

# assortment informations new products

01.2021 EN

Tools. Next Level.



**Brütsch-Rüegger**

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**115354 External micrometer digital MAHR Micromar 40 EWR-R/EWRi-R**

anvil spherical

DIN 863-3

Digital micrometer Micromar 40 EWR-R /EWRi-R with spherical anvil. For measuring the thickness of pipe walls.

**Designs:****115354.0100...115354.0200: Type EWR-R** Data output MarConnect (bi-directional) USB, Digimatic**115354.1100...115354.1200: Type EWRi-R** Integrated wireless**Features:**

LCD display

REFERENCE-system

RESET (sets display to zero)

TOL (tolerance and warning limits)

HOLD (storage of measured values)

Conversion mm/inch

ABS (switch between relative/absolute mode)

LOCK-Funktion (Keylock)

ORIGIN (fixed value setting)

DATA (data transmission)

**Package contents:**

Delivered in case incl. setting gauge (from 25 mm).

**Appropriate accessories:**

109275 Accessories MAHR

**Appropriate batteries:**

1 pieces 155051.0545 - CR2032 / 3.0 V (included in scope of delivery).

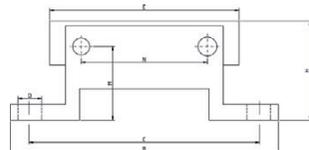
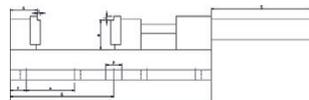
Order ID		115354.0100	115354.0200	115354.1100	115354.1200
Type		EWR-R	EWR-R	EWRi-R	EWRi-R
Range	mm	0...25	25...50	0...25	25...50
Resolution	mm	0.001	0.001	0.001	0.001
Accuracy	µm	4	4	4	4
Measuring spindle Ø	mm	6.5	6.5	6.5	6.5
Measuring surfaces	mm	R 6	R 6	R 6	R 6
Spindle pitch	mm	0.5	0.5	0.5	0.5
Protection class		IP65	IP65	IP65	IP65
Digit height	mm	10	10	10	10
Data output		•	•	•	•

**410101 V-block drilling machine vice NERIOX**

Simple design, cast base body, with universal mounting fixture, movable jaw guided laterally, fixed jaw with V-blocks, both clamping jaws with offset.

NERIOX

Order ID		410101.0100	410101.0200	410101.0300
<b>Jaw width</b>	<b>mm</b>	<b>80</b>	<b>100</b>	<b>120</b>
<b>Jaw height</b>	<b>mm</b>	<b>30</b>	<b>30</b>	<b>30</b>
<b>Clamping width</b>	<b>mm</b>	<b>65</b>	<b>87</b>	<b>112</b>
A	mm	30	36	48
B	mm	142	154	175
C	mm	110	122	145
D	mm	15	15	15
E	mm	80	100	120
F	mm	21	21	16
G	mm	74.5	88	107
H	mm	58	62	65
I	mm	3.5	3.5	3.5
J	mm	8	8	8
K	mm	22	22	28
L	mm	149	174	215
M	mm	40	44	46
N	mm	40	50	80
P	mm	15	15	15
Q	mm	33	28	30
S	mm	82	10	120
Weight	kg	3.6	4.3	6.3

**413882 Vice jaws**

of aluminium, per pair.

**Usable with:**

413640 Workbench vice NERIOX

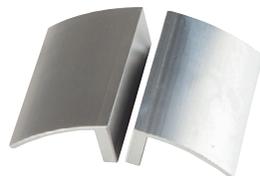
413680 Workbench vice LEINEN

413690 Workbench vice LEINEN JUNIOR

413695 Workbench vice LEINEN

413850 Workbench vice NERIOX

413970 Workbench vice FUTURO



Order ID	Jaw width
	mm
413882.0100	80
413882.0200	100
413882.0300	125
413882.0400	135
413882.0500	150
413882.0600	160

**424035 Hex L key FUTURO SmartHEX**

Chrome-molybdenum vanadium steel, chrome-plated, ends deburred, **long design with hexagon ball head and magnet on the long end**. For socket head screws. This nifty L key is a problem-solver for all kinds of applications; the special SmartHEX hexagon profile protects socket head screws from being rounded out and **holding the key at an angle loosens stripped and rusted hexagon screws** effortlessly without having to compromise on tightening torque.

Order ID	Wrench size	Side length
	mm	mm
424035.0100	1.5	62 x 14
424035.0200	2	75 x 16
424035.0300	2.5	85 x 18
424035.0400	3	90 x 20
424035.0500	4	100 x 25
424035.0600	5	115 x 28
424035.0700	6	135 x 32
424035.0800	8	150 x 36
424035.0900	10	170 x 40

**FUTURO****424045 Hex L key set FUTURO SmartHEX**

**9 pieces**, chrome-molybdenum vanadium steel, chrome-plated, ends deburred, **long design with hexagon ball head and magnet on the long end**. For socket head screws. This nifty L key is a problem-solver for all kinds of applications; the special SmartHEX hexagon profile protects socket head screws from being rounded out and **holding the key at an angle loosens stripped and rusted hexagon screws** effortlessly without having to compromise on tightening torque. In plastic holder.

Order ID	Number of wrenches	with wrenches
		mm
424045.0100	9	1.5 2 2.5 3 4 5 6 8 10

**FUTURO****424270 Hex L key PB Swiss Tools**

**PB 2222 L**, long design, hexagon ball head on the long end, **extra short key part with half ball head** for high torques and versatile application, **angled 90-100°** to provide safe hand clearance when working on screws in particularly confined spaces.

Order ID	Wrench size	Side length
	mm	mm
424270.0100	1.5	80 x 4
424270.0200	2	90 x 5
424270.0300	2.5	110 x 6
424270.0400	3	125 x 8
424270.0500	4	150 x 9
424270.0600	5	165 x 11
424270.0700	6	185 x 13
424270.0800	8	200 x 16
424270.0900	10	220 x 18

**424275 Coloured angled hex key PB Swiss Tools**

**PB 2222 L RB**, long design, powder coated with colour-coded sizes. **Hexagon ball head** on the long end, **extra short key part with half ball head** for high torques and versatile application, **angled 90-100°** to provide safe hand clearance when working on screws in particularly confined spaces.

Order ID	Wrench size	Side length	Colour
	mm	mm	
424275.0100	1.5	80 x 4	Light green
424275.0200	2	90 x 5	Green
424275.0300	2.5	110 x 6	Lime green
424275.0400	3	125 x 8	Light yellow
424275.0500	4	150 x 9	Yellow
424275.0600	5	165 x 11	Orange
424275.0700	6	185 x 13	Red
424275.0800	8	200 x 16	Purple
424275.0900	10	220 x 18	Blue



**424440 Coloured angled hex key set PB Swiss Tools**



**PB 2222 LH RB, long design**, powder coated with colour-coded sizes. **Hexagon ball head** on the long end, **extra short key part with half ball head** for high torques and flexible application, **angled 90-100°** to provide safe hand clearance when working on screws in particularly confined spaces, provided in plastic holder.



Order ID	Type	Version	with wrenches mm
424440.0100	<b>2222 LH-10 RB</b>	Long	1.5 2 2.5 3 4 5 6 8 10

**425183 L key for TORX® screws PB Swiss Tools**

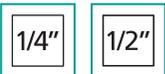


**PB 3411, long design**, special spring steel alloy for a high hardness grade yet exceptional elasticity. Precise, true-to-size tips for optimum fit in screws, **knurled shaft for a secure grip in wet or oily conditions**, for TORX®screws.



Order ID	Size	Side length mm
425183.0100	<b>T 6</b>	80 x 15
425183.0200	<b>T 7</b>	90 x 16
425183.0300	<b>T 8</b>	100 x 17
425183.0400	<b>T 9</b>	110 x 17
425183.0500	<b>T 10</b>	120 x 18
425183.0600	<b>T 15</b>	135 x 20
425183.0700	<b>T 20</b>	150 x 21
425183.0800	<b>T 25</b>	165 x 22

**428862 Tool case JET**



**Y-136C, 136-piece quality tool set** in a solid aluminium tool case with a two-tone, rigid foam insert in the bottom for a perfect fit and organisation of tools.



**Consisting of:**

- 1/4" hexagonal socket set 4–14 mm
- 1/2" hexagonal socket set 10–32 mm
- 9 combination wrenches 8–22 mm
- 1 adjustable wrench 250 mm
- 1 bit set 1/4", 41 bits
- 1 pincers 250 mm
- 1 pointed-tip pliers 200 mm, 1 water pump pliers 250 mm
- 1 diagonal cutters 160 mm, 1 combination pliers 185 mm
- 1 all-purpose scissors, 1 hex key set 1.5–10 mm
- 1 circlip pliers set 4-piece
- 1 universal knife 18 mm, 1 voltage detector 100–250 V
- 1 cross pein hammer 300 g, 1 metal saw bow 300 mm
- 1 metal saw 300 mm, 1 LED torch (without batteries)
- 1 telescopic magnet, 1 5-piece chisel and punch set
- 1 4-piece precision screwdriver set
- 1 5-piece screwdriver set, 1 bit holder
- 1 tape measure 5 m, 1 calliper gauge 150 mm
- 1 knee cushion, 400 x 300 mm

Order ID	Type	Parts	Dimensions mm	Weight kg
428862.0100	<b>Y-136C</b>	136	510 x 200 x 430	12.8

**434525 Watchmaker's screwdriver set NERIOX**



6 pieces, for **Phillips and slotted machine screws**, blade black tool steel, handles nickel-plated, in plastic case.

**NERIOX**



Order ID	Parts	Slot width mm	Phillips
434525.0100	<b>6</b>	1.4 2.0 2.4 3.0	PH0 PH1

**438250 Bit set BAHCO**



**Bahco 59S/22-2, 22 pieces**, in a robust rubber holder with belt clip and safety lock to prevent it opening independently, with 20 short bits 1/4" C 6.3, 1 magnetic bit holder 1/4" and 1 square/hexagonal plug-in adapter 1/4". Bits made of high-performance high-speed steel, zinc-phosphated.

Order ID	438250.0100		
Type	<b>59S/22-2</b>		
Parts	22		
Holder with magnet	1/4" x 60 mm		
Coupler	Square/hexagonal (1/4")		
Phillips blades No.	3 x PH2 2 x PH2G		
Pozidriv blades No.	2 x PZ2 1 x PZ3		
Hexagon socket bits	mm	1 x 2.5 1 x 3	
Bits for TORX® screws	2 x T10 3 x T15 3 x T20 2 x T25		

**438255 Bit set BAHCO**



**Bahco 59S/31B, 31 pieces**, in a plastic box, with 29 short bits 1/4" C 6.3, 1 quick-change magnetic bit holder 1/4" and 1 square/hexagonal plug-in adapter 1/4". Bits made of high-performance high-speed steel, sandblasted and treated with oil to protect against corrosion.

Order ID	438255.0100		
Type	<b>59S/31B</b>		
Parts	31		
Holder with magnet	1/4" x 60 mm		
Coupler	Square/hexagonal (1/4")		
for Slotted screws	mm	1 x 4.5 mm 1 x 5.5	
Phillips blades No.	1 x PH1 3 x PH2 1 x PH3 2 x PH2G		
Pozidriv blades No.	1 x PZ1 3 x PZ2 1 x PZ3		
Hexagon socket bits	mm	1 x 3 1 x 4 1 x 5 1 x 6	
Bits for TORX® screws	1 x T10 3 x T15 3 x T20 2 x T25 1 x T27 1 x T30		

**438260 Bit set BAHCO**



**Bahco 59S/54BC, 54 pieces**, in a robust plastic box with rubberised applications, with 46 short bits 1/4" C 6.3, 7 long bits 1/4" E 6.3, 1 magnetic bit holder 1/4", 1 quick-change magnetic bit holder 1/4" and 1 square/hexagonal plug-in adapter 1/4". Bits made of high-performance high-speed steel, sandblasted and treated with oil to protect against corrosion.

Order ID	438260.0100		
Type	<b>59S/54BC</b>		
Parts	54		
Holder with magnet	2 x 1/4" x 60 mm		
Coupler	4-Kant/6-Kant (1/4")		
for Slotted screws	mm	1 x 4.5 1 x 5.5	
Phillips blades No.	1 x PH1 4 x PH2 1 x PH3 2 x PH2G		
Phillips bits long	1 x PH1 1 x PH2		
Pozidriv blades No.	1 x PZ1 4 x PZ2 1 x PZ3		
Pozidriv bits long	1 x PZ1 1 x PZ2		
Hexagon socket bits	mm	1 x 3 1 x 4 1 x 5 1 x 6 1 x 8	
Inside square bits	mm	1 x 1 1 x 2	
Bits for TORX® screws	2 x T10 2 x T15 4 x T20 2 x T25 1 x T27 4 x T30 1 x T40		
Long bits for TORX® screws	1 x T20 1 x T25 1 x T30		
Blades with hole for TORX® screws	1 x TR10 1 x TR15 1 x TR20 1 x TR25 1 x TR30		

**438265 Bit set BAHCO**



**Bahco 59/S100BC, 100 pieces**, in a robust plastic box with rubberised applications, with 97 short bits 1/4" C 6.3, 1 magnetic bit holder 1/4", 1 quick-change magnetic bit holder 1/4" and 1 square/hexagonal plug-in adapter 1/4". Bits made of high-performance high-speed steel, sandblasted and treated with oil to protect against corrosion.



Order ID	438265.0100	
Type	<b>59/S100BC</b>	
Parts	100	
Holder with magnet	2 x 1/4" x 60 mm	
Coupler	4-Kant/6-Kant (1/4")	
for Slotted screws	mm	1 x 4.5 mm 1 x 5.5
Phillips blades No.	2 x PH1 9 x PH2 1 x PH3 5 x PH2G	
Pozidriv blades No.	2 x PZ1 9 x PZ2 1 x PZ3	
Hexagon socket bits	1 x 3 3 x 4 1 x 5 3 x 6 1 x 8	
Inside square bits	1 x 1 1 x 2	
Bits for TORX® screws	3 x T10 5 x T15 15 x T20 8 x T25 1 x T27 15 x T30 3 x T40	
Blades with hole for TORX® screws	1 x TR10 1 x TR15 1 x TR20 1 x TR25 1 x TR30	

**438270 Bit set BAHCO**



**Bahco 65I/7-1, 7 pieces**, in a plastic box, with 6 short stainless steel bits 1/4" C 6.3 and 1 universal bit holder 1/4". Particularly suitable for use with stainless steel screws, the torsion zone absorbs torque spikes, avoids premature wear and prolongs the service life.



Order ID	438270.0100	
Type	<b>65I/7-1</b>	
Parts	7	
Holder	1/4" x 60 mm	
Phillips blades No.	1 x PH2	
Pozidriv blades No.	1 x PZ2	
Bits for TORX® screws	1 x T15 1 x T20 1 x T25 1 x T30	

**455910 Universal cutters NERIOX**

Stainless steel blades with fine serration and additional cutter for electric cables with a diameter of up to 2.5 mm, variable opening width for small and large hands, spring and safety lock, ergonomic 2-component handle. Effortlessly cuts paper, cardboard, fabric, sheet metal, plastic, leather etc.

NERIOX



Order ID	Overall length	Blade length
	mm	mm
455910.0100	180	40

**457155 MDP safety knife MARTOR**

**Secunorm Profi 25 MDP**, professional safety knife with automatic blade retraction for universal applications and materials; also cuts 3-layer boxes effortlessly. Ideally suited for use in the food or pharmaceutical industries - metal-detectable: When working, a cutting tool—or parts of it—can sometimes be lost. But only for a short time because the metal-detectable plastic and the striking blue ensure that you find it again more quickly. The unpainted handle also minimises the risk of broken parts being able to enter the production process. Suitable for right-handed and left-handed users, 2-sided, stainless trapezoidal blade, push button for easy blade change.



**Appropriate accessories:**

- 457325 Used blade container MARTOR
- 550095 Belt pouch with clip MARTOR

Order ID	Type	Cutting depth
		mm
457155.0100	<b>Secunorm Profi 25 MDP</b>	21

**457165 MDP safety knife MARTOR**

**Secunorm Handy MDP**, handy, compact safety knife with automatic blade retraction for a variety of applications and materials. Ideally suited for use in the food or pharmaceutical industries - metal-detectable: When working, a cutting tool—or parts of it—can sometimes be lost. But only for a short time because the metal-detectable plastic and the striking blue ensure that you find it again more quickly. The unpainted handle also minimises the risk of broken parts being able to enter the production process. Slide on both sides: Suitable for right-handed and left-handed users, 4-sided, stainless blade.



**Appropriate accessories:**

- 457325 Used blade container MARTOR
- 550095 Belt pouch with clip MARTOR

Order ID	Type	Cutting depth
		mm
457165.0100	<b>Secunorm Handy MDP</b>	8.5

**457205 MDP safety knife MARTOR**

**Secunorm Smartcut MDP**, very lightweight safety knife with automatic blade retraction for a variety of applications and materials. Ideally suited **for use in the food or pharmaceutical industries - metal-detectable**: When working, a cutting tool—or parts of it—can sometimes be lost. But only for a short time because the metal-detectable plastic and the striking blue ensure that you find it again more quickly. Slide accessible from both sides, suitable for right-handed and left-handed users, **stainless disposable blade**.

**Appropriate accessories:**

550095 Belt pouch with clip MARTOR

Order ID	Type	Cutting depth mm
457205.0100	<b>Secunorm Smartcut MDP</b>	11.6

**457215 MDP safety knife MARTOR**

**Secumax 320 MDP**, the film expert with the highest level of safety. The concealed blade and the rounded knife nib protect you and your goods particularly reliably. Ideally suited **for use in the food or pharmaceutical industries - metal-detectable**: When working, a cutting tool—or parts of it—can sometimes be lost. But only for a short time because the metal-detectable plastic and the striking blue ensure that you find it again more quickly. With fastening eyelet and tape cutter, suitable for right-handed and left-handed users, **4-sided**, **stainless blade**, push button for easy blade change.

**Appropriate accessories:**

457325 Used blade container MARTOR

550095 Belt pouch with clip MARTOR

Order ID	Type	Cutting depth mm
457215.0100	<b>Secumax 320 MDP</b>	4

**457220 MDP safety knife MARTOR**

**Secumax 145 MDP**, lightweight for everyday cutting in cardboard, films or adhesive tapes. Insulated cutting edges for maximum safety and out of reach of fingers. 2-in-1 blade head for grooving and cutting. Ideally suited **for use in the food or pharmaceutical industries - metal-detectable**: When working, a cutting tool—or parts of it—can sometimes be lost. But only for a short time because the metal-detectable plastic and the striking blue ensure that you find it again more quickly. With fastening eyelet, suitable for right-handed and left-handed users, **2-sided**, **stainless disposable blade**.

**Appropriate accessories:**

550095 Belt pouch with clip MARTOR

Order ID	Type	Cutting depth mm
457220.0100	<b>Secumax 145 MDP</b>	3.8

**457235 MDP ring cutter MARTOR**

**Secumax ring cutter MDP**, work with a cutting tool – and still have both hands free for other things. The ring cutter makes it easy to cut films, yarns, strings and much more. Flexible plastic ring, suitable for all finger sizes. Ideally suited **for use in the food or pharmaceutical industries - metal-detectable**: When working, a cutting tool—or parts of it—can sometimes be lost. But only for a short time because the metal-detectable plastic and the striking blue ensure that you find it again more quickly. **Stainless disposable blade**.



Order ID	Type	Cutting depth mm
457235.0100	<b>Secumax Ringmesser MDP</b>	5.6

**459865 Hole saw set BAHCO**

**Bahco Sandflex® 3834-64 Metal & Wood**, with the most common hole saws **for universal applications in an industrial and electrical setting**. Universal hole saws for cutting ferrous and non-ferrous steels, cast iron, aluminium, brass, copper, stainless steel, wood and plastics. Bi-metal design with 8% cobalt for high wear resistance, side slots enable cores to be removed quickly and easily. Suitable for use with electric drilling machines, both stationary and portable. Cutting depth 38 mm.

Order ID	459865.0100		
Type	<b>3834-SET-64</b>		
Ø	mm	19 22 29 35 38 44 51 57 64	
Accessories		1 arbor 3834-ARBR-930 for Ø 14–30 mm 1 arbor 3834-ARBR-9100 for Ø 32–100 mm 1 HSS centre drill 3834-DRL	



**488080 Cut-off wheel high performance FUTURO**

Straight version (form 41), abrasive corundum A, **very well suited for structural steel, hardened, high-alloy and high-tensile steel and stainless steel**. For cutting sheet metal, profiles and solid material. Powerful cut-off wheel with an extremely long service life and high cutting performance with free-hand angle grinders of all power classes. Less burr formation and fewer flying sparks. Iron and sulphur-free, specially protected against moisture-related ageing processes.

Sales unit = **pack of 25**

Order ID	Ø x width mm	Hole mm
488080.0100	<b>115 x 1.0</b>	22.23
488080.0200	<b>125 x 1.0</b>	22.23
488080.0300	<b>230 x 1.9</b>	22.23

**488095 Cut-off wheel NERIOX**

Straight version (form 41), abrasive corundum A, **well suited for structural steel, hardened, high-alloy and high-tensile steel and stainless steel**. For cutting sheet metal, profiles and solid material. Efficient cut-off wheel with a good service life and cutting performance. **Ideal for low-drive free-hand angle grinders**. Less burr formation and fewer flying sparks. Iron and sulphur-free.

Sales unit = **pack of 25**

Order ID	Ø x width mm	Hole mm
488095.0100	<b>125 x 1.0</b>	22.23

**489100 Abrasive flap wheel high performance Z FUTURO**

**Flat design**, abrasives made of sharp-edged, self-sharpening zircon corundum, **very well suited for steel, suitable for stainless steel**. Tool for universal grinding tasks such as surface grinding and welding seam processing with a very high service life and a maximum amount of stock removal. Iron and sulphur-free.

Sales unit = **pack of 10**

Order ID	Ø mm	Grain	Hole mm
489100.0100	<b>115</b>	40	22.23
489100.0200	<b>115</b>	60	22.23
489100.0300	<b>115</b>	80	22.23
489100.0400	<b>125</b>	40	22.23
489100.0500	<b>125</b>	60	22.23
489100.0600	<b>125</b>	80	22.23

**489110 Abrasive flap wheel high performance C FUTURO**

**Conical design**, abrasives made of **microcrystalline, sharp-edged ceramic grain**. Fast and aggressive grinding with very high cutting performance and also a greater contact surface due to extra long slats. **Very well suited for tempered steels, pawl surfaces and titanium**, especially good for edge grinding. Iron and sulphur-free.

Sales unit = **pack of 10**

Order ID	Ø mm	Grain	Hole mm
489110.0100	<b>125</b>	40	22.23
489110.0200	<b>125</b>	60	22.23
489110.0300	<b>125</b>	80	22.23

**FUTURO****NERIOX****FUTURO****FUTURO**

**489120 Abrasive flap wheel High Perfection Z FUTURO**

**Conical design**, simple grinding with **full visibility**. Thanks to the three recesses, the abrasive flap wheel becomes transparent when turning. This enables **permanent control of the material removal** and therefore a perfect result. Abrasives made of sharp-edged, self-sharpening zircon corundum, **very well suited for steel, suitable for stainless steel**. Tool for universal grinding tasks such as surface grinding and welding seam processing with a very high service life and a maximum amount of stock removal. Iron and sulphur-free.

Sales unit = pack of 10

Order ID	Ø mm	Grain	Hole mm
489120.0100	125	40	22.23
489120.0200	125	60	22.23
489120.0300	125	80	22.23

**FUTURO****517155 Epoxy adhesive LOCTITE****LOCTITE EA 9483**

Highly transparent, flowable, universal 2K epoxy adhesive **for bonding and casting for applications requiring optical transparency and high strength**. The product is, for example, ideally suited for gluing decorative panels and display boxes. It has a low moisture absorption, hardens at room temperature and achieves excellent impact resistance. Absolute dimensional stability over a wide temperature range, resistant to a variety of chemicals and solvents.

**Appropriate accessories:**

517160 Caulking gun LOCTITE

517162 Static mixer LOCTITE

Order ID	517155.0100	
<b>Cartridge</b>	<b>ml</b>	<b>50</b>
Type		9483
Mischverhältnis		2:1
Preparation time	min	30
Initial curing time at 22 °C	min	210
Joint max.	mm	0.25
Viscosity	mPa·s	7000
Operating temperature	°C	-55...+150
Colour of the product		Highly transparent

Symbols of danger	GHS7, GHS9
H phrases	H315, H317, H319, H411
P phrases	P273, P280, P302+P352, P333+P313, P337+P313

**523255 Rust remover high performance FUTURO**

Rust dissolver and screw releaser with excellent creep effect. Quickly dissolves rusted metal parts, protects against corrosion and displaces moisture. Briefly spray the surface from a distance of around 5–10 cm and leave to take effect. Repeat if necessary.

Order ID	Contents ml	Packs
523255.0100	500	Spray can

**FUTURO****524100 Fast-acting degreaser high performance FUTURO**

Ideally suited for effective cleaning in the workshop, it dissolves even the most stubborn residues with great pressure and an impressive cleaning power. Removes oil, grease, tar, adhesive residue, brake fluid, dirt etc. from tools, machines, equipment, metal parts, brakes etc. Cleans spark plugs, battery terminals, electrical connections and contacts. Use only on cold surfaces. Does not attack rubber, plastic and paint, dielectric.

Order ID	Contents	Packs
524100.0100	500 ml	Spray can
524100.0200	5 l	Canister
524100.0300	25 l	Canister

**FUTURO**

**524105 Multi-use foam cleaner high performance FUTURO**

The white active foam effectively cleans all smooth surfaces, discs and mirrors in industry, in the home and the office. The special formulation effortlessly removes all kinds of dirt and leaves a pleasant citrus aroma. Thanks to a stable active foam, there is no unwanted drain off on vertical surfaces. Providing long-term protection for longer lasting cleanliness. Also sprays overhead for targeted and easy use even in inaccessible areas. Neutral with regard to rubber, paints and plastics, biodegradable.

Order ID	Contents ml	Packs
524105.0100	500	Spray can

**FUTURO**



**530191 Nitrile knitted glove MaxiFlex®**

Elite™ 34-274



Assembly glove, coated palm, for very intricate work in dry conditions.

DURATech® technology for **extremely high abrasion resistance**, 30% thinner than standard nitrile foam gloves, AIRTech® technology for maximum breathability, ERGOtech® for maximum comfort.



CE Category II, EN388:2003:4131

Pack of 12 pairs

Price per pair

EN388:4131A

Order ID	Size
530191.0100	7
530191.0200	8
530191.0300	9
530191.0400	10
530191.0500	11

**533027 Hygiene mask type IIR**

Surgical face mask with anti-fog coating and elasticated straps. **Ideal for glasses wearers** as the mask helps prevent the lenses from fogging up. This face mask meets all the criteria of EN 14683. High bacterial filtration efficiency (BFE) ≥ 98%, differential pressure <60 Pa/cm<sup>2</sup>, splash resistance pressure ≥ 16 kPa, microbial cleanliness ≤ 30 cfu/g.

This mask is made up of: **Three layers** consisting of:

**Layer 1:** Polypropylene spunbond, non-woven fabric

**Layer 2:** Melt-blown fabric, polypropylene

**Layer 3:** Polypropylene spunbond, non-woven fabric

Two elasticated straps made from polyester, spandex yarn with low elasticity

One polyethylene or metal nose bridge, anti-fog coating



This medical face mask has been tested in accordance with the EN 14683 NELSON test for bacterial filtration efficiency (BFE), NELSON test for differential pressure, NELSON test for microbial cleanliness, NELSON test for splash resistance pressure. CE certification in accordance with Directive 93/42/EEC, manufactured as a medical device in compliance with the strictest standards.

Order ID	Contents pieces
533027.0100	50



**533176 Respirator 3M**

Aura™ 1862+

FFP2 NR D, EN 149:2001+A1:2009 Typ II R, EN 14683:2019

**Filter class FFP2**, the 3M™ Aura™ respirator 1862+ provides effective breathing protection against dust, non-volatile fluid particles and biological aerosols.

Resistant to liquid splashes, sealing points along the top edge of the mask ensure a clear view. This reduces eyewear fogging. The innovative filter technology guarantees minimal breathing resistance while maintaining safe filter performance. The special design of the nose section allows it to conform perfectly to the shape of the face. The chin strap makes it easy to position the mask, while hygienic individual packaging protects the mask from contamination.



Box of 20

Order ID	Filter class	up to MAK value
533176.0100	FFP2	10x

**534062 Safety shoes S1P REEBOK****Fusion Flexweave blue**

Upper made from Ultraknit/Flexweave, **breathable lining** made from nylon mesh, rubber outer sole with very light foam midsole, **extra-wide composite protective cap**, 100% non-metallic.

EN ISO 20345:2011 S1P SRC

Order ID	Size	Order ID	Size
534062.0100	39	534062.0600	44
534062.0200	40	534062.0700	45
534062.0300	41	534062.0800	46
534062.0400	42	534062.0900	47
534062.0500	43		

**534064 Safety shoes S1P REEBOK****Fusion Flexweave grey**

Upper made from Ultraknit/Flexweave, **breathable lining** made from nylon mesh, rubber outer sole with very light foam midsole, **extra-wide composite protective cap**, 100% non-metallic.

EN ISO 20345:2011 S1P SRC

Order ID	Size	Order ID	Size
534064.0100	39	534064.0600	44
534064.0200	40	534064.0700	45
534064.0300	41	534064.0800	46
534064.0400	42	534064.0900	47
534064.0500	43		

**534082 Safety shoes S1P REEBOK****Fusion Flexweave black**

Upper made from Ultraknit/Flexweave, **breathable lining** made from nylon mesh, rubber outer sole with very light foam midsole, **extra-wide composite protective cap**, 100% non-metallic, **ESD**.

EN ISO 20345:2011 S1P SRC ESD

Order ID	Size	Order ID	Size
534082.0100	36	534082.0700	42
534082.0200	37	534082.0800	43
534082.0300	38	534082.0900	44
534082.0400	39	534082.1000	45
534082.0500	40	534082.1100	46
534082.0600	41	534082.1200	47

**534273 Safety low shoes S3 REEBOK****Fusion Formidable Low**

Black leather upper, breathable and moisture-wicking nylon mesh lining, rubber sole with excellent non-slip properties, **special wide toecap** and composite puncture protection, 100% metal free.

CE category II

EN ISO 20345:2011 S3 SRC

Order ID	Size	Order ID	Size
534273.0100	37	534273.0700	43
534273.0200	38	534273.0800	44
534273.0300	39	534273.0900	45
534273.0400	40	534273.1000	46
534273.0500	41	534273.1100	47
534273.0600	42		

**534377 Safety shoes S3 GARSPORT****Eva Low sw-gold, womens' model**

Lightweight yet robust safety shoe for women, upper made from water-repellent microfibre with gold trim, lining is sweat-absorbent, sole consists of three layers (light rubber comfort layer, intermediate polygum layer and a TPU outer sole), **aluminium toe protectors and metal-free anti-perforation protection**.

CE category II

EN ISO 20345:2011 S3

Order ID	Size	Order ID	Size
534377.0100	36	534377.0500	40
534377.0200	37	534377.0600	41
534377.0300	38	534377.0700	42
534377.0400	39		



**536699 Beret caps Med-Comfort blue**

Beret caps, blue, PP, dispenser box of 100

Order ID	Size
536699.0100	M

**550112 Belt phone holder BAHCO**

**Bahco 4750-VMFH-1**, made of durable 1680 denier polyester, with strap for additional protection on construction sites, **Velcro** fastening for additional security, strap made of Velcro® material for attaching to the belt, can also be used without belt.

Order ID	Type	Dimensions WxDxH mm
550112.0100	<b>4750-VMFH-1</b>	100 x 35 x 170

**550525 Electrician's tool pouch BAHCO**

**Bahco 4750FB3-12**, open tool pouch made of polyester blended fabric **especially for electricians**. Elastic band area for several screwdrivers at the front and side, large central compartment for larger tools or material and large bottom pocket including plastic box for small parts: screws, nuts, washers, clamps. Pockets of different heights on both sides offer additional storage space. Dedicated holders for measuring tape, business cards and phone holders, reinforced, durable handle providing stability and robustness to the bag. Comfortable, padded carrying strap with click adjustment. The 100% waterproof, non-slip hard plastic base is robust and protects against bumps and knocks.

Order ID	Type	External dimensions (H x B x T) mm	Usable volume l	Maximum load kg
550525.0100	<b>4750FB3-12</b>	285 x 285 x 190	12	20

**550545 Tool bag BAHCO**

**Bahco 4750FB1-19A**, open 19" fabric tool bag made of extremely resistant polyester blended fabric with 100% waterproof and easy-to-clean polypropylene bottom. High storage capacity, adjustable spirit level holder straps, special pocket for handsaws, measuring tape, business cards and telephone holders. Soft, rubberised grip that provides good support and padded carrying strap with click adjustment. Plastic zip for easy handling, even when wearing gloves. Bags, mini bags, elastic bands, inner and outer dividers for various tools.

Order ID	Type	External dimensions (H x B x T) mm	Usable volume l	Maximum load kg
550545.0100	<b>4750FB1-19A</b>	355 x 470 x 230	32	25

**550555 Tool bag BAHCO**

**Bahco 4750FB1-19B**, 19" fabric tool bag **with closed top** made of extremely resistant polyester blended fabric with 100% waterproof and easy-to-clean polypropylene bottom. High storage capacity, adjustable spirit level holder straps, special pocket for handsaws, measuring tape, business cards and telephone holders. Soft, rubberised grip that provides good support and padded carrying strap with click adjustment. Plastic zip for easy handling, even when wearing gloves. Bags, mini bags, elastic bands, inner and outer dividers for various tools.

Order ID	Type	External dimensions (H x B x T) mm	Usable volume l	Maximum load kg
550555.0100	<b>4750FB1-19B</b>	355 x 470 x 230	32	25

**550575 Laptop and tool bag BAHCO**

**Bahco 4750FB4-18**, extremely durable fabric tool bag **with central, large and padded compartment for laptops** and equally sensitive items, two side removable compartments with different tool bags and holders for measuring tape, business cards and telephones. 100% waterproof and easy-to-clean polypropylene bottom, padded carrying strap with click adjustment. Plastic zip for easy handling, even when wearing gloves. Comfortable carrying strap and handle.

Order ID	Type	External dimensions (H x B x T) mm	Usable volume l	Maximum load kg
550575.0100	<b>4750FB4-18</b>	350 x 430 x 150	17	20



**554020 Hydraulic jack BAHCO**

**Bahco BH45**, heat-treated extension screw allows height adjustment, fluted, heat-treated saddle offers wide lifting surface and secure support. CE certified in accordance with 2006/42/EC and BS EN1494.

Order ID	Type	Carrying capacity t	Lift height mm	Dimensions mm	Weight kg
554020.0100	<b>BH452</b>	2	168...316	93 x 83 x 180	2
554020.0200	<b>BH454</b>	4	188...363	100 x 91 x 190	2.8
554020.0300	<b>BH456</b>	6	207...402	114 x 96 x 215	3.7
554020.0400	<b>BH458</b>	8	222...447	120 x 103 x 230	4.8
554020.0500	<b>BH4512</b>	12	227...457	135 x 117 x 235	6
554020.0600	<b>BH4520</b>	20	235...445	153 x 145 x 240	8.6

**554090 Vehicle jack BAHCO**

**Bahco BH12000**, extra low ground clearance of just 70 mm, double piston enables up to 50% faster lifting, extra large foot pedal and curved handle for a fast, safe and comfortable operation. Polyurethane-coated steel wheels for smooth, quiet use. Piston and spring protected from dust and dirt. Rubber pad protects the car paint from damage and prevents slipping. The lifting rod with protective foam cover protects the vehicle and a safety valve prevents any accidental overloading and a safety release valve for a safe lowering even under full load. CE certified in accordance with 2006/42/EC and BS EN1494.

Order ID	Type	Carrying capacity t	Lift height mm	Dimensions mm	Weight kg
554090.0100	<b>BH12000</b>	2	70...490	780 x 364 x 1270	42.7

**554095 Vehicle jack BAHCO**

**Bahco BH13000**, compact vehicle jack with load capacity of 3 tonnes, double piston enables up to 50% faster lifting, extra large foot pedal and curved handle for a fast, safe and comfortable operation. Polyurethane-coated steel wheels for smooth, quiet use. Piston and spring protected from dust and dirt. Rubber pad protects the car paint from damage and prevents slipping. The lifting rod with protective foam cover protects the vehicle and a safety valve prevents any accidental overloading and a safety release valve for a safe lowering even under full load. CE certified in accordance with 2006/42/EC and BS EN1494.

Order ID	Type	Carrying capacity t	Lift height mm	Dimensions mm	Weight kg
554095.0100	<b>BH13000</b>	3	90...550	825 x 364 x 1280	48.5

**565648 USB charger BOSCH**

**Bosch GAA 18V-24**, convenient charger for all mobile devices with USB charging connection. Charge your devices with Bosch professional batteries with up to 2.4 amps per charging socket.

Order ID	Type
565648.0100	<b>GAA 18V-24</b>

**565835 Construction site digital radio BOSCH**

IP 54

**Bosch GPB 18V-2 SC**, portable construction site digital radio, extremely flexible with **DAB+**, **Bluetooth®**, **FM reception and AUX option**. Intuitive operation and quick set-up in combination with handle and hook for vertical and horizontal installation. Excellent sound with 2 stereo loudspeakers and passive membranes for better bass reproduction. **Mains or battery operation** (compatible with all Bosch Professional 18V batteries). Integrated USB port for charging external devices (e.g. smartphones, tablets etc.). Option to connect 2 radios using a smartphone.

**Scope of delivery:**

**565835.0100** DC-in mains adapter, aux cable, CR 2032 lithium coin cell battery, **without battery pack, without charger**, in case

**Appropriate accessories:**

565623 Replacement batteries BOSCH

566430 Rechargeable battery starter pack 18 V BOSCH clic & go

Order ID	565835.0100
<b>Type</b>	<b>GPB 18V-2 SC</b>
Battery voltage	18
Voltage	100...240
Frequency	FM / DAB+
Dimensions	347 x 176 x 154
Weight without battery	2.5



**570818 Saw blade accessories FEIN**

**FEIN E-Cut Carbide Pro**, with Starlock holder. TiN-coated carbide plunge-cut saw blade **with extremely high wear resistance**. 100% longer service life compared to uncoated carbide saw blades. 30 times longer service life compared to HSS saw blades. The right choice for hard materials such as iron metals, stainless steel or copper pipes. Can even be used for hardened screws (Spax) and high-strength machine screws. But also ideally suited for abrasive materials such as brick, masonry or cement fibreboards as well as laminate, CFRP and GFRP. Good cutting performance and cutting quality in all wood materials such as hardwood or particleboard.



570818.0100

Order ID	Type	Cutting depth mm	Cutting width mm	Holder
570818.0100	<b>236</b>	40	32	Starlock
570818.0200	<b>237</b>	60	32	Starlock Plus
570818.0300	<b>238</b>	75	32	Starlock Plus

**584020 Edge milling machine FEIN**

**Fein KFH 17-8 R**, universal edge cutter with booster technology for optimal weld seam preparation and for preparing subsequent coatings. High milling performance and significantly reduced vibrations thanks to new booster technology. FEIN ErgoGrip: Unique, patent-pending ergonomics concept with two-hand operation for low-fatigue working. Efficient milling cutter quick change system for minimal interruptions. High abrasion performance with little force. Comprehensive user protection through soft start-up, restart protection, blockage monitoring and electronic overload protection.

**Scope of delivery:**

**584020.0100** Edge milling machine KFH 17-8 R (without milling head, without guide roller, without indexable inserts), 3 clamping screws, 1 copper paste, 1 Allen key 5 mm, 1 screwdriver, plastic tool case - **Suitable trimming heads, guide rollers and indexable inserts for your application on request.**

Order ID	584020.0100	
Type	<b>KFH 17-8 R</b>	
Power output	W	1000
Idle speed	min <sup>-1</sup>	2300...7500
Chamfer height	mm	5.7
Chamfer angle		30° / 45°
Radius	mm	3
Cable length	m	4
Weight	kg	4.6

**597279 Infrared clinical thermometer CleanSwiss (non-contact)****CS-T01**

This infrared clinical thermometer measures temperatures using **non-contact** technology, has a three-colour display mode and **takes measurements in only 0.5 seconds**. It is suitable for use on adults, children and infants.

- Starts up in a flash (in less than 2 seconds) and is easy to use
- Measures temperatures in only half a second, so also suitable for screening people entering a building, in public buildings, traffic etc.
- Switches off automatically when not in use to conserve battery life
- **Measuring distance: approx. 3-10 cm**
- Includes memory function for up to 50 groups, so that specific measured values can be retrieved later (e.g. group 1 = warehouse employees, group 2 = sales employees etc.)
- The clinical thermometer is battery-powered and requires 2x standard 1.5V alkaline (AAA) batteries (included!)
- Optional: Can also be operated with 2x NiMH (rechargeable batteries)



Order ID	Colour
597279.0100	<b>White</b>

**597520 Cordless drill/driver FEIN**

**Fein ASCM 18 QSW Top Deal Edition**, uncompromising performance with 4-speed solid metal gearbox, brushless FEIN PowerDrive motor and QuickIN interface. Perfect for drilling and tapping up to 12 mm and drilling with HM hole saws. Powerful in 1st gear, e.g. for thread cutting. In 3rd /4th gear, ideal for drilling small diameters at high speeds. **Perfect flexibility with the FEIN MultiVolt interface: Machine can be operated with all FEIN Li-ion batteries (12 to 18 volts).** Solid metal QuickIN drill chuck with carbide-tipped clamping jaws and high clamping forces, electronic torque setting, battery charge level indicator can be read directly on the battery.

**Scope of delivery:**

**597520.0100** 1 lithium-ion battery 18 volts, 3.0 Ah, 1 lithium-ion battery 12 volts, 3.0 Ah, 1 quick charger ALG 50, QuickIN drill chuck (120 Nm), belt clip

**Appropriate accessories:**

565415 Batteries and chargers FEIN

Order ID	597520.0100	
Type	ASCM 18 QSW	
Battery voltage	V	12...18
Battery capacity	Ah	3.0
Drill chucks	mm	1.5...13
Idle speed	min <sup>-1</sup>	0...400 / 0...700 / 0...1400 / 0...2500
Torque max.	Nm	40
hard threaded fastener	Nm	40
Soft threaded fastener	Nm	20
for wood	mm	40
for steel	mm	13
Screw Ø max.	mm	8 x 200
for thread max.		M 8
Weight without battery	kg	1.2

**597530 Cordless drill/driver BOSCH**

**Bosch GSR 12V-15**, practical, compact power pack. Shortest head length and low height for working in hard-to-reach places, powerful two-speed gearbox for screwdriving and drilling, 20 torque levels and drill setting, infinitely adjustable speed, motor brake, integrated LED light.

**Scope of delivery:**

**597530.0100** Cordless drill/driver GSR 12V-15, **1 x 2.0 Ah Li-ion battery GBA 12V**, **1 x 4.0 Ah Li-ion battery GBA 12V**, charger AL 1115 CV, **25-piece bit set**, **7-piece metal drill set**, **7-piece wood drill set**, tool bag

**Appropriate accessories:**

597999 36-month full service package BOSCH

Order ID	597530.0100	
Type	GSR 12V-15	
Battery voltage	V	12
Battery capacity	Ah	2.0 / 4.0
Drill chucks	mm	1...10
Idle speed	min <sup>-1</sup>	0...350 / 0...1300
hard threaded fastener	Nm	30
Soft threaded fastener	Nm	15
for wood	mm	19
for steel	mm	10
Screw Ø max.	mm	7
Dimensions	mm	169 x 178
Weight	kg	0.95

**597540 Cordless drill/driver BOSCH**

**Bosch GSR 18V-55**: A robust, durable cordless drill/driver with **13-mm metal drill chuck and brushless motor**. Full control thanks to KickBack Control with automatic switch-off if the drill/driver jams, as well as precision clutch. Bosch lithium-ion technology with Electronic Cell Protection protects against overloading, overheating and deep discharge. Comfortable soft grip makes for perfect handling and low user fatigue. Two-speed planetary gear, integrated LED light, clockwise/anti-clockwise rotation, battery charge indicator.

**Scope of delivery:**

**597540.0100** Cordless drill/driver GSR 18V-55, **2 x 3.0 Ah lithium-ion batteries GBA 18V**, quick charger GAL 18V-20, L-BOXX

**Appropriate accessories:**

597999 36-month full service package BOSCH

Order ID	597540.0100	
Type	GSR 18V-55	
Battery voltage	V	18
Battery capacity	Ah	3.0
Drill chucks	mm	1.5...13
Idle speed	min <sup>-1</sup>	0...450 / 0...1750
hard threaded fastener	Nm	55
Soft threaded fastener	Nm	28
for wood	mm	35
for steel	mm	13
Screw Ø max.	mm	8
Weight without battery	kg	1



**597550 Cordless tool set BOSCH**

**Bosch 12-volt Professional Set**, practical set with three cordless tools, one battery-powered light and comprehensive accessories.

**Designs / Scope of delivery:**

**Cordless drill/driver Bosch GSR 12V-15:** Two-speed gearbox (0–350/0–1300 rpm), maximum drilling diameter 19 mm in wood, 10 mm in steel, maximum screw diameter 7 mm.

**Cordless sabre saw Bosch GSA 12V-24:** Stroke rate 0–3000 rpm, stroke length 14.5 mm, cutting depth in wood 65 mm, in metal profiles and pipes 50 mm.

**Cordless jigsaw Bosch GST 12V-70:** Stroke rate 1500–2800 rpm, stroke height 18 mm, slant cuts 0–45°, cutting depth in wood 70 mm, in aluminium 3 mm, in metal 3 mm.

**Battery-powered lamp Bosch GLI 12V-80:** Luminous flux 80 lumens, max. operating time 590 min/Ah.

in Bosch Professional toolbag made of robust nylon, **2 x 2.0-Ah lithium-ion batteries GBA 18V and quick charger GAL 12V-40**



Order ID	Type	Battery voltage V	Battery capacity Ah
597550.0100	<b>12 Volt Profi-Set</b>	12	2.0

**599079 Knitted cotton gloves SHOWA**

310 GREEN



As pair, in seamless knit cotton with **natural latex coating**, back of hand uncoated, elasticized cuff, suitable for work requiring a very secure grip and excellent mechanical characteristics. **Coating thickness 0.7 mm.**



CE Category II  
EN 388:2142

Order ID	Size
599079.0100	S
599079.0200	M
599079.0300	L
599079.0400	XL

**599080 Knitted cotton-polyester gloves SHOWA**

THERMO-GRIP



As pair, made from fleece-lined cotton/polyester fabric, with natural latex palm coating, color grey, **layer thickness 0.7 mm**, rough surface, elastic cuff.



CE Category II  
EN 388:2241

Order ID	Size
599080.0100	M
599080.0200	L
599080.0300	XL

**656159 Guide rail STIHL Carving E, 1/4" P**

Special rail with stellite tip.

Three-piece carving rail with solid stellite tip and 30-cm cutting length. **For wood carvers**, professional tree climbers and tree surgeons for cutting very narrow radii with the trip of the rail. Extremely low-impact, lightweight and durable. Markings on the guide rail allow the exact position of the rail tip to be determined in the cut. **Groove width 1.1 mm, for slender saw chains 1/4" Picco Micro 3.**

**Usable with:**

656054 Cordless powersaw STIHL MSA 120 C-BQ Battery system AK

656056 Cordless powersaw STIHL MSA 140 C-BQ Battery system AK

656074 Cordless powersaw STIHL MSA 160 C-BQ Battery system AP

656076 Cordless powersaw STIHL MSA 200 C-BQ Battery system AP

Order ID	Rail length cm
656159.0100	30



**656173 Holster STIHL for wood cutters GTA 26**

The holster allows you to carry the GTA 26 on your belt and provides quick access at work. The variable leg strap holds it in place on the thigh and ensures increased wearing comfort. The reinforced rear panel provides a high level of protection when inserting. The additional tab holds the GTA 26 firmly in the holster.

Order ID	suitable for
656173.0100	GTA 26



**865665 Cylindrical drill bush**

Version B, short hardened and ground

DIN 179 B

Steel 62 HRC + 2

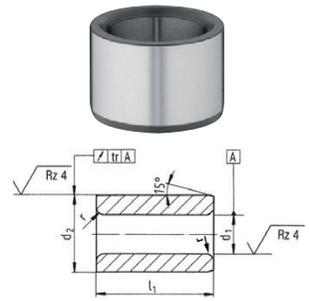
Cylindrical drill bushings come in two forms:

- Form A: Bore rounded at one end.
- Form B: Bore rounded at both ends

Tolerance:

Bore d1 = F7

Diameter d2 = n6



Other dimensions available upon request.

Order ID	d1 mm	l1 mm	d2 mm	r mm	Order ID	d1 mm	l1 mm	d2 mm	r mm
865665.0050	1.1	6	4	1.00	865665.0790	8.5	12	15	2.00
865665.0060	1.2	6	4	1.00	865665.0800	8.6	12	15	2.00
865665.0070	1.3	6	4	1.00	865665.0810	8.7	12	15	2.00
865665.0080	1.4	6	4	1.00	865665.0820	8.8	12	15	2.00
865665.0090	1.5	6	4	1.00	865665.0830	8.9	12	15	2.00
865665.0100	1.6	6	4	1.00	865665.0840	9.0	12	15	2.00
865665.0110	1.7	6	4	1.00	865665.0850	9.1	12	15	2.00
865665.0120	1.8	6	4	1.00	865665.0860	9.2	12	15	2.00
865665.0130	1.9	6	5	1.00	865665.0870	9.3	12	15	2.00
865665.0140	2.0	6	5	1.00	865665.0880	9.4	12	15	2.00
865665.0150	2.1	6	5	1.00	865665.0890	9.5	12	15	2.00
865665.0160	2.2	6	5	1.00	865665.0900	9.6	12	15	2.00
865665.0170	2.3	6	5	1.00	865665.0910	9.7	12	15	2.00
865665.0180	2.4	6	5	1.00	865665.0920	9.8	12	15	2.00
865665.0190	2.5	6	5	1.00	865665.0930	9.9	12	15	2.00
865665.0200	2.6	6	5	1.00	865665.0940	10.0	12	15	2.00
865665.0210	2.7	8	6	1.00	865665.0950	10.1	12	18	2.00
865665.0220	2.8	8	6	1.00	865665.0960	10.2	12	18	2.00
865665.0230	2.9	8	6	1.00	865665.0970	10.3	12	18	2.00
865665.0240	3.0	8	6	1.00	865665.0980	10.4	12	18	2.00
865665.0250	3.1	8	6	1.00	865665.0990	10.5	12	18	2.00
865665.0260	3.2	8	6	1.00	865665.1000	10.6	12	18	2.00
865665.0270	3.3	8	6	1.00	865665.1010	10.7	12	18	2.00
865665.0280	3.4	8	7	1.00	865665.1020	10.8	12	18	2.00
865665.0290	3.5	8	7	1.00	865665.1030	10.9	12	18	2.00
865665.0300	3.6	8	7	1.00	865665.1040	11.0	12	18	2.00
865665.0310	3.7	8	7	1.00	865665.1050	11.1	12	18	2.00
865665.0320	3.8	8	7	1.00	865665.1060	11.2	12	18	2.00
865665.0330	3.9	8	7	1.00	865665.1070	11.5	12	18	2.00
865665.0340	4.0	8	7	1.00	865665.1080	12.0	12	18	2.00
865665.0350	4.1	8	8	1.00	865665.1090	12.1	16	22	2.00
865665.0360	4.2	8	8	1.00	865665.1100	12.2	16	22	2.00
865665.0370	4.3	8	8	1.00	865665.1110	12.4	16	22	2.00
865665.0380	4.4	8	8	1.00	865665.1120	12.5	16	22	2.00
865665.0390	4.5	8	8	1.00	865665.1130	12.7	16	22	2.00
865665.0400	4.6	8	8	1.00	865665.1140	13.0	16	22	2.00
865665.0410	4.7	8	8	1.00	865665.1150	13.3	16	22	2.00
865665.0420	4.8	8	8	1.00	865665.1160	13.5	16	22	2.00
865665.0430	4.9	8	8	1.00	865665.1170	14.0	16	22	2.00
865665.0440	5.0	8	8	1.00	865665.1180	14.1	16	22	2.00
865665.0450	5.1	10	10	1.50	865665.1190	14.2	16	22	2.00
865665.0460	5.2	10	10	1.50	865665.1200	14.5	16	22	2.00
865665.0470	5.3	10	10	1.50	865665.1210	14.6	16	22	2.00
865665.0480	5.4	10	10	1.50	865665.1220	14.7	16	22	2.00
865665.0490	5.5	10	10	1.50	865665.1230	15.0	16	22	2.00
865665.0500	5.6	10	10	1.50	865665.1240	15.5	16	26	2.00
865665.0510	5.7	10	10	1.50	865665.1250	16.0	16	26	2.00
865665.0520	5.8	10	10	1.50	865665.1260	16.1	16	26	2.00
865665.0530	5.9	10	10	1.50	865665.1270	16.5	16	26	2.00
865665.0540	6.0	10	10	1.50	865665.1280	17.0	16	26	2.00
865665.0550	6.1	10	12	1.50	865665.1290	17.5	16	26	2.00
865665.0560	6.2	10	12	1.50	865665.1300	18.0	16	26	2.00
865665.0570	6.3	10	12	1.50	865665.1310	18.5	20	30	3.00
865665.0580	6.4	10	12	1.50	865665.1320	19.0	20	30	3.00
865665.0590	6.5	10	12	1.50	865665.1330	19.5	20	30	3.00
865665.0600	6.6	10	12	1.50	865665.1340	20.0	20	30	3.00
865665.0610	6.7	10	12	1.50	865665.1350	20.5	20	30	3.00
865665.0620	6.8	10	12	1.50	865665.1360	21.0	20	30	3.00
865665.0630	6.9	10	12	1.50	865665.1370	21.5	20	30	3.00
865665.0640	7.0	10	12	1.50	865665.1380	22.0	20	30	3.00
865665.0650	7.1	10	12	1.50	865665.1390	22.5	20	35	3.00
865665.0660	7.2	10	12	1.50	865665.1400	23.0	20	35	3.00
865665.0670	7.3	10	12	1.50	865665.1410	23.5	20	35	3.00
865665.0680	7.4	10	12	1.50	865665.1420	24.0	20	35	3.00
865665.0690	7.5	10	12	1.50	865665.1430	24.5	20	35	3.00
865665.0700	7.6	10	12	1.50	865665.1440	25.0	20	35	3.00
865665.0710	7.7	10	12	1.50	865665.1450	25.5	20	35	3.00
865665.0720	7.8	10	12	1.50	865665.1460	26.0	20	35	3.00
865665.0730	7.9	10	12	1.50	865665.1470	26.5	25	42	3.00
865665.0740	8.0	10	12	1.50	865665.1480	27.0	25	42	3.00
865665.0750	8.1	12	15	2.00	865665.1490	27.5	25	42	3.00
865665.0760	8.2	12	15	2.00	865665.1500	28.0	25	42	3.00
865665.0770	8.3	12	15	2.00	865665.1510	29.0	25	42	3.00
865665.0780	8.4	12	15	2.00	865665.1520	30.0	25	42	3.00

**865670 Cylindrical drill bush**

Version B, medium hardened and ground

DIN 179 B

Steel 62 HRC + 2

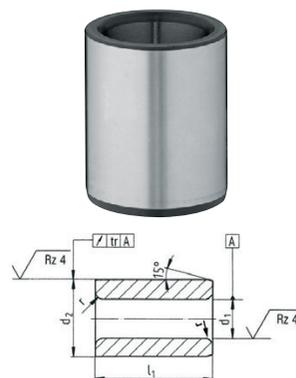
Cylindrical drill bushings come in two forms:

- Form A: Bore rounded at one end.
- Form B: Bore rounded at both ends

Tolerance:

Bore d1 = F7

Diameter d2 = n6



Other dimensions available upon request.

Order ID	d1 mm	l1 mm	d2 mm	r mm	Order ID	d1 mm	l1 mm	d2 mm	r mm
865670.0050	1.1	9	4	1.00	865670.0800	8.6	20	15	2.00
865670.0060	1.2	9	4	1.00	865670.0810	8.7	20	15	2.00
865670.0070	1.3	9	4	1.00	865670.0820	8.8	20	15	2.00
865670.0080	1.4	9	4	1.00	865670.0830	8.9	20	15	2.00
865670.0090	1.5	9	4	1.00	865670.0840	9.0	20	15	2.00
865670.0100	1.6	9	4	1.00	865670.0850	9.1	20	15	2.00
865670.0110	1.7	9	4	1.00	865670.0860	9.2	20	15	2.00
865670.0120	1.8	9	4	1.00	865670.0870	9.3	20	15	2.00
865670.0130	1.9	9	5	1.00	865670.0880	9.4	20	15	2.00
865670.0140	2.0	9	5	1.00	865670.0890	9.5	20	15	2.00
865670.0150	2.1	9	5	1.00	865670.0900	9.6	20	15	2.00
865670.0160	2.2	9	5	1.00	865670.0910	9.7	20	15	2.00
865670.0170	2.3	9	5	1.00	865670.0920	9.8	20	15	2.00
865670.0180	2.4	9	5	1.00	865670.0930	9.9	20	15	2.00
865670.0190	2.5	9	5	1.00	865670.0940	10.0	20	15	2.00
865670.0200	2.6	9	5	1.00	865670.0950	10.1	20	18	2.00
865670.0210	2.7	12	6	1.00	865670.0960	10.2	20	18	2.00
865670.0220	2.8	12	6	1.00	865670.0970	10.3	20	18	2.00
865670.0230	2.9	12	6	1.00	865670.0980	10.4	20	18	2.00
865670.0240	3.0	12	6	1.00	865670.0990	10.5	20	18	2.00
865670.0250	3.1	12	6	1.00	865670.1000	10.6	20	18	2.00
865670.0260	3.2	12	6	1.00	865670.1010	10.7	20	18	2.00
865670.0270	3.3	12	6	1.00	865670.1020	10.8	20	18	2.00
865670.0280	3.4	12	7	1.00	865670.1030	10.9	20	18	2.00
865670.0290	3.5	12	7	1.00	865670.1040	11.0	20	18	2.00
865670.0300	3.6	12	7	1.00	865670.1050	11.2	20	18	2.00
865670.0310	3.7	12	7	1.00	865670.1060	11.5	20	18	2.00
865670.0320	3.8	12	7	1.00	865670.1070	12.0	20	18	2.00
865670.0330	3.9	12	7	1.00	865670.1080	12.1	28	22	2.00
865670.0340	4.0	12	7	1.00	865670.1090	12.2	28	22	2.00
865670.0350	4.1	12	8	1.00	865670.1100	12.4	28	22	2.00
865670.0360	4.2	12	8	1.00	865670.1110	12.5	28	22	2.00
865670.0370	4.3	12	8	1.00	865670.1120	12.7	28	22	2.00
865670.0380	4.4	12	8	1.00	865670.1130	13.0	28	22	2.00
865670.0390	4.5	12	8	1.00	865670.1140	13.3	28	22	2.00
865670.0400	4.6	12	8	1.00	865670.1150	13.4	28	22	2.00
865670.0410	4.7	12	8	1.00	865670.1160	13.5	28	22	2.00
865670.0420	4.8	12	8	1.00	865670.1170	14.0	28	22	2.00
865670.0430	4.9	12	8	1.00	865670.1180	14.1	28	22	2.00
865670.0440	5.0	12	8	1.00	865670.1190	14.2	28	22	2.00
865670.0450	5.1	16	10	1.50	865670.1200	14.5	28	22	2.00
865670.0460	5.2	16	10	1.50	865670.1210	14.6	28	22	2.00
865670.0470	5.3	16	10	1.50	865670.1220	14.7	28	22	2.00
865670.0480	5.4	16	10	1.50	865670.1230	15.0	28	22	2.00
865670.0490	5.5	16	10	1.50	865670.1240	15.1	28	26	2.00
865670.0500	5.6	16	10	1.50	865670.1250	15.5	28	26	2.00
865670.0510	5.7	16	10	1.50	865670.1260	16.0	28	26	2.00
865670.0520	5.8	16	10	1.50	865670.1270	16.1	28	26	2.00
865670.0530	5.9	16	10	1.50	865670.1280	16.5	28	26	2.00
865670.0540	6.0	16	10	1.50	865670.1290	17.0	28	26	2.00
865670.0550	6.1	16	12	1.50	865670.1300	17.5	28	26	2.00
865670.0560	6.2	16	12	1.50	865670.1310	18.0	28	26	2.00
865670.0570	6.3	16	12	1.50	865670.1320	18.5	36	30	3.00
865670.0580	6.4	16	12	1.50	865670.1330	19.0	36	30	3.00
865670.0590	6.5	16	12	1.50	865670.1340	19.5	36	30	3.00
865670.0600	6.6	16	12	1.50	865670.1350	20.0	36	30	3.00
865670.0610	6.7	16	12	1.50	865670.1360	20.5	36	30	3.00
865670.0620	6.8	16	12	1.50	865670.1370	21.0	36	30	3.00
865670.0630	6.9	16	12	1.50	865670.1380	21.5	36	30	3.00
865670.0640	7.0	16	12	1.50	865670.1390	22.0	36	30	3.00
865670.0650	7.1	16	12	1.50	865670.1400	22.5	36	35	3.00
865670.0660	7.2	16	12	1.50	865670.1410	23.0	36	35	3.00
865670.0670	7.3	16	12	1.50	865670.1420	23.5	36	35	3.00
865670.0680	7.4	16	12	1.50	865670.1430	24.0	36	35	3.00
865670.0690	7.5	16	12	1.50	865670.1440	24.5	36	35	3.00
865670.0700	7.6	16	12	1.50	865670.1450	25.0	36	35	3.00
865670.0710	7.7	16	12	1.50	865670.1460	25.5	36	35	3.00
865670.0720	7.8	16	12	1.50	865670.1470	26.0	36	35	3.00
865670.0730	7.9	16	12	1.50	865670.1480	26.5	45	42	3.00
865670.0740	8.0	16	12	1.50	865670.1490	27.0	45	42	3.00
865670.0750	8.1	20	15	2.00	865670.1500	27.5	45	42	3.00
865670.0760	8.2	20	15	2.00	865670.1510	28.0	45	42	3.00
865670.0770	8.3	20	15	2.00	865670.1520	29.0	45	42	3.00
865670.0780	8.4	20	15	2.00	865670.1520	30.0	45	42	3.00
865670.0790	8.5	20	15	2.00					

**865675 Cylindrical drill bush**

Version B, long hardened and ground

DIN 179 B

Steel 62 HRC + 2

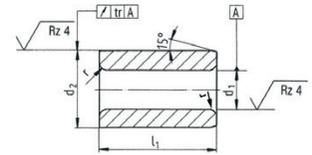
Cylindrical drill bushings come in two forms:

- Form A: Bore rounded at one end.
- Form B: Bore rounded at both ends

Tolerance:

Bore d1 = F7

Diameter d2 = n6



Other dimensions available upon request.

Order ID	d1 mm	l1 mm	d2 mm	r mm	Order ID	d1 mm	l1 mm	d2 mm	r mm
865675.0050	2.7	16	6	1.00	865675.0700	9.2	25	15	2.00
865675.0060	2.8	16	6	1.00	865675.0710	9.3	25	15	2.00
865675.0070	2.9	16	6	1.00	865675.0720	9.4	25	15	2.00
865675.0080	3.0	16	6	1.00	865675.0730	9.5	25	15	2.00
865675.0090	3.1	16	6	1.00	865675.0740	9.6	25	15	2.00
865675.0100	3.2	16	6	1.00	865675.0750	9.7	25	15	2.00
865675.0110	3.3	16	6	1.00	865675.0760	9.8	25	15	2.00
865675.0120	3.4	16	7	1.00	865675.0770	9.9	25	15	2.00
865675.0130	3.5	16	7	1.00	865675.0780	10.0	25	15	2.00
865675.0140	3.6	16	7	1.00	865675.0790	10.1	25	18	2.00
865675.0150	3.7	16	7	1.00	865675.0800	10.2	25	18	2.00
865675.0160	3.8	16	7	1.00	865675.0810	10.3	25	18	2.00
865675.0170	3.9	16	7	1.00	865675.0820	10.4	25	18	2.00
865675.0180	4.0	16	7	1.00	865675.0830	10.5	25	18	2.00
865675.0190	4.1	16	8	1.00	865675.0840	10.6	25	18	2.00
865675.0200	4.2	16	8	1.00	865675.0850	10.7	25	18	2.00
865675.0210	4.3	16	8	1.00	865675.0860	10.8	25	18	2.00
865675.0220	4.4	16	8	1.00	865675.0870	10.9	25	18	2.00
865675.0230	4.5	16	8	1.00	865675.0880	11.0	25	18	2.00
865675.0240	4.6	16	8	1.00	865675.0890	11.1	25	18	2.00
865675.0250	4.7	16	8	1.00	865675.0900	11.2	25	18	2.00
865675.0260	4.8	16	8	1.00	865675.0910	11.5	25	18	2.00
865675.0270	4.9	16	8	1.00	865675.0920	12.0	25	18	2.00
865675.0280	5.0	16	8	1.00	865675.0930	12.1	36	22	2.00
865675.0290	5.1	20	10	1.50	865675.0940	12.2	36	22	2.00
865675.0300	5.2	20	10	1.50	865675.0950	12.4	36	22	2.00
865675.0310	5.3	20	10	1.50	865675.0960	12.5	36	22	2.00
865675.0320	5.4	20	10	1.50	865675.0970	12.7	36	22	2.00
865675.0330	5.5	20	10	1.50	865675.0980	13.0	36	22	2.00
865675.0340	5.6	20	10	1.50	865675.0990	13.3	36	22	2.00
865675.0350	5.7	20	10	1.50	865675.1000	13.5	36	22	2.00
865675.0360	5.8	20	10	1.50	865675.1010	14.0	36	22	2.00
865675.0370	5.9	20	10	1.50	865675.1020	14.1	36	22	2.00
865675.0380	6.0	20	10	1.50	865675.1030	14.5	36	22	2.00
865675.0390	6.1	20	12	1.50	865675.1040	14.6	36	22	2.00
865675.0400	6.2	20	12	1.50	865675.1050	14.7	36	22	2.00
865675.0410	6.3	20	12	1.50	865675.1060	15.0	36	22	2.00
865675.0420	6.4	20	12	1.50	865675.1070	15.5	36	26	2.00
865675.0430	6.5	20	12	1.50	865675.1080	16.0	36	26	2.00
865675.0440	6.6	20	12	1.50	865675.1090	16.1	36	26	2.00
865675.0450	6.7	20	12	1.50	865675.1100	16.5	36	26	2.00
865675.0460	6.8	20	12	1.50	865675.1110	17.0	36	26	2.00
865675.0470	6.9	20	12	1.50	865675.1120	17.5	36	26	2.00
865675.0480	7.0	20	12	1.50	865675.1130	18.0	36	26	2.00
865675.0490	7.1	20	12	1.50	865675.1140	18.5	45	30	3.00
865675.0500	7.2	20	12	1.50	865675.1150	19.0	45	30	3.00
865675.0510	7.3	20	12	1.50	865675.1160	19.5	45	30	3.00
865675.0520	7.4	20	12	1.50	865675.1170	20.0	45	30	3.00
865675.0530	7.5	20	12	1.50	865675.1180	21.0	45	30	3.00
865675.0540	7.6	20	12	1.50	865675.1190	21.5	45	30	3.00
865675.0550	7.7	20	12	1.50	865675.1200	22.0	45	30	3.00
865675.0560	7.8	20	12	1.50	865675.1210	22.5	45	35	3.00
865675.0570	7.9	20	12	1.50	865675.1220	23.0	45	35	3.00
865675.0580	8.0	20	12	1.50	865675.1230	23.5	45	35	3.00
865675.0590	8.1	25	15	2.00	865675.1240	24.0	45	35	3.00
865675.0600	8.2	25	15	2.00	865675.1250	24.5	45	35	3.00
865675.0610	8.3	25	15	2.00	865675.1260	25.0	45	35	3.00
865675.0620	8.4	25	15	2.00	865675.1270	25.5	45	35	3.00
865675.0630	8.5	25	15	2.00	865675.1280	26.0	45	35	3.00
865675.0640	8.6	25	15	2.00	865675.1290	26.5	56	42	3.00
865675.0650	8.7	25	15	2.00	865675.1300	27.0	56	42	3.00
865675.0660	8.8	25	15	2.00	865675.1310	27.5	56	42	3.00
865675.0670	8.9	25	15	2.00	865675.1320	28.0	56	42	3.00
865675.0680	9.0	25	15	2.00	865675.1330	30.0	56	42	3.00
865675.0690	9.1	25	15	2.00					