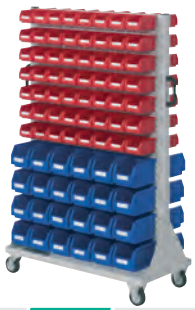
Horizontal attachment and detachment of easy-view storage bins

83416 591

83416 601

83416 602

83416 605



83416 606

Fitting	Dimensions H x W x D mm	Fitting with easy-view storage bins size 6	size 7	size 8	83416	...
Double-sided	890 x 1000 x 500	-	-	-		590
Double-sided	890 x 1000 x 500	24	64	-		591
Double-sided	890 x 1000 x 500	-	96	-		592
Double-sided	890 x 1000 x 500	60	-	-		593
Double-sided	890 x 1000 x 500	24	32	48		594
Double-sided	890 x 1000 x 500	-	80	32		595
Double-sided	1230 x 1000 x 500	-	-	-		596
Double-sided	1230 x 1000 x 500	24	80	48		602
Double-sided	1230 x 1000 x 500	48	64	-		603
Double-sided	1230 x 1000 x 500	84	-	-		601
Double-sided	1230 x 1000 x 500	12	96	32		610
Double-sided	1230 x 1000 x 500	-	144	-		611
Double-sided	1580 x 1000 x 500	-	-	-		604
Double-sided	1580 x 1000 x 500	48	112	-		606
Double-sided	1580 x 1000 x 500	-	192	-		607
Double-sided	1580 x 1000 x 500	108	-	-		605
Double-sided	1580 x 1000 x 500	24	128	32		608
Double-sided	1580 x 1000 x 500	72	32	48		609

83506 Organisational cabinets

KAPPES

FERTIGUNGSSTANDORT DEUTSCHLAND

Design
Impact- and scratch-resistant plastic coating. Light grey RAL 7035. Zinc-plated shelves, load capacity 30 kg. Adjustable in 15 mm grid. With HHW easy-view storage bins made from shock and impact-resistant polyethylene, sorted by colour, from stock, colour illustration non-binding (art. no. 83401-83405).
Applications
Allows clear and secure storage of small parts and spare parts, tools and other materials.

Note:
Other paints in RAL 7035/5012 and 6011 deliverable without surcharge (not in stock).
For cabinets with dimensions H 1600/1950 x 285 mm, wall anchoring is recommended.

83506 595-616
Design
With reinforced doors, opening angle over 180°. Three-pin safety cylinder lock.

83506 700-711
Design
Without doors.

83506 592-593
Accessories
Applications
For organisational cabinets art. no. 83506.

83506 595

83506 596

Security turning handle cylinder lock

83506 601 83506 614 83506 616

Shelf support

Locking bar

83506 605 83506 606 83506 607 83506 610

Dimensions H x W x D mm	No. of shelves	Fitting with easy-view storage bins size 4	size 5	size 6	size 7	With doors 83506 ...	Without doors 83506 ...
780 x 690 x 285	4	-	-	-	-	595	700
780 x 690 x 285	5	-	-	8	24	596	701
1600 x 690 x 285	4	-	-	-	-	612	702
1600 x 690 x 285	9	-	-	40	-	601	703
1600 x 690 x 285	11	-	-	24	36	614	704
1600 x 690 x 285	14	-	-	-	90	616	705
1950 x 690 x 285	4	-	-	-	-	604	706
1950 x 690 x 285	15	-	-	28	54	605	707
1950 x 690 x 285	11	-	-	48	-	606	708
1950 x 690 x 285	18	-	-	-	114	607	709
1950 x 950 x 400	4	-	-	-	-	608	710
1950 x 950 x 400	10	20	36	-	-	610	711

Accessories	Dimensions W x D mm	83506 ...
Shelf, zinc-plated	690 x 285	592
Shelf, zinc-plated	950 x 400	593

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

83511 RasterPlan slotted plate cabinets

RasterPlan von Kappes

FERTIGUNGSSTANDORT DEUTSCHLAND

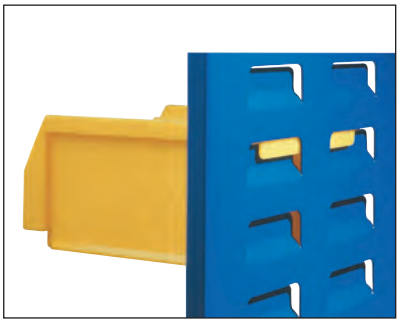
KAPPES

Design
Impact- and scratch-resistant plastic coating. Housing RAL 7035 light grey. Rear wall with RasterPlan slots. Smooth fronts due to flush overlay doors, opening angle over 200°. Continuous rod guidance. Three-pin safety cylinder lock.

Note:
For suitable easy-view storage bins, see art. no. 83401-83405.

83511 101-104
Design
With reinforced solid sheet metal doors.

83511 301-304
Design
With doors with viewing window.



83511 101

83511 102

83511 103

83511 104

Dimensions H x W x L mm	Fitting with easy-view storage bins size 5	size 6	size 7	Solid sheet metal doors 83511 ...	Doors with viewing window 83511 ...
1950 x 1000 x 410	-	-	-	101	301
1950 x 1000 x 410	24	30	32	102	302
1950 x 1000 x 410	36	36	-	103	303
1950 x 1000 x 410	72	-	-	104	304

83510 Organisational shelving with HHW easy-view storage bins

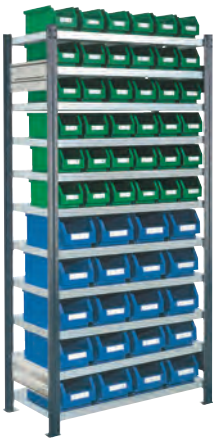
KAPPES

Design
Stable, extremely high load capacity. Profiles RAL 5010, zinc-plated shelves. Load capacity 100 kg with evenly distributed load. Adjustable in 25 mm grid.

Complete shelf unit including HHW easy-view storage bins made from shock and impact-resistant polyethylene, sorted by colour, from stock, colour illustration non-binding (art. no. 83401-83405). Delivered unassembled.

83510 109-110

83510 101-102



83510 107-108

83510 105-106

83510 111

Dimensions H x W x D mm	No. of shelves	Fitting with easy-view storage bins size 2	size 3	size 4	size 5	Basic bay 83510 ...	Add-on bay 83510 ...	Basic and add-on bay 83510 ...
2000 x 1000 x 300	10	-	-	-	60	109	110	
2000 x 1000 x 400	11	-	-	20	36	101	102	
2000 x 1000 x 400	10	-	-	40	-	107	108	
2000 x 1000 x 600	7	21	-	-	-	105	106	
2000 x 2000 x 400	19	-	32	20	36			111

Factory equipment

( ) = Items with prices in brackets partly available from stock.

83508 - 83509 Large cabinets

KAPPES

FERTIGUNGSSTANDORT DEUTSCHLAND

Design
- Particularly high-quality processed, spacious large cabinets
- Robust sheet steel construction
- Impact-resistant and scratch-resistant plastic coating
- Smooth fronts due to flush overlay doors, opening angle more than 200°
- Continuous rod guiding
- Double-walled, reinforced doors
- Sidewalls are double-walled
- Adjustable in 10 mm grid
- Three-bar security cylinder lock
- External dim.: H x W x D mm 1950 x 1130 x 590
- nternal dim.: H x W x D mm 1870 x 1080 x 530

Note:
For suitable easy-view storage bins, see art. no. 83401-83405.

83508 610

Inside of door, slotted plate

Inside of door, perforated plate

83508 501-517 + 601-617
Large cabinets, complete
Design
These large cabinets combine all fundamental components of the RasterPlan range. From perforated and slotted plates on the inside of the doors to flexible-use drawers and shelves to easy-view storage bins.
- Telescopically guided drawers with full extension
- Drawer load capacity 50 kg with evenly distributed load
- Zinc-plated shelves, load capacity 50 kg with evenly distributed load

With HHW easy-view storage bins made from shock and impact-resistant polyethylene, sorted by colour, from stock, colour illustration non-binding (art. no. 83401 - 83405).

83508 519 + 619
Large cabinets for self-equipping

83508 602

83508 605

83508 617

83508 501-519
Design
- Body RAL 7035 light grey
- Doors RAL 5012 light blue

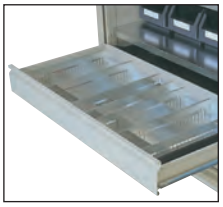
83508 601-619
Design
- Body RAL 7035 light grey
- Doors RAL 7035 light grey

83509
Accessories
Applications
For all large cabinets art. no. 83508.

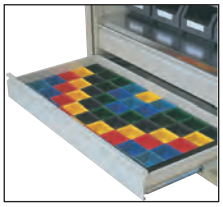
Version	Drawers centre	Drawers bottom	Shelves D 530 mm	Shelves D 340 mm	Shelves D 250 mm	Fitting with easy-view stor. size 2	size 4	size 5	size 6	size 7	size 8	RAL 7035/5012 83508	...	RAL 7035 83508	...
Cabinet compl.	3	-	2	2	2	6	-	21	7	50	32		510		610
Cabinet compl.	1	-	3	-	4	9	5	-	28	40	32		517		617
Cabinet compl.	-	2	1	3	5	-	20	-	21	60	32		512		612
Cabinet compl.	-	3	1	2	6	-	15	-	21	70	32		503		603
Cabinet compl.	-	3	1	3	4	3	10	7	14	60	32		504		604
Cabinet compl.	-	3	2	2	4	6	10	-	21	50	32		505		605
Cabinet compl.	-	4	1	3	3	-	15	7	14	50	32		513		613
Cabinet compl.	-	-	2	-	6	9	-	-	42	40	32		514		614
Cabinet compl.	-	-	-	2	9	-	5	14	28	90	32		502		602
Cabinet compl.	-	-	-	3	7	-	20	-	28	70	32		501		601
Cabinet housing empty	-	-	-	-	-	-	-	-	-	-	-		519		619

Accessories	83509 ...
Shelves 530 mm	104
Shelves 340 mm	105
Shelves 250 mm	106
Single drawer 125 mm panel height	103
Drawer partitioning, fine sheet metal	101
Drawer partitioning with 54 clear-view storage bins size 8	102

83509 101



83509 102



= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

83512 - 83517 Shelf boxes without dividers

KAPPES

83512 - 83513
Design
Resistant to temperatures from -40 °C to +70 °C.
Resistant to the most common acids and alkalis.

Accurate and stable seating of the dividers by lateral groove guides and additional fixing on the box base. Built-in label holder. Environmentally friendly, fully recyclable. **Delivery without dividers and without labels.**

83512 - 83513

Shelf boxes			Blue		Red	
Size	L x W x H mm	Dividers per box, optional	83512	...	83513	...
310	300 x 120 x 65	3		101		101
320	300 x 240 x 65	3		102		102
410	400 x 120 x 65	4		103		103
420	400 x 240 x 65	4		104		104
510	500 x 120 x 65	5		105		105
520	500 x 240 x 65	5		106		106

83515 - 83517
Accessories for shelf boxes art. no. 83512 - 83513.

83515 101

83516

83515 102

		Blue		Red			
		83515	...	83516	...	83517	...
Divider	120 x 65 mm		101		101		
Divider	240 x 65 mm		102		102		
Labels	22 x 75 mm						101

83530 Organisational cabinets with shelf boxes

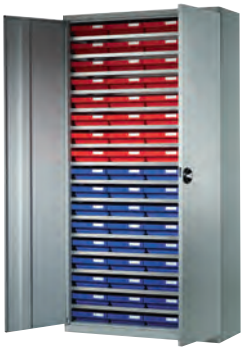
KAPPES

FERTIGUNGSSTANDORT DEUTSCHLAND

Design
Sheet steel design with doors. Including shelf boxes made of polypropylene and zinc-plated shelves (adjustable in 10 mm grid).
Standard colour:
RAL 7035/5012 light grey/light blue, powder-coated.

Note:
Shelf boxes sorted by colour, red and blue, as shown subject to availability.
For a detailed description of the shelf boxes, see art. no. 83512-83513.

83530 501



83530 503

83530 505

Dimensions H x W x D mm	No. of shelves	Fitting with shelf boxes size 310	size 320	size 410	size 420	RAL 7035 83530	...	RAL 7035/5012 83530	...
1950 x 1000 x 410	16	-	68	-	-		501		601
1950 x 1000 x 410	16	136	-	-	-		503		603
1950 x 1000 x 410	16	64	36	-	-		505		605
1950 x 1000 x 500	16	-	-	64	36		707		807

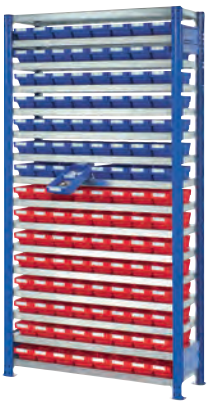
83531 Organisational shelving with shelf boxes

KAPPES

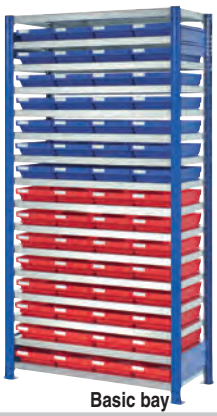
Design
Stable, extremely high load capacity. Profiles RAL 5010, zinc-plated shelves. Load capacity 100 kg with evenly distributed load. Adjustable in 25 mm grid. Complete shelf unit including shelf boxes made of polypropylene. Delivered unassembled.

Note:
Shelf boxes sorted by colour, red and blue, as shown subject to availability.
For a detailed description of the shelf boxes, see art. no. 83512-83513.

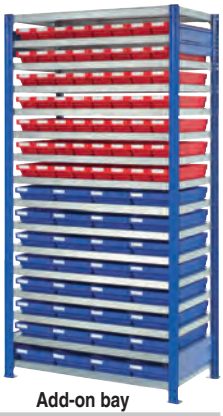
83531 101-201



83531 102-202



83531 103-203



Dimensions H x W x D mm	No. of shelves	Fitting with shelf boxes size 310	size 410	size 420	Basic bay 83531	...	Add-on bay 83531	...
2000 x 1000 x 300	16	120	-	-		101		201
2000 x 1000 x 400	16	-	-	60		102		202
2000 x 1000 x 400	16	-	56	32		103		203

83540 - 83541 Volume shelf boxes

KAPPES

83540
Design
The boxes are designed according to common shelf dimensions. Manufactured from impact-resistant polypropylene, pigeon blue. Resistant to temperatures from -40 °C to +70 °C. Resistant to the most common acids and alkalis. Can be stacked one underneath the other. Environmentally friendly, fully recyclable.
Applications
These volume shelf boxes are characterised by a high load capacity. Various sizes of box create many different options for storing small parts.

Note:
For accessories (cross-partitions, longitudinal partitions, labels) for volume shelf boxes, see art. no. 83541.

83541 101-103
Cross-partition
Design
Precise seating of cross-partitions through groove guidance.
Applications
For volume shelf boxes art. no. 83540.

83541 201-206
Longitudinal partition
Design
Precise seating of longitudinal partitions through groove guidance.
Applications
For volume shelf boxes art. no. 83540 (not for width 113 mm).

83541 301-303
Labels
Applications
For volume shelf boxes art. no. 83540.

Model	Width x height mm	Depth mm	83540	...
4085	113 x 85	400		101
4105	153 x 105	400		102
4145	235 x 145	400		103
5085	113 x 85	500		201
5105	153 x 105	500		202
5145	235 x 145	500		203
6085	113 x 85	600		301
6105	153 x 105	600		302
6145	235 x 145	600		303

	Width mm	Length mm	Height mm	83541	...
Cross-partition	113	-	85		101
Cross-partition	153	-	105		102
Cross-partition	235	-	145		103
Longitudinal partition	-	400	105		201
Longitudinal partition	-	400	145		202
Longitudinal partition	-	500	105		203
Longitudinal partition	-	500	145		204
Longitudinal partition	-	600	105		205
Longitudinal partition	-	600	145		206
Labels	113	-	-		301
Labels	153	-	-		302
Labels	235	-	-		303

83540

83541 101-103

83541 201-206

Factory equipment

83545 Organisational cabinets with volume shelf boxes

KAPPES

Design
Sheet steel design with doors. Including volume shelf boxes made of polypropylene (box depth 400 mm) and zinc-plated shelves (adjustable in 10 mm grid).
Standard colour:
RAL 7035 light grey, powder-coated.

Note:
For a detailed description of volume shelf boxes, see art. no. 83540.

83545 101

83545 102

83545 103

83545 104

Dimensions H x W x D mm	No. of shelves	Fitting with volume shelf boxes 113 x 85 mm	153 x 105 mm	235 x 145 mm	83545	...
1950 x 1000 x 500	13	112	-	-		101
1950 x 1000 x 500	12	-	78	-		102
1950 x 1000 x 500	9	-	-	40		103
1950 x 1000 x 500	12	40	30	12		104

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

83547 Organisational shelving with volume shelf boxes

KAPPES

Design
Stable, extremely high load capacity. Profiles RAL 5010, zinc-plated shelves. Load capacity 100 kg with evenly distributed load. Adjustable in 25 mm grid. Complete shelf unit, including volume shelf boxes (art. no. 83540). Delivered unassembled.

83547 101-203 | 83547 301-403 | 83547 501-603 | 83547 701-803

Dimensions H x W x D mm	No. of shelves	Fitting with volume shelf boxes 113 x 85 mm	153 x 105 mm	235 x 145 mm	Basic bay 83547 ...	Add-on bay 83547 ...
2000 x 1000 x 400	16	120	-	-	101	201
2000 x 1000 x 500	16	120	-	-	102	202
2000 x 1000 x 600	16	120	-	-	103	203
2000 x 1000 x 400	13	-	72	-	301	401
2000 x 1000 x 500	13	-	72	-	302	402
2000 x 1000 x 600	13	-	72	-	303	403
2000 x 1000 x 400	11	-	-	40	501	601
2000 x 1000 x 500	11	-	-	40	502	602
2000 x 1000 x 600	11	-	-	40	503	603
2000 x 1000 x 400	14	40	30	12	701	801
2000 x 1000 x 500	14	40	30	12	702	802
2000 x 1000 x 600	14	40	30	12	703	803

83414 Euro crate trolley

fetra
Transportgeräte

Design
Modular system:
- Steel tube and profile steel welded
- Powder-coated, blue RAL 5007
- Bolted construction
- Angle for tilted installation at 15° or 30°
- Load capacity per loading surface 80 kg
- 4 steering rollers, TPE tyres
- Hubs with deep groove ball bearings
- 2 pieces with locking devices, **according to European standard EN 1757-3 (safety of platform trucks)**

83414 101
Design
- With 3 open shelf frames
- Variable screw-in shelves, 50 mm grid

Scope of delivery
With 6 Euro crates:
- 6x 600 x 400 x 145 mm

83414 102
Design
- With 5 open shelf frames
- Variable screw-in shelves, 100 mm grid

Scope of delivery
With 15 Euro crates:
- 3x 600 x 400 x 145 mm
- 6x 600 x 400 x 170 mm
- 6x 600 x 400 x 220 mm

83414 101

83414 102

Load capacity kg	Loading area height mm	Loading area L x W mm	External dimensions L x W x H mm	Tyres mm	Tare weight kg	83414 ...
250	264/564/864	820 x 610	935 x 666 x 1101	TPE 125 x 32	57	101
300	298/598/898/1198/1498	1240 x 610	1372 x 685 x 1686	TPE 160 x 40	97	102

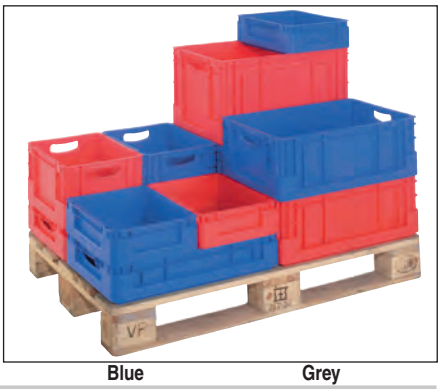
83350 - 83360 Euro transport containers

KAPPES

Design
- 12 container sizes in 3 brilliant colours
- Maximum dimensional stability
- Extremely high load capacity (high crush resistance)
- Strong reinforcement ribs and all-round robust stack edge
- Double-walled, rounded and reinforced corners
- Temperature resistant from -40 °C to +90 °C
- Smooth interior, therefore easy to clean
- Food-safe
- Resistant to the most common acids and alkalis
- Quiet running on conveyance routes
- Designed for storage and retrieval devices
- Environmentally friendly, fully recyclable

Note:
From a container height 180 mm with carrying handles.

Applications
Euro transport containers are adapted to the dimensions of the Euro pallet and meet the demands of today's warehouse and conveyor technology. The polypropylene containers are robust and capable of withstanding high levels of stress, and are stackable with each other.



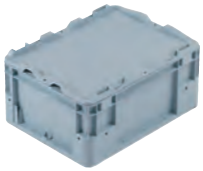
Transport containers		Red		Blue		Grey	
Outer dimensions L x W x H mm	Inner dimensions L x W x H m	83350	...	83350	...	83350	...
300 x 200 x 120	269 x 169 x 117		100		200		210
400 x 300 x 120	365 x 265 x 110		101		110		201
400 x 300 x 180	365 x 265 x 170		106		116		206
400 x 300 x 220	365 x 265 x 210		102		111		202
600 x 400 x 120	565 x 365 x 110		103		112		203
600 x 400 x 180	565 x 365 x 170		107		117		207
600 x 400 x 220	565 x 365 x 210		104		113		204
600 x 400 x 270	567 x 367 x 266		109		115		209
600 x 400 x 320	565 x 365 x 310		105		114		205
600 x 400 x 420	565 x 365 x 410		108		118		208
800 x 600 x 220	752 x 552 x 216				120		220
800 x 600 x 320	752 x 552 x 316				121		221

83350 100-109

83350 110-200

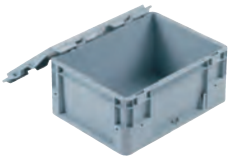
83350 201-221

83360 105-107



83360 103-104

83360 108-110



83360 101

83360 102

Accessories	Colour	L x W mm	83360	...
Support cover	Grey	300 x 200		105
Support cover	Grey	400 x 300		106
Support cover	Grey	600 x 400		107
Support cover	Black	400 x 300		104
Support cover	Black	600 x 400		103
Sealing cover	Grey	300 x 200		108
Sealing cover	Grey	400 x 300		109
Sealing cover	Grey	600 x 400		110
Sealing cover	Black	600 x 400		101
ABS running gear	Black	600 x 400		102

83415 Material stands

fetra

Transportgeräte

Design
- Height-adjustable
- Mobile
- Profile steel/tube construction with sheet steel platform
- Height-adjustable in increments of 25 mm
- Powder-coated, blue RAL 5007
- 4 steering rollers, TPE tyres
- Hubs with plain bearings
- 2 pieces with locking devices, **according to European standard EN 1757-3 (safety of platform trucks)**

Applications
For plastic boxes, sheet steel boxes, wire baskets etc.

83415 101
Design
- Sheet steel platform with all-round edging 20 mm high
- Not tilting

83415 102
Design
- Sheet steel platform with support edge on one side
- Can be tilted by 15° and 30°

83415 101

83415 102

Load capacity kg	Loading area height mm	Loading area L x W mm	Tyres mm	Tare weight kg	83415	...
150	720 - 995	605 x 405	TPE 75 x 25	15		101
150	500 - 775	510 x 410	TPE 75 x 25	16		102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

83010 Clear-view small parts magazines

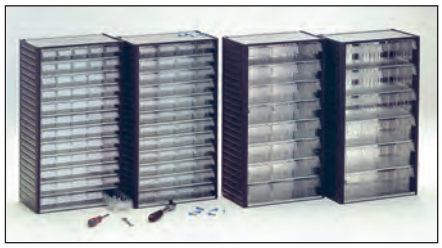
TRESTON

Design
All drawers made of crystal-clear polystyrene. Large handle for easy pulling. Corrugated floor to quickly access the smallest parts and large label for clear inscription. Made of sturdy polypropylene. Surface dark grey. Clear-view small parts magazines art. no. 83010 110-115 suitable for rotary stands art. no. 83020.

Note:
Engaging partition panels: Cross and longitudinal partitioning. Prices apply to the entire grey plastic magazine including drawers and labels, but without partition panels.

83010 101-106

83010 110-115



Height: 290 mm

Type	Drawers type	Drawers quantity	External dimensions H x W x D mm	83010 ...
290	L-00	30	290 x 310 x 180	101
291	L-01	24	290 x 310 x 180	102
292	L-02	12	290 x 310 x 180	103
294	L-04	12	290 x 310 x 180	104
296	L-06	4	290 x 310 x 180	105
297	L-07	6	290 x 310 x 180	106

Height: 550 mm

Type	Drawers type	Drawers quantity	External dimensions H x W x D mm	83010 ...
550-3	L-00	60	550 x 310 x 180	110
551-3	L-01	48	550 x 310 x 180	111
552-3	L-02	24	550 x 310 x 180	112
554-3	L-04	24	550 x 310 x 180	113
556-3	L-06	8	550 x 310 x 180	114
557-3	L-07	12	550 x 310 x 180	115

83012 - 83015 Spare drawers, partition panels and adhesive labels

TRESTON

83012
Spare drawers
Design
Crystal-clear polystyrene, without partition panels.

Applications
For clear view small parts magazines or also for individual use.

83013
Partition panels, for cross-partitioning.

83014
Partition panels, for longitudinal partitioning.

83015
Adhesive labels
On A4 sheets, self-adhesive.

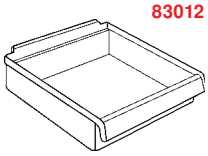
Drawers

Type	External dimensions H x W x D mm	For magazines Type	Pack = pieces	83012 ...
L-00	37 x 55 x 175	290 + 550	30	301
L-01	37 x 69 x 175	291 + 551	24	302
L-02	37 x 138 x 175	292 + 552	12	303
L-04	59 x 92 x 175	294 + 554	12	304
L-06	59 x 277 x 175	296 + 556	4	305
L-07	81 x 138 x 175	297 + 557	6	306

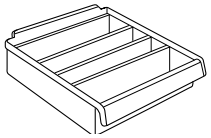
Partition panels

Type	For drawers Type	Pack = pieces	Cross 83013 ...	Longitudinal 83014 ...
V-00	L-00	10	101	
V-01	L-01	10	102	
V-02	L-02	10	103	
V-04	L-04	10	104	
V-06	L-06	10	105	
V-07	L-07	10	106	
V-012	L-01 + L-02	10		101
V-0456	L-04 + L-06	10		102
V-078	L-07	10		103

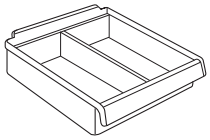
83012



83013



83014



83015

Adhesive labels

For drawers type	Pieces/ sheet	83015 ...
L-00	95	201
L-01 + L-02	76	202
L-04 + L-06	36	203
L-07	52	204

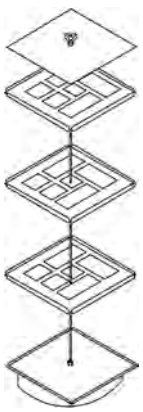
83020 Rotary stand (without magazines)

TRESTON

Design
Ball bearing-mounted rotating assembly, 3 plastic bases and cover for 3 shelves. Suitable for 12 clear-view small parts magazines 550 mm in height according to choice. Magazines art. no. 83010 110-115 must be ordered separately.

Applications
The practical rotary stand is ideal if positioning assorted storage directly at workstations rather than against a wall.
Surface light grey RAL 7035.

83020 + 83010 110-115



Type	Dimensions mm with 12 magazines/ height 550 mm	Load capacity kg	83020 ...
12-550	500 x 500 x 1730	400	101

Factory equipment

83110 - 83111 Drawer magazines

TRESTON

Design
Made of sturdy polypropylene, drawers with labels. All drawers with corrugated base. Material: Polypropylene (crystal clear: polystyrene). Resistant to oil and most weak acids and alkalis.

Colour:
RAL 7035 light grey, powder-coated.

Applications
The magazines can be stacked or fixed to the wall. Use drawer magazines to construct space-saving, practical and flexible small parts storage units.

83110 106

Dimensions mm	H x W x D	395 x 400 x 300 mm			
Magazine type	Drawer type	Drawer quantity	Drawer colour	83110	...
0830	3020	8	Crystal clear		101
0830	3020	8	Red		102
0830	3020	8	Blue		103
0830	3020	8	Grey		104
1630	3010	16	Crystal clear		105
1630	3010	16	Red		106
1630	3010	16	Blue		107
1630	3010	16	Grey		108

83111 104

Dimensions mm	H x W x D	395 x 400 x 400 mm			
Magazine type	Drawer type	Drawer quantity	Drawer colour	83111	...
0840	4020	8	Crystal clear		101
0840	4020	8	Red		102
0840	4020	8	Blue		103
0840	4020	8	Grey		104
1640	4010	16	Crystal clear		105
1640	4010	16	Red		106
1640	4010	16	Blue		107
1640	4010	16	Grey		108

83140 Rotary stand (without magazines)

TRESTON

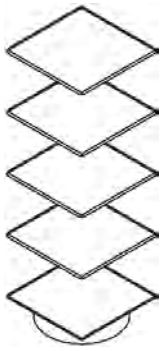
Design
With ball bearing-mounted rotating assembly (also easy to rotate under load). Rotary stands type 16-300 and type 16-400 are suitable for storing larger parts.
Each can be equipped with **16 drawer magazines of your choice**:

Type 16-300 can be equipped with magazines 0830 and 1630 (art. no. 83110).

Type 16-400 can be equipped with magazines 0840 and 1640 (art. no. 83111).
Please order these in addition.

These rotary stands can be hold up to 800 kg.
Complete rotary stand accessories include: Rotating assembly and intermediary panels for 4 shelves.
Colour:
RAL 7035 light grey, powder-coated.

Applications
Maximum use of space: The rotary stand is unrestricted within the area. This facilitates optimal utilisation of each surface area. Clear compact storage with rapid access. A maximum of 1792 different items readily available at any time over less than 1 m^2 of floor space.



83140 101 + 83110

Type	External dimensions H x W x D mm	Load capacity kg	83140	...
16-300	1680 x 700 x 700	800		101
16-400	1680 x 800 x 800	800		102

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83141 Magazine cabinets

Design
- Fully equipped Stala cabinets, fully assembled and ready for immediate use
- Housing made of painted sheet steel
- Delivery incl. labels

Note:
Housing colours RAL 5010 gentian blue and RAL 7035 light grey deliverable on request in dimensions indicated below

83141 101
Type ST P 42
Contents:
42 tilting containers
(H x W x D 70 x 80 x 63 mm)

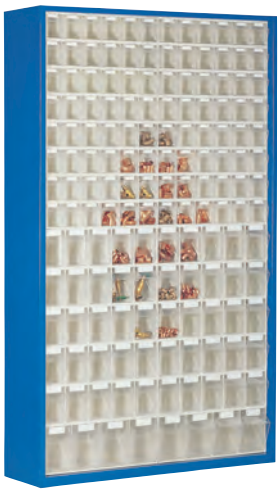
83141 102
Type ST P 61
Contents:
24 tilting containers
(H x W x D 70 x 80 x 63 mm)
25 tilting containers
(H x W x D 108 x 100 x 97 mm)
12 tilting containers
(H x W x D 133 x 128 x 128 mm)

83141 103
Type ST P 154
Contents:
96 tilting containers
(H x W x D 70 x 80 x 63 mm)
50 tilting containers
(H x W x D 108 x 100 x 97 mm)
8 tilting containers
(H x W x D 133 x 128 x 128 mm)

83141 101

83141 102

83141 103



Type	No. of tilting containers	Dimensions H x W x D mm	Housing colour	83141	...
ST P 42	42	910 x 665 x 250	RAL 5010 gentian blue		101
ST P 61	61	2000 x 665 x 250	RAL 7035, light grey		102
ST P 154	154	2000 x 1270 x 250	RAL 5010 gentian blue		103

83340 Sheet-steel easy-view storage bins

Design
Stackable, made from sheet steel, zinc-plated. Upper stack edge reinforced. Incline at front allows for easy filling and removal. With label frame.

Note:
Sheet-steel easy-view storage bins in RAL paint deliverable on request.
For DYMO labellers, see art. no. 78450 ff.

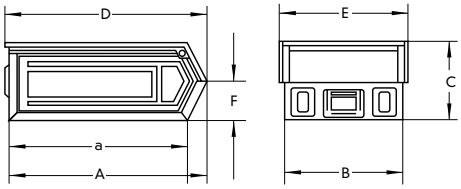
83340 100
Design
With recessed handles.

83340 101-104
Design
With round iron drop handle (Ø 8 mm) on the rear.

83340 105-107
Design
With round iron drop handle (Ø 10 mm) on the rear.

83340

Type	A mm	a mm	B mm	C mm	D mm	E mm	F mm	Weight approx. kg	Volume litres	83340	...
LST/6	230	200	140	130	236	148	65	1.00	3.5		100
LST/5-S	350	300	200	145	355	215	72	1.75	8.5		101
LST/5	350	300	200	200	360	215	95	2.50	11.0		102
LST/4	500	450	300	200	510	315	95	4.00	18.0		104
LST/3	520	450	300	300	530	315	175	6.00	41.0		105
LST/2	520	450	450	300	530	465	175	8.00	60.0		106
LST/1	700	630	450	300	710	465	175	10.00	83.0		107



Info Stacking boxes type ST

Made of sheet steel, powder-coated or zinc-plated, and produced from rustproof stainless steel. Stacking boxes made of sheet steel are highly robust and well-suited for use in metal processing. The very high stacking loads up to 3000 kg are proof of good durability. The top edge is turned over and is reinforced by an all-round, inward-pressed bead, designed for stacking. Drop handles are located on the front.
Standard design: RAL 7000 (squirrel grey), RAL 6011 (green), hot-dip zinc-plated.
Special paint finish or name embossing on request.

Stacking boxes are stackable with easy-view storage bins in the corresponding sizes.

83976 CNC tool chuck holder made of EPP foam

Design
- Tool carrier made of black EPP
- Lightweight yet with very long service life for years of use
- Tools are stored carefully
- Parts can be cut with a bandsaw and glued together with hot glue

Applications
For tools with chuck SK40, SK50 or HSK63. Ideal for equipping of cabinets, drawers and tool trolleys.

83976 101

83976 102

83976 103

83976 104

83976 105

For tools with chuck	Number of inserts max. pieces	83976 ...
SK 40	6	101
SK 40	12	102
SK 50	6	103
HSK 63	10	104
HSK 63	15	105

83945 CNC plastic inserts

Design
The inserts are characterised by precise internal bracing. The tool chuck cone is therefore optimally centred. The insert is latched into the tool chuck holder (art. no. 83950-83951) with a snap closure and can be moved easily and at any time in terms of spacing. Oil resistant, made from impact-resistant and break-proof ABS material, colour: black.

83945 501
Universal insert
Applications
For special sizes.
For self-drilling.

83945 501

	Number of chucks	83945 ...
Steep taper 30	1	101
Steep taper 40	1	102
Steep taper 50	1	103
DIN 69880 cyl. Ø 30 mm/VDI 30	1	201
DIN 69880 cyl. Ø 40 mm/VDI 40	1	202
DIN 69880 cyl. Ø 50 mm/VDI 50	1	203
HSK A 32/B 40	3	402
HSK A 40/B 50	2	403
HSK A 50/B 63	1	404
HSK A 63/B 80	1	405
HSK A 80/B 100	1	406
HSK A 100/B 125	1	407
Capto C 4	1	601
Capto C 5	1	602
Capto C 6	1	603
Universal	-	501

83945 101-103

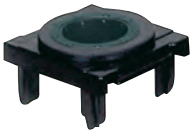
83945 201-203

83945 402

83945 403

83945 404-407

83945 601-603



83950 CNC tool chuck holder (empty)

Design
Made of powder-coated sheet steel.
Standard colour: RAL 7035 Light grey.
Delivery without plastic inserts
(art. no. 83945).

83950 602
Mounting brackets for CNC holder
- 1 pair

83950 601

83950 602

Max. number of inserts			
	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			Universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83950 601	10	7	5

Dimensions H x W x D mm	83950 ...
180 x 620 x 120	601
88 x 75 x 75	602

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83951 CNC table-top frame (empty)

Design
Made of powder-coated sheet steel.
Standard colour: RAL 7035 Light grey.
Delivery without plastic inserts (art. no. 83945).
Applications
Practical support surface makes it the perfect accessory for any CNC machine. Also suitable as wall-mounted holder via holes on the rear.

83951 601

83951 602

83951 605

83951 606

Max. number of inserts	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83951 601	14	10	6
83951 602	20	14	10
83951 605	28	20	12
83951 606	40	28	20

Dimensions H x W x D mm	Shelves	83951 ...
300 x 425 x 375	2	**601**
575 x 375 x 300	2	**602**
525 x 425 x 375	4	**605**
575 x 375 x 525	4	**606**

83953 CNC trolley (empty)

Design
Made of welded square steel tubing, with push handle. 2 steering rollers and 2 fixed castors, 125 mm Ø up to 500 kg load capacity. Can be equipped up to 8 tool chuck holders (art. no. 83950). Including tool storage tray 150 mm depth, 600 mm width and 25 mm height.
Standard colour: RAL 7035 Light grey.

Delivery without tool chuck holder (art. no. 83950) **and plastic inserts** (art. no. 83945).

83953

Dimensions H x W x D mm	83953 ...
860 x 630 x 900	**601**

83954 CNC trolley (empty)

Design
Welded construction. With suspension bracket for tool carrier. Push handle at the front. 2 fixed castors and 2 steering rollers, 125 mm Ø up to 500 kg load capacity. Storage tray for assembly tools and small parts, 3 tool chuck holders (art. no. 83950) can be inserted on each side.
Standard colour: RAL 7035 Light grey.

Delivery without tool chuck holder (art. no. 83950) **and plastic inserts** (art. no. 83945).

83954

Dimension H x W x D mm	83954 ...
950 x 560 x 630	**601**

83958 CNC trolley (empty)

Applications
Optimum storage and secure transport.

83958 601 + 501
Design
- With 1 shelf for CNC tools
- 1 shelf at the bottom
- For max. holding capacity of CNC inserts, see table
- **Delivery without plastic inserts** (art. no. 83945)

83958 602 + 502
Design
- With 2 shelves for CNC tools
- For max. holding capacity of CNC inserts, see table
- Load: 400 kg
- **Delivery without plastic inserts** (art. no. 83945)

83958 601

83958 602

Max. number of inserts	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83958 601/501	80	55	40
83958 602/502	160	110	80

			RAL 7035/5012		RAL 7035/5010	
Dimensions W x D x H mm	**Shelves quantity**	**Load capacity kg**	**83958**	**...**	**83958**	**...**
950 x 665 x 950	1	400		**501**		**601**
950 x 665 x 950	2	400		**502**		**602**

83959 CNC supply trolley (empty)

Design
- Facilitates day-to-day work
- 2 fixed castors and 2 steering rollers with locking device, Ø 125 mm
- Ergonomic handle, allowing the multi-trolley to be moved very easily and used anywhere
- Individual combination options
- Load: 500 kg
- **Delivery without plastic inserts** (art. no. 83945)

83959 101 + 201
CNC trolley R 36-24 (empty)
- With shelf at the bottom

83959 102 + 202
Top shelf
- For CNC trolley R 36-24

83959 103 + 203
Tool chuck shelf wide
- 2 cassettes with bolted fixing brackets 0°, 10° and 20° tiltable

83959 104 + 204
Tool chuck shelf narrow
- 1 cassette with bolted fixing brackets 0°, 10° and 20° tiltable

83959 101

83959 102

Configuration example

83959 103

83959 104

Max. number of inserts	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83959 103/203	32	22	16
83958 104/204	16	11	8

					RAL 7035/5012		RAL 7035/5010	
		Dimensions W x D x H mm	**Shelves quantity**	**Load capacity kg**	**83959**	**...**	**83959**	**...**
1	**CNC trolley R 36-24**	990 x 610 x 1450	-	500		**101**		**201**
2	**Top shelf**	980 x 200 x 30	-	-		**102**		**202**
3	**Tool chuck shelf wide**	942 x 263 x 134	1	80		**103**		**203**
4	**Tool chuck shelf narrow**	942 x 147 x 134	1	40		**104**		**204**

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83955 Drawer cabinets for CNC tools (empty)

MADE IN GERMANY

83955 101-102
70 series drawer cabinet
Design
- Plastic-coated cover panel
- **4 ball bearing-mounted drawers with full extension 100%**
- Drawer panel height 100 mm: load capacity: 100 kg
- Drawer panel height 300 and 400 mm: load capacity: 180 kg
- **Standard paint finish:**
  Housing RAL 7035 light grey
  Drawers RAL 5012 light blue/
  RAL 5010 gentian blue

Scope of delivery
Without tool chuck holder (art. no. 83950) **and without plastic inserts/frames** (art. no. 83945).
Applications
Drawers with front heights of 300 mm and 400 mm can hold 5 tool chuck holders art. no. 83950.

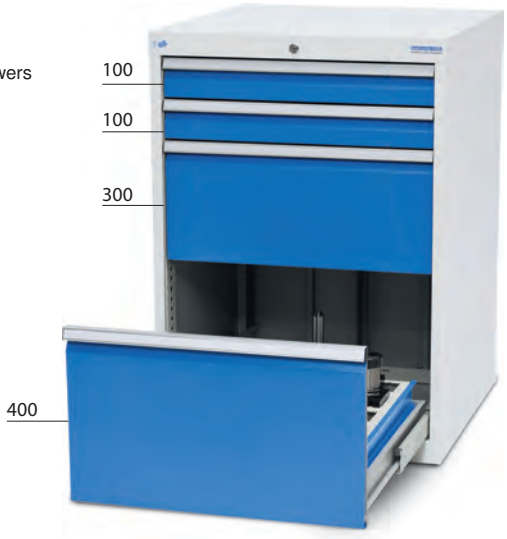
Note:
For tool chuck frames, see art. no. 83952.

83955 605
Hook-in rails
Design
- Pairs

Applications
To lock tool chuck holders art. no. 83950 in drawers of drawer cabinets art. no. 83955 101-102.

83955 605

83955 101



	Dimensions H x W x D mm	RAL 7035/5012 83955 ...	RAL 7035/5010 83955 ...
Drawer cabinet	1019 x 705 x 736	101 NEW	102 NEW
Hook-in rail (pair)	-	605	605

83950 - 83952 CNC tool chuck frame (empty)

Design
Made of powder-coated sheet steel.
Standard colour: RAL 7035 Light grey.
Delivery without plastic inserts
(art. no. 83945).

83952
Applications
Suitable for drawer cabinet art. no. 83955, internal drawer dimensions 600 x 600 mm, drawer height 300/400 mm.

83950

83952

Max. number of inserts			
	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83950 600	35	25	15
83952 601	50	35	25

Dimensions W x D x H mm	83950 ...	83952 ...
450 x 600 x 130	600	
600 x 600 x 130		601

Factory equipment

83956 CNC magazine wall cupboard with plastic roller shutter (empty)

MADE IN GERMANY

Design
- Made of sturdy, welded sheet steel
- With plastic roller shutter, lockable
- The roller shutter is never in the way during work and ensures expensive tools are protected from unauthorised access once work is complete
- The roller shutter with cylinder lock stores the tools securely and protects them from dust
- The roller shutter opens upwards
- Depending on the tool height, any number of tool chuck frames (art. no. 83957) can be hung horizontally or inclined

- Standard paint: RAL 7035 light grey

Scope of delivery

Without tool chuck frame (art. no. 83957) **and without shelves** (art. no. 85136).

85136 101
Shelf
Design
- Adjustment grid 25 x 25 mm
- Load: 100 kg

83956

Equipment example

	Dimensions H x W x D mm	83956 ...	85136 ...
Cabinet	1950 x 1000 x 500	601	
Insert shelf	22 x 925 x 418		101

83957 CNC tool chuck frame (empty)

Design

- Standard paint: RAL 7035 light grey

Scope of delivery

Without plastic inserts (art. no. 83945).

Applications

For CNC magazine wall cupboard, art. no. 83956 601.

83957

Max. number of inserts	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83957 602/603	48	33	24

Version	Load capacity kg	83957 ...
Inclined/straight	120	602
Pull-out	50	603 NEW

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83965 CNC wing door cabinet (empty)

Design
- Sheet-steel housing, welded
- Recessed handle cylinder lock and two keys
- For the use of drawers and pull-outs, opening angle 130°

83965 601 + 501
Wing door cabinet with solid sheet metal doors
Design
- Delivery without installation elements (art. no. 83966) **and plastic inserts** (art. no. 83945)
Configuration example:
- 3 x drawers, 1 x 100, 1 x 150, 1 x 200 mm, 100% extension, load capacity 50 kg (art. no. 83966 101-203)
- 1 x fixed, tilted tool frame (art. no. 83966 302-402)
- 1 x extendible tool frame, 100% extension, load capacity 50 kg (art. no. 83966 301-401)
- 1 x shelf (art. no. 83966 202)

83965 602 + 502
Wing door cabinet with viewing doors (Plexiglas)
Design
- Delivery without installation elements (art. no. 83966) **and plastic inserts** (art. no. 83945)
Configuration example:
- 2 x fixed, tilted tool frame (art. no. 83966 302-402)
- 2 x extendible tool frames, 100% extension, load capacity 50 kg (art. no. 83966 301-401)

83965 602

83965 601

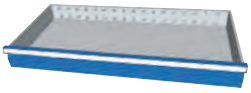
Configuration examples

Version	Dimensions H x W x D mm	Useful height mm	RAL 7035/5012 83965	...	RAL 7035/5010 83965	...
With solid sheet metal doors	1838 x 980 x 500	1719		601		501
With viewing doors	1838 x 980 x 500	1719		602		502

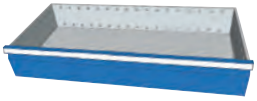
83966 Installation elements for CNC wing door cabinets art. no. 83965

83966 101-204
Drawers
Design
100% extendible.

83966 101



83966 102



83966 103

83966 202
Shelf
Colour: RAL 7035 Light grey.

83966 202

83966 301-402
CNC tool chuck frame

Max. number of inserts			
	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83966 301/302/401/402	48	33	24

83966 301

83966 302

Drawers					RAL 7035/5012 83966	...	RAL 7035/5010 83966	...
Front height mm	Box height mm	Useful height mm	Width x depth mm	Load capacity kg				
100	85	90	900 x 400	50		101		201
150	135	140	900 x 400	50		102		204
200	185	190	900 x 400	50		103		203

Shelf			RAL 7035 83966	...
Height x width x depth mm	Not extendible fixed	Load capacity kg		
22 x 925 x 443	x	80		202

Chuck frame				RAL 7035/5012 83966	...	RAL 7035/5010 83966	...
Width x depth mm	Extendible 100%	Not extendible tilted, fixed	Load capacity kg				
925 x 443	x	-	50		301		401
900 x 443	-	x	80		302		402

Factory equipment

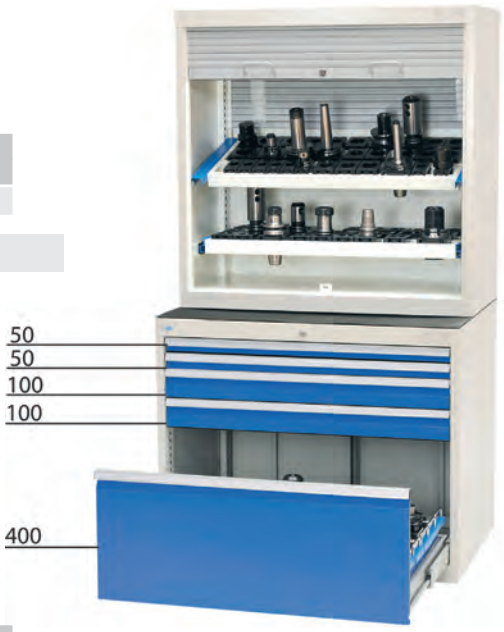
83970 CNC magazine top-mounted cabinet (empty)

MADE IN GERMANY

Design
- Housing made of robust, welded sheet steel
- **With lockable plastic roller shutter**
- Depending on the tool height, 2-3 tool frames can be hung horizontally or inclined
- **Standard paint:** RAL 7035 light grey

Scope of delivery
Without tool chuck frame
(art. no. 83957) **and without plastic inserts**
(art. no. 83945).

83970 601 + 83972 101



	Dimensions H x W x D mm	83970 ...
Top-mounted cabinet	1000 x 1000 x 500	601

83972 Drawer cabinet for CNC tools (empty)

Design
- **Drawer 100% full extension**
- 5 ball bearing-mounted drawers

Drawer panel heights:
- 2x 50 mm: load capacity: 70 kg
- 2x 100 mm: load capacity: 100 kg
- 1x 400 mm: load capacity: 180 kg

5 tool chuck holders (art. no. 83975) can be inserted into 400-mm drawer.

Standard colour:
- Housing RAL 7035, light grey
- **Drawers RAL 5012 light blue**

Scope of delivery
Without tool carrier and CNC inserts.

83972 602
Hook-in rails (pair)
Applications
For locking tool chuck holders into drawers.

RAL 7035/5012

	Dimensions H x W x D	83972 ...
Drawer cabinet	819 x 1005 x 736	101
Hook-in rails (pair)	-	602

83972 602

83973 CNC tool chuck frame (empty)

Design
Made of powder-coated sheet steel.
Standard colour: RAL 7035 Light grey.
Delivery without plastic inserts (art. no. 83945).

Applications
Suitable for drawer cabinet, art. no. 83972.

83973

Max. number of inserts	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83973 601	80	55	40

Dimensions H x W x D mm	83973 ...
900 x 600 x 130	601

83975 CNC tool chuck holder (empty)

Design
Made of powder-coated sheet steel.
Standard colour: RAL 7035 Light grey.
Delivery without plastic inserts (art. no. 83945).

Applications
For drawer cabinet, art. no. 83972 501. 5 tool chuck holders, art. no. 83975, can be inserted into 400-mm front height drawer.

83975

Max. number of inserts	SK 30	SK 40	SK 50
	VDI 30	VDI 40	VDI 50
	MK 3	HSK A50/B63	HSK A32/B40
	MK 4	HSK A63/B80	HSK A40/B50
	Capto C4	MK 5	HSK A80/B100
		Capto C5	HSK A100/B125
			universal
			Capto C3/C6/C8
Art. no.	**Pieces**	**Pieces**	**Pieces**
83975 601	16	11	8

Dimensions H x W x D mm	83975 ...
180 x 920 x 120	601

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apfel

Design
- Robust construction made of powder-coated steel for a long service life
- Direct, dual-sided access to tools for increased health and safety at work, as no need to reach across tools
- Individual equipping with a wide range of brackets and holders for optimum use of space in your company
- **Max. 4500 kg load capacity**
- Up to 900 kg (depending on roller design up to 1800 kg) wheel load per drawer owing to extremely robust plastic rollers
- Transport bags for pallet trucks or forklift trucks for changing locations quickly when empty
- Lockable drawers with labelling field
- Storage space in each drawer for small materials
- **Colours available in:**
  Housing RAL 5012 light blue/RAL 7016 anthracite
  Drawers RAL 9002 grey white
- Structure powder-coated
- Special paint finish possible at extra charge

Applications
For particularly space-saving storage of CNC tools.

Note:
Unequipped tool cabinets for individual equipping with tool holders can be found in the HHW online shop.

83982 300

83982 303

NEW

83982 301

83982 302

MADE IN GERMANY

WKH 403-SK40

WKH 406-SK40

Direct, double-sided access to tools

Maximum load capacity thanks to running castors

Lift recesses for changing position easily

Model	Height mm	Width mm	Depth mm	Tool holder WKH 403-SK40	Tool holder WKH 406-SK40	Vertical extensions quantity x width mm	Colour	83982	...
WKS 002 set	2140	1040	1050	30	-	5 x 180	RAL 5012		**300**
WKS 002 set	2140	1040	1050	30	-	5 x 180	RAL 7016		**400**
WKS 006 set	2140	1040	1300	-	30	5 x 180	RAL 5012		**303**
WKS 006 set	2140	1040	1300	-	30	5 x 180	RAL 7016		**403**

Model	Height mm	Width mm	Depth mm	Tool holder WKH 403-SK40	Vertical extensions quantity x width mm	Colour	83982	...
WKS 001 set	1240	1040	1050	15	5 x 180	RAL 5012		**301**
WKS 001 set	1240	1040	1050	15	5 x 180	RAL 7016		**401**
WKS 013 set	1240	660	1050	9	3 x 180	RAL 5012		**302**
WKS 013 set	1240	660	1050	9	3 x 180	RAL 7016		**402**

83989 CNC-RotaREX® large cabinets

bedrunka+hirth

Design
Housing:
- Robust sheet steel construction
- Load capacity 1.5 t
- For holding up to 5 CNC rotary frames (art. no. 83989 502 + 600-621)
- Individually adjustable in 25 mm grid

Column:
- Steel precision pipe, Ø 60 mm
- Zinc-plated
- Individual adjustment of the column position

Scope of delivery
Without CNC rotary frames and tool inserts (art. no. 83989 502 + 600-621).

NEW

83989 200

83989 201

83989 202

83989 100+200+300+400
Design
- Cabinet with electric roller shutter (remote control)
- Electronically driven roller shutter operable by remote control
- Several cabinets can be opened at the same time (on request) using one remote control
- Aluminium-coloured plastic discs
- In the event of a power failure or technical defect, an emergency release mechanism is provided on the back

83989 101+201+301+401
Design
- Cabinet with roller shutter can be operated manually (without remote control)
- With spring-loaded shaft
- Aluminium-coloured plastic discs

83989 102+202+302+402
Design
- Cabinet with viewing doors
- Hinged doors with recessed handle cylinder lock
- Plexiglas view insert

Cabinet design	Housing dimensions W x D x H mm	RAL 5012 83989 ...	RAL 5010 83989 ...	RAL 7035 83989 ...	RAL 7016 83989 ...
Electric roller shutter (with remote control)	1055 x 1035 x 2130	200	300	400	100
Manual roller shutter (without remote control)	1055 x 1035 x 2130	201	301	401	101
Viewing doors	1055 x 1035 x 1955	202	302	402	102

83989 CNC rotary frame unequipped for RotaREX® large cabinets

bedrunka+hirth

Design
- With handles for optimum access to any tool
- Locking every 90°
- Easy running with steel ball bearing guides
- Colour RAL 7035 light grey

Applications
For CNC-RotaREX® large cabinets (art. no. 83989 100-402).

NEW

83989 502

	RAL 7035 83989 ...
CNC rotary frame unequipped	502

83989 CNC rotary frame equipped for RotaREX® large cabinets

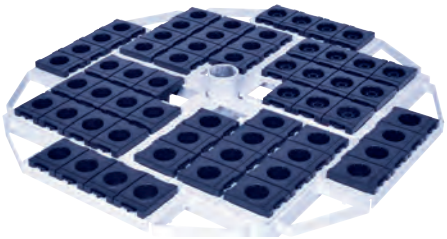
bedrunka+hirth

Design
- CNC rotary frame **fully equipped** with tool inserts (see tables)
- With handles for optimum access to any tool
- Locking every 90°
- Easy running with steel ball bearing guides
- Colour RAL 7035 light grey

Applications
For CNC-RotaREX® large cabinets (art. no. 83989 100-402).

NEW

83989 600-621



Tool inserts				Size 1	
Type	W x D x H mm	Inserts Number	Tools Number	83989	...
ISO/SK 30	49 x 103 x 17	80	80		600
Capto C4	49 x 103 x 17	80	80		601
MK 3	49 x 103 x 17	80	80		602
MK 4	49 x 103 x 17	80	80		603
Cyl/VDI 25	49 x 103 x 17	80	80		604
Cyl/VDI 30	49 x 103 x 17	80	80		605

Tool inserts				Size 2	
Type	W x D x H mm	Inserts Number	Tools Number	83989	...
HSK A 50/B 63	74 x 103 x 17	60	60		606
HSK A 63/B 80	74 x 103 x 17	60	60		607
ISO/SK 40	74 x 103 x 17	60	60		608
Capto C5	74 x 103 x 17	60	60		609
Cyl/VDI 40	74 x 103 x 17	60	60		610
MK5	74 x 103 x 17	60	60		611

Tool inserts				Size 3	
Type	W x D x H mm	Inserts Number	Tools Number	83989	...
HSK A 32/B 40	99 x 103 x 17	32	96		612
HSK A 40/B 50	99 x 103 x 17	32	64		613
HSK A 80/B 100	99 x 103 x 17	32	32		614
HSK A 100/B 125	99 x 103 x 17	32	32		615
ISO/SK 50	99 x 103 x 17	32	32		616
Capto C3	99 x 103 x 17	32	96		617
Capto C6	99 x 103 x 17	32	32		618
Capto C8	99 x 103 x 17	32	32		619
Cyl/VDI 50	99 x 103 x 17	32	32		620
Universal	99 x 103 x 17	32	32		621

CNC-RotaRex® large cabinets – your benefits

- Easy access to the cabinet
- Large number of inserts in the smallest storage area, up to 400 E1 tools can fit in 1m²
- Optimised workflow as all tools are available quickly
- Extensions do not get in the way
- Minimum space requirements
- Maximum utilisation

COLUMN

- Precision steel pipe
- For holding up to 5 CNC frames
- Individually adjustable in 25-mm grid

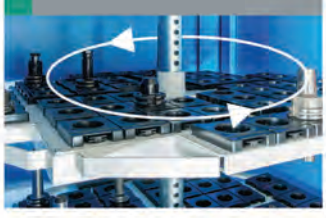
TONGUE

- Individual adjustment of the column position

EMERGENCY RELEASE

- In the event of a power failure or technical defect, an emergency release mechanism is provided on the back

CNC FRAME



- With handles for optimal access to each tool
- Locks at 90° angles
- Smooth running with steel ball bearing guides

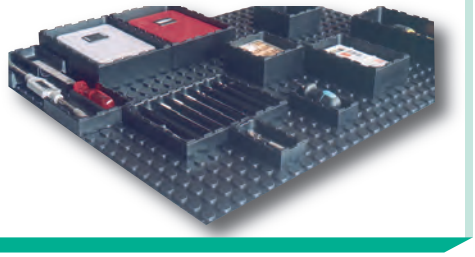
Info

The storage system for maximum requirements AQURADO®
MODULARES ORDNUNGSSYSTEM

- Stackable
- Flexible
- Clearly arranged
Configure your own personal equipment system from a wide selection of system boxes according to the modular principle. This means no wasted space from unnecessary trays and fast access to your tools, adapted to your workflows.

The textured base plate ensures each system box remains firmly in place, even during transport. The system boxes can also be conveniently stacked as required, depending on the drawer height.

AQURADO® can be adapted to suit your requirements - our field service will be happy to help you configure your system.



84131 UNI-BOX

AQURADO®
MODULARES ORDNUNGSSYSTEM

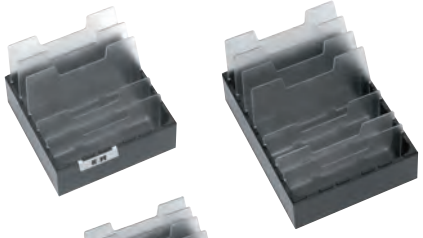
Design
Made from ABS plastic, black.
Simple box for storing a variety of parts.

Note:
Boxes also available in conductive ESD version on request.

84131 212-214
Design
With holes for fixation of dividers (not included in scope of delivery, see art. no. 84137).

84131 101-106 84131 201-211

84131 212 84131 213



84131 214

Outer dimensions W x D x H mm	Internal dimensions W x D x H mm	Max. no. of dividers	84131	...
48 x 96 x 24	37 x 85 x 18	-		101
96 x 96 x 24	85 x 85 x 18	-		102
96 x 144 x 24	85 x 133 x 18	-		103
72 x 192 x 24	61 x 181 x 18	-		106
96 x 192 x 24	85 x 181 x 18	-		104
96 x 288 x 24	85 x 277 x 18	-		105
96 x 96 x 48	85 x 85 x 42	-		201
96 x 144 x 48	85 x 133 x 42	-		202
72 x 192 x 48	61 x 181 x 42	-		211
96 x 192 x 48	85 x 181 x 42	-		203
96 x 240 x 48	85 x 229 x 42	-		204
96 x 288 x 48	85 x 277 x 42	-		205
96 x 336 x 48	85 x 325 x 42	-		206
144 x 144 x 48	133 x 133 x 42	-		207
144 x 192 x 48	133 x 181 x 42	-		208
144 x 384 x 48	133 x 373 x 42	-		209
240 x 336 x 48	229 x 325 x 42	-		210
144 x 144 x 48	133 x 133 x 42	5		212
144 x 192 x 48	133 x 181 x 42	7		213
144 x 384 x 48	133 x 373 x 42	15		214

84137 Dividers

AQURADO®
MODULARES ORDNUNGSSYSTEM

Design
Transparent.

Applications
For Uni boxes, art. no. 84131 212-214.

84137 101 84137 102

Height mm	84137	...
60		101
100		102

84132 MULTI-BOX

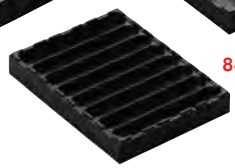
AQURADO®
MODULARES ORDNUNGSSYSTEM

Design
Made from ABS plastic, black.
Box with separate troughs.

Applications
For holding multiple parts without getting them mixed up.

84132 101 84132 102

84132 103



Outer dimensions W x D x H mm	Dimensions per trough mm	No. of troughs	84132	...
96 x 192 x 24	24 x 181 x 18	3		101
96 x 288 x 24	40 x 277 x 18	2		102
144 x 192 x 24	133 x 22 x 18	8		103

AQURADO storage system

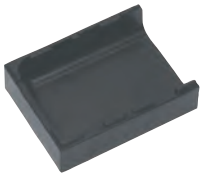
84133 VARIO-BOX

AQURADO® MODULARES ORDNUNGSSYSTEM

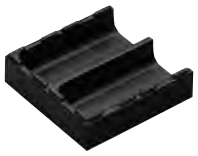
Design
Made from ABS plastic, black.
End pieces for individual length adjustment.

84133 101

84133 107

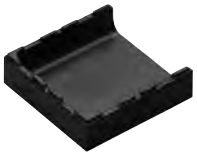


84133 104



84133 103

84133 102



84133 105

84133 106

84133 108

Outer dimensions W x D x H mm	No. of troughs	Trough width mm	84133 ...
73 x 48 x 24	1	37	101
72 x 92 x 24	1	81	107
96 x 96 x 24	2	40	104
96 x 96 x 24	3	24	103
96 x 96 x 24	1	85	102
48 x 192 x 24	8	22	105
73 x 192 x 24	8	22	106
72 x 92 x 48	1	81	108

84134 SPECIAL-BOX

AQURADO® MODULARES ORDNUNGSSYSTEM

Design
Made from ABS plastic, black.
With pre-manufactured tool holders.

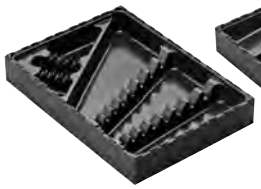
84134 101

84134 102

84134 201

84134 204

84134 208



84134 209

Outer dimensions W x D x H mm	No. of slots	84134 ...
Allen key box, AF 1.5 - 10	96 x 288 x 24	9	101
Vernier calipers box	96 x 288 x 24	1	102
Twist drill box, 1.0 - 6.0/ 0.1 incr.	144 x 144 x 48	51	201
Twist drill box, 6.1 - 10.0/ 0.1 incr.	144 x 192 x 48	48	202
Collet chuck box for ER 16	96 x 144 x 48	10	203
Collet chuck box for ER 25	96 x 288 x 48	16	204
Collet chuck box for ER 32	96 x 288 x 48	12	205
Collet chuck box for ER 40	96 x 336 x 48	13	207
Open-ended/combination wrench box	240 x 336 x 48	12	208
Double-end box wrench box	240 x 336 x 48	8	209
Screwdriver box	144 x 384 x 48	6	210
Socket wrench box 1/2 inch, AF 10 - 32	144 x 384 x 48	22	211

84134 210

84134 211

84135 Base plates

AQURADO® MODULARES ORDNUNGSSYSTEM

Design
Made from ABS plastic, black.
Base plate for securing storage elements, cut to size.

Note:
Also available in conductive ESD versions on request.
For suitable assembly kit, see art. no. 84136 109.

84135

Size mm	84135 ...
430 x 600	099
455 x 528	100
528 x 624	101
600 x 600	102
720 x 525	103
1056 x 624	104

84136 Accessories for AQURADO® organisation systems

AQURADO® MODULARES ORDNUNGSSYSTEM

84136 109
Assembly kit for cutting and securing base plate.
Comprising:
4 adhesive pads, 2 cutting and joining aids,
1 universal blade, assembly instructions.

84136 110-111
Identification labels
Simple insertion, boxes remain stackable. Colour: light grey.

84136 110
Identification label, horizontal.

84136 111
Identification label, vertical.

84136 109

84136 110

84136 111

Size mm	84136 ...
-	109
48 x 15	110
48 x 15	111

84138 Drawers assortments

AQURADO® MODULARES ORDNUNGSSYSTEM

84138 101
17 pieces, suitable for tool cabinet art. no. 82335.

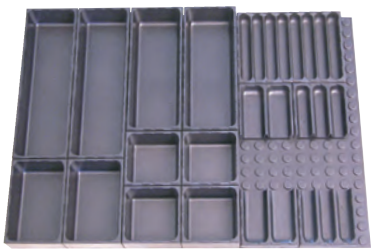
84138 102
15 pieces, suitable for tool cabinet art. no. 84300.

84138 103
21 pieces, suitable for tool cabinet art. no. 84320.

84138 101

84138 101	Set with 17 pieces, consisting of:	
1 x base plate	455 x 525 mm	(art. no. 84135 100)
2 x UNI-BOX	96 x 192 x 48 mm	(art. no. 84131 203)
2 x UNI-BOX	96 x 240 x 48 mm	(art. no. 84131 204)
4 x UNI-BOX	96 x 96 x 48 mm	(art. no. 84131 201)
3 x UNI-BOX	48 x 96 x 24 mm	(art. no. 84131 101)
1 x UNI-BOX	144 x 192 x 26 mm	(art. no. 84132 103)
2 x VARIO-BOX	96 x 96 x 24 mm	(art. no. 84133 103)
2 x VARIO-BOX	96 x 96 x 24 mm	(art. no. 84133 104)

84138 102



84138 102	Set with 15 pieces, consisting of:	
1 x base plate	430 x 600 mm	(art. no. 84135 099)
2 x UNI-BOX	96 x 288 x 48 mm	(art. no. 84131 205)
2 x UNI-BOX	96 x 144 x 48 mm	(art. no. 84131 202)
4 x UNI-BOX	96 x 96 x 48 mm	(art. no. 84131 201)
2 x UNI-BOX	96 x 240 x 48 mm	(art. no. 84131 204)
1 x UNI-BOX	144 x 192 x 24 mm	(art. no. 84132 103)
2 x VARIO-BOX	96 x 96 x 24 mm	(art. no. 84133 103)
2 x VARIO-BOX	96 x 96 x 24 mm	(art. no. 84133 104)

84138 103

84138 103	Set with 21 pieces, consisting of:	
1 x base plate	600 x 600 mm	(art. no. 84135 102)
6 x UNI-BOX	96 x 336 x 48 mm	(art. no. 84131 206)
3 x UNI-BOX	96 x 122 x 48 mm	(art. no. 84131 203)
6 x UNI-BOX	96 x 96 x 24 mm	(art. no. 84131 201)
6 x UNI-BOX	48 x 96 x 24 mm	(art. no. 84131 101)

	84138 ...
17 pieces	101
15 pieces	102
21 pieces	103

Info The simple way to get an overview

AQURADO® MODULARES ORDNUNGSSYSTEM

Textured mat for an optimum grip of modules and for protecting contents; can be cut to ANY drawer size!

Scoring

Breaking

Bonding

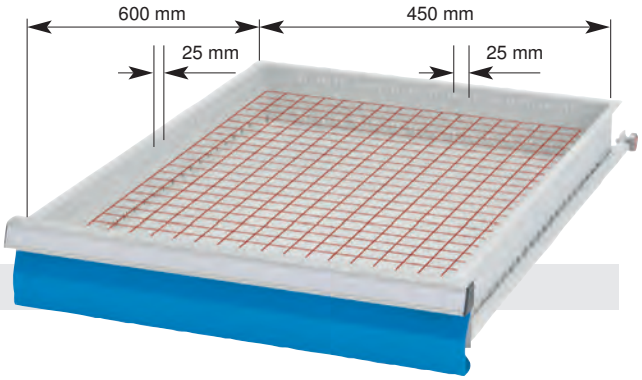
Filling with modules

Info

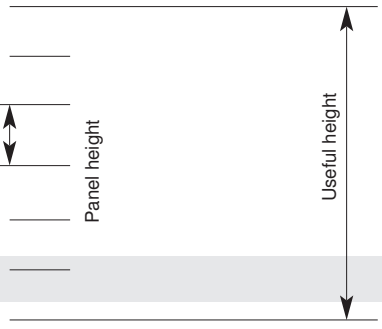
HHW drawer cabinets series T500 and T736

All series offer you:

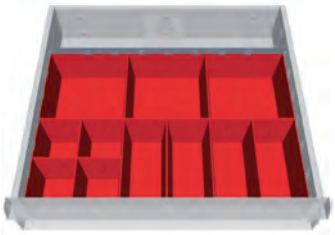
- Secure central locking with „B+H locking system", theft-proof, combination locking systems possible
- 100% extension with various drawer load capacities of 50 - 300 kg
- Increased tip safety through drawer individual extension; only a single drawer can be opened
- Frame reinforced, very stable housing
- Powder coating in 15 standard colours using environmentally friendly painting process. Two-tone painting in standard colours without surcharge
- Manufacturing exclusively in Germany



Drawer space



Drawer partitioning



Partitioning and accessories

Info Drawer cabinets depth 500 mm

Features

3 widths:
- Width: 530 mm
- Width: 680 mm
- Width: 980 mm
- **Housing depth 500 mm**
- Interior drawer depth generally 400 mm

Various heights:
- Width 530 mm: Heights 469, 519, 619, 719, 819, 919 and 1019 mm
- Width 680 mm: Heights 519, 619, 719, 819, 919, 1019 and 1319 mm
- Width 980 mm: Heights 619, 719, 819, 919, 1019 and 1319 mm

- Integrated aluminium handle strips, flush with housing

- Zinc-plated drawers **with slotted sidewalls in 50 mm grid** for subdivisions - fast, comprehensive, efficient partitioning is guaranteed

- Ball-bearing guides
- Full extension (FE) 100%
- Load capacity either 50 kg or 75 kg
- With a panel height of 75 mm, a load capacity of 50 kg only is possible

- Drawers in panel heights of 75, 100, 150, 200, 250 and 300 mm

- Cabinet housing load capacity up to 1.2 t

Info Drawer cabinets depth 736 mm

Features

4 widths:
- Width: 555 mm
- Width: 705 mm
- Width: 1005 mm
- Width: 1305 mm
- **Housing depth 736 mm**
- Interior drawer depth generally 600 mm

Various heights:
- Width 555 mm: Heights 519, 619, 719, 819, 919, 1019, 1219, 1319 and 1519 mm
- Width 705 mm: Heights 519, 619, 719, 819, 919, 1019, 1219, 1319 and 1519 mm
- Width 1005 mm: Heights 519, 619, 719, 819, 919, 1019, 1219, 1319 and 1519 mm
- Width 1305 mm: Heights 819, 919, 1019, 1219, 1319 and 1519 mm

- Recessed, integrated aluminium handle strips, flush with housing

- Drawers in panel heights of 50, 75, 100, 125, 150, 175, 200, 250, 300 and 400 mm

- Powder-coated drawers **with slotted sidewalls in 25 mm grid** for subdivisions - fast, comprehensive, efficient partitioning is guaranteed

- Ball-bearing guides

- Full extension (FE) 100%, load-bearing capacity 70 kg (with 50 mm panel height)
- Full extension (FE) 100%, load-bearing capacity 100 kg (from 75 mm panel height)
- Full extension (FE) 100%, load-bearing capacity 180 kg (from 100 mm panel height)
- Optional: - Full extension (FE) 100%, load-bearing capacity 300 kg (from 100 mm panel height)

New:
- All T736 series drawer cabinets from a panel height of 75 mm can be equipped with soft close.
- Please indicate with your order the desired number of **drawers with soft close** (art. no 84391 101-102)
- Cannot be retrofitted to existing drawers.
- Cabinet housing load capacity up to 1.5 t
- TÜV Rheinland certificate: „GS" mark for tested safety

84250 HHW drawer tool cabinets T736 series/705 mm wide

Design
- Cabinet depth 736 mm
- Welded sheet steel construction
- Housing powder-coated
- Central locking
- **Drawer 100% full extension**
- Drawer panel height 50 mm: load capacity: 70 kg
- Drawer panel height from 75 mm: load capacity: 100 kg
- **Drawer useful dimensions 600 x 600 mm**
- Drawer guides are ball bearing mounted
- Single drawer lock
- Single locking possible per drawer
- Handle strips with labelling strips
- Housing paint RAL 7035, light grey
- Drawer paint RAL 5012 light blue or RAL 5010 gentian blue

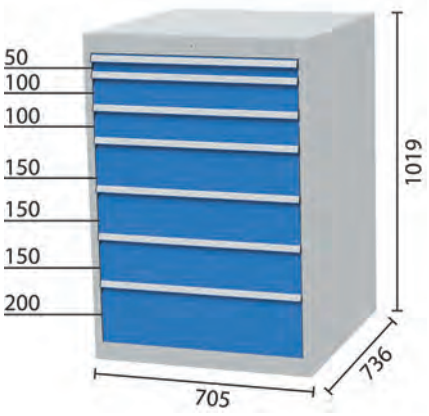
Note:
Loading data with evenly distributed load.

For drawer fitting assortments, see art. no. 84255-84256 and 84326-84377.
For accessories, see art. no. 84370-84385.
For cabinet housing, see art. no. 84410.
For drawers, see art. no. 84416-84418.

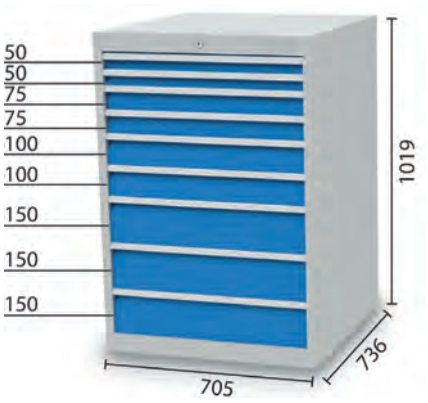
NEW

Depth 736 mm

With 7 drawers



With 9 drawers



Type	H x W x D mm	Tool cabinet with	RAL 7035/5012 84250 ...	RAL 7035/5010 84250 ...
710/7	1019 x 705 x 736	7 drawers	101	201
710/9	1019 x 705 x 736	9 drawers	102	202

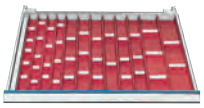
84255 - 84256 Drawer fitting assortments T736 series/705 mm wide

84255
For art. no. 84250 701 + 801
Comprising:
1x set of type 130, 134, 135, 139 and
2x sets of type 144.

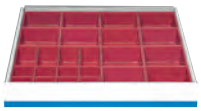
84256
For art. no. 84250 702 + 802
Comprising:
1x set of type 130, 140 and
2x sets of type 138, 143 and 144.

84255 ...	84256 ...
101	101

type 130



type 134



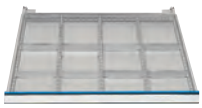
type 135

type 138

type 139

type 140

type 143



type 144

Info Supporting frame for OPT-I-STORE hard foam insert art. no. 59692 101

ATORN®

Design
- Two-tone supporting frame made of polyethylene (PE)
- Lightweight, durable, water-repellent, oil-resistant
- With shock-absorbing properties
- Colour black/blue
- The hard foam is durable, odour-free and suitable for use with foodstuffs

Applications
For clearly arranged, easily organised and protected storage of tools in drawers.

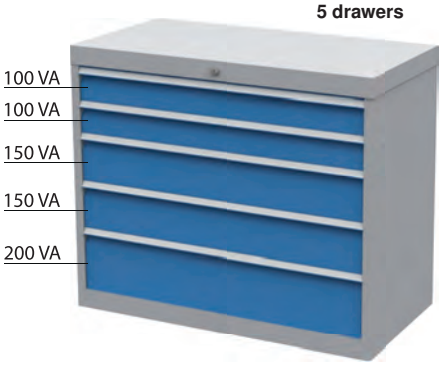
Figure shows supporting frame with
2x OPT-I-STORE hard foam inserts 260x345 mm:
- Hex socket wrench set (art. no. 59665)
- Screwdriver/T-handle wrench set (art. no. 59670)

84720 Drawer tool cabinets T500 series/980 mm wide

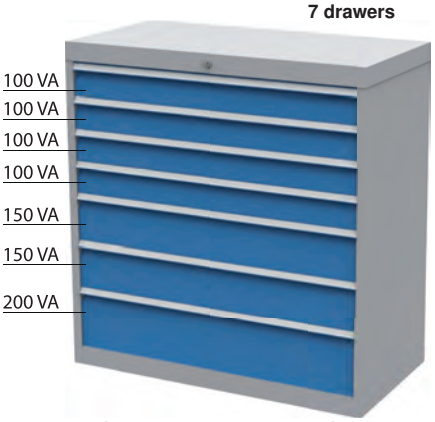
Design
- Welded sheet steel construction
- Housing: Powder-coated
- Drawers: Zinc-plated
- Central locking
- Drawers full extension (FE) 100%
- 50/75 kg load capacity per drawer
- Drawer guides are ball bearing mounted
- Single drawer lock
- Single locking possible per drawer
- Handle strips with labelling strips
- Drawer useful dimensions: 900 x 400 mm
- Cabinet depth: 500 mm
- For individual combination options, see art. no. 84731 + 84450 + 84453

With low depth (500 mm)

5 drawers



7 drawers



8 drawers

Dimensions H x W x D mm	Tool cabinet with	Full extension 100%/50 kg RAL 7035/5012 84720	...	Full extension 100%/50 kg RAL 7035/5010 84720	...	Full extension 100%/75 kg RAL 7035/5012 84720	...	Full extension 100%/75 kg RAL 7035/5010 84720	...
819 x 980 x 500	5 drawers		505		501		405		401
1019 x 980 x 500	7 drawers		502		503		402		403
1319 x 980 x 500	8 drawers		506		504		406		404

84731 Drawer fitting assortments T500 series/980 mm wide

Applications
For cabinets 980 mm wide.

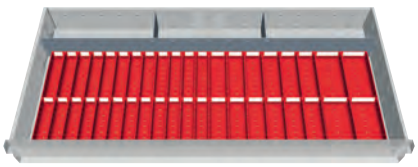
Note:
For individual drawer fitting parts, see art. no. 84450-84478.
For accessories, see art. no. 84724 - 84734

TP = trough plate,
Ins = trough insert wall,
SPB = small part box,
CC = central compartment rail,
D = divider

84731 103

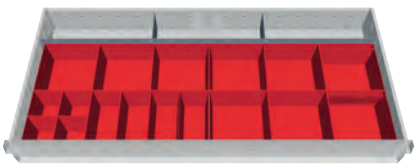
Ribbed rubber inlay (oil-resistant) 900 x 400 mm
Smooth closing of drawers, also in combination with metal drawer partitioning

84731 102



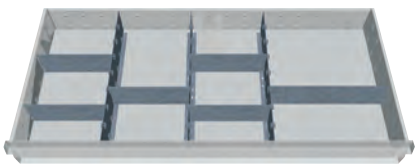
6 x TP with 4 troughs
4 x TP with 3 troughs
2 x TP with 2 troughs
16 x Ins for 4 troughs
12 x Ins for 3 troughs
4 x Ins for 2 troughs
1 x CC 900 mm
2 x D 100 mm

84731 101



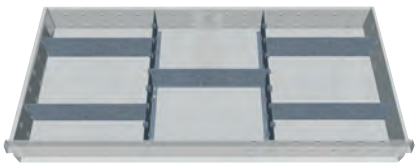
9 x SPB 150 x 150 mm
4 x SPB 75 x 150 mm
4 x SPB 75 x 75 mm
1 x CC 900 mm
2 x D 100 mm

84731 104-106



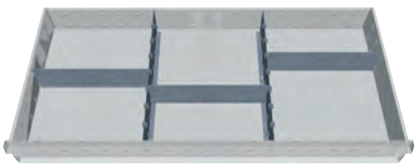
3 x CC 400 mm, 5 x D 200 mm, 1 x D 300 mm

84731 204-206



2 x CC 400 mm, 5 x D 300 mm

84731 304-306



2 x CC 400 mm, 3 x D 300 mm

For front height mm	84731 ...	84731 ...	84731 ...	84731 ...	84731 ...	84731 ...
100		102	101	104	204	304
150				105	205	305
200				106	206	306
All front heights	103					

Continued

Drawer tool cabinets T500 series/980 mm wide

84728 Cabinet housing T500 series/980 mm wide

Design
For variable installation of drawers art. no. 84730 with different front heights.
Standard colour:
RAL 7035 light grey, powder-coated.
Other paints in RAL 3003, 5010, 6011 and 7016 deliverable without surcharge (not in stock).

Note:
The sum of drawer front heights must add up to the useful height of the housing.

84728

Dimensions H x W x D mm	Housing useful height mm	84728	...
819 x 980 x 500	700		601
1019 x 980 x 500	900		602
1319 x 980 x 500	1200		603

84730 Drawers T500 series/980 mm wide

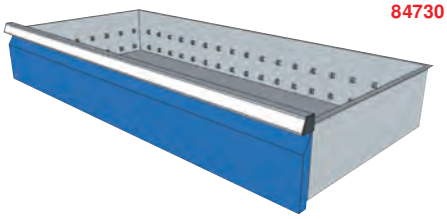
Design
- Dimensions W x D 900 x 400 mm
- Sidewalls with rows of slots on all sides
- Grid spacing 25 mm

Note:
Drawers in 13 additional standard colours available at no additional charge (RAL 1023, 3003, 3020, 5002, 5005, 5013, 6011, 6018, 7016, 7035, 7040, 9005, 9010).

84730 506-811
Design
- Drawers full extension (FE) 100%/50 kg

84405 606-711
Design
- Drawers full extension (FE) 100%/75 kg

84730



Front height mm	Full extension 100%/50 kg RAL 7035/5012 84730	...	Full extension 100%/50 kg RAL 7035/5010 84730	...	Full extension 100%/75 kg RAL 7035/5012 84730	...	Full extension 100%/75 kg RAL 7035/5010 84730	...
100		506		806		706		606
150		507		807		707		607
200		508		808		708		608
300		511		811		711		611

84732 Drawer fitting assortments T500 series/980 mm wide

Design
Sheet steel slotted walls, powder-coated. Separating plates made of zinc-plated sheet steel.
Height 85 mm, for front height 100 mm.
Height 135 mm, for front height 150 mm.
Complete combination per drawer (see model).

Applications
For drawer tool cabinet T500 series (art. no. 84720) and single drawer T500 series (art. no. 84730).

84732 201+204

84732 202+205

84732 203+206

For front height mm	No. of compartments	Central compartment rails qty x length x height	Dividers qty x length x height	84732	...
100	12	2 x 400 x 85	9 x 300 x 85		201
100	16	3 x 400 x 85	6 x 250 x 85 and 6 x 200 x 85		202
100	20	4 x 400 x 85	6 x 150 x 85 and 9 x 200 x 85		203
150	12	2 x 400 x 135	9 x 300 x 135		204
150	16	3 x 400 x 135	6 x 250 x 135 and 6 x 200 x 135		205
150	20	4 x 400 x 135	6 x 150 x 135 and 9 x 200 x 135		206

84734 302-403

Hinged doors
Design
- With rotary latch cylinder lock
- Includes 2 x keys
- Internal hinged doors

Scope of delivery
2 doors

Version	For useful height mm	For cabinet W x D mm	RAL 5012 84734	...	RAL 5010 84734	...
2 doors	700	980 x 500		302 NEW		402 NEW
2 doors	900	980 x 500		303 NEW		403 NEW

81734 104

Shelf
Design
- Shelf load: 80 kg
- Sheet thickness 1 mm
- Shelf 22 mm front, rear 40 mm bent
- Includes 4 H-shaped shelf holders
- Colour: RAL 7035

For cabinet W x D mm	RAL 7035 84734	...
980 x 500		104

84734 105

Pallet truck base
Design
- Strong, sturdy construction
- With 2 panels.
- Colour: RAL 7035

Note:
Transportable only in unloaded state, max. cabinet height 1019 mm.
Fork lift-compatible base deliverable on request.

Width mm	Depth mm	Height mm	RAL 7035 84734	...
980	500	112		105

84734 106

Mobile addition
Design
- Steel plate with 4 x steering rollers Ø 125 mm
- 2 of which have locking device
- Incl. push handle for tool cabinet
- Colour: RAL 7035

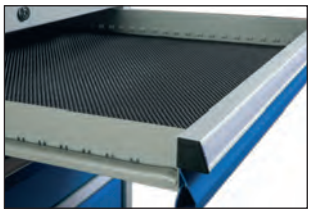
Width mm	Depth mm	Height mm	RAL 7035 84734	...
980	500	150		106

84731 103

Ribbed rubber inlay
Design
- Oil resistant
- Smooth closing of drawers, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84731	...
900	400	3		103

84734 108



Non-slip mat
Design
- Non-slip mat secures tools
- Inlay for drawer
- Smooth closing of drawer, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84734	...
900	400	3		108

84734 109

Cover panel
Design
- Beech multiplex plywood panel
- Produced from multi-layered, waterproof, glued beech wood
- With even strength in longitudinal and transverse direction

Width mm	Depth mm	Height mm	84734	...
980	500	25		109

84734 110

Cover panel
Design
- Melamine resin-coated chipboard
- Colour: RAL 7035
- 19 mm boltable

Width mm	Depth mm	Height mm	RAL 7035 84734	...
980	500	19		110

84734 111

Metal anti-roll-off edging
Design
- Sheet steel with 20 mm edges on three sides, 1.5 mm thick, powder-coated
- Colour: RAL 7035

Width mm	Depth mm	Height mm	RAL 7035 84734	...
980	500	20		111

84301 - 84391 Drawer tool cabinets T736 series/555 mm wide

Design
- Cabinet depth 736 mm
- Welded sheet steel construction
- Housing powder-coated
- Central locking
- **Drawer 100% full extension**
- Drawer panel height 50 mm: load capacity: 70 kg
- Drawer panel height from 75 mm: load capacity: 100 kg
- **Drawer useful dimensions 450 x 600 mm**
- Drawer guides are ball bearing mounted
- Single drawer lock
- Single locking possible per drawer
- Handle strips with labelling strips
- Housing paint RAL 7035, light grey
- Drawer paint RAL 5012 light blue or RAL 5010 gentian blue Colour combination RAL 7035 light grey/7016 anthracite can be ordered via the HHW online shop
- Other colours deliverable on request

Note:
Loading data with evenly distributed load.

For drawer fitting assortments, see art. no. 84306-84377.
For accessories, see art. no. 84370-84385.
For cabinet housing, see art. no. 84400.
For drawers, see art. no. 84405.

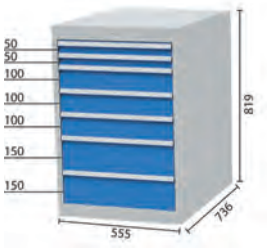
Depth 736 mm

Dimensions of drawers											
Front height	mm	50	75	100	125	150	175	200	250	300	400
Useful height	mm	30	58	83	108	133	158	183	233	283	383
Box height	mm	28	56	81	81	131	131	181	181	181	81

Drawer tool cabinets in the most common drawer combinations:

4 drawers
Type 508/4

5 drawers
Type 508/5



7 drawers
Type 508/7

5 drawers
Type 510/5

6 drawers
Type 510/6

7 drawers
Type 510/7

Type	H x W x D mm	Tool cabinet with	RAL 7035/5012 84301 ...	RAL 7035/5010 84301 ...
508/4	819 x 555 x 736	4 drawers	**101**	**201**
508/5	819 x 555 x 736	5 drawers	**102**	**202**
508/7	819 x 555 x 736	7 drawers	**103**	**203**
510/5	1019 x 555 x 736	5 drawers	**104**	**204**
510/6	1019 x 555 x 736	6 drawers	**105**	**205**
510/7	1019 x 555 x 736	7 drawers	**106**	**206**

Soft-close drawers
- Possible from a panel height of 75 mm
- Please indicate with your order the desired number of drawers with soft close
- The price shown is the extra price per drawer
- Cannot be retrofitted to existing drawers

Note:
Please note! When opening, the drawer must remain open for at least 5 seconds because of the soft-close cylinder, as otherwise the soft-close mechanism will be damaged. Proper functioning is then no longer guaranteed.

Soft-close drawers Application from panel height mm	Load capacity kg	84391 ...
75	100	**101**
100	180	**102**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

84306 - 84377 Drawer fitting assortments T736 series/555 mm wide

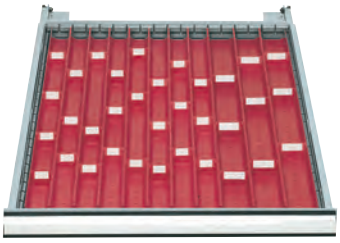
Applications
For cabinets 555 mm wide.

Note:
For individual drawer fitting parts, see art. no. 84450-84478.

TP = trough plate,
Ins = trough insert wall,
SPB = small part box,
CC = central compartment rail,
D = divider.

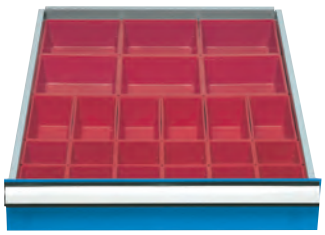
84377

Model: 501
1 x ribbed rubber inlay 450 x 600 mm



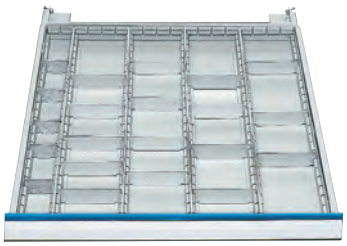
84306

Model: 502
8 x TP with 4 troughs,
4 x TP with 3 troughs,
20 x Ins for 4 troughs,
40 x Ins for 3 troughs



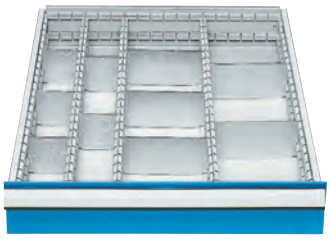
84307

Model: 504
6 x SPB 150 x 150 x 65 mm,
6 x SPB 75 x 150 x 65 mm,
12 x SPB 75 x 75 x 65 mm



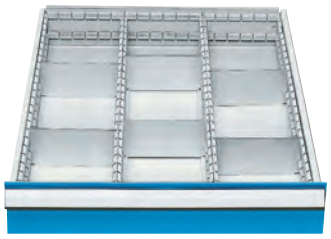
84308

Model: 505
4 x CC 600 mm, 5 x D 50 mm, 16 x D 100 mm



84309

Model: 506
3 x CC 600 mm, 5 x D 75 mm, 5 x D 150 mm



84310

Model: 507
2 x CC 600 mm, 6 x D 150 mm

Model	501		502		504		505		506		507	
For front height mm	84377	...	84306	...	84307	...	84308	...	84309	...	84310	...
50				201				101		101		101
75								102		102		102
100 and 125						103		103		103		103
150 and 175												104
200												105
All front heights		101										

84400 Cabinet housing T736 series/555 mm wide

Design
Cabinet housing made of high-quality fine sheeting 1.0 mm thick, solid and precise workmanship, special profile reinforcements to ensure the neces-**sary stability. Sheet steel cover, with central lock and drawer lock** (only 1 drawer extendible), **but without drawers** and without guide rails, variable installation of drawers with different front heights.

Standard colour:
RAL 7035 Light grey.
Other paints in RAL 3003, 3020, 5012, 5013, 5015, 6011, 9005 and 7040 deliverable without surcharge (not in stock).

Note:
The sum of drawer front heights must add up to the useful height of the housing.

84400

External dimensions H x W x D mm	Housing useful height mm	84400	...
519 x 555 x 736	400		601
819 x 555 x 736	700		602
919 x 555 x 736	800		604 NEW
1019 x 555 x 736	900		603
1319 x 555 x 736	1200		605 NEW

Continued

84405 Drawers T736 series/555 mm wide

Design
- Dimensions W x D 450 x 600 mm
- Sidewalls with rows of slots on all sides
- Grid spacing 25 mm

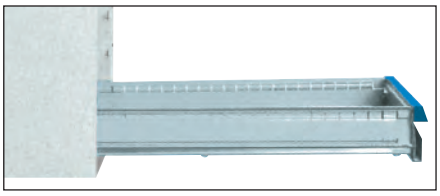
Note:
Drawers in 13 additional standard colours available at no additional charge (RAL 1023, 3003, 3020, 5002, 5005, 5013, 6011, 6018, 7016, 7035, 7040, 9005, 9010).

84405 701 + 801
Design
- Drawers full extension (FE) 100%/70 kg

84405 702-709 and 802-809
Design
- Drawers full extension (FE) 100%/100 kg

84405 211-318
Design
- Drawers full extension (FE) 100%/180 kg

84405



Front height mm	Full extension 100%/70 kg RAL 7035/5012 84405 ...	Full extension 100%/70 kg RAL 7035/5010 84405 ...	Full extension 100%/100 kg RAL 7035/5012 84405 ...	Full extension 100%/100 kg RAL 7035/5010 84405 ...	Full extension 100%/180 kg RAL 7035/5012 84405 ...	Full extension 100%/180 kg RAL 7035/5010 84405 ...
50	701	801				
75			702	802		
100			703	803	211 NEW	311 NEW
125			704	804	212 NEW	312 NEW
150			705	805	213 NEW	313 NEW
175			706	806	214 NEW	314 NEW
200			707	807	215 NEW	315 NEW
250			708	808	216 NEW	316 NEW
300			709	809	217 NEW	317 NEW
400					218 NEW	318 NEW

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

84380

Hinged doors
Design
- With rotary latch cylinder lock
- Includes 2 x keys
- Internal hinged door

Scope of delivery
1 door

Version	For useful height mm	For cabinet W x D mm	RAL 5012 84380	...	RAL 5010 84380	...
One door	700	555 x 736		111 NEW		211 NEW
One door	900	555 x 736		114 NEW		214 NEW

84381

Shelf
Design
- Shelf load: 80 kg
- Sheet thickness 1 mm
- Shelf 22 mm front, rear 40 mm bent
- Includes 4 H-shaped shelf holders
- Colour: RAL 7035

For cabinet W x D mm	RAL 7035 84381	...
555 x 736		101

84379

Pallet truck base
Design
- Strong, sturdy construction
- With 2 panels.
- Colour: RAL 7035

Note:
Transportable only in unloaded state, max. cabinet height 1019 mm.
Fork lift-compatible base deliverable on request.

Width mm	Depth mm	Height mm	RAL 7035 84379	...
555	736	112		601

84385

Mobile addition
Design
- Steel plate with 4 x steering rollers Ø 125 mm
- 2 of which have locking device
- Incl. push handle for tool cabinet
- Colour: RAL 7035

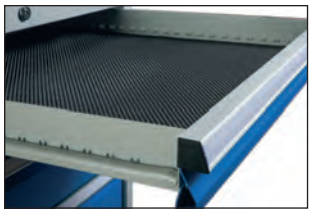
Width mm	Depth mm	Height mm	RAL 7035 84385	...
555	736	150		101

84377

Ribbed rubber inlay
Design
- Oil resistant
- Smooth closing of drawers, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84377	...
450	600	3		101

84378



Non-slip mat
Design
- Non-slip mat secures tools
- Inlay for drawer
- Smooth closing of drawer, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84378	...
450	600	3		101

84371

Cover panel
Design
- Beech multiplex plywood panel
- Produced from multi-layered, waterproof, glued beech wood
- With even strength in longitudinal and transverse direction

Width mm	Depth mm	Height mm	84371	...
555	736	25		101

84370

Cover panel
Design
- Melamine resin-coated chipboard
- Colour: RAL 7035
- 19 mm boltable

Width mm	Depth mm	Height mm	RAL 7035 84370	...
555	736	19		101

84373

Metal anti-roll-off edging
Design
- Sheet steel with 20 mm edges on three sides, 1.5 mm thick, powder-coated
- Colour: RAL 7035

Width mm	Depth mm	Height mm	RAL 7035 84373	...
555	736	20		601

84376

Ribbed rubber support
Design
- Oil resistant
- Can be used in conjunction with anti-roll-off edging (art. no. 84373 601)
- Can also be used as a separate support
- Colour: black

Width mm	Depth mm	Height mm	84376	...
555	736	3		101

84320 - 84391 Drawer tool cabinets T736 series/705 mm wide

Design
- Cabinet depth 736 mm
- Welded sheet steel construction
- Housing powder-coated
- Central locking
- **Drawer 100% full extension**
- Drawer panel height 50 mm: load capacity: 70 kg
- Drawer panel height from 75 mm: load capacity: 100 kg
- **Drawer useful dimensions 600 x 600 mm**
- Drawer guides are ball bearing mounted
- Single drawer lock
- Single locking possible per drawer
- Handle strips with labelling strips
- Housing paint RAL 7035, light grey
- Drawer paint RAL 5012 light blue or RAL 5010 gentian blue Colour combination RAL 7035 light grey/7016 anthracite can be ordered via the HHW online shop
- Other colours deliverable on request

Note:
Loading data with evenly distributed load.

For drawer fitting assortments, see art. no. 84326-84377.
For accessories, see art. no. 84370-84385.
For cabinet housing, see art. no. 84410.
For drawers, see art. no. 84416-84418.

Depth 736 mm

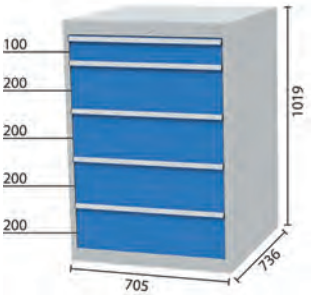
Dimensions of drawers												
Front height	**mm**	**50**	**75**	**100**	**125**	**150**	**175**	**200**	**250**	**300**	**CNC 300**	**CNC 400**
Useful height	**mm**	**30**	**58**	**83**	**108**	**133**	**158**	**183**	**233**	**283**	**283**	**383**
Box height	**mm**	**28**	**56**	**81**	**81**	**131**	**131**	**181**	**181**	**181**	**81**	**81**

Drawer tool cabinets in the most common drawer combinations:

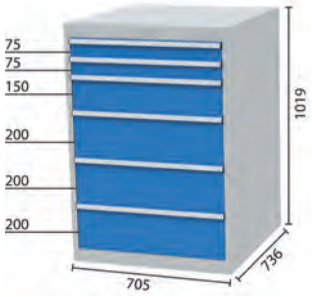
5 drawers
Type 708/5

7 drawers
Type 708/7

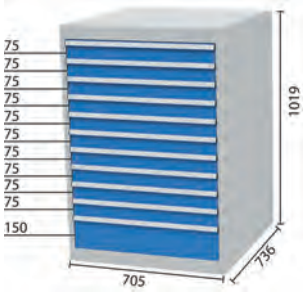
NEW



5 drawers
Type 710/5



6 drawers
Type 710/6



11 drawers
Type 710/11

9 drawers
Type 713/9

Type	H x W x D mm	Tool cabinet with	RAL 7035/5012 84320	...	RAL 7035/5010 84320	...
708/5	819 x 705 x 736	5 drawers			111	211
708/7	819 x 705 x 736	7 drawers			112	212
710/5	1019 x 705 x 736	5 drawers			113	213
710/6	1019 x 705 x 736	6 drawers			114	214
710/11	1019 x 705 x 736	11 drawers			115	215
713/9	1319 x 705 x 736	9 drawers			116	216

Soft-close drawers
- Possible from a panel height of 75 mm
- Please indicate with your order the desired number of drawers with soft close
- The price shown is the extra price per drawer
- Cannot be retrofitted to existing drawers

Note:
Please note! When opening, the drawer must remain open for at least 5 seconds because of the soft-close cylinder, as otherwise the soft-close mechanism will be damaged. Proper functioning is then no longer guaranteed.

NEW

Soft-close drawers Application from panel height mm	Load capacity kg	84391	...
75	100		101
100	180		102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

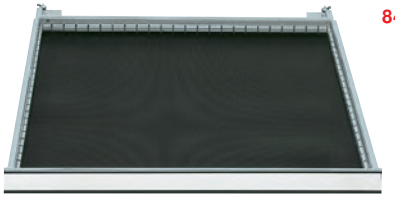
84326 - 84377 Drawer fitting assortments T736 series/705 mm wide

Applications
For cabinets 705 mm wide.

Note:
For individual drawer fitting parts, see art. no. 84450 - 84478.

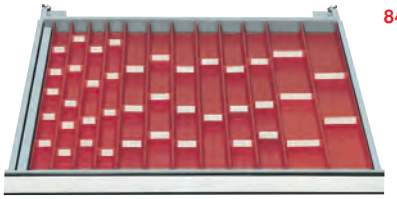
TP = trough plate,
Ins = trough insert wall,
SPB = small part box,
CC = central compartment rail,
D = divider.

84377



Model: 701
1 x ribbed rubber inlay 600 x 600 mm

84326

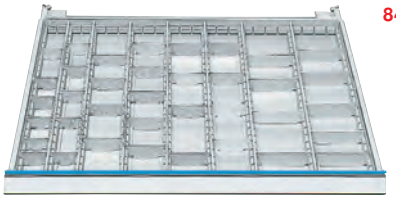


Model: 702
4 x TP with 4 troughs, 20 x Ins for 4 troughs,
8 x TP with 3 troughs, 30 x Ins for 3 troughs,
4 x TP with 2 troughs, 10 x Ins for 2 troughs

84327

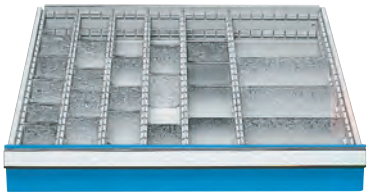
Model: 704
8 x SPB 150 x 150 x 65 mm,
8 x SPB 75 x 150 x 65 mm,
16 x SPB 75 x 75 x 65 mm

84328



Model: 705
7 x CC 600 mm, 11 x D 50 mm,
16 x D 75 mm, 9 x D 100 mm

84329



Model: 706
5 x CC 600 mm, 15 x D 75 mm,
4 x D 100 mm, 3 x D 200 mm

84330

Model: 707
3 x CC 600 mm, 9 x D 150 mm

Model	701		702		704		705		706		707	
For front height mm	84377	...	84326	...	84327	...	84328	...	84329	...	84330	...
50				201				101		101		101
75								102		102		102
100 and 125						103		103		103		103
150 and 175												104
200												105
All front heights		102										

84410 Cabinet housing T736 series/705 mm wide

Design
Cabinet housing made of high-quality fine sheeting 1.0 mm thick, solid and precise workmanship. Special profile reinforcements to ensure the necessary stability. Sheet steel cover, **with central lock and drawer lock** (only 1 drawer extendible), **but without drawers** and without guide rails, variable installation of drawers with different front heights and load.

Standard colour:
RAL 7035 Light grey.
Other paints in RAL 3003, 3020, 5012, 5013, 5015, 6011, 9005 and 7040 deliverable without surcharge (not in stock).

Note:
The sum of drawer front heights must add up to the useful height of the housing.

84410

External dimensions H x W x D mm	Housing useful height mm	84410	...
519 x 705 x 736	400		601
819 x 705 x 736	700		602
1019 x 705 x 736	900		603
1319 x 705 x 736	1200		604
1519 x 705 x 736	1400		605

Continued

84416 - 84418 Drawers T736 series/705 mm wide

Design
- Dimensions W x D 600 x 600 mm
- Sidewalls with rows of slots on all sides
- Grid spacing 25 mm

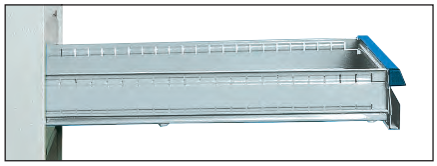
Note:
Drawers in 13 additional standard colours available at no additional charge (RAL 1023, 3003, 3020, 5002, 5005, 5013, 6011, 6018, 7016, 7035, 7040, 9005, 9010).

84416 501 + 601
Design
- Drawers full extension (FE) 100%/70 kg

84416 502-509 and 602-609
Design
- Drawers full extension (FE) 100%/100 kg

84418
Design
- Drawers full extension (FE) 100%/180 kg

84416 - 84418



Front height mm	Full extension 100%/70 kg RAL 7035/5012 84416 ...	Full extension 100%/70 kg RAL 7035/5010 84416 ...	Full extension 100%/100 kg RAL 7035/5012 84416 ...	Full extension 100%/100 kg RAL 7035/5010 84416 ...	Full extension 100%/180 kg RAL 7035/5012 84418 ...	Full extension 100%/180 kg RAL 7035/5010 84418 ...
50	501	601				
75			502	602		
100			503	603	513 NEW	713 NEW
125			504	604	514 NEW	714 NEW
150			505	605	515 NEW	715 NEW
175			506	606	516 NEW	716 NEW
200			507	607	517 NEW	717 NEW
250			508	608	518 NEW	718 NEW
300			509	609	519 NEW	719 NEW
CNC 300					520 NEW	720 NEW
CNC 400					521 NEW	721 NEW

Info Supporting frame for OPT-I-STORE hard foam insert art. no. 59692 101

ATORN®

Design
- Two-tone supporting frame made of polyethylene (PE)
- Lightweight, durable, water-repellent, oil-resistant
- With shock-absorbing properties
- Colour black/blue
- The hard foam is durable, odour-free and suitable for use with foodstuffs

Applications
For clearly arranged, easily organised and protected storage of tools in drawers.

Figure shows supporting frame with
2x OPT-I-STORE hard foam inserts 260x345 mm:
- Hex socket wrench set (art. no. 59665)
- Screwdriver/T-handle wrench set (art. no. 59670)

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

84380

Hinged doors
Design
- With rotary latch cylinder lock
- Includes 2 x keys
- Internal hinged door

Scope of delivery
1 door

Version	For useful height mm	For cabinet W x D mm	RAL 5012 84380	...	RAL 5010 84380	...
One door	700	705 x 736		112 NEW		212 NEW
One door	900	705 x 736		115 NEW		215 NEW

84381

Shelf
Design
- Shelf load: 80 kg
- Sheet thickness 1 mm
- Shelf 22 mm front, rear 40 mm bent
- Includes 4 H-shaped shelf holders
- Colour: RAL 7035

For cabinet W x D mm	RAL 7035 84381	...
705 x 736		102

84379

Pallet truck base
Design
- Strong, sturdy construction
- With 2 panels.
- Colour: RAL 7035

Note:
Transportable only in unloaded state, max. cabinet height 1019 mm.
Fork lift-compatible base deliverable on request.

Width mm	Depth mm	Height mm	RAL 7035 84379	...
705	736	112		602

84385

Mobile addition
Design
- Steel plate with 4 x steering rollers Ø 125 mm
- 2 of which have locking device
- Incl. push handle for tool cabinet
- Colour: RAL 7035

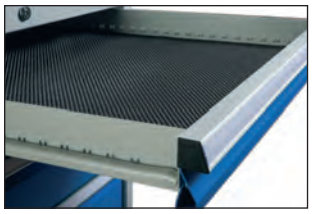
Width mm	Depth mm	Height mm	RAL 7035 84385	...
705	736	150		102

84377

Ribbed rubber inlay
Design
- Oil resistant
- Smooth closing of drawers, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84377	...
600	600	3		102

84378



Non-slip mat
Design
- Non-slip mat secures tools
- Inlay for drawer
- Smooth closing of drawer, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84378	...
600	600	3		102

84371

Cover panel
Design
- Beech multiplex plywood panel
- Produced from multi-layered, waterproof, glued beech wood
- With even strength in longitudinal and transverse direction

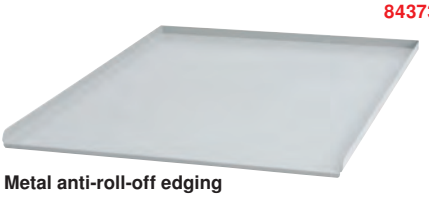
Width mm	Depth mm	Height mm	84371	...
705	736	25		102

84370

Cover panel
Design
- Melamine resin-coated chipboard
- Colour: RAL 7035
- 19 mm boltable

Width mm	Depth mm	Height mm	RAL 7035 84370	...
705	736	19		102

84373



Metal anti-roll-off edging
Design
- Sheet steel with 20 mm edges on three sides, 1.5 mm thick, powder-coated
- Colour: RAL 7035

Width mm	Depth mm	Height mm	RAL 7035 84373	...
705	736	20		602

84376

Ribbed rubber support
Design
- Oil resistant
- Can be used in conjunction with anti-roll-off edging (art. no. 84373 602)
- Can also be used as a separate support
- Colour: black

Width mm	Depth mm	Height mm	84376	...
705	736	3		102

84342 - 84391 Drawer tool cabinets T736 series/1005 mm wide

Design
- Cabinet depth 736 mm
- Welded sheet steel construction
- Housing powder-coated
- Central locking
- **Drawer 100% full extension**
- Drawer panel height 50 mm: load capacity 70 kg
- Drawer panel height from 75 mm: load capacity: 100 kg
- **Drawer useful dimensions 900 x 600 mm**
- Drawer guides are ball bearing mounted
- Single drawer lock
- Single locking possible per drawer
- Handle strips with labelling strips
- Housing paint RAL 7035, light grey
- Drawer paint RAL 5012 light blue or RAL 5010 gentian blue Colour combination RAL 7035 light grey/7016 anthracite can be ordered via the HHW online shop
- Other colours deliverable on request

Note:
Loading data with evenly distributed load.

For drawer fitting assortments, see art. no. 84346-84377.
For accessories, see art. no. 84370-84385.
For cabinet housing, see art. no. 84420.
For drawers, see art. no. 84426-84428.

Depth 736 mm

Dimensions of drawers										
Front height	mm	50	75	100	125	150	175	200	300	CNC 400
Useful height	mm	30	58	83	108	133	158	183	283	383
Box height	mm	28	56	81	81	131	131	181	181	81

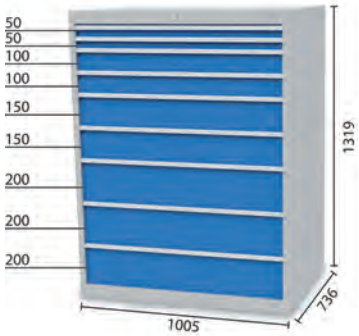
Drawer tool cabinets in the most common drawer combinations:

6 drawers
Type 1010/6

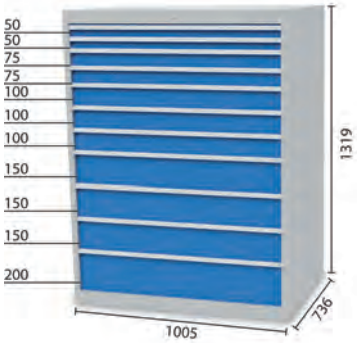
7 drawers
Type 1010/7

8 drawers
Type 1010/8

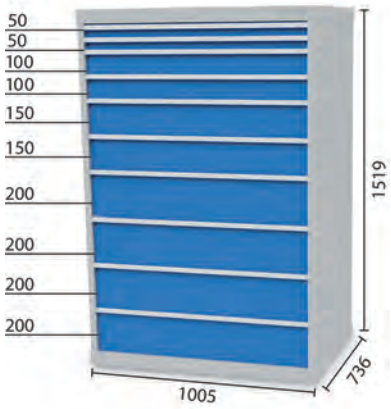
NEW



9 drawers
Type 1013/9



11 drawers
Type 1013/11



10 drawers
Type 1015/10

Type	H x W x D mm	Tool cabinet with	RAL 7035/5012 84342	...	RAL 7035/5010 84342	...
1010/6	1019 x 1005 x 736	6 drawers		101		201
1010/7	1019 x 1005 x 736	7 drawers		102		202
1010/8	1019 x 1005 x 736	8 drawers		103		203
1013/9	1319 x 1005 x 736	9 drawers		105		205
1013/11	1319 x 1005 x 736	11 drawers		104		204
1015/10	1519 x 1005 x 736	10 drawers		106		206

Soft-close drawers
- Possible from a panel height of 75 mm
- Please indicate with your order the desired number of drawers with soft close
- The price shown is the extra price per drawer
- Cannot be retrofitted to existing drawers

Note:
Please note! When opening, the drawer must remain open for at least 5 seconds because of the soft-close cylinder, as otherwise the soft-close mechanism will be damaged. Proper functioning is then no longer guaranteed.

NEW

Soft-close drawers

Application from panel height mm	Load capacity kg	84391	...
75	100		101
100	180		102

84346 - 84377 Drawer fitting assortments T736 series/1005 mm wide

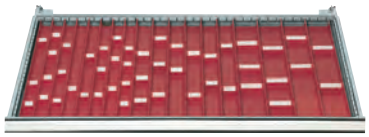
Applications
For cabinets 1005 mm wide.

Note:
For individual drawer fitting parts, see art. no. 84450-84478.

TP = trough plate,
Ins = trough insert wall,
SPB = small part box,
CC = central compartment rail,
D = divider.

84377

Model: 1001
1 x ribbed rubber inlay 900 x 600 mm

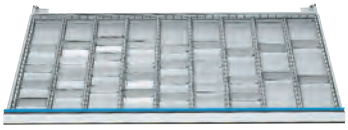


84346

Model: 1002
8 x TP with 4 troughs, 40 x Ins for 4 troughs,
8 x TP with 3 troughs, 30 x Ins for 3 troughs,
8 x TP with 2 troughs, 20 x Ins for 2 troughs

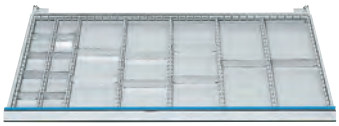
84347

Model: 1004
9 x SPB 150 x 150 x 65 mm,
18 x SPB 75 x 150 x 65 mm,
24 x SPB 75 x 75 x 65 mm



84348

Model: 1005
8 x CC 600 mm, 30 x D 100 mm



84349

Model: 1006
6 x CC 600 mm, 8 x D 75 mm, 8 x D 150 mm

84350

Model: 1007
5 x CC 600 mm, 15 x D 150 mm

Model	1001		1002		1004		1005		1006		1007	
For front height mm	84377	...	84346	...	84347	...	84348	...	84349	...	84350	...
50				201				101		101		101
75								102		102		102
100 and 125						103		103		103		103
150 and 175												104
200												105
All front heights		103										

84420 Cabinet housing T736 series/1005 mm wide

Design
Cabinet housing made of high-quality fine sheeting 1.0 mm thick, solid and precise workmanship. Special profile reinforcements to ensure the necessary stability, sheet steel cover, **with central lock and drawer lock,** (only 1 drawer extendible), **but without drawers** and without guide rails, variable installation of drawers with different front heights and load.

Standard colour:
RAL 7035 Light grey.
Other paints in RAL 3003, 3020, 5012, 5013, 5015, 6011, 9005 and 7040 deliverable without surcharge (not in stock).

Note:
The sum of drawer front heights must add up to the useful height of the housing.

84420

External dimensions H x W x D mm	Housing useful height mm	84420	...
819 x 1005 x 736	700		600
1019 x 1005 x 736	900		601
1319 x 1005 x 736	1200		602
1519 x 1005 x 736	1400		603

Continued

84426 - 84428 Drawers T736 series/1005 mm wide

Design
- Dimensions W x D 900 x 600 mm
- Sidewalls with rows of slots on all sides
- Grid spacing 25 mm

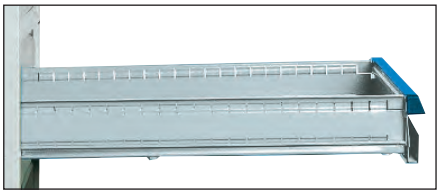
Note:
Drawers in 13 additional standard colours available at no additional charge (RAL 1023, 3003, 3020, 5002, 5005, 5013, 6011, 6018, 7016, 7035, 7040, 9005, 9010).

84426 501 + 401
Design
- Drawers full extension (FE) 100%/100 kg

84426 502-509 and 402-409
Design
- Drawers full extension (FE) 100%/100 kg

84428
Design
- Drawers full extension (FE) 100%/180 kg

84426 - 84428



	Full extension 100%/70 kg RAL 7035/5012		Full extension 100%/70 kg RAL 7035/5010		Full extension 100%/100 kg RAL 7035/5012		Full extension 100%/100 kg RAL 7035/5010		Full extension 100%/180 kg RAL 7035/5012		Full extension 100%/180 kg RAL 7035/5010	
Front height mm	84426	...	84426	...	84426	...	84426	...	84428	...	84428	...
50		501		401								
75						502		402				
100						503		403		513 NEW		713 NEW
125						504		404		514 NEW		714 NEW
150						505		405		515 NEW		715 NEW
175						506		406		516 NEW		716 NEW
200						507		407		517 NEW		717 NEW
250						508		408		518 NEW		718 NEW
300						509		409		519 NEW		719 NEW
400										520 NEW		720 NEW

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

84380

Hinged doors
Design
- With rotary latch cylinder lock
- Includes 2 x keys
- Internal hinged doors

Scope of delivery
2 doors

Version	For useful height mm	For cabinet W x D mm	RAL 5012 84380	...	RAL 5010 84380	...
2 doors	700	1005 x 736		113 NEW		213 NEW
2 doors	900	1005 x 736		116 NEW		216 NEW

84381

Shelf
Design
- Shelf load: 80 kg
- Sheet thickness 1 mm
- Shelf 22 mm front, rear 40 mm bent
- Includes 4 H-shaped shelf holders
- Colour: RAL 7035

For cabinet W x D mm	RAL 7035 84381	...
1005 x 736		103

84379

Pallet truck base
Design
- Strong, sturdy construction
- With 2 panels.
- Colour: RAL 7035

Note:
Transportable only in unloaded state, max. cabinet height 1019 mm.
Fork lift-compatible base deliverable on request.

Width mm	Depth mm	Height mm	RAL 7035 84379	...
1005	736	112		603

84385

Mobile addition
Design
- Steel plate with 4 x steering rollers Ø 125 mm
- 2 of which have locking device
- Incl. push handle for tool cabinet
- Colour: RAL 7035

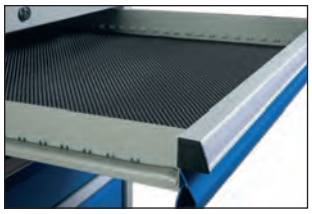
Width mm	Depth mm	Height mm	RAL 7035 84385	...
1005	736	150		103

84377

Ribbed rubber inlay
Design
- Oil resistant
- Smooth closing of drawers, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84377	...
900	600	3		103

84378



Non-slip mat
Design
- Non-slip mat secures tools
- Inlay for drawer
- Smooth closing of drawer, also in combination with metal drawer partitioning
- Colour: black

Width mm	Depth mm	Height mm	84378	...
900	600	3		103

84371

Cover panel
Design
- Beech multiplex plywood panel
- Produced from multi-layered, waterproof, glued beech wood
- With even strength in longitudinal and transverse direction

Width mm	Depth mm	Height mm	84371	...
1005	736	25		103

84370

Cover panel
Design
- Melamine resin-coated chipboard
- Colour: RAL 7035
- 19 mm boltable

Width mm	Depth mm	Height mm	RAL 7035 84370	...
1005	736	19		103

84373

Metal anti-roll-off edging
Design
- Sheet steel with 20 mm edges on three sides, 1.5 mm thick, powder-coated
- Colour: RAL 7035

Width mm	Depth mm	Height mm	RAL 7035 84373	...
1005	736	20		603

84376

Ribbed rubber support
Design
- Oil resistant
- Can be used in conjunction with anti-roll-off edging (art. no. 84373 603)
- Can also be used as a separate support
- Colour: black

Width mm	Depth mm	Height mm	84376	...
1005	736	3		103

84386 - 84391 Drawer tool cabinets T736 series/1305 mm wide

Design
- Welded sheet steel construction
- Housing powder-coated
- Drawers zinc-plated
- Central locking
- **Drawers full extension (FE) 100%**
- Drawer panel height 75 mm: load capacity: 100 kg
- Drawer panel height from 100 mm: load capacity: 180 kg
- Drawer guides are ball bearing mounted
- Single drawer lock
- Single locking possible per drawer
- Handle strips with labelling strips for insertion
- **Drawer useful dimensions W x D 1200 x 600 mm**
- Individual combinations
- Housing paint RAL 7035, light grey
- Drawer paint RAL 5012 light blue or RAL 5010 gentian blue
- Other colours deliverable on request

Note:
Loading data with evenly distributed load.

For cabinet housing, see art. no. 84387.
For drawers, see art. no. 84388.
For drawer partitions, see art. no. 84389.

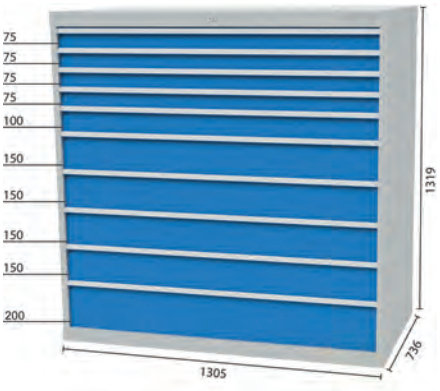
84386 101

NEW

84386 102

84386 103

84386 104



W x D x H mm	Drawers quantity	RAL 7035/5012 84386 ...	RAL 7035/5010 84386 ...
1305 x 736 x 819	6	101	201
1305 x 736 x 1019	6	102	202
1305 x 736 x 1019	9	103	203
1305 x 736 x 1319	10	104	204

Soft-close drawers
- Possible from a panel height of 75 mm
- Please indicate with your order the desired number of drawers with soft close
- The price shown is the extra price per drawer
- Cannot be retrofitted to existing drawers

Note:
Please note! When opening, the drawer must remain open for at least 5 seconds because of the soft-close cylinder, as otherwise the soft-close mechanism will be damaged. Proper functioning is then no longer guaranteed.

NEW

Soft-close drawers

Application from panel height mm	Load capacity kg	84391 ...
75	100	101
100	180	102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

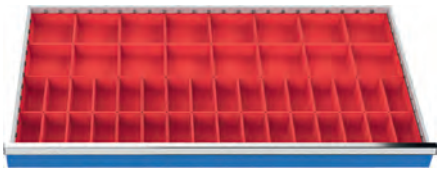
84389 Drawer fitting assortments T736 series/1305 mm wide

Applications
For cabinets 1305 mm wide.

Note:
For drawer tool cabinets, see art. no. 84386.
For drawers, see art. no. 84388.

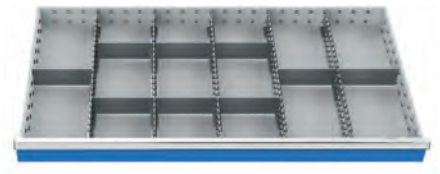
NEW

84389 101-102



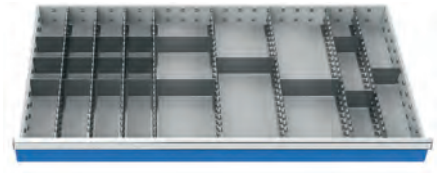
For panel height mm	84389 ...
75	101
100/125	102

84389 103-106



For panel height mm	84389 ...
75	103
100/125	104
150	105
200/300	106

84389 107-110



For panel height mm	84389 ...
75	107
100/125	108
150	109
200/300	110

84387 Cabinet housing T736 series/1305 mm wide

Design
- Housing including cylinder lock
- **Total height = useful height + 119 mm**
- Welded sheet steel construction
- Housing powder-coated
- Housing paint RAL 7035, light grey
- Other paints deliverable on request

Note:
For drawers, see art. no. 84388.
For drawer partitions, see art. no. 84389.
For drawer tool cabinets, see art. no. 84386.

NEW

84387

W x D x H mm	Useful height mm	RAL 7035 84387 ...
1305 x 736 x 819	700	101
1305 x 736 x 919	800	102
1305 x 736 x 1019	900	103
1305 x 736 x 1219	1100	104
1305 x 736 x 1319	1200	105
1305 x 736 x 1519	1400	106

84388 Drawers T736 series/1305 mm wide

Design
- Dimensions W x D 1200 x 600 mm
- **Drawers full extension (FE) 100%**
- Incl. rails
- Paint RAL 5012 light blue or RAL 5010 gentian blue
- Other colours deliverable on request

Note:
Loading data with evenly distributed load.

For cabinet housing, see art. no. 84387.
For drawer partitions, see art. no. 84389.
For drawer tool cabinets, see art. no. 84386.

NEW

84388

Panel height mm	Shell height mm	Useful height mm	Load capacity kg	RAL 7035/5012 84388 ...	RAL 7035/5010 84388 ...
75	56	58	100	101	201
100	81	83	180	102	202
125	81	108	180	103	203
150	131	133	180	104	204
175	131	158	180	105	205
200	181	183	180	106	206
250	181	233	180	107	207

Factory equipment

84390 Drawers/sliding door cabinets T736 series/1410 mm wide

Design
Empty housing, sturdy, welded sheet steel construction, **double the width of the T736 series/705 mm wide (1410 mm).** Designed as a machine storage cabinet. This cabinet is characterised by its compact and space-saving design. The installation grid (2 x 900 mm in height) and the drawers, extendible shelves and storage shelves correspond to T736 series drawer cabinets. Internal dimensions: 2 side-by-side compartments. With 2 smooth-running sliding doors, double edged and reinforced, security cylinder lock.

Standard colour:
Housing RAL 7035 light grey, sliding doors RAL 5012 light blue. Other paints in RAL 3003, 3020, 5013, 5015, 9005 and 7040 deliverable without surcharge (not in stock).

Note:
T736 series drawers 84415 and 84418 can be installed but without drawer lock.

Depth 790 mm 84390

Equipment example

External dimensions H x W x D mm	Housing useful height mm	RAL paint housing/sliding doors	84390	...
1019 x 1410 x 790	2 x 900	7035/5012		501
1019 x 1410 x 790	2 x 900	7035/5010		401

84392 - 84394 Shelves for drawers/sliding door cabinet T736 series/1410 mm wide

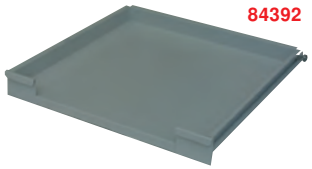
84392
Extendible shelf
Design
Roller guide, ball bearing mounted, complete with guide rails. Box height 80 mm, useful height 80 mm. **EA 80 = 93% extendible, 80 kg load capacity.** Perforated base, sidewalls on 3 sides with rows of slots. Usable surface area 600 x 600 mm.

84393
Extendible shelf
Design
Like art. no. 84392, though **FE 200 = 100% extendible, 200 kg load capacity.**

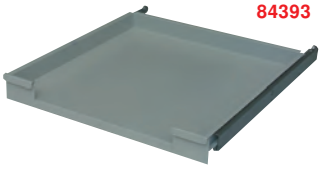
84394
Shelf
Design
Sheet steel, height adjustable in grid 25:25 mm. Load 100 kg. Usable surface area W x D 600 x 600 mm.

Standard colour: RAL 7035 Light grey.
Other paints in RAL 3003, 3020, 5012, 5013, 5015, 9005 and 7040 deliverable without surcharge (not in stock).

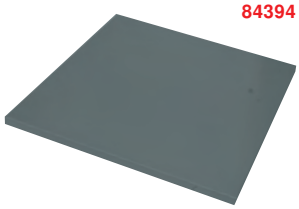
84392



84393



84394



W x D x H mm	84392	...	84393	...	84394	...
600 x 615 x 55		101		101		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Drawer fittings (art. no. 84450 - 84484)

For drawer tool cabinets series T500 and T736/555, 705, 980, 1005, 1305 and 1410 mm wide

84450 Central compartment rails

Design
- Made of zinc-plated sheet steel
- Rows of slots on both sides
- 25 mm spacing

Applications
For drawers in series T500 and T736.

Note:
Compartment rails can be bolted to the drawer base for stability reasons (see art. no. 84455 - 84456).

84450

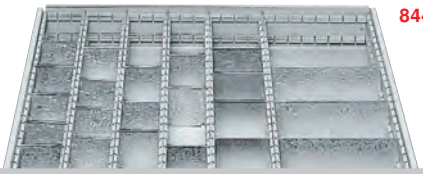
For front height mm	For drawers box height mm	Length mm	84450 ...
50	30	596	601
75	55	596	602
100/125	80	596	603
150/175	130	596	604
200	180	596	605

For front height mm	For drawers box height mm	Length mm	84450 ...
100	85	400	501
150	135	400	502
200	185	400	503

84453 Compartment dividers/dividers

Design
Made of zinc-plated sheet steel, for sliding into compartment rails. **Pack = 5 units.**

84453



For front height mm	For drawers box height mm	Length mm	84453 ...
50	30	50	111
50	30	75	112
50	30	100	113
50	30	150	114
75	50	50	211
75	50	75	212
75	50	100	213
75	50	150	214
75	50	200	215
100	85	100	601
100	85	150	602
100	85	200	603
100	85	300	604
100/125	75	50	311
100/125	75	75	312
100/125	75	100	313
100/125	75	150	314
100/125	75	200	315
100/125	75	300	318
100/125	80	225	316

For front height mm	For drawers box height mm	Length mm	84453 ...
150	135	100	605
150	135	150	606
150	135	200	607
150	135	250	608
150	135	300	609
150/175	125	100	411
150/175	125	150	412
150/175	125	200	413
150/175	125	300	416
150/175	130	225	414
200	175	100	511
200	175	150	512
200	175	200	513
200	175	300	516
200	180	225	514
200	185	100	610
200	185	150	611
200	185	200	612
200	185	250	613
200	185	300	614

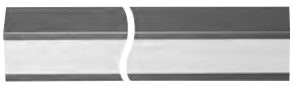
84478 Spare handle strip covers

Design
Aluminium. With transparent cover and white paper strip.

Applications
For T500, T736 and T1005 series drawer tool cabinets.

Note:
From model year 2000.

84478



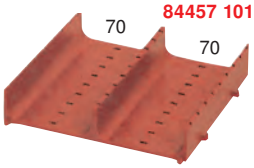
For series	84478 ...
T500	101
T736	102
T1005	103

84457 Trough panels

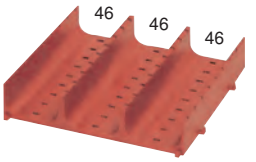
Design
Basic grid dimensions 150 x 150 x 30 mm, made of red impact-resistant polystyrene, **linkable,** slotted, grid 14:14 mm, for supporting recessed trough panel plug-in walls art. no. 84459.
Applications
For storing delicate parts up to Ø 70 mm, e.g. cutting tools.

Note:
Number of trough panels per drawer for
50 series = 3 pack,
70 series = 4 pack,
100 series = 6 pack.
Trough panels are fitted together lengthwise and crosswise.

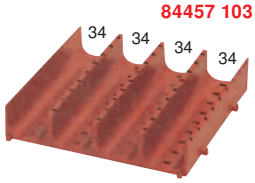
84457 101



84457 102



84457 103



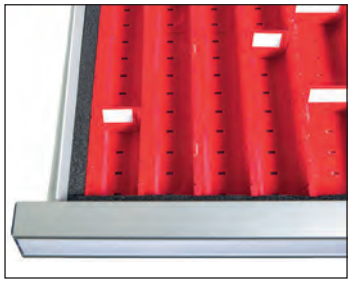
No. of troughs	Trough width mm	Pack = piece	84457 ...
2	70	4	**101**
3	46	4	**102**
4	34	4	**103**

84458 Spacer strips for trough panels

Design
- Foam

Applications
As front and side compensation when using trough panels.

84458



For drawer cabinets width mm	Pack = parts	84458 ...
555	6	**101**
705	8	**102**
1005	10	**103**

84459 Trough panel plug-in walls

Design
Made of red impact-resistant polystyrene **with identification label.**

Applications
For partitioning or delimiting trough panels art. no. 84457.

84459 101

84459 102

84459 103

For trough width mm	Pack = piece	84459 ...
70	10	**101**
46	20	**102**
34	25	**103**

84462 - 84465 Small parts boxes

Design
- Impact-resistant plastic, polystyrene
- Colour: red

84462
Applications
Can be used from a drawer front height of 50 mm.

84463
Applications
Can be used from a drawer front height of 75 mm.

84465
Applications
Can be used from a drawer front height of 100 mm.

84462 301

84462 302

84462 303

84465 101

84465 102

84465 103

Box height mm	Box size mm	Pack = unit	84462 ...	84463 ...	84465 ...
28	150 x 150	4	**301**		
28	150 x 75	8	**302**		
28	75 x 75	16	**303**		
50	150 x 150	4		**201**	
50	150 x 75	8		**202**	
50	75 x 75	16		**203**	
65	150 x 150	4			**101**
65	150 x 75	8			**102**
65	75 x 75	16			**103**

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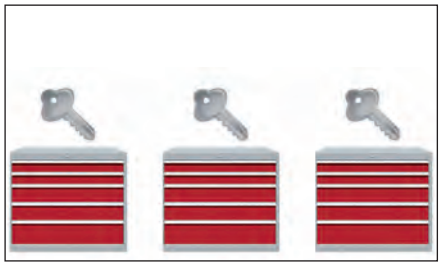
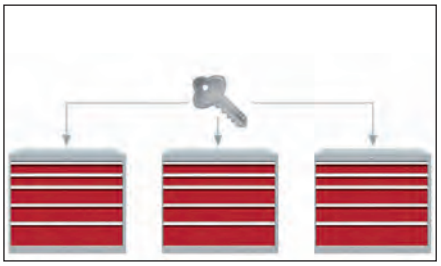
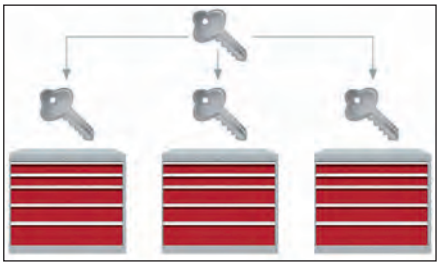
84480 Locks with keys



Standard equipment, keyed differently
Each lock can open only one particular cabinet.



Keyed alike
All locks have the same key.



Central locking system
A master key can be used to open cabinets with different locks.

Description	84480 ...
Lock with 2 x keys for drawer cabinet	101
Lock with 2 x keys, keyed alike, for 50, 70 + 100 series drawer cabinet	102
Set of 2 keys	103
Master key for locking system B	104

84482 - 84484 E lock/RFID lock

Design
- Extremely user-friendly
- Simple user management
- **Electromechanical knob (Zn-Dr-painted)**
- **Battery pack (3 x AAA alkaline)**
- Splash protection
- Extremely low energy consumption
- Vertical and horizontal mounting position
- Simple installation
- Secure battery compartment
- Can be retrofitted

84482
E lock
Design
- Freely selectable user code 4-12 digits
- Learning/deletion system using master code
- Master code emergency opening
- Simple code conversion
- **Electronic control panel 0-9 (ABS)**
- **Master/user code (4-12 digits)**
- Option of right or left design

84484
RFID lock
Design
- A master card can be used to administer up to 20 users
- 13.56 Mhz standard Mifare
- Easy integration into existing RFIDs
- Learning/deletion system using master card
- Master card emergency opening
- **RFID receiver module (ABS)**
- **Master/user card (13.56 Mhz standard)**

84482

84484

Description	84482 ...	84484 ...
E lock	101	
RFID lock		101

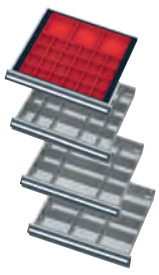
84486 - 84488 Drawer cabinets C line and fitting assortments

84486
Drawer cabinets
Design
- Drawer cabinet with 7 drawers
- Frame reinforced, very stable housing
- Drawers with smooth sidewalls
- Drawers with 100% full extension with self-closing mechanism 80 kg (with front height 50 mm - 30 kg)
- Secure central locking
- **Increased tip safety; only a single drawer can be opened**
- Fittings can be inserted later on
- Plastic handle strips and trim panels are mounted on site for labelling
- Housing RAL 7035, light grey
- Drawers RAL 5012 light blue

84488
Fitting assortments
Design
- Individual

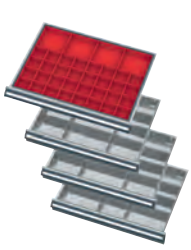
84486 101+201

84488 101



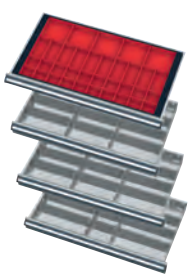
84486 102+202

84488 102



84486 103+203

84488 103



Body dimensions W x D x H mm	Drawers quantity	Drawer inner dimensions mm	RAL 7035/5012 84486 ...	RAL 7035/5010 84486 ...	Fittings set 84488 ...
600 x 575 x 1020	7	500 x 450	201	101	101
700 x 575 x 1020	7	600 x 450	202	102	102
900 x 575 x 1020	7	800 x 450	203	103	103

84490 Modular shelving system

Design
The modular shelving system (MSS) allows for a flexible room design every time. Drawers, shelves, vertical extensions, CNC storage systems and closed wing door cabinets can be optimally integrated in a single product. The system offers three different heights. The MSS is designed in an endless configuration.Extend your setup at any time. Our wall connections are available as an individual solution where not fitting precisely.

Get in touch with us!
Excellent workmanship and material quality ensure the MSS is a long-term investment for your company.

- Good price/performance ratio
- Short delivery times
- Simple installation
- High degree of flexibility
- High quality
- Organisation and structure
- Perfect detail solutions
- Different colours

Note:
Please note that only 1 support frame is required between the individual modules.

84490 101
Module 1/700
Design
- 2 x support frames
- 1 x diagonal cross
- 3 x smooth Uni shelves (500 kg)
- 2 x slotted shelves (250 kg)
- 8 x shelf side panels
- 5 x shelf separating plates

84490 102-103
Module 2/700
Design
- 2 x support frames
- 1 x rear wall
- 2 x partition wall
- 2 x smooth Uni shelves (500 kg)
- 1 x support base set with cylinder lock for drawers 700/1300
- 11 x drawers FE 100% (80 or 200 kg)

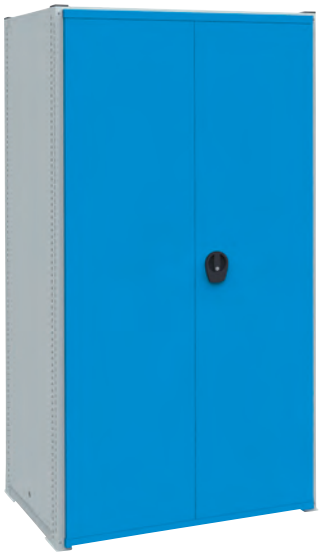
84490 104-105
Module 3/1000
Design
- 2 x support frames
- 1 x rear wall
- 2 x partition wall
- 1 x hinged door installation set 1000/2000
- 2 x Uni shelves (500 kg) 56 mm high as cover and base
- 4 x 25 mm high shelves (250 kg) as intermediate shelves

84490 106-107
Module 4/1000
Design
- 2 x support frames
- 1 x rear wall
- 2 x partition wall
- 1 x support base set with cylinder lock for vertical cabinet 1000
- 3 x vertical extension without additional intermediate shelves or perforated walls

84490 101
Module 1/700

84490 102-103
Module 2/700

84490 104-105
Module 3/1000



84490 106-107
Module 4/1000

Module	Paint RAL	Height mm	Useful height mm	Width mm	Useful width mm	Depth mm	Interior drawer useful dimensions mm	84490 ...
1/700	7035	2030	1906	749	651	733	-	101
2/700	7035/5012	2030	1906	749	651	733	600 x 600	102
2/700	7035/5010	2030	1906	749	651	733	600 x 600	103
3/1000	7035/5012	2030	1906	1049	951	733	-	104
3/1000	7035/5010	2030	1906	1049	951	733	-	105
4/1000	7035/5012	2030	1906	1049	951	733	-	106
4/1000	7035/5010	2030	1906	1049	951	733	-	107

84205 HHW service boxes

Your benefits - our service
- Reduction in processing costs
- No ordering and processing effort for recurring items
- Time saving
- Complete processing by HHW field service
- Saves on costs
- Reduction of tied-up capital
- No redundant stock keeping
- Price fixation
- Time-fixed, market-oriented pricing
- No additional costs
- All HHW services included in the price
- No zero stock balance
- Continuous availability of your top products through regular monitoring
- Automatic filling
- System replenishment according to agreed cycles by HHW field service
- Determination of consumption tools to be stored
- Creation of a customer-related shopping cart offer
- Determination of available stock quantities
- Definition of required fittings
- Contract design
- Development of visit and delivery cycles
- Commissioning of HHW service box

Design
Complete with roller-mounted fully extending drawers. Powder-coated housing.

84205 101-103

84205 201-203

84205 301-303

Type	External dimensions H x W x D mm	Usable surface area H x W x D mm	Number of drawers x panel (usable) height mm	Drawer paint colour RAL	Housing paint colour RAL	84205	...
Top-mounted cabinet	538 x 610 x 535	450 x 477 x 410	5 x 90 (70)	5012 light blue	7035 light grey		**101**
Top-mounted cabinet	538 x 610 x 535	450 x 477 x 410	5 x 90 (70)	6011 reseda green	7035 light grey		**102**
Top-mounted cabinet	538 x 610 x 535	450 x 477 x 410	5 x 90 (70)	3020 traffic red	7035 light grey		**103**
Drawer cabinet	800 x722 x 700	720 x 600 x 600	4 x 90 (70) + 3 x 120 (100)	5012 light blue	7035 light grey		**201**
Drawer cabinet	800 x 722 x 700	720 x 600 x 600	4 x 90 (70) + 3 x 120 (100)	6011 reseda green	7035 light grey		**202**
Drawer cabinet	800 x722 x 700	720 x 600 x 600	4 x 90 (70) + 3 x 120 (100)	3020 traffic red	7035 light grey		**203**
Drawer cabinet	1036 x 722 x 700	960 x 600 x 600	8 x 120 (100)	5012 light blue	7035 light grey		**301**
Drawer cabinet	1036 x 722 x 700	960 x 600 x 600	8 x 120 (100)	6011 reseda green	7035 light grey		**302**
Drawer cabinet	1036 x 722 x 700	960 x 600 x 600	8 x 120 (100)	3020 traffic red	7035 light grey		**303**

84570 Computer cabinets (empty)

Design
Sheet steel cabinet housing, powder-coated. Rear wall with ventilation slots and fan. Lockable door, top with acrylic glass cut-out (H x W 320 x 420 mm), beneath is a spot-welded keyboard tray at an ergonomic height, including lid and mouse drawer. 3 adjustable shelves inside the cabinet.
Applications
For safe and secure housing of flat screen workstations in workshops.

84570 101
Design
Fixed. With feet projecting 750 mm.
With checker plate cover.

84570 102
Design
Portable. With feet projecting 750 mm.
With checker plate cover. Feet with 4 steering rollers, 2 of which are lockable. Roller Ø 75 mm.

84570 101

84570 102

Dimensions H x W x D mm	Number of shelves	Number of rollers	84570	...
1750 x 550 x 420	3	-		**101**
1850 x 550 x 420	3	4		**102**

84572 Mobile computer trolleys

84572 101+201
Design
- 2x hinged doors
- 1x inclined storage
- 1x slide-out keyboard tray
- 1x shelf
- Perforated rear wall
- 1x flat screen mount with VESA fitting
- 1x 4-way socket
- Cable openings
- Vents in cabinet housing
- 2x fixed castors, Ø 125 mm
- 2x steering rollers Ø 125 mm with locking device
- Delivery without technical devices and without office supplies

84572 102+202
Design
- 1x hinged door
- 1x 25 mm beech multiplex panel
- 1x 100 mm drawer
- 1x shelf
- 1x 4-way socket
- Cable openings
- Vents in cabinet housing
- 2x fixed castors, Ø 125 mm
- 2x steering rollers Ø 125 mm with locking device
- Delivery without technical devices and without office supplies

84572 103+203
Design
- 1x hinged door
- 1x drawer
- 2x shelves
- 1x monitor support housing
- 1x mouse rest table
- 1x 4-way socket
- Ventilation slots
- 4x steering rollers Ø 125 mm, 2x with locking device
- Delivery without technical devices and without office supplies

84572 104+204
Design
- 1x hinged door
- 1x drawer
- 2x shelves
- 1x monitor mount with VESA fitting
- 1x mouse rest table
- 1x 4-way socket
- Ventilation slots
- 4x steering rollers Ø 125 mm, 2x with locking device
- Delivery without technical devices and without office supplies

84572 101+201

84572 102+202

84572 103+203

84572 104+204

Dimensions W x D x H mm	RAL 7035/5012 84572	...	RAL 7035/5010 84572	...
680 x 500 x 1610		101		201
530 x 500 x 1000		102		202
500 x 500 x 1550		103		203
500 x 500 x 1575		104		204

81901 Mobile standing desk

Design
- Mobile
- Fixed welded steel tube construction
- With desk attachment made of sheet steel
- Lockable desk lid made of sheet steel
- Cylinder lock incl. 2 keys
- **Built-in cabinet with 1 door** and
- Storage tray made of sheet steel with anti-roll-off edging as a cover
- Non-marking double steering rollers Ø 50 mm made from thermoplastic rubber
- **Paint:** Environmentally friendly powder coating
- Frame RAL 5010, gentian blue as standard
- Other RAL colours at no extra charge
- Desk attachment and tray always in RAL 7035, light grey
- Cabinet front deliverable only in RAL 5010 or RAL 7035

81901

Total H x W x D mm	Built-in cabinet H x W x D mm	81901	...
1200 x 546 x 605	600 x 490 x 600		201

Factory equipment

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Möbel für Menschen

84601 - 84602
Design
- Durable steel construction
- Very good operating safety, wear resistance and attractive appearance with Ergo-Lock handle lock (3-latch lock) in black, with 2 keys
- Including top ribbed rubber mat and anti-roll-off edging
- Door suspension with approx. 110° opening angle
- Central door reinforcement for high door stability
- High flexibility of interior installation due to adjustment in increments of 15 mm
- 25 kg load per drawer
- High load of 70 kg per zinc-plated shelf

Note:
Drawer panel height 82 mm =
Clear internal dimensions
H x W x D: 70 x 367 x 438 mm
Drawer panel height 125 mm =
Clear internal dimensions
H x W x D: 115 x 367 x 438 mm
Drawer panel height 170 mm =
Clear internal dimensions
H x W x D: 125 x 367 x 438 mm

84603
Drawer partitioning
Design
- Plastic boxes for small parts
- Approx. 54 mm high

Applications
For storage cabinets art. no. 84601 and 84602.

84603

	84603 ...
Drawer partitioning	101

Wear-resistant and ergonomic, attractive appearance

Ergo Lock recessed handle lock, registered for patent

84601 602

84601 603

84601 604

84601 605

84602 602

84602 603

84602 604

84602 605

Width: 500 mm

External dimensions H x W x D mm	Colour RAL	Drawers 82 mm	Drawers 125 mm	Drawers 170 mm	Insert shelves thickness 24 mm	84601 ...
1000 x 500 x 500	7035	1	1	-	1	502
1000 x 500 x 500	7035/5012	1	1	-	1	602
1000 x 500 x 500	7035	-	1	4	-	503
1000 x 500 x 500	7035/5012	-	1	4	-	603
1000 x 500 x 500	7035	2	1	3	-	504
1000 x 500 x 500	7035/5012	2	1	3	-	604
1000 x 500 x 500	7035	8	1	-	-	505
1000 x 500 x 500	7035/5012	8	1	-	-	605

Width: 930 mm

External dimensions H x W x D mm	Colour RAL	Drawers 82 mm	Drawers 125 mm	Drawers 170 mm	Insert shelves thickness 24 mm	84602 ...
1000 x 930 x 500	7035	4	1	2	2	502
1000 x 930 x 500	7035/5012	4	1	2	2	602
1000 x 930 x 500	7035	-	2	8	-	503
1000 x 930 x 500	7035/5012	-	2	8	-	603
1000 x 930 x 500	7035	-	1	4	2	504
1000 x 930 x 500	7035/5012	-	1	4	2	604
1000 x 930 x 500	7035	2	2	-	2	505
1000 x 930 x 500	7035/5012	2	2	-	2	605

84670 Workplace cabinets (empty)

FERTIGUNGSSTANDORT DEUTSCHLAND

Design
- Impact-resistant and scratch-resistant plastic coating
- Housing RAL 7035, light grey
- Doors and drawers RAL 5012 light blue
- Double-walled reinforced doors, opening angle over 180°
- Double-walled drawer panel
- Embossed drawer base
- Zinc-plated shelves
- Security cylinder lock
- Ball bearing-mounted telescopic rails

Applications
An appealing modern design means these cabinets can be used anywhere. Not only in warehouses and workshops, but also in offices and medical practices, or as counter systems in showrooms or shops. Thanks to universal and co-ordinated cabinet dimensions, cabinets can be extended and combined as required.

Note:
Figure with optional ribbed rubber support (art. no. 84672).

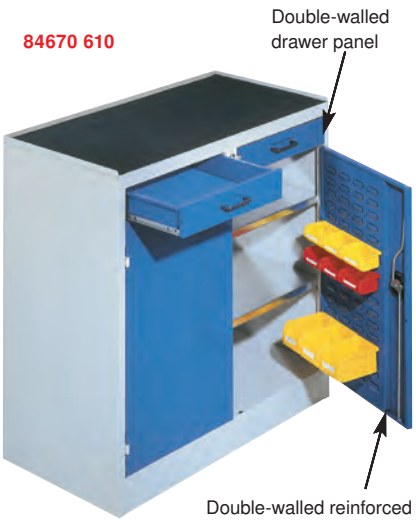
84670 601

84670 603-604

84670 620

84670 605

84670 610



External dimensions H x W x D mm	Inside of door perforated plate	Inside of door slotted plate	Equipped with shelves	Equipped with drawers	Equipped with safe box	84670 ...
1000 x 500 x 500	x	-	2	1	-	601
1000 x 500 x 500	-	x	2	1	-	602
1000 x 500 x 500	x	-	1	3	-	603
1000 x 500 x 500	-	x	1	3	-	604
1000 x 500 x 500	-	-	-	9	-	605
1000 x 1000 x 500	x	x	2	2	-	610
1950 x 1000 x 500	-	-	4	15	1	620

84672 Accessories for workplace cabinets art. no. 84670

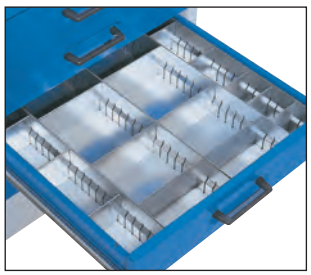
84672 101

Desk attachment

84672 102-103

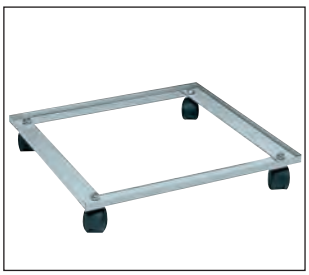
Ribbed rubber support

84672 104



Drawer partitioning

84672 105



Mobile frame

	Length x width mm	84672 ...
Desk attachment RAL 7035/5012	500 x 500	101
Ribbed rubber support, black	500 x 500	102
Ribbed rubber support, black	1000 x 500	103

	Length x width mm	84672 ...
Drawer partitioning, fine sheet metal	-	104
Mobile frame RAL 7035	500 x 500	105

Factory equipment

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84835 - 84842 Sliding door cabinets with shelves

84835 - 84839
Design
- Robust sheet steel construction with solid sheet metal doors or doors with viewing window
- Doors with reinforcement pockets and recessed handle in the upper guide profile with secure guidance
- With anti-crush protection and buffered closing
- Jointly locking with turn-and-push cylinder lock (incl. 2 keys)
- Including zinc-plated shelves
- Height-adjustable on 17 mm grid
- Load per shelf 80 kg with evenly distributed load
- TÜV/GS tested
- 100% Made in Germany

Colour:
Housing RAL 7035 light grey, doors RAL 5012 light blue. Other colours deliverable on request.

Note:
For additional shelves, see art. no. 84842.

84842
Shelves
Design
- Zinc-plated
- Including 4 shelf supports
- Load per shelf 80 kg with evenly distributed load

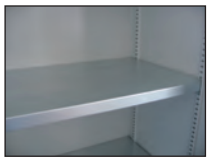
Applications
For sliding door cabinets art. no. 84835 and 84839.

84835 612

84839 625

84839 615

84842



H x W x D mm	Divider	No. of shelves	Total load kg	Solid sheet metal doors 84835 ...	Doors with viewing window 84839 ...	Shelves 84842 ...
1000 x 1000 x 400	-	2	400	607	607	103
1000 x 1000 x 500	-	2	400	601	601	101
1000 x 1000 x 600	-	2	400	608	608	104
1000 x 1500 x 400	x	4	600	609	609	107
1000 x 1500 x 500	x	4	600	602	602	102
1000 x 1500 x 600	x	4	600	610	610	108
1000 x 2000 x 400	x	4	600	611	611	103
1000 x 2000 x 500	x	4	600	603	603	101
1000 x 2000 x 600	x	4	600	612	612	104
1200 x 1000 x 400	-	2	400	613	613	103
1200 x 1000 x 500	-	2	400	614	614	101
1200 x 1000 x 600	-	2	400	615	615	104
1200 x 1500 x 400	x	4	600	616	616	107
1200 x 1500 x 500	x	4	600	617	617	102
1200 x 1500 x 600	x	4	600	618	618	108
1200 x 2000 x 400	x	4	600	619	619	103
1200 x 2000 x 500	x	4	600	620	620	101
1200 x 2000 x 600	x	4	600	621	621	104
1950 x 1000 x 400	-	4	400	622	622	103
1950 x 1000 x 500	-	4	400	604	604	101
1950 x 1000 x 600	-	4	400	623	623	104
1950 x 1500 x 400	x	8	600	624	624	107
1950 x 1500 x 500	x	8	600	605	605	102
1950 x 1500 x 600	x	8	600	625	625	108
1950 x 2000 x 400	x	8	600	626	626	103
1950 x 2000 x 500	x	8	600	606	606	101
1950 x 2000 x 600	x	8	600	627	627	104

84847 Wall-mounted cabinets

Design
- Doors with reinforcement pocket and cylinder lock with 2 keys
- With holes for wall attachment
- With powder-coated insert shelf in body colour, height-adjustable on 17 mm grid
- Shelf load capacity of 15 kg with evenly distributed load
- Overall load capacity per cabinet 30 kg with evenly distributed load
- GS-tested and TÜV-certified

NEW

84847 100-102

84847 200-202

84847 103-105

84847 203-205

84847 106-108

84847 206-208

84847 106-111
84847 206-211
Viewing window made of shatter-proof acrylic glass
- Impact strength of pane of 15 kJ/m² corresponds to force of approx. 1500 kg/m2 from a height of 1 m.

84847 109-111

84847 209-211

Shelf For rear panel	For width mm	84847	...
Smooth	400		112
Smooth	800		113

Shelf For rear panel	For width mm	84847	...
Perforated	400		212
Perforated	800		213

Doors	H x W x D mm	Shelves quantity	Housing paint RAL colour	Doors paint RAL colour	Smooth rear wall 84847	Smooth rear wall ...	Perforated rear wall 84847	Perforated rear wall ...
Solid sheet metal	600 x 400 x 300	1	7035 light grey	5012 light blue		100		200
Solid sheet metal	600 x 400 x 300	1	7035 light grey	7035 light grey		101		201
Solid sheet metal	600 x 400 x 300	1	7035 light grey	7016 anthracite grey		102		202
Solid sheet metal	600 x 800 x 300	1	7035 light grey	5012 light blue		103		203
Solid sheet metal	600 x 800 x 300	1	7035 light grey	7035 light grey		104		204
Solid sheet metal	600 x 800 x 300	1	7035 light grey	7016 anthracite grey		105		205
Viewing window	600 x 400 x 300	1	7035 light grey	5012 light blue		106		206
Viewing window	600 x 400 x 300	1	7035 light grey	7035 light grey		107		207
Viewing window	600 x 400 x 300	1	7035 light grey	7016 anthracite grey		108		208
Viewing window	600 x 800 x 300	1	7035 light grey	5012 light blue		109		209
Viewing window	600 x 800 x 300	1	7035 light grey	7035 light grey		110		210
Viewing window	600 x 800 x 300	1	7035 light grey	7016 anthracite grey		111		211

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84848 Wall-mounted cabinets

Design
- Robust sheet steel construction
- Rear wall with square perforation
- Square perforation 10x10 mm
- Distance from hole centre to hole centre 38 mm
- Doors can be left or right closing
- Cylinder lock with two keys
- Mounting on the wall with anchors and screws

NEW

84848 100-103

84848 104-107

H x W x D mm	Hinged doors 700 mm	Partition panels quantity	Shelves quantity	84848	...
750 x 1000 x 200	2	1	3		100
750 x 1000 x 200	2	1	3		101
750 x 1000 x 200	2	1	3		102
750 x 1000 x 200	2	1	3		103
750 x 1500 x 200	3	2	4		104
750 x 1500 x 200	3	2	4		105
750 x 1500 x 200	3	2	4		106
750 x 1500 x 200	3	2	4		107

Möbel für Menschen

Design
- Wide range of different dimensions for every purpose
- Even better operational safety and wear resistance
- Ergonomically attractive appearance thanks to recessed Ergo Lock handle (three-pin lock) in black with 2 keys
- Door suspension with approx. 110° opening angle
- On request: external hinges, approx. 180° opening angle
- Central door reinforcement for high door stability
- High flexibility of interior installation due to adjustment in increments of 15 mm
- High load capacity per zinc-plated shelf: 70 kg (up to 110 kg in reinforced design)

Ergo Lock recessed handle lock, wear resistant and user friendly

Cabinets with 400, 500, 600 and 800 mm depth

85120 501-508

85120 601-608

85120 101-108

External dim. W x D mm	Height mm	Number of Shelves	RAL 7035/5012 85120 ...	RAL 7035/5010 85120 ...	RAL 7035/7035 85120 ...
930 x 400	1950	4	501	101 NEW	601
930 x 500	1950	4	502	102 NEW	602
930 x 600	1950	4	503	103 NEW	603
930 x 800	1950	4	507 NEW	104 NEW	607 NEW
1200 x 400	1950	4	504	105 NEW	604
1200 x 500	1950	4	505	106 NEW	605
1200 x 600	1950	4	506	107 NEW	606
1200 x 800	1950	4	508 NEW	108 NEW	F (1,015.00) 608 NEW

85121 503-506

External dim. W x D mm	Height mm	Number of Shelves	RAL 7035/5012 85121 ...	RAL 7035/5010 85121 ...	RAL 7035/7035 85121 ...
930 x 400	1000	1	503	101 NEW	603
930 x 500	1000	1	504	102 NEW	604
1200 x 400	1000	1	505	103 NEW	605
1200 x 500	1000	1	506	104 NEW	606

85122 504-507

External dim. W x D mm	Height mm	Number of Shelves	RAL 7035/5012 85122 ...	RAL 7035/7035 85122 ...
930 x 400	1200	2	504	604
930 x 500	1200	2	505	605
1200 x 400	1200	2	506	606
1200 x 500	1200	2	507	607

85124 Accessories for hinged-door tool cabinets with shelves

Möbel für Menschen

85124 201-304
Shelves
Design
Zinc-plated, incl. 4 shelf supports.

85124 401
Shelf supports
Design
Zinc-plated, pack = 10 units.

85124 201-304

For width mm	For depth mm	Height mm	Shelf 85124 ...	Shelf support 85124 ...
930	400	24	201	
930	500	24	203	
930	600	24	204	
1200	400	24	301	
1200	500	24	303	
1200	600	24	304	
-	-	-		401

85127 Hinged-door tool cabinets with drawers

Möbel für Menschen

Design
- Wide range of different dimensions for every purpose
- Even better operational safety and wear resistance
- Ergonomically attractive appearance thanks to recessed Ergo Lock handle (three-pin lock) in black with 2 keys
- Door suspension with approx. 110° opening angle
- On request: external hinges, approx. 180° opening angle
- Central door reinforcement for high door stability

Figure 1
Left: - 3 shelves
- 2 large drawers
Right: - 3 shelves
- 2 large drawers

Figure 2
Left: - 3 shelves
- 4 small drawers
Right: - 3 shelves
- 2 large drawers

Figure 3
Left: - 2 shelves
- 4 small drawers
- 4 large drawers
Right: - 4 shelves

Figure 4
Left: - 1 safe with cylinder lock
- 8 large drawers
Right: - 4 shelves

Figure 1

Figure 2

Figure 3

Figure 4

External dim. W x D mm	Height mm	Fig.	RAL 7035/5012 85127	...	RAL 7035/5010 85127	...	RAL 7035/7035 85127	...
930 x 500	1950	1		101		201 NEW		602
1200 x 500	1950	1		102		202 NEW		603
930 x 500	1950	2		103		203 NEW		604
1200 x 500	1950	2		104		204 NEW		605
930 x 500	1950	3		105		205 NEW		606
1200 x 500	1950	3		106		206 NEW		609
930 x 500	1950	4		107		207 NEW		601
1200 x 500	1950	4		108		208 NEW		608

Ergo Lock recessed handle lock, wear resistant and user friendly

85130 Accessories for hinged-door tool cabinets with drawers

Möbel für Menschen

85130 101-102
Shelves
Design
Zinc-plated, incl. 4 shelf supports.

85130 103-105
Drawer partitions
Design
With plastic boxes.

85130 106-107
Drawer partitions
Design
With zinc-plated separating plates.

85130 101-102

85130 103-105

	For width mm	For depth mm	Height mm	85130 ...
Shelf	930	500	24	101
Shelf	1200	500	24	102
Drawer partition, boxes	930	500	-	103
Drawer partition, boxes	1200	500	-	105
Drawer partition, separating plates	930	500	-	106
Drawer partition, separating plates	1200	500	-	107

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85128 Large tool cabinets

Möbel für Menschen

Design
- Wide range of different dimensions for every purpose
- Attractive appearance thanks to recessed Ergo Lock handle (three-pin lock) in black with 2 keys
- Door suspension with external hinges, approx. 180° opening angle
- Central door reinforcement for high door stability
- High flexibility of interior installation due to adjustment in increments of 15 mm
- High load capacity per zinc-plated shelf: 70 kg (up to 110 kg in reinforced design)
- 3 shelves
- 3 drawers with telescopic rail guide, fully extendable and 50 kg load/shear force
- Wall screw fastening required for loading drawers

85128 402-404

85128 505-507

Ergo Lock recessed handle lock, wear resistant and user friendly

Cabinets with 400, 500 and 600 mm depth

85128 102-104 + 402-407
Design
- Bottom drawer block

85128 105-107 + 502-507
Design
- Middle drawer block

Drawer block	External dimensions W x D mm	Height mm	RAL 7035/5012 85128	...	RAL 7035/5010 85128	...	RAL 7035/7035 85128	...
Bottom	1200 x 400	1950		402		102 NEW		405
Bottom	1200 x 500	1950		403		103 NEW		406
Bottom	1200 x 600	1950		404		104 NEW		407
Middle	1200 x 400	1950		502		105 NEW		505
Middle	1200 x 500	1950		503		106 NEW		506
Middle	1200 x 600	1950		504		107 NEW		507

85131 Accessories for large tool cabinets

Möbel für Menschen

85131 101-103
Shelves
Design
Zinc-plated, incl. 4 shelf supports.

85131 101-103

85131 201-202
Drawer partitions
Design
With plastic boxes.

85131 201-202

85131 301-302
Drawer partitions
Design
With zinc-plated separating plates.

85131 301-302

	For width mm	For depth mm	Height mm	85131	...
Shelf	1200	400	24		101
Shelf	1200	500	24		102
Shelf	1200	600	24		103
Drawer partition, boxes	1200	400	-		201
Drawer partitition, boxes	1200	500 + 600	-		202
Drawer partition, separating plates	1200	400	-		301
Drawer partition, separating plates	1200	500 + 600	-		302

85137 - 85139 Folding door cabinets

85137 - 85138
Folding door cabinets
Design
- Cabinet height 1000 or 1950 mm
- 2 widths: 1200 or 1500 mm
- 3 depths: 400, 500 or 600 mm
- 2 (with height 1000 mm) or 4 (with height 1950 mm) zinc-plated shelves (on request, also available with powder coating); can be adjusted in height in increments of 17 mm and loaded with 80 kg
- Shelf load of 100 kg with evenly distributed load also available for a surcharge
- Doors with reinforced pockets and three-pin turning handle with integrated cylinder lock
- Extremely high torsion resistance thanks to corner soldering
- High-quality powder coating
- Body colour: RAL 7035
- Door colour: RAL 7035 or 5012
- Total load capacity of 400 kg with evenly distributed load
- TÜV/GS tested
- 100% Made in Germany

1950 x 1200 x 500 85137 102

1950 x 1500 x 600 85137 206

85139

85139
Shelves
Design
- Zinc-plated
- 80 kg load

1000 x 1200 x 400 85138 101

1000 x 1500 x 600 85138 206

W x D mm	Colour RAL	H 1950 mm 85137	...	H 1000 mm 85138	...	Shelf 85139	...
1200 x 400	7035/5012		101		101		101
1200 x 400	7035/7035		201		201		101
1200 x 500	7035/5012		102		102		102
1200 x 500	7035/7035		202		202		102
1200 x 600	7035/5012		103		103		103
1200 x 600	7035/7035		203		203		103

W x D mm	Colour RAL	H 1950 mm 85137	...	H 1000 mm 85138	...	Shelf 85139	...
1500 x 400	7035/5012		104		104		201
1500 x 400	7035/7035		204		204		201
1500 x 500	7035/5012		105		105		202
1500 x 500	7035/7035		205		205		202
1500 x 600	7035/5012		106		106		203
1500 x 600	7035/7035		206		206		203

85117 - 85118 Wing door cabinets with shelves

85117
Design
- Extra wide
- High-quality and durable sheet steel construction
- All edges processed cleanly and to protect against injuries
- Extremely high torsion resistance thanks to corner soldering
- Smooth, internal doors with approx. 125° door opening angle (180° with external door suspension for a surcharge)
- Doors with reinforced pockets
- Doors can be locked together using a practical three-pin turning handle
- Integrated cylinder lock with 2 keys
- 4 zinc-plated shelves, can easily and individually be adjusted in height in increments of 17 mm, 80 kg load
- Body colour: RAL 7035
- Door colour: RAL 5012 or RAL 7035
- TÜV/GS tested and 100% Made in Germany

85117

Extra wide 1500 mm

Continued

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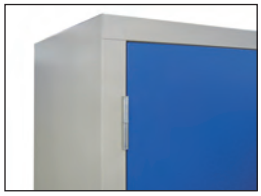
85117 - 85118 Wing door cabinets with shelves

Continued

Practical turning handle for three-pin lock (also easy to operate with work gloves)



External door suspension (for a surcharge) with 180° door opening angle for even better access

85118
Shelves
Design
- Zinc-plated
- 80 kg load

85118

Dimensions H x W x D mm	Shelf Number	Shelf H x W x D mm	RAL 7035/7035 85117 ...	RAL 7035/5012 85117 ...	Shelves 85118 ...
1950 x 1500 x 400	4	30 x 1483 x 370	101	201	101
1950 x 1500 x 500	4	30 x 1483 x 470	102	202	102
1950 x 1500 x 600	4	30 x 1483 x 570	103	203	103

85140 - 85142 Organiser cabinet with viewing windows

Möbel für Menschen

85140 201-206

Design
- Durable steel construction
- Excellent operational safety, wear resistance and attractive appearance through Ergo Lock handle lock (three-pin lock) in black with 2 keys
- Door suspension through external hinges, approx. 180° opening angle
- Steel doors with viewing window made of acrylic glass (3 mm thick) for direct viewing
- High flexibility of interior installation due to adjustment in increments of 15 mm
- High load of 70 kg per zinc-plated shelf

Ergo Lock recessed handle lock, registered for patent

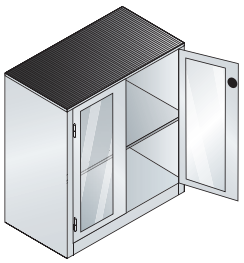
Wear-resistant and ergonomic, attractive appearance

External dim. W x D mm	Height mm	Shelves Thickn. 24 mm	RAL 7035/5012 85140 ...	RAL 7035/5010 85140 ...	RAL 7035/7035 85140 ...
930 x 400	1950	4	201	301 NEW	101
930 x 500	1950	4	202	302 NEW	102
930 x 600	1950	4	203	303 NEW	103
930 x 800	1950	4	207 NEW	304 NEW	107 NEW
1200 x 400	1950	4	204	305 NEW	104
1200 x 500	1950	4	205	306 NEW	105
1200 x 600	1950	4	206	307 NEW	106
1200 x 800	1950	4	208 NEW	308 NEW	108 NEW

85141 301-302

External dim. W x D mm	Height mm	Shelves Thickn. 24 mm	RAL 7035/5012 85141 ...	RAL 7035/5010 85141 ...	RAL 7035/7035 85141 ...
930 x 500	1200	2	201	301 NEW	F (655.00) 101
1200 x 500	1200	2	202	302 NEW	F (765.00) 102

85142



External dim. W x D mm	Height mm	Shelves Thickn. 24 mm	RAL 7035/5012 85142 ...	RAL 7035/5010 85142 ...	RAL 7035/7035 85142 ...
930 x 500	1000	1	201	301 NEW	101
1200 x 500	1000	1	202	302 NEW	102

85115 Universal cabinets

KAPPES

Design
Housing made of sheet steel, plastic-coated. Smooth front when doors are closed. Consistently reinforced hinged doors, opening angle over 200°, rod guidance. 4 zinc-plated shelves, adjustable in increments of 10 mm, 80 kg with evenly distributed load. Three-pin security cylinder lock with recessed turning handle.
Standard colour:
Housing: RAL 7035 Light grey,
Doors: RAL 5012 Light blue, powder-coated.

Note:
Additional group or master keys available on request.

FERTIGUNGSSTANDORT DEUTSCHLAND

85115

External dimensions H x W x D mm	RAL 7035/5012 85115 ...	RAL 7035/7035 85115 ...
1950 x 1000 x 410	401	600
1950 x 1000 x 500	402	601

85116 Additional shelves for art. no. 85115

85116

For cabinet depth mm	85116 ...
410	101
500	102

85119 Fire-resistant wing door cabinets

CP Möbel für Menschen

Design
- Double-walled door, suspension using rotary bolts
- Adjustable shelves inside
- Five-pin bolt work (3 x side, 1 x each top/bottom)
- Double-bit security lock
- Body colour: RAL 7021
- Door colour: RAL 7035 Light grey
- DBS cover panel colour: RAL 7035 Light grey

85119 101

85119 102

RAL 7021/7035

External dimensions H x W x D mm	Doors Number	Shelves Number	85119 ...
1226 x 650 x 500	1	2	101
1950 x 930 x 500	2	4	102

Factory equipment

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Heavy-duty cabinets for 1.65 t load

KAPPES

Design
Load-bearing capacity up to 1.65 tonnes. The cabinet floor alone can carry up to 400 kg of evenly distributed load. Extremely stable, welded steel construction with brazed corners. Impact- and scratch-resistant plastic coating. Body: light grey. Doors are light blue or light grey as standard. On request, doors available in gentian blue or reseda green (not held in stock). Choice between double-walled reinforced doors or doors with viewing window. Smooth fronts due to flush overlay doors, opening angle over 200°. Continuous rod guidance. Telescopic-guided drawers with full extension.
Drawer load 110 kg of evenly distributed load.
Adjustable in increments of 25 mm.
Three-pin safety cylinder lock.

Note:
Drawer lock available on request.
For additional shelves, see art. no. 85180.

85160
Without central partition wall.
Drawers W x D 900 x 520 mm. Zinc-plated shelves, **load 160 kg of evenly distributed load.**

85165
With central partition wall.
Drawers W x D 443 x 500 mm. Zinc-plated shelves, **load 80 kg of evenly distributed load.**

Note:
End no. 401, 405, 501 and 505 drawers.

Various door designs:
- Viewing window
- Perforated plate (on request)
- Slotted plate (on request)
- Double-walled solid sheet metal doors

85160 401

85160 402

85160 403

85160 404

85165 501

85165 502

85165 503

85165 504

Without divider				RAL 7035/5012		RAL 7035/7035		RAL 7035/5012		RAL 7035/7035	
Doors	**Dimensions H x W x D mm**	**Shelves**	**Drawer height mm 100 / 125 / 175**	**85160**	**...**	**85160**	**...**	**85160**	**...**	**85160**	**...**
Solid sheet metal	1950 x 1000 x 600	4	- / - / -		401		501				
Solid sheet metal	1950 x 1000 x 600	3	- / - / 2		402		502				
Solid sheet metal	1950 x 1000 x 600	3	1 / 2 / -		403		503				
Solid sheet metal	1950 x 1000 x 600	2	1 / 2 / 2		404		504				
Viewing window	1950 x 1000 x 600	4	- / - / -						405		505
Viewing window	1950 x 1000 x 600	3	- / - / 2						406		506
Viewing window	1950 x 1000 x 600	3	1 / 2 / -						407		507
Viewing window	1950 x 1000 x 600	2	1 / 2 / 2						408		508

With divider				RAL 7035/5012		RAL 7035/7035		RAL 7035/5012		RAL 7035/7035	
Doors	**Dimensions H x W x D mm**	**Shelves**	**Drawer height mm 100 / 125 / 175**	**85165**	**...**	**85165**	**...**	**85165**	**...**	**85165**	**...**
Solid sheet metal	1950 x 1000 x 600	6	- / - / -		401		501				
Solid sheet metal	1950 x 1000 x 600	6	- / - / 4		402		502				
Solid sheet metal	1950 x 1000 x 600	6	- / 6 / -		403		503				
Solid sheet metal	1950 x 1000 x 600	6	4 / - / 4		404		504				
Viewing window	1950 x 1000 x 600	6	- / - / -						405		505
Viewing window	1950 x 1000 x 600	6	- / - / 4						406		506
Viewing window	1950 x 1000 x 600	6	- / 6 / -						407		507
Viewing window	1950 x 1000 x 600	6	4 / - / 4						408		508

85166 Heavy-duty cabinets for 1.65 t load

KAPPES

FERTIGUNGSSTANDORT DEUTSCHLAND

Design
Load-bearing capacity up to 1.65 tonnes. The cabinet floor alone can carry up to 400 kg of evenly distributed load. Extremely stable, welded steel construction with brazed corners. Impact- and scratch-resistant plastic coating. Body: light grey. Doors are light blue or light grey as standard. On request, doors available in gentian blue or reseda green (not held in stock). Double-walled reinforced doors. Smooth fronts due to flush overlay doors, opening angle over 200°. Continuous rod guidance. Telescopic-guided drawers with full extension. **Drawer load 110 kg of evenly distributed load.** Adjustable in increments of 25 mm. Three-pin safety cylinder lock.

Note:
Drawer lock available on request.
For additional shelves, see art. no. 85180.

85166 101-102 + 201-202
Without central partition wall.
Drawers W x D 900 x 520 mm. Zinc-plated shelves, **load 160 kg of evenly distributed load.**

85166 103-104 + 203-204
With central partition wall.
Drawers W x D 443 x 500 mm. Zinc-plated shelves, **load 80 kg of evenly distributed load.**

85166 101

85166 102

85166 103

85166 104

Doors	Dimensions H x W x D mm	Middle Divider	Shelves	Drawers Height 100 mm	Drawers Height 125 mm	Drawers Height 175 mm	RAL 7035/5012 85166	...	RAL 7035/7035 85166	...
Solid sheet metal	1110 x 1000 x 600	without	1	2	-	-		101		201
Solid sheet metal	1110 x 1000 x 600	without	-	2	1	1		102		202
Solid sheet metal	1110 x 1000 x 600	with	2	2	2	2		103		203
Solid sheet metal	1110 x 1000 x 600	with	-	-	16	-		104		204

85180 Additional shelf for heavy-duty cabinets

Design
Sheet steel, zinc-plated, with shelf supports.

85180 101
Applications
For art. no. 85160, 85166 101–102 and 85166 201–202.

85180 102+103
Applications
For art. no. 85165, 85166 103–104 and 85166 203–204.

Dimensions W x D mm	Load per shelf kg	Design	85180	...
935 x 535	160	-		101
440 x 535	80	right		102
440 x 535	80	left		103

85180

85185 Battery cabinets

HHW

TÜV PRODUCT SERVICE GS

85185 102

Design
TÜV GS tested, CE certified.
Three-point security locking.
3 fixed shelves at the top, with additional rear wall (approx. 10–15 cm in front of the cabinet rear wall). Each shelf has a 6-way 230 V multiple socket outlet with fuse. One drawer beneath, 90 mm high, fully extendable. Another shelf is installed between the drawer and base (end no. 102). Equipped with front and rear ventilation slots. One fan and one add-on device plug 16 A suitable for 380 V plugs on the side.Incl. distribution box and 3 circuit breakers fitted in cabinet.
Fully assembled and pre-wired.

Applications
For theft-proof and clearly arranged storage of charging devices and cordless equipment.

85185 101
Design
3 fixed shelves, 1 drawer 90 mm high with full extension.

85185 102
Design
3 fixed shelves, 1 adjustable shelf (not earthed), 1 drawer 90 mm high with full extension.

85185 101

Dimensions H x W x D mm	Number of Shelves	Number of Drawers	RAL 7035/5012 85185	...
1030 x 1000 x 500	3	1		101
1950 x 1000 x 500	4	1		102

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Applications
For all areas where corrosion resistance, hygiene or extensive resistance to chemicals and acids is required.
Quality
Made from the finest stainless steel in Germany (material 1.4301, grinding finish „Duplo").

Note:
In the Cabinox versions, all hinged doors are equipped with a vertically edged handle strip for improved ergonomics, which also gives the cabinets a unique design.

85603 101
Stainless steel cabinet LB
Design
- 4 shelves
- Height adjustable in increments of 17 cm
- Cylinder twist lock

85603 102
Storage cabinet Cabinox
Design
- 4 shelves
- Height adjustable in increments of 19 cm
- Cylinder twist lock

85603 103
Viewing window cabinet Cabinox
Design
- Viewing window made of polycarbonate
- 4 shelves
- Height adjustable in increments of 19 cm
- Cylinder twist lock

85603 104
Environmental cabinet Cabinox
Design
- Forced ventilation
- 4 seal-welded trays
- Height adjustable in increments of 19 cm
- For storing toxic substances that are hazardous to health and water
- Cylinder twist lock

NEW

85603 102

85603 101

85603 103

85603 104

	H x W x D mm	85603 ...
Stainless steel cabinet LB	1800 x 900 x 400	101
Storage cabinet Cabinox	1800 x 900 x 400	102
Viewing window cabinet Cabinox	1800 x 900 x 400	103
Environmental cabinet Cabinox	1800 x 900 x 400	104

85603 105
Shelf
Applications
Additional shelf for Cabinox storage cabinets and viewing window cabinets (art. no. 85603 102–103).

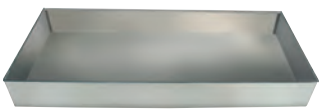
85603 106
Tray base
Applications
Additional, seal-welded tray base for Cabinox environmental cabinet (art. no. 85603 104).

85603 107
Shelf tray
Applications
Seal-welded shelf tray for Cabinox environmental cabinet (art. no. 85603 104).

85603 105

85603 106

85603 107



	Use for	85603 ...
Shelf	Storage and viewing window cabinets (art. no. 85603 102–103)	105
Tray base	Environmental cabinet (art. no. 85603 104)	106
Shelf tray	Environmental cabinet (art. no. 85603 104)	107

85123 Hinged-door tool cabinets with clothes rail

Möbel für Menschen

85123 602-603
Design
- Even better operational safety and wear resistance
- Ergonomic, attractive appearance due to recessed Ergo Lock handle (three-pin lock) in black with 2 keys
- Door suspension with approx. 110° opening angle
- With central divider
- Left: Hat shelf and clothes rail (without hangers)
- Right: 4 shelves

85123 701
Shelf
Design
- Zinc-plated
- Incl. 4 shelf supports

Ergo Lock recessed handle lock, wear resistant and user friendly

85123 101

		RAL 7035/5012		RAL 7035/5010		RAL 7035/7035			
External dimensions W x D mm	Height mm	85123	...	85123	...	85123	...	85123	...
930 x 500	1950		603		101		602		
Shelf	-								701

85307 Wardrobe cabinets

Design
- Welded sheet steel construction on base
- Doors with label frame, ventilation slots and twist lock for padlock
- Colour: RAL 7035 Light Grey, powder-coated

Note:
Also available with feet on request.
Padlocks see art. no. 86929 ff.

85307 602 85307 603 85307 604

Number of Compartments	External dimensions H x W x D mm	85307	...
1	1800 x 300 x 500		601
2	1800 x 600 x 500		602
3	1800 x 900 x 500		603
4	1800 x 1200 x 500		604

85329 Wardrobes with double compartments

Design
- 2 compartments per employee
- Doors fold together
- 1 twist lock per double compartment
- Coated in RAL 7035, Light Grey

Applications
For hygienically separating work and street clothing.

85329 101 85329 102

Number of double compartments	External dimensions H x W x D mm	85329	...
1	1800 x 600 x 500		101
2	1800 x 1170 x 500		102

85308 Double-level wardrobe cabinets

Design
- On base
- 2 compartments on top of each other, 1 door per shelf
- Each compartment has 1 clothes rail and 3 hooks
- Doors with ventilation slats for ventilation and label frame for identification
- Twist lock for padlock
- Colour: RAL 7035 Light Grey

Note:
Padlocks, see art. no. 86929 ff.

85308 101 85308 102

Number of sections	Compartment width mm	Number of shelves	External dimensions H x W x D mm	85308	...
2	300	4	1940 x 600 x 500		101
3	300	6	1940 x 900 x 500		102

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85330 Z-cabinets

Design
- The space-saving alternative to standard cabinets
- Rigid doors, equipped with cylinder locks
- Coated in RAL 7035, Light Grey

85330 101 85330 102

Number of Compartments	External dimensions H x W x D mm	85330 ...
2	1800 x 415 x 500	101
4	1800 x 800 x 500	102

85331 Wardrobe cabinets with lower fitted bench seat

Design
- Welded sheet steel construction on base
- Doors with label frame, ventilation slots and twist lock for padlock
- With lower fitted bench seat
- Colour: RAL 7035 Light Grey, powder-coated

Note:
Padlocks, see art. no. 86929 ff.

85331 101 85331 102 85331 103

Number of sections	Overall dimensions H x W x D	External dimensions of cabinet H x W x D mm	Bench seat H x D mm	85331 ...
2	2200 x 600 x 800	1800 x 600 x 500	400 x 300	101
3	2200 x 900 x 800	1800 x 900 x 500	400 x 300	102
4	2200 x 1200 x 800	1800 x 1200 x 500	400 x 300	103

85332 Sloping roof attachments

Design
- Can be retrofitted
- Prevents objects from being left on top of units
- Mounted with 4 tapping screws
- RAL 7035

Width mm	Rear height approx. mm	Depth mm	85332 ...
400	200	500	101
600	200	500	102
800	200	500	103
900	200	500	104
1170	200	500	105
1200	200	500	106

85332

85309 Compartment locker for valuables with central wardrobe element

85309 101
Compartment locker for valuables
Design
- On base
- Stable, welded sheet steel construction
- Reinforced doors with cylinder lock and 2 keys each
- Colour: RAL 7035 Light Grey

Note:
Compartment lockers for valuables with central wardrobe element (art. no. 85309 201) can be lined up in any combination.

85309 201
Central wardrobe element
Design
Comprising:
- 1 upper sheet steel cover
- 1 hat shelf
- 1 clothes rail with
- 5 clothes hooks
- 1 shoe rack

Applications
For use with compartment lockers for valuables (art. no. 85309 101).

85309 101

85309 101 (2x) + 85309 201

	Number of compartments	External dimensions H x W x D mm	85309 ...
Compartment locker for valuables	5	1900 x 410 x 450	101
Central wardrobe element	-	- x 670 x 450	201

85301 - 85312 Wardrobe cabinets S 2000 Classic

Möbel für Menschen

Design
- Easy internal cleaning through smooth compartment floors for easy sweeping
- Plug-in hat shelf and clothes rail with 3 sliding hooks for every compartment
- Twist lock for padlock included as part of practical basic fittings

Doors:
- Hinged on the right
- Mounted using rotary bolts
- With vertical box reinforcement
- Ventilation slots
- Stamped label frame

Note:
Padlocks, see art. no. 86929 ff.

85301
Design
- With plastic feet = increased corrosion protection of cabinet

85303
Design
- With base

85312
Design
- With bench seat incl. adjustable glide runners for easy levelling (10 mm)

85301 201

85303 205

85312 205

Twist lock for padlocks with shackle thickness 4.5–6.5 mm

Good ventilation and drying in compartment

With feet			RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number Compartments	Compartment width mm	External dimensions H x W x D mm	85301	...	85301	...	85301	...
2	300	1850 x 610 x 500		101 NEW		201 NEW		601
2	400	1850 x 810 x 500		102 NEW		202 NEW		701
3	300	1850 x 900 x 500		103 NEW		203 NEW		602
3	400	1850 x 1200 x 500		104 NEW		204 NEW		702
4	300	1850 x 1190 x 500		105 NEW		205 NEW		603
4	400	1850 x 1590 x 500		106 NEW		206 NEW		703

With feet			RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number Compartments	Compartment width mm	External dimensions H x W x D mm	85303	...	85303	...	85303	...
2	300	1800 x 610 x 500		101 NEW		201 NEW		601
2	400	1800 x 810 x 500		102 NEW		202 NEW		701
3	300	1800 x 900 x 500		103 NEW		203 NEW		602
3	400	1800 x 1200 x 500		104 NEW		204 NEW		702
4	300	1800 x 1190 x 500		105 NEW		205 NEW		603
4	400	1800 x 1590 x 500		106 NEW		206 NEW		703

With feet			RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number Compartments	Compartment width mm	External dimensions H x W x D mm	85312	...	85312	...	85312	...
2	300	2090 x 610 x 500		101 NEW		201 NEW		601
2	400	2090 x 810 x 500		102 NEW		202 NEW		701
3	300	2090 x 900 x 500		103 NEW		203 NEW		602
3	400	2090 x 1200 x 500		104 NEW		204 NEW		702
4	300	2090 x 1190 x 500		105 NEW		205 NEW		603
4	400	2090 x 1590 x 500		106 NEW		206 NEW		703

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Möbel für Menschen

Design
- Doors fold together, suspended using rotary bolts
- Vertical box reinforcement
- Ventilation slots
- Stamped label frame
- Hat shelf can be placed inside
- Clothes rail with 3 sliding hooks per compartment
- Twist lock for padlock

Note:
Padlocks, see art. no. 86929 ff.

85313
Design
- With 150 mm high plastic feet

85314
Design
- With 100 mm high base

85319
Design
- With bench seat
- Incl. adjustable glide runners for easy levelling (10 mm)

85313 301-302

85313 103-104

85314 301-302

85314 303-304

85319 301-302

85319 103-104

With feet				RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of sections	Number of doors	Section width mm	External dimensions H x W x D mm	85313	...	85313	...	85313	...
2	2	300	1850 x 610 x 500		201 NEW		301 NEW		101
2	2	400	1850 x 810 x 500		202 NEW		302 NEW		102
4	4	300	1850 x 1190 x 500		203 NEW		303 NEW		103
4	4	400	1850 x 1590 x 500		204 NEW		304 NEW		104

With feet				RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of sections	Number of doors	Section width mm	External dimensions H x W x D mm	85314	...	85314	...	85314	...
2	2	300	1800 x 610 x 500		201 NEW		301 NEW		101
2	2	400	1800 x 810 x 500		202 NEW		302 NEW		102
4	4	300	1800 x 1190 x 500		203 NEW		303 NEW		103
4	4	400	1800 x 1590 x 500		204 NEW		304 NEW		104

With feet				RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of sections	Number of doors	Section width mm	External dimensions H x W x D mm	85319	...	85319	...	85319	...
2	2	300	2090 x 610 x 500		201 NEW		301 NEW		101 NEW
2	2	400	2090 x 810 x 500		202 NEW		302 NEW		102 NEW
4	4	300	2090 x 1190 x 500		203 NEW		303 NEW		103 NEW
4	4	400	2090 x 1590 x 500		204 NEW		304 NEW		104 NEW

85310 Double-floor wardrobe cabinets S 2000 Classic

Möbel für Menschen

Design
- Double-floor, 2 compartments on top of each other
- 1 door, 1 clothes rail and 3 sliding hooks per compartment
- Easy internal cleaning through smooth compartment floors for easy sweeping
- Twist lock for padlock as part of practical basic equipment

Doors:
- Hinged on the right
- Mounted using rotary bolts
- Top and bottom each with 1 perforated rosette
- Stamped label frame

Note:
Padlocks, see art. no. 86929 ff.

85310 201

85310 101-103
85310 201-203
85310 701-703
Design
- With plastic feet = increased corrosion protection of cabinet

85310 106

85310 104–106 85310 204–206
85310 601-603
Design
- With base

85310 803

85310 107-109
85310 207-209
85310 801-803
Design
- With bench seat incl. adjustable glide runners for easy levelling (10 mm)

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85310	...	85310	...	85310	...
2	2	4	300	1850 x 610 x 500		101 NEW		201 NEW		701
2	3	6	300	1850 x 900 x 500		102 NEW		202 NEW		702
2	4	8	300	1850 x 1190 x 500		103 NEW		203 NEW		703

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x Dmm	85310	...	85310	...	85310	...
2	2	4	300	1800 x 610 x 500		104 NEW		204 NEW		601
2	3	6	300	1800 x 900 x 500		105 NEW		205 NEW		602
2	4	8	300	1800 x 1190 x 500		106 NEW		206 NEW		603

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85310	...	85310	...	85310	...
2	2	4	300	2090 x 610 x 500		107 NEW		207 NEW		801 NEW
2	3	6	300	2090 x 900 x 500		108 NEW		208 NEW		802 NEW
2	4	8	300	2090 x 1190 x 500		109 NEW		209 NEW		803 NEW

85326 Sloping roof attachments

Möbel für Menschen

Design
- Can be retrofitted
- Prevents objects from being left on top of units
- Colour: RAL 7035

85326

For sections Number	Width mm	Rear height approx. mm	Depth mm	85326	...
2	300	230	500		101
2	400	230	500		102
3	300	230	500		103
3	400	230	500		104
4	300	230	500		105
4	400	230	500		106

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Möbel für Menschen

Design
- **With plastic feet** = increased corrosion protection of cabinet **or with base**
- Single-walled smooth doors
- Each door has cylinder lock and 2 keys
- The bottoms of the trays are generally designed in the body colour

Note:
Plastic label frame for doors available on request.

Cabinet feet made of plastic for better corrosion protection

Each door has cylinder lock and 2 keys

85317 104

85318 201

85316 502

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85316	...	85316	...	85316	...
3	2	6	300	1850 x 610 x 500		101 NEW		201 NEW		501
3	3	9	300	1850 x 900 x 500		102 NEW		202 NEW		502
3	4	12	300	1850 x 1190 x 500		103 NEW		203 NEW		503

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85317	...	85317	...	85317	...
4	2	8	300	1850 x 610 x 500		101 NEW		201 NEW		601
4	3	12	300	1850 x 900 x 500		102 NEW		202 NEW		602
4	4	16	300	1850 x 1190 x 500		103 NEW		203 NEW		603

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85318	...	85318	...	85318	...
5	2	10	300	1850 x 610 x 500		101 NEW		201 NEW		601
5	3	15	300	1850 x 900 x 500		102 NEW		202 NEW		602
5	4	20	300	1850 x 1190 x 500		103 NEW		203 NEW		603

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85316	...	85316	...	85316	...
3	2	6	300	1800 x 610 x 500		104 NEW		204 NEW		601
3	3	9	300	1800 x 900 x 500		105 NEW		205 NEW		602
3	4	12	300	1800 x 1190 x 500		106 NEW		206 NEW		603

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85317	...	85317	...	85317	...
4	2	8	300	1800 x 610 x 500		104 NEW		204 NEW		501
4	3	12	300	1800 x 900 x 500		105 NEW		205 NEW		502
4	4	16	300	1800 x 1190 x 500		106 NEW		206 NEW		503

With feet					RAL 7035/5012		RAL 7035/5010		RAL 7035/7035	
Number of compartments on top of each other	Number of sections	Number of compartments	Section width mm	External dimensions H x W x D mm	85318	...	85318	...	85318	...
5	2	10	300	1800 x 610 x 500		104 NEW		204 NEW		501
5	3	15	300	1800 x 900 x 500		105 NEW		205 NEW		502
5	4	20	300	1800 x 1190 x 500		106 NEW		206 NEW		503

85320 - 85324 Multi-purpose cabinets S 2000 Classic

Möbel für Menschen

Design
- Doors fold together
- With joint twist lock for padlock
- Shelves not height adjustable
- Body colour: RAL 7035
- Door colour: RAL 7035

Note:
Padlocks, see art. no. 86929 ff.

85320
Laundry wardrobe cabinets
Design
- Left: 4 shelves
- Right: 1 hat shelf, 1 clothes rail, 3 sliding hooks

85322
Cabinets for room cleaning equipment
Design
- Left of shortened divider: 4 shelves
- Right: 1 rail with 6 sliding hooks

85324
Laundry and storage cabinet
Design
- 4 solid shelves

85320 501
85322 501
85324 501
Design
With plastic feet = increased corrosion protection of cabinet.

85320 601
85322 601
85324 601
Design
With base.

85320 601

85322 601

85324 601

Twist lock for padlocks with shackle thickness 4.5–6.5 mm

Good ventilation and drying in compartment

Cabinet type	Design	Number of Compartments	Section width mm	External dimensions H x W x D mm	85320 ...	85322 ...	85324 ...
Laundry cabinet	with feet	2	300	1850 x 610 x 500	501		
Laundry cabinet	with base	2	300	1800 x 610 x 500	601		
Cabinet for room cleaning equipment	with feet	2	300	1850 x 610 x 500		501	
Cabinet for room cleaning equipment	with base	2	300	1800 x 610 x 500		601	
Laundry and storage cabinet	with feet	1	300	1850 x 610 x 500			501
Laundry and storage cabinet	with base	1	300	1800 x 610 x 500			601

85327 Bench seats

Design
- Frame made of square tube, H x D 400 x 400 mm
- Coated in RAL 7035, Light Grey
- Seat slats made of hardwood with clear lacquer
- Available with disassembled feet
- Quick and easy assembly

85327 103

85327 102

85327 101

Length mm	85327 ...
1000	103
1500	102
2000	101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

85852 101
„Clean Tower" cleaning station
Design
- Made from high-quality sheet steel
- Powder-coated, colour: RAL 9006 Silver
- Optimal stand due to 40 cm round floor panel with bores for floor mounting or rollers
- With perforated strip on side for optional mounting of accessories
- With 8 mm groove on side for mounting with sliding blocks

Advantage:
Thanks to its clever modular design, the cleaning station can be individually adapted and put together according to your requirements.

Scope of delivery:
- 1 x „Clean Tower" cleaning station
- 1 x dustpan, zinc-plated steel
- 1 x hand brush with wooden handle
- 1 x workshop broom, 600 mm wide
- Without box and can holder (see accessories art. no. 85852 102–111)

Applications
Ideal for all areas where a range of cleaning accessories are required, such as production, assembly, quality control, goods dispatch.

85852 102-104
Box
Design
- Made from steel

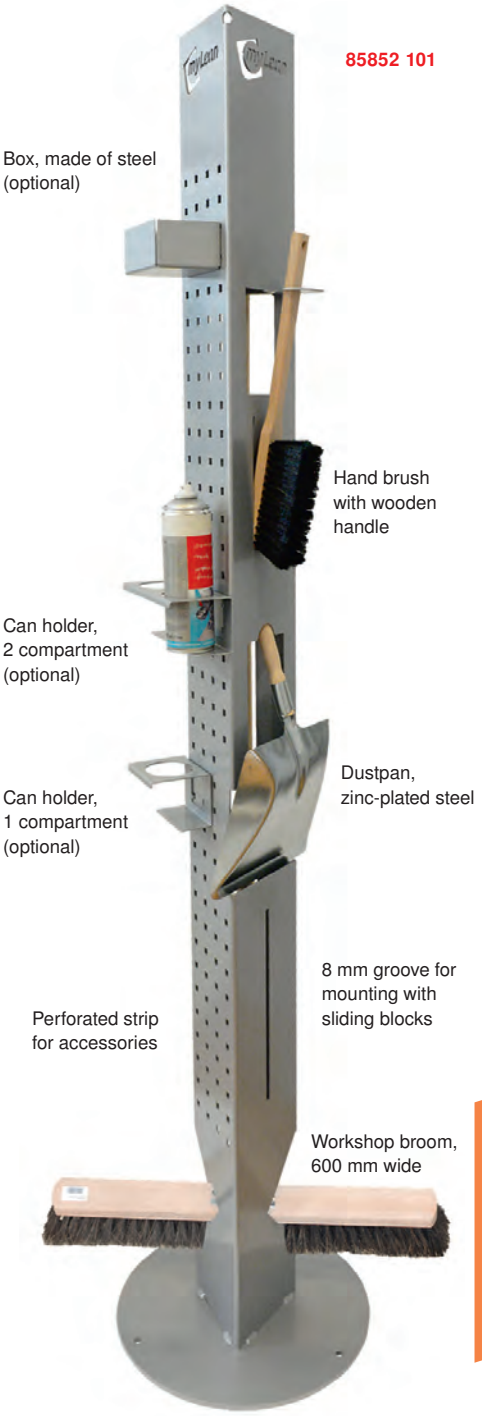
85852 105
Rubbish bag holder
Applications
Suitable for customary 70 litre rubbish bags.

85852 106-107
Hooks

85852 108-110
Can holder
Design
- Made from steel
- Hole diameter 70 mm

85852 111
Pump bottle holder
Design
- Made from steel
- Hole diameter 103 mm

NEW

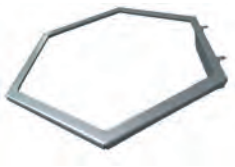


85852 102

85852 103

85852 104

85852 105

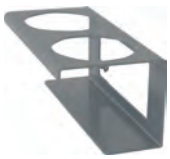


85852 106

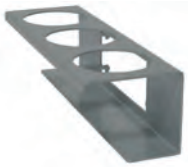
85852 107

85852 108

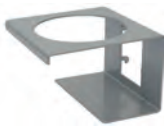
85852 109



85852 110



85852 111



	Height mm	Width mm	Depth mm	Colour RAL	85852 ...
„Clean Tower" cleaning station	1910	160	160	9006 Silver	101
Box	60	120	90	9006 Silver	102
Box	100	210	240	9006 Silver	103
Box	110	165	115	9006 Silver	104
Rubbish bag holder	60	376	376	9006 Silver	105
Short hook	55	8	28	9006 Silver	106
Long hook	55	8	128	9006 Silver	107
Can holder, 1 compartment	77	100	90	9006 Silver	108
Can holder, 2 compartment	77	185	90	9006 Silver	109
Can holder, 3 compartment	75	270	90	9006 Silver	110
Pump bottle holder	87	130	130	9006 Silver	111

85900 Cleaning station, equipped

apfel

Design
- Made of zinc-plated sheet metal without perforation
- With 50 mm perforation grid for Kanban shelves
- Viewing surfaces powdered in RAL 7021
- Fully pre-assembled

Scope of delivery
- 2 Kanban shelves, zinc-plated, inside approx. 440 x 722 mm
- 1 storage bin, 600 x 400 x 220 mm
- 2 storage bins, 300 x 400 x 220 mm
- 1 rubbish bin made of zinc-plated sheet metal, L x W x H approx. 300 x 300 x 505 mm
- 2 brooms
- 1 hand brush
- 1 dustpan
- 1 shadow board for brooms and dustpan included in delivery
- 1 storage compartment for e.g. spray bottles
- 4 steering rollers Ø 125 mm (double stop)
- Incl. installation of accessories such as hooks and brackets for holding brooms and spray bottles

NEW

85900 101

External diameters W x D x H mm	Overall static load max. kg	85900	...
512 x 772 x 1952	400		101

85900 Coolant trolley, equipped

apfel

Design
- Powder-coated housing RAL 7021
- Fully assembled

Scope of delivery
- 1 drawer, internal dimensions 451 x 372 mm
- 1 shelf, internal dimensions 438 x 334 mm
- 1 x 1/2 inch hose winder, standard 20 m
- 1 holder for mixing valve
- 1 bracket for cleaning agents
- 1 bracket for cleaning cloths
- 1 broom set with shadow board
- 2 plastic handles
- 2 steering rollers Ø 125 mm (double stop)
- 2 fixed castors, Ø 125 mm
- Alternatively: 4 x steering rollers

Note:
Mixing valve systems and collection trays available on request.

NEW

85900 102

External diameters W x D x H mm	Overall static load max. kg	85900	...
382 x 482 x 1752	400		102

85495 Shelf plug-in racks, zinc-plated

ATORN®

Design
- Zinc-plated
- Plug-in rack with pre-assembled frame
- Quick plug-in assembly without tools
- Shelves with 50 mm perforation grid to accommodate accessories
- With diagonal struts attached to the reverse
- Shelves height-adjustable in increments of 25 mm

Applications
Universal shelving system for all areas of storage.

Note:
Comprehensive accessories including compartment dividers and partition grid deliverable on request.

85495 101
Basic shelving unit
Scope of delivery:
2 frames, 4 shelves, mounting accessories.

85495 102
Add-on shelf
Scope of delivery:
1 frames, 4 shelves, mounting accessories.

85495 103
Additional shelves
Pack = 2 units.

kg 115

85495

Planning dimensions and load specifications
Basic shelf:
Nominal length + 56 mm,
nominal depth + 36 mm
Add-on shelf: Nominal length + 6 mm,
nominal depth + 36 mm
Bay load: up to 900 kg

Shelf load: 115 kg
Safety instructions: Secure shelves with a height/depth ratio of ≥ 5:1 against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads. Bay load indications apply to shelving lines with 3 or more bays.

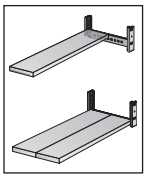
						Basic shelf		Add-on shelf		Additional shelf	
Height mm	Length mm	Depth mm	Number of shelves	Shelf load kg	Bay load kg	85495	...	85495	...	85495	...
2000	1000	400	4	115	900		101		102		
-	1000	400	2	-	-						103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

Info — Industrial racks and storage racks art. no. 85401–85409

HHW plug-in shelving system, zinc-plated
Characterised by high compatibility and ability to be adapted to a range of purposes. This results in low follow-on costs. The system is precisely tailored to the requirements placed on modern shelving systems.
Depth variation:
The shelf depths can easily be changed by switching the cross beams.
Better load distribution:
Each shelf rests on two cross beams and not just on four corner points.
More stability:
The use of multiple narrow shelves increases the load per shelf e.g. each 500 mm shelf consists of two shelf panels: one 300 mm wide and one 200 mm wide.
Quality characteristic:
Quality assurance by testing of materials, structures and statics. In accordance with standard UVV BGR 234. Permanent factory testing in accordance with DIN ISO 9001.

Note:
A vast range of accessories includes compartment dividers, rear, side and decorative walls, pendulum and hanging file frames, door systems and much more. Painted design available on request.



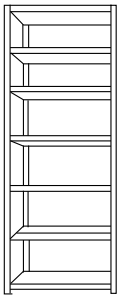
85401 - 85404 Basic and add-on shelves – plug-in system, zinc-plated

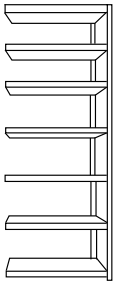
Note:
The specified shelf load applies with an evenly distributed load. Rack heights 2640/3000 mm and compartment widths 1200 mm available on request. For additional shelves, see art. no. 85406–85409.

85401 - 85402
Basic shelving unit
Design
Complete with all the necessary components **(including cross struts),** not assembled. Bay load each 2500 kg (with shelf distance 400 mm).

85403 - 85404
Add-on shelves
Applications
For basic shelves art. no. 85401–85402. Complete **(including cross struts for each 2nd section),** not assembled. Bay load each 2500 kg (with shelf distance 400 mm).

85401 - 85402 **85403 - 85404**





Shelf height mm	Compartment width mm	Shelf length mm	Shelf depth mm	Shelf load kg	Number of shelves Unit	Basic shelf 85401	...	Add-on shelf 85403	...
1920	800	780	300	130	5		601		601
1920	800	780	400	200	5		602		602
1920	800	780	500	230	5		603		603
1920	800	780	600	260	5		604		604
2280	800	780	300	130	6		611		611
2280	800	780	400	200	6		612		612
2280	800	780	500	230	6		613		613
2280	800	780	600	260	6		614		614

Shelf height mm	Compartment width mm	Shelf length mm	Shelf depth mm	Shelf load kg	Number of shelves Unit	Basic shelf 85402	...	Add-on shelf 85404	...
1920	1000	980	300	100	5		601		601
1920	1000	980	400	140	5		602		602
1920	1000	980	500	170	5		603		603
1920	1000	980	600	200	5		604		604
2280	1000	980	300	100	6		611		611
2280	1000	980	400	140	6		612		612
2280	1000	980	500	170	6		613		613
2280	1000	980	600	200	6		614		614

85406 - 85409 Additional shelves (panels)

Design
Made of sheet steel, folded 3 times at the front. Zinc-plated, including 2 cross beams.
Applications
For art no. 85401–85404.

Note:
Shelf depth 300 mm =
1 panel, 300 mm wide,
Shelf depth 400 mm =
2 panels, each 200 mm wide,
Shelf depth 500 mm =
2 panels, each 200 and 300 mm wide,
Shelf depth 600 mm =
2 panels, each 300 mm wide.

Shelf depth	300 mm		400 mm		500 mm		600 mm	
Shelf width mm	85406	...	85407	...	85408	...	85409	...
800		201		301		401		301
1000		202		302		402		302

Info

Your partner for systematic storage technology!

META shelves stand for:
- Quality Made in Germany
- Optimal functionality and customer value
- Stability and durability
- Flexibility – they can be converted, retrofitted and combined with other shelving systems as desired
- High shelf and bay loads
- Extensive range of system accessories

The META product range includes:
- Storage shelves as a plug-in or screw-in shelving system
- Wide-span shelves
- Pallet shelves
- Multi-level shelving systems
- Dynamic and portable shelves
- Cantilever shelves

META storage shelves
Consisting of just two system components (frame and shelves), the result is complex shelving lines for all uses within small parts storage (e.g. spare parts depot in industry and trade, sale warehouse in joint production and retail facilities). The extensive range of system accessories allows you to design the shelf according to your own preferences.

META pallet shelves
The optimal solution for rational, orderly and adaptable pallet and bulk storage.

META wide-span shelves
The two systems META SPEED-RACK® and META MINI-RACK are perfectly suited for the storage of large, bulky and heavy parts. They provide an alternative to the pallet shelf and are versatile in use across various sectors.

META cantilever shelves
The optimal solution for all types of storage – from small, compact shelving lines (single- and double-sided) for lightweight to moderately heavy long items to towering cantilever shelves for heavy profiles and panels.

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Single row META CLIP plug-in racks, length 1,000 mm

Design
- **Plug-in rack with pre-assembled frame = clinched frame**
- Quick plug-in assembly without tools
- Shelves with 50 mm perforation grid to accommodate accessories
- Single row, with diagonal struts attached to the reverse
- Shelves height-adjustable in increments of 25 mm

85410 + 85420
Design
Zinc-coated.

85412 + 85422
Design
RAL 7035 Light grey.

Note:
Planning dimensions and load information see cat. page 85.19.

85410 + 85420

						Zinc-plated				RAL 7035			
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf	
Height mm	Length mm	Depth mm	Number of shelves	Bay load kg	Shelf load kg	85410	...	85410	...	85412	...	85412	...
2000	1000	300	5	150	1650		101		201		101		201
2000	1000	400	5	150	1650		102		202		102		202
2000	1000	500	5	150	1650		103		203		103		203
2000	1000	600	5	150	1650		104		204		104		204
2500	1000	300	6	150	2400		105		205		105		205
2500	1000	400	6	150	2400		106		206		106		206
2500	1000	500	6	150	2400		107		207		107		207
2500	1000	600	6	150	2400		108		208		108		208

				Zinc-plated		RAL 7035	
				85414	...	85414	...
	Height mm	Length mm	Depth mm	Number of shelves			
Additional shelf	40	1000	300	1	101		201
Additional shelf	40	1000	400	1	102		202
Additional shelf	40	1000	500	1	103		203
Additional shelf	40	1000	600	1	104		204

						Zinc-plated				RAL 7035			
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf	
Height mm	Length mm	Depth mm	Number of shelves	Bay load kg	Shelf load kg	85420	...	85420	...	85422	...	85422	...
2000	1000	300	5	230	1650		101		201		101		201
2000	1000	400	5	230	1650		102		202		102		202
2000	1000	500	5	230	1650		103		203		103		203
2000	1000	600	5	230	1650		104		204		104		204
2000	1000	800	5	230	1650		105		205		105		205
2500	1000	300	6	230	2400		106		206		106		206
2500	1000	400	6	230	2400		107		207		107		207
2500	1000	500	6	230	2400		108		208		108		208
2500	1000	600	6	230	2400		109		209		109		209
2500	1000	800	6	230	2400		110		210		110		210

				Zinc-plated		RAL 7035	
				85425	...	85425	...
	Height mm	Length mm	Depth mm	Number of shelves			
Additional shelf	40	1000	300	1	101		201
Additional shelf	40	1000	400	1	102		202
Additional shelf	40	1000	500	1	103		203
Additional shelf	40	1000	600	1	104		204
Additional shelf	40	1000	800	1	105		205

85430 - 85435 Single row META CLIP plug-in racks, length 1,300 mm

Design
- **Plug-in rack with pre-assembled frame = clinched frame**
- Quick plug-in assembly without tools
- Shelves with 50 mm perforation grid to accommodate accessories
- Single row, with diagonal struts attached to the reverse
- Shelves height-adjustable in increments of 25 mm

85430
Design
Zinc-coated.

85432
Design
RAL 7035 Light grey.

85430

Planning dimensions and load specifications
Basic shelf: Nominal length + 56 mm,
nominal depth + 36 mm
Add-on shelf: Nominal length + 6 mm,
nominal depth + 36 mm
Bay load: up to 2,400 kg
Shelf load: 150 or 230 kg
(max. load of top shelf = 200 kg)
Safety instructions: Secure shelves with a height/depth ratio of ≥ 5:1 against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads. Bay load indications apply to shelving lines with 3 or more bays.

Extensive range of accessories such as compartment dividers, drawers, etc. available on request

						Zinc-plated				RAL 7035				kg 230
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf		
Height mm	Length mm	Depth mm	Number of shelves	Bay load kg	Shelf load kg	85430	...	85430	...	85432	...	85432	...	
2000	1300	300	4	230	1650		101		201		101		201	
2000	1300	400	4	230	1650		102		202		102		202	
2000	1300	500	4	230	1650		103		203		103		203	
2000	1300	600	4	230	1650		104		204		104		204	
2000	1300	800	4	230	1650		105		205		105		205	
2500	1300	300	5	230	2350		106		206		106		206	
2500	1300	400	5	230	2350		107		207		107		207	
2500	1300	500	5	230	2350		108		208		108		208	
2500	1300	600	5	230	2350		109		209		109		209	
2500	1300	800	5	230	2350		110		210		110		210	
3000	1300	300	6	230	1900		111		211		111		211	
3000	1300	400	6	230	1900		112		212		112		212	
3000	1300	500	6	230	1900		113		213		113		213	
3000	1300	600	6	230	1900		114		214		114		214	
3000	1300	800	6	230	1900		115		215		115		215	

					Zinc-plated		RAL 7035	
	Height mm	Length mm	Depth mm	Number of shelves	85435	...	85435	...
Additional shelf	40	1300	300	1		101		201
Additional shelf	40	1300	400	1		102		202
Additional shelf	40	1300	500	1		103		203
Additional shelf	40	1300	600	1		104		204
Additional shelf	40	1300	800	1		105		205

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Single row META CLIP plug-in racks, length 1500 mm and 1700 mm

META

Design

- **Large-scale XXL shelves with pre-assembled frame and diagonal struts**
- **Shelf length 1500 mm and 1700 mm for mass storage**
- Horizontal storage of long and bulky goods possible
- Single row plug-in rack with pre-assembled frame = clinched frame
- Quick plug-in assembly without tools
- Shelf dividers in the associated depths
- Shelves height-adjustable in increments of 25 mm
- Shelves with 50 mm perforation grid to accommodate accessories
- 60 mm wide M-length channel ensures maximum load even with large shelf widths

Planning dimensions and load specifications

Basic shelf: Nominal length + 56 mm, Nominal depth + 36 mm
Add-on shelf: Nominal length + 6 mm, Nominal depth + 36 mm
Bay load: up to 1400 kg
Shelf load: 200 kg
Safety instructions: Shelves with a height/depth ratio of ≥ 5:1 must be secured against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads. Bay load indications apply to shelving lines with 3 or more bays.

85436 - 85439

60 mm wide M-length channel ensures maximum load even with large shelf widths

						Zinc-plated				RAL 7035				kg 200
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf		
Height mm	Length mm	Depth mm	Number of shelves	Bay load kg	Shelf load kg	85436	...	85436	...	85437	...	85437	...	
2000	1500	500	4	200	1200		101		201		101		201	
2000	1500	600	4	200	1200		102		202		102		202	
2500	1500	500	5	200	1400		103		203		103		203	
2500	1500	600	5	200	1400		104		204		104		204	

					Zinc-plated		RAL 7035	
	Height mm	Length mm	Depth mm	Number of shelves	85440	...	85440	...
Additional shelf	40	1500	500	1		101		201
Additional shelf	40	1500	600	1		102		202

						Zinc-plated				RAL 7035				kg 200
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf		
Height mm	Length mm	Depth mm	Number of shelves	Bay load kg	Shelf load kg	85438	...	85438	...	85439	...	85439	...	
2000	1700	500	4	200	1200		101		201		101		201	
2000	1700	600	4	200	1200		102		202		102		202	
2500	1700	500	5	200	1400		103		203		103		203	
2500	1700	600	5	200	1400		104		204		104		204	

					Zinc-plated		RAL 7035	
	Height mm	Length mm	Depth mm	Number of shelves	85441	...	85441	...
Additional shelf	40	1700	500	1		101		201
Additional shelf	40	1700	600	1		102		202

85480 META CLIP S3 sloping shelves with compartment divider wires/compartment dividers

Design
- The META CLIP S3 shelving system with completely disassembled frame achieves especially high stability and load
- Quick plug-in assembly without tools
- Shelves height-adjustable in increments of 25 mm
- Zinc-plated

Applications
Particularly suitable for boxed goods such as packets of screws or for the storage of small parts in small storage bins

Planning dimensions and load specifications
Single row basic shelf: Nominal length + 56 mm, nominal depth + 36 mm
Single row add-on shelf: Nominal length + 6 mm, nominal depth + 36 mm
Double row basic shelf: Nominal length + 56 mm, 2 x nominal depth + 75 mm
Double row add-on shelf: Nominal length + 6 mm, 2 x nominal depth + 75 mm
Bay load: 1400 kg or 1800 kg
Shelf load: 200 kg
Safety instructions: Secure shelves with a height/depth ratio of ≥ 5:1 against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads. Bay load indications apply to shelving lines with 3 or more bays.

85480 101-104
Design
- Single-sided rack
- With compartment divider wires
- 6 compartment divider wires per sloping shelf included in scope of delivery

85480 201-204
Design
- Double-sided shelf
- With compartment divider wires
- 6 compartment divider wires per sloping shelf included in scope of delivery

85480 301-302
Design
- Single-sided rack
- With compartment dividers

85480 101-104

85480 201-204

						single-sided				double-sided				kg 200
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf		
Height mm	Length mm	Depth mm	Number shelves	Shelf load kg	Bay load kg	85480	...	85480	...	85480	...	85480	...	
2000	1000	500	8	200	1800		101		103		201		203	
2000	1000	800	8	200	1800		102		104		202		204	
2000	1000	500	6	200	1400		301		302					

85490 META CLIP S3 sloping shelves

Design
- Easy and quick plug-in installation with flat-pack S3 plug-in frames
- FIFO principle (First In/First Out): Goods that are stored first are also consumed first. Particularly important for goods with an expiration date
- The uppermost level is fully available for loading since there are no cross struts
- The shelves have an 18° incline so that goods stored on them virtually move themselves forward for removal
- Shelf levels adjustable in increments of 25 mm
- Zinc-plated

Planning dimensions and load specifications
Basic shelf: Nominal length + 56 mm above everything
Add-on shelf: Nominal length + 6 mm above everything
Frame depth: 1228 mm above everything
Bay load: 1,200 kg
Shelf load: 200 kg
Safety instructions: Secure shelves with a height/depth ratio of ≥ 5:1 against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads. Bay load indications apply to shelving lines with 3 or more bays.

85490

85490 203
Guide rail
Applications
2 guides can be inserted in each shelf to guide the boxes laterally. Price per unit.

						Basic shelf		Add-on shelf	
Height mm	Width mm	Depth mm	Number of shelves	Shelf load kg	Bay load kg	85490	...	85490	...
2000	1000	1228	4	200	1200		101		103
2000	1300	1228	4	200	1200		102		104

						Zinc-plated	
	Height mm	Width mm	Depth mm	Number of levels	Shelf load kg	85490	...
Additional shelf level	50	1000	1228	1	200		201
Additional shelf level	50	1300	1228	1	200		202
Guide rail	-	-	-	-	-		203

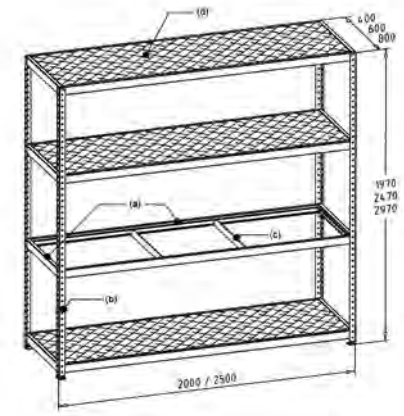
= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

85541 - 85545 META SPEED-RACK wide-span shelves

Design
- Complete shelf with chipboards, 19 mm
- Structurally simple wide-span shelf with equal-sided, symmetrical angled sections
- Easy to fit by means of plug-in installation
- Variable placement options due to basic construction
- Continuous edge protection of the wooden inserts thanks to flush assembly inside the step strut
- Shelf heights adjustable in increments of 50 mm
- Step strut in longitudinal and depth direction
- 2 beams under each shelf
- Surface: Zinc-plated profiles and struts

Scope of delivery:
- 8 step struts in longitudinal direction (a)
- 8 step struts in depth direction (a)
- 4 support profiles (b)
- 8 A-beams (c)
- 4 chipboards (D)
- 4 bearing plates
- 4 plug-in feet

Note:
Available with steel panels on request.



Planning dimensions and load specifications
Nominal size = actual size
(structure only in basic shelf construction)
Bay load: up to a maximum of 3000 kg
Shelf load: up to a maximum of 500 kg
Safety instructions: Secure shelves with a height/depth ratio of ≥ 5:1 against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads.

85541

Plug-in foot

Step strut

Height mm	Length mm	Depth mm	Number shelves	Shelf load kg	Bay load kg	Shelf 85541	...	Add-on shelf 85545	...
1970	2000	400	4	500	3000		101		101
1970	2000	600	4	500	3000		102		102
1970	2000	800	4	500	3000		103		103
2470	2000	400	4	500	3000		104		101
2470	2000	600	4	500	3000		105		102
2470	2000	800	4	500	3000		106		103
2970	2000	400	4	500	3000		107		101
2970	2000	600	4	500	3000		108		102
2970	2000	800	4	500	3000		109		103

85548 - 85549 META MINI-RACK wide-span shelves with steel panels

Design
- Surface: Frame and bracing Sendzimir galvanised
- Shelf: Steel panels (natural chipboard type on request)
- Goods can be stored in a horizontal or vertical position
- Shelves adjustable in increments of 50 mm
- Step struts with perforation in increments of 200 mm to accommodate dividers

Applications
Alternative to a pallet shelf for large and heavy single products.

Note:
Other dimensions and accessories such as dividers, compartment divider rods, etc. available on request.

Planning dimensions and load specifications
Basic shelf: Nominal length + 107 mm
Add-on shelf: Nominal length + 51 mm
Bay load: 2750 or 3200 kg
Shelf load: 600 kg
Safety instructions: Secure shelves with a height/depth ratio of ≥ 5:1 against tipping (anchor to wall or base). Shelf/bay loads apply with evenly distributed loads. 2 floor anchors per frame.

85548

Height mm	Length mm	Depth mm	Number of shelves	Shelf load kg	Bay load kg	Basic shelf 85548	...	Add-on shelf 85548	...	Additional shelf 85549	...
2200	1800	650	3	600	3200		103		203		101
2200	1800	800	3	600	3200		104		204		102
2200	1800	1050	3	600	3200		105		205		103
2200	2200	650	3	600	2750		106		206		104
2200	2200	800	3	600	2750		107		207		105
2200	2200	1050	3	600	2750		108		208		106

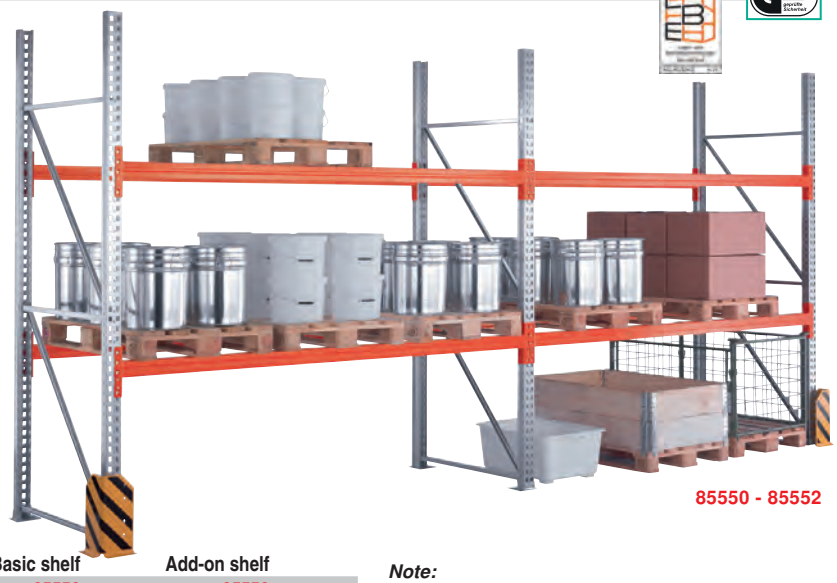
85550 - 85552 META MULTIPAL pallet shelves

Design
- 4 hook clasps, height adjustable in increments of 50 mm
- Closed box profiles = high stability
- Racks consist of cold-formed profiles, screwed to the bracing on site
- Zinc-plated stand (available in RAL 5010 Gentian blue on request)
- Struts in RAL 2001 Red orange

Scope of delivery for basic unit:
2 stands incl. floor anchor, struts according to table.

Scope of delivery for add-on unit:
1 stands incl. floor anchor, struts according to table.

Applications
Modern, sophisticated pallet shelving system for the storage of light to moderately heavy pallets or piece goods. Longways or crossways storage possible.



85550 - 85552

Height mm	Length mm	Depth mm	Number of levels *	Strut Type	Shelf load kg	Bay load kg	Basic shelf 85550	...	Add-on shelf 85550	...
2700	1825	800	3	**85/15**	2200	7500		101		401
2700	1825	1100	3	**85/15**	2200	7500		201		601
2700	2700	800	3	**85/15**	1500	5250		104		404
2700	2700	1100	3	**85/15**	1500	5250		204		604
3300	1825	800	3	**85/15**	2200	7500		102		402
3300	1825	1100	3	**85/15**	2200	7500		202		602
3300	2700	800	3	**85/15**	1500	5250		105		405
3300	2700	1100	3	**85/15**	1500	5250		205		605
4400	1825	800	4	**85/15**	2200	7450		103		403
4400	1825	1100	4	**85/15**	2200	7450		203		603
4400	2700	800	4	**85/15**	1500	6950		106		406
4400	2700	1100	4	**85/15**	1500	6950		206		606

Height mm	Length mm	Depth mm	Number of levels *	Strut Type	Shelf load kg	Bay load kg	Basic shelf 85552	...	Add-on shelf 85552	...
2700	2700	800	3	**100/20**	2400	7500		201		401
2700	2700	1100	3	**100/20**	2400	7500		301		501
3300	2700	800	3	**100/20**	2400	7450		202		402
3300	2700	1100	3	**100/20**	2400	7500		302		502
4400	2700	800	4	**100/20**	2400	7500		203		403
4400	2700	1100	4	**100/20**	2400	7450		303		503

Note:
**Number of levels including floor storage level. Up to 12 metres high and accessories available on request.*

Planning dimensions and load specifications
Overall width:
Basic shelf: Strut length + 170 mm
Add-on shelf: Strut length + 85 mm
Total depth = frame depth
Bay load: up to a maximum 7500 kg for a maximum buckling length of 1000 mm
Shelf load: up to a maximum 2,400 kg for a maximum buckling length of 1000 mm
Load specifications for shelf height 1000 mm
Safety instructions: The shelf loads apply with evenly distributed load. Additional shelf levels are possible up to the maximum bay load. The specified shelf and bay loads are applicable to shelf units of at least 4 shelf bays and at least 2 strut pairs.
Quality characteristics in accordance with Rule 108-007 of the DGUV professional association. Permanent factory testing in accordance with DIN EN ISO 9001.

Continued

Info Annual inspection requirement for storage facilities

Short: Storage equipment/shelves are classified as work equipment. They are subject to the German Industrial Safety Regulation (BetrSichV). They must be checked by authorised persons in accordance with Section 10 of the BetrSichV. The new European standard DIN EN 15635 specifies the sequence to follow when checking storage equipment/shelves.

New European standard
The new European standard DIN EN 15635 and the German Industrial Safety Regulation require warehouse operators to have an inspection of their shelving equipment carried out by a competent person on a regular basis. The Verband der Lagertechnik und Betriebseinrichtung (Association of Storage Technology and Factory Equipment) trains and certifies shelving inspectors who check the safety of shelving systems annually.

Load capacity of shelves
In the age of digitisation, complex computer programs calculate how to structure professional storage equipment to use their storage space most effectively. One of the most efficient means of material savings is reducing the sheet thickness of shelves, i.e. through optimal profiling of thin-walled sheets. Even minor damage can reduce the load capacity of a shelf. Unstable shelving systems can be extremely dangerous for people, machines and stored goods.

German Industrial Safety Regulation (BetrSichV)
According to the German Federal Ministry of Labour and Social Affairs in Bonn, shelves are classified as work equipment and are thus subject to the Industrial Safety Regulation (BetrSichV). The BetrSichV applies to the provision of shelves by the employer as well as the use of shelves by employees. Paragraph 10 of the BetrSichV requires that storage facilities are inspected on a regular basis. In accordance with Section 3, the nature, scope and period of required inspections must be determined for shelves. The scope and process for inspections of storage facilities are regulated in the European standard DIN EN 15635, which was published by Beuth Verlag in May 2007.

We will be happy to advise you about this new service in person or by telephone.

Please call us on: +49 (0)6204 / 7391116

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

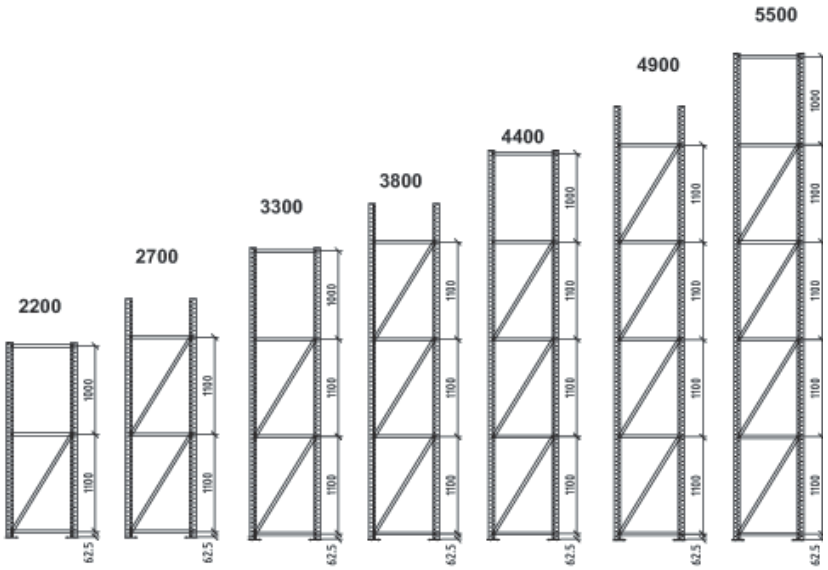
Continued

85551 - 85555

Design
- Permissible frame load dependent on shelf height, see adjoining table
- **Zinc-plated frame surface**
- **Safety regulation in accordance with ZH 1/428: The end frames must be 500 mm higher than the top strut**
- Delivery incl. 2 floor anchors M 10

Note:
Shelving frames with higher loads available on request.Frames are delivered disassembled for transport reasons.Plastic-coated design in RAL 5010 and frame depth 800 mm available on request.

Bay loads:
The specified standing loads apply to shelves with a height of approx. 8 m (top strut) and are intended for orientation purposes. Different loads are possible depending on the number of levels and shelf height. For exact bay loads and heights of up to 12 m, please ask with regard to the specific project. The bay load specifications are based on the following conditions:
- An even load distribution on all struts
- At least 4 bays
- At least 3 strut levels
- Shelf widths up to 2700 mm



Loads for shelves with approx. 8 m height and at least 3 levels

Stands Type	Shelf height mm	Type 85/15 * Load kg	Type 100/20 * Load kg
SR 85/20	1000	9600	9700
SR 85/20	1500	8650	8950
SR 85/20	2000	7800	8250

* Strut profiles up to a shelf width of less than or equal to 2700 mm

Frame height mm	Frame depth mm	85555 ...
2700	800	101
3300	800	102
4400	800	103
5500	800	104

Frame height mm	Frame depth mm	85551 ...
2200	1100	301
2700	1100	302
3300	1100	303
3800	1100	304
4400	1100	305
4900	1100	306
5500	1100	307

85556 META MULTIPAL struts

Design
Colour: RAL 2001 Orange.
All prices per unit.
Please order in pairs.

Note:
Max. load (kg) per pair of struts with a shelf height of 1500 mm. The load per pair of struts applies to an evenly distributed load.

85556

Strut type HN	Strut length mm	Shelf load with shelf frame 85/20 kg	85556 ...
85/15	1825	2250	098
85/15	2700	1550	100
100/20	1825	3350	201
100/20	2700	2400	203

Info Permanent lifting magnets

Permanent lifting magnets can be found in the catalogue group 78, **art. no. 78739.**

85557 Pallet extensions

Design
- The pallet extensions are extensively pre-assembled and are directly mounted on the cross beams (pallet struts) or on the floor
- The extensions can be pulled out from one side, or from both sides as an option (this enables loading from the back and removal from the front)
- Load capacity of pallet extensions from 500–1000 kg
- Pull-out shelves with sheet metal cover and anti-roll-off edging, optionally also with wood covering, incl. drawer lock
- The load values apply to an evenly distributed load

Options:
Individual special sizes and special designs, as well as almost all RAL colours are available on request.

Applications
As accessories to pallet shelves, pallet extensions significantly expand the usage options and enable optimised access to stored products from 3 sides. Retrofitting is possible with almost all systems.

85557 101–204 cross beam models 85557

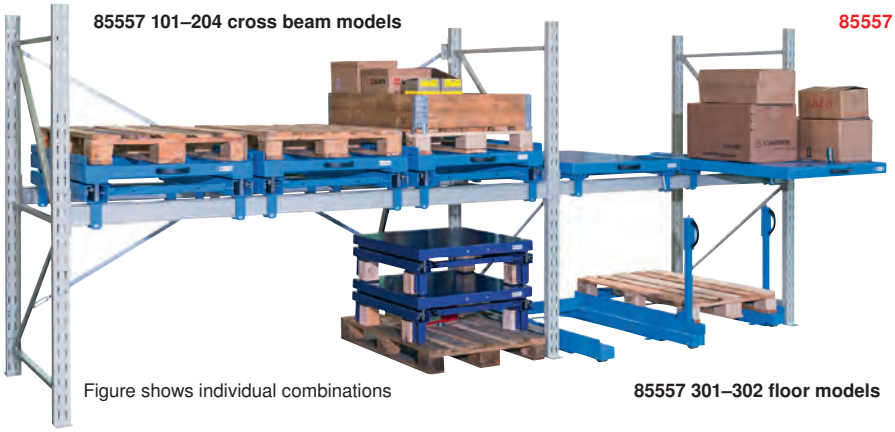


Figure shows individual combinations

85557 301–302 floor models

Important planning dimensions for the existing pallet shelf:
- Cross beam distance, external/external
- Profile height of cross beams
- Profile depth of cross beams
- Load of cross beams
- Bay load
- Manufacturer, name, etc.

Safety precautions:
Due to the eccentric load when pulling out the pallet extension, the entire load lies on the front cross beam (pallet strut). The load capacity of the individual cross beam must therefore correspond to the max. load of the extensions installed on this level. The rear cross beam in particular must be secured against overburdening. The pallet shelf must be secured against tipping.

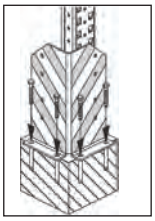
Model	Extension ability %	For shelf depth mm	Load kg	Installation height of extensions mm	Dimensions mm	85557 ...
Cross beam	70	800	500	80	850 x 1250 x 75	101
Cross beam	70	800	1000	120	850 x 1250 x 75	102
Cross beam	70	1100	500	80	1250 x 850 x 75	103
Cross beam	70	1100	1000	120	1250 x 850 x 75	104
Cross beam	95	800	500	160	850 x 1250 x 130	201
Cross beam	95	800	1000	160	850 x 1250 x 130	202
Cross beam	95	1100	500	160	1250 x 850 x 130	203
Cross beam	95	1100	1000	160	1250 x 850 x 130	204
Floor	95	800	1000	80	850 x 1280 x 85	301
Floor	95	1000	1000	80	1250 x 850 x 85	302

85553 Crash protection corner

META

Design
Complete with 4 screw anchors.

Applications
For protecting shelf posts at entrances and passageways in accordance with the requirements of the FEM.



85553

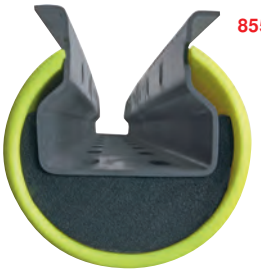
Height mm	Signal colour	85553 ...
400	black/yellow	101

85554 Shelf impact protection Rack Armour®

Design
- Optimum safety and protection, suitable for almost all brands of shelf racks
- Costs a fraction of the cost of repairing or replacing shelves
- Even minor damage can reduce the load capacity of a shelf
- Unstable shelving systems can be extremely dangerous for people, machines and stored goods
- DEKRA-tested and certified

Advantages:
- Optimum safety and protection, made from high-quality (HDPE) polyethylene
- Highly visible in fluorescent yellow
- Very high shock absorption, absorbs an impact force of up to 2.4 tonnes
- Tested according to European and international standards, FEM 10/02/02, AS 4084
- No pulling away during pallet removal
- Quick and easy to assemble without additional mounting
- Due to the round, fixed construction, lifting forks are diverted away from shelf stands and no collision occurs in the first place
- This prevents accidents with severe consequences and minimises repair costs in most cases
- No damage to shelf in the event of collision, as no mounting to the ground is required
- Elastic, resilient, dimensionally stable. Springs back to its old shape in the event of collision
- Sleek European construction
- Highly durable. Withstands even steel and other hard materials
- Suitable for deep-freeze storage, withstands continual extreme temperatures down to -40 °C
- Non-toxic and fully recyclable

DEKRA



85554

Size	For support width mm	Height mm	85554 ...
S	70 - 87	600	101
M	88 - 100	600	102
L	101 - 110	600	103
XXL	111 - 120	600	104

Factory equipment

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

META MULTISTRONG cantilever shelves L (Light) + M (Medium)

Design
- Hot-rolled profiles IPE 120 (light) or IPE 140 (medium) perforated on both sides for later conversion from one-sided to double-sided. Only the foot part is replaced in this case
- Cantilevers adjustable in increments of 100 mm
- Sturdy, top-class branded quality
- Perfect safety down to the last detail
- Built-in extension options and precisely dimensioned, customised solutions
- Quick access to goods
- Anti-lift device reliably secures the cantilevers against unintentional removal when goods are stored or removed
- Axis diameter 1030 mm
- RAL 5010 Gentian blue

Applications
For L = light or M = medium load requirements. For vertical and horizontal storage of long goods, storage of sheet and plate material.

Planning dimensions and load specifications
Length of basic shelf:
Light: Axis diameter + 64 mm
Medium: Axis diameter + 73 mm
One-sided shelf depth:
Light: Nominal depth + 210 mm
Medium: Nominal depth + 230 mm
Double-sided shelf depth:
Light: 2 x nominal depth + 220 mm
Medium: 2 x nominal depth + 240 mm
Foot load: 5 x arm load
Safety instructions: Base anchors must be used if the height/depth ratio is ≥ 5:1 or the operational conditions require.

85561 101-118
One-sided shelf, L (light).

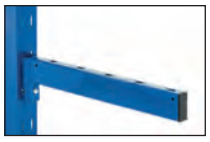
85561 201-218
Double-sided shelf, L (light).

85561 301-303
Additional cantilever L, height 40 mm.

85562 101-125
One-sided shelf, (M) medium.

85562 201-224
Double-sided shelf, (M) medium.

85562 301-304
Additional cantilever M, height 70 mm.



Inserted cantilever arm with locking screw, height-adjustable at any time, subsequent modification possible

85561

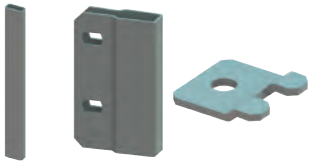
85562

L (Light)						single-sided				double-sided					
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf		Cantilever L	
Height mm	Length mm	Depth mm	Number of arms	Arm load kg	Stand load one-sided kg	85561	...	85561	...	85561	...	85561	...	85561	...
2000	1000	400	4	220	1750		101		110		201		210		301
2000	1000	500	4	175	1450		102		111		202		211		302
2000	1000	600	4	140	1300		103		112		203		212		303
2500	1000	400	4	220	1610		104		113		204		213		301
2500	1000	500	4	175	1300		105		114		205		214		302
2500	1000	600	4	140	1120		106		115		206		215		303
3000	1000	400	5	220	1500		107		116		207		216		301
3000	1000	500	5	175	1200		108		117		208		217		302
3000	1000	600	5	140	1000		109		118		209		218		303

M (Medium)						single-sided				double-sided					
						Basic shelf		Add-on shelf		Basic shelf		Add-on shelf		Cantilever M	
Height mm	Length mm	Depth mm	Number of arms	Arm load kg	Stand load one-sided kg	85562	...	85562	...	85562	...	85562	...	85562	...
2000	1000	400	4	535	2880		101		112		201		213		301
2000	1000	500	4	430	2340		102		113		202		214		302
2000	1000	600	4	355	2000		103		114		203		215		303
2000	1000	800	4	250	1650		104		115		204		216		304
2500	1000	400	4	535	2500		105		116		205		217		301
2500	1000	500	4	430	2200		106		117		206		218		302
2500	1000	600	4	355	1900		107		118		207		219		303
2500	1000	800	4	250	1500		108		119		208		220		304
3000	1000	400	5	535	2300		109		120		209		221		301
3000	1000	500	5	430	2000		124		121		210		222		302
3000	1000	600	5	355	1750		110		122		211		223		303
3000	1000	800	5	250	1250		111		123		212		224		304

Accessories	Useful height mm	Dimensions mm	85563	...
Anti-roll-off mandrel, zinc-plated	100	20 x 10 x 170		101
Anti-roll-off mandrel, zinc-plated	200	20 x 10 x 270		102
Anti-roll-off mandrel mount for foot part, completely zinc-plated	-	-		103
Foot clip + screw anchor, completely zinc-plated, 2 clips necessary per foot	-	-		104

85563 101-102 85563 103 85563 104



85540 - 85543 Heavy-load pull-out shelves

Design

- 3 pull-out shelves, 1 upper fixed shelf
- Support frame made of profiled U 80, completely assembled
- Bay load up to max. 10,000 kg
- Load capacity of pull-out shelves from 500–1200 kg
- The pull-out shelves are extensively pre-assebled
- Extensions with individual extension lock
- Extensions and shelves height adjustable in increments of 50 mm
- Pull-out shelf with sheet metal cover and anti-roll-off edging, optionally also with smooth sheet or wood covering, incl. extension lock
- Installation height of the pull-out shelves 130 mm + 20 mm anti-roll-off edging
- Fixed shelves load 500 kg
- The load values apply to an evenly distributed load

Options:

Further equipment variants e.g. with drawers, with hinged doors, with electric shutters or individual special sizes and special designs, as well as almost all RAL colours are available on request.

Applications

Pull-out shelves for storing extremely heavy loads such as injection moulds, punching tools, engines and other heavy products.

Note:

On request, up to 3 shelf bays with bay width 1300 mm and up to 4 whole shelves with bay width 900 mm can be delivered completely pre-assembled. Unloading options must be clarified.

Planning dimensions:

Adding together the clear bay widths + number of frames x 80 mm + 2 x 20 mm base plates gives the effective external width.

The usable depth corresponds to the effective shelf depth.

Safety instructions:

Floor characteristics: Level concrete flooring with minimum strength of B25. Max. screed thickness 35 mm with underlying concrete of at least 200 mm thickness. When assembling several add-on bays, a diagonal cross is required with every 2nd add-on bay for safety reasons.

Collision protection is a legal requirement.

85540 - 85543

Figure shows individual combinations

Type of extension 70 %

	Width mm	Height mm	Clear bay width mm	Load kg	Pull-out shelves Number	Upper shelves Number	Depth 850 mm 85540	...	Depth 1250 mm 85540	...
Basic bay	1060	2500	900	800	3	1		101		103
Add-on bay	980	2500	900	800	3	1		201		203
Pull-out shelf	800	65	900	800	1	-		301		303
Basic bay	1460	2500	1300	800	3	1		102		104
Add-on bay	1380	2500	1300	800	3	1		202		204
Pull-out shelf	1200	65	1300	800	1	-		302		304

Type of extension 100 %

	Width mm	Height mm	Clear bay width mm	Load kg	Pull-out shelves Number	Upper shelves Number	Depth 850 mm 85542	...	Depth 1250 mm 85542	...
Basic bay	1060	2500	900	1200	3	1		101		103
Add-on bay	980	2500	900	1200	3	1		201		203
Pull-out shelf	900	130	900	1200	1	-		301		303
Basic bay	1460	2500	1300	1200	3	1		102		104
Add-on bay	1380	2500	1300	1200	3	1		202		204
Pull-out shelf	1300	130	1300	1200	1	-		302		304

Accessories	Frame depth mm	Height mm	Clear bay width mm	85543	...
Individual rack stands, completely pre-assembled	850	2500	-		101
Individual rack stands, completely pre-assembled	1250	2500	-		102
Shelf, load 500 kg	850	-	900		103
Shelf, load 500 kg	850	-	1300		104
Shelf, load 500 kg	1250	-	900		105
Shelf, load 500 kg	1250	-	1300		106
Diagonal cross for each basic bay and for each 2nd add-on bay	-	-	900		107
Diagonal cross for each basic bay and for each 2nd add-on bay	-	-	1300		108

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Individual project planning

With us, you receive everything from a single source

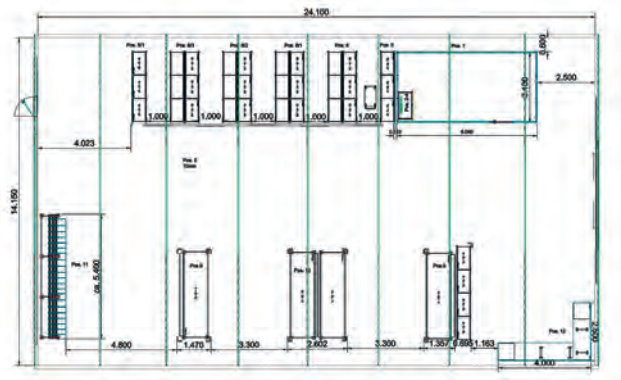
Whether planning a single cupboard or an entire workshop. We plan your factory equipment to scale directly in your architect's plan, if this is available. As a complete provider of factory equipment, we supply you with everything from a single source.

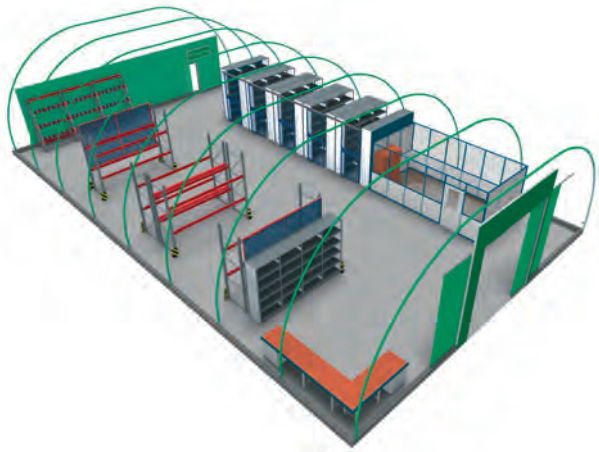
To plan your workshop/office, we use CAD support tailored to your individual requirements.

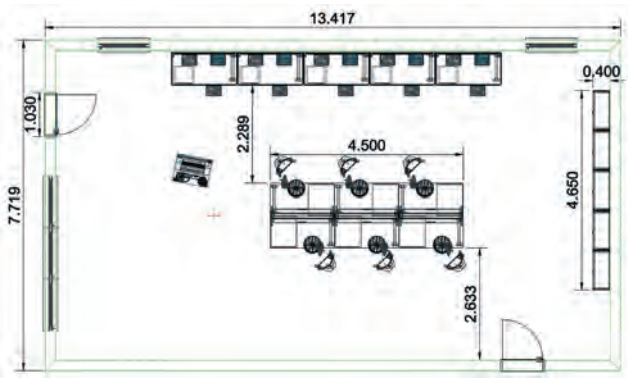
Do you have any questions? We will be happy to provide advice.

Your benefits:
- Expert advice from planning to installation
- Fast and straightforward presentation of your planning in 3D
- Workflows can be optimised through CAD-supported planning

Factory equipment from HHW – a complete package







85572 Partitioning system 9200

1 85572 101-104
Wall elements
- Profile frame with welded wire grid

85572 105
Vario corner element
- Enables variable angle adjustment at divider corners
- Eliminates the use of corner posts

85572 106
Vario element
- Extendable from 550–950 mm as adjustment element

2 85572 107
Single door
- Can be used left and right

3 85572 108-109
Double doors
- Can be used left and right
- Double leaf
- Can optionally be opened inwards or outwards using the variable stop

4 85572 110-111
Sliding doors
- With guide rail
- Floor guides and stop buffers
- Space saving
- Opens on both sides
- Door leaves run internally

5 85572 112
Output element
- With one-piece flap
- Upwards opening using gas-pressure spring
- Locking and perforation for lock

6 85572 113
Table
- Width x depth 880 x 500 mm

7 85572 114-122
Mountable elements
- For raising wall, door and output elements to 2250 mm
- Assembly with mountable posts

85572 123
Wall connection profile
- From U-beam
- Perforated for plug screws
- Alternative to end posts

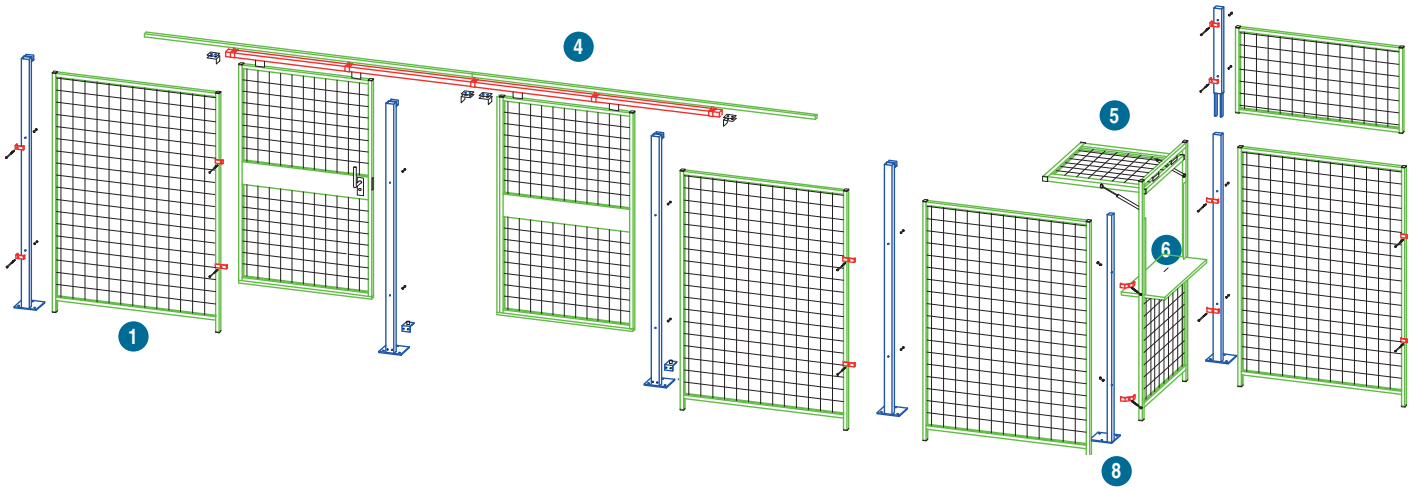
85572 124
End posts
- Made of rectangular tube
- 70 x 40 x 3 mm with narrow base plate
- Screw-on lugs on one side for the elements
- Complete with screws and anchors

85572 125
Centre posts
- Made of rectangular tube
- 70 x 40 x 3 mm with wide base plate
- Complete with screws and anchors

8 85572 126
Corner posts
- Made of square tube
- 40 x 40 x 3 mm
- Screw-on lugs for 90° connections
- Complete with screws and anchors

85572 127
T-posts
- Made of rectangular tube
- 70 x 40 x 3 mm with wide base plate
- For wall outlets (for the construction of boxes, etc.)
- Complete with screws and anchors

85572 133
Double door conversion kit
- Enables free passage or access e.g. for forklifts
- Eliminates need for upper frame struts



	System dimensions mm	Height mm	Width mm	Weight kg	85572 ...
1 Wall element	300	2200	280	9	101
1 Wall element	500	2200	480	11	102
1 Wall element	1000	2200	980	17	103
1 Wall element	1500	2200	1480	23	104
Vario corner element	500 / 500	2200	480 / 480	24	105
Vario element	500 - 950	2200	530 - 930	24	106
2 Single door	1200	2200	1000	35	107
3 Double door	2200	2200	2000	69	108
3 Double door	2200	2550	2000	73	109
4 Sliding door	2000	2200	1800	93	110
4 Sliding door	2000	2550	1800	100	111
5 Output element	1000	2200	980	25	112
6 Table	-	500	880	9	113
7 Mountable element	300	750	280	4	114
7 Mountable element	500	750	480	5	115
7 Mountable element	1000	750	980	8	116
7 Mountable element	1500	750	1480	11	117

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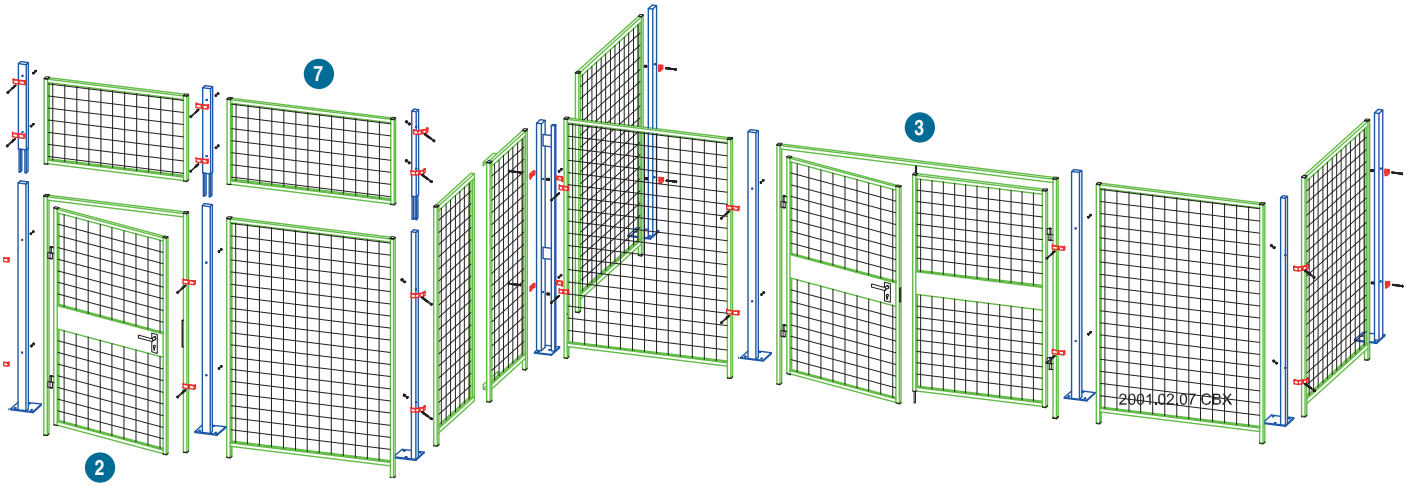
85572



		System dimensions mm	Height mm	Width mm	Weight kg	85572	...
7	Mountable element	500 / 500	750	480 / 480	12		118
7	Mountable element	550 - 950	750	530 - 930	12		119
7	Mountable element	1200	750	1180	9		120
7	Mountable element	2200	750	2180	15		121
7	Mountable element	2000	750	1980	15		122
	Wall connection profile	-	2000	-	6.5		123
	End post	-	2200	-	10		124
	Centre post	-	2200	-	10		125
8	Corner post	-	2200	-	10		126
	T-post	-	2200	-	12		127
	Mountable end post	-	750	-	5		128
	Mountable centre post	-	750	-	5		129
	Mountable corner post	-	750	-	5		130
	Mountable T-post	-	750	-	5		131
	Mountable wall connection profile	-	650	-	2		132
	Double door conversion kit	-	-	-	5		133
	Spacers	-	-	-	0.3		134

85578 - 85579 Panel stand/slot-in frame

fetra
Transportgeräte

85578
Panel stand
Design
- Welded profile steel and steel tube
- Powder-coated, blue RAL 5007
- Wooden platform
- 7 adjustment options for slot-in frame
- Clear support distance 90 mm
- 4 rubber feet
- Ground anchoring possible
- One six-part roller ramp on face side

Scope of delivery
- 1 x panel stand
- Without slot-in frame

85579
Slot-in frame
Design
- With round ends

Applications
For panel stand length 1600 mm (art. no. 85578 102).

85578 + 85579

Panel stand			
Loading area L x W mm	Load kg	85578	...
1600 x 800	1200		102

Slot-in frame			
Height mm	Length mm	85579	...
300	1600		301
600	1600		302
900	1600		303

85600 Cabinet for long parts storage B5

Design
Equipped with:
6 x supports for long parts storage up to max. diameter of 65 mm.
- Supports distributed on 4 levels
- A plate is inserted at the bottom of the cabinet to protect the long material

85600

H x W x D mm	85600	...
1028 x 1022 x 550		101

Factory equipment

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85617 Drum trolley

Design
- 4 steering rollers Ø 100 mm made of polyamide
- 1 steering roller with locking device

Scope of delivery
- Without drums

Applications
Easy and safe transport of drums up to Ø 600 mm.

Quality
Sheet steel construction.

NEW

85617 102

85617 104

85617 103

Design	L x W x H mm	Internal Ø mm	Load capacity kg	Weight kg	85617 ...
painted RAL 5012	655 x 610 x 165	600	300	10	**101**
painted RAL 5012	650 x 620 x 210	610	300	12	**102**
painted RAL 5012	700 x 620 x 1005	610	300	19	**103**
hot-dip galvanised	655 x 610 x 165	600	300	10	**104**
hot-dip galvanised	650 x 620 x 210	610	300	13	**105**
hot-dip galvanised	700 x 620 x 1005	610	300	20	**106**

85612 Canister filling aids

Design
- Zinc-plated
- Prepared for wall mounting

Scope of delivery
- Without canisters
- Without collection tray

Applications
Easy and effortless filling of canisters with contents of between 5 litres and 60 litres.

Quality
Sheet steel construction.

NEW

85612 101

85612 102

85612 103
with collection tray **85611 102**

L x W x H mm	Canister sizes Litres	Weight kg	85612 ...
360 x 270 x 520	5	5	**101**
520 x 375 x 785	20 / 25	6	**102**
520 x 470 x 825	50 / 60	9	**103**

85611 Steel collection trays

Design
- 100 mm ground clearance
- With zinc-plated grating (load capacity 1000 kg/m²)

Scope of delivery
- Without drums
- Without canisters

Applications
For storing 60 litre drums, can also be combined with small casks.

Quality
3 mm sheet steel construction.

NEW

85611 104

85611 102

Design	For drums Unit/litre	L x W x H mm	Collection volume Litres	Weight kg	85611 ...
painted RAL 5012	2 / 60	800 x 500 x 290	61	34	**101**
painted RAL 5012	4 / 60	900 x 800 x 220	61	46	**102**
painted RAL 5012	6 / 60	1300 x 800 x 205	74	58	**103**
hot-dip galvanised	2 / 60	800 x 500 x 290	61	37	**104**
hot-dip galvanised	4 / 60	900 x 800 x 220	61	49	**105**
hot-dip galvanised	6 / 60	1300 x 800 x 205	74	62	**106**

85569 Compact trays

Design
- 3 mm sheet steel construction
- Removable, hot-dip galvanised grating
- Ground clearance of 100 mm for forklift transport

Scope of delivery
- Without drums

Applications
For the storage of water-polluting and flammable liquids.

85569 101-103
Design
- Corrosion protection through primer and paint RAL 5015

85569 201-202
Design
- Corrosion protection by hot-dip galvanising

85569 101

85569 202

For drums Unit/litre	External dimensions W x D x H mm	Load kg	Collection volume Litres	Weight kg	painted 85569 ...	zinc-plated 85569 ...
2 / 200	1250 x 820 x 340	500	210	73	101	201
4 / 200	1325 x 1320 x 250	1000	210	110	102	202
4 / 200	2420 x 820 x 240	1000	210	117	103	

85574 Drum stands

Design
With fixed drum supports for 60 to 200 litre drums, completely hot-dip galvanised. Barrel support tilted forwards for easier emptying. Delivered without drums.

Applications
Can be combined with:
- Compact trays (art. no. 85569)
- Water protection pallets
- Hazardous materials stations
- Safety floor elements
- Drum trolleys

85574 201

85574 202

85574 203

For drums Unit/litre	External dimensions L x W x H mm	85574 ...
1 / 200	600 x 650 x 415	201
2 / 200	1230 x 650 x 415	202
3 / 60	1230 x 650 x 415	203

85605 KTC trays

Design
- 3 mm sheet steel construction
- Placement level made of hot-dip galvanised, removable grating
- 100 mm ground clearance for forklift transport
- High corrosion protection through primer and **paint RAL 5015 or hot-dip galvanising**

Scope of delivery
- Without KTC

Applications
For storing and dispensing hazardous materials in bulk containers.

Note:
PE tray inserts are available for all types for storing acids and alkalis.
Chemical resistance of PE inserts in accordance with resistance list.

85605 101-104
Design
- Without filling stand

85605 201-204
Design
- With filling stand

85605 203

85605 102

Design	For KTC Unit	Dimensions W x D x H mm	Dimensions filling stand W x D x H mm	Load kg/m²	Collection volume Litres	painted 85605 ...	zinc-plated 85605 ...
Without filling stand	1	1300 x 1360 x 790	-	1500	1000	101	102
Without filling stand	2	2680 x 1300 x 480	-	1500	1000	103	104
With filling stand	1	1300 x 1360 x 1070	1300 x 1100 x 320	1500	1000	201 NEW	202 NEW
With filling stand	2	2620 x 1400 x 745	2x 1300 x 1100 x 320	1500	1000	203 NEW	204 NEW

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85606 PE trays for 60 litre drums

Design
Rotation-formed tray body made of PE HD black. Wraparound stabilisation ribbing. Ground clearance for internal transport. Delivered without drums.
Applications
For the storage of aggressive media.

85606 101
Design
No placement level.

85606 201
Design
With placement level made of zinc-plated grating.

85606 301
Design
With placement level made of PE grating.

Design	For drums Unit/litre	External dimensions W x D x H mm	Collection volume Litres	85606 ...
without grating	2 / 60	805 x 640 x 335	60	101
zinc-plated grating	2 / 60	805 x 640 x 335	60	201
PE grating	2 / 60	805 x 640 x 335	60	301

85607 PE trays for 200 litre drums

Design
- Rotation-formed tray body made of PE
- Wraparound stabilisation ribbing
- Ground clearance for internal transport
- Delivered without drums

Applications
For storing water-polluting and aggressive media.

85607 103+105
Design
With placement level made of zinc-plated grating. Trays made of PE black.

85607 204+206
Blue Line series
Design
With placement level using PE pallets. Trays made of PE blue.

Design	For drums Unit/litre	External dimensions W x D x H mm	Collection volume Litres	Load max. kg	85607 ...
zinc-plated grating	2 / 200	1265 x 705 x 540	220	500	103
zinc-plated grating	4 / 200	1235 x 1235 x 475	450	1000	105
PE pallet	2 / 200	1250 x 850 x 380	220	500	204
PE pallet	4 / 200	1250 x 1250 x 580	450	1000	206

85609 - 85610 PE trays for KTC/IBC

85609
Design
- Rotation-formed tray body made of PE
- No welding seams
- Wraparound stabilisation ribbing ensures high load values
- Ground clearance for internal transport
- Delivery without KTC/IBC.

Applications
For the storage of aggressive media.

85609 101+105
Design
With placement level made of zinc-plated grating.

85609 202+206
Design
With placement level made of PE grating.

85610 101
PE filling stand
Applications
For optimal, raised storage during filling processes. Suitable for design with zinc-plated grating, art. no. 85609 101 and 105.

85610 102
PE filling container
Applications
For collecting drip losses. Suitable for design with PE grating, art. no. 85609 202 and 206.

Design	For KTC/IBC Unit	External dimensions W x D x H mm	Collection volume Litres	85609 ...	85610 ...
Zinc-plated grating	1	1290 x 1290 x 900	1000	101	
Zinc-plated grating	2	2490 x 1290 x 480	1000	105	
PE grating	1	1250 x 1250 x 1130	1000	202	
PE grating	2	2500 x 1300 x 580	1000	206	
PE filling stand	1	1210 x 1200 x 400	-		101
PE filling container	-	-	-		102

85614 Hazardous materials shelves for small containers

Design
- All shelf parts, tray shelves and grating are zinc-plated
- Collection trays in accordance with WHG (German Water Resources Act), **test mark in accordance with StawaR (German Steel Tank Guideline)**
- Storage levels height adjustable in increments of 25 mm
- Load capacity of each storage level 200 kg with evenly distributed load
- Bay load max. 1200 kg
- Stable construction thanks to reinforcement cross beams
- Delivered disassembled for easy self-assembly

Advantage
2 shelf widths (1000 and 1300 mm) can be combined, enabling optimal use of the available storage space.

Applications
For the storage of flammable liquids.
Can be expanded as desired thanks to the basic and add-on bay design.

85614 401-502
Design
- 1 x zinc-plated collection tray in the lowest storage level
- 3 x zinc-plated grating levels

85614 101-202
Design
- 1 x zinc-plated collection tray in the lowest storage level
- 4 x zinc-plated grating levels

85614 301
Grating storage level
Applications
Additional grating level for basic and add-on bay width 1000 mm.

85614 302
Grating storage level
Applications
Additional grating level for basic and add-on bay width 1300 mm.

85614

					Basic bay		Add-on bay	
Basic bay: external dimensions W x D x H mm	Add-on bay: external dimensions W x D x H mm	Storage levels Number	Bay load max. kg	Collection volume Litres	85614	...	85614	...
1060 x 635 x 2000	1010 x 635 x 2000	4	1200	1 x 30		401 NEW		402 NEW
1060 x 635 x 2000	1010 x 635 x 2000	5	1200	1 x 30		101		201
1360 x 635 x 2000	1310 x 635 x 2000	4	1200	1 x 35		501 NEW		502 NEW
1360 x 635 x 2000	1310 x 635 x 2000	5	1200	1 x 35		102 NEW		202 NEW

	For shelf width mm	85614	...
Additional grating storage level	1000		301
Additional grating storage level	1300		302 NEW

Info Safety warehouses

The safety warehouse is a proven, cost-effective, mobile outdoor warehouse for hazardous materials.

It is suitable for storing all common hazardous materials in the industry. It complies with the relevant requirements and standards. All containers have a DIBt certificate to enable simplified approval procedures.

Thanks to the modular structure, 12 sizes are available from 2 qm to 30 qm. This means the system can be optimally adapted to the specific requirements of the operator. When equipped with shelf parts, the safety warehouse is excellently suited as a walk-in small container/manual storage.

- Collection tray made from 3 mm sheet steel, hot-dip galvanised
- Load 1000 kg/qm – higher loads on request
- Clearance height 60 mm
- Constructed using specially profiled, zinc-plated sheet steel
- Double leaf, zinc-plated steel door with ventilation slots (depending on design, 1750/1950 mm wide), can be closed using cylinder lock
- Crane eyelets fitted as standard
- Wraparound spill guards
- Earthing connection
- Suitable for indoor and outdoor set-up

Suitable for
- Storage of water-polluting substances
- Passive storage of flammable liquids – with natural ventilation
- Active storage of flammable liquids – with technical ventilation (exhaust fan)
- Temperature-controlled storage – frost-free – using heating and frost monitor

SLH 1 x 2, painted RAL 5015, incl. shelf with 3 storage levels

SLH with natural ventilation and loading ramp for drum truck

Factory equipment

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85616 Hazardous materials pallet shelves with collection tray

Design
Pallet shelves:
- Quality mark RAL-RG 614/2 pallet shelves
- Racks consist of cold-formed profiles, screwed to the bracing on site
- Height-adjustable storage levels in increments of 50 mm
- Zinc-plated support frame
- Longitudinal plastic-coated RAL 2001 Red orange
- Shelf load: 3510 kg
- Max. bay load 7520 kg

Shelf floor tray:
- Collection tray made of 3 mm sheet steel
- Collection tray according to WHG (German Water Resources Act), **test mark according to StawaR (German Steel Tank Guideline)**
- Corrosion protection by hot-dip galvanising
- Ground clearance of 100 mm

Applications
For the storage of hazardous materials in barrels on Euro pallets or chemicals pallets.
The combination of pallet shelves with quality seals and shelf trays in accordance with the Water Resources Act gives you a flexible, cost-effective storage system that can be expanded at any time.

NEW

85616 102

	Shelf W x D x H mm	Clear bay width mm	Storage levels	Drums Unit/Litre on Euro pallet	Drums Unit/Litre on chemicals pallet	Collection tray W x D x H mm	Collection volume in litres	85616	...
Basic bay	2870 x 1100 x 2700	2700	2	12 / 200	16 / 200	2680 x 1300 x 285	360		102
Add-on bay	2870 x 1100 x 2700	2700	2	12 / 200	16 / 200	2680 x 1300 x 285	360		202
Basic bay	2870 x 1100 x 3800	2700	3	18/200	24/200	2680 x 1300 x 357	660		302
Add-on bay	2870 x 1100 x 3800	2700	3	18/200	24/200	2680 x 1300 x 357	660		402

85616 Hazardous materials KTC shelves with collection tray

Design
Pallet shelves:
- Quality mark RAL-RG 614/2 pallet shelves
- Racks consist of cold-formed profiles, screwed to the bracing on site
- Height-adjustable storage levels in increments of 50 mm
- Zinc-plated support frame
- Longitudinal plastic-coated RAL 2001 Red orange

Shelf floor tray:
- Collection tray made of 3 mm sheet steel
- Collection tray according to WHG (German Water Resources Act), **test mark according to StawaR (German Steel Tank Guideline)**
- Corrosion protection by hot-dip galvanising
- Ground clearance of 100 mm

Applications
For storing KTC/IBC or large containers.

85616 501-502
Design
- 2 storage levels

85616 601-602
Design
- 3 storage levels
- Collection tray with grating storage space for use as a first storage level

NEW

85616 601

	Shelf W x D x H mm	Light bay Width mm	Storage Levels	Capacity KTC / IBC	Shelf load kg	Bay load max. kg	Collection tray W x D x H mm	Collection Volume in litres	85616	...
Basic bay	2870 x 1100 x 3300	2700	2	4	3510	7520	2680 x 1300 x 480	1000		501
Add-on bay	2870 x 1100 x 3300	2700	2	4	3510	7520	2680 x 1300 x 480	1000		502
Basic bay	2870 x 1100 x 4900	2700	3	6	3490	7020	2680 x 1300 x 485	1000		601
Add-on bay	2870 x 1100 x 4900	2700	3	6	3490	7020	2680 x 1300 x 485	1000		602

85575 - 85576 Safety/hazardous materials cabinets in accordance with EN 14470-1 (Type 90)

Design
Overall construction tested and approved by a recognised material testing institute in accordance with EN 14470-1 (Type 90) with a fire resistance of longer than 90 minutes. GS-approved safety. Insulation in line with DIN 4102.
Outer body sheet steel, powder-coated in RAL 7035, Light grey.Inner body made of HPL-coated plates RAL 7035, Light grey.
Floor connection rail made of stainless steel, Niro Raute Shelves height-adjustable in increments of 64 mm. In the event of a fire, self-closure via thermal mechanics:
- Doors upon temperature increase higher than or equal to 50°C and
- Supply and exhaust air ducts upon temperature increase to 70°C (+/- 10°C).

Ventilation connection through pipe supports DN 80. Operation in accordance with TRGS 510 (Technical Rule for Hazardous Substances, also approved without exhaust air). Earthing connection meets TRBS 2153 (Technical Regulations for Safety in the Workplace on avoiding ignition sources). Marking in accordance with EN 14470-1/TRGS 510/ISO 3864/ASR 1.3.

Including interior decoration:
Sheet steel, powder-coated, RAL 7035 Light grey,
1 x shelf tray (collection volume 33 litres),
1 x perforated sheet cover as first shelf level,
3 x shelves.

Applications
Approved for the storage of flammable liquids at the workspace in accordance with EN 14470-1 (Type 90) and TRbF 20-L (Technical Rules Concerning Flammable Liquids).

Note:
Exhaust fan see art. no. 85577 101.

85576 101

85575 101

External dimensions W x D x H mm	Paint Doors	85575	...	85576	...
595 x 598 x 1935	RAL 1007 Daffodil yellow		101		
595 x 598 x 1935	RAL 7035 Light grey		102		
1190 x 598 x 1935	RAL 1007 Daffodil yellow				101
1190 x 598 x 1935	RAL 7035 Light grey				102

85618 Safety/hazardous materials cabinet in accordance with EN 14470-1 (Type 90)

85618 101
Safety/hazardous materials cabinet
Design
- Overall construction tested and approved by a recognised material testing institute in accordance with DIN EN 14470-1 (Type 90) with a fire resistance of > 90 minutes
- Insulation in line with DIN 4102
- External body made of sheet steel, powder-coated, RAL 7035, Light grey
- 2 hinged doors RAL 1007 Daffodil yellow
- Internal body made of HPL-coated plates, RAL 7035, Light grey
- Floor connection rail made of stainless steel, Niro Raute
- All shelf installations are zinc-plated
- Load capacity of grating levels 200 kg with evenly distributed load
- Shelves height adjustable at intervals of 25 mm
- In the event of a fire, automatic self-closure via thermal mechanics:doors upon temperature increase to ≤ 50°C and feed and exhaust ducts upon temperature increase to 70°C (+/- 10°C)
- Ventilation connection through pipe supports DN 80
- Operation in accordance with TRGS 510 (Technical Rule for Hazardous Substances, also approved without exhaust air)
- Earthing connection in accordance with TRBS 2153 (Technical Regulations for Safety in the Workplace on avoidance of ignition sources)
- Earthing terminal included as standard
- Marking in accordance with DIN EN 14470-1/ TRGS 510/ISO 3864/ASR 1.3
- Doors close via cylinder lock

- Clear door opening dimensions, width 1310 mm
- Emergency release inside
- Door hold-open device

Including interior decoration:
- Lowest storage level 1 x shelf collection tray made of 3 mm sheet steel, zinc-plated, in accordance with WHG (German Water Resources Act), **test mark in accordance with StawaR (Steel Tank Guideline)**
- Storage levels 4 x grating floor

Applications
For the storage of flammable liquids in small containers in the building.

Note:
Mountable adapter for hazardous materials filter attachment (art. no. 85577 201) included.
Exhaust fan see art. no. 85577 101.

85618 102
Grating storage level
Applications
Additional grating level for safety/hazardous materials cabinet art. no. 85618 101.

85618 103
Under-run base
Design
- Tested in fire chamber

Applications
For safety/hazardous materials cabinet art. no. 85618 101.

85618 101

Emergency unlocking

	External dimensions W x D x H mm	Internal dimensions W x D x H mm	Floor tray Collection volume in litres	Weight kg	85618	...
Safety/hazardous materials cabinet	1550 x 1025 x 2200	1450 x 870 x 1955	80	1000		101
Grating shelf level	-	-	-	-		102
Under-run base	1550 x 1025 x 113	-	-	-		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

85577 Exhaust fan for safety/hazardous materials cabinets

Design
- Plug-in-ready ventilation attachment 230 V (Schuko plug) without EX protection approval
- Complete including assembly plate for easy assembly on the top of the cabinet

Applications
For the safe extraction of vapours at risk of explosion and that present a danger to health.

storeLAB

85577 101

	85577 ...
Exhaust fan	101

85577 Hazardous materials filter attachment for safety/hazardous materials cabinets

85577 201
Hazardous materials filter attachment
Design
- Permanent filtration of exhaust air
- Warning in case of heavy contamination (dust, etc.) or filter saturation through hydrocarbons
- Through tandem filter technology, further operation of approx. 14 days is possible even after main filter is saturated
- Subsequent replacement of filter necessary to guarantee continued orderly operation
- Sheet steel housing, powder-coated, RAL 7035, Light grey
- Connection with Schuko plug

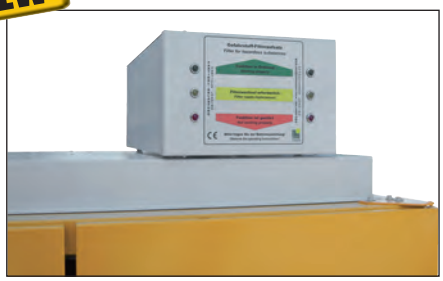
Advantage
- No need for complex and expensive exhaust air guide to outdoors

Applications
Suitable for the operation of safety/hazardous materials cabinets in accordance with DIN EN 14470-1 in air recirculation mode:
- Art. no. 85575 101–102
- Art. no. 85576 101–102
- Art. no. 85618 101

85577 202
Attachment adapter
Applications
Required in connection with the safety/hazardous materials cabinets:
- Art. no. 85575 101–102
- Art. no. 85576 101–102

NEW

85577 201



	85577 ...
Hazardous materials filter attachment	201
Mountable adapter	202

Technical data:		
External dimensions W x D x H	mm	310 x 510 x 210
Motor power	kW	0.03
Rated voltage	V	230
Frequency	Hz	50
Power consumption	A	0.2
Noise level	dB (A)	< 42
Empty weight (without filter)	kg	10
Weight of active carbon filter	kg	3
Volume flow (on the cabinet)	m³/h	25

85601 - 85602 Environmental cabinets (Height 1950 mm and 1000 mm)

CP Möbel für Menschen

Design
- Durable steel construction
- Excellent operational safety, wear resistance and attractive appearance through Ergo Lock handle lock (three-pin lock) in black with 2 keys
- Collection trays tested in accordance with Section 19 WHG (Water Resources Act)
- Zinc-plated trays, load 80 kg
- Central door reinforcement for high door stability
- Doors top and bottom each with 1 perforated rosette for ventilation

Applications
Safe storage of small casks with water-polluting materials (no acids or alkalis). Protection against high follow-up costs for little money. Stipulated by law in many areas (e.g. for agricultural companies).

Ergo Lock recessed handle lock, wear resistant and user friendly

Zinc-plated trays: Load: 80 kg

85601 201

85601 202

Factory equipment

Height: 1950 mm

External dimensions H x W x D mm	Internal dimensions H x W x D mm	Colour RAL	Number of trays	Collection volume/ tray in litres	85601 ...
1950 x 500 x 500	1840 x 498 x 453	7035	4	10	101
1950 x 500 x 500	1840 x 498 x 453	7035/5012	4	10	201
1950 x 930 x 500	1840 x 928 x 453	7035	4	20	102
1950 x 930 x 500	1840 x 928 x 453	7035/5012	4	20	202

85602 201

85602 202

Height: 1000 mm

External dimensions H x W x D mm	Internal dimensions H x W x D mm	Colour RAL	Number of trays	Collection volume/ tray in litres	85602 ...
1000 x 500 x 500	855 x 498 x 453	7035	2	10	101
1000 x 500 x 500	855 x 498 x 453	7035/5012	2	10	201
1000 x 930 x 500	855 x 928 x 453	7035	2	20	102
1000 x 930 x 500	855 x 928 x 453	7035/5012	2	20	202

85581 Chip containers

fetra Transportgeräte

Design
- Tilting recess made of 2 mm thick sheet steel
- Upper edge overturned twice
- Chute edge folded double
- Welded oil-tight
- Drain valve with filter for separating liquids and solids
- Base made of 3 mm strong edge profiles with integrated forklift pockets
- Treadplate and anti-tilt function
- Tubular push handle
- Powder coating
- **TOTALSTOP – Central braking system as standard** on the steering rollers, in accordance with European standard EN 1757-3 (safety of platform trolleys)

Applications
Mobile and for forklift operation.

Note:
Tilting is triggered manually.
We recommend a tilting container or self-tipper when unloading with the forklift or for heavy loading.

85581 101-103 + 105-107
Wheels:
- 2 steering rollers and 2 fixed castors
- TPE wheels 200 x 40 mm
- Hubs with deep groove ball bearings

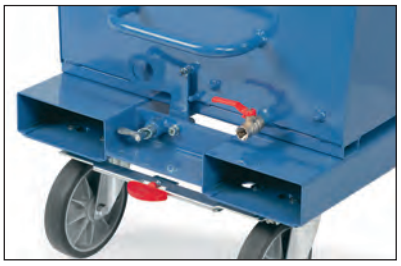
85581 104 + 108
Wheels:
- 2 steering rollers and 2 fixed castors
- Elasticated solid rubber wheels 200 x 50 mm
- Blue grey, non-marking
- Hub with ball bearing

85581 101

85581 105

85581 102-104

85581 106-108



Drain valve and TOTALSTOP central braking system as standard

Example application:
Dumper as chip container

Content Litres	Load kg	Box dimensions L x W x H mm	External dimensions L x W x H mm	Chute edge height (with rollers) mm	Wheels mm	Tare weight kg	RAL 5007 85581	...	RAL 7016 85581	...
250	750	1200 x 652 x 413	1359 x 713 x 780	780	TPE 200 x 40	71		101		105
450	750	1214 x 669 x 708	1374 x 730 x 1072	733	TPE 200 x 40	84		102		106
600	750	1321 x 794 x 735	1458 x 855 x 1099	843	TPE 200 x 40	96		103		107
800	800	1321 x 1044 x 735	1458 x 1105 x 1099	843	Elastic 200 x 50	120		104		108

85594 Chip containers

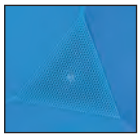
Design
- **For chip collection, with ground-level emptying option**
- Screen plate and drain valve, 1 inch for separating liquids from solids
- Oil- and watertight
- Anti-tilt securing device
- Sliding handle
- With fork pockets and safety devices
- 2 wheels and 1 steering roller made of solid rubber Ø 250 mm
- Steering roller with locking device

Standard colour:
Surface painted in RAL 5012 Light blue or RAL 7021 Black grey.
Other paint colours available without surcharge in RAL 2000 Yellow orange, RAL 3000 Flame red, RAL 6011 Reseda green and RAL 7005 Mouse grey (not held in stock).

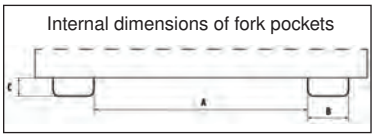
85594 101-102

85594 103-104

1 inch drain valve



Screen plate



Content approx. l	Load capacity kg	L x W x H mm	Chute edge height mm	A mm	B mm	C mm	Weight kg	RAL 5012 85594	...	RAL 7021 85594	...
250	300	1115 x 820 x 990	680	465	170	55	77		101		103
400	300	1320 x 900 x 1090	740	465	170	55	93		102		104

85581 Chip container (box-shaped)

Design
- **Especially suitable with low chip ejection due to low installation height**
- Screen plate and drain valve, 1 inch for separating liquids from solids
- Tiltable mounted trough with handle
- Base frame with fork pockets
- Oil resistant and watertight
- Protection against accidental slipping and tipping

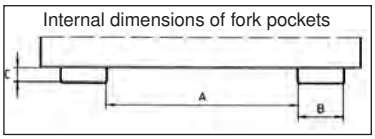
Standard colour:
Surface painted in RAL 5012 Light blue. Other paint colours available without surcharge in RAL 2000 Yellow orange, RAL 3000 Flame red, RAL 6011 Reseda green and RAL 7005 Mouse grey (not held in stock).

85581 306
Accessories
- 2 steering rollers and fixed castors made of solid rubber Ø 200 x 50 mm
- Including 1 steering roller with locking device (installation height 235 mm)

Drain valve

Screen plate

Internal dimensions of fork pockets



85581 301-305

Figure with rollers (accessories)

Content approx. l	Load capacity kg	L x W x H mm	Chute edge height mm	A mm	B mm	C mm	Weight kg	Dumper body 85581 ...	Rollers 85581 ...
250	300	1115 x 590 x 740	430	205	170	55	61	**301**	**306**
400	300	1320 x 670 x 840	485	285	170	55	75	**302**	**306**
600	300	1390 x 840 x 905	520	455	170	55	116	**303**	**306**
800	300	1420 x 910 x 975	560	525	170	55	127	**304**	**306**
1000	300	1420 x 1110 x 975	560	725	170	55	140	**305**	**306**

85582 Chip container (low)

Design
- **Especially suitable with low chip ejection due to low installation height**
- Screen plate and drain valve, 1 inch for separating liquids from solids
- Tiltable mounted trough with handle
- Base frame with fork pockets
- Oil resistant and watertight
- Protection against accidental slipping and tipping

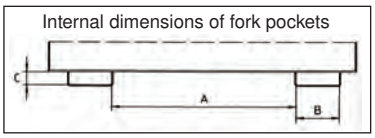
Standard colour:
Surface painted in RAL 5012 Light blue. Other paint colours available without surcharge in RAL 2000 Yellow orange, RAL 3000 Flame red, RAL 6011 Reseda green and RAL 7005 Mouse grey (not held in stock).

85581 306
Accessories
- 2 steering rollers and fixed castors made of solid rubber Ø 200 x 50 mm
- Including 1 steering roller with locking device (installation height 235 mm)

Drain valve

Screen plate

Internal dimensions of fork pockets



85582

Content approx. l	Load capacity kg	L x W x H mm	Chute edge height mm	A mm	B mm	C mm	Weight kg	Dumper body 85582 ...	Rollers 85581 ...
250	300	1375 x 670 x 530	530	285	170	55	64	**101**	**306**
400	300	1430 x 840 x 605	605	455	170	55	77	**102**	**306**

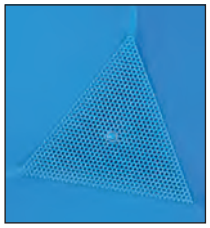
85591 Chip container (tipping from the seat of a forklift)

Design
- **Especially for collecting and separating liquids from solids**
- Can be tilted at any height using a wire rope hoist from the forklift seat
- 1 inch drain valve for draining off liquids
- Sheet metal tray with surrounding edge profile
- Sturdy base frame with fork pockets
- Oil- and watertight
- Protection against accidental slipping and tipping

Standard colour:
Surface painted in RAL 5012 Light blue.
Other paint colours available without surcharge in RAL 2000 Yellow orange, RAL 3000 Flame red, RAL 6011 Reseda green and RAL 7005 Mouse grey (not held in stock).

85591 099-100
Design
- Screen plate in tray corner area

85591 101-105
Design
- Continuous perforated metal plate 100 mm above the tray shelf, hole Ø 3 mm, division 6 mm



85591 099-100
Screen plate

85591 101-105
Perforated metal plate

85591 200
Roller set
Design
- 2 steering and fixed castors made of polyamide Ø 100 mm
- 1 steering roller with locking device
- Installation height 125 mm
- Max. load capacity 1050 kg

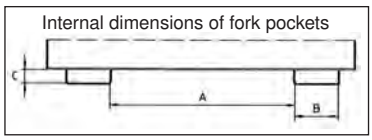
Applications
For chip container art. no. 85591 099–100.

85591 201
Roller set
Design
- 2 steering and fixed castors made of polyamide Ø 180 mm
- 1 steering roller with locking device
- Installation height 225 mm
- Max. load capacity 1350 kg

Applications
For chip container art. no. 85591 101–105.

Drain valve

Internal dimensions of fork pockets



85591 099-100

85591 101-105

Figure with rollers (accessories)

Content approx. m³	Load capacity kg	L x W x H mm	A mm	B mm	C mm	Weight kg	Chip container 85591 ...	Roller set 85591 ...
0.23	750	1385 x 680 x 450	10	200	60	85	099 NEW	200 NEW
0.27	1000	1385 x 780 x 450	150	200	60	97	100 NEW	200 NEW
0.30	750	1440 x 680 x 580	10	200	60	112	101	201
0.50	1000	1440 x 780 x 680	150	200	60	130	102	201
0.75	1000	1440 x 1280 x 680	495	200	60	169	103	201
1.00	1500	1640 x 1280 x 780	495	200	60	220	104	201
1.50	1500	1640 x 1280 x 1090	495	200	60	250	105	201

85589 Collection container, self-extinguishing

Design
- Material: Quality thin sheet, zinc-plated
- Surface: structured powder coating, impact- and scratch-resistant
- Slot: self-closing, gas-pressure-damped self-closing lid, silent closing
- Indoor use: zinc-plated sheet steel
- Emptying: through folding out the inside container
- Door locking: square, key included in delivery
- Level control: front area with 2 adjustable feet
- Body colour: RAL 7035 Light grey

Safety:
- TÜV-inspected production
- Self-extinguishing in accordance with test programme M0307
- Container non-combustible in accordance with DIN 4102 or DIN EN 13501-1
- 5-year manufacturer's guarantee
- Made in Germany

Applications
Container system for wall mounting. The containers can be placed on the floor or hung on the wall. They must be secured to the wall in all cases. Thanks to the low container depth and the tested self-extinguishing properties, the systems may even be used in potential escape routes.

Each container comes with a set of self-adhesive *ProPads*® in the following colours:
- Pigeon blue RAL 5014
- Sand yellow RAL 1002
- Anthracite grey RAL 7016

Decide for yourself which marking colour the collector should have.

85589 201

85589 202

Design	Filling volume approx. litres	Dimensions H x W x D mm	85589 ...
Single container	45	1000 x 400 x 300	201
3-way station	3 x 45	1125 x 1210 x 310	202

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

85584 Collection bins

Design
- Zinc-plated inside container, liquid-tight in floor area
- Self-closing lid, fire-retardant and prevents odours
- Upper part is detachable
- Powder coating

85584

Without sticker. Sticker see art. no. 85586.

Container dimensions H x W x D mm	Filling volume Litres	Container colour	85584 ...
960 x 400 x 380	65	RAL 3000 Flame red	101
960 x 400 x 380	65	RAL 7035 Light grey	102
960 x 400 x 380	65	RAL 6024 Traffic green	103
960 x 400 x 380	65	RAL 5010 Gentian blue	104
960 x 400 x 380	65	RAL 1003 Signal yellow	105

85583 Running gear for four collection containers

Design
- Base made of solid, hot-dip galvanised, grey-coated frame
- With 2 fixed and 2 steering rollers
- The steering rollers can be locked
- Delivery without collection container

Note:
Collection container see art. no. 85584 101–105.

85583

	85583 ...
Running gear	201

85585 Recyclable materials collector

Design
- Quality sheet steel
- Removable head part
- Self-closing lid
- The extra long head part holds the refuse bag and simultaneously covers up unsightly bag edges
- Safety: TÜV/GS-tested, fire-retardant and eliminates odours
- 5-year warranty

85585

Container dimensions H x W x D mm	Filling volume Litres	Container colour	85585 ...
640 x 320 x 310	45	RAL 3000 Flame red	101
640 x 320 x 310	45	RAL 7035 Light grey	102
640 x 320 x 310	45	RAL 6024 Traffic green	103
640 x 320 x 310	45	RAL 5010 Gentian blue	104
640 x 320 x 310	45	RAL 1003 Signal yellow	105

85586 Sticker for collection container and recyclable materials collector

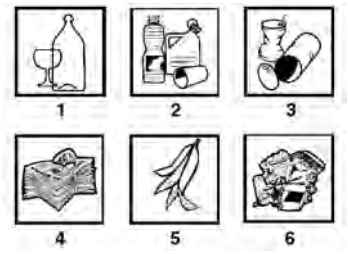
Design
- Self-adhesive plastic, waterproof
- Print black/white

85586 201-206
Pictogram stickers
- Dimensions: 160 x 160 mm

85586 301-306
Stickers with lettering
- Dimensions: 300 x 70 mm

	Pictograms		Lettering	
Stickers	85586	...	85586	...
1 Glass		201		301
2 Plastic		202		302
3 Metal		203		303
4 Paper		204		304
5 Organic waste		205		305
6 Residual waste		206		306

85586 201-206



85580 Sorting systems

Design
- Material: Quality thin sheet, zinc-plated
- Surface: structured powder coating, impact- and scratch-resistant
- Insert: self-closing, coloured pendulum flap
- Indoor uses: zinc-plated sheet steel
- Emptying: through hinged doors (inside container with 2 drop handles for easy emptying if no refuse bag is used)
- Handle: semi-circular, made of stainless steel
- Door locking: square, key included in delivery
- All collection stations come with a pictogram set (5 units, transparent, white print, Ø 70 mm) with the symbols for paper, yellow-bag waste, residual waste, glass and organic waste
- Body colour: RAL 7035 Light grey
- Colour of self-closing lids: RAL 1003 Signal yellow, RAL 3000 Flame red, RAL 5010 Gentian blue or RAL 7016 Anthracite grey

Safety:
- Fire-retardant
- TÜV-inspected production
- Container non-combustible in accordance with DIN 4102 or DIN EN 13501-1
- 5-year manufacturer's guarantee
- Made in Germany

85580 101

85580 102

85580 103

Volume Litre	Self-closing lid Colour	Dimensions H x W x D mm	85580 ...
2 x 45	grey/blue	975 x 620 x 320	101
3 x 45	grey/yellow/blue	975 x 860 x 320	102
4 x 45	grey/red/yellow/blue	975 x 1100 x 320	103

85587 Waste containers

Design
- Zinc-plated sheet steel
- Fold-up carry handles on 2 sides
- Self-closing lids on 2 opposite sides
- Powder coating: Coarse white aluminium structure

Applications
For use in industrial areas as a waste container and cotton waste box.

85587 201
Design
- Upper part is detachable
- Additional insert made of zinc-plated sheet steel

85587 202
Design
- With pull-out insert on front
- Insert with additional handle

85587 201

85587 202

Volume approx. litres	H x W x D mm	85587 ...
95	660/870 x 450 x 450	201
79	660/870 x 450 x 450	202

85850 - 85851 Waste collectors and refuse bags

85850

fetra Transportgeräte

Waste collector
Design
- Tubular steel construction
- Powder-coated, light grey RAL 7035
- 4 standing feet
- PVC cover
- Clamping ring

Scope of delivery
- 1 x waste collector
- Without refuse bag

Applications
For 120-litre bags.

85851
Plastic refuse bags
Design
- Made of polyethylene

85850

85851 101-102

H x W x D mm	Opening Ø mm	Tare weight kg	Colour	Contents Litres	Pack = Unit	Collector 85850 ...	Bags 85851 ...
960 x 500 x 500	340	5	RAL 7035	-	-	101	
1100 x 700 x 0.038	-	-	Blue	120	250		101
1100 x 700 x 0.038	-	-	Red	120	250		102
1100 x 700 x 0.100	-	-	Blue	120	200		103

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

85879 Aluminium ladder steps DIN EN 14183

ATORN®

Design
- Double-sided access
- Folding
- Extra-large standing platform for safe and comfortable working
- Central platform with small gap for carrying without crushing fingers
- Ribbed steps and standing platform
- Wide and deep aluminium steps
- Steps and struts are made from aluminium extruded sections and have a torsion-resistant connection
- Non-slip plastic feet for secure standing

Applications
Can be accessed up to the platform.

Note:
Can be used as a working platform together with telescopic plank art. no. 85853 104–105.
No other measures required as standing height is less than 1 m.

NEW

85879 101

Art. no.		85879 100	85879 101	85879 102	85879 103
Steps incl. platform	Number	2 x 2	2 x 3	2 x 4	2 x 5
Platform dimensions	cm	61 x 39	61 x 39	61 x 39	61 x 39
Working height	m	1.87	2.06	2.24	2.43
Reach height	m	2.37	2.56	2.74	2.93
Length	m	0.52	0.71	0.91	1.11
Width at bottom	m	0.65	0.67	0.69	0.71
Width at top	m	0.61	0.61	0.61	0.61
Step length	m	0.71	0.88	1.04	1.20
Transport dimensions	m	0.52 x 0.65 x 0.35	0.71 x 0.67 x 0.36	0.91 x 0.69 x 0.37	1.11 x 0.71 x 0.38
Load	kg	150	150	150	150
Weight	kg	7.2	9.2	11.3	13.3

Steps incl. platform Number	Standing height m	85879	...
2 x 2	0.37		100
2 x 3	0.56		101

Steps incl. platform Number	Standing height m	85879	...
2 x 4	0.74		102
2 x 5	0.93		103

85864 Working platform Seventec BP - DIN EN 14183

ZARGES

Design
- Double-sided access
- 85 mm deep steps with anti-slip ribbing
- Extra-wide steps
- Maximum stability thanks to platform with integrated hinge connection
- Optimum stability thanks to rigid connections on both sides
- Maximum total load 150 kg
- 10-year ZARGES warranty

85864

Ladder length m	Platform height m	Number of steps	External width at bottom m	Weight approx. kg	85864	...
0.86	0.74	2 x 3	0.75	7.9		102

85868 Aluminium safety stairs

EN14183

Design
- Extra-wide steps (36x23 cm) without sharp corners or sharp edges
- Non-slip with black plastic coverings
- Stability and protection of floor covering through ribbed plastic feet with large surface

Note:
Available with aluminium quintet steps on request.

85868 102

85868 101
Design
2 rungs with plastic covering (compact design)

85868 101

85868 102
Design
2 rungs with plastic covering and safety bracket
- **Folding safety bracket provides stable holding device,** with plenty of storage space and lateral bucket hooks

Standing height m	Working height approx. m	Transport dimensions cm	Load up to kg	Weight kg	85868	...
0.46	2.45	54.5 x 48.5 x 8	150	4.7		101
0.46	2.45	81.0 x 53.5 x 12	150	6.2		102

85866 Safety stairs Plazastep P - DIN EN 14183, folding

ZARGES

Design
- Especially compact dimensions when folded up, making it easy to store and transport
- Stable steps 205 x 360 mm made of light metal for secure and comfortable use with ribbed aluminium surface
- Stable footing thanks to spreader safety device and non-slip ladder caps
- Maximum total load 150 kg
- 10-year ZARGES warranty

85866 201-202
Design
- Without bracket

85866 301-302
Design
- With safety bar
- Collection plate for small parts and tools
- Rollers on support part.

85866

Design	Working height max. approx. m	Platform height m	lower, external width/ascent mm	Number of steps incl. platform	Weight kg	85866	...
without bracket	2.45	0.44	0.55	2	4.7		**201**
without bracket	2.65	0.66	0.57	3	7.0		**202**
with bracket	2.65	0.66	0.57	3	8.5		**301**
with bracket	2.90	0.88	0.59	4	10.5		**302**

85853 Professional aluminium telescopic ladders, 4 parts

ATORN®

Design
- **Length-adjustable leaning ladder**
- **Height-adjustable step ladder**
- **Step ladder adjustable on one side for stair area**
- Double-sided access
- Folding
- Automatically engaging wire hinges provide maximum protection against spreading (4 x 6 ladder with plate joint)
- Handy plastic grid grips with continuous steel core and aluminium inserts
- Plastic end caps with integrated soft rubber base for maximum slip resistance

Advantage
- Safe footing even with wet or dirty shoes
- Special plastic feet with rubber base to ensure extremely secure ladder footing on a range of surfaces
- Retractable to provide a space-saving and compact solution for transportation and storage

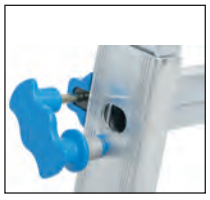
Note:
Available as accessories:
- *Telescopic plank 3 m art. no. 85853 104*
- *Telescopic plank 4 m art. no. 85853 105*
- *Telescopic ladder stabiliser set art. no. 85853 106*
- *Base extension art. no. 85853 107*

The width at the base of this ladder does not correspond to the current version of standard DIN EN 131-1.
A final definition of the required width at the base of the ladder is expected at the end of 2019 (draft DIN EN 131-4).

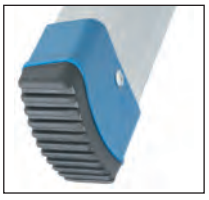
NEW

85853 100

Automatically locking wire bracket joints



Guide handles with steel core



Ladder end caps with soft rubber soles

Rungs Number	Leaning ladder Working height m	Step ladder Working height m	Leaning ladder Length m	Load kg	Weight kg	85853	...
4 x 3	3.43	2.33	3.1	150	10		**100**
4 x 4	4.53	2.86	4.2	150	14		**101**
4 x 5	5.63	3.39	5.3	150	17		**102**
4 x 6	6.73	3.92	6.4	150	19		**103**

Continued

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85853 Telescopic planks and stabiliser set for telescopic ladders

ATORN®

85853 104-105
Telescopic plank
Design
- Extremely sturdy telescopic plank
- Continuous extension, allows space-saving transport
- Non-slip tread profile (both sides)
- Tested anti-slip protection thanks to round-nosed profiles at both ends of the plank

Applications
For creating a lightweight, length-adjustable auxiliary scaffold or a flexible working platform together with telescopic ladders (art no. 85853 100–103).

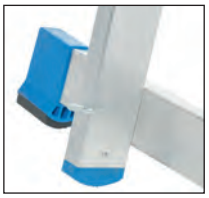
Note:
The creation of a working scaffold is permitted only in conjunction with the stabiliser set (art. no. 85853 106).
Maximum standing height as assembly aid: 1 metre.

85853 106
Stabiliser set
Applications
For creating a working platform together with telescopic ladders (art. no. 85853 100–103).
When using the ladder as a working platform, the two sliding sections of the telescopic ladder must be connected to form a safe, rigid stepladder unit.
Safety tested — DGUV test.

NEW

85853 104-105

85853 106



Use of stabiliser set

	Length min. - max. cm	85853 ...
Telescopic plank 300 cm	178–300	**104**
Telescopic plank 400 cm	226–400	**105**
Stabiliser set	-	**106**

85853 Base extension for telescopic ladders

ATORN®

Design
- Continuous adjustment range via reliable clamping connection unit

Applications
For telescopic ladders (art. no. 85853 100–103).
Can be used on both the left and right-hand side.

Application
Base extension

NEW

85853 107

	85853 ...
Base extension	**107**

85854 Aluminium step ladder DIN EN 131, accessible from both sides

ATORN®

Design
- Wide steps
- High-strength extruded aluminium strut profiles in C-–profile shape = lightweight with maximum torsional resistance
- Particularly deep aluminium treads allow safe and fatigue-free standing
- The joints between the struts and the rungs use highly shear-resistant steel rivets to guarantee the highest possible level of safety and high durability for the aluminium ladder
- 12 sturdy aluminium cross struts ensure optimum stability of the stepladder
- Special soft plastic end caps guarantee superb resistance to displacement in the standing area
- GS-testing and certification by the Institute for Occupational Safety and Health (IFA) of the German Social Accident Insurance (DGUV)

Advantage
- Steps with 85 mm deep standing areas

NEW

85854 101

Steps Number	Working height m	Length m	Platform height m	Vertical height m	Standing base width m	Load kg	Weight kg	85854 ...
2 x 3	1.71	0.73	0.64	0.73	0.43	150	4.7	**100**
2 x 4	1.92	0.96	0.85	0.96	0.45	150	6.0	**101**
2 x 5	2.13	1.19	1.07	1.19	0.47	150	7.3	**102**
2 x 7	2.55	1.65	1.49	1.65	0.52	150	10.1	**103**
2 x 9	2.97	2.11	1.91	2.11	0.57	150	14.2	**104**

Factory equipment

85860 Step ladder Saferstep B - DIN EN 131, accessible from both sides

ZARGES

Design
- Step-strut connections made of high-strength ZARGES quality flanging
- 80 mm deep steps
- Struts made from aluminium extruded section profiles
- Hinges made of die-cast aluminium
- Replaceable 2-component plastic end caps fit securely into the strut and ensure the ladder does not slip
- High-strength Perlon straps prevent splay
- Struts and steps made from anodised aluminium
- Maximum total load 150 kg
- **Safer Step technology**
- 10-year ZARGES warranty

NEW

85860

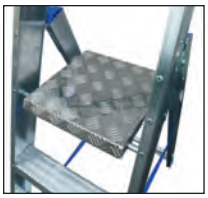
Ladder length m	Working height approx. m	lower, external Width m	Strut height mm	Number of steps	Weight kg	85860	...
0.88	2.30	0.44	68	2 x 3	4.6		201
1.15	2.55	0.47	68	2 x 4	6.1		202
1.42	2.80	0.50	68	2 x 5	7.6		203
1.70	3.05	0.53	68	2 x 6	9.3		204
1.98	3.30	0.56	68	2 x 7	10.9		205
2.27	3.60	0.59	68	2 x 8	12.7		206
2.83	4.15	0.65	68	2 x 10	16.4		207
3.39	4.65	0.71	68	2 x 12	20.3		208

85878 Aluminium step ladders DIN EN 131, accessible from one side

ATORN®

Design
- Wide steps
- Comfortable and secure footing on non-slip safety platform
- 85 mm deep steps
- High and non-bending safety bar
- Non-slip ribbing of steps
- High level of stability with low weight
- GS-tested

Advantage
- Practical aluminium tray for storing tools and other materials



Non-slip safety platform

Practical storage tray

Non-slip, deep steps

NEW

85878 101

Steps incl. platform	Working height m	Length m	Platform height m	Standing base width m	Load kg	Weight kg	85878	...
1 x 3	2.75	1.52	0.75	0.51	150	8.0		100
1 x 4	3.00	1.79	1.00	0.54	150	9.0		101
1 x 5	3.25	2.06	1.25	0.57	150	10.1		102
1 x 7	3.75	2.60	1.75	0.63	150	12.6		103
1 x 9	4.25	3.14	2.25	0.66	150	15.0		104

85857 Step ladders Saferstep S - DIN EN 131, accessible from one side

ZARGES

Design
- Step-strut connections made of high-strength ZARGES quality flanging
- 80 mm deep steps
- Struts made from aluminium extruded section profiles
- Handy aluminium tray for storing small parts and tools
- Large standing platform (300 x 250 mm) for secure and comfortable use
- Replaceable 2-component plastic end caps fit securely in the strut and ensure the ladder does not slip
- High-strength Perlon straps prevent splay
- Struts and steps made from anodised aluminium
- Maximum total load 150 kg
- **Safer Step technology**
- 10-year ZARGES warranty

NEW

85857

Ladder length m	Working height approx. m	Platform t heigh m	Strut height mm Ascent/support part	Number of steps incl. platform	Weight kg	85857	...
1.59	2.80	0.80	68 / 48	3	6.5		401
1.87	3.10	1.06	68 / 48	4	7.6		402
2.15	3.35	1.33	68 / 48	5	9.0		403
2.43	3.60	1.59	68 / 48	6	9.9		404
2.71	3.85	1.85	68 / 48	7	11.1		405
2.99	4.15	2.12	68 / 48	8	12.3		406
3.55	4.65	2.64	68 / 48	10	15.6		407

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85862 Aluminium leaning ladders without cross beams DIN EN 131

GUNZBURGER STEIGTECHNIK

Design
- Strong strut profiles

- Permanent rung/strut connection through 4-way flanging
- Ribbed square rungs 30 x 30 mm
- Non-slip nivello® end caps
- For intended use (without cross beams)

85862

Ladder length approx. m	Working height up to approx. m	Ladder width mm	Number of rungs	85862	...
2.20	3.30	350	7		301
2.50	3.50	350	8		302
3.00	4.10	350	10		303
3.60	4.60	350	12		304
4.20	5.30	350	14		305
4.70	5.80	350	16		306

85863 Multi-purpose ladder Multitec M - DIN EN 131

ZARGES

Design
- Multi-functional ladder with 6 sturdy automatic steel hinges
- Strong rectangular struts with crimped, continually ribbed square rungs 30 x 30 mm
- Stable with safe footing thanks to 2 cross pipes with non-slip end caps
- Maximum total load 150 kg
- 10-year ZARGES warranty

Applications
Can be used as a step ladder, leaning ladder with and without wall support and as a practical working platform. Safe transport and easy storage due to low packing dimensions.

85863

Note:
Similar to image.

Ladder length as leaning/step ladder m	Working height m	Number of rungs	Height as working platform m	Weight approx. kg	85863	...
3.62/1.85	4.45	4 x 3	0.99	12.5		101

85855 Multi-purpose ladders Skymaster X - DIN EN 131, 3 pieces

ZARGES

Design
- Top section with hooks and locking mechanism
- High-strength Perlon straps with sewn-in mounting clip prevent splay
- Stable, screwed fittings made of extruded sections
- Rung-strut connections made of high-strength ZARGES quality flanging

- Replaceable plastic end caps fit securely in the strut and ensure that the ladder does not slip
- Solid connection
- Maximum total load 150 kg
- 10-year ZARGES warranty

Note:
Designs with 3 x 8 or 3 x 10 rungs can be used as steps, and upper ladder can also be used separately as a leaning ladder.

85855

Extended length m (as 3 piece leaning ladder)	Length m (as 2 pcs. leaning ladder and as step ladder with plug-in part)	Length of ladder parts m (also step ladder without plug-in part)	Number of rungs	Strut height mm	Longitudinal cross beam m	Weight kg	85855	...
5.80	4.10	2.45	3 x 8	73	1.0	18.5		201
6.90	4.95	3.00	3 x 10	73	1.1	24.3		202
8.60	6.10	3.55	3 x 12	98	1.2	30.1		203

85856 Aluminium step ladders

GUNZBURGER STEIGTECHNIK

Design
- Strong rectangular tubular struts
- Ribbed square rungs 30 x 30 mm
- Permanently 4-fold flanged with the struts
- Conical strut guide for secure footing

- Lower struts end with non-slip nivello® end caps
- Upper struts end with end caps
- High-strength Perlon straps to prevent spreading
- Transport locking lugs
- Solid, zinc-plated steel hinges with screw fitting

85856

Ladder length approx. m	Working height approx. m	Number of rungs	Lower external width m	Weight kg	85856	...
1.50	2.60	2 x 5	0.50	7.1		202
1.83	3.10	2 x 6	0.53	8.0		203
2.10	3.20	2 x 7	0.56	8.7		204
2.40	3.70	2 x 8	0.59	11.1		205
2.70	3.80	2 x 9	0.63	11.6		206
2.95	4.20	2 x 10	0.65	13.3		207
3.51	4.80	2 x 12	0.70	15.7		209
4.07	5.30	2 x 14	0.76	19.7		210
4.63	5.90	2 x 16	0.82	22.5		211

85872 Mobile platform stairs ZAP Safemaster S - DIN EN 131-7, folding

ZARGES

Design
- Step-strut connections made of high-strength ZARGES quality flanging
- Large picking storage
- Non-slip aluminium working platform, approx. 600 x 630 mm, with three-sided safety rails
- Climbing part with crossbar
- Support part with driving beams
- Runners with locking device (Ø 160 mm)
- Hinges in both diagonal struts allow this ladder to be conveniently folded away and stored to save space
- Replaceable plastic end caps
- Maximum total load 150 kg
- **Safer Step technology**
- 10-year ZARGES warranty

85872 106-107
Note:
Ballast is required when working outdoors.

85872

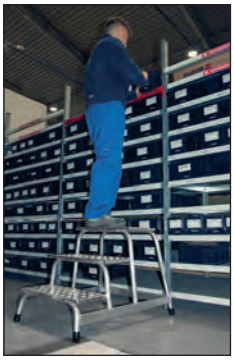
Platform height m	Height incl. rails approx. m	Number of steps incl. platform	Overhang m	Driving beams Width m	Crossbars Width m	Weight kg	85872 ...
1.00	2.00	4	1.25	1.09	-	42.0	101
1.30	2.30	5	1.40	1.09	-	43.0	102
1.60	2.60	6	1.50	1.29	1.00	47.0	103
1.80	2.80	7	1.65	1.29	1.00	50.6	104
2.10	3.10	8	1.80	1.69	1.00	55.0	105
2.60	3.60	10	2.10	1.88	1.40	61.0	106
3.10	4.10	12	2.40	1.88	1.80	65.8	107

85876 Aluminium working platforms DIN EN 14183, rigid

ATORN®

Design
- Sturdy, welded tubular construction made of sturdy aluminium
- 240 mm deep steps made from aluminium checker plate ensure safe ascent and descent
- Upper base area 520 x 305 mm to provide a secure platform
- Non-slip foot caps

Applications
The proven and lightweight aluminium machine step for demanding industrial applications, with non-slip steps.



85876 100

85876 102

NEW

85876 104

Steps incl. platform number	Platform height m	Basic area m	Working height m	Weight kg	85876 ...
1 x 1	0.2	0.36 x 0.59	2.2	2.4	100
1 x 2	0.4	0.68 x 0.63	2.4	5.0	101
1 x 3	0.6	0.73 x 0.88	2.6	7.0	102
1 x 4	0.8	0.77 x 1.14	2.8	9.8	103
1 x 5	1.0	0.81 x 1.40	3.0	12.0	104

85869 Aluminium working platforms, rigid

GUNZBURGER STEIGTECHNIK

Design
- Robust, welded tubular construction
- Steps made of chequered aluminium plate
- Strut ends with non-slip plastic caps

85869

Working height approx. m	Platform height approx. m	Number of steps	Upper standing surface mm	Basic surface W x D m	Weight kg	85869 ...
2.20	0.20	1	550 x 300	0.59 x 0.37	2.5	101
2.40	0.40	2	550 x 300	0.70 x 0.62	5.5	102
2.60	0.60	3	550 x 300	0.74 x 0.88	8.5	103
2.80	0.80	4	550 x 300	0.79 x 1.13	11.5	104
3.00	1.00	5	550 x 300	0.83 x 1.39	14.5	105

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85873 Mobile platform stairway DIN EN 131-7, accessible from one side

ZARGES

Design

- Easy and quick installation due to new connection elements made of aluminium extruded section profiles
- Light metal steps
- Convenient ascent with 200 mm deep steps
- 60° incline
- Step distance 240 mm
- Plastic end caps on the strut ends
- Large standing platform 600 mm x 800 mm
- Maximum security thanks to platform rails with 1.00 m height, complete with foot and knee rails
- Maximum total load 150 kg
- Four suspension steering rollers (2 with locking device) at Ø 125 mm for maximum mobility and quick deployment
- 10-year ZARGES warranty
- Optional two-sided hand rail on steps in accordance with DIN EN 131-7 (see art. no. 85875)

85873

Platform height without rails m	Basic surface m	Number of steps incl. platform	Weight kg	85873	...
0.72	0.77 x 1.27	3	28.5		101
0.96	0.82 x 1.45	4	31.8		102
1.20	0.87 x 1.63	5	35.0		103
1.44	0.93 x 1.81	6	38.4		104
1.68	0.98 x 1.99	7	41.8		105
1.92	1.03 x 2.17	8	45.6		106

85874 Mobile platform stairway DIN EN 131-7, accessible from both sides

ZARGES

Design

- Easy and quick installation due to new connection elements made of aluminium extruded section profiles
- Light metal steps
- Convenient ascent with 200 mm deep steps
- 60° incline
- Step distance 240 mm
- Plastic end caps on the strut ends
- Large standing platform 600 mm x 800 mm
- Maximum security thanks to platform rails with 1.00 m height, complete with foot and knee rails
- Maximum total load 150 kg
- Four suspension steering rollers (2 with locking device) at Ø 125 mm for maximum mobility and quick deployment
- 10-year ZARGES warranty
- Optional two-sided hand rail on steps in accordance with DIN EN 131-7 (see art. no. 85875)

85874

Platform height without rails m	Basic surface m	Number of steps incl. platform	Weight kg	85874	...
0.72	0.77 x 1.51	3	31.2		101
0.96	0.82 x 1.79	4	36.0		102
1.20	0.87 x 2.06	5	41.0		103
1.44	0.93 x 2.34	6	46.2		104
1.68	0.98 x 2.62	7	51.7		105
1.92	1.03 x 2.90	8	57.5		106

85875 Handrail on ascent for platform stairs

ZARGES

- 10-year ZARGES warranty

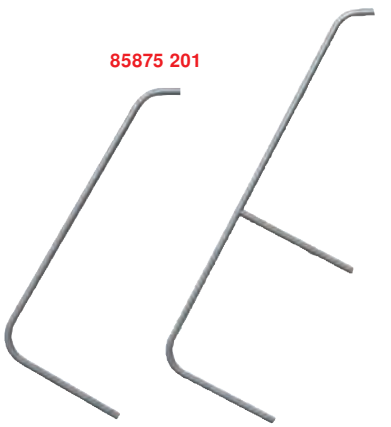
85875 201
Applications
For platform stairs with 4–6 steps,
art. no. 85873 102–104 and 85874 102–104.

85875 202
Applications
For platform stairs with 7–8 steps,
art. no. 85873 105–106 and 85874 105–106.

For platform stairs with number of steps	85875	...
4–6		201
7–8		202

85875 202

85875 201



85870 Folding scaffold CompartMaster - DIN EN 1004

ZARGES

Design
- Practical small scaffold
- Easy to handle
- Folds up for quick set-up and disassembly
- Minimum space requirements for transport and storage (folded dimensions only 0.25 x 0.85 x 1.50 m)
- Can be moved through doors even when set up
- Scaffold group 3 (can bear load of up to 200 kg/m²) in accordance with DIN EN 1004
- 10-year ZARGES warranty

Applications
For working indoors and outdoors at low heights.

Note:
The folding scaffold can be extended to a working height of 13.65 m.

85870

Scaffold height m	Load capacity kg	Working height approx. m	Scaffold height m	Platform height m	Weight approx. kg	85870	...
0.75 x 1.80	202	2.95	1.65	0.95	35.8		**201**
1.35 x 1.80	404	2.95	1.65	0.95	52.8		**202**

85877 Aluminium standard roller scaffolds for working heights of up to 7.20 m

GUNZBURGER STEIGTECHNIK

Design
- GS-tested in accordance with DIN EN 1004
- Stable and dependable use
- Functional and comfortable handling
- Platform with large access hatch
- Sturdy construction in modular system
- Aluminium material
- 4 steering rollers Ø 125 mm with locking devices

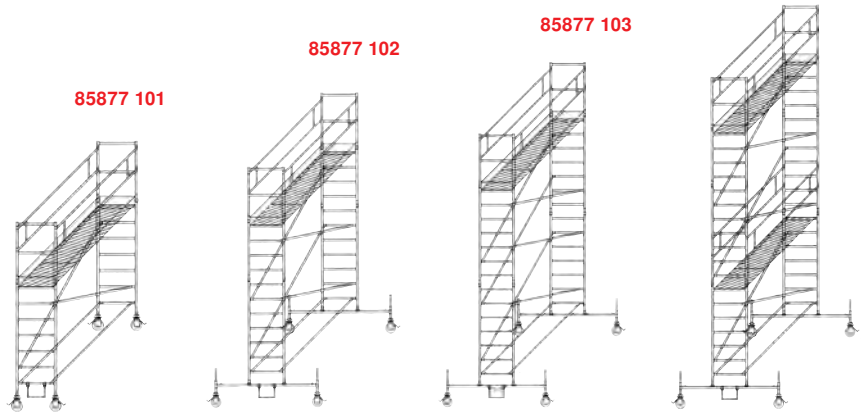
Note:
The required number of ballast weights depends on the structure type, the structure location and the scaffold height.
The instructions for set-up and use provide detailed information about this.
Scaffolding size 0.75 x 1.80 m.
Load class/scaffold group 3, 2.0 kN/m².

85877 101

85877 102

85877 103

85877 104



85877 101
Design
- No chassis beams as these are not required
- Rollers are inserted directly into the lower scaffolding frame

Scaffold height approx. m	Scaffold size approx. m	Scaffold group III	Working height approx. m	Platform height approx. m	Weight approx. kg	85877	...
3.20	1.80 x 0.75	2.00 kN/m²	4.20	2.20	56.0		**101**
4.20	1.80 x 0.75	2.00 kN/m²	5.20	3.20	90.0		**102**
5.20	1.80 x 0.75	2.00 kN/m²	6.20	4.20	100.0		**103**
6.20	1.80 x 0.75	2.00 kN/m²	7.20	5.20	126.0		**104**

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86301 Tool and roller case (empty)

ATORN®

Note:
Accessories such as tool panel, base shell, insert shells, etc. available on request.

86301 101
Tool case
- ABS plastic, black
- Extremely tough
- Suitable for flying
- With solid aluminium frame
- Glide runners
- Ratchet hinge
- Barrel locks
- Robust, scratch-resistant and dustproof, washable
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 tool panel with 10 tool compartments
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 88 mm, freely dividable.

86301 102
Tool case
- ABS plastic, black
- Extremely tough
- Suitable for flying
- With solid aluminium frame
- Glide runners
- Ratchet hinge
- Barrel locks
- Robust, scratch-resistant and dustproof, washable
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 88 mm, freely dividable

86301 103
Roller case
- 4 x telescopic drawers, 1050 mm long
- Extra wide, powder-coated
- Case can be pushed or pulled
- Rubberised, mounted, large runners
- Wide wheel base since the case is rolled on the long side
- It is therefore secured against tipping and movement of the content is minimal
- Case shells made from ABS plastic, black
- Double aluminium frame
- Ratchet hinges
- Barrel locks
- Glide runners
- Tool panels made from Con-P®
- 1 tool panel with 25 tool compartments and
- 1 x keep-safe compartment 400 mm
- 1 cover panel with 15 tool compartments and
- 1 x keep-safe compartment 400 mm
- 1 freely dividable inner shell, height 86 mm

86301 101 86301 102

86301 103

Design	Internal dimensions mm	Volume approx. litres	Weight approx. kg	86301	...
Tool case	430 x 165 x 310	22	5.2		101
Tool case	470 x 180 x 360	30	5.1		102
Roller case	470 x 190 x 360	32	8.0		103

86303 Tool bag

ATORN®

NEW

Design
- Shoulder bag with carry strap
- 2 outside pockets with plastic boxes
- 2 removable tool panels with 3 plug-in rails

86303

Length mm	Height mm	Width mm	Colour	Weight kg	86303	...
200	100	300	black/grey	1.3		101

86304 Tool case

ATORN®

Design
- Made of injected ABS plastic
- Aluminium frame for structural reinforcement
- Carry handle with soft rubber insert
- 2 high-quality, lockable locks
- 2 cover hinges
- 1 one-sided tool panel with
- 6 storage pockets and
- 12 rubber band brackets

Cover:
- 5 storage pockets
- Document compartment
- Integrated storage pockets

Floor area:
- 2 adjustable compartments

Advantage
- Interior is easy to clean

NEW

86304

Internal length mm	Internal height mm	Internal width mm	Colour	Weight kg	86304	...
450	160	320	black	3.7		101

86300 Tool case CLASSIC Plus CP-7 (empty)

PARAT

Design
- Case shells made of X-ABS plastic, aluminium
- Extremely tough
- Suitable for flying
- Black
- Tool panels made from Con-P®
- Internal double aluminium frame
- Stable handle with padded recessed handles
- Ratchet hinges with lock
- Glide runners
- 1 tool panel, 2-sided, with CP-7 tool holders up to Ø 11 mm and up to Ø 15 mm
- 1 tool panel with CP-7 tool holders up to Ø 11 mm
- 1 cover panel with CP-7 tool holders up to Ø 26 mm
- 1 base shell with cover panel, height 58 mm, freely dividable
- 1 document compartment in lid

86300

Internal dimensions mm	Volume approx. litres	Load capacity kg	Weight approx. kg	86300	...
460 x 190 x 310	27	30	5.0		301

86305 Tool case CLASSIC Deep Space CP-7 (empty)

PARAT

Design
- Case shells made of aluminium, X-ABS plastic
- Extremely tough
- Suitable for flying
- Black
- Tool panels made from Con-P®
- Internal double aluminium frame
- Stable handle with padded recessed handles
- Ratchet hinges with lock
- Glide runners
- 1 cover panel with CP-7 tool holders up to Ø 26 mm
- 1 tool panel, 2-sided, with CP-7 tool holders up to Ø 11 mm and up to Ø 15 mm
- 1 base shell with cover panel, height 88 mm, freely dividable
- 1 document compartment in lid

Note:
Accessories such as tool panel, base shell, insert shells, etc. available on request.

86305

Internal dimensions mm	Volume approx. litres	Load capacity kg	Weight approx. kg	86305	...
470 x 210 x 360	36	30	5.7		203

86308 Tool case CLASSIC (empty)

PARAT

Design
- Case shells made of X-ABS plastic
- Extremely tough
- Suitable for flying
- Tool panels made from Con-P®
- Black
- Double aluminium frame
- Stable handle with padded recessed handles
- Barrel locks
- Ratchet hinges
- Glide runners

Note:
Accessories such as tool panel, base shell, insert shells, etc. available on request.

86308 101
CLASSIC Plus
Design
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 tool panel with 10 tool compartments
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 58 mm, freely dividable
- 1 document compartment in lid

86308 101

86308 102
CLASSIC Deep Space
Design
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 88 mm, freely dividable
- 1 document compartment in lid

86308 102

Internal dimensions mm	Volume approx. litres	Load capacity kg	Weight approx. kg	86308	...
460 x 190 x 310	27	30	4.6		101
470 x 210 x 360	36	30	5.4		102

86310 Tool case CLASSIC Plus & Style (empty)

PARAT

Design
- Aluminium
- Silver
- Suitable for flying
- Double aluminium frame
- Handle with padded recessed handles
- Barrel locks
- Ratchet hinges
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 tool panel with 10 tool compartments
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 58 mm, freely dividable
- 1 document compartment in lid

Note:
Accessories such as tool panel, base shell, insert shells, etc. available on request.

86310

Internal dimensions mm	Volume approx. litres	Load capacity kg	Weight approx. kg	86310	...
460 x 170 x 310	24	30	5.1		201

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86311 Aluminium tool case (empty)

Design
- Scratch-resistant ABS outer sheet
- Rounded aluminium profile
- 2 padlocks
- Removable tool panel in lid
- Removable dividers in base
- Shoulder strap holder on side
- Colour: black

86311

Size (L x W x H) mm	Load kg	Weight approx. kg	86311	...
450 x 335 x 155	10	2.85		101

86315 Tool case SILVER (empty)

PARAT

Design
- Case shells made of X-ABS plastic
- Tool panels made from Con-P®
- Black
- Aluminium frame
- Robust handle
- Barrel locks
- Metal hinges
- Glide runners

Scope of delivery
- 2 keys

For dividing base shells individually:
- 1 lengthwise divider
- 3 crosswise dividers

86315 100
SILVER Allround
Design
- 1 tool panel with 13 tool compartments
- 1 cover panel with 15 tool compartments
- 1 base shell with cover panel, height 58 mm, freely dividable
- Document compartment in lid

86315 101
SILVER Plus
Design
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 58 mm, freely dividable

86315 102
SILVER KingSize
Design
- 1 tool panel with 25 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 tool panel with 10 tool compartments
- 1 cover panel with 15 tool compartments
- 1 x keep-safe compartment 400 mm
- 1 base shell with cover panel, height 58 mm, freely dividable

86315 100

86315 101

86315 102

Internal dimensions mm	Volume approx. litres	Load capacity kg	Weight approx. kg	86315	...
460 x 170 x 310	25	20	4.1		100
460 x 170 x 310	25	20	3.8		101
470 x 195 x 360	33	20	4.9		102

86320 Tool bag TOP-LINE Allround CP-7 (empty)

PARAT

Design
- Calf leather
- Black
- Fold-out front panel
- Ergonomic handle with cushioned recessed handle and sturdy metal handrail
- Ratchet locks
- Ring caps
- Glide runners
- Base shell made of zinc-plated sheet steel
- Keep-safe compartment
- Fixed middle wall
- Variable plug-in system CP-7 with tool holders for tools from 11, 15 to 26 mm Ø
- Pocket for small parts

86320

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86320	...
415 x 165 x 275	19	3.3		101

Factory equipment

86321 Tool bag TOP-LINE KingSize CP-7 (empty)

PARAT

Design
- Made from extra-thick calf leather
- Sidewalls and base shell made of extremely resilient, moisture-resistant, double-walled HDPE plastic
- Semi fold-out front panel with 1 CP-7 tool holder for tools up to Ø 26 mm
- Central panel with 2 CP-7 tool holders for tools up to Ø 11 mm and Ø 15 mm
- Semi fold-out rear panel with 1 CP-7 tool holder for tools up to Ø 15 mm
- Grip hole
- Ratchet locks
- Ring caps

86321

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86321	...
460 x 210 x 340	33	4.5		101

86323 Tool bags TOP-LINE (empty)

PARAT

86323 101
TOP-LINE Mini
Design
- Calf leather
- Black
- Bag section with aluminium corner reinforcement
- Key lock
- Glide runners
- Adjustable carry strap
- Front, back and central panels with 17 tool compartments
- Transparent keep-safe compartment in cover

86323 101

86323 102
TOP-LINE PARALOCK
Design
- Made from extra-thick calf leather
- Black
- Con-Pearl®
- Polypropylene sidewalls
- Front, back and central panels with 17 tool compartments
- Transparent keep-safe compartment in cover
- Glide runners
- Adjustable carry strap
- **Practical magnetic closure**
- Bag section with aluminium corner reinforcement

Practical magnetic closure

86323 102

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86323	...
220 x 140 x 250	8	1.2		101
230 x 140 x 300	10	1.5		102

86330 Drawer case TOP-LINE KingSize Organize (empty)

PARAT

Design
- Made from extra-thick calf leather
- Black
- Con-Pearl®
- Fold-out front panel
- Rear panel with 1 CP-7 tool holder for tools up to Ø 15 mm
- 90 mm intermediate compartment behind drawers
- Drawer tray with 5 pieces
- Carry insert
- Compartments for small parts
- Padded handle
- PARAT ratchet locks
- Aluminium corners

Note:
Accessories for internal drawer division available on request.

86330

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86330	...
410 x 220 x 310	28	4.9		201

86340 Tool bag TOP-LINE Plus CP-7 (empty)

PARAT

Design
- Made from extra-thick calf leather
- Black
- Con-Pearl®
- Semi fold-out front and back panels each with 8 tool compartments
- Middle wall with 1 CP-7 tool holder, Ø 11 mm 1 CP-7 tool holder, Ø 26 mm
- Grip hole
- Carry handle
- Ratchet locks

86340

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86340	...
420 x 185 x 315	24	3.1		100

Factory equipment

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86350 Tool wallet (empty)

Design
- Material: synthetic leather
- Folds up completely
- 17 tool compartments
- 3 rubber band loops
- 1 extra large retaining lock
- Ergonomic handle

86350

Internal dimensions mm	Weight approx. g	86350 ...
320 x 75 x 305	900	201

86358 Tool bag NEW CLASSIC KingSize Plus (empty)

PARAT

Design
- Calf leather
- Black
- Sidewalls and base shell made of shock-resistant and moisture-resistant HDPE plastic
- Semi fold-out rear panel with 9 fixed loops
- Fixed middle panel with 19 fixed loops
- Semi fold-out rear panel with 11 fixed loops
- Sidewalls with 4 loops
- Strap for spirit level in lid
- Front pocket
- Carry handle
- PARAT key locks
- 2 press locks
- Ring caps
- Bag section with aluminium corner reinforcement

86358

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86358 ...
460 x 210 x 340	33	4.6	101

86360 Tool bag NEW CLASSIC Allround (empty)

PARAT

Design
- Calf leather
- Sidewalls and base shell made of HDPE
- Black
- Grained
- Semi-fold-out front panel with 11 adjustable loops
- Rear panel with 9 fixed straps
- Front pocket
- Ring caps
- PARAT key locks
- Bag section with aluminium corner reinforcement

86360

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86360 ...
420 x 160 x 250	17	2.5	101

86325 Tool bag NEW CLASSIC Plus (empty)

PARAT

Design
- Calf leather
- Black
- Semi fold-out front panel with 8 adjustable loops
- 1 small parts bag
- 1 tool compartment
- Middle panel can be removed, with 11 loops
- 1 keep-safe compartment
- Rear panel with 9 fixed straps
- Base shell made of zinc-plated sheet steel
- Key locks

86325

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86325 ...
400 x 140 x 280	16	2.9	101

86361 Tool bags NEW CLASSIC (empty)

PARAT

Design
- Calf leather
- Black
- With key locks
- Glide runners
- Without internal divisions

86361 101

86361 102

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86361 ...
360 x 110 x 170	7	0.6	101
390 x 170 x 230	15	1.3	102

Factory equipment

86364 Pilot case PARADOC Businesscase

PARAT

Design
- Rollable
- Made from high-quality cowhide
- Black
- 1 padded notebook compartment
- 1 front pocket
- Lid has 2 compartments for business cards and
- 2 loops for pens
- Combination locks, two-tone
- Grip hole

86364

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86364	...
425 x 180 x 335	26	5.4		102

86366 Carry strap

PARAT

Design
- Made of polyester
- Black
- Adjustable, with 2 snap hooks
- Shoulder protection

86366

Dimensions mm	Weight approx. g	86366	...
1120 x 20	120		101

86367 Ring cap set

PARAT

Design
- Made of cowhide, black

86367

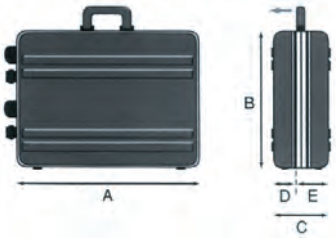
Dimensions mm	Weight approx. g	86367	...
50 x 40	40		101

86374 Tool roller case

Design
- Tool case made of HDPE plastic
- Convenient transport thanks to large, smooth transport rollers and locking telescopic handle
- 2 tool pallets with storage pockets
- One pallet is one-sided, while the other can be equipped on both sides
- 1 document compartment
- 2 TSA locks including key

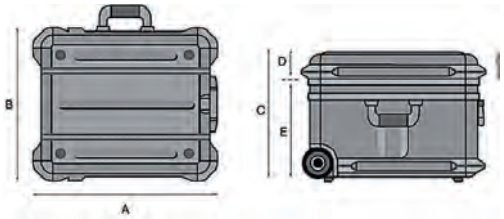
86374 101

86374 101
Design
- Double-walled
- Soft handle with retention spring
- 2 boxes for small parts
- Base area with adjustable compartments



86374 105

86374 105
Design
- 2 soft handles with retention spring
- 3 boxes for small parts
- Internal base tray with precut foam



Dimensions A x B x C x D x E mm	Load capacity max. kg	Weight kg	86374	...
453 x 345 x 185 x 75 x 110	30	7.5		101
470 x 390 x 300 x 94 x 203	40	8.0		105

Factory equipment

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86377 Tool roller case All.In.One (without tools)

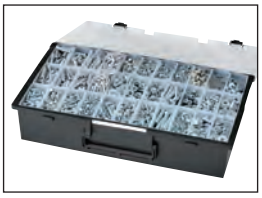
Design
- Tool case made of polypropylene with smooth rollers
- Durable, impact-resistant and temperature-resistant
- **Telescopic handle on rear side can be extended up to max. 990 mm**
- The drawers are secured by a front flap, and the cover closes the upper compartment
- Both areas are secured using 2 catch fasteners
- These can be closed using an integrated central lock
- An additional padlock can be fitted
- The tool case is equipped with 2 side handles

Note:
Padlocks, see art. no. 86929 ff.

86377 101
Equipped:
- Drawer H 30 mm: with precut foam
- Drawer H 60 mm: with precut foam
- Drawer H 60 mm: with removable small parts boxes
- Drawer H 95 mm: empty
- The cover has 5 small parts containers: 2 x with 6 compartments 1 x with 10 compartments 2 x with 13 compartments

86377 102
Unequipped:
- Drawer H 30 mm: empty
- Drawer H 60 mm: empty
- Drawer H 60 mm: empty
- Drawer H 95 mm: empty

Drawer H 30 mm
With precut foam
(Supplied without tools)



Drawer H 60 mm
With small parts boxes
(Delivery without contents)

Options:
Available with different cover compartments (tool insert panels)

86377 101

Small parts container
(Delivery without contents)

86377 102

Type	Design	External dimensions mm	Weight kg	86377 ...
AI1-KT01	equipped	580 x 370 x 470	14.00	101
AI1-KT02	unequipped	580 x 370 x 470	13.35	102

86368 Tool roller case CLASSIC (empty)

PARAT

Design
- Case shells made of impact-resistant X-ABS plastic
- Black
- Suitable for flying
- Tool panels made of Con-Pearl® (high resistance against humidity, high scratch resistance)
- Double aluminium frame
- Barrel locks
- Ratchet hinges
- Glide runners
- Lockable cover holder
- 4 x telescopic drawers, 1150 mm long
- Large mounted, rubberised runners

86368 101

86368 103

86368 101
CLASSIC KingSize Roll
Design
- 1 tool panel with 25 tool compartments and
- 1 x keep-safe compartment 400 mm
- 1 tool panel with 10 tool compartments
- 1 cover panel with 15 tool compartments and
- 1 x keep-safe compartment 400 mm
- 1 document compartment

86368 106

86368 107

86368 103
CLASSIC KingSize Roll CP-7
Design
- 1 tool panel with CP-7 tool holders up to Ø 11 mm
- 1 tool panel, 2-sided, with CP-7 tool holders up to Ø 11 mm and up to Ø 15 mm
- 1 cover panel with CP-7 tool holders Ø 26 mm
- 1 document compartment with 2 pockets for business cards and 2 pen holder loops
- 1 base shell with cover panel, height 88 mm, freely dividable

Scope of delivery
- 2 keys

For dividing base shells individually:
- 1 lengthwise divider
- 3 crosswise dividers

86368 106
CLASSIC KingSize Plus Roll
Design
- 1 tool panel with 31 tool compartments
- 1 tool panel with 12 tool compartments
- 1 cover panel with 19 tool compartments and
- 1 keep-safe compartment 530 mm
- 1 base shell with
- 1 dividable compartment 540 x 88 (63) x 223 mm
- 1 fixed compartment 540 x 57 x 140 mm
- 1 strap for spirit level
- 1 document compartment in lid

86368 107
CLASSIC KingSize Plus Roll CP-7
Design
- 2 tool panels and 1 cover panel with
- 2 CP-7 tool holders, Ø 26 mm
- 2 CP-7 tool holders, Ø 15 mm
- 1 CP-7 tool holder, Ø 11 mm
- 4 tool straps and
- 2 straps for spirit level
- 1 document compartment in lid
- 1 lockable cover holder
- 1 base shell with
- 1 dividable compartment 540 x 88 (63) x 223 mm
- 1 fixed compartment 540 x 63 x 137 mm

Internal dimensions mm	Volume approx. litres	Weight approx. kg	86368 ...
470 x 200 x 360	35	7.4	101
470 x 200 x 360	35	7.8	103
575 x 220 x 425	54	9.4	106
575 x 220 x 425	54	9.7	107

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86376 200
Tool case Big Twin
Design
- Sturdy design, made of ABS material, black
- Continuous aluminium frame
- Fixed, stable middle panel with double-sided mounting, with a range of storage options using elastic loops and 12 small pockets
- Ergonomic handle
- Metal hinges
- Can be opened on one or both sides, base and cover can be opened separately
- Free-standing in all opening positions due to cover holder with hinges fixed on both sides and lockable at 45° and 90°
- 3-digit combination lock and 2 barrel locks made of metal for fixing the lid
- 2 barrel locks made of metal for fixing the base
- Removable document compartment and removable tool panels made of dirt-repellent PP twin-wall sheets with red piping, can be equipped on one side, with 13 tool pockets
- Base shell dividable using flexible inserts, cover panel with 6 large tool pockets, can be fixed using press stud
- Marking area for customisation

86376 201
Tool roller case BIG Twin-Move
Design
- With integrated rollers and telescopic handle
- Sturdy design, made of ABS material, black
- Continuous aluminium frame
- Fixed, stable middle panel can be equipped on both sides, with a range of storage options using elastic loops and 12 small pockets
- Pull-out handle embedded in base as well as two external, smooth skater rollers
- Can be opened on one or both sides (V-shape)
- The base and cover can be partially or fully opened separately
- Free-standing in all opening positions
- Special runners protect the floor and provide stable support
- Lockable
- Removable document compartment and removable tool panel with 13 tool pockets
- Base shell, height 60 mm, can be divided flexibly using dividers
- Tool panel acts as a cover panel with 13 tool pockets

86376 200

86376 201

	External dimensions W x H x D mm	Internal dimensions W x H x D mm	Load capacity up to kg	Weight kg	86376 ...
Tool case BIG Twin	520 x 300 x 410	490 x 200 x 370	30	7.8	200 NEW
Tool roller case BIG Twin-Move	510 x 270 x 410	480 x 210 x 370	30	8.6	201

86381 Tool case Basic/Tool roller case Basic Move

KNIPEX

Design
- Sturdy design, made of ABS material, black
- Continuous aluminium frame
- 3-digit combination lock and 2 metal barrel locks for fixing the lid
- Stable, ergonomic carry handle
- Metal hinges
- Document compartment in lid
- Base shell can be divided further using inserts
- Cover panel with 12 large tool pockets and 1 flat compartment, can be fixed using press stud
- Label area with 2 stickers for customised marking

86381 101
Tool case Basic
Design
- D-rings for attaching the enclosed carry strap
- Removable tool panel made of dirt-repellent PP twin-wall sheets with red piping in cover, with 9 tool pockets and 1 elastic strap on the cover side and 10 narrow tool pockets and 1 large tool pocket on the base side

86381 102
Tool roller case Basic Move
Design
- Pull-out handle embedded in base
- 2 external, smooth-running skater rollers
- 2 removable tool panels made of dirt-repellent PP twin wall sheets with red piping in the cover
- 1. Tool panel with 10 tool pockets and 1 elastic loop on the cover side and 10 narrow and 1 large tool pocket on the base side
- 2. Tool panel with 10 narrow tool pockets and 1 elastic loop on the base side and 1 document compartment on the cover side

86381 101

NEW

86381 102

	External dimensions W x H x D mm	Internal dimensions W x H x D mm	Load capacity kg	Weight kg	86381 ...
Tool case Basic	465 x 210 x 370	440 x 180 x 350	15	5.1	101
Tool roller case Basic Move	515 x 280 x 430	480 x 200 x 350	20	6.8	102

86383 Professional tool bags (empty)

Design
- Continuous metal rail at top
- Foam rubber carry handle
- Bag can be covered completely
- Recessed handle
- Adjustable shoulder strap with shoulder pad
- Sturdy plastic sliding rails
- Colour: black

86383 201
Design
External:
- 1 large, lockable insert pocket
- 4 medium, lockable insert pockets, including 2 with small parts box
- 2 hook and loop fastenings for securing spirit level, etc.

Internal:
- 8 small tool compartments
- 9 medium tool compartments
- 1 large tool compartment

86383 202
Design
External:
- 2 large, lockable insert pockets
- 4 very large, lockable insert pockets
- 2 hook and loop fastenings for securing spirit level, etc.

Internal:
- 18 small tool compartments
- 13 medium tool compartments
- 5 large tool compartments

NEW

86383 201

86383 202

Internal dimensions mm	Weight approx. kg	86383 ...
400 x 200 x 220	2.2	201
570 x 255 x 270	3.0	202

Factory equipment

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86375 Tool boxes PROFI-LINE (empty)

PARAT

Design
- Spacious, robust tool box made of impact-resistant plastic, polypropylene
- High-mounted, large-scale, anti-tilt, removable carry insert, splash-proof
- 1 small parts storage
- Quick-action fastenings made of plastic, can be secured with padlock (art. no. 86931 ff.)

86375 201 86375 202 86375 203

External dimensions mm	Volume approx. litres	Weight kg	86375	...
445 x 230 x 230	16	1.8		201
480 x 255 x 260	21	2.4		202
580 x 285 x 290	30	3.0		203

86385 Technician's tool backpack

Design
2 front pockets:
Lower front pocket:
- Zip fastening for documents
- 2 large tool compartments
- 4 small tool compartments

Upper front pocket:
- Zip fastening for small tools
- 10 rubber band loops
- 2 tool compartments

Main compartment:
- Document tray
- 2 hook and loop fastenings for fixing laptop or A4 folder
- Large tool area (fold-out):
- 16 tool compartments
- 12 rubber band loops
- Small parts holder

Other equipment:
- 2 side pockets
- Tools not included in scope of delivery

86385

Dimensions mm	Weight kg	Material	86385	...
420 x 350 x 210	2.3	Polytex		501

86386 Tool rolls BASIC Roll-up Case (empty)

PARAT

Designs
- Synthetic leather
- With tool compartments
- Buckle strap closure

86386

Number of Tool compartments	External dimensions mm	Weight approx. g	86386	...
12	540 x 330	260		201
15	670 x 330	320		202
20	740 x 330	360		203

86388 Tool rolls (empty)

HHW

Design
- Made of synthetic leather
- Black
- Green border

86388 302 86388 303 86388 304

86388 305

Number of tool compartments	External dimensions approx. mm	86388	...
6	300 x 290		302
7	165 x 160		303
8	440 x 280		304
8	740 x 240		305

86405 - 86406 Assembly tool boxes

ATORN®

Design
Stable, strong sheet steel design, painted blue on all sides, fold-down tubular carry handle. Cover is particularly torsion-resistant due to overlapping edges and reinforcement bead. Continuous hinge with bore for padlock.

Note:
Padlocks, see art. no. 86931 ff.

86406

Dimensions L x W x H mm		86405 ...	86406 ...
430 x 200 x 150	3-part	101	
430 x 200 x 200	5-part		102
530 x 200 x 200	5-part		103
600 x 200 x 200	5-part		104

86408 Roller box

HW

Design
The tool box on wheels. Made of solid sheet steel with eco-friendly powder coating. **With extendable handle for travel.** Dimensions when folded out: 680 x 395 x 760 mm. Folded (without carry handle): 640 x 395 x 360 mm.
Colour: 2 colours, red/black.

Applications
The roller box offers plenty of advantages:
- Lightweight to push instead of heavy to carry.
- Can be set up and folded away with one hand.
- Easy to open without tilting.
- Your working materials are always within reach.
- Saves space when folded up.
- Ideal for mobile work in different locations.

86408

	86408 ...
	101

86606 Sheet steel assembly case

Design
Extremely stable and weather-resistant. Interior lining with fibreboards. With removable insert for small parts, inside compartment in cover, wide carry handles. **Fitting for padlock.**
(Padlocks, see art. no. 86931 ff).
Colour: grey.

86606

Dimensions mm	Weight approx. kg	86606 ...
690 x 360 x 310	15	101
830 x 440 x 340	20	102
910 x 530 x 430	25	103

86618 Euro boxes (transport containers)

ZARGES

Design
- Made of high-strength, corrosion-resistant aluminium alloy
- Lid with stainless steel hinges and two straps
- Lid sealed against dust and water splashes
- Reinforcement beads
- Blue stacking corners made of impact-resistant plastic
- Spring-loaded handles with plastic coating
- Catch fasteners on front for installing lock or padlock

Note:
Accessories, see art. no. 86620.

86618

Internal dimensions L x W x H approx. mm	External dimensions L x W x H approx. mm	Volume approx. l	Weight approx. kg	86618 ...
350 x 250 x 310	400 x 300 x 340	27	3.0	101
550 x 350 x 220	600 x 400 x 250	42	4.7	102
550 x 350 x 310	600 x 400 x 340	60	4.9	103
550 x 350 x 380	600 x 400 x 410	73	5.2	104
750 x 350 x 310	800 x 400 x 340	81	6.1	105
750 x 550 x 380	800 x 600 x 410	157	7.5	106
750 x 550 x 580	800 x 600 x 610	239	8.9	107
1150 x 250 x 220	1200 x 300 x 250	63	6.3	109
1150 x 750 x 480	1200 x 800 x 510	414	13.0	108

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86615 Light metal transport and storage container

ZARGES

Design
- Corrosion-resistant
- Dust- and splash-proof
- With continuous, foam cover seal

Advantage
- Easy and comfortable to carry
- Stable and resilient
- Easy to secure with lock

Applications
Tool box, assembly case, transport container, etc.

Quality
Made of high-quality light metal.

Note:
Accessories, see art. no. 86620.

86615 101

86615 103

Internal dimensions L x W x H approx. mm	External dimensions L x W x H approx. mm	Volume approx. l	Weight approx. kg	86615	...
550 x 350 x 220	600 x 400 x 240	42	4.0		101
750 x 350 x 310	800 x 400 x 330	81	5.5		103

86619 - 86620 Accessories, see art. no. 86615–86618

ZARGES

Applications
For art no. 86615–86618.

86619 101
Add-on trolley
- Telescopic trolley
- Simple self-installation
- Handle can be pulled out and locked
- Ideal for boxes with an exterior length of 500–800 mm
- Smooth chassis, Ø 54 mm
- Load: 30 kg

86619 102
Expansion set for trolley
- Expansion set for fitting trolley on other boxes

86619 103-104
Cover pockets
- Representative cover pockets made of black nylon fabric for self-installation
- Ideal for tablet PCs, cables, small parts or documents
- Protects parts and keeps the box organised
- The pocket can easily be removed

86620 101
Small parts box
- With 21 fillable compartments made from polypropylene
- For art. no. 86615 101+103, 86618 102–105

86620 102
Foam block set
- Made of soft foam
- For delicate parts
- Adjusts shape without the need for tools
- Contains 1 cover panel (30 mm), 1 base panel (10 mm), 2 panels (30 mm), 2 panels (60 mm)
- For art. no. 86615 101, 86618 101–104

86620 104
Adjustable partitioning system
- Consisting of a divider with two hole-spacing bars
- For art. no. 86615 103, 86618 103–105

86620 109
Barrel lock set
- Simultaneous locking, only in set
- Both locks can be opened with just one key
- **Until autumn 2008**

86620 105
Barrel lock set
- Simultaneous locking, only in set
- Both locks can be opened with just one key
- **From autumn 2008**

86620 110
Barrel lock series
- Complete series, simultaneous locking
- Each key can open several boxes
- **Until autumn 2008**

86620 106
Barrel lock series
- Complete series, simultaneous locking
- Each key can open several boxes
- **From autumn 2008**

86620 107-108
Dolly trolley F 150
- Aluminium frame
- With 2 steering and 2 fixed castors, Ø 125 mm, 40 mm wide, rubber wheels (traceless), mounted on roller bearings

86620 107
- For art. no. 86615 101, 86618 102–104

86620 108
- For art. no. 86618 106+107

86619 101

86619 102

86619 103

86619 104

86620 101

86620 102

86620 104

86620 105-106

86620 109-110

86620 107-108

Name	Size mm	Additional load max. kg	For locks	86619	...	86620	...
Add-on trolley	-	-	-		101		
Expansion set	-	-	-		102		
Cover pocket, large	420 x 260 x 40	2	-		103		
Cover pocket, small	260 x 150 x 40	1	-		104		
Small parts box	430 x 330 x 60	-	-				101
Foam block set	550 x 350 x 220	-	-				102
Partitioning system	346 x 305	-	-				104
Barrel lock set	-	-	until autumn 2008				109
Barrel lock set	-	-	from autumn 2008				105
Barrel lock series	-	-	until autumn 2008				110
Barrel lock series	-	-	from autumn 2008				106
Dolly trolley W 150	600 x 400	-	-				107
Dolly trolley W 150	800 x 600	-	-				108

86901 - 86902 Assortment boxes Assorter

raaco

Design
Raaco Assorter:
Maximum organisation in the smallest place
- Assorter is a series of sturdy assortment boxes than can easily be taken everywhere
- It includes designs with different heights, widths, depths and compartments
- The practical compartment division of the boxes enables well sorted, compact storage of the contents
- The base and lid are made of sturdy polypropylene plastic. Fitted with a transparent lid so that content can easily be identified
- On the front, the Assorters are equipped with one or two sliding closures that keep the cover securely closed, while the back has sturdy external hinges
- The Assorter is available in two versions – with fixed compartments for elementary storage requirements and with removable inserts for improved flexibility
- The larger Assorters can be transported easily when equipped with the matching handle
- The larger Assorter models also have U-profiles inside the cover which help keep the content in place during transport

86901 101
- With 7 differently sized, fixed compartments
- Arrangement (internal dimensions H x W x D):
  1 compartment 24 x 35 x 158 mm
  2 compartments 24 x 35 x 78 mm
  4 compartments 24 x 35 x 38 mm

86901 102
- With 12 equal-sized, fixed compartments
- Arrangement (internal dimensions H x W x D):
  12 compartments 24 x 35 x 38 mm

86901 103
- With 9 differently sized, fixed compartments
- Arrangement (internal dimensions H x W x D):
  1 compartment 33 x 51 x 220 mm
  2 compartments 33 x 105 x 35 mm
  2 compartments 33 x 51 x 72 mm
  4 compartments 33 x 51 x 35 mm

86901 104
- With 18 equal-sized, fixed compartments
- Arrangement (internal dimensions H x W x D):
  18 compartments 33 x 51 x 35 mm

86901 105
- With 15 differently sized, fixed compartments
- Arrangement (internal dimensions H x W x D):
  8 compartments 46 x 54 x 38 mm
  1 compartments 46 x 166 x 78 mm
  1 compartments 46 x 54 x 238 mm
  2 compartments 46 x 54 x 118 mm
  3 compartments 46 x 54 x 78 mm

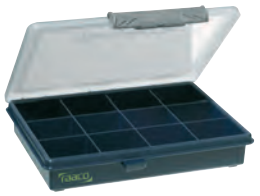
86901 106
- With 32 equal-sized, fixed compartments
- Arrangement (internal dimensions H x W x D):
  32 compartments 46 x 54 x 38 mm

86902 101
- With 15 removable inserts of different sizes
- Arrangement:
  5 units insert type 55 A9-1
  (H x W x D 47 x 39 x 55 mm)
  2 units insert type 55 A9-2
  (H x W x D 47 x 39 x 109 mm)
  1 unit insert type 55 A9-3
  (H x W x D 47 x 39 x 163 mm)
  1 unit insert type 55 A9-4
  (H x W x D 47 x 39 x 218 mm)
  4 units insert type 55 A8-1
  (H x W x D 47 x 55 x 79 mm)
  1 unit insert type 55 A8-2
  (H x W x D 47 x 55 x 157 mm)
  1 unit insert type 55 A7-1
  (H x W x D 47 x 79 x 109 mm)

86902 102
- With 17 removable inserts of different sizes
- Arrangement:
  4 units insert type 55 A9-1
  (H x W x D 47 x 39 x 55 mm)
  4 units insert type 55 A9-2
  (H x W x D 47 x 39 x 109 mm)
  8 units insert type 55 A8-1
  (H x W x D 47 x 55 x 79 mm)
  1 unit insert type 55 A7-1
  (H x W x D 47 x 79 x 109 mm)

86901 101

86901 102



86901 103

86901 104

86901 105

86901 106

86902 101

86902 102

Model	W x H x D mm	Compartments/Inserts	Locks	Handle	U-profile	86901 ...	86902 ...
Assorter 6–7	175 x 32 x 143	7 compartments in 3 sizes	1	-	-	101	
Assorter 6–12	175 x 32 x 143	12 compartments of equal size	1	-	-	102	
Assorter 5–9	240 x 43 x 195	9 compartments in 4 sizes	1	-	-	103	
Assorter 5–18	240 x 43 x 195	18 compartments of equal size	1	-	-	104	
Assorter 4–15	338 x 57 x 260	15 compartments in 5 sizes	2	-	x	105	
Assorter 4–32	338 x 57 x 260	32 compartments of equal size	2	-	x	106	
Assorter 55 4x8–15	338 x 57 x 261	15 compartments in 7 sizes	2	x	x		101
Assorter 55 4x8–17	338 x 57 x 261	17 compartments in 4 sizes	2	x	x		102

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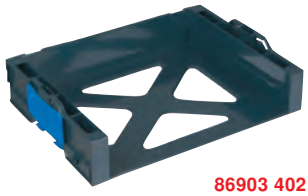
Sortimo
Intelligente Mobilität

NEW

86903 301-304
Design
- Sturdy and durable
- Clear overview of small parts at all times
- Integrated carry handle
- Individual filling optimises work processes

86903 301

86903 401



86903 402

86903 303

86903 403

86903 304

86903 404

86903 401
Design
- Stackable using innovative click system
- Can be combined with i-BOXXes and LS drawers
- Compatible with complete L-BOXX system
- Content can be changed quickly
- **Organisation system can be expanded flexibly**

86903 402
Design
- Stackable using innovative click system
- Can be combined with i-BOXXes and LS drawers
- Compatible with complete L-BOXX system
- Content can be changed quickly

86903 403
Design
- Stackable using innovative click system
- Can be adapted to industry-specific requirements
- Can be integrated into all transport solutions from Sortimo
- Professional appearance with customer
- **Individual inserts with drawer function**

86903 404
Design
- Stackable using innovative click system
- Can be adapted to industry-specific requirements
- Can be integrated into all transport solutions from Sortimo
- Professional appearance with customer

Model	Compartments Unit	W x H x D mm	86903 ...
i-BOXX 72 G	10	367 x 72 x 316	301
i-BOXX 72 G	11	367 x 72 x 316	303
i-BOXX 72 G	26	367 x 72 x 316	304

Model	W x H x D mm	86903 ...
i-Rack G, i-BOXX Rack Active	442 x 100 x 342	401
i-Rack G, i-BOXX Rack 3-way (empty)	442 x 304 x 342	402
LS-BOXX 306 G (empty)	442 x 322 x 357	403
LS-BOXX 306 G incl. 2 x i-BOXX72 IBH3	442 x 322 x 357	404

86904 Assortment case T-BOXX

Sortimo
Intelligente Mobilität

Design
- Clear overview of small parts at all times
- Comfortable to carry
- Long durability saves costs
- Flexible due to removal of individual inset boxes

NEW

86904 201

86904 202

86904 203

86904 205

Model	W x H x D mm	Compartments/Inserts	86904 ...
T-BOXX G	440 x 80 x 350	23 compartments in 4 sizes	201
T-BOXX G	440 x 80 x 350	16 compartments in 6 sizes	202
T-BOXX G	440 x 80 x 350	12 compartments of equal size	203
T-BOXX G	440 x 80 x 350	48 compartments of equal size	205

86905 Small parts storage

Sortimo
Intelligente Mobilität

Design
- Makes work easier thanks to one-handed operation
- Interior can be customised
- Can be integrated into all transport solutions from Sortimo
- Foam insert minimises annoying rattling noises
- Case colour: light blue

NEW

86905 201

86905 202

86905 203

86905 204

86905 205

Model	W x H x D mm	Compartments/Inserts	86905 ...
Metal case KM 321	440 x 66 x 330	23 compartments in 4 sizes	201
Metal case KM 321	440 x 66 x 330	8 compartments of equal size	202
Metal case KM 321	440 x 66 x 330	12 compartments of equal size	203
Metal case KM 321	440 x 66 x 330	24 compartments of equal size	204
Metal case KM 321	440 x 66 x 330	48 compartments of equal size	205

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Sortimo
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86906 301-302
L-BOXX 102 G4/136 G4, empty
- Innovative click system with one-handed operation
- Access to content even when clicked in place
- Quickly secured with a lock, also when using several BOXXes together
- Flexibility due to modular, dividable interior
- Can be customised using labels with colour code
- Case colour: cool grey

86906 303
L-BOXX 238 G, empty
- Stackable using innovative click system
- Professional appearance with customer
- Comfortable to carry
- **Can be integrated into all transport solutions from Sortimo**
- Can be customised using labels with colour code
- Case colour: cool grey

86906 304
L-BOXX 374 G, empty
- Stackable using innovative click system
- Professional appearance with customer
- Comfortable to carry
- **Can be integrated into vehicle interior equipment**
- Can be customised using labels with colour code
- Case colour: cool grey

86906 305
Labelling set
- Individual labelling on outside of BOXX, case and label clip SR
- Provides a quick overview of contents
- Sortimo colour code for visual identification
- Saves time through better overview and provides quicker access to tools or small parts
- Download the free labelling template at https://www.sortimo.de/labels

86906 106
Cover inlay
- Made from hard foam
- Protects content of inset boxes against unwanted mixing during transport

86906 307
Non-slip mat
- Suitable for the L-BOXX 102 G4 and L-BOXX 136 G4
- Protects content and BOXX from damage
- Prevents annoying rattling noises when travelling

86906 308
Document card

86906 109
Tool card
- Mounted in the lid of the L-BOXX
- With elastic loops and pockets for safe storage of tools

86906 110
L-BOXX roller
- The practical mobile platform for all L-BOXXes, LS-BoXXes and the i-BOXX Rack
- BOXXes can be quickly and easily fixed onto the L-BOXX roller and pushed to the desired destination as a single unit
- Made of plastic
- With 4 steering rollers, including 2 with locking devices
- Load capacity up to 100 kg
- Colour: grey-white

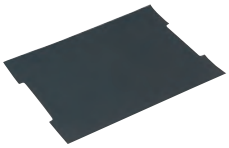
Advantage:
- BOXXes can be transported quickly and safely

86906 401
L-BOXX 102 incl. inset box set H3
- Incl. inset box set, 12 units H63 and cover insert
- 12 compartments in 6 sizes
- Innovative click system with one-handed operation
- Access to content even when clicked in place
- Quickly secured with a lock, also when using several BOXXes together
- Can be customised using labels with colour code

86906 305

86906 106

86906 307



86906 109

86906 110

86906 301

86906 302

86906 303

86906 304

86906 401

Model	W x H x D mm	86906 ...
L-BOXX 102 G4, empty	444 x 118 x 360	301 NEW
L-BOXX 136 G4, empty	444 x 152 x 360	302 NEW
L-BOXX 238 G, empty	442 x 357 x 253	303 NEW
L-BOXX 374 G, empty	442 x 389 x 357	304 NEW
Labelling set	approx. 210 x 297 (A4)	305 NEW
Cover insert	405 x 22 x 321	106
Non-slip mat for L-BOXX 102 G4/136 G4	416 x 2 x 307	307 NEW
Document card	416 x 2 x 307	308 NEW
Tool card	380 x 20 x 308	109
L-BOXX roller	650 x 150 x 510	110
L-BOXX 102 incl. inset box set H3	444 x 118 x 360	401 NEW

81783 Tool storage WorkMo

Sortimo
Intelligente Mobilität

WorkMo = MAXIMUM FLEXIBILITY
Drawers provide perfect storage for tools and consumables for daily needs. They provide ample storage space and keep things organised. The drawer panels are made of impact-resistant plastic and are therefore able to handle day-to-day use.

Organise
WorkMo consists of portable modules for tool storage. The interior elements can be freely arranged according to your individual needs with drawers, shelves, BoXXes or case shelves.

Transport
Using rollers, you can quickly transform your WorkMo components into a mobile workshop and transport the tools quickly from A to B.
Even loading into a vehicle is no problem, as the components can be disassembled quickly.

Ergonomic work
The stackable modules can be put assembled into one uniform work station on the construction site. With holders for accessories, a multiple outlet socket and worktop, the transport and organisation system transforms into a functional workplace. Different module combinations enable you to create your own highly flexible workplace.

Design
- Aluminium, plastic
- Rounded plastic edges provide shock and scratch protection
- Can be expanded at any time
- Compatible with the Sortimo BOXXes and luggage range

Applications
- Combines transport, organisation and work
- Sturdy handling

81783 101

81783 101
WorkMo WO 24-500 SBL6
- With 4 drawers
- W x H x D 526 x 506 x 396 mm
  19 kg
- Drawer internal dimensions:
  (W x H x D) 418 x 89 x 314 mm

81783 102

81783 102
WorkMo WO 24-500 STB
- Empty, for storing 4 T-BOXXes (art. no. 86904) or 4 small part storage units (art. no. 86905)
- W x H x D 526 x 506 x 396 mm, 7.3 kg

81783 103

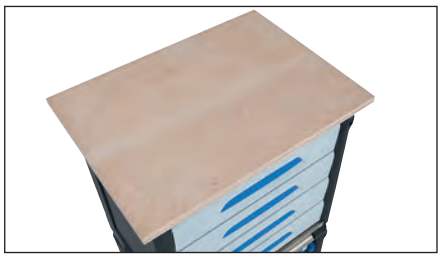
81783 103
WorkMo WO 24-500 4KS
- Empty, with case arms for storing 4 small part storage units (art. no. 86905)
- W x H x D 526 x 506 x 396 mm, 16.8 kg

81783 104

81783 104
WorkMo WO 24-500 3BB
- Empty, for storing 3 L-BOXXes 102 or 1 L-BOXX 136 and 2 L-BOXXes 102 (art. no. 86906)
- W x H x D 526 x 506 x 396 mm, 18.3 kg

Type		W x H x D mm	Weight kg	81783 ...
WorkMo WO 24-500 SBL6	Module with 4 drawers	526 x 506 x 396	19.0	**101**
WorkMo WO 24-500 STB	Module, empty	526 x 506 x 396	7.3	**102**
WorkMo WO 24-500 4KS	Module, empty	526 x 506 x 396	16.8	**103**
WorkMo WO 24-500 3BB	Module, empty	526 x 506 x 396	18.3	**104**

81783 201



81783 201+202
The matching **WorkMo worktops and workbenches** for use on top of the modules provide the perfect workstation for your workplace. The worktops and workbenches can be firmly connected to the WorkMo using a ratchet system and form a fixed working base with high stability. If required, the lock can be released again with one hand.

81783 402

81783 401

81783 201
WO AP 24 small worktop
- For WorkMo modules in 500 width (art. no. 81783)
- W x H x D 517 x 426 x 41 mm

81783 202
WO AP-T large workbench
- Suitable for various WorkMo modules
- While folded, the workbench can be placed in the transport rail (art. no. 81783 402) on the lower module
- W x H x D 1451 x 648 x 133 mm

81783 402
WO TS AP-T transport rail
- For workbench art. no. 81783 202
- Transport your workplace easily and flexibly
- The transport rail lets you conveniently fix the workbench art. no. 81783 202 to the WorkMo
- This provides mobility and flexibility at any time with your complete workstation

81783 401
EZ PS single lashing point
- For securing WorkMo workbenches

Type		W x H x D mm	81783 ...
WO AP 24	Worktop	517 x 426 x 41	**201**
WO AP-T	Workbench (w/o fig.)	1451 x 648 x 133	**202**
WO TS AP-T	Transport rail	-	**402**
EZ PS	Single lashing point	-	**401**

Continued

Continued

Sortimo
Intelligente Mobilität

81783 302

81783 302
WO RK VPE2 roller skids
- For WorkMo modules art. no. 81783 101–104
- With the roller skids, the WorkMo becomes a fully-fledged workshop trolley
- The roller skids are screwed onto the WorkMo and make it permanently mobile
- Two of the steering rollers can be locked
- Load capacity up to 150 kg

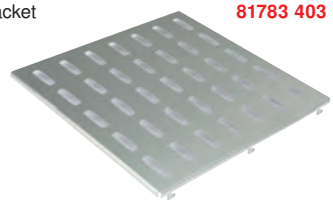
81783 301

81783 301
WO RO 24 rolling platform
- For WorkMo modules in 500 width (art. no. 81783)
- The roller made of high-quality beech multiplex makes the WorkMo completely mobile
- The fully rubberised rollers are sturdy and guarantee smooth running
- Easily connected to the WorkMo using the folding lever
- The flat surface also allows you to transport other materials

81783 400

81783 400
WO WH 20-3 stationary storage
- The WorkMo modules (art. no. 81783) can be used as a stationary workshop facility together with this wall bracket

81783 403



81783 403
WO SBAL 500 perforated aluminium sheet
- Clamp your tool to the sides of the WorkMo
- Have the tool to hand at all times and don't waste time looking for it
- Only for Sortimo original accessories!

81783 404

81783 404
WO SV 04-7 power supply
- Incl. mounting plate and cable hooks
- For attachment to the WorkMo module art. no. 81783

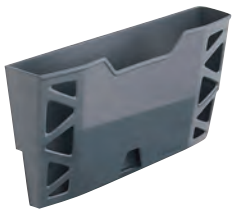
Advantages:
- Power supply directly on site
- Sturdy and splash-proof
- With flip cover
- Enables time-saving and efficient work
- Approved in accordance with BGV A3

Storage compartments
Storage compartments are the ideal storage place for consumables, documents and tools.
You can screw the storage compartments onto the side of the WorkMo so that you always have your documents, cans, consumables or tools ready at hand.

81783 405

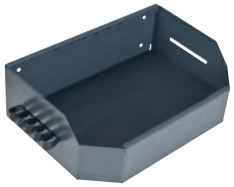
81783 405
AB 04-7KU storage compartment
- Made of plastic
- With clamping strip
- W x H x D 353 x 123 x 134 mm

81783 406



81783 406
AB 04-12K storage compartment for documents
- Made of plastic
- W x H x D 356 x 204 x 89 mm

81783 407



81783 407
AB G 04-7 large storage compartment
- With lateral terminal block
- W x H x D 356 x 115 x 252 mm

81783 408

81783 408
ARM AB G 04-7 non-slip mat
- For storage compartment art. no. 81783 407
- W x H x D 352 x 242 x 4 mm

81783 409

81783 409
WO ABLT 14-9 side table
- For sidewall made of metal
- Incl. non-slip mat
- W x H x D 353 x 152 x 229 mm

81783 410

81783 410
WKL 04-3 tool terminal block
- The tool clamping strip is mounted onto the side of the WorkMo
- Tools sit firmly and stay secured even during transport
- W x H x D 355 x 48 x33 mm

81783 411
SKH 73 SWA
Spray can holder
- For WorkMo

81783 411

81783 412
ZHL 04 hook strip
- With 3 hooks
- For the storage of cables, hoses and clothing
- W x H x D 355 x 51 x 80 mm

81783 412

81783 413
PSH RA 3.5 securing strap
- Length: 3.5 m
- For securing the WorkMo modules (art. no. 81783) in a vehicle (ProSafe)

81783 413

81783 414
PSH RA 6 securing strap
- Length: 6 m
- For securing the WorkMo modules (art. no. 81783) in a vehicle (ProSafe)

81783 414

81783 415
WO SSA1 screw set
- For mounting WorkMo attachments art. no.

81783 404
81783 405
81783 406
81783 407
81783 409
81783 410
81783 412

Type		W x H x D mm	81783 ...
WO RK VPE2	Roller skids	-	302
WO RO 24	Rolling platform	-	301
WO WH 20-3	Stationary storage	-	400
WO SBAL 500	Perforated aluminium sheet	-	403
WO SV 04-7	Power supply	-	404
AB 04-7KU	Storage compartment	353 x 123 x 134	405
AB 04-12K	Storage compartment for documents	356 x 204 x 89	406
AB G 04-7	Large storage compartment	356 x 115 x 252	407
ARM AB G 04-7	Non-slip mat	352 x 242 x 4	408
WO ABLT 14-9	Side table	353 x 152 x 229	409
WKL 04-3	Tool clamping strip	355 x 48 x 33	410
SKH 73 SWA	Spray can holder	-	411
ZHL 04	Hook strip	355 x 51 x 80	412
PSH RA 3.5	Securing strap length 3.5 m	-	413
PSH RA 6	Securing strap length 6.0 m	-	414
WO SSA1	Screw set (top fig.)	-	415

86935 Brass padlocks

Design
Sturdy barrel lock. Solid brass body. Shackle hard as steel. Lock and key. Individually keyed.

86935

Dimensions W x D x H mm	Shackle Ø mm	Clear shackle height mm	Clear shackle width mm	86935	...
29 x 13 x 46	5	16	14.3		101
39 x 13 x 61	6	22	20.0		102
48 x 14 x 71	7	26	25.0		103

86931 Padlocks

Design
Housing painted black. Zinc-plated shackle. Nickel-plated key with interlocks and 2 mandrel keys. Individually keyed.

86931

Dimensions W x D x H mm	Shackle Ø mm	86931	...
40 x 15 x 35	6		202
50 x 19 x 41	7		203

86936 Brass padlocks

Design
High-precision reversible locking system with up to approx. 10,000 different locking options. Lock body made of solid brass. Internal parts made of corrosion-protected, high-quality materials. Double locking. Automatic locking. Hardened shackle. Precision pin cylinder with mushroom-head pins. Off-centre key profile for improved protection from manipulation.

86936 101
Design
Individually keyed.

86936 102
Design
Keyed alike.

86936

Design	Dimensions W x D x H mm	Shackle Ø mm	86936	...
Individually keyed	40 x 15.5 x 61.5	7		101
Keyed alike	40 x 15.5 x 61.5	7		102

86934 Padlocks

Design
- Solid lock made of TITALIUM™ special aluminium
- Special steel shackle with NANO Protect™ coating for excellent corrosion protection
- Off-centre key profile for improved protection from manipulation
- Double U-locking
- Chrome-plated cylinder cores for additional corrosion protection
- Tulip-shaped key head

Applications
Securing moderate-value goods/items (chains, doors, gates, cabinets, lockers, tool boxes, cellar windows, sheds, etc.) or items with an above-average risk of theft.

86934 High shackle

NEW

86934

Design	Dimensions W x D x H mm	Shackle Ø mm	Clear shackle height mm	Clear shackle width mm	Number supplied Key	High Lock	Weight g	86934	...
Keyed alike	30 x 13 x 50	5	17	16	2	-	53		101
Keyed alike	30 x 13 x 93	5	60	16	2	x	65		102
Keyed alike	40 x 15 x 62	6	23	22	2	-	87		103
Keyed alike	40 x 15 x 79	6	40	22	2	x	96		104
Keyed alike	40 x 15 x 102	6	63	22	2	x	107		105
Individually keyed	30 x 13 x 50	5	17	16	2	-	53		201
Individually keyed	30 x 13 x 93	5	60	16	2	x	65		202
Individually keyed	40 x 15 x 62	6	23	22	2	-	87		203
Individually keyed	40 x 15 x 79	6	40	22	2	x	96		204
Individually keyed	40 x 15 x 102	6	63	22	2	x	107		205

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86930 Padlocks myLock

Design
- Lock body made of lightweight, solid aluminium
- Double U-locking
- Internal parts made of stainless materials
- Hardened steel shackle
- Precision pin cylinder
- Off-centre key profile for improved protection from manipulation
- Plastic coating in different colours
- Can be locked automatically without using a key by pressing down on the shackle
- Incl. 2 keys
- Individual labelling possible on the back of the lock

Applications
Protection of medium-value assets/objects or where there is a moderate risk of theft.
Ideal for securing individual lockers and cabinets (e.g. in fitness centres), basement storage areas, tool boxes, etc.

86930

Colour	Dimensions W x D x H mm	Shackle Ø mm	Clear shackle height mm	Clear shackle width mm	Locking elements Pin pairs	86930	...
black	43 x 18 x 62	6.5	23	22	5		101
white	43 x 18 x 62	6.5	23	22	5		102
red	43 x 18 x 62	6.5	23	22	5		103
blue	43 x 18 x 62	6.5	23	22	5		104
yellow	43 x 18 x 62	6.5	23	22	5		105
purple	43 x 18 x 62	6.5	23	22	5		106

86929 Combination lock 155 Colour

Design
- Stable die-cast zinc housing with steel shackle
- Individually adjustable, 3-digit code

Applications
Protection of smaller-value assets/objects or items with a low risk of theft.
Suitable for securing bags, suitcases, cases, cash boxes, lockers, etc.

86929

Colour	Size mm	Shackle Ø mm	Clear shackle height mm	Clear shackle width mm	86929	...
black	34	5	19.5	14.5		101
white	34	5	19.5	14.5		106

86937 Brass combination locks

Design
Solid brass body. Shackle made of steel.
With customisable numerical code.

Applications
For convenient operation e.g. schools, companies, securing luggage.

86937 101 86937 102

Dimensions W x D x H mm	Shackle Ø mm	86937	...
30.5 x 15 x 65	5		101
40.0 x 16 x 77	6		102

86938 Padlocks Original ABUS-DISKUS

Design
- 100% weatherproof
- Made entirely of stainless material
- Shackle made of stainless steel
- Round shape plus narrow shackle opening impedes access using theft tools
- Additional saw protection

- Top quality welding seam
- Double locking
- Precision pin cylinder with mushroom head pins
- Individually keyed

86938

Dimensions W x D x H mm	Shackle Ø mm	86938	...
51 x 25.5 x 50	6.5		101
70 x 31.0 x 70	10.0		102

86932 Brass padlocks INOX

Design
Stainless steel. Brass shackle with double locking. Real pin cylinder. Quick closure by snapping in the shackle without putting in the key.
2 keys. Individually keyed.

Applications
Especially suitable for severe weather influences. Ideal for securing items on vehicles and boats.

86932 102

86932 101

Dimensions W x D x H mm	Shackle Ø mm	86932 ...
32 x 16 x 45	5.0	101
43 x 17 x 60	6.5	102

86933 Padlock Aqua Safe

Design
Encapsulated lock body offers protection against water and dirt. Impact-resistant plastic casing for increased security and scratch protection. Special key hole covering protects the cylinder from dust and dirt. Solid brass lock body provides optimal corrosion protection. Precision pin cylinder made from stainless materials. Shackle made from stainless steel, double locked. Stainless and resistant to seawater.

Applications
Particularly suitable for extremely severe weather and environmental influences. Ideal for securing items on vehicles and boats.

86933

Dimensions W x D x H mm	Shackle Ø mm	Clear shackle height mm	Clear shackle width mm	Locking elements Pin pairs	86933 ...
49 x 28 x 68	8	24	20	5	101

86940 Key cabinets with safety lock

Design
- Compact, very flat shape requires only minimal space
- **Built-in safety lock with 2 numbered keys**
- **Fixed, numbered hook strips**
- Powder-coated sheet steel
- Matt, resistant surface
- **Colour:** RAL 7035 Light grey
- Incl. fastening material for wall mounting
- Delivery without key fob

Note:
Key fobs, see art. no. 86945 101.

86940 301

86940 303

86940 302

86940 304

Hook Quantity	Height mm	Width mm	Depth mm	86940 ...
24	250	180	60	301
36	250	180	60	302
70	370	280	60	303
110	370	280	80	304

86941 Key cabinets XL with safety lock

Design
- Compact shape
- **Built-in safety lock with 2 numbered keys**
- **10 consecutively numbered and individually adjustable hook strips**
- Sturdy, hinged internal plate
- 2 swivelling index directories, protected in PVC sleeves
- Powder-coated sheet steel
- Matt, resistant surface
- **Colour:** RAL 7035 Light grey
- Incl. fastening material for wall mounting
- Delivery without key fob

Note:
Key fobs, see art. no. 86945 101.

86941 301

86941 302

Hook Quantity	Height mm	Width mm	Depth mm	86941 ...
150	550	380	140	301
200	550	380	140	302

Factory equipment

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86942 Key cabinets with mechanical combination lock

Design
- Compact shape
- **Safety lock can be set individually using 3-digit code**
- This means that a large number of users can be granted or refused access at any time without any need for the key
- **Fixed hook strips can be labelled using the included self-adhesive number strips**
- Powder-coated sheet steel
- Matt, resistant surface
- **Colour:** RAL 7035 Light grey
- Incl. operating instructions and fixing material for wall mounting
- Delivery without key fob

Note:
Key fobs, see art. no. 86945 101.

86942 401

86942 402

86942 403

Hook Quantity	Height mm	Width mm	Depth mm	86942	...
24	250	186	94		**401**
36	300	243	94		**402**
60	370	288	94		**403**

86943 Key cabinets with electronic lock

Design
- **Electronic dial lock, easy to program with a user code (3 to 8-digit)**
- This means that a large number of users can be granted or refused access at any time without any need for the key
- Using the additional built-in barrel lock, the key cabinet can also be opened mechanically in emergencies (2 numbered keys are supplied)
- **Adjustable hook strips, numbered according to capacity**
- Swivelling key list for a clear overview
- Powder-coated sheet steel
- Matt, resistant surface
- **Colour:** RAL 7035 Light grey
- Incl. 4 x 1.5V AA batteries and fastening material for wall mounting
- Delivery without key fob

Note:
Replacement batteries, see art. no. 39900 303.
Key fobs, see art. no. 86945 101.

86943 501

86943 502

Hook Quantity	Height mm	Width mm	Depth mm	86943	...
21	350	270	95		**501**
32	450	300	95		**502**

86945 Key fobs

Design
- Sorted by colour
- Without numbers

Applications
For art no. 86940–86943.

86945

Pack = Units	86945	...
10		**101**

Factory equipment

Individual project planning

With us, you receive everything from a single source

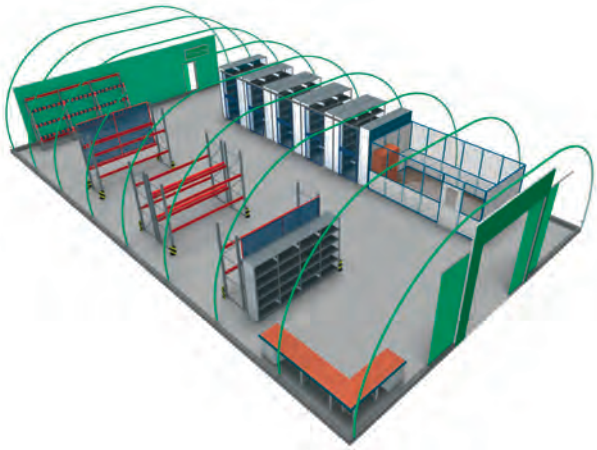
Whether planning a single cupboard or an entire workshop.
We plan your factory equipment to scale directly in your architect's plan, if this is available. As a complete provider of factory equipment, we supply you with everything from a single source.

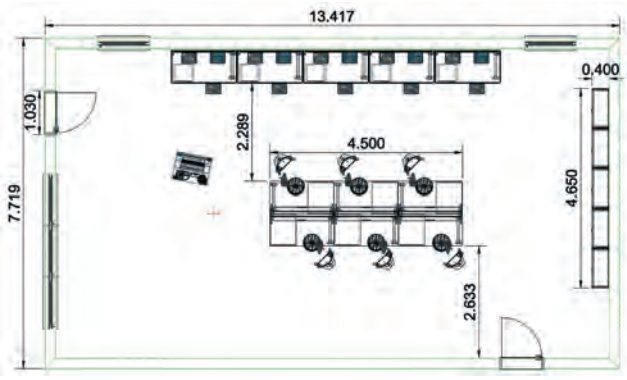
To plan your workshop/office, we use CAD support tailored to your individual requirements.

Do you have any questions? We will be happy to provide advice.

Your benefits:
- Expert advice from planning to installation
- Fast and straightforward presentation of your planning in 3D
- Workflows can be optimised through CAD-supported planning

Factory equipment from HHW – a complete package





87000 Crash protection bar

NEW

Design
- For anchoring to floor panel
- Bent from one piece
- No welding seams
- Yellow, plastic-coated
- Black signal stripes

Advantage
- Effectively prevents collision damage
- Secures inventory, transport routes and work areas
- Prevents hard shocks

Scope of delivery
Fastening material for anchoring is not included in the standard scope of delivery.

Applications
For indoor use.
Hoop guards separate different transport routes (e.g. forklift and foot traffic).
They protect machines, pillars, columns, posts, shelves, (rolling) gates, loading ramps, etc.

Quality
Heavy-duty hoop guards made of high-grade steel.

Note:
Available for cementing on request (without surcharge).

87000 101

87000 202

87000 101+102

87000 302

Height mm	Width mm	Ø mm	Wall thickness mm	Floor panel mm	Weight kg	87000 ...
350	375	76	3	160 x 140 x 10	10	**100**
350	750	76	3	160 x 140 x 10	12	**101**
350	1000	76	3	160 x 140 x 10	13	**102**
600	750	76	3	160 x 140 x 10	14	**201**
600	1000	76	3	160 x 140 x 10	16	**202**
1200	750	76	3	160 x 140 x 10	20	**301**
1200	1000	76	3	160 x 140 x 10	22	**302**

87001 Corner hoop guard

NEW

Design
- Three-legged „corner version" of the crash protection bar art. no. 87000
- For anchoring to floor panel
- Yellow, plastic-coated
- Black signal stripes

Advantage
- Effectively prevents collision damage
- Secures inventory, transport routes and work areas
- Protects corners
- Prevents hard shocks

Scope of delivery
Fastening material for anchoring is not included in the standard scope of delivery.

Applications
For indoor use.
The corner hoop guards protect machines, pillars, columns, posts, shelves, etc.

Quality
High-quality steel.

Note:
Available for cementing on request (without surcharge).

87001 100

87001 101

Height mm	Width x depth mm	Ø mm	Wall thickness mm	Floor panel mm	Weight kg	87001 ...
350	600 x 600	76	3	160 x 140 x 10	20	**100**
600	600 x 600	76	3	160 x 140 x 10	24	**101**
1200	600 x 600	76	3	160 x 140 x 10	34	**102**

87005 Hoop guard

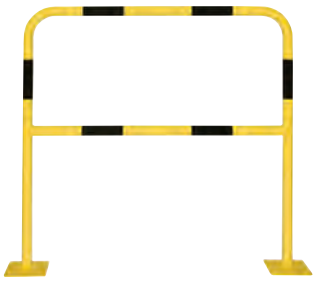
Design
- Lightweight steel hoop guard
- For anchoring to floor panel
- Bent steel tube
- With additional knee strut
- Yellow, plastic-coated
- Black signal stripes

Scope of delivery
Fastening material for anchoring is not included in the standard scope of delivery.

Applications
For indoor use.
For separating work areas during operation and storage areas.
For protecting machines.
For securing walking routes.

NEW

87005 100-101



Width mm	Height mm	Ø mm	Wall thickness mm	Floor panel mm	Weight kg	87005	...
1000	1000	40	1.5	150 x 150 x 6	9		**100**
1500	1000	40	1.5	150 x 150 x 6	11		**101**
2000	1000	40	1.5	150 x 150 x 6	13		**102**

87010 Crash protection bollards

Design
- For anchoring to floor panel
- Extremely high load capacity
- Extremely thick-walled

Advantage
- Effectively prevents collision damage
- Secures inventory, transport routes and work areas

Scope of delivery
Fastening material for anchoring is not included in the standard scope of delivery.

Applications
For indoor and outdoor use.
Crash protection bollards protect machines, pillars, columns, posts, shelves, (rolling) gates, loading ramps, etc.
Depending on the intended use, four sections are available, for moderate to extremely strong forces.
The **crash protection bollards L to XXL** are especially suitable for critical areas:
HGV and forklift routes, entrances, building corners.
If space is limited, we recommend the **crash protection bollard S.**

Quality
Extremely durable bollard made from high-grade steel.

87010 100-103
Design
- Hot-dip zinc-plated
- Yellow, plastic-coated
- Black painted stripes

87010 200-201
Design
- Hot-dip zinc-plated
- White plastic-coated
- Red painted stripes

NEW

87010 100-201

Type	Ø mm	Overall height mm	Material thickness mm	Weight kg kg	yellow/black 87010	...	red/white 87010	...
S	90	1200	3.6	14.5		**100**		**200**
L	159	1200	4.5	33.5		**101**		**201**
XL	194	1200	4.5	42.0		**102**		
XXL	273	1200	5.0	51.0		**103**		

87015 100-401
Wall-mounted belt barriers
Design
- The self-tensioning belt can easily be extended and attached to a wall clip (art. no. 87015 500–501)
- The tension spring ensures the controlled return of the self-retracting belt tape

Two belts can be connected using the belt connector (art. no. 87015 502), to create barriers of up to 8 m
Advantage
- Strong warning effect

Applications
For indoor and outdoor use.
Quickly and effectively block or release paths on a temporary basis.
Quality
Wall bracket made of high-strength ABS plastic.

87015 100-201
Design
- Magnetic wall bracket and wall clip (art. no. 87015 501)

Applications
Enables attachment to metallic surfaces, e.g. in storage/shelving area.

87015 300-401
Design
- Belt cassette and wall clip (art. no. 87015 500)

Applications
For screwing on e.g. wall, pillar.

87015 500-502
Accessories for wall-mounted belt barriers

NEW

87015 501
Magnetic wall clip
Design
- Plastic, black

Applications
For wall-mounted belt barriers art. no. 87015 100-201.

87015 500
Screw-on wall clip
Design
- Plastic, black

Applications
For wall-mounted belt barriers art. no. 87015 300-401.

87015 502
Belt connector
Design
- Plastic, black

Applications
For wall-mounted belt barriers art. no. 87015 100-401.

87015 100-101

87015 400-401

87015 501

87015 500

87015 502

Belt colour, cross-hatched						yellow/black		red/white	
Design Wall-mounted belt barrier	Belt length m	Belt width mm	Bracket Height mm	Bracket Depth mm	Weight kg	87015	...	87015	...
Magnetic	3	50	130	110	1.5		100		200
Magnetic	4	50	130	110	1.6		101		201
For screwing onto the wall	3	50	130	110	1.4		300		400
For screwing onto the wall	4	50	130	110	1.5		301		401

Accessories	Use For wall-mounted belt barriers art. no.	Material	Colour	Weight kg	87015	...
Wall clip, magnetic	87015 100–201	plastic	black	0.3		501
Wall clip for screwing on	87015 300–401	plastic	black	0.2		500
Belt connector	87015 100–401	plastic	black	0.2		502

87016 Warning post with belt barrier

Design
- Sturdy, stable warning and guidance system
- The self-tensioning belt can easily be pulled out of the cassette and mounted onto the next belt stand
- The tension spring ensures the controlled return of the self-retracting belt tape
- Each belt barrier warning post has one outgoing belt and three mounts for incoming belts
- The plastic foot can be filled with sand or ballast chippings on site (13.5 kg)
- White reflectors ensure good visibility at night
- Optional: Permanent fixing using four integrated anchor mounts (fastening material for anchoring is not included in the standard scope of delivery)

Advantage
- Strong warning effect
- Very stable

Applications
For indoor and outdoor use.
Quickly ready for operation to block paths and spaces or organise routes for foot traffic.
For industry, warehouses, parking garages, open spaces, etc.

Quality
Top part made of painted aluminium.

NEW

87016 200-201

87016 100-101

Post Colour	Belt tape Colour	Belt length mm	Belt width mm	Overall height mm	Ø Post mm	Ø Base plate mm	Weight kg	87016 ...
yellow	yellow/black	3000	50	985	60	330	2.9	**100**
yellow	yellow/black	4000	50	985	60	330	2.9	**101**
red	red/white	3000	50	985	60	330	2.9	**200**
red	red/white	4000	50	985	60	330	2.9	**201**

87020 Chain warning posts

Design
- Top part made of plastic
- Cap with four integrated chain mounts
- Post with integrated plug connector for secure attachment to the base plate

Advantage
- Low weight
- Low centre of gravity, stable
- Cordon off quickly and with ease

Applications
For indoor and temporary outdoor use.
For simple, fast and mobile cordoning off in storage, production, shipping and administration areas.

Note:
Maximum distance between chain stands when using plastic chains: 2.0 m.

NEW

87020 100

87020 200

87020 100-101

Foot Material	Foot Shape	Foot Side length mm	Overall height mm	Ø Post mm	Weight kg	red/white 87020 ...	yellow/black 87020 ...
Plastic, concrete-filled	triangular	300	870	40	3.4	**100**	**200**
Solid rubber	square	265	870	40	2.3	**101**	**201**

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85592 Observation mirror

Design
- Observation and control mirror for indoors made of acrylic glass
- Prevents accidents
- Prevents theft
- Light as a feather, no risk of injury
- Extremely impact resistant
- Excellent visual properties
- Strong wide-angle effect: Recommended for a short observation distance and medium to large observation field
- Can be mounted on straight surfaces (e.g. walls, beams, joists) using the supplied bracket
- Easy adjustment to any desired observation point

Applications
Ideal for rooms with foot traffic.
Proven use in production halls, warehouse areas, self-service markets, sales spaces, public facilities.

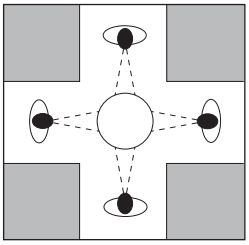
85592 101-103

Mirror size mm	Max. observation distance m	Wall distance approx. mm	85592 ...
400	3	250	101
500	5	250	102
600	7	250	103

85592 Four-way mirror PANORAMA-360

Design
- Hemispherical safety mirror for indoors made of acrylic
- Distortion-free 360° visibility
- Accelerates the flow of traffic
- Prevents accidents and theft
- Extreme wide-angle effect
- Lightweight and shockproof
- No risk of injury
- Recommended by professional associations
- Amortisation even after a short period of use
- Simple to install: Screw directly onto straight surfaces (e.g. ceilings, beams, joists) or mount freely suspended using an assembly kit

Applications
Ideal for forklift traffic.
For production halls, warehouses, showrooms, hospitals.



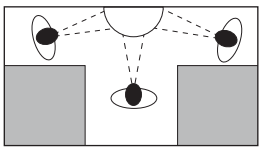
85592 104

Mirror size mm	Max. observation distance m	Viewing angle degrees	85592 ...
800	4	360	104

85592 Three-way mirror PANORAMA-180

Design
- As a three-way mirror, the PANORAMA-180 is perfect for improving safety at narrow, internal T-crossings
- Installed directly at the junction, a PANORAMA-180 provides optimal safety from all sides
- Especially flat construction for minimal space requirements
- Mounted using conventional screws

Applications
The super-wide-angle mirror provides an overview in critical areas: Narrow passages, blind spots in industrial and administrative buildings, hospitals, hotels, retail.

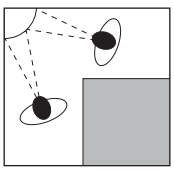


85592 105

Mirror size mm	Max. observation distance m	Viewing angle degrees	85592 ...
800 x 410 x 320	6	180	105

85592 Two-way mirror PANORAMA-90

Design
- As a two-way mirror, the PANORAMA-90 is perfect for improving safety in branching transport routes
- Thanks to its space-saving corner placement, it ensures unrestricted freedom of movement



85592 106

Mirror size mm	Max. observation distance m	Viewing angle degrees	85592 ...
400 x 400 x 330	4	90	106

87030 Floor marking tape DURALINE STRONG

DURABLE

Design
- Self-adhesive
- Extra strong
- Abrasion-resistant and durable thanks to extruded material with tape thickness of 1.2 mm
- Suitable for forklift traffic except with steering, braking and twisting movements
- In accordance with ASR A1.5/1.2 „Floors" as per DIN 51130 slip prevention (R group) R10

Advantage
- Bevelled edges provide strong adhesive force

Applications
For indoor use.
For resilient, long-term marking of footpaths and driveways in the warehouse and operations.

87030 100

87030 101

NEW

87030 102

Colour shade	Width mm	Thickness mm	Length m	87030	...
RAL 1003 Signal yellow	50	1.2	30		100
RAL 3001 Signal red	50	1.2	30		101
RAL 6032 Signal green	50	1.2	30		102

87031 Floor marking tape DURALINE STRONG 2 COLOUR

DURABLE

Design
- Self-adhesive
- Two-tone
- Tape thickness: 0.7 mm
- Suitable for forklift traffic except with steering, braking and twisting movements
- In accordance with ASR A1.5/1.2 „Floors" as per DIN 51130 slip prevention (R group) R9

Applications
For indoor use.
For resilient, long-term marking of footpaths and driveways in the warehouse and operations.

87031 100

87031 101

NEW

87031 102

Colour shade	Width mm	Thickness mm	Length m	87031	...
Similar to RAL 1003 Signal yellow/9004 Signal black	50	0.7	30		100
similar to RAL 3001 Signal red/9003 Signal white	50	0.7	30		101
similar to RAL 6032 Signal green/9003 Signal white	50	0.7	30		102

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87032 Parking space markings/floor marking in „foot" shape

DURABLE

Design
- Self-adhesive symbol
- Abrasion-resistant
- Durable
- Colour: RAL 1003 Signal yellow
- In accordance with ASR A1.5/1.2 „Floors" as per DIN 51130 slip prevention (R group) R9

Applications
- For attaching to floors indoors.

NEW

87032 100 | 87032 101 | 87032 102

87032 103 | 87032 104 | 87032 105 | 87032 106

87032 100-105
Parking space markings
Applications
For identifying hazardous areas, parking spaces, walkways, etc.

87032 106
Floor marking in „foot" shape
Applications
For identifying footpaths.

Shape	Width mm	Length mm	Thickness mm	Pack = Units	87032	...
T	100	150	0.7	10		100
Cross	150	150	0.7	10		101
L	100	100	0.7	10		102
Dash	50	150	0.7	10		103
Dot	100	100	0.7	10		104
Arrow	100	200	0.7	10		105
Foot	90	240	0.7	5 L/5 R		106

87033 Safety label

DURABLE

Design
- Self-adhesive
- Abrasion-resistant
- Durable
- In accordance with ASR A1.3 and ASR A1.5/1.2 „Floors" as per DIN 51130 slip prevention (R group) R 9

Applications
For attaching to floors indoors, such as in warehouses, distribution centres, production areas. For identifying hazardous areas, parking spaces, walkways, etc.

NEW

87033 100 | 87033 102 | 87033 104 | 87033 106

87033 101 | 87033 103 | 87033 105 | 87033 107

Safety label	Ø mm	Dimensions mm	Thickness mm	DIN	Pack = Units	87033	...
Smoking prohibited	430	-	0.4	DIN EN ISO 7010	1		100
Use hearing protection	430	-	0.4	DIN EN ISO 7010	1		101
Access prohibited	430	-	0.4	DIN 4844-2	1		102
Use pedestrian walkway	430	-	0.4	DIN EN ISO 7010	1		103
Prohibited for pedestrians	430	-	0.4	DIN EN ISO 7010	1		104
Use foot protection	430	-	0.4	DIN EN ISO 7010	1		105
Warning about forklift trucks	-	430 x 378 (= edge length 430)	0.4	DIN EN ISO 7010	1		106
Use safety vest	430	-	0.4	DIN EN ISO 7010	1		107

87040 Floor marker New Perfekt Striper® and floor marking sets

87040 100
Floor marker New Perfekt Striper®
Design
- Simplified stroke width setting of 3–10 cm
- Quick conversion to marking stick
- New ergonomic handle for triggering the spray can more easily
- Reinforced, highly resistant housing
- Adjustable direction arrow for following pre-marking
- Wind protection for precise markings
- Wide wheels for greater stability allows perfect straight markings
- Bracket for 3 replacement cans for quick availability of colour

Advantage
- No maintenance and servicing required

Scope of delivery
- Side striper for markings close to wall
- For pre-marking (essential for straight lines): Chalk line 30 m and 100 g marking powder
- Operating instructions
- Parking space plans

Applications
With ground marking colours Traffic, Traffic Extra and Traffic Protector (art. no. 87041 100–109).

87040 101
Ground marking set Traffic Yellow
Scope of delivery
- 1 x ground marking device New Perfekt Striper®
- 12 x cans of ground marking colours Traffic, colour Yellow (art. no. 87041 101)

87040 102
Floor marking set Traffic White
Scope of delivery
- 1 x ground marking device New Perfekt Striper®
- 12 x cans of floor marking colour Traffic, colour White (art. no. 87041 100)

87040 103
Floor marking set Traffic Extra Yellow
Scope of delivery
- 1 x ground marking device New Perfekt Striper®
- 12 x cans of floor marking colour Traffic Extra, colour Yellow (art. no. 87041 108)

87040 104
Floor marking set Traffic Extra White
Scope of delivery
- 1 x ground marking device New Perfekt Striper®
- 12 x cans of floor marking colour Traffic Extra, colour White (art. no. 87041 107)

NEW

87040 100

	87040 ...
Floor marker New Perfekt Striper®	100
Floor marking set Traffic Yellow	101
Floor marking set Traffic White	102
Floor marking set Traffic Extra Yellow	103
Floor marking set Traffic Extra White	104

87041 Floor marking colours/special sealing paint

Applications
For professional and economic marking indoors and outdoors. Clean-edged markings on parking spaces and traffic routes.

Note:
The rule for working facilities ASR A1.3 requires vehicle boundaries to be made clearly recognisable and consistent on the floor.
To ensure this, the chosen colour must be well visible. Before application, the floor should be cleaned or cleared of dust.

87041 100-106
Floor marking colour Traffic
Design
- High pigment content for normal applications
- Abrasion-resistant and weatherproof (abrasion resistance may vary depending on the ground conditions and weather)
- New special nozzle for extremely clean-edged marking
- Green dot for problem-free disposal
- Without CFCs, lead, cadmium and toluene
- Dry: approx. 20 minutes
- Hardened: approx. 4 hours
- Fit for traffic: approx. 12 hours

87041 107-108
Floor marking colour Traffic Extra
Design
- Very high coverage for very high usage requirements, e.g. lorry fleet
- With very high pigment content
- Very abrasion resistant and weatherproof
- Plus the same positive properties as marking colour Traffic (art. no. 87041 100–106)

87041 109
Special sealing varnish Traffic Protektor
Applications
Especially in areas with high mechanical exposure, the new transparent special sealing varnish protects markings from increased abrasion and contamination. After the markings have dried, apply the sealing varnish using the ground marker New Perfect Striper® (art. no. 87040 100). This increases the service life of the markings.

NEW

87041 100 | 87041 101 | 87041 102

87041 103 | 87041 104 | 87041 105

87041 106 | 87041 107 | 87041 108

87041 109

Type	Colour	Can content ml		87041 ...
Floor marking colour Traffic	White	500	12 units	100
Floor marking colour Traffic	Yellow	500	12 units	101
Floor marking colour Traffic	Red	500	12 units	102
Floor marking colour Traffic	Blue	500	12 units	103
Floor marking colour Traffic	Green	500	12 units	104
Floor marking colour Traffic	Grey	500	12 units	105
Floor marking colour Traffic	Black	500	12 units	106
Floor marking colour Traffic Extra	White	500	12 units	107
Floor marking colour Traffic Extra	Yellow	500	12 units	108
Special sealing varnish Traffic Protektor	Transparent	500	12 units	109

87042 Template sets

Design
- Made of oiled, reinforced special cardboard
- Reusable

Applications
Use the spray templates for the following markings on your company premises: entrances, exits and car parks, reserved areas, visitor parking and parking spaces for disabled persons.

87042 100
Template set KIT no. 1
Design
Consisting of 8 templates with text and symbols:
- Entrance/exit
- Car parks
- Reserved
- Visitors
- Stop
- Disabled symbol
- 2 x arrow combinations

87042 101
Template set KIT no. 2
Design
Consisting of 6 templates with numbers:
- 1 2
- 3 4
- 5 6
- 7 8
- 9 0
- 1 2 3 4 5 / 6 7 8 9 0

87042 102
Template set KIT no. 3
Design
Consisting of 6 templates with capital letters, symbols and characters:
- A B C D E F G H I J
- K L M N O P Q R S T
- U V W X Y Z - · /
- Disabled symbol
- Pedestrian
- Bicycle

87042 103
Template set KIT industry
Design
Consisting of 6 templates with actions:
- Forklift driver
- Arrow
- Walking route
- Pedestrian
- Markings (various)
- Assembly point

87042 104
Template set KIT car park marking
Design
Consisting of 12 templates with markings:
- Markings (various)

87042 105
Template set KIT zebra
Design
Consisting of 12 templates:
- For 860 cm zebra stripes

87042 100

87042 101

87042 102

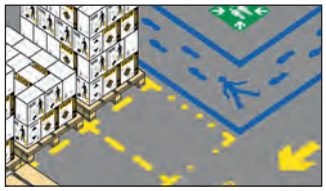
87042 103

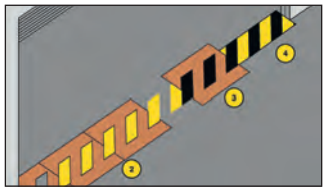
87042 104

87042 105

87042 100 Template set KIT no. 1	Letter height mm	Word width mm	Letter width mm	Height mm	Width mm
Entrance/exit	46	645	60	-	-
Car park	210	700	127	-	-
Reserved	128	700	50	-	-
Visitors	157	685	60	-	-
Stop	400	700	160	-	-
Disabled symbol	-	-	-	710	570
Arrow combination 1	-	-	-	380	530
Arrow combination 2	-	-	-	60–140	410–530

87042 101 Template set KIT no. 2	Number height mm	Number width mm
1 2	380	1 = 95, 2 = 250
3 4	380	250
5 6	380	250
7 8	380	250
9 0	380	255
1 2 3 4 5 / 6 7 8 9 0	230	100





87042 102 Template set KIT no. 3	Letter height mm	Letter width mm	Height mm	Width mm
A B C D E F G H I J	230	100	-	-
K L M N O P Q R S T	230	100	-	-
U V W X Y Z - · /	230	100	-	-
Disabled symbol	-	-	710	570
Pedestrian	-	-	710	570
Bicycle	-	-	710	570

87042 103 Template set KIT industry	Height mm	Width mm	Length mm
Forklift driver	530	600	-
Arrow	-	400	600
Route	-	-	300
Pedestrian	620	400	-
Markings (various)	-	-	-
Assembly point	500	500	-

87042 105 Template set KIT zebra	Height mm	Width mm
Strips	300	175

Template set KIT	Templates Units	87042	...
No. 1	8		100
No. 2	6		101
No. 3	6		102
Industry	6		103
Parking space marking	12		104
Zebra	12		105

87050 - 87051 Self-adhesive label pockets/identification pockets

NEW

DURABLE

Design
- 2 rear-sided permanent adhesive strips
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof

Advantage
- Supports optimised marking in production and storage
- Rapid replacement of slot-in labels

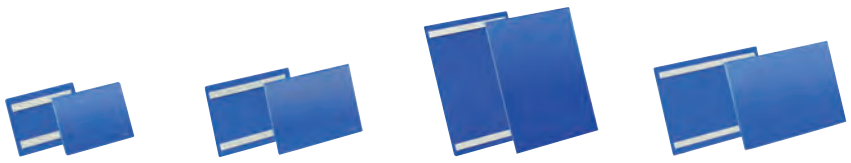
Applications
Use on plastic containers, wood and cardboard boxes.

Quality
Sheets made of durable polypropylene.

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

87050 100 87050 101 87050 102 87050 103

87051 100 87051 101 87051 102 87051 103



Label pocket

Internal format W x H mm	DIN format	External format W x H x D mm	Pack = Units	87050	...
100 x 38	-	113 x 53.0 x 1.7	50		100
150 x 67	-	163 x 83.0 x 1.7	50		101
210 x 74	1/2 A5 landscape	223 x 81.5 x 1.7	50		102
297 x 74	1/3 A4 landscape	311 x 81.5 x 1.7	50		103

Label pocket

Internal format W x H mm	DIN format	External format W x H x D mm	Pack = Units	87051	...
148 x 105	A6 landscape	163 x 120 x 1.7	50		100
210 x 148	A5 landscape	223 x 163 x 1.7	50		101
210 x 297	A4 portrait	233 x 313 x 1.7	50		102
297 x 210	A4 landscape	311 x 225 x 1.7	50		103

87052 - 87053 Magnetic label pockets/identification pockets

NEW

DURABLE

Design
- 2 rear-sided magnetic strips
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof

Advantage
- Optimal marking in production and storage
- Rapid replacement of slot-in labels

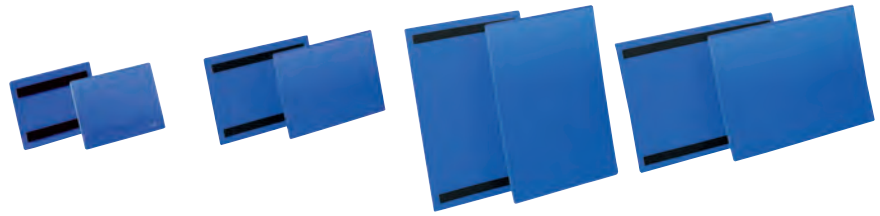
Applications
Use on metallic surfaces such as storage racks and metal containers.

Quality
Sheets made of durable polypropylene.

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

87052 100 87052 101 87052 102 87052 103

87053 103 87053 100 87053 101 87053 102



Label pocket

Internal format W x H mm	DIN format	External format W x H x D mm	Pack = Units	87052	...
100 x 38	-	113 x 53.0 x 2.3	50		100
150 x 67	-	163 x 83.0 x 2.3	50		101
210 x 74	1/2 A5 landscape	223 x 81.5 x 2.3	50		102
297 x 74	1/3 A4 landscape	311 x 81.5 x 2.3	50		103

Label pocket

Internal format W x H mm	DIN format	External format W x H x D mm	Pack = Units	87053	...
148 x 105	A6 landscape	163 x 120 x 2.3	50		103
210 x 148	A5 landscape	223 x 163 x 2.3	50		100
210 x 297	A4 portrait	233 x 313 x 2.3	50		101
297 x 210	A4 landscape	311 x 225 x 2.3	50		102

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

87054 Neodymium magnetic pockets

DURABLE

Design
- Strong adhesive force due to two welded neodymium strong magnets
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof
- Rain protection flap protects documents from dust and moisture

Advantage
- Rapid replacement of slot-in labels

Applications
- Use on metallic surfaces such as crates, pipes and mobile transport containers.

Quality
Sheets made of durable polypropylene.

NEW

87054 100 87054 101 87054 102

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

Internal format W x H mm	DIN format	External format W x H mm	Pack = Units	87054	...
210 x 148	A5 landscape	223 x 218	10		**100**
210 x 297	A4 portrait	233 x 368	10		**101**
297 x 210	A4 landscape	311 x 280	10		**102**

87055 Identification pockets with fold

DURABLE

Design
- Stable fold
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof

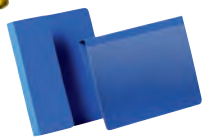
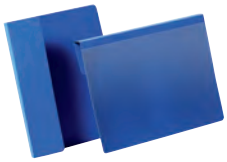
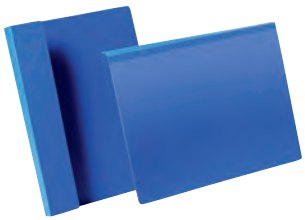
Advantage
- Reusable
- Rapid replacement of slot-in labels

Applications
For hanging over cardboard, boxes or other containers.For inserting between stacked-up cardboard boxes.For identification in production and warehouse areas.

Quality
Sheets made of durable hard film.

NEW

87055 100 87055 101 87055 102

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

Internal format W x H mm	DIN format	External format W x H x D mm	Pack = Units	87055	...
148 x 105	A6 landscape	216 x 168 x 0.6	50		**100**
210 x 148	A5 landscape	259 x 230 x 0.6	50		**101**
297 x 210	A4 landscape	321 x 317 x 0.6	50		**102**

87057 Pallet foot sleeve

DURABLE

Design
- Hook and loop closure
- Thumb slot for easy insertion of slot-in labels
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof

Advantage
- Easy to secure
- 4-sided labelling possible
- Rapid replacement of slot-in labels

Applications
For attaching to the outside of the pallet base.
Ideal for flexible pallet labelling.

Quality
Sheets made of durable hard film.

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

NEW

87057 100

Internal format W x H mm	External format W x H x D mm	Pack = Units	87057	...
140 x 65/90 x 65	596 x 75 x 0.8	50		**100**

Factory equipment

87056 Crate pockets with tabs

DURABLE

Design
- Fixed by inserting arrow-shaped tabs into clamping slots
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof
- Rain protection flap protects documents from dust and moisture

Advantage
- Extremely powerful hold on moving transport containers such as crates
- Pocket does not detach in the event of strong vibrations
- Rapid replacement of slot-in labels

Applications
Ideal for permanent use on storage and transport boxes.

Quality
Sheets made of durable polypropylene.

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

NEW

87056 100 87056 101 87056 102

Internal format W x H mm	DIN format	External format W x H mm	Pack = Units	87056 ...
210 x 148	A5 landscape	380 x 223	50	**100**
210 x 297	A4 portrait	223 x 530	50	**101**
297 x 210	A4 landscape	442 x 311	50	**102**

87058 Pockets with wire frame

DURABLE

Design
- With zinc-plated, flexible wire for easy and secure fastening
- Blue back sheet
- Transparent front sheet
- Compatible with scanners
- Fade-proof
- Rain protection flap protects documents from dust and moisture

Advantage
- Rapid replacement of slot-in labels

Applications
For optimum identification of transport containers, crates, wooden support frames and pallet boxes.

Quality
Sheets made of durable polypropylene.

Note:
Downloadable template for slot-in labels available at www.duraprint.de.

NEW

87058 100 87058 101 87058 102

Internal format W x H mm	DIN format	External format W x H mm	External format with wire hanger W x H mm	Pack = Units	87058 ...
210 x 148	A5 landscape	223 x 218	329 x 226	50	**100**
210 x 297	A4 portrait	223 x 368	329 x 376	50	**101**
297 x 210	A4 landscape	311 x 280	329 x 288	50	**102**

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

87070 Cable bridges, large

NEW

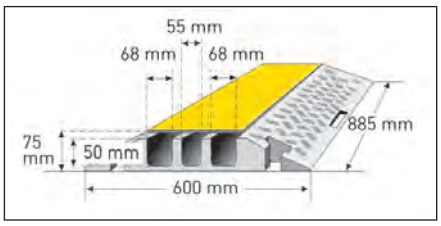
Design
- 3 cable shafts (W x H):
  2 ducts 68 x 50 mm
  1 duct 55 x 50 mm
- With protective cover
- Carry handle for easier transport
- High load-bearing capacity owing to special, reinforced solid rubber compound
- Signal effect through yellow cover made of high-quality plastic
- Ribbed, non-slip surface
- Permanent attachment possible owing to integrated dowel mounts
- All elements have a pin/groove system to enable flexible expansion

Advantage
- Up to 12 tonne axis load
- Suitable for use with trucks and forklifts
- Also for occasional heavy-duty traffic
- Endless assembly

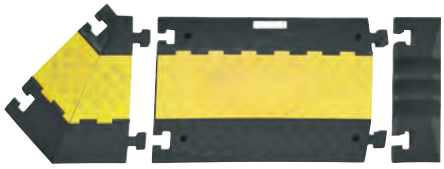
Applications
Suitable for driving on and protection of cables, hoses or pipes.
For roads, construction sites.
Quality
Recycled solid rubber.

Note:
Recommended driving speed: 5 km/h.

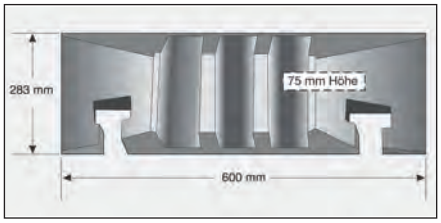
87070 100



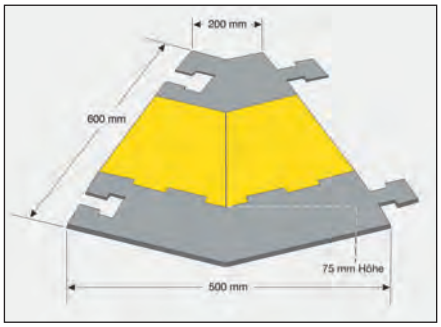
87070 100+101+103



87070 101



87070 103



Design	Colour	Length in direction of travel mm	Width mm	Drive-over height mm	Weight kg	87070 ...
Standard element	yellow/black	600	960 (in combination 885)	75	27	**100**
End piece with groove	black	600	283	75	3	**101**
End piece with pin	black	600	283	75	3	**102**
Angle piece, left	yellow/black	600	500/200	75	12	**103**
Angle piece, right	yellow/black	600	500/200	75	12	**104**

87071 Cable bridges, small

NEW

Design
- 3 cable ducts:
  2 ducts, width: 20 mm
  1 duct, width: 45 mm
- Flexible, high-strength compound made of recycled rubber
- Signal effect through yellow and black elements
- Profiled, slip-resistant surface, can be easily driven over
- Underside with non-slip rubber lips

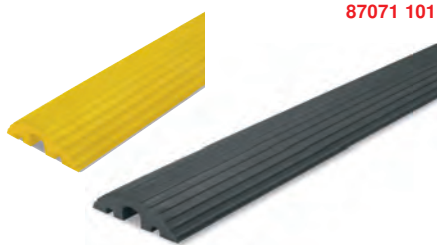
Advantage
- Suitable for use with trucks and forklifts
- Also for occasional heavy-duty traffic
- Slip-resistant surface

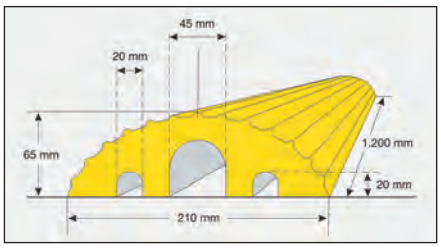
Applications
Suitable for driving on and protection of cables and hoses.
For roads, construction sites.
Quality
Recycled solid rubber.

Note:
Recommended driving speed:
5 to 10 km/h.

87071 100

87071 101





Colour	Length mm	Drive-over height mm	Width mm	Weight kg	87071 ...
yellow	1200	65	210	13	**100**
black	1200	65	210	13	**101**

88001 Slim LED cordless work lamp with USB charging function

IP 54

ATORN®

Professional inspection light 600R SLIM

Design
- Switch:
  1. Auxiliary light
  2. Main light 100%
  3. Main light 50 %
  4. off
- Rugged and splash-proof plastic housing with rubberised grip area
- Lamp head with slim aluminium housing

Fastening options:
- Ball joint (+/- 45° tilt, 360° rotation) with strong retaining magnet on the bottom
- Hook (can be folded out by 210°, can be rotated using the ball joint)
- Li-ion battery pack, 3.7 V/2,600 mAh
- Battery status indicator
- Residual capacity display:
- Can be charged via 5-V micro USB socket

Scope of delivery
- 1x light
- 1x micro USB charging cable 1.5 m
- 1x USB AC charging power supply

(Can optionally be charged via a car adapter – not included in the scope of delivery)

NEW

88001

Main lamp lm (lumens) *	Additional lamps lm (lumens) *	Main lamp eff. light duration approx. hrs.	Additional lamps eff. light duration approx. hrs.	Charging duration approx. hrs.	Light degree of protection	Shock resistance (EN62262)	Dimensions mm	Weight g	88001	...
600 / 225	120	2	10	4,0	IP54	IK07	384 x 45 x 41	250		**201**

* LED technology lumens at 0.5 m distance

88002 LED rechargeable workshop lamp with USB charging function

IP 54

ATORN®

Design
- Switch:
  1. Auxiliary light
  2. Main light 100%
  3. Main light 50 %
  4. off
- Rugged and splash-proof plastic housing with rubberised grip area
- Lamp handle can be rotated 180° and locked in eight positions
- 2x fold-out hooks that can be rotated by 360°
- 2x holding magnets on the rear
- 1x magnet on the underside
- Li-ion battery pack, 3.7 V/2,600 mAh
- Battery status indicator
- Residual capacity display:
- Can be charged via 5-V micro USB socket

- Delivery incl. 1.5 m micro USB charging cable and USB AC charging power supply

88002

Main light lm (lumens) *	Auxiliary light lm (lumens) *	Main light eff. light duration approx. hrs.	Auxiliary light eff. Light duration approx. hrs.	Charging duration approx. hrs.	Lamp degree of protection	Impact resistance (EN62262)	Dimensions mm	Weight g	88002	...
440 / 280	180	6	9	4,0	IP54	IK07	266 x 48 x 32	340		**301**

* LED technology lumens at 0.5 m distance

88003 LED rechargeable folding lamp with USB charging function

IP 54

ATORN®

Design
- Switch:
  1. Main light 100%
  2. Main light 50 %
  3. off
- Rugged and splash-proof plastic housing with rubberised grip area
- Flexible joint can be rotated through 340° and locked in 12 positions
- Pull-out hook that can be rotated 360°
- Belt clip on the underside
- Holding magnet on the underside
- Li-ion battery pack, 3.7 V/1,550 mAh
- Battery status indicator
- Can be charged via 5-V micro USB socket

- Delivery incl. 1.5 m micro USB charging cable and USB AC charging power supply

88003

Main light lm (lumens) *	Main light eff. light duration approx. hrs.	Charging duration approx. hrs.	Lamp degree of protection	Impact resistance (EN62262)	Dimensions mm	Weight g	88003	...
220 / 105	10	4.5	IP54	IK07	131 x 66 x 28	183		**201**

* LED technology lumens at 0.5 m distance

Factory equipment

88004 COB LED rechargeable work lamps

SCANGRIP®
INNOVATION FROM DENMARK

Design
- Slim design
- The COB LED light band ensures uniquely powerful and completely uniform illumination, ideal for work lighting

88004 101
MINIFORM
Design
- Ultra-slim pocket work lamp
- Comfortable and ergonomic handle
- Two-stage switch
- Flexible light head can be swivelled up to 180°
- Strong, built-in magnet
- Robust hook for mounting to work belt

88004 102
UNIFORM
Design
- Extremely robust work light
- Waterproof (IP65) for operation in the damp and dirty environment of a workshop
- Intelligent charge level indicator
- Two-stage switch
- Flexible light head can be swivelled up to 180°
- Strong, built-in magnet
- Robust hook for mounting to work belt
- Sleek charging station
- Simple wall mounting

88004 103
UV-FORM
Design
- The most powerful UV lamp on the market
- UV-FORM is a rechargeable LED work light with powerful 1.5-W UV light on top
- Flexible light head can be swivelled up to 180°
- Strong, built-in magnet
- Robust hook for mounting to work belt
- It is a combination of indispensable universal work light and UV detection, eliminating the need for specific UV detection lamps
- UV light is used for leak detection in air conditioning systems with the help of trace elements
- It is also suitable for detecting leaks in larger, complex refrigeration/freezing systems, process cooling systems, heat pumps, etc.

88004 104
SLIM
Design
- The only 3-in-1 compact lamp on the market
- 3-in-1: Inspection light, work light and pocket torch in one lamp
- Ultra-slim and compact design
- Powerful, built-in magnet and hook for flexible positioning

Super-slim light for inspection tasks:
The ultra-thin, compact design of only 9 mm in diameter allows inspection of the narrowest, most difficult-to-access spaces.
This makes the SLIM lamp ideally suited for the most demanding and complex inspection tasks.

Pocket-sized work light:
The SLIM lamp is equipped with a 100% folding light head. Fully folded, the lamp works like a traditional hand-held work lamp.
When folded, the SLIM is merely pocket size - compact and convenient to carry anywhere.

Spotlight function:
The powerful, 100-lumen spotlight allows the SLIM light to also function as a pocket torch.
Its unique, never-before-seen functionality means that the lamp also functions as a torch when folded, offering a powerful spotlight as well as a practical, firm hold.

IP 65

88004 101

IP 65

88004 102

IP 20

88004 103

IP 30

88004 104

Type Art. no.	MINIFORM 88004 101	UNIFORM 88004 102	UV-FORM 88004 103	SLIM 88004 104
	COB-LED	COB-LED / Spot: High-power LED	COB LED/high-power UV spotlight	COB LED/Spot: High-power LED
Lux (stage 1/stage 2)	100/200 lux@0.5 m	475/950 lux@0.5 m	200/400 lux@0.5 m	400/800 lux@0.5 m
Lux (spot)	800 lux@0.5 m	0.5 m 6000 lux@	-	4800 lux@0.5 m
Lumens (stage 1/stage 2)	100/200 lumens	250/500 lumens	125/250 lumens	250/500 lumens
Lumens (spot)	75 lumens	175 lumens	-	100 lumens
Operating time (stage 1/stage 2)	6 hrs/3 hrs	4.5 hrs/2 hrs	5 hrs/2.5 hrs	5 hrs/2.5 hrs
Operating time (spot)	4	3 hrs	3 hrs	-

Type	Charging duration hrs.	Battery voltage/capacity V/mAh	Degree of protection	88004 ...
MINIFORM	3.0	3.7 / 1000 Li-ion battery	IP65	101
UNIFORM	5.0	3.8 / 3000 Li-ion battery	IP65	102
UV-FORM	3.0	3.7 / 1600 Li-ion battery	IP20	103
SLIM	4.5	3.8 / 2800 Li-ion battery	IP30	104

88013 306
17R battery LED
Design
- Frosted front glass brightly and optimally illuminates the workplace
- Low power consumption
- Low operating temperature
- Long burn time
- Patented rubber strap for several assembly/mounting options

Rechargeable
- 2 brightness levels
- 1 plug-in power supply unit and 1 charging cable for 12 V car socket
- The light can be used while simultaneously charging

Efficient LED technology
- Bright, anti-glare daylight
- Uniform illumination
- Incredibly long service life

Flexible and ergonomic
- With patented rubber strap, can be set down on a surface, firmly mounted or hung up
- Adjustable mount for different positions
- Tripod support (accessories available, art. no. 88013 305)

Robust and break-proof
- Shock-absorbing rubber edge
- Suitable for use indoors and outdoors

Applications
Ideal for medium-sized work areas where precise light is required and no power connection is available.

88013 301-303
Design
- Low power consumption
- Low operating temperature

Flexible and ergonomic
- Easy to transport
- Adjustable mount for different positions
- Tripod support (accessories available, art. no. 88013 305)

Efficient LED technology
- Bright daylight
- Anti-glare
- Uniform illumination
- Incredibly long service life

Robust and break-proof
- Shock-absorbing rubber edge
- Can be used indoors and outdoors

88013 301
LED 18
Design
- Strong daylight in a small format
- Frosted front glass provides optimal workplace illumination that is as bright as day

Applications
Designed especially for service and inspection work. Ideal for small work areas in which precision lighting is required.

88013 302
LED 30
Design
- Intelligent functionality
- Handy and flexible
- 1 additional socket
- Adjustable, patented rubber strap for multiple mounting options
- Illuminated switch ensures greater orientation in the dark

Flexible and ergonomic
- 1 additional socket on the back
- With patented rubber strap, can be set down on a surface, firmly mounted or hung up

Applications
Ideal for surfaces and medium-sized rooms.

88013 303
LED 50
Design
- Maximum performance in a compact size
- 2 additional sockets allow you to operate several lamps at once
- Adjustable, patented rubber strap for multiple mounting options
- Illuminated switch ensures greater orientation in the dark

Flexible and ergonomic
- 2 additional sockets on the back
- With patented rubber strap, can be set down on a surface, firmly mounted or hung up

Applications
Ideal for illuminating large spaces.
Allows ergonomic working.

88013 304
LED 25
Design
- The optimum light for the highest demands
- Small and amazingly strong
- Fully waterproof and dust-proof
- Copes with the toughest weather conditions
- Cooling aluminium housing
- Low surface temperature on the lamp
- Minimal fire hazard

State-of-the-art COB LED technology
- The COB LED technology creates a homogeneous, completely uniform light emission
- COB LEDs have a very high CRI value (optimal colour rendering)

Versatile and ergonomic
- Easy to transport and carry
- Ultra-thin construction
- Adjustable bracket for different positions

Economic LED technology
- Extremely powerful illumination
- Incredibly long burn time

Sturdy and resistant
- Extremely robust and impact-resistant
- Can be used indoors and outdoors
- Housing made of die-cast aluminium

Applications
For harsh, wet and dirty conditions in professional environments.

88013 305
Three-leg telescopic tripod
- Height adjustment from 1.10 m to 3.10 m

Applications
For LED work lamps and energy-saving lamps art. no. 88013 306 and 301–303.

IP 54 88013 306

IP 54 88013 302

IP 54 88013 301

IP 54 88013 303

IP 67 88013 304

88013 305

Type	Watts W	Lumens lm (1st/2st level)	Kelvin K	Service life in h	Energy efficiency class	Degree of protection	Cable length m	Cable name	No. of sockets	Power connection	Temperature range °C	Dimensions mm	Weight kg	88013	...
17 LED	17	750/1500	4000	50,000	A+	IP54	2	-	-	100–240 V/50–60 Hz	-10 to +40	250 x 256 x 110	1.86		306 NEW
18 LED	18	1500	4500	50,000	A+	IP54	2	H05RN-F 2 x 1.0 mm	-	230–240 V/50 Hz	-25 to +40	200 x 200 x 80	0.96		301
30 LED	30	2850	4,500	50,000	A+	IP54	2	H07RN-F 3x1.5 mm	1	230–240 V/50 Hz	-25 bis +40	250 x 256 x 109	1.70		302
50 LED	50	4,000	4,500	50,000	A+	IP54	3	H07RN-F 3x1.5 mm	2	230–240 V/50 Hz	-25 bis +40	300 x 305 x 117	2.46		303
25 LED	25	2500	6000	50,000	A+	IP67	5	H05RN-F 3 x 1.0 mm	-	100–240 V/50–60 Hz	-25 to +40	220 x 235 x 75	1.95		304
Tripod	-	-	-	-	-	-		-	-	-	-	-	-		305

Work spotlight

88011 LED cordless work spotlights

NEW

IP 54

ATORN®

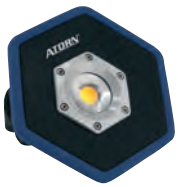
Design
- Switch:
  1. Low: 20%
  2. Medium: 45%
  3. High: 100%
  4. off
- Protective rubber edge
- Handle can be swivelled and rotated

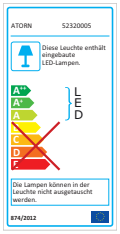
Fastening option:
- Tripod hole in base
- Battery status indicator
- Residual capacity display:
- Can be charged via barrel plug socket
- 5 V 1 A USB output

Advantage
- Constant light in the day and at night
- Can be operated while charging

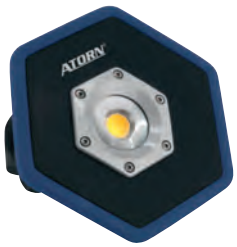
Scope of delivery
- 1x spotlight
- 1x AC power supply
- 1x magnet

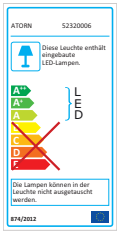
88011 101





88011 102





Main light approx. lm (lumens) *	Colour rendering index CRI (colour match) *	Battery operation eff. Burn time approx. hours	Battery pack Li-ion V/mAh	Charging duration Approx. hours	Light degree of protection	Shock resistance (EN62262)	Dimensions mm	Weight g	88011	...
1000	> 95	9	11.1 / 2.200	3.5	IP54	IK07	209 x 190 x 73	720		**101**
4,000	> 80	6	11.1 / 5.200	6.0	IP54	IK07	265 x 237 x 60	1340		**102**

* LED technology lumens at 0.5 m distance

88019 Cordless/mains-powered and cordless LED spotlight professionalLine

brennenstuhl®

88019 100-101
Cordless/mains-powered and cordless LED spotlight
Design
- Burn time: 2.5 h (100%), 5 h (50%) when using an 18 V 5 Ah battery
- LG Innotek SMD LEDs with high efficiency, extremely long service life, shock-resistant, maintenance-free
- Low heat development, no risk of injury
- Extremely sturdy, coated steel tubular frame with ergonomic carry handle
- Impact-resistant housing and front glass, non-slip rubber feet
- Spotlights can be infinitely swivelled and locked in place
- On/off switch for lamp, 2 switching stages (50%, 100%)
- With practical, fold-out cable holder/hanger
- Shock resistance: IK 10
- Complies with BGI 608
- The lamp contains built-in LED lights
- The lights in the lamp cannot be replaced

Applications
Suitable for operation with Li-ion batteries of series AB 1805 (e.g. art. no. 88019 102), as well as 18 V Li-on batteries from the Bosch Professional assortment (not included in the scope of delivery).

88019 100
Cordless/mains-powered LED spotlight
Design
- Hybrid spotlights for operation with Li-ion battery or mains connection
- Emergency lamp function: In the event of a power failure, it automatically switches to battery power
- 5 m connection line H07RN-F 2x1.0
- Protection class II
- Battery not included in the scope of delivery

88019 101
Cordless LED spotlight
NEW
Design
- Protection class III
- Battery not included in the scope of delivery

88019 102
Li-ion battery pack
Design
- 18 V 5 Ah Li-ion battery „powered by Bosch"
- High capacity and long service life
- Li-ion technology, long service life of battery packs due to single cell monitoring and CoolPack technology
- Displays charging condition

Applications
Suitable for all 18 V cordless spotlights from the Brennenstuhl professionalLINE range.
Also for all 18 V Li-ion electric tools from the Bosch Professional range.

Note:
Rechargeable battery with charger CB 1801 (art. no. 88019 103) or chargers for 18 V Li-ion batteries from the Bosch Professional range.

88019 103
Quick charger
Design
- Intelligent charging control system to protect the battery
- With battery cooling (active air cooling)

Applications
For Li-ion batteries in the AB 1805 series (e.g. art. no. 88019 102) as well as Li-ion batteries from the Bosch Professional range.

IP 55

88019 100

IP 55

88019 101

88019 102

88019 103

	Luminous flux lm (Lumens)	Performance approx. Watts	Cable length m	Cable name	Colour temperature K	Degree of protection	88019	...
Cordless/mains-powered LED spotlight	3200	40	5	H07RN-F 2 x 1.0	6000	IP 55		**100**
Cordless LED spotlight	3200	40	-	-	6000	IP 55		**101**
Li-ion battery pack	-	-	-	-	-	-		**102**
Quick charger	-	-	-	-	-	-		**103**

Factory equipment

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

88015 Compact LED spotlight professionalLine NEW

brennenstuhl®

88015 301-303
Cordless or mains-powered LED spotlight
Design
- Highly efficient SAMSUNG SMD LEDs
- Low heat development, no risk of injury
- Extremely long service life of SMD LEDs, shock-resistant, maintenance-free
- Folding clamp for setting up or mounting on a tripod
- Ergonomically shaped carry handle
- Impact-resistant housing and front glass, non-slip rubber feet
- Shock resistance: IK 10
- The lamp contains built-in LED lights
- The lights in the lamp cannot be replaced

88015 301
Cordless LED spotlight
Design
- Burn time: 3 h (100%), 6 h (50%) when using an 18 V 5 Ah battery
- On/off switch for lamp, 2 switching stages (50%, 100%)
- Protection class III
- Battery not included in the scope of delivery

Applications
Suitable for operation with Li-ion batteries of series AB 1805 (e.g. art. no. 88019 102), as well as 18 V Li-on batteries from the Bosch Professional assortment (not included in the scope of delivery).

88015 302-303
Mains-powered LED spotlight
Design
- Practical cable holder and plug depot for fast cable storage
- 5 m connection line H07RN-F 3G1.5
- 2 splash-proof sockets with self-closing lids
- Complies with BGI 608
- On/off switch for light
- Protection class I

IP 20

88015 301

IP 54

88015 302-303

	Luminous flux lm (Lumens)	Performance approx. Watts	Cable length m	Cable name	Colour temperature K	Degree of protection	88015	...
Cordless LED spotlight	2600	30	-	-	6800	IP 20		301
Mains-powered LED spot	4700	50	5	H07RN-F 3G 1.5	6800	IP 54		302
Mains-powered LED spot	7250	80	5	H07RN-F 3G 1.5	6800	IP 54		303

88016 Mobile LED spotlight NEW

IP 65

brennenstuhl®

Design
- LED spotlight with super bright Everlight SMD LEDs
- Solid and modern aluminium housing
- Sturdy tubular steel frame with plastic protective corners and ergonomic plastic carry handle
- Spotlights can be swivelled infinitely and locked with one hand using a quick-release clamp
- Front glass made of safety glass
- The lamp contains built-in LED lights
- The lights in the lamp cannot be replaced

88016 201

88016 202

88016 203

Luminous flux lm (Lumens)	Performance approx. Watts	Cable length m	Cable name	Colour temperature K	Degree of protection	88016	...
2930	30	3	H07RN-F 3G1.0	6500	IP 65		201
4770	50	5	H07RN-F 3G1.0	6500	IP 65		202
7200	80	5	H07RN-F 3G1.0	6500	IP 65		203

90401 Cordless/mains-powered LED work lamps

14,4V 18V 230V

Makita

Design
- Work lamps with 14.4 V/18 V or 230 V power supply
- 20 LEDs each with 0.5 W provide optimum illumination
- 2 brightness levels
- 360° rotating luminous element
- Light duration 510 min. (BL1850/18 V 5 Ah)
- Light intensity 750 lx
- Mains cable can be wound around two holding hooks for storage
- Capacity indicator via LED
- **Supplied without battery or charger**

Scope of delivery:
- Mains connection cable, 2.5 m

90401

Type	Lumens	Voltage V	Lighting duration min.	Luminosity high/low lx	Weight kg	90401	...
DEADML805	8000	14.4/18.0/230	510	750/450	2.3		101

Factory equipment

88017 Professional halogen spotlight

IP 54

88017 101
Halogen spotlight
Design
- Can be swivelled infinitely
- Can be locked in any position
- Aluminium die-cast housing
- Surface-coated
- Colour: silver
- Chrome-plated protective grating
- Protective glass made of pre-tensioned safety glass
- Sturdy tubular steel frame with ergonomic carry handle
- Includes halogen bulb in accordance with new EU framework regulation (2005/32/EC)

Applications
Ideal for outdoor and indoor use.

88017 102
Telescopic tripod
Design
- Heavy, stable and robust

Base:
- Folds out
- Extremely stable
- Made of square steel profile
- With floor mounting plates

Legs:
- Powerful, made from sturdy steel
- Zinc-plated
- Infinitely height-adjustable up to max. 2.5 m
- Reliable mounting with star-head screws
- Alternative mounting with supplied hand grips

88017 103
Replacement bulb
Design
- 20% lower power consumption
- Dimmable
- Service life: approx. 2000 hours
- Number of switching cycles ≥ 8000x
- Colour temperature 2900 K

88017 101

88017 102

	Performance Watts	Version	Cable length m	Cable Name	Degree of protection	88017 ...
Professional halogen spotlight	400	R7s	5	H05RN-F 3G1.0	IP 54	101
Construction telescopic tripod	-	-	-	-	-	102 NEW
Replacement bulb	-	-	-	-	-	103 NEW

88051 LED machine lamps

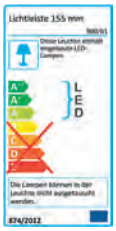
IP 67

88051 101-103
LED machine lamps
Design
- Robust aluminium housing
- Satin-finish acrylic glass ensures homogeneous and uniform illumination
- Light temperature: daylight white approx. 5500 Kelvin
- 120 degree uniform illumination, anti-glare and flicker-free, low-reflection
- Connection to 24 volt power supply or 24 volt machine control system
- Watertight in accordance with IP67
- 2 rubber-coated magnets included in scope of delivery

88050 106
Dimmer
Design
- Infinitely regulates the brightness of the LED lights
- Plugged in between the cable couplings of the light and the power supply unit
- IP20 dust-proof

Applications
For LED machine lamps art. no. 88051 101-103 and LED work lamps art. no. 88050 101-103.

88051 101

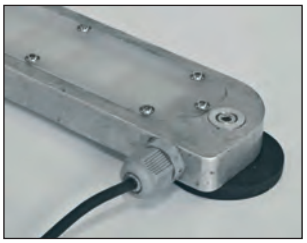


IP 20

88050 106

88051 102

Example application:
Machine lighting



Detailed view:
Magnetic fixing

88051 103

Type	Watts W	Lumens lm	Illumination Degrees	Degree of protection	Dimensions mm	Light 88051 ...	Dimmer 88050 ...
LIGHT STRIP	5	600	120	IP67	155 x 40 x 15	101	
LIGHT STRIP	12	1600	120	IP67	305 x 40 x 15	102	
LIGHT STRIP	25	3200	120	IP67	560 x 50 x 15	103	
Dimmer	-	-	-	IP20	-		106

Factory equipment

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88050 LED work lamps

88050 101-103
LED work lamps
Design
- High-power LED
- **Very robust, housing turned and milled from aluminium**
- Flexible shaft
- **Rubber-coated magnetic base protects painted surfaces from scratching and does not slip**
- Light temperature: daylight white approx. 5500 Kelvin
- Uniform illumination, anti-glare and flicker-free, low reflection
- Supply with 24 volt power supply
- Service life of chip: at least 50,000 hours
- **Load capacity: dust-proof and splash-proof down to plug in accordance with IP65**
- Table clamp, acrylic base and dimmer are available as options

Features:
- Use of high-quality components
- Aluminium housing
- **Extremely energy efficient due to LED lamps**
- Durable
- Robust
- Uniform, homogeneous illumination
- Flexible mounting

Applications
Machine or workplace lighting.

88050 104 88050 105 88050 106 IP 20

88050 104
Table clamp
Design
- 2 chrome-plated, round metal plates Ø 73 mm and Ø 90 mm connected via a screw clamp can be fixed to tabletops up to 90 mm thick

Applications
For LED work lamp art. no. 88050 101–103.

88050 105
Acrylic base
Design
- Transparent acrylic plate with chrome-plated metal plate Ø 90 mm
- Basic dimensions 220 x 150 x 16 mm

Applications
For LED work lamp art. no. 88050 101–103.

88050 106
Dimmer
Design
- Infinitely regulates the brightness of the LED lights
- Plugged in between the cable couplings of the light and the power supply unit
- IP20 dust-proof

Applications
For LED work lamps art no. 88050 101-103 and LED machine lamps art. no. 88051 101-103.

Type	Watts W	Lumens lm	Illumination Degrees	Degree of protection	Total length mm	Lamp head mm	Magnetic base Ø mm	Adhesive force N	Weight g	88050	...
FLEXI	4.5	700	120	IP65	600	Ø 65	66	180	950		101
BRIGHT LIGHT	2.5	400	160	IP65	620	90 x 30 x 15	66	180	550		102
FLOODLIGHTS	10.0	1200	160	IP65	850	175 x 50 x 25	88	420	1600		103
Table clamp	-	-	-	-	-	-	-	-	-		104
Base	-	-	-	-	-	-	-	-	-		105
Dimmer	-	-	-	IP20	-	-	-	-	-		106

88024 - 88025 Halogen machine/workplace lamps

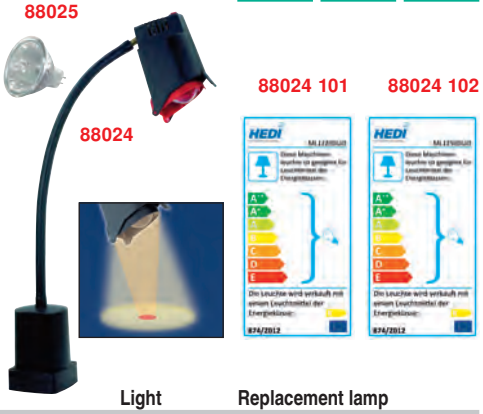
IP 20

Design
- With toggle switch for wide beam or spotlight
- On/off switch on lamp head
- Sturdy, coated, jointed metal hose, length: 500 mm
- Ball joint head
- Beam angle without lens: 36°
- Beam angle with lens: 25°
- Light colour: 3000 K
- Energy class: C

Delivery includes
- Halogen lamp 12 V
- Mounting magnet
- Table clamp
- Fastening screws

88024 101
Design
- 20 watt
- Luminous flux: 300 lumens
- Illuminance without lens: 850 lux (1 m)
- Illuminance with lens: 670 lux (1 m)

88024 102
Design
- 50 watt
- Luminous flux: 780 lumens
- Illuminance without lens: 2,700 lux (1 m)
- Illuminance with lens: 1,950 lux (1 m)



Performance Watts	Supply voltage Volts	Cable length m	Cable name	Degree of protection	Protection class	Light 88024	Light ...	Replacement lamp 88025	Replacement lamp ...
20	230	3	H05 RN-F 2 x 1.0	IP 20	II		101		101
50	230	3	H05 RN-F 2 x 1.0	IP 20	II		102		102

Factory equipment

88026 LED machine/workplace lamp

IP 20

ATORN®

Design
- **Including adhesive magnet**
- With infinitely adjustable focus
- Light cone can be infinitely adjusted from approx. 36° (wide beam) to 10° (spot) using a handle
- Light colour 6000 K (daylight) enables precise working without placing too much strain on the eyes
- Light output at 30 cm distance:
  Spotlight (area 4 x 4 cm) 50,000 lx
  Wide beam (Ø 32 cm) 6000 lx
- Focus: adjustable lens frame with aspherical lens
- Upper part of lamp head and complete lamp base made of impact-resistant, non-flammable plastic
- Anodised aluminium star-shaped heat dissipator and lens holder
- Switch integrated in the lamp head
- Coating of light bracket hose: plastic corrugated hose coating
- **Scope of delivery** includes branded high-performance LED 3 W, extra strong adhesive magnet, screw terminal with star-shaped handle and screws for direct mounting

Illuminance Spotlight lx (Lux)	Illuminance Wide beam lx (Lux)	LED Quantity	LED Watts	Voltage V(AC)/Hz	Degree of protection	Cable length m	Lamp bracket tube Length mm	Overall length mm	88026	...
50,000	6000	1	3	230 / 50	IP 20	1.6	420	590		101

88030 Adhesive magnet lamp

IP 54

Design
- Anodised aluminium reflector Ø 153 mm
- Anti-glare mesh
- Flexible lamp bracket: tube length 350 mm
- Concealed switch in lamp base
- Permanent adhesive magnet base, adhesive force approx. 650 N
- Supplied without bulb

Applications
For bulbs up to 60 watts.

Power Watts	Supply voltage Volts	Version	Cable length m	Degree of protection	Protective class	Overall length mm	88030	...
60	230	E 27	2.5	IP 54	II	660		201

88042 Adhesive magnet lamp

IP 40

Design
- Cold light lamp
- Uniform light distribution through high-gloss reflector
- Flexible lamp bracket: tube length 300 mm
- Concealed switch in light head
- Permanent adhesive magnet base, adhesive force approx. 650 N
- Ballast in foot
- Grounding contact plug
- Including 11 watt compact fluorescent tube
- Approx. 80% energy savings compared to incandescent lamps

	Performance approx. watts	Supply voltage Volts	Version	Cable length m	Degree of protection	Protection class	88042	...
Adhesive magnet lamp	11	230	G 23	2.5	IP 40	I		101
Spare fluorescent tube	11	-	G 23	-	-	-		102

88047 Halogen lamp with adhesive magnet

IP 44

Design
- Light head made of high-pressure die-cast aluminium with thermally insulated edge and hard safety glass
- Flexible lamp bracket: tube length 300 mm
- Permanent adhesive magnet base, adhesive force 650 N
- Safety transformer in lamp base
- Grounding contact plug
- Includes 12 volt/20 watt low-voltage halogen light

Applications
Very bright spotlight for adjustment work on machines, control work, etc.

Performance approx. volts/watts	Supply voltage Volts	Cable length m	Degree of protection	Protection class	Lamp head Ø mm	Overall length approx. mm	88047	...
12/20	230	2.5	IP 44	I	114	550		101

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

88000 Tube lamps

brennenstuhl®

88000 201
Design
- Highly transparent, impact-resistant protective tube
- Ergonomically shaped handle
- Electronic ballast unit in handle
- With hexagonal bead anti-roll protection
- Large, rotatable hook
- Connection cable with Euro plug
- Extremely low power consumption
- Contains built-in lights
- The lights in the lamp cannot be replaced
- Energy efficiency class B

88000 203
LED workshop lamps
Design
- 54 bright SMD LEDs with extremely long service life
- Impact-resistant and break-proof protective tube with glare protection
- Sturdy, ergonomic handle with hexagonal bead to prevent rolling away
- Stable, rotatable hook
- The lamp contains built-in LED lights
- The lights in the lamp cannot be replaced
- Efficiency of lamp 84 lm/W
- Colour temperature 6500 K
- Energy efficiency class A+

Applications
Best suited for use in the workshop and hobby applications.

88000 201

88000 203

Luminous flux lm (lumens)	Cable length m	Cable name	Degree of protection	Length approx. mm	88000 ...
320	5	H05RN-F 2 x 0.75	-	500	201
420	5	H05RN-F 2 x 1.0	IP 54	440	203

88204 Multiple socket outlets

brennenstuhl®

Design
- Standard, top-quality multiple socket outlet
- Sockets arranged diagonally for convenient insertion of angled plugs
- Illuminated safety switch, switches on/off on two-poles
- Sockets with child protection

88204 101+202

88204 103+204

Sockets Number	Cable length m	Length approx. cm	Cable name	Colour	88204 ...
3	1.5	20.5	H05VV-F 3G1.5	black	101
3	5.0	20.5	H05VV-F 3G1.5	black	202 NEW
6	1.5	34.0	H05VV-F 3G1.5	black	103
8	3.0	45.0	H05VV-F 3G1.5	black	204 NEW

88208 Multiple socket outlets with overvoltage protection

brennenstuhl®

88208 101
Design
- Premium-Line overvoltage protection 30,000 A
- Guaranteed protection against high overvoltage and strong surges in current
- Three-wire arrangement protects phase, neutral and protective conductors
- Thermal fuse, additional protection against impermissible high heating of the varistors and for separating the mains voltage in the event of severe overvoltage
- Extremely short response time for super-fast suppression of overvoltage
- Visual functional display of device protection
- With 10 amp fuse, replaceable
- Illuminated safety switch, switches on/off on two-poles
- Integrated filter for premium protection against HF interference

88208 102
Design
- Protects your devices against faults in the power network such as overvoltage, indirect lightning strikes or circuit noises, with a maximum sum of leakage currents up to 30,000 A
- Intelligent, replaceable modular construction system
- Illuminated safety switch, switches on/off on two-poles
- With 10 amp fuse, replaceable
- Sockets with child protection

88208 101

88208 102

Sockets Number	Cable length m	Length approx. cm	Cable name	Colour	88208 ...
4	1.8	45	H05VV-F 3G1.0	black	101
6	3.0	52	H05VV-F 3G1.5	black	102 NEW

88209 Extension cable

brennenstuhl®

88209 101
Plastic cable, short extension
Design
- With grounding contact plug and coupling

88209 102
Rubber cable IP 44
Design
- With grounding contact plug and coupling with locking cap

Applications
For short-term outdoor use.

88209 106
Rubber cable IP 44 professionalLine
Design
- Very robust
- Oil resistant
- With extra sturdy grounding contact plug and coupling with locking cap
- UV-resistant plug and coupling with anti-kink protection and cable sealing
- Complies with BGI 608

Applications
Especially suitable for professional use.

88209 104-105
Construction site cable IP 54 with power block
Design
- High-quality, impact-resistant, break-proof multiple socket block
- 4 dust-proof and splash-proof sockets in 45° arrangement with self-closing folding lids to protect against contamination
- Folding metal hook

Applications
Ideal for tough applications.
For use on construction sites and continuous use outdoors.

88209 101 | IP 44 | 88209 102

IP 44 88209 106 | IP 54 88209 104-105

Sockets Number	Cable length m	Cable name	Cable material	Cable colour	Degree of protection	88209 ...
1	5	H05VV-F 3G1.5	plastic	black	-	101
1	10	H05RR-F 3G1.5	rubber	black	IP 44	102
1	25	H07RN-F 3G1.5	rubber	black	IP 44	106 NEW
4	5	H07RN-F 3G1.5	rubber neoprene	black	IP 54	104 NEW
4	10	H07RN-F 3G1.5	rubber neoprene	black	IP 54	105 NEW

88210 - 88211 Vario-Line cable boxes

brennenstuhl®

Design
- Impact-resistant housing made of special plastic
- Ergonomically shaped carry handle
- Robust twin feet for good stability
- 4 grounding contact sockets
- Overheating protection, indicator light in the event of overheating and overloading
- Sockets with child protection
- 3-year manufacturer's warranty (see terms of warranty)

88210 | 88211

Cable length m	Cable name	Cable material	Cable colour	Sockets Number	Dimensions W x H x D mm	88210 ...	88211 ...
5	H05VV-F 3G1.5	plastic	black	4	19.5 x 24.0 x 7.5	301	
10	H05VV-F 3G1.5	plastic	black	4	22.5 x 27.0 x 8.0		301

88100 Cable drum 290/50 VV

brennenstuhl®

Design
- Drum body made of Breflex special plastic on a zinc-plated support frame
- Ergonomic handle with axis for perfect cable management during winding and unwinding
- Stable tubular steel frame
- 4 grounding contact sockets with self-closing lids
- Overheating protection, indicator light in the event of overheating and overloading
- 3-year manufacturer's warranty (see terms of warranty)

Note:
Does not comply with BGI 608.

88100

Cable length m	Cable name	Cable material	Cable colour	Drum Ø mm	88100 ...
50	H05VV-F 3G1.5	plastic	black	290	101

Factory equipment

= The specified prices are unit prices. Only sold in the specified packing units. Always specify number of units in order information.

88207 Cable drums

IP 44

brennenstuhl®

Design
- Drum body made of special plastic on a zinc-plated support frame
- Innovative **cablepilot** handle for perfect cable management: swings on both sides and facilitates easy carrying and suspension
- With turning handle for comfortable rolling up
- 3 grounding contact sockets, splash-proof, with self-closing lids
- Overheating protection, indicator light in the event of overheating and overloading

- **RN cable approved for use in difficult construction conditions in line with VDE 0100 Part 704**
- 3-year manufacturer's warranty (see terms of warranty)

Use
For use on construction sites in accordance with BGI 608 and continuous use outdoors.

88207

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	Drum Ø mm	88207	...
25	H07RN-F 3G2.5	rubber neoprene	black	3	IP 44	290		201
40	H07RN-F 3G1.5	rubber neoprene	black	3	IP 44	290		202

88201 Steel cable drums professionalLine

IP 44

brennenstuhl®

Design
- Drum body made of sheet steel
- Cold-resistant to as low as -25 °C
- Insensitive to petrol and oils
- Protective insulation front and back for durable operation
- Innovative **cablepilot** handle for perfect cable management: swings on both sides and facilitates easy carrying and suspension
- Large, robust folding turning handle to easily wind and unwind the cable
- 4 grounding contact sockets, splash-proof with self-closing covers

- Extra-robust grounding contact plug
- Overheating protection in the event of overheating and overloading
- Visual readiness display in socket insert
- Complies with BGI 608

BREMAXX®-PUR cable (BQ cable):
- Extremely abrasion-resistant
- Secured against over-winding
- Extreme cut and tear resistance
- Resistant to acids and oil
- Weather and microbe-resistant
- Cold resistant to as low as -40 °C

NEW

88201

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	88201	...
33	H07BQ-F 3G1.5	Bremaxx	orange	4	IP 44		101
50	H07BQ-F 3G1.5	Bremaxx	orange	4	IP 44		102

88205 - 88206 cable drums

IP 44

Design
- Stable cable reel with sturdy tubular steel frame
- Ergonomic, insulated bow handle
- Plug parking station
- Rotation stop switch
- Extremely stable due to low centre of gravity
- Splash-proof 3-way socket with plug sealing lip
- Thermal protection switch according to VDE 0620 and Diag S

Rapid fault diagnostics using the new cable drum diagnostics system (Diag S):
Green light on: Power supply is active. The cable drum is ready for operation. If the connected device does not work, there is an error with the connected cable or the device itself.
Red light on: Connected, powered devices are not working as the thermal protection switch has been triggered. As soon as the cable drum has cooled down and the thermal protection switch is pressed, the cable drum can be used again.
Both lights off: The cable drum is not receiving power.
- It is not plugged in or the connecting socket has no power.
- The cable drum is defective. A specialist should be consulted for repair.

88205
Design
- Drum made of zinc-plated sheet steel
- Grounded drum

Applications
Approved for continuous use outdoors. Complies with BGI 600, K1.

88206
Design
- Drum made of plastic

Applications
Approved for continuous use outdoors as well as on construction and installation sites. Complies with BGI 608 and BGI 600, K2.

88205

88206

Drum	Cable length m	Cable name	Cable material	Cable colour	Sockets Number	Degree of protection	88205	...	88206	...
Sheet steel	40	H07RN-F 3G1.5	rubber	black	3	IP 44		202		
Plastic	40	H07RN-F 3G1.5	rubber	black	3	IP 44				202

Factory equipment

88202 professionalLine cable drums

IP 44

brennenstuhl®

Design
Professional drum with all-round over-winding protection:
- Stable on all 4 sides
- Perfect cable management on all 4 sides
- Large, robust folding turning handle to easily wind and unwind the cable
- Sturdy carrying handles and plug garage on all 4 sides
- The Rubbabren housing and drum material made from a plastic/rubber blend are extremely shock- and impact-resistant
- Drum body cold-impact-resistant to as low as -25 °C
- The RN cable is very sturdy, oil resistant and especially suited for professional use
- 4 grounding contact sockets, splash-proof with self-closing covers
- Extra-robust grounding contact plug
- Overheating protection, indicator light in the event of overheating and overloading
- Visual readiness display in socket insert
- Complies with BGI 608

Applications
For permanent use under the harshest conditions.

NEW

88202 201-202

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	88202 ...
33	H07RN-F 3G2.5	rubber neoprene	black	4	IP 44	202
50	H07RN-F 3G1.5	rubber neoprene	black	4	IP 44	201

88202 professionalLine cable drum with power block

IP 44

brennenstuhl®

Design
Mobile power block:
- **4 additional sockets** for practical use on scaffolding, roofs, etc.
- 4 splash-proof sockets in 45° arrangement with self-closing hinged lids for protection against dirt
- Visual readiness display
- Folding metal hooks and strap for more mounting options

Professional drum with all-round over-winding protection:
- Stable on all 4 sides
- Perfect cable management on all 4 sides
- Large, robust folding turning handle to easily wind and unwind the cable
- Sturdy carrying handles and plug garage on all 4 sides
- The Rubbabren housing and drum material made from a plastic/rubber blend are extremely shock- and impact-resistant
- Drum body cold-impact-resistant to as low as -25 °C
- The RN cable is very sturdy, oil resistant and especially suited for professional use
- 4 grounding contact sockets, splash-proof with self-closing covers
- Extra-robust grounding contact plug
- Overheating protection in the event of overheating and overloading
- **Cable reel with 5 m cable for connecting drum to power network**
- Visual readiness display in socket insert
- Complies with BGI 608

Applications
For permanent use under the harshest conditions.

NEW

88202 101

Cable reel with 5 m cable on back

Mobile power block

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	88202 ...
50 + 5	H07RN-F 3G1.5	rubber neoprene	black	4 + 4	IP 44	101

88202 professionalLine power blocks with extension cable

IP 54

brennenstuhl®

Design
- Mobile power block with 4 sockets for practical use on scaffolding, roofs, etc.
- 4 splash-proof sockets in 45° arrangement with self-closing hinged lids for protection against dirt
- Ergonomic, impact-resistant, break-proof multiple socket block in a sturdy design
- Visual readiness display
- Folding metal hooks and strap for more mounting options
- The RN cable is very sturdy, oil resistant and especially suited for professional use

Applications
Ideal for use on construction sites and permanent outdoor use (IP 54).

NEW

88202 102-103

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	88202 ...
10	H07RN-F 3G2.5	rubber neoprene	black	4	IP 54	102
15	H07RN-F 3G1.5	rubber neoprene	black	4	IP 54	103

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88220 Cable drum CEE 1 IP44

IP 44

88220

brennenstuhl®

Design
- Drum body made of special plastic on a zinc-plated support frame
- Innovative cablepilot handle for perfect cable management
- Swings on both sides and facilitates easy carrying and suspension
- CEE plug 400 V/16 A
- 1 CEE socket 400 V/16 A
- Grounding contact sockets distributed over separate phases
- 3-pole safety switch-off and overheating protection

Applications
For use on construction sites and indoors, IP 44.
Ideal for harsh conditions on construction sites, in workshops and for industrial applications.

For use outdoors

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	Drum Ø mm	88220	...
30	H07RN-F 5G1.5	rubber neoprene	black	3	IP 44	290		101

88225 Compact low-voltage current distributor BKV 2/4 T IP 44

IP 44

88225

brennenstuhl®

Design
- Stable, impact-resistant and splash-proof plastic housing
- Carry handle
- Grounding contact sockets distributed over all 3 phases
- Oil-resistant rubber cable for constant use outdoors

Applications
For use on construction sites and indoors, IP 44.

Cable length m	Cable name	Number Schuko sockets 230 V/16 A	Number CEE sockets 400 V/16 A	88225	...
2	H07RN-F 5G1.5	4	2		201

88226 CEE high-voltage current extension cable 400 V/16 A

IP 44

88226

brennenstuhl®

NEW

Design
- Special rubber cable
- CEE plug and coupling with locking flap, 5-pole
- Oil and UV resistant

Applications
Suitable for outdoor use.
Ideal for tough applications.

Cable length m	Cable name	Cable material	Cable colour	Sockets Quantity	Degree of protection	88226	...
10	H07RN-F 5G1.5	rubber neoprene	black	1	IP 44		101
30	H07RN-F 5G1.5	rubber neoprene	black	1	IP 44		102

88231 Automatic cable winder

IP 44

88231

brennenstuhl®

NEW

Design
- Convenient automatic cable winding
- For mounting to wall and ceiling
- Swivels up to 180°
- Sturdy plastic housing
- With overheating protection
- Socket with child protection

Applications
Ideal for use outdoors,
e.g. in the garden (IP44 – splash-proof).

Cable length m	Cable name	Cable material	Cable colour	Degree of protection	Housing colour	88231	...
9 + 2	H07RN-F 3G1.5	rubber neoprene	black	IP 44	yellow		101
16 + 2	H07RN-F 3G1.5	rubber neoprene	black	IP 44	yellow		102

88240 Energy block pendulum power distributor

brennenstuhl®

Design
- Impact-resistant plastic housing with large tool hook
- With 3 m sturdy, zinc-plated steel link chain
- 5 m Breflex neoprene cable

Applications
For variable current at any working height.
Work without cable clutter at the workspace.

88240 101
Design
- 2 x 4 grounding contact sockets 230 V
- With self-closing covers to protect against dust and dirt

88240 102
Design
- 3 grounding contact sockets, 230 V and 1 CEE socket, 5-pole, 400 V
- Splash-proof IP 44

88240 103
Design
- 3 grounding contact sockets, 230 V and 2 one-handed pneumatic couplings with 5 m connection hose, Ø 6/12 mm
- Splash-proof IP 44

88240 101

88240 102 88240 103

Schuko sockets 230 V Number	CEE sockets 400 V Number	Pneumatic couplings Number	Cable length m	Cable name	Cable colour	Degree of protection	88240	...
8	-	-	5	H07RN-F 3G1.5	black	-		101
3	1	-	5	H07RN-F 3G1.5	black	IP 44		102
3	-	2	5	H07RN-F 3G1.5	black	IP 44		103

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– General Terms and Conditions i.56
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RAL colour table i.59

This goes together...
Standard screwdriver inserts

Test torques	Slotted screws																				
	Metric screws												Sheet metal screws						Wood screws		
	Tapping-		Oval head countersunk		Cylinder		Pan head				Set screws		Tapping-		Oval head countersunk		Pan head		Tapping-	Oval head countersunk	Half-round
DIN 5263 Nm	ISO 2009	DIN 963	ISO 2010	DIN 964	ISO 1207	DIN 84	ISO 1580	DIN 85	DIN 920	DIN 921	ISO 4766 7435	DIN 417 427	ISO 1482	DIN 7972	ISO 1483	DIN 7973	ISO 1481	DIN 7971	DIN 97	DIN 95	DIN 96
	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	H	H	H
2 x 0,4	0,35											2,5 3	2,5 3							1,6		1,6
2,5 x 0,4	0,42	1,6	1,6	1,6	1,6		1,6 1,8	1,6		2,5	1,6	3,5	3,5								1,6	2
3 x 0,5	0,8	2	2	2	2		2	2		3 3,5	2	4	4	2,2	2,2	2,2	2,2	2,2		2	2	
4 x 0,5	1,1							2		3,5	2							2,2				
3,5 x 0,6	1,4	2,5	2,5	2,5	2,5		2,5	2,5		4	2,5								2,2	2,5	2,5	2,5
4,5 x 0,6	1,8							2,5		4	2,5								2,2			2,5
4 x 0,8	2,9	3	3 3,5	3	3 3,5			3	3	5	3 3,5	5 6	5 6	2,9	2,9	2,9	2,9	2,9	2,9	3 3,5	3 3,5	3 3,5
5,5 x 0,8	3,9		3,5		3,5		3 3,5	3	3	5	3 3,5							2,9	2,9			3,5
5,5 x 1	6,2	3,5	4	3,5	4	3,5	4	3,5	3,5	6	4			3,5	3,5 3,9	3,5	3,5 3,9	3,5	3,5 3,9	4 4,5	4 4,5	4 4,5
6,5 x 1,2	10,5	4 5	5	4 5	5	4	4					8	8	4,2 4,8	4,2 4,8	4,2 4,8	4,2			5	5	5 5,5
8 x 1,2	12,9					5	5	4 5	4 5	8	5						4,8	4,2 4,8	4,2 4,8	5,5	5,5	
8 x 1,6	22,9	6	6	6	6							10 12	10 12	5,5 6,3	5,5 6,3	5,5 6,3	5,5			6	6	6
10 x 1,6	28,7					6	6	6	6	10	6		14				6,3	5,5 6,3	5,5 6,3	7 8	7	
12 x 2	53,8	8	8	8	8	8	8	8	8		8		16	8		8		8			8	7-8
14 x 2,5	98,0	10	10	10	10	10	10	10	10		10		18-20	9,5		9,5		9,5		10		

Size		Test torques	Phillips head, PH + PZ									
			Metric screws			Sheet metal screws			Wood screws			American screws
			Tapping-	Oval head countersunk	Oval head	Oval head	Tapping-	Oval head countersunk	Oval head countersunk	Half-round	Tapping-	
		DIN 5261 Nm	DIN 965	DIN 966	DIN 7985	DIN 7981	DIN 7982	DIN 7983	DIN 7995	DIN 7996	DIN 7997	
			M	M	M	B	B	B	H	H	H	No.
00	00	*	*	*	*	*	*	*	*	*	*	
0	0	2	1,6 2	1,6 2	1,6 1,8				2	2	2	0 - 1
1	1	5	2,5 3	2,5 3	2 3	2,2 2,9	2,2 2,9	2,2 2,9	2,5 3	2,5 3	2,5 3	2 - 4
2	2	14	3,5 5	3,5 5	3,5 5	3,5 4,8	3,5 4,8	3,5 4,8	3,5 5	3,5 5	3,5 5	5 - 10
3	3	42	6	6	6	5,5 6,3	5,5 6,3	5,5 6,3	5,5 7	5,5 7	5,5 7	12 - 16
4	4	88,7	8 10	8 10	8 10				8	8	8	18 - ...

*Special screws

TORX® This goes together... Screwdriver inserts

TORX® Socket wrench inserts

Size 1:1	TORX® Size	mm	Test torques Nm	Internal-TORX® Metric screws: Cylinder ISO 4762 DIN 912 M	Tapping- DIN 963 965 M	Oval head countersunk DIN 964 966 M	Cylinder DIN 7984 6912 M	Oval head saucer head DIN 7985 M	Tapping- DIN 7991 M	Sheet metal screws: Oval head DIN 7981 B	Tapping- DIN 7972 7982 B	Oval head countersunk DIN 7973 7983 B
	T 5	1,42	0,51	*	*	*	*	*	*	*	*	*
	T 6	1,70	0,9	*	*	*	*	*	*	*	*	*
	T 7	1,99	1,7	*	*	*	*	*	*	*	*	*
	T 8	2,31	2,6	2,5	2,5	2,5		2,5		2,9	2,9	2,9
	T 9	2,50	3,4							2,9		
	T 10	2,74	4,5	3	3	3	3	3	3	3,5	3,5	3,5
	T 15	3,27	7,7		3,5	3,5		3,5		3,9	3,9	3,9
	T 20	3,86	12,7	4	4	4	4	4	4	4,2	4,2	4,2
	T 25	4,43	19,0	5	5	5	5	5	5	4,8 5,5	4,8 5,5	4,8 5,5
	T 27	4,99	26,9	**	**	**	**	**	**	**	**	**
	T 30	5,52	37,4	6	6	6	6	6	6	6,3	6,3	6,3
	T 40	6,65	65,1	8	8	8	8	8	8			
	T 45	7,82	104	**	**	**	**	**	**	**	**	**
	T 50	8,83	159	10	10	10	10	10	10			
	T 55	11,22	257	12			12		12			
	T 60	13,25	446	14			14					

* Special screws M 1.6 and 2.0 for carbide indexable inserts
** Special screws

Size 1:1	TORX® Size	mm	External-TORX® Metric screws: Flange ISO 4014 4017 DIN 931 933 M	Flange DIN 6921 M
	E 4	3,83	3	
	E 5	4,72	4	
	E 6	5,69	5	4
	E 7	6,17	**	**
	E 8	7,47	6	5
	E 10	9,37	8	6
	E 12	11,12	10	8
	E 14	12,85	12	10
	E 16	14,71	**	**
	E 18	16,64	14	12
	E 20	18,41	16	14

This goes together…

Standard socket wrench

		Hexagon socket screws									External hexagon							
		Metric screws									Metric Screws and Nuts						Screws	
		Cylinder	with guide	Cylinder	Tap-ping-	Threaded pin					Screws				Nuts		Sheet metal	Wood
	Test torques	ISO 4762				ISO 4026 4029	ISO 4027	ISO 4028		Test torques	ISO 4018	ISO 4016	ISO 4014	ISO 4017	ISO 4035 4036		ISO 1479	
	DIN 7426 Nm	DIN 912	DIN 6912	DIN 7984	DIN 7991	DIN 913 916	DIN 914	DIN 915		DIN 899 Nm	DIN 558	DIN 601	DIN 931	DIN 933	DIN 439	DIN 934	DIN 7976	DIN 571
SW		M	M	M	M	M	M	M	SW		M	M	M	M	M	M	B	H
0,7						1,4 1,6 1,8	1,4 1,6 1,8	1,4 1,6 1,8		-						1 1,2 1,4		
0,9						2	2	2	3,2	7,08			1,6	1,6	1,6	1,6	2,2	
1,3		1,4				2,5	2,5	2,5	3,5	8,26					1,8			
1,5	0,95	1,6-2				3	3	3	4	10,4			2	2	2	2		
2	2,3	2,5		3	3	4	4	4	4,5	12,6				2,3				
2,5	4,4	3		4	4	5	5	5	5	15,1			2,5	2,5	2,5	2,5	2,9	
3	7,6	4	4	5	5	6	6	6	5,5	17,8			3	3	3	3	3,5	
4	18	5	5	6	6	8	8	8	6	20,6			3,5	3,5	3,5	3,5		
5	35	6	6	8	8	10	10	10	7	26,8			4	4	4	4	3,9 4,2	4
6	61	8	8		10	12 14	12 14	12 14	8	33,6	5	5	5	5	5	5	4,8 5,5	5
7	97			10					9	41,1	-	-	-	-	-	-	-	-
8	140	10	10	12	12	16	16	16	10	49,1	6	6	6	6	6	6	6,3	6
10	280	12	12	14	14 16	18 20	18 20	18 20	11	57,8			7	7		7		
12	480	14	14	16 18	18 20	22 24	22 24	22 24	12	67,0								7
									13	68,6	8	8	8	8	8	8	8	8
									14	68,6	-	-	-	-	-	-	-	-

	Index	
ISO	International standard	
DIN	German standard	
M	Metric screws	Thread diameter
M	Threaded pins, metric	Thread diameter
M	Nuts, metric	Thread diameter
B	Sheet metal screws	Thread diameter
H	Wood screws	Thread diameter

	Symbols
Tool drive = screwdriver insert	
for screws with inside drive	
Tool drive = socket wrench insert	
for screws with outside drive	

This goes together...
Standard screwdrivers

Test torques		Flat blade screwdrivers																					
		Metric screws												Sheet metal screws						Wood screws		
		Tapping-		Oval head countersunk		Cylinder		Pan head				Set screws		Tapping-		Oval head countersunk		Pan head		Tapping-	Oval head countersunk	Half-round
DIN 5263 Nm	DIN 5263 Nm	ISO 2009	DIN 963	ISO 2010	DIN 964	ISO 1207	DIN 84	ISO 1580	DIN 85	DIN 920	DIN 921	ISO 4766 7435	DIN 417 427	ISO 1482	DIN 7972	ISO 1483	DIN 7973	ISO 1481	DIN 7971	DIN 97	DIN 95	DIN 96
		M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	H	H	H
2 x 0,4	0,30	0,35											2,5 3	2,5 3						1,6		1,6
2,5 x 0,4	0,40	0,45	1,6	1,6	1,6	1,6		1,6 1,8	1,6		2,5	1,6	3,5	3,5							1,6	2
3 x 0,5	0,7	0,8	2	2	2	2		2	2		3/3,5	2	4	4	2,2	2,2	2,2	2,2	2,2		2	2	
4 x 0,5*	-	1,1							2		3,5	2							2,2				
3,5 x 0,6	1,3	1,4	2,5	2,5	2,5	2,5		2,5	2,5		4	2,5								2,2	2,5	2,5	2,5
4,5 x 0,6*	-	1,8							2,5		4	2,5								2,2			2,5
4 x 0,8	2,6	2,9	3	3 3,5	3	3 3,5			3	3	5	3 3,5	5 6	5 6	2,9	2,9	2,9	2,9	2,9	2,9	3 3,5	3 3,5	3 3,5
5,5 x 0,8*	-	3,9		3,5		3,5		3 3,5	3	3	5	3 3,5							2,9	2,9			3,5
5,5 x 1	5,5	6,2	3,5	4	3,5	4	3,5	4	3,5	3,5	6	4			3,5	3,5 3,9	3,5	3,5 3,9	3,5	3,5 3,9	4 4,5	4 4,5	4 4,5
6,5 x 1,2	9,4	10,5	4 5	5	4 5	5	4	4					8	8	4,2 4,8	4,2 4,8	4,2 4,8	4,2			5	5	5 5,5
8 x 1,2	11,5	12,9					5	5	4 5	4 5	8	5						4,8	4,2 4,8	4,2 4,8	5,5	5,5	
8 x 1,6	20,5	22,9	6	6	6	6							10 12	10 12	5,5 6,3	5,5 6,3	5,5 6,3	5,5			6	6	6
10 x 1,6	25,6	28,7					6	6	6	6	10	6		14				6,3	5,5 6,3	5,5 6,3	7 8	7	
12 x 2	48,0	53,8	8	8	8	8	8	8	8	8		8		16	8		8		8			8	7 - 8
14 x 2,5	87,5	98,0	10	10	10	10	10	10	10	10		10		18-20	9,5		9,5		9,5		10		

***Only for power screwdrivers**

Size		Test torques		Phillips head, PH + PZ										Index
				Metric screws			Sheet metal screws			Wood screws			American screws	
				Tapping-	Oval head countersunk	Oval head	Oval head	Tapping-	Oval head countersunk	Oval head countersunk	Half-round	Tapping-		ISO International standard
														DIN German standard
		Phillips		✚	✚	✚	✚	✚	✚	✚	✚	✚	✚	
		Pozidriv		✠	✠	✠	✠	✠	✠	✠	✠	✠	✠	M Metric screws — Thread diameter
														M Threaded pins, metric — Thread diameter
														MO Nuts metric — Thread diameter
														B Sheet metal screws — Thread diameter
														H Wood screws — Thread diameter
		DIN 5261 Nm	DIN 5261 Nm	DIN 965	DIN 966	DIN 7985	DIN 7981	DIN 7982	DIN 7983	DIN 7995	DIN 7996	DIN 7997		
✚	✠			M	M	M	B	B	B	H	H	H	No.	Symbols
00	00	*	*	*	*	*	*	*	*	*	*	*		Tool drive = screwdriver
0	0	1	1	1,6 2	1,6 2	1,6 1,8				2	2	2	0 – 1	for screws with inside drive
1	1	3,5	3,9	2,5 3	2,5 3	2 3	2,2 2,9	2,2 2,9	2,2 2,9	2,5 3	2,5 3	2,5 3	2 – 4	Tool drive = socket wrench
2	2	8,2	10,3	3,5 5	3,5 5	3,5 5	3,5 4,8	3,5 4,8	3,5 4,8	3,5 5	3,5 5	3,5 5	5 – 10	for screws with outside drive
3	3	19,5	32,0	6	6	6	5,5 6,3	5,5 6,3	3,5 6,3	5,5 7	5,5 7	5,5 7	12 – 16	
4	4	38	88,7	8 10	8 10	8 10				8	8	8	18 – ...	

This goes together...

TORX® screwdriver

TORX® socket wrench

	TORX®	mm	Test torques Nm	Internal-TORX®									
				Metric screws						Sheet metal screws			
				Cylinder	Tapping-	Oval head countersunk	Cylinder	Oval head saucer head	Tapping-	Oval head	Tapping-	Oval head countersunk	
				ISO 4762									
				DIN 912	DIN 963 965	DIN 964 966	DIN 7984 6912	DIN 7985	DIN 7991	DIN 7981 7982	DIN 7972 7983	DIN 7973	
Size 1:1	Size			M	M	M	M	M	M	B	B	B	
	T 5	1,42	0,43	*	*	*	*	*	*	*	*	*	
	T 6	1,70	0,75	*	*	*	*	*	*	*	*	*	
	T 7	1,99	1,4	*	*	*	*	*	*	*	*	*	
	T 8	2,31	2,2	2,5	2,5	2,5		2,5		2,9	2,9	2,9	
	T 9	2,50	2,8						2,9				
	T 10	2,74	3,7	3	3	3	3	3	3	3,5	3,5	3,5	
	T 15	3,27	6,4		3,5	3,5		3,5		3,9	3,9	3,9	
	T 20	3,86	10,5	4	4	4	4	4	4	4,2	4,2	4,2	
	T 25	4,43	15,9	5	5	5	5	5	5	4,8 5,5	4,8 5,5	4,8 5,5	
	T 27	4,99	22,5	**	**	**	**	**	**	**	**	**	
	T 30	5,52	31,1	6	6	6	6	6	6	6,3	6,3	6,3	
	T 40	6,65	54,1	8	8	8	8	8	8				
	T 45	7,82	86	**	**	**	**	**	**	**	**	**	
	T 50	8,83	132	10	10	10	10	10	10				
	T 55	11,22	218	12			12		12				
	T 60	13,25	379	14			14						

* Special screws M 1.6 and 2.0 for carbide indexable inserts
** Special screws

	TORX®	mm	External-TORX®	
			Metric screws	
			Flange	Flange
			ISO 4014 4017	
			DIN 931 933	DIN 6921
Size 1:1	Size		M	M
	E 4	3,83	3	
	E 5	4,72	4	
	E 6	5,69	5	4
	E 7	6,17	**	**
	E 8	7,47	6	5
	E 10	9,37	8	6
	E 12	11,12	10	8
	E 14	12,85	12	10
	E 16	14,71	**	**
	E 18	16,64	14	12
	E 20	18,41	16	14

This goes together…
Standard hexagon screwdriver

Standard socket wrench

Hexagon socket screws

Metric screws

		Cylinder	with guide	Cylinder	Tapping-	Threaded pin		
		ISO 4762				**ISO** 4026 4029	**ISO** 4027	**ISO** 4028
		DIN 912	**DIN** 6912	**DIN** 7984	**DIN** 7991	**DIN** 913 916	**DIN** 914	**DIN** 915
⬢↕		M	M	M	M	M	M	M
0,7	0,08					1,4 1,6 1,8	1,4 1,6 1,8	1,4 1,6 1,8
0,9	0,18					2	2	2
1,3	0,53	1,4				2,5	2,5	2,5
1,5	0,82	1,6-2				3	3	3
2	1,9	2,5		3	3	4	4	4
2,5	3,8	3		4	4	5	5	5
3	6,6	4	4	5	5	6	6	6
4	16	5	5	6	6	8	8	8
5	30	6	6	8	8	10	10	10
6	52	8	8		10	12 14	12 14	12 14
7	78			10				
8	120	10	10	12	12	16	16	16
10	220	12	12	14	14 16	18 20	18 20	18 20
12	370	14	14	16 18	18 20	22 24	22 24	22 24
14	590	16 18	16 18	20 22	22 24			
17	1000	20 22	20 22	24				
19	1000	24 27	24 27					
22	1000	30	30					
24	1000	33	33					
27	1000	36	36					
32	1000	42						

External hexagon

Metric Screws and Nuts

		Screws				Nuts		**Screws**	
								Sheet metal	Wood
		ISO 4018	**ISO** 4016	**ISO** 4014	**ISO** 4017	**ISO** 4035 4036		**ISO** 1479	
		DIN 558	**DIN** 601	**DIN** 931	**DIN** 933	**DIN** 439	**DIN** 934	**DIN** 7976	**DIN** 571
⬡↕ SW		M	M	M	M	M	M	B	H
2,5	-						1		
3	1,1						1,2 1,4		
3,2	1,3			1,6	1,6	1,6	1,6	2,2	
3,5	1,6					1,8			
4	2,4			2	2	2	2		
4,5	3,3				2,3				
5	4,4			2,5	2,5	2,5	2,5	2,9	
5,5	5,8			3	3	3	3	3,5	
6	7,4			3,5	3,5	3,5	3,5		
7	11,4			4	4	4	4	3,9 4,2	4
8	16,6	5	5	5	5	5	5	4,8 5,5	5
9	23,0	-	-	-	-	-	-	-	-
10	31,0	6	6	6	6	6	6	6,3	6
11	40,4			7	7		7		
12	51,5								7
13	64,5	8	8	8	8	8	8	8	8
14	79,4	-	-	-	-	-	-	-	-
15	96,2	-	-	-	-	-	-	-	-
16	115	10	10	10	10	10			
17	134	10	10	10	10	10	10		10

Square

		Metric screws			**Metric nuts**			
		DIN 478	**DIN** 479	**DIN** 480	**DIN** 557	**DIN** 562		
⬡↕ SW		M	M	M	M	M		
3,5						1,8		
4						2		
4,5		-	-	-	-	-		
5		5	5			2,5		
5,5						3		
6		6	6			3,5		
7						4		
8		8	8	8	5	5		
9		-	-	-	-	-		
10		10	10	10	6	6		
11		-	-	-	-	-		
12		-	-	-	-	-		
13		12	12	12	8	8		
14		-	-	-	-	-		

Inch = mm	Inch = mm
1/16 = 1,59	9/32 = 7,14
5/64 = 1,98	5/16 = 7,94
3/32 = 2,38	11/32 = 8,73
7/64 = 2,78	3/8 = 9,53
1/8 = 3,18	7/16 = 11,11
9/64 = 3,57	1/2 = 12,90
5/32 = 3,97	9/16 = 14,29
3/16 = 4,76	5/8 = 15,88
7/32 = 5,56	3/4 = 19,05
1/4 = 6,35	

Units of measure

Metric dimensions

Wrench sizes				ø-screw thread				
				Metric dimensions in compliance with DIN			ISO R272 1968	
Nominal size	Minimal dimension in mm, in compliance with DIN 475/2	Maximal dimension in mm, in compliance with DIN 475/2, line 1	Maximal dimension in mm, in compliance with DIN 475/2, line 2	Standard hexagon	Small hexagon	Large hexagon	Standard hexagon	Small hexagon
3	3,02	3,08		1,2 1,4				
3,2	3,22	3,28		1,6			1,6	
3,5	3,52	3,60		1,7				
4	4,02	4,12		2			2	
4,5	4,52	4,62		2,3				
5	5,02	5,12		2,5 2,6			2,5	
5,5	5,52	5,62		3			3	
6	6,03	6,15		3,5				
7	7,03	7,15		4			4	
8	8,03	8,15	8,18	5	6		5	
9	9,03	9,15	9,18					
10	10,04	10,19	10,24	6	8		6	
11	11,04	11,19	11,24	7			7	
12	12,04	12,24	12,30					8
13	13,04	13,24	13,30	8	10		8	
14	14,05	14,27	14,35					10
15	15,05	15,27	15,35	10				
16	16,05	16,27	16,35	(Kfz)				
17	17,05	17,30	17,40	10	12		10	12
18	18,05	18,30	18,40					
19	19,06	19,36	19,46	12	16		12	14
20	20,06	20,36	20,46					
20,8	20,86	21,16	21,26					
21	21,06	21,36	21,46					
22	22,06	22,36	22,46	14		12	14	16
23	23,06	23,36	23,46					
24	24,06	24,36	24,46	16	20		16	18
25	25,06	25,36	25,46					
26	26,08	26,48	26,58					
27	27,08	27,48	27,58	18		16	18	20
28	28,08	28,48	28,58					
29	29,08	29,48	29,58					
30	30,08	30,48	30,58	20	24		20	22
32	32,08	32,48	32,58	22		20	22	24
33	33,08	33,48	33,58					
36	36,10	36,60	36,70	24	30	22	24	27
38	38,10	38,60	38,70					
41	41,10	41,60	41,70	27		24	27	30
42	42,10	42,60	42,70					
46	46,10	46,60	46,70	30	36	27	30	33
50	50,10	50,60	50,70	33			33	36
54	54,10	54,60	54,70					
55	55,12	55,72	55,92	36	42		36	39
58	58,12	58,72	58,92					
60	60,12	60,72	60,92	39			39	
63	63,12	63,72	63,92					
65	65,12	65,72	65,92	42	48		42	
67	67,12	67,72	67,92					
70	70,12	70,72	70,92	45			45	
71	71,12	71,72	71,92					
75	75,15	75,85	76,15	48	56		48	
77	77,15	77,85	78,15					
80	80,15	80,85	81,15	52			52	
85	85,15	85,85	86,15	56			56	
90	90,15	90,85	91,15	60			60	
95	95,15	95,85	96,15	64			64	
100	100,15	100,85	101,15	68			68	
105	105,20	106,00	106,40	72			72	
110	110,20	111,00	111,40	76			76	
115	115,20	116,00	116,40	80			80	
120	120,20	121,00	121,40	85			85	
125	125,20	126,00	126,40					
130	130,20	131,00	131,40	90			90	
135	135,20	136,00	136,40	95			95	
140	140,20	141,00	141,40					
145	145,20	146,00	146,40	100			100	
150	150,25	151,25		105			105	
155	155,25	156,25		110			110	
160	160,25	161,25						
165	165,25	166,25					115	
170	170,25	171,25						
175	175,25	176,25					120	
180	180,25	181,25					125	
185	185,25	186,25					130	
190	190,25	191,25					135	
195	195,25	196,25						
200	200,25	201,25					140	
210	210,25	211,25					150	
220	220,30	221,50						
230	230,30	231,50						

U.S. customary units

Wrench sizes			ø-screw thread								
			ISO R 272 1962		United Standar d		American Standard B 18.2 1972				
							Nuts			Bolts+Screws	
Nominal size	Decimal-inch	Decimal-metric	Bolts	Nuts	normal series BS 1768	heavy series BS 1769	finished thick series	regular square series	heavy series	finished and regular bolt series, hex. head cap screws	finished and heavy bolt series
1/8	.1250	3,18	No.2								
5/32	.1563	3,97		No. 0, 1							
3/16	.1875	4,76	No. 3, 4, 5	No. 2, 3							
13/64	.2031	5,16									
7/32	.2188	5,56									
15/64	.234 4	5,95									
1/4	.2500	6,35	No. 6, 8	No. 4							
17/64	.2656	6,75									
9/32	.2813	7, 4 1								No.10	
5/16	.3125	7,94	No. 10, 12	No. 5, 6							
11/32	.3438	8,73		No. 8							
3/8	.3750	9,52		No. 10							
13/32	.4062	10,32									
7/16	.4375	11,11	1/4	No. 12 1/4	1/4		1/4	1/4		1/4	
1/2	.5000	12,70	5/16	5/16	5/16		5/16		1/4	5/16	
17/32	.5313	13,49									
9/16	.5625	14,29	3/8	3/8	3/8		3/8	5/16	5/16	3/8	
19/32	.593 8	15,08									
5/8	.6250	15,87	7/16		7/16			3/8		7/16	
21/32	.6563	16,67									
11/16	.687 5	17,46		7/16			7/16		3/8		
3/4	.7500	19,05	1/2	1/2	1/2		1/2	7/16	7/16	1/2	
25/32	.781 3	19,84									
13/16	.812 5	21,26	9/16		9/16			1/2		9/16	
7/8	.8750	22,22		9/16		1/2	9/16	9/16	1/2		1/2
15/16	.9375	23,81	5/8	5/8	5/8		5/8		9/16	5/8	
31/32	.968 8	24,61									
1	1.000 0	25,40						5/8			
1.1/16	1.0625	26,99				5/8			5/8		5/8
1.1/8	1.1250	28,57	3/4	3/4	3/4		3/4	3/4		3/4	
1.3/16	1.1875	30,16									
1.1/4	1.2500	31,75				3/4			3/4		3/4
1.5/16	1.3125	33,34	7/8	7/8	7/8		7/8	7/8		7/8	
1.3/8	1.3750	34,92									
1.7/16	1.4375	36,51				7/8			7/8		7/8
1.1/2	1.5000	38,10	1	1	1		1	1		1	
1.5/8	1.6250	41,28				1			1		1
1.11/16	1.6875	42,86	1 1/8	1 1/8	1 1/8		1 1/8	1 1/8		1 1/8	
1.3/4	1.7500	44,45									
1.13/16	1.8125	46,04				1 1/8			1 1/8		1 1/8
1.7/8	1.8750	47,62	1 1/4	1 1/4	1 1/4		1 1/4	1 1/4		1 1/4	
2	2.0000	50,80				1 1/4			1 1/4		1 1/4
2.1/16	2.0625	52,39	1 3/8	1 3/8	1 3/8		1 3/8	1 3/8		1 3/8	
2.3/16	2.1875	55,56				1 3/8			1 3/8		1 3/8
2.1/4	2.2500	57,15	1 1/2	1 1/2	1 1/2		1 1/2	1 1/2		1 1/2	
2.3/8	2.3750	60,32				1 1/2			1 1/2		1 1/2
2.7/16	2.4375	61,91					1 5/8	1 5/8		1 5/8	
2.9/16	2.5625	65,09							1 5/8		1 5/8
2.5/8	2.6250	66,67	1 3/4	1 3/4	1 3/4		1 3/4	1 3/4		1 3/4	
2.3/4	2.7500	69,85				1 3/4			1 3/4		1 3/4
2.13/16	2.8125	71, 4 4					1 7/8	1 7/8		1 7/8	
2.15/16	2.9375	74,61							1 7/8		1 7/8
3	3.000 0	76,20	2	2	2		2	2		2	
3.1/8	3.1250	79,37				2			2		2
3.3/8	3.3750	85,72					2 1/4	2 1/4		2 1/4	
3.1/2	3.5000	88,90							2 1/4		2 1/4
3.3/4	3.7500	95,25					2 1/4	2 1/4		2 1/4	
3.7/8	3.8750	98,42							2 1/4		2 1/4
4.1/8	4.1250	104,77					2 3/4	2 3/4		2 3/4	
4.1/4	4.2500	107,95							2 3/4		2 3/4
4.1/2	4.5000	114,30					3	3		3	
4.5/8	4.6250	117,47							3		3
4.7/8	4.8750	123,82								3 1/4	
5	5.0000	127,00							3 1/4		
5.1/4	5.2500	133,35							3 1/2	3 1/2	
5.3/8	5.3750	136,52							3 1/2		
5.5/8	5.6250	142,87							3 3/4	3 3/4	
5.3/4	5.7500	146,05							3 3/4		
6	6.0000	152,40							4	4	
6.1/8	6.1250	155,57							4		

Imperial units

ø-screw thread		Wrench sizes	
Nominal size	BS 916, BS 1083	Decimal-inch	Decimal-metric
1 0 BA		.11 7	2,97
9 BA		.131	3,33
8 BA		.152	3,86
7 BA		.172	4,37
6 BA		.193	4,90
5 BA		.220	5,59
4 BA		.248	6,30
1/16	3/32	.25 6	6,50
3 BA		.282	7,16
3/32	1/8	.297	7,54
2 BA		.324	8,23
1/8	3/16	.34 0	8,64
1 BA		.365	9,27
0 BA		.413	10,49
3/16	1/4	. 44 5	11,30
1/4	5/16	.52 5	13,33
5/16	3/8	. 60 0	15,24
3/8	7/16	.710	18,03
7/16	1/2	.820	20,83
1/2	9/16	.920	23,37
9/16	5/8	1.010	25,65
5/8	11/16	1.100	27,94
11/16	3/4	1.200	30,48
3/4	7/8	1.300	33,02
13/16	15/16	1.390	35,31
7/8	1	1.480	37,59
1	1 1/8	1.670	42,42
1.1/8	1 1/4	1.860	47,24
1.1/4	1 3/8	2.050	52,07
1.3/8	1 1/2	2.220	56,39
1.1/2	1 5/8	2.410	61,21
1.5/8	1 3/4	2.580	65,53
1.3/4	2	2.760	70,10
2	2 1/4	3.150	80,01
	2 1/2	3.550	90,17
	2 3/4	3.890	98,80
	3	4.180	106,17
	3 1/4	4.530	115,06
	3 1/2	4.850	123,19
	3 3/4	5.180	131,57
	4	5.550	140,97
	4 1/2	6.380	162,05
	5	7.300	185,42
	5 1/2	8.350	212,09

The most important prefixes and their application

Mega	M	1 000 000 = 10^6	1 MW =	1 000 000 W
Kilo	k	1 000 = 10^3	1 kW =	1 000 W
Hekto	h	100 = 10^2	1 hl =	100 l
Deka	da	10	1 daN =	10 N
Dezi	d	0,1 = 10^{-1}	1 dm =	0,1 m
Zenti	c	0,01 = 10^{-2}	1 cm =	0,01 m
Milli	m	0,001 = 10^{-3}	1 mm =	0,001 m
Mikro	µ	0,000001 = 10^{-6}	1 µm =	0,000001 m

Previous names and symbols for units which will not be changed

Size	Names	Symbol	Relations to SI-unit
Volume	Litre	l	1 l = 1 dm^3 = 0,001 m^3
Masse	Ton	t	1 t = 1 Mg = 1000 kg
Pressure	Bar	bar	1 bar = 10^5 Pa
Area	Are	a	1 a = 10^2 m^2
Angle	Degrees	°	1° = 17,45 mrad
	Minute	’	1°/60 = 0,291 mrad
	Second	”	1’/60 = 4,85 rad
Time	Minute	min	1 min = 60 s
	Hour	h	1 h = 3600 s
Velocity		km/h	1 km/h = 1/3,6 m/s
			1 m/s = 3,6 km/h

Thanks to the SI-system, it is easy to distinguish between force and mass (weight). Therefore, there will be no more confusion of kp and kg.

The unit of force is newton (N).
The unit of mass (weight) is kilogramme (kg).
The difference is caused by the acceleration of gravity (9.81 m/s^2).

The most important conversions between the previous and the new SI-units

SI-unit into previous unit:

1 N	=		0,102 kp
1 Nm	=		0,102 kpm (= 1 Joule)
1 W	=		0,102 kpm/s (= 1 J/s)
1 kW	=		1,36 PS
1 KW	=		860 kcal/h
1 J	=		0,102 kpm
1 J	=		0,239 cal
1 Pa	= (1 N/m^2)	=	0,102 kp/m^2
K	=		°C + 273,15

Previous unit into SI-unit:

1 kp	=	9,81 N
1 kpm	=	9,81 Nm
1 kpm/s	=	9,81 W
1 PS	=	0,736 kW
1 kcal/h	=	1,16.10^{-3} kW = 0,00116 kW
1 kpm	=	9,81 J
1 cal	=	4,19 J
1 kp/m^2	=	9,81 Pa = 9,81 N/m^2

The tables state that:
1 kp = 9,81 N and 1 N = 0,102 kp.

With a margin of error of merely 2 %, kp and N vary by a factor of 10.

Therefore, in practice, the following values are used:

1 kp	=	10 N
1 N	=	0,1 kp

*) SI-system International d’Unites = international units of measurement
**) The SI-unit for the temperature is kelvin.

The most important SI-units*

Size	Name	Symbol
Length	Meter	m
Mass	Kilogramme	kg
Time	Second	s
Electric current	Ampere	A
Force	Newton	N
Torque	Newton metre	Nm
Power	Watt	W
Energy (work)	Joule	J
Pressure	Pascal	Pa
Temperature**	Kelvin	K

Energy/work (joule)

The unit of energy has three denominations whose numerical values are equal.

1. Newton metre	Nm	(mechanical energy)
2. Watt second	Ws	(electrical energy)
3. Joule	J	(caloric energy)

The choice of denomination determines whether the energy talked about is mechanical, electrical, or caloric.

1 J = 1 Nm = 1 Ws (in relation to the absolute variable)

Conversion of mechanical tension

Unit	N/mm^2	PA	kp/mm^2
1 N/mm^2	1	106	0,102
1 PA	10^{-6}	1	0,102 – 10^{-6}
1 kp/mm^2	9,81	9,81 – 106	1

Here also, a sufficient accuracy (margin of error: 2 %) is achieved in practice as follows:

1 N/mm^2	=	0,1 kp/mm^2
1 kp/mm^2	=	10 N/mm^2

For example:

1. A girder carries a load of 10 kN.
2. The weight of the girder is 200 kg.

The kelvin scale starts at absolute zero = – 273,15°C

The following table is meant to clarify the relation of °C and K.

	Kelvin	°C
Absolute zero	0 K	– 273,15°
Melting point	273,15 K	0 °C
Boiling point	373,15 K	+ 100°C

In practice, the information that water has a temperature of 20°C, is maintained. Only when referring to temperature differences, K has to be used. In this case, 1° C = 1 K.
For example: The difference in temperature between the outside and the inside of a window frame is 15 K. The symbol ° is not used with the unit kelvin.

Comparison table for Vickers-Brinell-Rockwell hardness and tensile strength [1)]

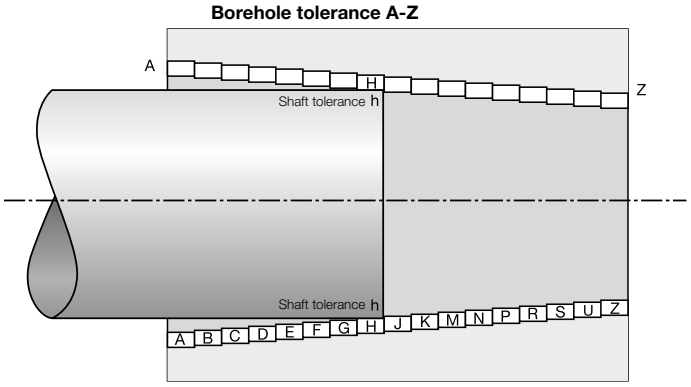
Vickers hardness HV 30	Brinell hardness HB 30	Rockwell hardness[2)] HRB	HRC	Tensile strength σ_B N/mm²
80	80	36,4	-	270
85	85	42,4	-	290
90	90	47,5	-	310
95	95	52,0	-	320
100	100	56,4	-	340
105	105	60,0	-	360
110	110	63,4	-	380
115	115	66,4	-	390
120	120	69,4	-	410
125	125	72,0	-	420
130	130	74,4	-	440
135	135	76,4	-	460
140	140	78,4	-	470
145	145	80,4	-	490
150	150	82,2	-	500
155	155	83,8	-	520
160	160	85,4	-	540
165	165	86,8	-	550
170	170	88,2	-	570
175	175	89,6	-	590
180	180	90,8	-	600
185	185	91,8	-	620
190	190	93,0	-	640
195	195	94,0	-	660
200	200	95,0	-	670
205	205	95,8	-	680
210	210	96,6	-	710
215	215	97,6	-	720
220	220	98,2	-	730
225	225	99,0	-	750
230	230	-	19,2	760
235	235	-	20,2	780
240	240	-	21,2	800
245	245	-	22,1	820
250	250	-	23,0	830
255	255	-	23,8	850
260	260	-	24,6	870
265	265	-	25,4	880
270	270	-	26,2	900
275	275	-	26,9	920
280	280	-	27,6	940
285	285	-	28,3	950
290	290	-	29,0	970
295	295	-	29,6	990
300	300	-	30,3	1010
310	310	-	31,5	1040
320	320	-	32,7	1080
330	330	-	33,8	1110
340	340	-	34,9	1140

Vickers hardness HV 30	Brinell hardness HB 30	Rockwell hardness[2)] HRB	HRC	Tensile strength σ_B N/mm²
350	350	-	36,0	1170
360	359	-	37,0	1200
370	368	-	38,0	1230
380	376	-	38,9	1260
390	385	-	39,8	1290
400	392	-	40,7	1320
410	400	-	41,5	1350
420	408	-	42,4	1380
430	415	-	43,2	1410
440	423	-	44,0	1430
450	430	-	44,8	1460
460	-	-	45,6	-
470	-	-	46,3	-
480	-	-	47,0	-
490	-	-	47,7	-
500	-	-	48,3	-
510	-	-	49,1	-
520	-	-	49,7	-
530	-	-	50,4	-
540	-	-	51,0	-
550	-	-	51,6	-
560	-	-	52,2	-
570	-	-	52,8	-
580	-	-	53,3	-
590	-	-	53,9	-
600	-	-	54,4	-
610	-	-	55,0	-
620	-	-	55,5	-
630	-	-	56,0	-
640	-	-	56,5	-
650	-	-	57,0	-
660	-	-	57,5	-
670	-	-	58,0	-
680	-	-	58,5	-
690	-	-	59,0	-
700	-	-	59,5	-
720	-	-	60,4	-
740	-	-	61,2	-
760	-	-	62,0	-
780	-	-	62,8	-
800	-	-	63,6	-
820	-	-	64,3	-
840	-	-	65,0	-
860	-	-	65,7	-
880	-	-	66,3	-
900	-	-	66,9	-
920	-	-	67,5	-
940	-	-	68,0	-

1) The hardness values are determined using different procedures and materials and can therefore only be compared in approximation.
2) The Rockwell hardness values are only given for interpolation and the final result must be rounded off.

(excerpt from DIN 7160)
Nominal deviation in µ (= 0,001 mm)

With the standard shaft system, all shafts have h-tolerances. The maximal dimension reaches all the way to the zero line and is equal to the nominal size. The minimal dimension of the shaft is smaller than its nominal size (by the tolerance value).



*) preferably in compliance with DIN 7157 (S = clearance fit)

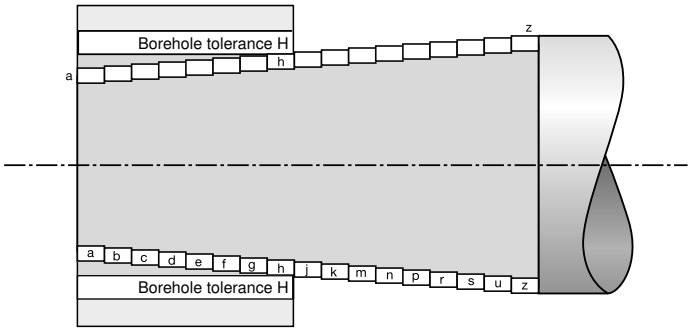
Borehole	Type of fit*)	Nominal size above . . . to . . . mm																				
		1 3	3 6	6 10	10 14	14 18	18 24	24 30	30 40	40 50	50 65	65 80	80 100	100 120	120 140	140 160	160 180	180 200	200 225	225 250
Shaft **h5**		0 – 4	0 – 5	0 – 6	0 – 8		0 – 9		0 – 11		0 – 13		0 – 15		0 – 18			0 – 20		
P 6		– 6 – 12	– 9 – 17	– 12 – 21	– 15 – 26		– 18 – 31		– 21 – 37		– 26 – 45		– 30 – 52		– 36 – 61			– 40 – 70		
N 6		– 4 – 10	– 5 – 13	– 7 – 16	– 9 – 20		– 11 – 24		– 12 – 28		– 14 – 33		– 16 – 38		– 20 – 45			– 22 – 51		
M 6		– 2 – 8	– 1 – 9	– 3 – 12	– 4 – 15		– 4 – 17		– 4 – 20		– 5 – 24		– 6 – 28		– 8 – 33			– 8 – 37		
J 6		+ 3 – 4	+ 5 – 3	+ 5 – 4	+ 6 – 5		+ 8 – 5		+ 10 – 6		+ 13 – 6		+ 16 – 6		+ 18 – 7			+ 22 – 7		
H 6		+ 6 0	+ 8 0	+ 9 0	+ 11 0		+ 13 0		+ 16 0		+ 19 0		+ 22 0		+ 25 0			+ 29 0		
Shaft **h6**		0 – 6	0 – 8	0 – 9	0 – 11		0 – 13		0 – 16		0 – 19		0 – 22		0 – 25			0 – 29		
S 7		– 14 – 24	– 15 – 27	– 17 – 32	– 21 – 39		– 27 – 48		– 34 – 59		– 42 – 72	– 48 – 78	– 58 – 93	– 66 –101	– 77 –117	– 85 –125	– 93 –133	–105 –151	–113 –159	–123 –169
R 7		– 10 – 20	– 11 – 23	– 13 – 28	– 16 – 34		– 20 – 41		– 25 – 50		– 30 – 60	– 32 – 62	– 38 – 73	– 41 – 76	– 48 – 88	– 50 – 90	– 53 – 93	– 60 –106	– 63 –109	– 67 –113
N 7		– 4 – 14	– 4 – 16	– 4 – 19	– 5 – 23		– 7 – 28		– 8 – 33		– 9 – 39		– 10 – 45		– 12 – 52			– 14 – 60		
M 7		– 2 – 12	0 – 12	0 – 15	0 – 18		0 – 21		0 – 25		0 – 30		0 – 35		0 – 40			0 – 46		
K 7		+ 3 – 6	+ 3 – 9	+ 5 – 10	+ 6 – 12		+ 6 – 15		+ 7 – 18		+ 9 – 21		+ 10 – 25		+ 12 – 28			+ 13 – 33		
J 7		+ 3 – 6	+ 6 – 6	+ 8 – 7	+ 10 – 8		+ 12 – 9		+ 14 – 11		+ 18 – 12		+ 22 – 13		+ 26 – 14			+ 30 – 16		
H 7	**S**	+ 9 0	+ 12 0	+ 15 0	+ 18 0		+ 21 0		+ 25 0		+ 30 0		+ 35 0		+ 40 0			+ 46 0		
G 7	**S**	+ 12 + 2	+ 16 + 4	+ 20 + 5	+ 24 + 6		+ 28 + 7		+ 34 + 9		+ 40 + 10		+ 47 + 12		+ 54 + 14			+ 61 + 15		
F 7		+ 16 + 6	+ 22 + 10	+ 28 + 13	+ 34 + 16		+ 41 + 20		+ 50 + 25		+ 60 + 30		+ 71 + 36		+ 83 + 43			+ 96 + 50		
Shaft **h9**		0 – 25	0 – 30	0 – 36	0 – 43		0 – 52		0 – 62		0 – 74		0 – 87		0 –100			0 – 115		
H 8	**S**	+ 14 0	+ 18 0	+ 22 0	+ 27 0		+ 33 0		+ 39 0		+ 46 0		+ 54 0		+ 63 0			+ 72 0		
H 11	**S**	+ 60 0	+ 75 0	+ 90 0	+110 0		+130 0		+160 0		+190 0		+220 0		+250 0			+290 0		
F 8	**S**	+ 20 + 6	+ 28 + 10	+ 35 + 13	+ 43 + 16		+ 53 + 20		+ 64 + 25		+ 76 + 30		+ 90 + 36		+106 + 43			+122 + 50		
E 9	**S**	+ 39 + 14	+ 50 + 20	+ 61 + 25	+ 75 + 32		+ 92 + 40		+112 + 50		+134 + 60		+159 + 72		+185 + 85			+215 +100		
D 10	**S**	+ 60 + 20	+ 78 + 30	+ 98 + 40	+120 + 50		+149 + 65		+180 + 80		+220 +100		+260 +120		+305 +145			+355 +170		
C 11	**S**	+120 + 60	+145 + 70	+170 + 80	+205 + 95		+240 +110		+280 +120	+290 +130	+330 +140	+340 +150	+390 +170	+400 +180	+450 +200	+460 +210	+480 +230	+530 +240	+550 +260	+570 +280
Shaft **h11**		0 – 60	0 – 75	0 – 90	0 –110		0 –130		0 –160		0 –190		0 –220		0 –250			0 –290		
H 11	**S**	+ 60 0	+ 75 0	+ 90 0	+110 0		+130 0		+160 0		+190 0		+220 0		+250 0			+290 0		
D 11	**S**	+ 80 + 20	+105 + 30	+130 + 40	+160 + 50		+195 + 65		+240 + 80		+290 +100		+340 +120		+395 +145			+460 +170		
C 11	**S**	+120 + 60	+145 + 70	+170 + 80	+205 + 95		+240 +110		+280 +120	+290 +130	+330 +140	+340 +150	+390 +170	+400 +180	+450 +200	+460 +210	+480 +230	+530 +240	+550 +260	+570 +280
A 11	**S**	+330 +270	+345 +270	+370 +280	+400 +290		+430 +300		+470 +310	+480 +320	+530 +340	+550 +360	+600 +380	+630 +410	+710 +460	+770 +520	+830 +580	+950 +660	+1030 +740	+1110 +820

ISO fits for hole basis system

(excerpt from DIN 7160)
Nominal deviation in µ (= 0,001 mm)

With the standard borehole system, all boreholes have h-tolerances. The minimal dimension reaches all the way to the zero line and is equal to the nominal size. The maximal dimension of the borehole is higher than the zero line (by the tolerance value).

Shaft tolerance a-z



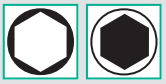
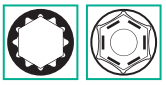
*) preferably in compliance with DIN 7157 (P = interference fit, S = clearance fit, Ü = transition fit)

Shafts	Type of fit*)	Nominal size above . . . to . . . mm																					
		1 3	3 6	6 10	10 14	14 18	18 24	24 30	30 40	40 50	50 65	65 80	80 100	100 120	120 140	140 160	160 180	180 200	200 225	225 250
Boreholes **H6**		+ 6 0	+ 8 0	+ 9 0	+ 11 0		+ 13 0		+ 16 0		+ 19 0		+ 22 0		+ 25 0			+ 29 0		
p 5		+ 10 + 6	+ 17 + 12	+ 21 + 15	+ 26 + 18		+ 31 + 22		+ 37 + 26		+ 45 + 32		+ 52 + 37		+ 61 +43			+ 70 + 50		
n 5		+ 8 + 4	+ 13 + 18	+ 16 + 10	+ 20 + 12		+ 24 + 15		+ 28 + 17		+ 33 + 20		+ 38 + 23		+45 +27			+ 51 + 31		
k 6		+ 6 0	+ 9 – 1	+ 10 + 1	+ 12 + 1		+ 15 + 2		+ 18 + 2		+ 21 + 2		+ 25 + 3		+28 + 3			+ 33 + 4		
j 6		+ 4 – 2	+ 6 – 2	+ 7 – 2	+ 8 – 3		+ 9 – 4		+ 11 – 5		+ 12 – 7		+ 13 – 9		+14 – 11			+ 16 – 13		
h 5		0 – 4	0 – 5	0 – 6	0 – 8		0 – 9		0 – 11		0 – 13		0 – 15		0 – 18			0 – 20		
Boreholes **H7**		+ 10 0	+ 12 0	+ 15 0	+ 18 0		+ 21 0		+ 25 0		+ 30 0		+35 0		+ 40 0			+ 46 0		
s 6	**P**	+ 20 + 14	+ 27 + 19	+ 32 + 23	+ 39 + 28		+ 48 + 35		+ 59 + 43		+ 72 + 35	+ 78 + 59	+ 93 + 71	+101 + 79	+117 + 92	+125 +100	+133 +108	+151 +122	+159 +130	+169 +140
r 6	**P**	+ 16 + 10	+ 23 + 15	+ 28 + 19	+ 34 + 23		+ 41 + 28		+ 50 + 34		+ 60 + 41	+ 62 + 43	+ 73 + 51	+ 76 + 54	+ 88 + 63	+ 90 + 65	+ 93 + 68	+106 + 77	+109 + 80	+113 + 84
n 6	**Ü**	+ 10 + 4	+ 16 + 8	+ 19 + 10	+ 23 + 12		+ 28 + 15		+ 33 + 17		+ 39 + 20		+ 45 + 23		+ 52 + 27			+ 60 + 31		
m 6		+ 8 + 2	+12 + 4	+ 15 + 6	+ 18 + 7		+ 21 + 8		+ 25 + 9		+ 30 + 11		+ 35 + 13		+ 40 + 15			+ 46 + 17		
k 6	**Ü**	+ 6 0	+ 9 – 1	+ 10 + 1	+ 12 + 1		+ 15 + 2		+ 18 + 2		+ 21 + 2		+ 25 + 3		+ 28 + 3			+ 33 + 4		
j 6	**Ü**	+ 4 – 2	+ 6 – 2	+ 7 – 2	+ 8 – 3		+ 9 – 4		+ 11 – 5		+ 12 – 7		+ 13 – 9		+ 14 – 11			+ 16 – 13		
h 6	**S**	0 – 6	0 – 8	0 – 9	0 – 11		0 – 13		0 – 16		0 – 19		0 – 22		0 – 25			0 – 29		
g 6	**S**	– 2 – 8	– 4 – 12	– 5 – 14	– 6 – 17		– 7 – 20		– 9 – 25		– 10 – 29		– 12 – 34		– 14 – 39			– 15 – 44		
f 7	**S**	– 6 – 16	– 10 – 22	– 13 – 28	– 16 – 34		– 20 – 41		– 25 – 50		– 30 – 60		– 36 – 71		– 43 – 83			– 50 – 96		
Boreholes **H8**		+ 14 0	+ 18 0	+ 22 0	+ 27 0		+ 33 0		+ 39 0		+ 46 0		+ 54 0		+ 63 0			+ 72 0		
x 8	**P**	+ 34 + 20	+ 46 + 28	+ 56 + 34	+ 67 + 40	+ 72 + 45	+ 87 + 54	+ 97 + 64	+119 + 80	+136 + 97	+168 +122	+192 +146	+232 +178	+264 +210	+311 +248	+343 +280	+373 +310	+422 +350	+457 +385	+497 +425
u 8	**P**	– –	– –	– –	– –	– –	– –	+ 81 + 48	+ 99 + 60	+109 + 70	+133 + 87	+148 +102	+178 +124	+198 +144	+233 +170	+253 +190	+273 +210	+308 +236	+330 +258	+356 +284
h 9	**S**	0 – 25	0 – 30	0 – 36	0 – 43		0 – 52		0 – 62		0 – 74		0 – 87		0 –100			0 –115		
f 7	**S**	– 6 – 16	– 10 – 22	– 13 – 28	– 16 – 34		– 20 – 41		– 25 – 50		– 30 – 60		– 36 – 71		– 43 – 83			– 50 – 96		
d 9	**S**	– 20 – 45	– 30 – 60	– 40 – 76	– 50 – 93		– 65 –117		– 80 –142		–100 –174		–120 –207		–145 –245			–170 –285		
Boreholes **H11**		+ 60 0	+ 75 0	+ 90 0	+110 0		+130 0		+160 0		+190 0		+220 0		+250 0			+290 0		
h 9	**S**	0 – 25	0 – 30	0 – 36	0 – 43		0 – 52		0 – 62		0 – 74		0 – 87		0 –100			0 –115		
h 11	**S**	0 – 60	0 – 75	0 – 90	0 –110		0 –130		0 –160		0 –190		0 –220		0 –250			0 –290		
d 9	**S**	– 20 – 45	– 30 – 60	– 40 – 76	– 50 – 93		– 65 –117		– 80 –142		–100 –174		–120 –207		–145 –245			–170 –285		
d 9	**S**	– 60 –120	– 70 –145	– 80 –170	– 95 –205		–110 –240		–120 –280	–130 –290	–140 –330	–150 –340	–170 –390	–180 –400	–200 –450	–210 –460	–230 –480	–245 –530	–260 –550	–280 –570
c 11	**S**	–270 –330	–270 –345	–280 –370	–290 –400		–300 –430		–310 –470	–320 –480	–340 –530	–360 –550	–380 –600	–410 –630	–460 –710	–520 –770	–580 –830	–660 –950	–740 –1030	–870 –1110

(excerpt from DIN 7160)
Nominal deviation in µ (= 0,001 mm)

	Shafts	Nominal size above . . . to . . . mm									
		1 3	3 6	6 10	10 18	18 30	30 50	50 80	80 120	120 180	180 250
External dimensions	d 11	– 20 – 80	– 30 –105	– 40 –130	– 50 –160	– 65 –195	– 80 –240	–100 –290	–120 –340	–145 –395	–170 –460
	e 8	– 14 – 28	– 20 – 38	– 25 – 47	– 32 – 59	– 40 – 73	– 50 – 89	– 60 –106	– 72 –126	– 85 –148	–100 –172
	f 9	– 6 – 31	– 10 – 40	– 13 – 49	– 16 – 59	– 20 – 72	– 25 – 87	– 30 –104	– 36 –123	– 43 –143	– 50 –165
	h 7	0 – 10	0 – 12	0 – 15	0 – 18	0 – 21	0 – 25	0 – 30	0 – 35	0 – 40	0 – 46
	h 8	0 – 14	0 – 18	0 – 22	0 – 27	0 – 33	0 – 39	0 – 46	0 – 54	0 – 63	0 – 72
	h 10	0 – 40	0 – 48	0 – 58	0 – 70	0 – 84	0 –100	0 –120	0 –140	0 –160	0 –185
	h 12	0 –100	0 –120	0 –150	0 –180	0 –210	0 –250	0 –300	0 –350	0 –400	0 –460
	js 11	+ 30 – 30	+ 38 – 37	+ 45 – 45	+ 55 – 55	+ 65 – 65	+ 80 – 80	+ 95 – 95	+110 –110	+125 –125	+145 –145
	js 14	+125 –125	+150 –150	+180 –180	+215 –215	+260 –260	+310 –310	+370 –370	+435 –435	+500 –500	+575 –575
	js 16	+300 –300	+375 –375	+450 –450	+550 –550	+650 –650	+800 –800	+950 –950	+1100 –1100	+1250 –1250	+1450 –1450
	k 10	+ 40 0	+ 48 0	+ 58 0	+ 70 0	+ 84 0	+100 0	+120 0	+140 0	+160 0	+185 0
	k 11	+ 60 0	+ 75 0	+ 90 0	+110 0	+130 0	+160 0	+190 0	+220 0	+250 0	+290 0
	k 12	+ 90 0	+120 0	+150 0	+180 0	+210 0	+250 0	+300 0	+350 0	+400 0	+460 0
	k 16	+600 0	+750 0	+900 0	+1100 0	+1300 0	+1600 0	+1900 0	+2200 0	+2500 0	+2900 0

Profiles

	Bi-hex profile
	Triangular profile
	Square profile
	Hex profile
	Energy profile
	HexPlus profile with bore
	Wedge tooth profile
	Combination profile Phillips/slot
	Combination profile Pozidriv/slot
	Recessed head profile Phillips recess (PH)
	Recessed head profile Pozidriv/ Supadriv (PZ)
	Ball head profile
	Switch cabinet key
	Slot profile
	Clamping profile
	TORQ-SET® profile
	TORX® profile
	TORX® profile with bore
	TORX PLUS® profile
	TRI-WING® profile
	Multi-toothed profile
	Anti-**s**lip **d**rive profile
	OGV profile
	Traction profile, hex/bi-hex
	Unit drive profile

Tolerance fields

	Shaft tolerance
	Thread tolerance

Threads

M	Metric thread
MF	Metric fine thread
G	Pipe thread
UNC	Unified coarse thread
UNF	Unified fine thread
BSW	British Standard Whitworth thread
NPT	National pipe taper thread (for American standard tapered pipe thread)
PG	Armoured pipe thread

Miscellaneous

ESD	ESD (= **E**lectro**S**tatic **D**ischarge)
Ex	Explosion-protected
HPQ	**H**igh-**P**erformance **Q**uality
	Cases that can withstand the loads of baggage transport
Typ A	Measuring equipment connection cable type A
OSA	Organisation for the Safety of Abrasives
PTC	**P**ositive **t**emperature **c**oefficient
QR	**Q**uick **r**elease system
IP 67	Dustproof, immersion in water is possible
DVE	Verband The Electro technology (Association for Electrical, Electronic &Information Technologies)
1000V	Fully insulated up to 1000 V according to EN 60900

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NOTES

ATORN® Leistung braucht Qualität.

T&C General terms and conditions of Hommel Hercules Werkzeughandel GmbH & Co. KG

Section 1
General information – Area of applicability

1. These terms and conditions apply to all of our present and future deliveries. They shall be considered to be agreed when the customer orders from our catalogue or if the customer accepts our order confirmation or delivery without objection. Our terms and conditions shall also apply if we, in awareness of conflicting or deviating terms and conditions of the customer, perform delivery to the customer without reservation.
2. These terms and conditions shall apply only to entrepreneurs as stipulated in Section 14 of the BGB (German Civil Code), legal entities under public law and special funds under public law.
3. Our terms and conditions shall also apply to all future transactions with the customer.

Section 2
Quotation and conclusion of contract

1. By placing an order, the customer makes a binding declaration that it wishes to purchase the ordered goods.
2. We shall be entitled to accept the offer to contract that is contained in the order within two weeks of receipt by us. Acceptance shall be declared either in writing or through delivery of the goods to the customer.
3. Our quotations are subject to change without notice. Illustrations, drawings, and weight and dimension specifications included with the quotation are only approximate unless they have been expressly designated as binding. We reserve the right to deviate from the information provided in brochures, illustrations or descriptions.
4. The contract shall be concluded subject to our receiving correct and timely deliveries from our suppliers. This proviso applies only in the event that we are not responsible for non-delivery, especially when concluding a congruent hedging transaction with our supplier. The customer will be informed of the non-availability of goods without delay. Any payment already made shall be reimbursed without delay.

Section 3
Prices – Terms of payment

1. Our prices apply ex warehouse, excluding packaging, which is invoiced separately.
2. Our list and catalogue prices are subject to change without notice. We reserve the right to increase our prices accordingly if cost increases occur between the conclusion of the contract and the delivery date, in particular due to collective wage agreements or material price increases.
3. Statutory value added tax is not included in our prices; it shall be shown separately on the invoice in the legal amount on the day the invoice is issued.
4. Payments shall be due and payable upon receipt of the delivery and invoice. Payment shall be made in cash without any deductions and free of all charges at our point of payment.
5. Cheques and bills of exchange shall be accepted on account of payment only; if bills of exchange are accepted, the bank discount and collection fees shall be charged. They are to be paid in cash immediately.
6. The deduction of a cash discount shall require special written agreement.
7. In the event of default regarding a payment obligation, if a bill of exchange or cheque is not honoured, or if circumstances become known that cast legitimate doubt on the financial solvency of the customer, all our receivables shall become due and payable in cash immediately, regardless of the payment deadlines or of the term of bills of exchange or postdated cheques. In such cases, we shall also be entitled to make any outstanding deliveries dependent on advance payments being made by the customer.
8. The customer shall not be entitled to set off against our claims for due payment, unless the customer's claims are the subject of a final court decision or are uncontested.
   The customer may exercise a right of retention only if the customer's counter-claim is based on the same contractual relationship.

Section 4
Delivery periods – Delay

1. Our delivery obligation shall be subject to the timely and proper fulfilment of the customer's obligations. We reserve the right to plead non-performance of the contract.
2. If the customer is in default of acceptance or culpably violates other obligations to co-operate, we shall be entitled to claim damages for any loss arising, including any additional expenses. The right to assert further claims shall be reserved. The risk of accidental loss or accidental deterioration of the object of sale shall pass to the customer at the time of the default of acceptance or default on debts.
3. If non-compliance with the delivery period is the result of force majeure, e.g. mobilisation, war, terrorism, riot or measures associated with labour disputes such as strikes or lock-outs, the delivery period shall be extended in accordance with the duration of these events.
4. Partial deliveries shall be permitted, insofar as they are reasonable for the customer.
5. For damages due to delay through our default in fulfilling the delivery obligation, the customer shall be entitled to demand an indemnification of 0.5% of the purchase price for each completed week of default, up to a maximum of 5% of the purchase price of the goods to be delivered by us.
6. Both claims for damages by the customer due to delivery delay and claims for damages in lieu of performance that exceed the limits defined in Section 5 shall be excluded in all cases of delayed delivery, even after the expiry of any deadline for delivery that we have set. This shall not apply if the delay in delivery is due to an intentional or grossly negligent breach of contract for which we are responsible. The exclusion or the limitation of liability shall not apply for damage arising from wrongful death, personal injury or health impairment of the customer.
7. The customer shall be obliged, upon our request, to declare within a reasonable period of time whether it wishes to withdraw from the contract due to delivery delays, or insists on delivery.

Section 5
Transfer of risk

1. The risk of accidental loss and accidental deterioration of the goods shall pass to the customer upon handover to the customer or, in the case of a sale involving the carriage of goods, upon transfer of the goods to the carrier, freight forwarder or other institutions specified for execution of delivery.
2. If the customer delays the acceptance of the goods, the transfer shall still be deemed to have taken place.
3. Transport insurance shall be taken out only at the request and expense of the customer.

Section 6
Warranty

1. We must be notified of obvious defects in writing within 2 weeks of receipt of the delivery; otherwise, the assertion of warranty claims shall be excluded. Defects which are not obvious must be reported to us in writing immediately after they are discovered, otherwise the assertion of warranty claims shall be excluded. Timely sending of notice of defect shall suffice to comply with the time limit. The customer bears the full burden of proof for all claims, in particular for the defect itself, the time that the defect was determined and for the timeliness of the notification of the defect.
2. If goods are defective, and subject to timely notification of said defects, we shall be liable in that we, at our discretion, shall either replace the defective goods or defective parts by means of an appropriate replacement, or repair the defective goods or parts.
3. In the event that subsequent fulfilment fails, the customer shall entitled at its discretion to request the reduction of the purchase price or to withdraw from the contract. The customer shall not be entitled to withdraw from the contract in the event of a minor infringement of the contract, particularly in the event of minor defects.
4. We shall be subject to mandatory liability as defined by law, insofar as the customer asserts claims for damages which are based on intent or gross negligence, including intent or gross negligence of our legal representatives or vicarious agents. Insofar as we are not charged with intentional or grossly negligent infringement of contract, liability for damage islimited to the foreseeable damage which typically occurs.
5. If the customer asserts claims for damage due to a slightly negligent breach of an essential contractual obligation, our liability for damages shall be limited to the foreseeable damage that is typical for the type of goods.
6. The warranty period shall be one year from delivery of the goods.
7. Only our product description or the product description of the manufacturer shall apply as agreed for the condition of the goods. Public statements, recommendations or advertising by the manufacturer shall not constitute contractually guaranteed characteristics of the goods.
8. We do not provide guarantees in the legal sense to our customers. Manufacturer's guarantees shall remain unaffected by this.

Section 7
German Electrical and Electronic Equipment Act (ElektroG)

1. The customer shall be obliged to return electrical and electronic equipment delivered by HHW to HHW at the customer's expense after discontinuing the use of the equipment. HWW shall properly dispose of or recycle the equipment in accordance with statutory regulations.
2. After discontinuing the use of the equipment, the customer shall be obliged neither to sell nor give away the equipment to private households, particularly not to employees.
3. If the equipment is passed on to commercial users, the customer shall ensure that an appropriate agreement is reached with the user to the effect that the equipment will be returned to HWW at the end of its useful life, as specified in point 1.

Section 8
Limitation of liability

1. In the event of slightly negligent contractual breaches, our liability shall be limited to the type of damage that is foreseeable and typical for goods of this type. This also applies to slightly negligent contractual breaches on the part of our legal representatives or vicarious agents.
2. We shall not be liable in the event of an insignificant, slightly negligent contractual breach.
3. The limitations of liability cited above and the limitations of liability set forth in Section 6 shall not affect the customer's claims arising from product liability. Moreover, the limitations of liability shall not apply should we be answerable for personal injury and heath hazards or loss of life of the customer.
4. The customer's claims for damages due to a defect of the goods shall become time-barred one year from the date of delivery of the goods. This shall not apply should we be answerable for personal injury and heath hazards or loss of life of the customer. Furthermore, the shortening of the limitation period shall not apply for the customer's claims for other damages that are based on a grossly negligent contractual breach by us or on an intentional or grossly negligent contractual breach on the part of one of our legal representatives or vicarious agents. The statutory limitation periods shall also apply for claims for damages under the German Product Liability Act.

Section 9
Reservation of title

1. We shall retain title to all goods supplied by us until all payment claims against the customer to which we are entitled are fulfilled. If we agree with the customer that the purchase price debt may be paid on the basis of the cheque-bill of exchange procedure, the retention of title shall also extend to the customer's honouring of the bill of exchange we accept, and shall not expire when the cheque amount is credited to our bank account.
2. If the customer is in breach of the contract, particularly if there is delay of payment, we shall be entitled to take back the delivered goods. If we take back the goods, this shall not be considered as withdrawal from the contract, unless we have expressly agreed this in writing. The customer hereby declares that it consents to the return of the goods and hereby authorises us to collect goods from its facilities. After taking back the goods, we shall be entitled to sell them; the proceeds from the sale shall then be credited against the customer's liability – less appropriate costs of sale.
3. The customer shall be obliged to treat the delivered goods with care; in particular the customer shall be obliged to sufficiently insure the goods against fire, water damage and theft at their replacement value at its own expense.
4. The customer shall be obliged to notify us in writing, without delay, of any pledges or other third-party interventions, so that we can assert our property rights. If the third party is not in a position to reimburse us for the judicial and extra-judicial costs incurred, then the customer shall be liable for the loss incurred by us.
5. The customer is entitled to resell the delivered goods in the regular course of business. However, the customer hereby assigns to us any receivables that accrue to the customer from the resale to his customers or third parties, in the full amount. We hereby accept this assignment. The customer shall remain entitled to call in this receivable even after the assignment. This shall not affect our authority call in claims ourself. If the customer defaults on payment, the customer shall be obliged to inform us of the assigned receivables and their debtors, to provide us with all information required for collection, to provide us with the associated documents and to inform the debtors of the assignment.
6. We shall be obliged to release the securities to which we are entitled at the customer's request, should their value exceed the claims to be secured by more than 20%. We reserve the right to choose the securities that shall be released.

Section 10
Data protection

1. The customer agrees and has been informed that all data relating to the customer arising from the business relationship, including personal and invoice-related data as stipulated in the German Federal Data Protection Act will be stored through our electronic data processing and will be forwarded only to authorised service providers and credit agencies in the course of processing an order.

Section 11
Place of performance – Jurisdiction

1. The place of performance for our delivery shall be the location of our subsidiary that executes or initiates the delivery. Our registered office shall be the place of fulfilment for all other claims arising from the contractual relationship.
2. If the customer is a merchant, then the place of jurisdiction shall be – at our discretion – either the location of our registered office or Mannheim. However, we shall also entitled to institute legal proceedings at the location of the customer's registered office.
3. If the customer is not a merchant, then the place of jurisdiction shall be the location of our registered office if the customer, after conclusion of the contract, transfers its domicile or place of habitual residence outside the area of application of the laws of the Federal Republic of Germany. This shall also apply if the customer's domicile or habitual place of residence is unknown when legal proceedings are instituted.

Section 12
Special production

1. In the case of special production, we reserve the right to provide excess or short deliveries of up to 15%. Orders concerning special types cannot be withdrawn. This shall also apply for articles manufactured in series production if they have been ordered with special characters or special lettering.

Section 13
Final provisions

1. The law of the Federal Republic of Germany shall apply. The provisions of the UN Convention on Contracts for the International Sale of Goods shall not apply.
2. Should individual provisions of the contract with the customer including these terms and conditions be ineffective, or become ineffective, in whole or in part, then the effectiveness of the remaining provisions shall remain hereby unaffected. The provision that is ineffective in whole or in part shall be replaced by a provision that most nearly approaches the economic intent of the ineffective provision.

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Raw material surcharges may apply

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We ship ex works, express or overnight services are available upon request
- Minimum order value of 150 € applies.
- Additional charges for seaworthy packaging.

Returns:
We can only accept returned goods upon prior agreement with our office. We reserve the right to charge a processing fee

Appendix:
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