

Cordless electric	c tools		Mains power too	ols	
•	Cordless drill screwdrivers/impact drill drivers	1723		Hammer drills	1745
1	Cordless impact screwdriver	1731		Magnet-core drilling machines	1746
	Cordless hammer drills	1733		Angle grinder	1749
	Cordless angle grinder	1734	4	Straight grinder	1753
	Cordless straight grinders	1735	- 1 (a)	Flexible drive shafts	1754
-	Oscillating cordless multifunction tools	1735		Polishing and satin-finishing machines	1755
	Battery sabre saws/jig saws	1736		Oscillating multifunction tools	1758
	Cordless cartridge guns	1737		Accessories for oscillating multi- function tools	1759
	Cordless hand lamps	1737		Orbital sanders/random orbital sanders	1760
	Spare rechargeable batteries	1737		Double-ended and belt grinding machines	1763
8	Chargers	1739		Electric scrapers	1765
Mains power too	ols			Sheet shears and nibblers	1766
	Electronic drills	1739		Sabre saws/jigsaws	1767
	Drills/angle drills	1739	Trade (American)	Saw blades for sabre saws and jigsaws	1769
	Hammer drills	1742			
	Accessories for drilling and screwdriving	1743		Mitre and circular saws	1772
	Impact screwdriver	1745		Hot air and glue guns	1773

Compressed air	tools and accessories				
	Compressed air tools	1774			
N	Blowing spray guns and cleaning guns	1783			
	Coupling and nipple	1787			
	BILZ HERMETIKUS compressed air system	1789			
	Compressed air hoses and hose winder	1790			
	Compressed air compressors	1793			
Extension cable	s and cable drums				
<b>©</b>	Energy supply units	1795			
	Multiple socket outlets and extension cables	1795			
	Cable boxes and drums	1796			
Electric testing	devices				
AGRY	Voltage tester	1798			
	Continuity tester	1799			
	Multimeter	1800			
	Test and tracking devices	1803			
Cleaning equipm	nent				
	Wet/dry vacuum cleaners	1804			
	Extractor fans	1808			

Marking technology						
	Electrical engraving machines	1808				
6	Compressed air marking pins	1809				
Machines						
-	Table drills	1810				
1	Pillar drills	1814				
	Radial drills	1816				
	Circular saws	1817				
	Vertical bandsaws	1822				
	Twist drill grinding machines	1823				
	Engraver's milling cutters	1824				
	Steel grinding and lapping machines	1825				
	Double-ended grinders	1825				
	Arbour presses	1826				





# Battery technology - selection aid

#### **Battery capacity:**

This describes the storage capacity of a rechargeable battery cell. The capacity is given in ampere hours (Ah). One ampere hour means that the battery has stored sufficient energy to produce one ampere of electrical current for one hour.

The unit of measurement for battery voltage is the volt (V). Voltage describes the potential difference between the two poles of an electrical fixture. Self-discharge:

Self-discharge means that a battery passively emits energy just by being in storage. After the expiry of a certain period, the battery pack must be charged in order to be able to operate electric tools. The self-discharge rate for Ni Cd batteries is 25% per month and only 3% for Li-lon batteries. Li-lon batteries can be used again immediately even after prolonged storage.

#### Operating temperature:

Battery cells are generally capable of providing their full power output within a certain temperature range. The temperature specification refers to the cell temperature and not the ambient temperature.

Different battery technologies:					
NiCd battery Li-ion battery					
Memory effect	Yes	No			
Self-discharging	Very high	Very reduced			
Cell voltage	1.2 V per cell	3.6 V per cell			
Operating temperature	-20°C to +50°C	-10°C to +50°C			



# 3 years warranty for electric tools Directly with the mobile phone to the registration

#### Extend the warranty period for your electric tool to three years.

Directly after the purchase, METABO, BOSCH, FEIN and MAKITA offer you the possibility to extend the warranty period for electric tools purchased in Germany to three years, free of charge.

metabo





www.metabo.com/xxl



www.bosch-pt.com/warranty

A pre-requisite for the warranty extension is to register your tool on the corresponding manufacturer's website within 4 weeks after purchase. The extended warranty period starts with the date of purchase. Use your mobile phone to scan the QR code and you will directly come to an area with further information and to the registration area.



www.fein.de/warranty



www.makita.de



## 3-year warranty on all Metabo battery packs Without registration



## metabo





## **BOSCH 24-month ProService**

Register just once: 3 years warranty and 24 months ProService





# Cordless screwdriver - lithium-ion 3.6 volt

for clockwise and anti-clockwise rotation, 1-speed and 2-speed

#### Application:

For greater convenience in screw-driving applications using bits in tight places.

- Integrated LED work light for illuminating the worksite
- Ident. No. 005:
- 1/4 inch universal bit holder
- Motor brake
- Multi-charger, charges both 3.6 V and 10.8 V batteries within one hour
- Ident. No. 463:

- Automatic spindle locking for manual tightening or loosening of screws
- Optimal storage in charging station at the same time

#### Advantage:

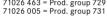
Ident. No. 005: Very short head length (only 158 mm) and low weight (only 0.5 kg)

#### scope of supply and services:

Ident. No. 005: 2 x batteries (3.6 V/1.3 Ah), quick charger AL 1115 CV, hand loop, in plastic case

Ident. No. 463: Charger, 10 standard screwdriver

Model		GSR Mx2Drive	IXO
BOSCH no.		0 601 9A2 101	0 603 981 000
Type of rechargeable batter		-	Li-lon
Rechargeable battery/batte	ery capacity (Ah)	1.5	1.5
Max. drilling Ø in wood (mm	1)	5	-
Idle speed 1st gear min./ma	ax.	0-150 U/min	0-215 U/min
Idle speed 2nd gear min./m	ax.	0-580 U/min	-
Max. torque for hard screwi	ng application (Nm)	10.0	4.5
Max. torque for soft screwing	ng application (Nm)	5.0	4.5
Max. screw Ø (mm)		5	5
Weight (kg)		0.5	0.3
Battery included		Yes	Yes
With working lights		Yes	-
With rubber-coated handle		Yes	-
71026	Ident. No.	005	463
71020	Unit price, €	O. R.	O. R.
71026 463 = Prod. group 729	•		





Ident. No. 005



Ident. No. 463



# Cordless angle screwdriver and cordless angled impact screwdriver - lithium-ion 7.2 volt

for clockwise and anti-clockwise rotation, 1-speed and 2-speed

# Application:

For driving in and extracting screws and nuts at points that are particularly difficult to access.

#### Execution:

- With motor brake
- With bright LED
- Compact design
- Ident. No. 003: 2-speed gear unit
- Ident. No. 005: With articulation function

# Short charging time (30 min.)

- With electronically controllable speed
- For drilling, screw-driving and impact screw-driving

tight spaces

■ Ident. No. 005:

scope of supply and services: 2 x batteries (7.2 V/1.0 Ah), charger DC07SA, wood drill, bit set and Colt pocket, in rugged pocket

Compact for drilling and screw-driving work in

■ 21-level adjustable torque, plus drilling level



Ident. No. 003



Ident. No. 005

#### Advantage: ■ Ident. No. 003:

Mandal		DE 010 DOE	TD 001 D05
Model		DF 010 DSE	TD 021 DSE
Type of rechargeable batter		Li-lon	Li-lon
Rechargeable battery/batte		1.0	1.0
Max. drilling Ø in steel (mm		5	-
Max. drilling Ø in wood (mm	n)	6	-
Max. impact rate (U/min(rp	m))	-	3000
Idle speed 1st gear min./m	ax.	0-200 U/min	
Idle speed 2nd gear min./m	nax.	0-600 U/min -	
Max. torque for hard screwi	ng application (Nm)	5.6	22
Max. torque for soft screwing	ng application (Nm)	3.6	22
Max. screw Ø (mm)		3.8	-
Tool holding device		1/4-inch hexagon socket	1/4-inch hexagon socket
Weight (kg)		0.55	0.54
Battery included		Yes	Yes
With working lights		Yes	Yes
71029	Ident. No.	003	005
/ 1029	Unit price. €.	O. R.	O R

# HAHN+KOLB

# metabo

# Cordless drill screwdriver - lithium-ion 10.8 volt

for clockwise and anti-clockwise rotation, 2-speed

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- Compact and light design for versatile application
- Spindle has hexagon socket for screwdriver bits for working without a drill chuck
- Integrated LED work light for illuminating the worksite
- With practical belt hook, mountable on the right or left side without tools
- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life
- 3-year battery pack warranty
- Battery packs have capacity indicator for checking the charge status

• Ident. No. 058: With angle driving attachment for drilling and screw-driving in hard-to-reach places

#### Advantage:

 Ident. No. 051-058: METABO Quick system: Fast changing of tool chuck and plug-in tool for flexible working

#### scope of supply and services:

Ident. No. 049: 2 x batteries (10.8 V/2.0 Ah), charger LC 40, quick-action drill chuck, belt hook, in plastic case

Ident. No. 051: Quick-change drill chuck, belt hook, 2 Li-Power battery packs (10.8 V/2.0 Ah), charger LC 40, plastic case

**Ident. No. 058:** 1 x battery (10.8 V/4.0 Ah), 1 x battery (10.8 V/2.0 Ah), charger LC 40, quick-change drill chuck, quick-change angle driving attachment, belt hook, in plastic case



Ident. No. 049

Model		PowerMaxx BS	PowerMaxx BS	PowerMaxx BS
Wiodei		Basic	Quick Basic	Quick Pro
Type of rechargeable	hattanı/hattanı	Li-lon	Li-lon	Li-lon
	/battery capacity (Ah)	2.0	2.0	4.0
Max. drilling Ø in stee	l (mm)	10	10	10
Max. drilling Ø in woo	d (mm)	22	22	22
Idle speed 1st gear m	in./max.	0-360 U/min(rpm)	0-360 U/min(rpm)	0-360 U/min(rpm)
Idle speed 2nd gear m	nin./max.	0-1400 U/min(rpm)	0-1400 U/min(rpm)	0-1400 U/min(rpm)
Max. torque for hard s	screwing application	34	34	34
(Nm)		34	34	34
Max. torque for soft s	crewing application	17	17	17
(Nm)		''	1/	17
Max. screw Ø (mm)		7	7	7
Min./max. drill chuck	span width	1.0-10.0 mm	1.0-10.0 mm	1.0-10.0 mm
Weight (kg)		0.8	0.8	0.8
Battery included		Yes	Yes	Yes
With working lights		Yes	Yes	Yes
71027	Ident. No.	049	051	058
/102/	Unit price, €	O. R.	O. R.	O. R.

Prod. group 745

# **BOSCH**

# Cordless screwdriver and cordless angle driver - lithium-ion 10.8 volt

for clockwise and anti-clockwise rotation, 1-speed and 2-speed

#### Application:

For securing and releasing screws in tight and poorly accessible places.

#### Execution:

- BOSCH Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge
- Motor brake for precision on the job in series screwing operations
- Integrated LED work light for illuminating the worksite
- Soft grip handle

#### Advantage:

- Ident. No. 263:
  - With extremely short construction, 143 mm, for optimal handling
  - Lockable 1/4 inch universal bit holder locks all common drilling and screwdriver bits
- Ident. No. 282–286: Versatile application, particularly in tight spaces and poorly accessible places, thanks to 5 adjustable head positions
- Ident. No. 286: 7-level electronic torque adjustment, plus drilling level

#### scope of supply and services:

2 x batteries (10.8 V/2.0 Ah), quick charger AL 1130 CV. in L-BOXX

Model		GSR 10.8 LI	GWI 10.8 V-LI	GWB 10.8 V-LI		
BOSCH no.		0 601 992 909	0 601 360 U0D	0 601 390 908		
Battery voltage (V/AC	C)	-	-	10.8		
Type of rechargeable	battery/battery	Li-lon	Li-lon	Li-lon		
Rechargeable battery	/battery capacity (Ah)	2.0	2.0	2.0		
Max. drilling Ø in stee	l (mm)	10	8	-		
Max. drilling Ø in woo	d (mm)	19	10	10		
Idle speed 1st gear m	in./max.	0-350 U/min	0-585 U/min	0-1300 U/min		
Idle speed 2nd gear n	nin./max.	0-1300 U/min	-	-		
Max. torque for hard screwing application (Nm)		30.0	13	11		
Max. torque for soft screwing application (Nm)		13.0	5	11		
Max. screw Ø (mm)		7	5	6		
Weight (kg)		0.8	1.1	1.2		
With right/left-hand r	otation	-	-	Yes		
Battery included		Yes	Yes	Yes		
With working lights		Yes	No	Yes		
With rubber-coated handle		Yes	Yes	Yes		
71026	Ident. No. Unit price, €	<b>263</b> O. R.	<b>282</b> O. R.	<b>286</b> O. R.		





Ident. No. 263



Ident. No. 282

# metabo

# Cordless drill screwdriver - lithium-ion 14.4 volt

for clockwise and anti-clockwise rotation, 2-speed

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- Integrated LED work light for illuminating the worksite
- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life
- Battery packs have capacity indicator for checking the charge status
- 3-year battery pack warranty
- With practical belt hook and bit holder, mountable on the right or left side
- Extremely high performance thanks to powerful METABO 4-pole motor for fast drilling and screw-driving

 Spindle has hexagon socket for screwdriver bits for working without a drill chuck

#### Advantage:

Ident. No. 211: METABO 'Quick': switch in seconds between drilling and screw-driving

#### scope of supply and services:

Ident. No. 017: 2 x batteries (14.4 V/2.0 Ah), charger ASC 30-36 V 'AIR COOLED', quick-action drill chuck, belt hook and bit-depot, in plastic case

**Ident. No. 018:** 2 x batteries (14.4 V/4.0 Ah), charger ASC 30-36 V 'AIR COOLED', quick-action drill chuck, belt hook and bit-depot, in plastic case

**Ident. No. 211:** 2 x batteries (14.4 V/4.0 Ah), charger ASC 30-36 V "AIR COOLED", quick-change drill chuck, quick-change bit holder, in plastic case



Ident. No. 017



Ident. No. 211

Sciew-univing						
Model		BS 14.4 LT Compact	BS 14.4 LT	BS 14.4 LT Quick		
Type of rechargeable	battery/battery	Li-lon	Li-lon	Li-lon		
Rechargeable battery	/battery capacity (Ah)	2.0	4.0	4.0		
Max. drilling Ø in stee	l (mm)	13	13	13		
Max. drilling Ø in woo	d (mm)	35	35	35		
Idle speed 1st gear m	in./max.	0-400 U/min(rpm)	0-400 U/min(rpm)	0-400 U/min(rpm)		
Idle speed 2nd gear m	nin./max.	0-1450 U/min(rpm)	0-1450 U/min(rpm)	0-1450 U/min(rpm)		
Max. torque for hard screwing application (Nm)		50	50	50		
Max. torque for soft screwing application (Nm)		27	27	27		
Max. screw Ø (mm)		8	8	8		
Min./max. drill chuck	span width	1.5-13.0 mm	1.5-13.0 mm	1.5-13.0 mm		
Weight (kg)		1.5	1.7	1.8		
Battery included		Yes	Yes	Yes		
With working lights		Yes	Yes	Yes		
71027	Ident. No.	017	018	211		
71037	Unit price, €	O. R.	O. R.	O. R.		

Prod. group 745

# BOSCH

# Cordless drill screwdriver and cordless impact drill driver - lithium-ion 14.4 volt

for clockwise and anti-clockwise rotation, 2-speed

#### Application

For use in drilling and screw-driving work using drills and bits.

#### Execution

- BOSCH Electronic Cell Protection (ECP) protects the battery from overload, overheating and deep discharge
- $\blacksquare$  Integrated LED work light for illuminating the worksite
- Ident. No. 112: Newly developed 2-speed planetary gear unit for powerful and versatile application options in screw-driving and drilling
- Ident. No. 112, 213: Practical belt clip ensures tool is always to hand
- Ident. No. 122, 231:
- Electronic Rotation Control (ERC) detects sudden blocking and switches off the tool
- Newly developed additional handle with corrugated profile and simple locking mechanism for rapid mounting and dismounting and secure seating
- Ident. No. 122-231: Electronic Motor Protection (EMP) protects the motor from overload and ensures a long service life
- Ident. No. 213:
- $\ ^{\bullet}$  Interchangeable coloured clips for easy marking and identification of the tool
- Motor brake for precision on the job in series screwing operations
- Mountable bit holder for easy transport and storage of the bits on the tool

#### Advantage

- Very short head length owing to compact design
- Ident. No. 112: Low weight: only 1.2 kg for perfect handling and effortless work
- Ident. No. 122, 231: Very robust: fully functional even after a fall from 2 m onto concrete, thanks to flexible Dura Shield housing
- Ident. No. 122-231: Innovative CoolPack batteries: optimal heat dissipation, extension of service life by up to 100% (compared to Li-ion batteries without CoolPack)
- Ident. No. 213: 100% longer service life thanks to brushless EC motor technology

#### scope of supply and services:

**Ident. No. 112:** 2 x batteries (14.4 V/1.5 Ah), quick charger AL 1820 CV, in L-BOXX

**Ident. No. 122:** 2 x batteries (14.4 V/4.0 Ah), quick charger AL 1820 CV, additional handle, in L-BOXX

Ident. No. 213: 2 x batteries (14.4 V/4.0 Ah), quick charger 1860 CV, belt clip, bit holder, 4 x coloured clips, in L-BOXX

 $\label{ldent.No.231:} \textbf{2 x batteries (14.4 V/4.0 Ah), quick charger 1860 CV, additional handle, in L-Boxx$ 



Ident. No. 112



Ident No. 122



Ident No 213



Ident No 231



Model		GSR 14.4-2-LI	GSR 14.4 V-EC	GSR 14.4 VE-2-LI	GSB 14.4 VE-2-LI
BOSCH no.	111		0 601 9D6 001	0 601 9D9 000	0 601 9D9 200
Motor design		0 601 9B7 400 -	-	-	4 pole motor
Type of rechargeable batter	y/battery	Li-lon	Li-lon	Li-lon	Li-lon
Rechargeable battery/batte	ery capacity (Ah)	1.5	4.0	4.0	4.0
Max. drilling Ø in steel (mm)	)	10	13	13	13
Max. drilling Ø in wood (mm	1)	30	35	45	40
Max. impact rate (U/min(rp	m))	-	-	-	27750
Idle speed 1st gear min./max.		0-340 U/min(rpm)	0-500 U/min(rpm)	0-400 U/min(rpm)	0-440 U/min(rpm)
Idle speed 2nd gear min./max.		0-1200 U/min(rpm)	0-1600 U/min(rpm)	0-1700 U/min(rpm)	0-1850 U/min(rpm)
Max. torque for hard screwing application (Nm)		35	46	75	80
Max. torque for soft screwing	ng application (Nm)	16	28	40	36
Max. screw Ø (mm)		7	8	10	10
Min./max. drill chuck span	width	1.5-10.0 mm	1.5-13.0 mm	1.5-13.0 mm	1.5-13.0 mm
Weight (kg)		1.2	1.7	2.3	2.4
Battery included		Yes	Yes	Yes	Yes
With working lights		Yes	Yes	-	Yes
With rubber-coated handle		Yes	Yes	-	Yes
71026	Ident. No.	112	213	122	231
/ 1020	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 731



# Cordless drill screwdriver DDF446RMJ

Li-ion 14.4 V

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- Torque adjustable in 16 stages + drill adjustment
- With bright LED

Electronically controllable speed

#### scope of supply and services:

2 x batteries (14.4 V/3.0 Ah), charger DC18RA, quick-action drill chuck, belt clip and mounting screw for belt clip, in plastic case MAKPAC size 2

Model		DDF 446 RMJ	
Type of rechargeable battery/battery		Li-lon	
Rechargeable battery/battery capacity (Ah)		4.0	
Max. drilling Ø in steel (mm)		13	
Max. drilling Ø in wood (mm)		38	
Idle speed 1st gear min./max.		0-400 U/min(rpm)	
Idle speed 2nd gear min./max.		0-1500 U/min(rpm)	
Max. torque for hard screwing application (Nm)		44	
Max. torque for soft screwing application (Nm)		30	
Min./max. drill chuck span width		1.0-13.0 mm	
Weight (kg)		1.7	
Battery included		Yes	
With working lights		Yes	
With rubber-coated handle	No		
71029	ldent. No.	563	
71029	Unit price, €	O. R.	







# Cordless drill screwdriver - lithium-ion 14.4 volt

for clockwise and anti-clockwise rotation, 2-speed and 4-speed

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

3-year FEIN PLUS warranty including battery and charger

#### ■ Ident. No. 300:

- Powerful FEIN cordless screwdriver with brushless motor, 4-speed gear unit and removable drill chuck (14V/2Ah)
- Li-ion battery with FEIN SafetyCell technology, separate communications line protects battery and tool from overload
- Removable solid metal drill chuck/bit holder
- Electronic torque adjustment
- Motor and electronics are completely protected against dust
- Magnetic bit holder holds bits in shapes C 63 and E 63

- 4-pole DC motor with overload protection
- Solid-metal quick-action drill chuck
- 2-speed solid metal gear unit
- 300 screw joints with one battery charge
- Drives 8 x 200 mm screws without pre-drilling
- Compact design

#### Advantage:

- Ident. No. 300:
- 1200 screw joints with one battery charge
- Drives 8 x 300 mm screws without pre-drilling
   Carbide-tipped clamping jaws hold round drill
- shafts with particular dependability

#### scope of supply and services:

**Ident. No. 300:** 2 x batteries (14.4 V/2.0 Ah), quick charger ALG 50, removable drill chuck/separate bit holder, in plastic case

Ident. No. 335: 2 x batteries (14.4 V/2.0 Ah), quick charger ALG 50, in plastic case





Ident. No. 335

#### ■ Ident. No. 335:

Model		ASCM 14 QXC	ABS 14 C
Motor design		Brushless motor	4 pole motor
Type of rechargeable batter	y/battery	Li-lon	Li-lon
Rechargeable battery/batte	ery capacity (Ah)	2.0	2.0
Max. drilling Ø in steel (mm	)	13	13
Max. drilling Ø in wood (mm	1)	50	50
Idle speed 1st gear min./m	ax.	0-400 U/min	0-450 U/min
Idle speed 2nd gear min./m	nax.	0-800 U/min	0-1600 U/min
Idle speed 3. Min./max. thr	ead	0-1950 U/min	-
Idle speed 4. Min./max. thr	ead	0-3850 U/min	-
Max. torque for hard screwi		80	50
Max. torque for soft screwing	ng application (Nm)	80	50
Max. screw Ø (mm)		8	8
Weight (kg)		1.7	1.8
Battery included		Yes	Yes
71028	Ident. No.	300	335
71028	Unit price, €	O. R.	0. R.

Prod. group 704



# Cordless drill screwdriver 6271 DWAE

NiCd 12 V

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- Mechanical 2-speed planetary gear unit with metal gear wheels for optimal force transmission
- Torque adjustable in 16 stages + drill adjustment
- Handle with inserted rubber cushion for secure holding and comfortable working
- With spindle lock

#### Advantage:

- Handy cordless drill screwdriver with very short construction
- Electronic switch for continuously variable speed control
- Electronics for sensitive drilling and screwdriving, with spindle lock

# scope of supply and services:

2 x batteries (12 V/2.0 Ah), charger, double bit PH2 and quick-action drill chuck, in plastic case

Model	6271 DWAE	
Type of rechargeable battery/battery	/	NiCd
Rechargeable battery/battery capaci	ity (Ah)	1.9
Max. drilling Ø in steel (mm)		10
Max. drilling Ø in wood (mm)		25
Idle speed 1st gear min./max.		0-400 U/min(rpm)
Idle speed 2nd gear min./max.		0-1300 U/min(rpm)
Max. torque for hard screwing application (Nm)		30
Max. torque for soft screwing application (Nm)		18
Min./max. drill chuck span width		0.8-10.0 mm
Weight (kg)		1.5
Battery included		Yes
71029	ldent. No.	022
7 1027	Unit price. €	O R





# HAHN+KOLB

# metabo

#### Cordless drill screwdriver - lithium-ion 18 volt

for clockwise and anti-clockwise rotation, 2-speed

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- Spindle has hexagon socket for screwdriver bits for working without a drill chuck
- Integrated LED work light for illuminating the worksite
- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life
- Ident. No. 014: With practical belt hook, mountable on the right or left side
- Ident. No. 041–280: With practical belt hook and bit holder, mountable on the right or left side

#### Advantage:

 Battery packs have capacity indicator for checking the charge status

- Ident. No. 014: Metabo Quick system: Fast changing of tool chuck and plug-in tool for flexible working
- Ident. No. 280: 5.2 Ah battery pack has 75% more endurance compared to a 3.0 Ah battery of the same size

## scope of supply and services:

**Ident. No. 014:** 2 x batteries (18 V/4.0 Ah), charger SC 60 Plus, quick-action drill chuck, belt hook, in plastic case

**Ident. No. 041:** 2 x batteries (18 V/4.0 Ah), charger ASC 30-36 V 'AIR COOLED', quick-action drill chuck, belt hook and bit-depot, in plastic case

**Ident. No. 280:** 2 x batteries (18 V/5.2 Ah), charger ASC 30-36 V 'AIR COOLED', quick-action drill chuck, belt hook and bit-depot, in plastic case



Ident. No. 014



Ident. No. 280

•				
Model		BS 18 Quick	BS 18 LT	BS 18 LT
Motor design		-	4 pole motor	4 pole motor
Type of rechargeable	battery/battery	Li-lon	Li-lon	Li-lon
Rechargeable battery	/battery capacity (Ah)	2.0	4.0	5.2
Max. drilling Ø in stee	l (mm)	10	13	13
Max. drilling Ø in woo	d (mm)	20	38	38
Idle speed 1st gear m	in./max.	0-450 U/min(rpm)	0-450 U/min(rpm)	0-450 U/min(rpm)
Idle speed 2nd gear m	nin./max.	0-1600 U/min(rpm)	0-1600 U/min(rpm)	0-1600 U/min(rpm)
Max. torque for hard s (Nm)	screwing application	48	60	60
Max. torque for soft s (Nm)	crewing application	24	34	34
Max. screw Ø (mm)		7	8	-
Min./max. drill chuck	span width	1.0-10.0 mm	1.5-13.0 mm	1.5-13.0 mm
Weight (kg)		1.3	1.8	1.8
Battery included		Yes	Yes	Yes
With working lights		Yes	Yes	Yes
71037	Ident. No.	014	041	280
/103/	Unit price, €	O. R.	O. R.	O. R.

Prod. group 745

# **BOSCH**

## Cordless drill screwdriver and cordless impact drill driver - lithium-ion 18 volt

for clockwise and anti-clockwise rotation, 2-speed

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- BOSCH Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge
- Ident. No. 132–142: Integrated LED work light
- Ident. No. 142-233:
- Electronic Rotation Control (ERC) detects sudden blocking and switches off the tool
- Electronic Motor Protection (EMP) protects the motor from overload and ensures a long service life
- Ident. No. 233:
- Brushless EC motor
- Motor brakeIntegrated LED light
- Advantage:
- Ident. No. 132: Head length just 169 mm
- Ident. No. 142:
- Functional even after a fall from 2 m onto concrete, thanks to flexible Dura Shield housing
- Head length just 213 mm



Ident. No. 142

- Ident. No. 142–233: Innovative CoolPack batteries: optimal heat dissipation, extension of service life by up to 100% (compared to Li-ion batteries without CoolPack)
- Ident. No. 233: Head length just 179 mm

#### scope of supply and services:

Ident. No. 132: 2 x batteries (18 V/1.5 Ah), quick charger AL 1820 CV, in L-BOXX

Ident. No. 142: 2 x batteries (18 V/4.0 Ah), quick charger AL 1860 CV, additional handle, in L-BOXX Ident. No. 233: 2 x batteries (18 V/4.0 Ah), quick charger AL 1860 CV, belt clip, bit holder, 4 x coloured clips, in L-BOXX



Ident. No. 233



Ident. No. 132

# Cordless drill screwdrivers/impact drill drivers

Model		GSR 18-2-LI	GSR 18 V-EC	GSR 18 VE-2-LI
BOSCH no.		0 601 9B7 300	0 601 9D6 101	0 601 9D9 100
Type of rechargeable battery/bat		Li-lon	Li-lon	Li-lon
Rechargeable battery/battery cap	pacity (Ah)	1.5	4.0	4.0
Max. drilling Ø in steel (mm)		10	13	13
Max. drilling Ø in wood (mm)		30	38	50
Idle speed 1st gear min./max.		0-450 U/min(rpm)	0-500 U/min(rpm)	0-400 U/min(rpm)
Idle speed 2nd gear min./max.		0-1400 U/min(rpm)	0-1700 U/min(rpm)	0-1700 U/min(rpm)
Max. torque for hard screwing ap	plication (Nm)	38	50	80
Max. torque for soft screwing app	olication (Nm)	17	31	47
Max. screw Ø (mm)		7	10	12
Min./max. drill chuck span width		1.0-10.0 mm	1.5-13.0 mm	1.5-13.0 mm
Weight (kg)		1.3	1.9	2.4
Battery included		Yes	Yes	Yes
71026	Ident. No.	132	233	142
/1020	Unit price, €	O. R.	0. R.	0. R.

Prod. group 731



# Cordless drill screwdriver ASCM 18 QX Li-ion 18 V

#### Application:

For use in drilling and screw-driving work using drills and bits.

#### Execution:

- Brushless FEIN PowerDrive motor with 30% higher
- Li-ion battery with FEIN SafetyCell technology, separate communications line protects battery and tool from overload
- 3-year FEIN PLUS warranty including battery and charger
- Removable solid metal drill chuck/bit holder
- Electronic torque adjustment
- Motor and electronics are completely protected against dust

■ Magnetic bit holder with high-quality neodymium magnet

#### Advantage:

- 1800 screw joints with one battery charge
- Drives 10 x 400 mm screws without pre-drilling
- High torques up to 90 Nm
- Carbide-tipped clamping jaws hold round drill shafts with particular dependability
- Bit holder holds bits in shapes C 63 and E 63

#### scope of supply and services:

2 x batteries (18 V/4.0 Ah), quick charger ALG 50, 1 x handle, removable drill chuck/separate bit holder



Model		ASCM 18 QX
Motor design		Brushless motor
Type of rechargeable battery/battery	/	Li-lon
Rechargeable battery/battery capac	ity (Ah)	4.0
Max. drilling Ø in steel (mm)		13
Max. drilling Ø in wood (mm)		50
Idle speed 1st gear min./max.		0-400 U/min
Idle speed 2nd gear min./max.		0-800 U/min
Idle speed 3. Min./max. thread		0-1950 U/min
Idle speed 4. Min./max. thread		0-3850 U/min
Max. torque for hard screwing applic		90
Max. torque for soft screwing applica	ition (Nm)	90
Max. screw Ø (mm)		10
Weight (kg)		2.0
Battery included		Yes
With working lights		No
With rubber-coated handle		No
71028	ldent.	No. <b>370</b>
71020	Unit price	e, € O. R.







#### Cordless drill - lithium-ion 18 volt

for clockwise and anti-clockwise rotation, 1-speed and 2-speed

#### Application:

For fast and precise drilling of boreholes.

#### Execution:

- Maximum quality with high concentricity for precise drilling results
- Maintenance-free brushless EC motor with high efficiency and high level of speed stability
- Optimal speed for lower diameter range and economical work due to efficient use of the machine
- Metal gear head

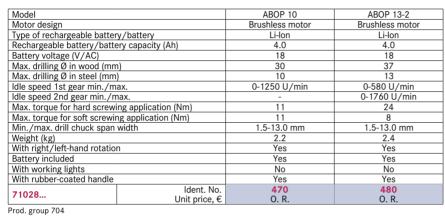
- Precision drill chuck made of metal
- Self-tightening drill chuck clamping jaws
- Automatic spindle locking and single-shell quickaction drill chuck
- FEIN sensitive handle

#### Advantage:

■ Electronic speed regulation

#### scope of supply and services:

2 x batteries (18 V/4.0 Ah), quick charger ALG 50, additional handle, in plastic case







# Cordless impact drill driver - lithium-ion 18 volt

for clockwise and anti-clockwise rotation, 2-speed

#### Application:

For drilling boreholes in particularly solid materials using mechanical impact.

#### Execution:

- Spindle has hexagon socket for screwdriver bits for working without a drill chuck
- Integrated LED work light for illuminating the worksite
- With practical belt hook and bit-depot, mountable on the right or left side
- 3-year battery pack warranty owing to Ultra-M technology

## ■ Ident. No. 336:

Switchable impulse mode for unscrewing stuck screws and spotting drilling on smooth surfaces

Clamping neck for versatile application

#### Advantage:

- Battery packs have capacity indicator for checking the charge status
- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life

#### scope of supply and services:

Ident. No. 323: 2 x batteries (18 V/4.0 Ah), charger ASC 30-36 V 'AIR COOLED', quick-action drill chuck, belt hook and bit-depot, in plastic case

Ident. No. 336: 2 x batteries (18 V/4.0 Ah), charger ASC 30-36 V "AIR COOLED", quick-action drill chuck Futuro Plus with metal sleeve, belt hook, additional handle, in MetaLoc case insert

Model		SB 18 LT	SB 18 LTX Impuls
Motor design		-	4 pole motor
Type of rechargeable batter	y/battery	Li-lon	Li-lon
Rechargeable battery/batte	ery capacity (Ah)	4.0	3.0
Max. impact rate (U/min(rp	nm))	27200	32300
Max. drilling Ø in wood (mm	1)	38	65
Max. drilling Ø in steel (mm		13	13
Idle speed 1st gear min./m	ax.	0-450 U/min	0-500 U/min
Idle speed 2nd gear min./m	nax.	0-1600 U/min	0-1700 U/min
Max. torque for hard screwi	ng application (Nm)	60	110
Min./max. drill chuck span	width	1.5-13.0 mm	1.5-13.0 mm
Max. torque for soft screwing	ng application (Nm)	34	55
Weight (kg)		1.9	2.1
With working lights		-	Yes
Battery included		Yes	Yes
71037	ldent. No.	323	336
/103/	Unit price, €	O. R.	O. R.



# Electric tools

# Cordless impact screwdriver and cordless impact drill driver - lithium-ion 10.8 volt

# 1-speed and 2-speed

#### Application:

No. 71026: For securing and releasing screws in tight and poorly accessible places.

**No. 71037:** For driving in and extracting screws and nuts with high torque.

#### Execution:

- Integrated LED light for illuminating the working area, including in dark places
- No. 71026:
- BOSCH Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge
- Motor brake for precision on the job in series screwing operations

#### Advantage:

- No. 71026: At 189 mm, shortest construction in its class
- No. 71037:
  - Low recoil during work with an extremely high torque
  - Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life

## scope of supply and services:

No. 71026: 2 x batteries (10.8 V/1.3 Ah), charger LC 40, in plastic case

No. 71037: 2 x batteries (10.8 V/1.5 Ah), charger LC 40, in plastic case

Model			GSB 10.8-2-LI	PowerMaxx SSD
BOSCH no.		0 601 9B6 906	-	
Type of r	echargeable battery/	pattery	Li-lon	Li-lon
Recharge	eable battery/battery	capacity (Ah)	2.0	2.0
Max. dril	ling Ø in steel (mm)		10	-
Max. dril	ling Ø in wood (mm)		19	-
Max. imp	act rate (U/min(rpm)		19500	3000
Idle spee	d 1st gear min./max.		0-380 U/min(rpm)	0-2300 U/min(rpm)
	d 2nd gear min./max		0-1300 U/min(rpm)	-
	que for hard screwing		30	105
Max. toro	que for soft screwing	application (Nm)	15	-
Max. scr	ew Ø (mm)		7	-
	x. drill chuck span wid	lth	1.0-10.0 mm	-
Tool hold	ling device		-	1/4-inch hexagon socket
Weight (k	(g)		1.0	1.0
Battery in	ncluded		Yes	Yes
With wor	king lights		-	Yes
With rubl	per-coated handle		-	No
BUSCH	71026	Ident. No.	291	
возсп	71020	Unit price, €	O. R.	_
metabo 71037	Ident. No.		380	
merano	7 1007	Unit price, €	-	O. R.



No. 71026



No. 71037

# **BOSCH**

# Cordless rotating impact screwdriver - lithium-ion 14.4 volt

for clockwise and anti-clockwise rotation, 1-speed

# Application:

For securing and releasing screws in tight and poorly accessible places.

#### Execution:

- Very short construction for perfect handling, even in the tightest spots and overhead
- Very robust: fully functional even after a fall from 2 m onto concrete, thanks to flexible Dura Shield housing
- Practical battery charge status indicator provides information on remaining power reserves available at any time
- BOSCH Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge

#### Advantage:

- Unique possibility of selecting between the "Premium" battery (longer battery runtime) and the "Compact" battery (less weight for even more pleasant working)
- Innovative CoolPack batteries: optimal heat dissipation, extension of service life by up to 100% (compared to Li-ion batteries without CoolPack)

#### scope of supply and services:

2 x batteries (14.4 V/4.0 Ah), quick charger AL 1860 CV, in L-Boxx



Prod. group 731



Ident. No. 322

# metabo

# Cordless impact screwdriver SSW 18 LTX 200

Li-ion 18 V

# Application:

For driving in and extracting screws and nuts with high torque.

#### Execution:

- Compact design for powerful applications
- Three speed/torque stages for a variety of applications
- Integrated work light for illuminating the worksite
- 3-year battery pack warranty

#### Advantage:

- Battery packs have capacity indicator for checking the charge status
- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life
- Low recoil during work with an extremely high torque

scope of supply and services: 2 x batteries (18 V/4.0 Ah), charger ASC 30-36 V "AIR COOLED", belt hook and bit-depot, in plastic

Model	SSW 18 LTX 200	
Type of rechargeable battery/battery	/	Li-lon
Rechargeable battery/battery capaci	ity (Ah)	4.0
Max. impact rate (U/min(rpm))		3000
Idle speed 1st gear min./max.		0-900 U/min
Idle speed 2nd gear min./max.		0-1650 U/min
Idle speed 3. Min./max. thread		0-2300 U/min
Max. torque for hard screwing applic	ation (Nm)	210
Tool holding device		1/2-inch external square
Max. torque for soft screwing applica	ition (Nm)	100
Weight (kg)		1.6
With working lights		Yes
Battery included		Yes
71037	ldent. No.	362
/103/	Unit price, €	O. R.

Prod. group 745

# Cordless rotating impact screwdriver - lithium-ion 18 volt

for clockwise and anti-clockwise rotation, 1-speed

#### Application:

For securing and releasing screws in tight and poorly accessible places.

#### Execution:

- Ident. No. 346:
- Brushless EC motor
- Speed adjustable in three gear speeds
- Impact rate: 0-1100/2600/3200 rpm, adjustable

#### ■ Ident. No. 356:

- Very short construction for perfect handling
- BOSCH Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge

■ Practical battery charge status indicator provides information on remaining power reserves available at any time

#### Advantage:

- Ident. No. 346: Special tool chuck combines 1/2 inch square drive and 1/4 inch hexagonal drive for even more applications
- Ident. No. 356: Innovative CoolPack batteries: optimal heat dissipation, extension of service life by up to 100% (compared to Li-ion batteries without CoolPack)

# scope of supply and services:

2 x batteries (18 V/4.0 Ah), quick charger AL 1860 CV, in L-Boxx

Model		GDX 18 V-EC	GDS 18 V-LI HT	
BOSCH no.		0 601 9B9 100	0 601 9B1 303	
Motor design		Brushless motor	-	
Type of rechargeable batter	y/battery	Li-lon	Li-lon	
Rechargeable battery/batte		4.0	4.0	
Max. impact rate (U/min(rp	nm))	3200	2100	
Idle speed 1st gear min./m		0-1300 U/min	0-1900 U/min	
Idle speed 2nd gear min./m	nax.	0-2000 U/min	-	
Idle speed 3. Min./max. thr	ead	0-2800 U/min	-	
Max. torque for hard screwi	Max. torque for hard screwing application (Nm)		650	
Tool holding device		1/2-inch external square	1/2-inch external square	
		and 1/4-inch inner square	<u>'</u>	
Weight (kg)		1.7	3.0	
With working lights		Yes	Yes	
With rubber-coated handle		Yes	Yes	
Battery included		Yes	Yes	
71026	ldent. No.	346	356	
	Unit price, €	0. R.	O. R.	



Ident. No. 346



Ident. No. 356

# Cordless rotary hammer drill - lithium-ion 18 volt

with and without rechargeable battery

#### Application:

For drilling and chiselling with pneumatic impact mechanism, in stone and concrete.

#### Execution

 BOSCH Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge

#### ■ Ident. No. 008:

- Innovative BOSCH Premium-Lithium-Ion technology for longer service life and unbeatable battery running time
- Practical battery charge status display with 3 I FDs
- Integrated LED work light for illuminating the worksite
- Screw connections: Screws up to 6 mm diameter in wood

 BOSCH Hyper Charge: with rapid charging, the batteries are already 75% charged after half of the charging time

#### ■ Ident. No. 012-022:

- Brushless BOSCH EC motor: compact, dustprotected, light and absolutely maintenance-free
- Innovative CoolPack batteries: optimal heat dissipation, extension of service life by up to 100% (compared to Li-ion batteries without CoolPack)
- Very rugged: Electronic Motor Protection switches off the motor in the case of overload, fully functional even after a 2 m drop test onto concrete

#### Advantage:

#### ■ Ident. No. 008:

- Most compact design in its class (overall length just 278 mm – including SDS-plus holder)
- Pneumatic impact mechanism for bore holes up to 12 mm in concrete

 Also suitable for smaller to medium screwdriving and drilling applications in wood and metal

#### ■ Ident. No. 012-022:

- Long-running time (191 holes 6 x 40 mm in concrete) with one battery charge (5.0 Ah) thanks to efficient BOSCH EC motor
- Low weight (only 2.6 kg) and compact design for more comfortable working
- Highest rate of chisel material removal (12 kg/hr.) in its class

#### scope of supply and services:

Ident. No. 012: Not including battery, not including charger, additional handle, depth stop 210 mm, L-Boxx insert, in box

Ident. No. 022: 2 x batteries (18 V/5.0 Ah), quick charger AL 1860 CV, additional handle, depth stop 210 mm. in L-BOXX







Ident. No. 008

Ident. No. 012

Ident. No. 022

Model		GBH 18-V-LI	GBH 18 V-EC	GBH 18 V-EC
BOSCH no.		0 611 905 302	0 611 904 004	0 611 904 00A
Motor design		-	Brushless motor	Brushless motor
Type of rechargeable battery/bat	tery	Li-lon	Li-lon	Li-lon
Rechargeable battery/battery ca	pacity (Ah)	3.0	4.0	5.0
Max. impact energy (J)		1.0	1.7	1.7
Max. impact rate (U/min(rpm))		4950	4550	4550
Max. drilling Ø in wood (mm)		16	20	20
Max. drilling Ø in steel (mm)		8	13	13
Max. drilling Ø in concrete (mm)		-	18	18
Max. recommended drilling Ø in o	concrete (mm)	12	10	10
Idle speed 1st gear min./max.		0-1050 U/min	0-1400 U/min	0-1400 U/min
Tool holding device		SDS-plus	SDS-plus	SDS-plus
Weight (kg)		2.1	2.6	2.6
With working lights		-	Yes	Yes
Battery included		Yes	Yes	Yes
70165	Ident. No.	008	012	022
70105	Unit price, €	(O. R.)	O. R.	O. R.



# Cordless angle grinder GWS 18-125 V-LI Professional

Li-ion 18 \

#### Application:

For grinding and cutting of workpieces.

#### Execution:

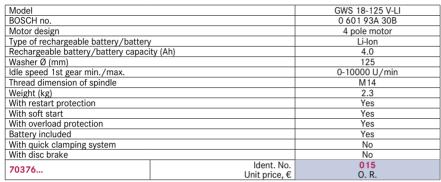
- LED provides information on battery charge status
- Handle can be used on the left and on the right side
- Practical battery charge status indicator provides information on power reserves at any time
- Gear head rotatable in 90° steps
- Very rugged and stress-resistant 4-pole highpower motor with Electronic Motor Protection (EMP) ensures long service life
- Electronic Cell Protection (ECP): protects battery from overload, overheating and deep discharge
- Twist-proof protective hood
- Overload protection, soft start and restart protection

#### Advantage:

 CoolPack battery: Extension of service life by up to 100% (compared to battery without CoolPack)

# scope of supply and services:

2 x batteries (18 V/4.0 Ah), quick charger AL 1860 CV, additional handle, protective hood, L-Boxx





Prod. group 731

# metabo

# Cordless angle grinder W 18 LTX 125 Quick

Li-ion 18 \

#### Application:

For grinding and cutting of workpieces.

#### Execution

- LED provides information on battery charge status
- Rotatable battery pack for better working in tight spaces
- Removable dust protection filter protects motor from coarse particles
- METABO Quick for tool-free replacement of discs with quick-action clamping nut
- Twist-proof protective hood

Overload protection, soft start and restart protection

#### Advantage:

- 3-year battery pack warranty
- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life

# scope of supply and services:

2 x batteries (18 V/4.0 Ah), charger ASC 30-36 V "AIR COOLED", protective hood, support flange, quick-action clamping nut, additional handle, dust filter, in plastic case



Rotating battery pack for more freedom of movement

Model		W 18 LTX 125 Quick
Motor design		4 pole motor
Type of rechargeable battery/battery	,	Li-lon
Rechargeable battery/battery capaci	ty (Ah)	4.0
Washer Ø (mm)		125
Idle speed 1st gear min./max.		0-8000 U/min
Thread dimension of spindle		M14
Weight (kg)		2.4
With restart protection		Yes
With soft start		Yes
With overload protection		Yes
Battery included		Yes
With quick clamping system		Yes
With disc brake		No
70377	Ident. No.	020
70377	Unit price, €	O. R.

# Cordless straight grinder GGS 18 V-LI Professional

#### Application:

For fine finishing, smoothing and deburring.

#### **Execution:**

- Restart block prevents unintentional starting after replacement of the battery
- Electronic Motor Protection (EMP) protects the motor from overload and ensures a long service life

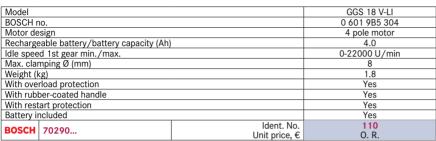
 Electronic Cell Protection (ECP): protects the battery from overload, overheating and deep discharge

#### Advantage:

 CoolPack battery: Extension of service life by up to 100% (compared to batteries without CoolPack)

#### scope of supply and services:

1 x battery (18 V/4.0 Ah), quick charger AL 1860 CV, 2 x open-ended spanners 19 mm, in L-Boxx







# Cordless MultiMaster AFMM 14

Li-ion 14.4 V

#### Application:

For refurbishing painted and weathered surfaces.

#### Execution:

- Quick-IN quick change system for convenient replacement of accessories without key
- 8-star tool holding fixture with excellent torque transmission
- Electronic speed adjustment

 LED warns of diminishing battery voltage and overload

#### scope of supply and services:

2 x batteries (14.4 V/4.0 Ah), quick charger ALG 50, abrasive pad, 5 grinding discs each (K 60, 80, 120, 180), universal E-Cut saw blade (44 mm), E-Cut long-life saw blade (65 mm), cemented carbide segment saw blade, cemented carbide rasp (triangular) perforated, 1 HSS segment saw blade, solid spatula

Model		MultiMaster AFMM 14
Rechargeable battery/battery capacity (Ah)		3.0
Tool holding device		QuickIN
Weight (kg)		1.7
Battery included		Yes
70533	Ident. No.	029
70555	Unit price, €	O. R.







# HAHN+KOLB

#### Cordless sabre saw - lithium-ion 18 volt

#### with and without rechargeable battery

## Application:

For sawing wood, plastics, metal pipes and profiles and much more

#### Execution:

#### ■ No. 71029:

- 4-pole motor without loss of torque
- Guide shoe lockable in 5 positions
- With bright LED
- Handle with inserted rubber cushion for secure holding and comfortable working
- Saw blade change with no tools
- Effective dust protection against the penetration of dust and dirt

#### ■ No. 71169·

- Slim, light-weight machine with soft grip handle
- Rugged die-cast aluminium gear case
- Vario (V) electronics for working with stroke counts suitable for the material

- METABO Quick for tool-free exchanging of saw blades
- Adjustable depth stop for optimal usage of the saw blade and for versatile applications such as plunge cuts
- Saw blade 180° rotatable for comfortable working overhead

#### Advantage:

#### ■ No. 71169:

- Ultra-M technology: maximum power, gentle charging, optimal energy usage, long service life
   Battery packs have capacity indicator for
- checking the charge status

#### scope of supply and services:

No. 71029: 1 x battery (18 V/4.0 Ah), charger DC18RA, saw blade set, in plastic case

No. 71169: 2 x batteries (18 V/4.0 Ah), charger ASC 30-36 V "AIR COOLED", hexagon key, in plastic case



No. 71029



No. 71169

Model		DJR 181 RM	ASE 18 LTX
Rechargeable battery/battery ca	pacity (Ah)	4.0	4.0
Stroke length (mm)		28.0	30.0
Min./max. idle stroke speed		0-2900 U/min	0-2700 U/min
Weight (kg)		3.7	3.6
With working lights		Yes	No
With rubber-coated handle		Yes	Yes
With speed control		-	Yes
Battery included		Yes	Yes
makita 71029	Ident. No.	351	_
minitia 7 1027 iii	Unit price, €	O. R.	
metabo 71169	Ident. No.	_	205
	Unit price, €		O. R.

MAKITA = Prod. group 715 METABO = Prod. group 745

# Cordless jigsaw GST 18 V-LI S Professional

Li-ion 18 V

#### Application:

For complex radius cuts in wood and sheet metal.

- Compact, light design with small handle size facilitates optimal control when sawing
- Rod shaped for guiding the saw beneath the workpiece
- SDS saw blade replacement with just one hand

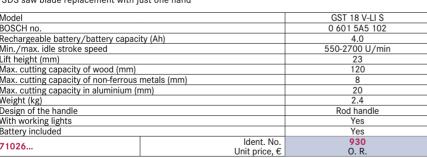
#### Advantage:

 Powerful battery system for cuts even in thick or hard materials

#### scope of supply and services:

2 x battery (18 V/4.0 Ah), quick charger AL 1860 CV, 1 x saw blade T 144 DP, 1 x saw blade T 244 D, 1 x saw blade T 308 B, splinter protection, in L-Boxx

Model	GST 18 V-LI S			
BOSCH no.	0 601 5A5 102			
Rechargeable battery/battery capaci	ity (Ah)	4.0		
Min./max. idle stroke speed		550-2700 U/min		
Lift height (mm)		23		
Max. cutting capacity of wood (mm)		120		
Max. cutting capacity of non-ferrous	8			
Max. cutting capacity in aluminium (r	20			
Weight (kg)	2.4			
Design of the handle		Rod handle		
With working lights		Yes		
Battery included	Yes			
71026	930			
71020	O. R.			
Prod. group 731				





# metabo

# Cordless cartridge gun - lithium-ion 10.8 volt

for cartridges and film bags

#### Application:

For precise working with high discharge pressure and uniform discharge speed.

- High discharge force for easily working with all materials, including particularly viscous materials
- Continuous adjustment of the discharge speed for precise working
- Solid metal gear unit for long service life

#### Advantage:

- No dripping thanks to automatic rack retraction
- 3-year battery pack warranty

scope of supply and services: Ident. No. 085: 1 x battery (10.8 V/4.0 Ah), charger LC 40, 400 ml tube, discharge plate for film bag, discharge plate for cartridges, in box

Ident. No. 087: 1 x battery (10.8 V/4.0 Ah), charger LC 40, 600 ml tube, discharge plate for film bag, discharge plate for cartridges, in box

Model		PowerMaxx KP	PowerMaxx KP
Max. contents (ml)		400	600
Battery voltage (V/AC)		10.8	10.8
Rechargeable battery/battery capacity (Ah)		4.0	4.0
Battery included		Yes	Yes
71027	ldent. No.	085	087
/102/	Unit price, €	O. R.	O. R.





# metabo

## Cordless hand lamps - 10.8 volt

compatible with batteries from the power tool

#### Application:

For mobile illumination of the workspace.

#### Execution:

- Suitable for 10.8 V batteries
- Ident. No. 081:

- Lamp head can be swivelled and locked in 12
- Powerful LED hand lamp for uniform, bright working light
- Ident. No. 081-082: Rotatable hook for suspending the lamp
- Ident. No. 082:

- Lamp head can be rotated and swivelled by 180° for virtually unlimited lighting positions
- Powerful LED torch for uniform, bright working light

#### scope of supply and services:

Not including battery, not including charger



Ident. No. 081



Ident. No. 082



Ident. No. 080

Model		PowerMaxx LED	PowerMaxx ULA LED	PowerMaxx SLA LED
Max. luminous period (h)		38.0	24.7	9.9
Battery included		No	No	No
metabo 71027	ldent. No. Unit price, €	<b>080</b> O. R.	<b>081</b> O. R.	<b>082</b> O. R.

Prod. group 745

# metabo

#### Spare lithium-ion battery

for METABO electric tools

# Application:

For use in METABO battery-powered electric tools.

#### Execution:

- Ident. No. 490-550: Sliding system
- Ident. No. 625-640: Plug-in system

#### Advantage:

■ 3-year battery pack warranty

#### scope of supply and services:

In box



Ident. No. 540

Type of rechargeable ba	attery/battery	Li-lon	Li-lon	Li-lon	Li-lon	Li-lon
Nominal voltage (V/AC)	)	10.8	10.8	14.4	18.0	18.0
Rechargeable battery/b	pattery capacity (Ah)	2.0	4.0	4.0	4.0	5.2
71027	Ident. No.	625	640	490	540	550
71037	Unit price, €	O. R.				

71037 490 = Prod. group 745, 71037 640 = Prod. group 745, 71037 540 = Prod. group 786, 71037 550 = Prod. group 786, 71037 625 = Prod. group 786



# Li-ion battery pack 18 V/1.5 Ah

for METABO electric tools

**Application:** As replacement battery.

Advantage:

3-year battery pack warranty

Execution:

Sliding system

scope of supply and services:

In box

Type of rechargeable battery/battery	1	Li-lon
Nominal voltage (V/AC)		18.0
Rechargeable battery/battery capacity (Ah)		1.5
71037 Ident. No.		396
71037	Unit price, €	O. R.

Prod. group 745



# Spare lithium-ion battery

for BOSCH electric tools

Application:

For use in BOSCH battery-powered electric tools.

Execution:
• Plug-in system

■ Ident. No. 661:

 BOSCH flexible Power System – battery suitable for all devices in one voltage class

 Very robust – fully functional even after a fall from 3 m onto concrete Advantage:

 Ident. No. 661: Lightweight for greater comfort when working, particularly in overhead applications

scope of supply and services:

In box



Ident. No. 661

BOSCH no.		2 607 336 242	1 600 Z00 02X
Type of rechargeable batter	y/battery	Li-lon	Li-lon
Nominal voltage (V/AC)		3.6	10.8
Rechargeable battery/battery capacity (Ah)		1.3	2.0
71026	Ident. No.	650	661
71020	Unit price, €	O. R.	O. R.

Prod. group 731



# Spare rechargeable battery lithium-ion and NiCd

for MAKITA electric tools

Application:

For use in MAKITA battery-powered electric tools.

Execution:

■ Ident. No. 121–206: Plug-in system

■ Ident. No. 269–270: Sliding system



Ident. No. 269

scope of supply and services:

In box



Ident. No. 270



Ident. No. 206 Li-ion battery 10.8 V 1.3 Ah

Type of red battery/ba		Li-lon	Li-lon	NiCd	Li-lon	Li-lon
Nominal voltage (V/AC)		7.2	10.8	12.0	14.4	18.0
Rechargea battery car	ble battery/	1.0	1.3	2.0	3.0	3.0
71029	Ident. No.	203 O. R	206 O. R	121 O. R	269 O. R	<b>270</b> O R

Prod. group 715



Electric tools

# Li-ion battery pack 18 V/3.0 Ah

for FEIN electric tools

**Application:** For use in FEIN battery-powered electric tools.

scope of supply and services:

In box

Execution:

Sliding system

Oliding System			
Type of rechargeable battery/battery	Li-lon		
Nominal voltage (V/AC)	18.0		
Rechargeable battery/battery capaci	3.0		
71028	Ident. No.	550	
71026	Unit price, €	O. R.	



# Electric tools

# metabo

# Battery charger ASC 30-36 V Air Cooled EU

For Li-ion 14.4 V to 36 V

#### Application:

For charging all METABO Li-ion batteries from 14.4 V to 36 V.

#### Execution:

■ Processor-controlled charge management system

#### Advantage:

■ Patented "AIR COOLED" charging technology

70377	Ident. No. Unit price, €	<b>810</b> O. R.
-------	-----------------------------	---------------------

Prod. group 745

Very low standby power consumption

# scope of supply and services:

In box

#### **Technical Data:**

- Model: ASC 30-36 V
- Charging time: 30 min
- Charging current: 3.0 A



# Differences between a drill and a hammer drill What are the major differences between a drill and a hammer drill?

On a **drill**, the drill spindle is fixes firmly in the bearings. This results in a highly precise concentric running.

The rotation speeds have been optimised for drilling in metal On a **hammer drill**, the drill spindle is mounted flexibly in the bearings. Because of the system, the run-out precision is not as good as in purely drilling machines.

The rotation speed is usually higher than with drilling machines because stone is being drilled as well and this requires higher striking power.

# metabo

# Drill, 1-speed and 2-speed

voltage 230 V, 50 Hz, shockproof, suppressed, for clockwise and anti-clockwise rotation

#### Application:

For fast and precise drilling of boreholes.

#### Execution:

- Drill spindle with hexagon socket for screwdriver bits for working without a drill chuck
- Cut-out carbon brushes for protection from overload
- Continuous electronic speed control
- Ident. No. 004: Small handy drill, with reduced vibration
- Ident. No. 006-016: Robust design for continuous use
- Ident. No. 016: Handy drill with rugged housing and durable motor
- Ident. No. 035:
  - Rotatable carbon brush bridge for maximum power even with anti-clockwise rotation for extracting stuck screws
  - Wear-free die-cast aluminium gear case for optimal heat dissipation and durability
- Cable-protecting ball grommet for maximum freedom of movement and protection from cable breakage

#### Advantage:

 Ident. No. 006-016: Futuro Top quick-action drill chuck: automatic re-tightening when drilling, for precise drilling results

#### scope of supply and services:

Ident. No. 004: Quick-action drill chuck, in box Ident. No. 035: Quick-action drill chuck, extra handle, in box





Ident. No. 004

Ident. No. 016

Ident. No. 035

Model		BE 10	BE 500/06	BE 500/10	BE 751
Max. drilling Ø in steel (mm	)	10.0	6	10.0	13.0
Max. drilling Ø in wood (mm	1)	20	20	30	40
Power input (W)		450	500	500	750
Power output (W)		240	-	-	450
Idle speed 1st gear min./max.		0-2400 U/min	0-4500 U/min	0-1600 U/min	0-1000 U/min
Idle speed 2nd gear min./m	nax.	-	-	-	0-3100 U/min
Min./max. drill chuck span	width	1.0-10.0 mm	1.0-10.0 mm	1.0-13.0 mm	1.5-13.0 mm
Weight (kg)		1.3	1.5	1.8	2.6
70005	Ident. No.	004	006	016	035
70005	Unit price, €	O. R.	O. R.	O. R.	O. R.



# **Drilling machines, 1-speed**

voltage 230 V, 50 Hz, shockproof, suppressed, for clockwise and anti-clockwise rotation

## Application:

For fast and precise drilling of boreholes.

Ident. No. 004: With high speed, suitable for small bore diameters.

#### Execution:

■ Continuous electronic speed control

#### scope of supply and services: Quick-action drill chuck, in box

Model		GBM 6 RE	GBM 10 RE
BOSCH no.		0 601 472 600	0 601 473 600
Max. drilling Ø in aluminium	(mm)	8	10.0
Max. drilling Ø in steel (mm		6.5	10.0
Max. drilling Ø in wood (mm	1)	15	25
Power input (W)		350	600
Power output (W)		136	360
Idle speed 1st gear min./max.		0-4000 U/min	0-2600 U/min
Weight (kg)		1.2	1.7
With rubber-coated handle		-	Yes
70002 Ident. No.		004	006
70002	Unit price, €	O. R.	O. R.





Ident. No. 004



Ident. No. 006

# BOSCH

# **Drilling machines, 2-speed**

voltage 230 V, 50 Hz, shockproof, suppressed, for clockwise and anti-clockwise rotation

# Application:

For fast and precise drilling of boreholes.

#### Execution:

- Continuous electronic speed control
- Ident. No. 027:
- Quick-action drill chuck made of metal, secured by centre screw against twisting loose in anticlockwise rotation
- Controllable speed for material-suitable operation
- Robust design for continuous use
- Entirely supported with ball bearings and antifriction bearings for long service life and precise work

- Ident. No. 041:
- Synchronised 2-speed driving key transmission for switching while running
- Anti-friction bearing-mounted for long service life
- Switch is operated and locked with one finger
- Suitable for agitation
- Spade handle for good grip

#### scope of supply and services:

Ident. No. 027: Quick-action drill chuck, in box

**Ident. No. 041:** Toothed ring drill chuck, extra handle, depth stop, in box

Model		GBM 10-2 RE	GBM 16-2 RE
BOSCH no.		0 601 168 560	0 601 120 503
Max. drilling Ø in aluminium	(mm)	13.0	20
Max. drilling Ø in steel (mm)		10.0	16.0
Max. drilling Ø in wood (mm	1)	25	40
Power input (W)		500	1050
Power output (W)		270	570
Idle speed 1st gear min./max.		0-1150 U/min	0-600 U/min
Idle speed 2nd gear min./max.		0-2100 U/min	0-1450 U/min
Weight (kg)		1.7	3.7
With rubber-coated handle		Yes	Yes
70016 Ident. No.		027	041
70010	Unit price, €	O. R.	O. R.

Prod. group 731



Ident. No. 027



Ident. No. 041



# Drill, 1-speed and 2-speed

#### voltage 230 V, 50 Hz, shockproof, suppressed, for clockwise and anti-clockwise rotation

#### Application:

For fast and precise drilling of boreholes.

#### Execution:

- Continuous electronic speed control
- Electronic speed regulation
- Drill spindle with automatic locking for convenient tool changing
- Robust design for continuous use
- Metal gear head
- 5-metre cable

- High concentricity
- Ident. No. 004-006: Quick-action drill chuck made from metal, precision drill chuck, selftightening drill chuck clamping jaws
- Ident. No. 021-041: Quick-action metal drill chuck, precision drill chuck, self-tightening drill chuck clamping jaws

#### scope of supply and services:

Quick-action drill chuck, extra handle, in box





Ident. No. 021-041

Model		BOP 6	BOP 10	BOP 10-2	BOP 13-2
Max. drilling Ø in s	steel (mm)	6.0	10.0	10.0	13.0
Max. drilling Ø in v	wood (mm)	20	30	35	37
Power input (W)		500	500	500	550
Power output (W)		270	270	270	300
Idle speed 1st gear min./max.		0-4000 U/min	0-1500 U/min	0-700 U/min	0-680 U/min
Idle speed 2nd gear min./max.		-	-	0-2250 U/min	0-2200 U/min
Min./max. drill chuck span width		0.5-10.0 mm	1.5-13.0 mm	1.5-13.0 mm	1.5-13.0 mm
Weight (kg)		1.7	1.8	2.0	2.0
With rubber-coated handle		Yes	Yes	Yes	Yes
70018	ldent. No.	004	006	021	041
70010	Unit price, €	0. R.	0. R.	0. R.	O. R.
Prod. group 704					

#### Angle drill GWB 10 RE Professional **BOSCH** 400 watt

#### Application:

For drilling boreholes in hard-to-reach places.

- Continuous electronic speed control
- Low transmission head height

#### Advantage:

- · Comfortable and safe working due to angular shape with slim motor
- Rugged bevel gear drive for long service life
- Low overall height due to recessed drill chuck

# scope of supply and services:

Toothed ring drill chuck, in box

Model	GWB 10 RE	
BOSCH no.	0 601 132 703	
Max. drilling Ø in steel (mm)	10	
Max. drilling Ø in wood (mm)	22	
Power input (W)	400	
Power output (W)	170	
Width across corners (mm)	23	
Weight (kg)	1.7	
70105 Ident. No.		<b>005</b> O. R

Prod. group 731



#### 3 years warranty for electric tools Directly with the mobile phone to the registration

# Extend the warranty period for your electric tool to three years.

Directly after the purchase, METABO, BOSCH, FEIN and MAKITA offer you the possibility to extend the warranty period for electric tools purchased in Germany to three years, free of charge.





www.metabo.com/xxl

BOSCH



www.bosch-pt.com/warranty

A pre-requisite for the warranty extension is to register your tool on the corresponding manufacturer's website within 4 weeks after purchase. The extended warranty period starts with the date of purchase. Use your mobile phone to scan the QR code and you will directly come to an area with further information and to the registration area.



www.fein.de/warranty



www.makita.de



# metabo

# Cordless hammer drills, 1-speed and 2-speed

voltage 230 V, 50 Hz, shockproof, suppressed, for clockwise and anti-clockwise rotation

## Application:

For drilling boreholes in particularly solid materials using mechanical impact.

#### Execution:

- Continuous electronic speed control
- Rotatable carbon brushes for equal power in clockwise and anti-clockwise rotation
- Ident. No. 111–190: Wear-free die-cast aluminium gear case for optimal heat dissipation and durability
- Ident. No. 145-230:
  - Safety coupling decouples drive unit if plug-in tool is blocked
  - Dust protection
- Ident. No. 230:
- Wear-free die-cast aluminium gear case
- Overload protection

Restart protection after power failure

#### Advantage:

- Ident. No. 145-230: Ball grommet for maximum freedom of movement and protection from cable breakage
- Ident. No. 190: Impulse mode for loosening stuck screw heads and perfect spot drilling on smooth surfaces without using a centre punch
- Ident. No. 230:
  - Fast tool change with one hand thanks to quickaction drill chuck
  - Indicator for carbon brush replacement
  - High torque for the toughest applications

#### scope of supply and services:

Quick-action drill chuck, extra handle, depth stop, in plastic case



Ident. No. 230

Ident. No. 111

Model		SBE 610	SBE 751	SBE 900 Impuls	SBE 1100 Plus
Max. drilling Ø in s	steel (mm)	10	13	13	16
Max. drilling Ø in v	wood (mm)	20	40	40	40
Power input (W)		610	750	900	1100
Power output (W)		360	450	550	660
Idle speed 1st gear min./max.		0-3100 U/min	0-1000 U/min	0-1000 U/min	0-900 U/min
Idle speed 2nd gear min./max.		-	0-3100 U/min	0-3100 U/min	0-2800 U/min
Min./max. drill chuck span width		1.5-13.0 mm	1.0-13.0 mm	1.5-13.0 mm	1.0-13.0 mm
Weight (kg)		2.0	2.7	2.8	2.9
70020	Ident. No.	111	145	190	230
	Unit price, €	0. R.	0. R.	O. R.	0. R.

Prod. group 745

# BOSCH

# Cordless hammer drills, 1-speed and 2-speed

voltage 230 V, 50 Hz, shockproof, suppressed, for clockwise and anti-clockwise rotation

# Application:

For drilling boreholes in particularly solid materials using mechanical impact.

#### Execution:

- Continuous electronic speed control
- Wear-free metal gear case for optimal heat dissipation and durability
- Ident. No. 046-048: Torque pre-selection for uniform driving in of screws
- Ident. No. 048:
- Constant-Electronic: Holds speed constant even under load

 Torque Control: Torque pre-selection for uniform driving in of screws

# Advantage:

- Rotatable carbon brushes for equal power in clockwise and anti-clockwise rotation
- Fast tool change with one hand thanks to quickaction drill chuck
- Ball grommet for maximum freedom of movement and protection from cable breakage

# scope of supply and services:

Quick-action drill chuck, extra handle, depth stop, in plastic case

Model		GSB 16 RE	GSB 19-2 RE	GSB 21-2 RE	GSB 21-2 RCT
BOSCH no.		0 601 14E 500	0 601 17B 500	0 601 19C 500	0 601 19C 700
Max. drilling Ø in s	steel (mm)	13	13	16	16
Max. drilling Ø in v	wood (mm)	30	40	40	40
Power input (W)		750	850	1100	1300
Power output (W)		380	430	630	695
Idle speed 1st gear min./max.		0-2800 U/min	0-1000 U/min	0-900 U/min	0-900 U/min
Idle speed 2nd gear min./max.		-	0-3000 U/min	0-3000 U/min	0-3000 U/min
Min./max. drill chuck span width		1.5-13.0 mm	1.5-13.0 mm	1.5-13.0 mm	1.5-13.0 mm
Weight (kg)		2.2	2.6	2.9	2.9
70021	ldent. No.	011	021	046	048
70021	Unit price, €	O. R.	O. R.	O. R.	O. R.



Ident. No. 011



Ident. No. 046-048

# Cordless hammer drills, 1-speed and 2-speed - DIY version

shockproof, suppressed, for clockwise and anti-clockwise rotation

#### Application:

For drilling boreholes in particularly solid materials using mechanical impact, DIY version.

- Continuous electronic speed control
- Connection for dust extraction



Ident. No. 112

# Advantage:

- Fast tool change with one hand thanks to quickaction drill chuck
- Rotatable carbon brushes for equal power in clockwise and anti-clockwise rotation
- Ident. No. 112: Ball grommet for maximum freedom of movement and protection from cable



Ident. No. 116

■ Ident. No. 116-136: Cable has novel cable guide with hanging device for practical storage

scope of supply and services:
Quick-action drill chuck, extra handle, depth stop, in plastic case



Ident. No. 136

Model		PSB 650 RE	PSB 750 RCE	PSB 1000-2 RCE
BOSCH no.		0 603 128 000	0 603 128 500	0 603 173 500
Max. drilling Ø in steel (mm)		12	12	16
Max. drilling Ø in wood (mm)		30	30	40
Power input (W)		650	750	1000
Power output (W)		340	400	530
Idle speed 1st gear min./max.		0-3000 U/min	0-3000 U/min	0-1100 U/min
Idle speed 2nd gear min./max.		-	-	0-2800 U/min
Min./max. drill chuck span width		1.5-13.0 mm	1.5-13.0 mm	1.5-13.0 mm
Weight (kg)		1.9	1.9	2.8
70021	Ident. No.	112	116	136
70021	Unit price, €	O. R.	(O. R.)	O. R.

Prod. group 729

#### **Drill stands**

#### for hand drills and hammer drills in stationary use

## Application:

For stationary application of electric hand drills and hammer drills and for thread cutters, screwdrivers and grinders with 43 mm spindle neck.

#### **Execution:**

■ With depth stop

# Advantage:

Guarantees secure and precise work

Model			MBS 165	890
Adapter (	Ø (mm)		43	43
Height (m	nm)		500	500
Overhang	g (mm)		165	165
Max. wor	king stroke (mm)		65	65
Base plat	e length x base plate	e width	220 x 213 mm	220 x 213 mm
Weight (k	(g)		5.0	5.5
MAXION	70025	Ident. No.	019	
MAXION	70025	Unit price, €	O. R.	-
metabo 70025 Ident. No. Unit price, €		_	110	
		Unit price, €	-	O. R.

METABO = Prod. group 745 MAXION = Prod. group 768

Accessories for		70025 019
70025 Fast-action chuck	Ident. No.	219
device MKF 40	Unit price, €	O. R.



Ident. No. 019



Ident. No. 110



# metabo

# Angle drill and screw attachment

for hand drills and hammer drills

## Application:

Ident. No. 015: For use on hand-held drills and hammer drills

**Ident. No. 025:** For easy screw-driving in hard-to-reach places.

#### Execution:

70052...

70052...

#### ■ Ident. No. 015:

- Suitable for drills with spindle neck diameter of 43 mm
- Spindle with hexagon socket for screwdriver bits
- Quick-clamping coupling
- Transmission ratio 1:1
- Suitable for clockwise and anti-clockwise rotation
- Drill chuck connecting thread 1/2 inch 20 UNF

Angle drill and screw

attachment Angle screwdriver

attachment

Levelling aid

■ Bit clamping socket

- Ident. No. 025:
  - With 1/4 inch (6.35 mm) hexagonal shaft
- Magnetic bit holder
- Only 30 mm corner-to-corner
- Suitable for cordless screwdrivers up to a maximum of 14 Nm and 400 rpm

#### Advantage:

- Ident. No. 025:
  - Gear unit made of special steel
  - Angle screwdriver attachment with 105° angle of inclination

O. R.

025

0. R

Suitable for clockwise and anti-clockwise rotation

Ident. No.

Ident. No.

Unit price, €

Unit price, €



Ident. No. 025



**Application:** For use on electric hand drills.

#### Execution:

- Suitable for all electric hand drills
- Mounted on spindle neck
- With depth stop

70056	ldent. No.	030
70050	Unit price, €	O. R.

Prod. group 794

#### Advantage:

- Equipped with removable, robust and ergonomically shaped handle
- Facilitates drilling and screw-driving in hard-toreach places

Comfortable and safe working due to compact

Batteries (2x 1.5 V Mignon AA), protective cap (also



#### **▼ KXRCHER**

# **Drill dust collectors DDC 50**

small, handy and effective - no more dust when drilling

Suitable for all drills

scope of supply and services:

used as wall mount for storage)

construction

#### Application:

For collecting drilling dust.

#### Execution:

 Vacuum holding function for suction on all common interior surfaces

# Advantage:

■ No need for any additional vacuum cleaners

Container capacity (cm <sup>3</sup> )	23	
Suitable for max. drill-bit Ø (mm)	10	
Length (mm)	160	
Width (mm)	80	
Height (mm)	40	
Weight (kg)	0.24	
70057	Ident. No.	010
70037	Unit price, €	O. R.





Example application

# Impact screwdriver electronic GDS 18 E Professional 500 watt

#### Application:

For driving and extracting screws and nuts with high torque.

#### Execution:

■ Wear-free impact mechanism made of metal

#### Advantage:

 Ideal for mounting wheels on cars, constructing scaffolds and shelves, in the workshop and for threaded connections in wood or concrete

- With hook for mounting
- Extremely easy to handle due to soft grip surface and favourable position of centre of gravity due to centre handle

#### scope of supply and services:

In hox



Model		GDS 18E
BOSCH no.		0 601 444 000
Power input (W)		500
Power output (W)		270
Max. torque for hard screwing application (Nm)	250	
Max. torque for soft screwing application (Nm)		160
Tool holding device		1/2-inch external square
Weight (kg)		3.2
BOSCH 71031	Ident. No.	006
7 103 1	Unit price, €	O. R.

Prod. group 731

# **BOSCH**

#### Hammer drills

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For drilling and chiselling with pneumatic impact mechanism, in stone and concrete.

#### Execution:

- SDS-plus
- Ident. No. 039: Overload coupling
- Ident. No. 039-059: Continuous speed control
- Ident. No. 039-066: Rotation stop for chiselling
- Ident. No. 059-066:
- Impact stop for drilling in wood and steel
- Replacement chuck for fast changing between drilling with impact in concrete and drilling without impact in wood and metal
- Ident. No. 059-076: Overload coupling for high working safety even in the most demanding applications

- Ident. No. 076:
- Very fast changing between SDS-plus and quickaction drill chuck
- Aluminium gear case

#### Advantage:

- Reduced vibration for effortless work
- Ident. No. 039–059: Maximum drilling progress and highest chiselling power in its class
- Ident. No. 039-066: Ball grommet for preventing cable breakage

## scope of supply and services:

Ident. No. 039: Additional handle, depth stop, additional handle, in L-Boxx

**Ident. No. 059:** Quick-action drill chuck 13 mm, replacement chuck SDS-plus, additional handle, depth

stop 210 mm, 1/1 L-BOXX tool insert in L-BOXX

Ident. No. 066: Quick-action drill chuck 13 mm, replacement chuck SDS-plus, additional handle, depth stop 210 mm, 1/1 L-BOXX tool insert in L-BOXX 136 Ident. No. 076: Quick-action drill chuck 13 mm, replacement drill chuck SDS-plus, additional handle, depth stop 310 mm, tool case

#### **Technical Data:**

- Max. drilling diameter in steel: 13 mm
- Tool holding device: SDS-plus
- With soft start: No
- With restart protection: No



Ident. No. 039-059



Ident. No. 066



Ident. No. 076

Model		GBH 2-28 DV	GBH 2-28 DFV	GBH 3-28 DFR	GBH set 4-32 DFR
BOSCH no.		0 611 267 101	0 611 267 201	0 611 24A 004	0 611 332 101
Max. impact energy (J)		3.2	3.2	3.1	4.2
Power input (W)		850	850	800	900
Max. drilling Ø in wood (mm)		30	30	30	32
Max. recommended drilling Ø in concrete (mm)		28	28	28	32
Max. core drill bit Ø (mm)		68	68	82	90
Weight (kg)		2.9	3.1	3.6	4.7
70170	ldent. No.	039	059	066	076
70170	Unit price, €	O. R.	O. R.	O. R.	O. R.



# **Drill chucks and adapters**

for all electro-pneumatic drills and demolition hammer with SDS-plus attachment

#### Application:

For all electro-pneumatic hammer drills and demolition hammers with SDS-plus holder.

- Ident. No. 510: Drill chuck with key up to 13 mm diameter, for clockwise rotation
- Ident. No. 520: SDS-plus drill chuck drive arbour

#### Execution:

■ Connection thread ½ inch-20 UNF

BOSCH no.		1 608 571 062	1 617 000 132
Tool holding device		SDS-plus	SDS-plus
70170	ldent. No. Unit price. €	<b>510</b> O. R.	<b>520</b> O. R.
	Offic prioc, C	0. IV.	0. IV.





# Chisel with SDS-plus drive arbour

for hammer drills with rotation stop

#### Application:

For cutting and machining stone and metal.



Ident. No. 611-621

Ident. No. 631

Ident. No. 651

BOSCH no.		2 609 390 576	2 609 390 394	1 6 18 60 1 004	2 608 690 091
Form		Pointed	Flat	Hollow	Flat
Length (mm)		250	250	250	260
Width of cutting edge (mm)		-	20	22	40
70175	Ident. No.	611	621	631	651
70175	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 732

# metabo

# Magnetic core drilling unit MAG 32

1000 W, with Weldon holder

Application: For drilling large diameters on magnetic workpieces.

#### Execution:

- Protection class 1
- Large stroke, therefore suitable for use with core drill bits, twist drills and countersinks
- Magnetic base with high retention force allows working on vertical surfaces and overhead
- Integrated coolant container for easily metered internal cooling of the core drill bit
- Bright LED light
- Restarting protection

- Hard-wearing 5-meter mains cable with rubber sheath
- Lockable carriage for comfortably changing tools

# Advantage:

- Chip guard installable without tools protects user from metal chips and contact with tools
- Handle for comfortable carrying and lifting

## scope of supply and services:

Ejector pin, securing belt, hexagon socket key size 4, chip guard, in plastic case

- Restarting protection				
Model	MAG 32			
Tool holding device		Weldon		
Max. drilling Ø of core drill bit in stee	l (mm)	32		
Max. drilling Ø in steel (mm)		13		
Max. drilling depth (mm)		50		
Max. rotation speed at nominal load	450			
Power input (W)		1000		
Power output (W)		520		
Baseplate width (mm)		189		
Baseplate length (mm)		90		
Max. working stroke (mm)		160		
Weight (kg)	11.9			
70142	Ident. No.	011		
70142	Unit price, €	O. R.		

roa. group 745			
	Accessories for		70142 011
70142	Weldon to QuickIN	Ident. No.	100
adapter		Unit price, €	O. R.







# Magnetic core drilling unit KBB 30

750 W, with Weldon holder

#### Application:

For drilling large diameters on magnetic workpieces.

#### **Execution:**

- Protection class 1
- Rotation speed optimised for the use of HSS core drill bits

#### Advantage:

- Basic functionality for core drilling
- Robust machine layout for harsh working
- Internal motor wiring cooling and gravitational force internal lubrication integrated into the drilling stand
- Pleasant and safe working due to compact construction and low weight for working at heights

#### scope of supply and services:

Coolant container, securing lashing strap, swarf hook, 2 centring pins, hexagon socket key 5 mm, contact protection, ref. no. 010+020, with plastic

Model	KBB 30			
Tool holding device		Weldon		
Max. drilling Ø of core drill bit in steel (mm)		30		
Max. drilling depth (mm)		50		
Max. rotation speed at nominal load (U/min(rpm))		430		
Power input (W)		750		
Power output (W)		430		
Baseplate width (mm)		178		
Baseplate length (mm)		95		
Max. working stroke (mm)		65		
Adherence strength (kN)		8.0		
Weight (kg)		10.0		
70143	ldent. No.	005		
70143	Unit price, €	(O. R.)		



Prod. group 704

	Accessories for		70143 005
70143	Centring pin	Ident. No. Unit price, €	<b>200</b> (O. R.)



## **HSS Nova core drill bit**

Weldon holder

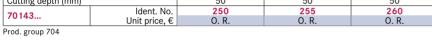
#### Application:

For use on magnetic core drill units.

#### Advantage:

■ The core drill bit exhibits high heat and wear resistance thanks to the fully hardened highperformance high-speed steel HSS Nova

Drill Ø (mm)		14	18	22
Cutting depth (mm)		50	50	50
70143	ldent. No.	250	255	260
70143	Unit price, €	O. R.	O. R.	O. R.













# Magnetic core drilling units - with QuickIN holder

voltage 230 V, 50 Hz, protection class 1

#### Application

For drilling large diameters on magnetic workpieces.

#### Execution:

- Protection class 1
- Suitable for overlapping drill holes
- Cooling lubricant supplied directly to the drill bit
- Strong magnetic retaining force for safe working in any position
- Self-starting lock to prevent uncontrolled restarting
- Overload protection for protection from overloading and overheating of the motor
- Ident. No. 028: For precisely drilled holes using cemented carbide and HSS core drill bits

#### Advantage:

- Ident. No. 010: Outstanding ease of handling for continuous use and working overhead
- Ident. No. 028:
  - Convenient magnetic retention force display
  - Integrated coolant tank
  - Easy and confusion-free operating concept in the user's field of view

#### scope of supply and services:

Ident. No. 010: Toothed ring drill chuck, lashing strap, swarf hook, 2 centring pins, QuickIN adapter for M18x6P 1.5, contact protection, with cooling lubricant pump, in plastic case

Ident. No. 028: Coolant container, 1 centring pin 105 mm, contact protection, lashing strap, drift key, swarf hook, in plastic case

Model		KBM 32 Q	KBM 50 U
Tool holding device		QuickIN	QuickIN   MT3
Max. drilling Ø of core drill I	oit in steel (mm)	32	50
Max. drilling Ø in steel (mm	)	13	23
Max. drilling depth (mm)		50	50
Idle speed 1st gear min./m	ax.	-	130-260 U/min
Idle speed 2nd gear min./m	nax.	-	260-520 U/min
Max. rotation speed at nom	inal load (U/min(rpm))	440	-
Power input (W)		700	1200
Power output (W)		450	610
Baseplate width (mm)		160	195
Baseplate length (mm)		80	90
Max. working stroke (mm)		135	145
Adherence strength (kN)		9.0	12.5
Weight (kg)		10.5	13.9
70145	ldent. No.	010	028
70145	Unit price, €	O. R.	O. R.





Ident. No. 010



Ident. No. 028



# Drive arbour, adapter and centring pin

for core drilling units

#### Application:

For use on magnetic core drill units.

#### Execution:

- Ident. No. 302-303:
- For table and column drilling machines
- Including hand pump and centring pin for external cooling lubricant supply
- Ident. No. 410: Receptacle QuickIN/drive M18 x 6 P 1.5
- Ident. No. 420: Receptacle QuickIN/drive 19 mm Weldon
- Ident. No. 510: Centring pin for no. 70146 and no. 70147
- Ident. No. 520: Centring pin for core drill bits with M18 x 6 thread and Weldon holder







Ident. No. 410

Ident. No. 420

Ident. No. 510

Туре		Drive arbour Morse taper 2	Drive arbour Morse taper 3	M18 x 6 P 1.5 adapter	Weldon adapter	Centring pin	Centring pin
Length (mm)		-	-	-	-	104	119
Tool holding device		Morse taper shank	Morse taper shank	-	Weldon	-	Weldon
70145	ldent. No.	302	303	410	420	510	520
70145	Unit price, €	O. R.	(O. R.)	O. R.	O. R.	O. R.	O. R.



# HSS Nova core drill bit

#### QuickIN holder

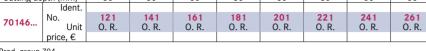
#### Application:

For use on magnetic core drill units.

#### Advantage:

■ The core drill bit exhibits high heat and wear resistance thanks to the fully hardened highperformance high-speed steel HSS Nova

Drill Ø (mr	n)	12	14	16	18	20	22	24	26
Cutting depth (mm)		50	50	50	50	50	50	50	50
Ident.									
=0.444	No.	121	141	161	181	201	221	241	261
70146	Unit	O. R.							
	price, €								









Prod. group 704

# metabo

# Angle grinder

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For grinding and cutting off workpieces.

#### Execution:

- Metabo Marathon motor, Metabo S-automatic safety coupling, cut-out carbon brushes
- Ident. No. 262, 298-316, 330-421: Restarting protection
- Ident. No. 282, 298-316, 330-421: Electronic overload protection
- Ident. No. 292, 321: Anti-vibration system
- Ident. No. 298, 321–330: Tacho-Constamatic (TC) full-wave electronics
- Ident. No. 316: Vario-Tacho-Constamatic (VTC) full-wave electronics
- Ident. No. 330: Soft start
- Ident. No. 330-421: Integrated auto-balancer
- Ident. No. 421: Safety switch prevents unintentional switching on

#### Advantage:

- Gear case can be swivel-mounted for left-handed operation or for separation
- Ident. No. 222: Smallest handle size in performance class
- Ident. No. 262-421: M-Quick system for tool-free disk replacement at the push of a button
- Ident. No. 421:
- LED signal in the event of activated restart protection or overheating
- Electronic safety cut-off of the motor if disc is blocked



#### scope of supply and services:

Ident. No. 222-262: Protective hood, support flange, M-Quick clamping nut, extra handle

Ident. No. 282-421: Protective hood, support flange, M-Quick clamping nut, extra handle Metabo VibraTech (MVT)

Ident. No. 421

Model		W 9-115 Quick	WQ 1000	WEV 10-125	W 12-125	WA 12-125	WE 15-125	WEV 15-125	WEA 15-125
		W 9-115 Quick	wa 1000	Quick	Quick	Quick	Quick	Quick	Quick
Washer Ø (	mm)	115	125	125	125	125	125	125	125
Power inpu	t (W)	900	1010	1000	1250	1250	1550	1550	1550
Power outp	out (W)	550	600	590	780	780	940	940	940
Idle speed	1st gear min./	0-10500 U/	0-10000 U/	2800-10500	0-11000 U/	0-11000 U/	0-11000 U/	2800-11000	0-11000 U/
max.		min(rpm)	min(rpm)	U/min(rpm)	min(rpm)	min(rpm)	min(rpm)	U/min(rpm)	min(rpm)
Thread dim	ension of	M14	M14	M14	M14	M14	M14	M14	M14
spindle									
Weight (kg)		2.1	2.1	2.1	2.4	2.4	2.5	2.5	2.5
With restar	t protection	No	No	Yes	No	No	Yes	Yes	Yes
With soft st	tart	No	No	Yes	No	No	Yes	Yes	Yes
With overlo	ad protection	No	No	Yes	No	No	Yes	Yes	Yes
With electro	onic feedback	No	No	Yes	No	No	Yes	Yes	Yes
With speed	control	No	No	Yes	No	No	No	Yes	No
With disc b	rake	No	No	No	No	No	No	No	No
With dead r	man function	No	No	No	No	No	No	No	No
70373	Ident. No.	222	242	262	282	292	298	316	321
/03/3	Unit price, €	O. R.	O. R.	O. R.	O. R.	O. R.	0. R.	O. R.	O. R.

Model		WEA 26-230	WEA 17-125	
		MVT Quick	Quick	
Washer Ø (	mm)	230	125	
Power inpu	it (W)	2600	1700	
Power outp	out (W)	1800	1040	
Idle speed	1st gear min./	0-6600 U/	0-11000 U/	
max.		min(rpm)	min(rpm)	
Thread dim	ension of	M14	M14	
spindle		IVI 14	IVI I 4	
Weight (kg	Weight (kg)		2.5	
With restar	t protection	Yes	Yes	
With soft s	tart	Yes	Yes	
With overlo	ad protection	Yes	Yes	
With electr	onic feedback	Yes	Yes	
With speed	control	No	No	
With disc b	rake	No	No	
With dead	man function	No	No	
70070	Ident. No.	421	330	
70373	Unit price, €	O. R.	O. R.	



# Angle grinder - small, handy, powerful

230 volt, 50 Hz

#### Application:

For grinding and cutting off workpieces.

#### Execution

- Ident. No. 020, 038, 047-080: 6-level speed preselection for different materials
- Ident. No. 024-080:
- Geared head rotatable in 90° steps
- Switch lock
- Handle can be used on the left and on the right side
- Ident. No. 030-080:
  - KickBack Stop, soft start, overload protection, restart protection
  - Constant-Electronic for constant speed under heavy load

#### Advantage:

 Ident. No. 030-080: Reduced vibration for effortless work

# scope of supply and services:

Ident. No. 020–024: Holding flange, protective hood, clamping nut, extra handle, two-hole key, in hox

**Ident. No. 030–047:** Holding flange, protective hood, clamping nut, extra handle, vibration control. two-hole key

**Ident. No. 080:** Holding flange, rapidly adjustable protective hood, clamping nut, extra handle, vibration control, two-hole key, in box



Ident. No. 020



Ident. No. 080

Model		GWS 7-115 E	GWS 9-115	GWS 13-125 CI	GWS 13-125 CIE	GWS 17-125 CI	GWS 17-125 CIE	GWS 15-125 CITH
BOSCH no.		0 601 388 201	0 601 790 000	0 601 79E 002	0 601 79F 002	0 601 79G 002	0 601 79H 002	0 601 830 407
Washer Ø (mm)		115	115	125	125	125	125	125
Power input (W)		720	900	1300	1300	1700	1700	1500
Power output (W)		300	530	700	700	1010	1010	860
Idle speed 1st gea	r min./max.	2800-11000 U/	0-11500 U/		2800-11500 U/		2800-11500 U/	2800-9300 U/
, ,		min(rpm)	min(rpm)	-	min(rpm)	-	min(rpm)	min(rpm)
Max. idle speed (U	J/min(rpm))	-	-	11500	-	11500	-	-
Thread dimension	of spindle	M14	M14	M14	M14	M14	M14	M14
Weight (kg)	•	1.9	2.0	2.3	2.3	2.4	2.4	2.3
With restart protect	ction	-	-	Yes	Yes	Yes	Yes	Yes
With soft start		-	-	Yes	Yes	Yes	Yes	Yes
With overload prot	ection	-	-	Yes	Yes	Yes	Yes	Yes
With electronic fee	edback	-	-	Yes	Yes	Yes	Yes	Yes
With speed contro		-	-	No	Yes	No	Yes	No
With disc brake		-	-	No	No	No	No	No
With dead man function		-	-	No	No	No	No	No
70371	ldent. No.	020	024	030	038	043	047	080
/03/1	Unit price, €	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

Prod. group 731

# **BOSCH**

# Angle grinder - powerful, vibrations reduced by 50 %

voltage 230 V, 50 Hz, shockproof, suppressed

# Application:

For grinding and cutting off workpieces.

# Execution:

- Champion motor
- KickBack Stop, soft start, restart lock after power failure and overload protection
- Armoured windings protect motor from sharp grinding dust and guarantee long service life
- Ident. No. 052: Bar handle
- Ident. No. 062: Twist proof and rapidly adjustable protective hood for high level of user protection
- Ident. No. 062-068: Rotatable trigger handgrip

#### Advantage:

Reduced vibration for effortless work

scope of supply and services:

Ident. No. 052–062: Holding flange, rapidly adjustable protective hood, clamping nut, extra handle, vibration control, two-hole key, in box

**Ident. No. 065:** Holding flange, quick-action clamping nut SDS, rapidly adjustable protective hood, clamping nut, extra handle, vibration control, two-hole key, in box



Ident. No. 052-062



Ident. No. 065



Ident. No. 068

Model		GWS 22-180 LVI	GWS 22-230 LVI	GWS 24-230 LVI	GWS 26-230 LVI
BOSCH no.		0 601 890 D00	0 601 891 D00	0 601 893 F04	0 601 895 F04
Washer Ø (mm)		180	230	230	230
Power input (W)		2200	2200	2400	2600
Power output (W)		1350	1350	1700	1800
Idle speed 1st gear min./ma	x.	0-8500 U/min(rpm)	0-6600 U/min(rpm)	0-6600 U/min(rpm)	0-6600 U/min(rpm)
Thread dimension of spindle		M14	M14	M14	M14
Weight (kg)		5.3	5.4	5.5	5.6
70371	ldent. No.	052	062	065	068
70371	Unit price, €	O. R.	O. R.	O. R.	O. R.

# Quick-action clamping nut SDS-clic

Suitable for all angle grinders with M14 spindle thread

BOSCH no.		1 603 340 031
70271	Ident. No.	100
70371	Unit price, €	O. R.

Prod. group 732





# Angle grinder

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For grinding and cutting off workpieces.

# Execution:

- Ident. No. 006-026:
  - POWERtronic for tremendous power
  - Rotatable solid metal gear head
  - Blockage monitoring, restart lock, soft start and electronic overload protection
- Ident. No. 070-080:
  - FEIN high-performance motor, dust-protected ball bearings, encapsulated electronic components
- Complete safety package with electric braking system EBS, restart lock and soft start-up
- Carbon brushes cut out automatically

#### Advantage:

- Ident. No. 016: With variable speed ideal for machining stainless steel
- Ident. No. 070-080: Tool-free quick-action clamping system QuickIN

#### scope of supply and services:

Ident. No. 006: Protective hood, 1 pair of flanges, anti-vibration handle, key

Ident. No. 016: Protective hood, 1 pair of flanges,

extra handle, key

Ident. No. 026: Protective hood, anti-vibration handle, tool-free quick-action clamping nut Fixtec, key Ident. No. 070-080: Extra handle, protective wood, clamping unit for roughing and cutting discs

#### **Technical Data:**

- With restart protection: Yes
- With soft start: Yes
- With overload protection: Yes
- With electronic feedback: No
- With dead man function: No



Ident, No. 016



Ident, No. 026



Ident. No. 070-080

Model		WSG 15-125 P	WSG 15-70 Inox	WSG 15-125 PQ	WSB 20-180	WSB 20-230
Washer Ø (mm)		125	125	125	180	230
Power input (W)		1500	1500	1500	2000	2000
Power output (W)		900	900	900	1250	1250
Idle speed 1st gear mi	n./max.	0-11000 U/min(rpm)	2500-7900 U/ min(rpm)	0-11000 U/min(rpm)	0-8500 U/min(rpm)	0-6600 U/min(rpm)
Thread dimension of s	pindle	M14	M14	M14	QuickIN	QuickIN
Weight (kg)		2.3	2.4	2.1	5.9	5.9
With disc brake		No	No	No	Yes	Yes
With quick clamping sy	ystem	No	No	No	Yes	Yes
70374	Ident. No.	006	016	026	070	080
/03/4	Unit price €	O R	O R	O R	O R	O R



# FLEX

#### Angle grinder

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For grinding and cutting off workpieces.

#### Execution:

- Spindle lock
- Continuously controllable speed for materialsuitable operation
- Soft start, restart lock after power failure and overload protection
- Ident. No. 050: Patented Multi-Grip system with front handle adjustable 180° in steps and safety locking: 1. unscrew, 2. lock, 3. screw tight
- Ident. No. 126:

- FR full-wave electronics: with constant speed maintenance system using tachogenerator Protective hood adjustable without tools
- Ident. No. 128: VR microprocessor electronics: Speed pre-selection, constant speed regulation using tachogenerator

#### Advantage:

- Ident. No. 024: Epoxy-coated winding on field packet
- Ident. No. 024, 128: Comfortable and safe working due to compact construction
- Ident. No. 050:
- Rear handle decoupled from motor by damping element

- Reduced vibration for effortless work
- Ident. No. 126-128: SoftVib handle with integrated, patented clamping nut key and vibration damping

#### scope of supply and services:

Ident. No. 024: Protective hood, 125 diameter grinding, handle, face wrench, clamping flange, clamping nut M14

Ident. No. 126: Protective hood, 125 diameter grinding, SoftVib handle, clamping flange, clamping nut M14

Ident. No. 128: Protective hood, 125 diameter grinding, SoftVib handle, clamping flange, FixTec quick-action clamping nut M14





Ident. No. 050 With multi-grip system

Ident. No. 050

All models with FLEXgrip handle

Model		L 10-10/125	L 3206 CD	L 1710 FRA	L 3410 VR
Washer Ø (mm)		125	230	125	125
Power input (W)		1010	2500	1400	1400
Power output (W)		600	1700	880	880
Idle speed 1st gear min./ma	ax.	-	-	-	2900-11000 U/min(rpm)
Max. idle speed (U/min(rpm	n))	11000	6500	10000	-
Thread dimension of spindle	e	M14	M14	M14	M14
Weight (kg)		2.2	6.2	2.4	2.2
With restart protection		Yes	Yes	Yes	Yes
With soft start	With soft start		Yes	Yes	Yes
With overload protection	With overload protection		Yes	Yes	Yes
With electronic feedback	With electronic feedback		Yes	Yes	Yes
With speed control	With speed control		No	No	Yes
With disc brake		No	No	No	No
With quick clamping system		No	Yes	No	Yes
With dead man function		No	No	No	No
70470	Ident. No.	024	050	126	128
70470	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 707

# metabo

# Angle grinder WEV 15-125 Quick Inox

1550 watt

# Application:

For grinding and cutting of INOX workpieces.

# scope of supply and services:

Protective hood, support flange, M-Quick clamping nut, extra handle Metabo VibraTech (MVT)

Model	WEV 15-125 Quick Inox
Washer Ø (mm)	125
Power input (W)	1550
Power output (W)	940
Idle speed 1st gear min./max.	2000-7600 U/min(rpm)
Thread dimension of spindle	M14
Weight (kg)	2.5
With restart protection	Yes
With soft start	Yes
With overload protection	Yes
With electronic feedback	Yes
With speed control	Yes
With disc brake	No
With quick clamping system	Yes
With dead man function	No
70373 Ident. N	
Unit price	e, € O. R.
Prod. group 745	



# Metal abrasive cutter GCO 2000 Prof

230 V. 50 Hz. 2000 W

#### Application:

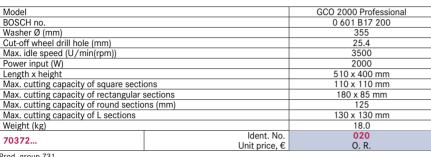
For precision-angle cutting and trimming of various workpieces made of metal.

#### Execution:

• For universal use, hardened and polished, replaceable collet chuck for precise concentricity of the tools



Collet chuck 6 mm, open-end spanner, rubber protective cap and additional handle, in box





Prod. group 731

# metabo

# Straight grinder

Ident. No.

Unit price, €

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For fine finishing, smoothing and deburring.

#### Execution:

Model

- Spindle stop at the push of a button: Tool change with a single key possible
- With a thread measure of just 195 mm, it is the most slender straight grinder on the market
- Robust and smooth running planetary gearbox provides high torques
- Thermal overload protection Idle speed 1st gear min./max.

- Safety cut-out and restart protection
- Suitable for driving flexible shaft
- Ident. No. 007: High-performance with high speed, ideal for milling and grinding work
- Ident. No. 017: Strong, for milling and grinding work
- Ident. No. 027: Ideal for surface machining due to high torque and reduced number of revolutions



Ident. No. 007

GE 710 Compact GE 710 Plus GE 950 G Plus 13000-34000 U/ 10000-30500 U/ 2500-8700 U/min min 710 710 950 430 430 510 43 43 43 6 6 14 1.6 1 7

027

O.R

017

O R

70309... Drod group 745

Weight (kg)

Power input (W)

Power output (W)

Spindle-neck Ø (mm)

Max. clamping Ø (mm)

Prod. group 74:	5				
	Accessories for		70309 007	70309 017	70309 027
70309	Collet chuck Ø 3 mm	Ident. No. Unit price, €	110 O. R.	110 O. R.	110 O. R.
70309	Collet chuck Ø 6 mm	Ident. No. Unit price, €	120 O. R.	120 O. R.	120 O. R.
70309	Collet chuck Ø 8 mm	ldent. No. Unit price, €	130 O. R.	130 O. R.	130 O. R.
<b>70309</b> range 7,50	Flexible shaft Speed 00-30,000 rpm, 8 mm	ldent. No. Unit price, €	205 O. R.	205 O. R.	205 O. R.
<b>70309</b> range 20,0	Flexible shaft Speed 000-30,000 rpm, 6 mm	ldent. No. Unit price, €	210 O. R.	210 O. R.	210 O. R.

007

O.R



Ident. No. 027

#### Straight grinder **BOSCH**

voltage 230 V, 50 Hz, shockproof, suppressed

# Application:

For fine finishing, smoothing and deburring.

#### Execution:

- Kickback stop, direct cooling, cut-out carbon brushes
- Ident. No. 010-045: Constant-Electronic for constant speed even under heavy load
- Ident. No. 020, 045: 6-level speed pre-selection for different materials
- Ident. No. 042-045: Long, slim grinding spindle
- Ident. No. 051: Constant-Electronic for constant speeds under heavy load

# Advantage:

- Ident. No. 010-045: Long service life due to double-sealed ball bearings
- Ident. No. 051: Handy design and high torque - ideal for sanding surfaces with disc sanders, brushes and other accessories

# scope of supply and services:

Ident. No. 010-020: 2 x open-end spanners size 19, clamping unit

Ident. No. 042-051: Single open-ended spanners 13 mm and 19 mm, clamping unit



Ident, No. 020



Ident. No. 042



Model		GGS 28 C	GGS 28 CE	GGS 28 LC	GGS 28 LCE	GGS 8 CE
BOSCH no.		0 601 220 000	0 601 220 100	0 601 221 000	0 601 221 100	0 601 222 100
Idle speed 1st gear min.	./max.	0-28000 U/min	10000-28000 U/min	0-28000 U/min	10000-28000 U/min	2500-8000 U/min
Power input (W)		600	650	650	650	750
Power output (W)		350	380	380	380	420
Spindle-neck Ø (mm)		43	43	43	43	43
Max. clamping Ø (mm)		8	8	8	8	8
Weight (kg)		1.4	1.4	1.6	1.6	1.7
With electronic feedbac	k	Yes	Yes	Yes	Yes	Yes
With soft start		Yes	Yes	Yes	Yes	Yes
With overload protection	n	Yes	Yes	Yes	Yes	Yes
70301	Ident. No.	010	020	042	045	051
70301	Unit price, €	O. R.	O. R.	O. R.	O. R.	0. R.

Prod. group 731

	Accessories for		70301 010	70301 020	70301 042	70301 045	70301 051
70303	Collet chuck ∅ 3 mm	Ident. No. Unit price, €	110 O. R.				
70303	Collet chuck Ø 6 mm	Ident. No. Unit price, €	120 O. R.				
70303	Collet chuck Ø 8 mm	Ident. No. Unit price, €	130 O. R.				
70303	Collet 1/8 inch	Ident. No. Unit price, €	140 O. R.				
70303	Collet chuck 1/4 inch	Ident. No. Unit price, €	150 O. R.				
70306	Clamping nut	Ident. No. Unit price, €	100 O. R.				



# Drive machine with flexible shaft MB 2-2 set 710 W, 230 V

Application:

For light grinding and milling work.

# Execution:

■ With combined foot and suspension shackle

scope of supply and services:

Drive machine with flexible shaft and straight handpiece, key for tool changing



Model	MB 20-2	
Min./max. rotation speed	10000-25000 U/min	
Power input (W)	710	
Power output (W)	430	
Wave length (m)	1.50	
Weight (kg)	4.40	
72120	010	
72120	Unit price, €	O. R.

rou. group 7 +7			
	Accessories for		72120 010
72124	Angled handpiece W	Ident. No.	010
627	-	Unit price, €	O. R.
72124	Straight handpiece	Ident. No.	020
KGS27	- '	Unit price, €	O. R.
72124	Flexible shaft 6 mm,	Ident. No.	030
maximum	speed 25,000 rpm	Unit price, €	O. R.



# DREMEL

# Propulsion machine with flexible shaft

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

Ident. No. 020: For light grinding, milling or drilling

Ident. No. 040: For light grinding, polishing or drilling work.

#### Execution:

- Ident. No. 020: With foot pedal
- Ident. No. 040:
  - With collet chuck lock
  - Replaceable carbon brushes
  - EZ connection cap with integrated collet chuck

#### Advantage:

■ Ident. No. 020:

- High motor power at low speed
- Long service life due to reduction of rotation heat
- Maximum precision due to high concentricity
- Ident. No. 040:
  - Comfortable and enhanced tool guidance
  - Simple accessory replacement with collet chuck locking mechanism
  - Reduced vibration for effortless work

scope of supply and services: Ident. No. 020: Removable handpiece, wall hook with wall mounting plate and 21 accessory parts

Ident. No. 040: Flexible shaft, 25 accessory parts,

Model		Fortiflex 9100-21	3000/1-125
Min./max. clamping Ø		0.3-4 mm	0.8-3.2 mm
Min./max. rotation speed		0-20000 U/min	10000-33000 U/min
Power input (W)		300	130
Wave length (m)		1.33	0.19
Weight (kg)		1.50	0.55
72140	ldent. No.	020	040
72140	Unit price, €	O. R.	O. R.





Ident. No. 020



Ident, No. 040



# Sanding polisher WPO 14-25 E

1200 W, 230 V

# Execution:

- Continuous electronic speed control
- Spindle lock
- Restarting protection
- Automatic cut-out carbon brushes
- Dust-protected ball bearings
- Soft start

#### Advantage:

- For clockwise and anti-clockwise operation
- Universally usable as grinder/polisher and satination machine

#### scope of supply and services:

Anti-vibration handle

		11/00 11 05 5
Model		WPO 14-25 E
Max. polishing element Ø (mm)		230
Washer Ø (mm)		230
Min./max. idle speed		900-2500 U/min
Power output (W)	750	
Power input (W)	1200	
Thread dimension of spindle	M14	
Weight (kg)	2.5	
70374	ldent. No. Unit price. €	<b>041</b> O. R.







## Roto random orbital polisher XC 3410 VRG set

#### Application:

For polishing and sealing painted surfaces.

#### **Execution:**

- FLEX VR microprocessor electronics: with constant speed maintenance system by means of tachogenerator, soft start, accelerator switch, restart lock after power failure, overload protection, temperature monitoring and speed pre-selection
- Permanent forced drive for a continuous polishing
- Damped special Velcro plate for polishing

Very quiet running due to levelling compound

■ Ideally suited for temperature-sensitive paint due to low heat production on the surface

#### scope of supply and services:

SoftVib handle, trigger handgrip, special Velcro plate diameter 140 mm, polishing sponge PS-W 160, microfibre cloth MW-C, fine grinding polish P 03/06-LD 250 ml, grinding polish P 05/04-LD 250 ml, in pocket



Model	XC 3401 VRG set	
Max. polishing element Ø (mm)	160	
Min./max. idle speed	160-480 U/min	
Power output (W)	590	
Power input (W)	900	
Thread dimension of spindle	M14	
Weight (kg)	2.6	
70381	Ident. No.	010
70361	Unit price, €	O. R.
Prod group 707		



#### Polishing machine PE 14-3 125 set 1400 W, 230 V

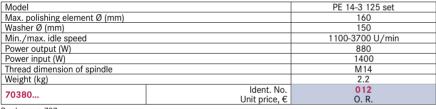
#### Application:

For polishing and sealing painted surfaces.

- Continuous electronic speed control
- Spindle lock
- Restarting protection
- Constant speed under heavy load
- Overload protection and temperature monitoring
- Soft start
- Throttle switch

#### scope of supply and services:

Side handle, Velcro plate, diameter 150 mm, polishing sponge blue PS-B 160, polishing sponge white PS-W 160, microfibre polishing cloth, NanoPolish & Wax 250 ml, in box









# Satination machine LP 1503 VR set 1200 W, 230 V

#### Application:

For satination, polishing, matting, structuring, brushing and deburring various materials.

#### Execution:

 VR full-wave electronics: with constant speed maintenance system by means of tachogenerator, soft start, overload protection and speed pre-selection  Adjustable protective hood: for grinding tools up to 115 mm

#### Advantage:

- High-level of comfort when working
- Fast and tool-free replacement of grinding tools with knurled thumb screw

#### scope of supply and services:

Air pump

Model	LP 1503 VR Professional set	
Power input (W)		1200
Power output (W)		700
Min./max. idle speed		1200-3700 U/min
Max. Ø of roll (mm)	115	
Max. tool width (mm)	100	
Tool holding device	Inner diameter 19 mm	
Weight (kg)	3.1	
70563	010	
70303	Unit price, €	0. R.

Prod. group 707





Example application



# Tube belt sander LRP 1503 VRA set 1200 W, 230 V

#### Application:

For grinding and polishing tube structures.

#### Execution:

- Powerful motor with high efficiency for high output power
- VR full-wave electronics: with constant speed maintenance system by means of tachogenerator, soft start, overload protection and speed pre-selection
- High-quality, sprung sanding arm: made of light metal with two deflection rollers

■ Extra handle: rotatable 180° and lockable

#### Advantage:

- Suitable for tight spots
- Optimal wrapping of tubes
- Tool changing possible without using tools

#### scope of supply and services:

Set includes sanding belts, abrasive fleece, carrying case

Model	LRP 1503 VRA set		
Power input (W)		1200	
Power output (W)		700	
Min./max. belt speed	4-12 m/s		
Max. pipe Ø (mm)	125		
Suitable for strap dimension	760 x 40-20 mm		
Weight (kg)	3.7		
70565	ldent. No.	010	
70303	O. R.		





Example application

## FLEX

## Belt filing machine LBS 1105 VE set

#### 710 W, 230 V

#### Application:

For sanding and filing at inaccessible spots.

#### **Execution:**

- Powerful motor with high efficiency for high output power
- VE electronics: for continuously variable preselection of belt speed
- Sanding head: pivots 140°, 9 mm or 30 mm sanding arms can be used
- Sanding arm adjustable for belt lengths 520 mm and 533 mm

Machining length of sanding arm up to approx.
 12 cm

#### Advantage:

Quick belt change system: for fast, tool-free replacement

#### scope of supply and services:

Set includes sanding arms, sanding belts, abrasive fleece, carrying case



Model		LBS 1105 VE Professional set
Power input (W)		710
Power output (W)		420
Min./max. belt speed	4-12 m/s	
Suitable for strap dimension		520/533 x 4-30 mm
Weight (kg)		2.5
70570 Ident. No. Unit price, €		020
		O. R.
Prod. group 707		

Prod. group 707



### Sanding belts for belt sanding machines

#### Endless

#### Application:

For pre-grinding of pipes and pipe unions.

Width of tape x length of strap		0 mm v 522 mm	9 mm x 533 mm	30 mm x 533	30 mm x 533
		9 111111 X 333 111111   9 1	9 111111 X 333 111111	mm	mm
Grain size		60	120	60	120
Included in delivery		10.	10.	10.	10.
70570	Ident. No.	406	412	506	512
/05/0	Price/pack, €	O. R.	O. R.	O. R.	O. R.

Prod. group 707



#### Multi-Cutter GOP 250 CE Professional

250 W, 230 V

#### Application:

For work in development, renovation and in the automotive field.

#### Execution:

- Powerful motor with high efficiency for high output power
- Integrated cable ball grommet increases flexibility and prevents cable breakage
- Controllable speed for material-suitable operation
- Extensive accessory program offers solutions for numerous application cases

#### scope of supply and services:

BIM submerged saw blade AIZ 28 EB for wood and metal, Delta sanding plate AVI 93 G

70532	ldent. No.	020
70532	Unit price, €	O. R.

Prod. group 731

with micro Velcro adhesion, HCS segment saw blade for plunge cuts for wood, stepped ASZ 85 EC, 5x Delta sanding sheets K 80, universal adapter, hexagon socket key, cable length 4 m, in box.

#### **Technical Data:**

- Model: GOP 250 CE
- BOSCH no.: 0 601 230 000
- Power input: 250 W
- Power output: 170 W
  Screw-head height: 85 mm
- Tool holding device: Hexagon socket
- Weight: 1.30 kg





# MultiMaster FMM 350 Q Top 350 watt

#### Application:

For heavy sawing and cutting work in development and renovation.

#### Execution:

- Powerful, self-supporting motor with high efficiency
- Vibration decoupling for effortless work
- Metal gear head and use of ball/needle bearings throughout
- Continuous electronic speed control
- Integrated interface for mounting additional system accessories
- 8-star tool holding fixture with excellent torque transmission

- Large accessory programme available for all applications
- Comfortable QuickIN quick-action clamping system

#### scope of supply and services:

As per item no. 205, but with 1 perforated sanding plate, 5 perforated sanding sheets each (K 60, 80, 120, 180), 1 sanding plate diameter 115 mm, perforated, 2 perforated sanding sheets each (K 60, 80, 180),

2 E-Cut long-life saw blades (35 and 65 mm), 2 M-Cut saw blades (10 and 30 mm),  $\,$ 

1 carbide segment saw blade, 1 carbide perforated rasp (triangular shape), 1 suction unit

#### Advantage:

■ Optimal handling due to Softgrip zone

Model		MultiMaster FMM 350 Q Top
Power input (W)	350	
Tool holding device		QuickIN Max
Weight (kg)		1.40
70533	Ident. No.	211
70533	Unit price, €	O. R.

Prod. group 704



#### Accessories for BOSCH multi-cutters and other multi-cutters

for all common brands of multi-cutter



Ident. No. 120



Ident. No. 140



Ident. No. 180



Ident. No. 190



Ident. No. 220

Applications		Cutting door frames to length   Cutting smaller profile rails to length   Cutting laminate   Cutting parquet flooring	Recesses in furniture elements   Plunge cuts in softwood   Cutting wooden ele- ments to length	Milling out joints   Milling grooves in aerated concrete   Smaller cutouts in soft wall tiles	Milling out joints from wall and floor tiles   Removing grout and tile adhesive   Removing joints in tight corners	Cutting soft materials   Cutting insulation panels   Flush cutting insulation material to length
BOSCH no.		2 608 661 636	2 608 661 637	2 608 661 642	2 608 661 757	2 608 661 693
Ø (mm)		85	-	85	70	100
Length x width		-	40 x 32 mm	-	-	-
Included in delivery		1.	1.	1.	1.	1.
70532	Ident. No. Unit price, €	<b>120</b> O. R.	<b>140</b> O. R.	<b>180</b> O. R.	<b>190</b> O. R.	<b>220</b> O. R.

# HAHN+KOLB



#### Accessories

for FEIN MultiMaster

#### **Technical Data:**

Included in delivery: 1.









Ident. No. 300

Ident. No. 330

Ident. No. 700

Ident. No. 710

Applications		Plastics   GRP   Wood   Putty   Nonferrous metals   Sheet metal up to ap- prox. 1 mm	For soft materials only   Ideal for working in corners	Cutting rigid materials	Cutting soft materials
Type		HSS saw blade	HSS saw blade	Segment blade   convex	Segment blade   concave
Ø (mm)		63	90	-	-
70533	ldent. No.	300	330	700	710
70535	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 704

## metabo

#### **Orbital sanders**

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For sanding wood, plastics, metals, stone, plaster and painted surfaces.

#### Execution:

■ Dust trap cartridge with filter for working without an extractor connected

#### ■ Ident. No. 010:

- Dust-protected ball bearings for long service life of the machine
- Cut-out carbon brushes

#### ■ Ident. No. 025-055:

- Rugged clamping system for sandpaper with and without Velcro, as well as abrasives up to 10 mm thick
- Multi-sealed ball bearings and tear-resistant rubber sleeve
- TurboBoost: Connection of additional power reserves for maximum removal
- Abrasive pad with additional lateral suction channels for clean working
- Vario (V) electronics for working with orbital rates suitable for the material

 Extraction option by connecting an all-purpose vacuum cleaner

#### Advantage:

- Ident. No. 010:
- Long service life even under difficult usage conditions
- Very good weight/performance ratio, therefore ideal for working overhead

#### ■ Ident. No. 025-055:

- Orbital system with double-row angular contact ball bearings for extremely quiet running and minimal vibration
- Excellent sanding pattern without sanding whorls and grooves for professional surface treatment

#### scope of supply and services:

Ident. No. 010: Dust trap cartridge, in box

70512 025

O. R

70512 055

O.R

Ident. No. 025-055: Abrasive pad with Velcro adhesion, removable additional handle, dust trap cartridge, 1x folded filter, in box



Ident. No. 010



Ident. No. 025

Model		SR 10-23 Intec	Sr E 4350 Turbo Tec	Sr E 4351 Turbo Tec
Base plate length x ba	se plate width	184 x 92 mm	190 x 92 mm	114 x 229 mm
Oscillating Ø		2.5 mm	2.2 mm	2.2 mm
Power input (W)		200	350	350
Power output (W)	Power output (W)		180	180
Weight (kg)	Weight (kg)		2.5	2.7
70512 Ident. No.		010	025	055
Unit price, €		O. R.	O. R.	0. R.
Prod. group 745				

Ident. No.

Unit price, €

# metabo Abrasive discs

for Metabo orbital sanders

#### Application:

polyester

- For clamping

- For machining of veneers, solid wood, polyester, steel and stainless steel sheets, non-ferrous metals

Accessories for

Fold filter made of

and light metals.

70512 010

O.R

#### scope of supply and services:

1 pack of 10

Grain size		40	60	80	120	60	80
Number of holes (PC	CS)	8	8	8	8	14	14
Length x width		230 x 93 mm	280 x 115 mm	280 x 115 mm			
70512	Ident. No.	304	306	308	312	406	408
70512	Price/pack, €	O R	O R	O R	O R	O R	O R

## metabo

#### Sanding sheets for Metabo orbital sanders

for Sr E 4350 Turbo Tec

#### Application:

For machining of veneers, solid wood, polyester, steel and stainless steel sheets, non-ferrous metals and light metals.

#### Execution:

Abrasive pad with Velcro

#### scope of supply and services:

1 pack of 10

#### **Technical Data:**

■ Number of holes: 8

■ Length x width: 185 x 93 mm

Grain size		60	80
70512 Ident. No. Price/pack, €		<b>705</b> O. R.	<b>707</b> O. R.
Prod. group 7	745		

## BOSCH

#### Orbital sanders

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For sanding wood, plastics, metals, stone, plaster and painted surfaces.

#### Execution:

- Controllable speed for material-suitable operation
- Perfect sandpaper mounting, even for paper without Velcro connection, due to innovative paper clamping system
- Direct connection of vacuum cleaner or microfilter dust box for dust-free working in any application situation
- Ident. No. 013: Additional handle with vibration damping for comfortable gripping in any working position

#### Advantage:

- Ergonomically designed surfaces with soft grip for perfect handling with or without an additional handle
- Uniform distribution of the contact pressure for high surface quality
- Lowest level of vibration in class (<2.5 m/s²) due to decoupled motor housing

#### scope of supply and services:

Micro-filter box, additional handle, in L-Boxx



Ident. No. 023

Model		GSS 230 AVE	GSS 280 AVE	
BOSCH no.		0 601 292 801	0 601 292 901	
Base plate length x base pla	ate width	92 x 182 mm 114 x 205 mm		
Oscillating Ø		2.4 mm	2.4 mm	
Power input (W)		300 350		
Power output (W)		140	180	
Weight (kg)		2.4	2.7	
70514 Ident. No.		013	023	
70514	Unit price, €	O. R.	O. R.	

Prod. group 731

#### **BOSCH**

#### Abrasive discs

for BOSCH orbital sanders

#### Application:

For machining wood, metal, etc.

#### scope of supply and services:

1 pack of 10

#### Execution:

Sanding sheets with Velcro

Grain size		60	80	120	60	80	120
Number of holes (PCS)		8	8	8	14	14	14
Length x width		186 x 93 mm	186 x 93 mm	186 x 93 mm	230 x 115 mm	230 x 115 mm	230 x 115 mm
70514	Ident. No.	206	208	212	306	308	312
70514	Price/pack, €	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

Prod. group 732

## **BOSCH**

## Triangular sander GDA 280 E Professional

#### 280 watt

#### Application:

For polishing in corners and edges and on small surfaces.

#### Execution:

- Controllable speed
- With integrated extraction channel for direct connection to a vacuum cleaner

#### Advantage:

- Especially suitable for hard-to-access areas and on small surfaces
- Comfortable and safe working due to compact construction
- Fast and tool-free replacement of grinding discs with SDS system
- Comfortable and safe working due to small handle size and soft grip surface

#### scope of supply and services:

Sanding tongue oval, sanding tongue flat, sanding sheet set, 15 pcs. 5 x K60/5 x K120/5 x K240, polishing felt, disc sanding attachment, in L-Boxx



#### Orbital sanders/random orbital sanders



Model	GDA 280 E	
BOSCH no.	0 601 294 76A	
Min./max. idle speed	13000-19000 U/min	
Power input (W)	280	
Power output (W)		160
Oscillating Ø		2 mm
Weight (kg)		1.1
70530	ldent. No.	022
70330	Unit price, €	O. R.

Prod. group 731

	Accessories for		70530 022
70520	Abrasius pad	ldent. No.	100
70530	Abrasive pad	Unit price, €	O. R.

## BOSCH

#### **Abrasive discs**

for BOSCH triangular sander model PDA 240 E and GDA 280 E

#### Application:

For machining wood.

#### Execution:

Corundum with synthetic resin binder, high material removal power, for all types of wood and wood materials (plywood)

#### Advantage:

 Ident. No. 308-318: 4x longer lifetime when sanding paints, lacquer and smearing materials (e.g. fillers, putty)

#### scope of supply and services:

1 pack of 5

#### Technical Data:

Dimensions of triangle-shaped sandpaper: 93 x 93 x 93 mm

Туре		Red Wood	Red Wood	Red Wood	Red Wood assortment
BOSCH no.		2 608 605 601	2 608 605 602	2 608 605 603	2 608 605 191
Grain size		80	120	180	-
Included in deliver	Included in delivery		5.	5.	6.
70530	ldent. No.	308	312	318	390
70550	Price/pack, €	O. R.	O. R.	O. R.	O. R.

Prod. group 732

## metabo

#### Random orbital sander

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For finishing surfaces.

#### Execution:

- Vario (V) electronics: Adjusting ring for controlling the speed for material-suitable operation
- Connection of additional power reserves for maximum removal with TurboBoost
- Thanks to the Power Control System, no sanding grooves when running machine is set down onto the material
- Removable extra handle
- Dust-protected ball bearings for long service life of the machine
- Rugged bearing housing made from wear-free diecast aluminium

- Handle area with slip-proof soft grip surface
- Dust trap cartridge with filter for working without an extractor connected
- Ident. No. 100: Connection of wet or dry vacuum cleaner possible
- Ident. No. 200: Adjustment of fine sanding or high removal with patented dual resonant circuit adjustment

#### scope of supply and services:

Support plate with Velcro adhesion, hexagon key, removable additional handle, dust trap cartridge, 1x folded filter, in box

#### Technical Data:

■ Min./max. idle speed: 4200-11000 U/min



Ident. No. 100

Model		SXE 425 Turbo Tec	SXE 450 Turbo Tec	
Support-disc Ø (mm)		125	150	
Power input (W)		320 350		
Power output (W)		160 180		
Oscillating Ø		5 mm	2.8 mm   6.2 mm	
Thread dimension of spindle	e	M6 x 16	M8 x 16	
Weight (kg)		2.3	2.4	
70535	ldent. No.	100	200	
70555	Unit price, €	O. R.	O. R.	

0 1				
	Accessories for		70535 100	70535 200
70512	Fold filter made of	Ident. No.	110	110
polyester		Unit price, €	O. R.	O. R.

## BOSCH

#### Random orbital sander

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For finishing surfaces.

#### Execution:

- Speed controllable for material-suitable operation
- Constant-Electronic for constant speed under load
- Efficient and perfect dust extraction with the Bosch Microfilter System
- Velcro closure for fast, convenient sanding disc replacement
- Ident. No. 032: Friction brake allows fast shut-off of the tool for optimised working efficiency
- Ident. No. 060: Grinding disc brake prevents damage (e.g. grooves) to workpiece

#### Advantage:

- Ident. No. 032: Vibration-reduced for effortless work
- Ident. No. 042: Suitable for left-handers
- Ident. No. 060:

- Change from fine sanding to rough sanding or polishing with a single click
- Five times higher removal in turbo operation (coarse sanding): time savings enable amortisation in a few working hours
- Protects health due to 98% dust capture using external suction unit

#### scope of supply and services:

Ident. No. 032: Extra handle, grinding disc (150 mm), grinding disc (150 mm) 8 + 1 perforation, grinding disc (125 mm), 2x sandpaper grain size 120, microfilter box, hexagon socket key, in L-Boxx

Ident. No. 042: Sandpaper grain size 80, adapter, suction adapter, in box

Ident. No. 060: Sandpaper grain size 120, grinding disc, key holder, hexagon key size 5 (part no. 1 907 950 006), extra handle, in plastic box

#### **Technical Data:**

■ Support-disc diameter: 150 mm

Model		GEX 125/150 AVE GEX 150 AC		GEX 150 Turbo
BOSCH no.		0 601 37B 101	0 601 372 768	0 601 250 760
Min./max. idle speed		5500-12000 U/min	4500-12000 U/min	3100-6650 U/min
Power input (W)		400	340	600
Oscillating Ø		4 mm	4 mm	4.5 mm
Thread dimension of s	spindle	M8 x 25	M8 x 25	M8 x 18
Weight (kg)		2.4	2.1	2.4
With electronic feedba	With electronic feedback		Yes	Yes
70536	ldent. No.	032	042	060
70550	Unit price, €	O. R.	O. R.	O. R.





Ident, No. 032

#### Adhesive sanding sheets with Velcro metabo

For METABO and BOSCH random orbital sanders

#### Application:

For machining wood, metal, and coloured paints.

 High-quality sandpaper with semi-open scattering and high cutting power for a homogeneous sanding pattern

#### scope of supply and services:

1 pack of 5

#### Technical Data:

■ Included in delivery: 5.

Ø (mm)		125	125	125	125	125	150	150	150	150	150
Number of hol	es (PCS)	8	8	8	8	8	6	6	6	6	6
Grid size		40	60	80	120	240	40	60	80	120	240
70535	Ident. No.	504	506	508	512	524	604	606	608	612	624
70333	Price/pack, €	O. R.									

Prod. group 745

## metabo

#### **Double-ended grinders**

voltage 230 V, 50 Hz or three-phase motor 400 V, 50 Hz

#### Application:

For grinding, sharpening, deburring and derusting of steel, metals and tools.

#### **Execution:**

- Maintenance-free induction motor, low noise and vibration
- Protective hood with bayonet mount
- Large spark protection glasses to protect eyes
- Vibration-damping rubber feet for secure position
- Ident. No. 010-030: Motor for single-phase alternating current
- Ident. No. 020, 060: Laterally closed protective hoods with extraction connectors
- Ident. No. 020-060:
- With connectible emergency stop switch and restart protection
- Workpiece rests adjustable without tools
- Ident. No. 030-050: Wear-free cast aluminium protective hoods

- Ident. No. 040-050: Powerful three-phase motor with high torque
- Ident. No. 060:
- With wet and dry grinding discs
- High-power motor for single-phase alternating
- Corrosion-resistant water bath container

#### scope of supply and services:

Ident. No. 010-040: Synthetic corundum grinding discs grain sizes 36 and 60, spark protection glasses, workpiece rest, hexagon key

Ident. No. 050: Synthetic corundum grinding discs grain size 60, wet-grinding disc, spark protection glasses, workpiece rest, hexagon key

Ident. No. 060: Synthetic corundum grinding disc grain size 60, wet-grinding disc, spark protection glasses, workpiece rest, hexagon key, corrosionresistant water bath container



Ident. No. 020



Ident. No. 060



Model		DS 175	DS 200	DSD 200	DSD 250	TNS 175
min(rpm))	2980	2980	2980	2980	1490	2980
	Alternating current	Alternating current	Alternating current	Three-phase AC	Three-phase AC	Alternating current
	motor	motor	motor	motor	motor	motor
	350	500	600	750	900	500
	200	310	370	450	540	310
Disc Ø x disc thickness		175 x 25 mm	200 x 25 mm	200 x 25 mm	250 x 40 mm	175/200 x 25/40 mm
	20	32	32	32	51	32/20
g piece (mm)	-	35	35	35	35	35
	9.5	14.5	16.3	16.0	33.3	14.9
With restart protection		Yes	Yes	Yes	Yes	Yes
Ident. No.	010 O. R	020 O. R	030 O. R	<b>040</b> O. R	050 O. R	<b>060</b> O. R.
	g piece (mm)	Alternating current motor 350 200 200 200 200 200 200 200 200 200 2	Min(rpm)   2980   2980   2980   Alternating current motor   350   5000   200   310   310   32   350	Min(rpm)   2980   298	Min(rpm)   2980   298	Min(rpm)   2980   2980   2980   2980   1490     Alternating current motor with the motor set in the motor motor motor motor motor motor motor motor with motor with motor set in motor set in motor set in motor with motor with motor set in motor set in motor with motor set in motor with motor set in motor with motor with motor set in motor with motor set in motor with motor

	Accessories for		70574 010	70574 020	70574 030	70574 040	70574 050	70574 060
<b>70574</b> M	lachine stand	Ident. No. Unit price, €	410 O. R.*	410 O. R. <sup>+</sup>	410 O. R.*	410 O. R. <sup>+</sup>	410 O. R. <sup>*</sup>	410 O. R. <sup>+</sup>
<b>70574</b> W	/all console	Ident. No. Unit price, €	420 O. R.	420 O. R.	420 O. R.	420 O. R.	420 O. R.	420 O. R.

## metabo

#### Sanding disc

#### For METABO double-ended grinding and belt sanding machines

#### Execution:

- Grain size 36 P: Synthetic corundum for presanding of hardened and unhardened steels
- Grain size 60 N: Synthetic corundum, for fine sanding of hardened and unhardened steels

Disc Ø x disc thi	ckness	150 x 20 mm	150 x 20 mm	175 x 25 mm	175 x 25 mm	200 x 25 mm	200 x 25 mm	250 x 40 mm	250 x 40 mm
Disc hole Ø (mm	1)	20	20	32	32	32	32	51	51
Grain size		36	60	36	60	36	60	36	60
Included in deliv	ery	1.	1.	1.	1.	1.	1.	1.	1.
70574	Ident. No.	205	210	215	220	225	230	235	240
70574	Unit price, €	0. R.							

Prod. group 745

## metabo

## Combination belt sanding machine BS 175

#### 500 watt

#### Application:

For demanding sharpening, grinding and deburring work

#### Execution:

- Large belt sander arm, tilts continuously up to 90°
- Lower noise and vibration, maintenance-free induction motor
- Protective hood with bayonet mount
- Dust-protected emergency stop switch
- Restarting protection
- Large spark protection glasses to protect eyes
- Vibration-damping rubber feet for secure position

#### scope of supply and services:

Synthetic corundum grinding disc grain size 60, fabric sanding belt grain size 60, spark protection glasses, workpiece rest, hexagon key

Model	BS 175	
Max. idle speed (U/min(rpm))		2980
Power input (W)		500
Power output (W)		310
Washer Ø (mm)		175
Washer thickness (mm)	25	
Disc hole Ø (mm)		32
Length of tape (mm)		1020
Max. sanding belt width (mm)		50
Inner Ø of connecting piece (mm)	35	
Weight (kg)	14.5	
70574 Ident. No.		070
70074	Unit price, €	O. R.



Prod. group 745

	Accessories for		70574 070
70574	Machine stand	ldent. No. Unit price, €	410 O. R. <sup>+</sup>

## metabo

#### Sanding belts, endless

### for METABO belt sanding machine

#### Application:

**Ident. No. 306:** For machining unalloyed and low-alloy steels, cast iron, aluminium alloys, brass, bronze, hard metallic layers, rubber and plastics.

Ident. No. 308–324: For machining metals, unalloyed and low-alloy steels, cast iron, aluminium alloys, brass, bronze, hard metallic layers, rubber

and plastics.

#### Execution

 High-quality sandpaper (synthetic corundum) with tight scattering, high cutting power and long service life

Width of band (mm)		50	50	50	50	50	50
Length of tape (mm)		1020	1020	1020	1020	1020	1020
Grain size		60	80	100	120	180	240
Included in delivery		3.	3.	3.	3.	3.	3.
70583	ldent. No.	306	308	310	312	318	324
70565	Price/pack, €	O. R.	O. R.	0. R.	O. R.	O. R.	0. R.

#### **Belt sanders**

#### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For removing, flat-sanding, smoothing and cleaning wood, plastic and metal.

#### **Execution:**

- Sanding belt 75 x 533 mm
- Ident. No. 048:
- Adjusting ring for pre-selecting the belt speed
- Vario-Tacho-Constamatic (VTC) full-wave electronics for working with belt speeds suitable for the material
- With machine stand and longitudinal stop

#### ■ Ident. No. 055:

- Swivel castor fine adjustment
- Aluminium rollers for the most demanding applications
- Control electronics with speed preselection for material-suitable operation
- Robust toothed belt and metal toothed belt

 Connection for suction with dust bag and vacuum cleaner

#### Advantage:

- Ident. No. 048:
  - Fast and tool-free sanding belt replacement
- Connection for a wet and dry vacuum cleaner
- Ident. No. 055: Optimised sanding results due to graphite-coated abrasive pad

#### scope of supply and services:

Ident. No. 048: Dust collection bag, extra handle, hexagon key, suction adapter, longitudinal stop and machine stand

Ident. No. 055: With sanding belt, graphite plate, parallel/angle stop, dust bag, subframe, in plastic



Ident. No. 048



Ident. No. 055

Model			BAE 75	GBS 75 AE set
BOSCH r	10.		-	0 601 274 765
Min./ma	x. belt speed		4.0-7.5 m/s	200-330 m/s
Power in	put (W)		1010	750
Power ou	utput (W)		500	410
Width of	tape x length of strap		75 mm x 533 mm	75 mm x 533 mm
Weight (k	(g)		4.9	3.4
With spe	ed control		Yes	Yes
With elec	ctronic feedback		Yes	No
- atalaa'	metabo 70571		048	
meiabo	70371	Unit price, €	O. R.	_
POSCH	70571	ldent. No.	_	055
БОЗСП	70071	Unit price, €	-	O. R.

BOSCH = Prod. group 731 METABO = Prod. group 745



#### Electric scraper

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

Ident. No. 005: For light smoothing of vertical

Ident. No. 010: For scraping, even on large and vertical surfaces.

#### Execution:

- Stroke counter infinitely adjustable electronically up to 1600 rpm
- Equipped with scraper blade suspension
- Use of carbide-tipped scraper blades, clamp holder with exchangeable scraping plates made of cemented carbide with four cutting edges or steel plates
- Suitable for scraping plastics, scraping films, fine scraping, precision scraping and oil film scraping
- Stroke length regulation infinitely adjustable

#### Advantage:

Also suitable for dovetail guides and prisms, in combination with special blades

#### scope of supply and services:

Cable and plug, set of carbon brushes, keys for adjusting stroke and changing tools, scraping blade 20/90, in plastic case

Model		BL 10	BL 40
Power input (W)		320	320
Max. number of strokes (U)	/min(rpm))	1600	1600
Min./max. stroke length		0-10 mm	0-20 mm
Weight (kg)		2.7	3.7
70601	Ident. No.	005	010
70001	Unit price, €	(O. R.)	O. R.

Prod. group 749



Ident, No. 005 Model BL 10



Ident. No. 010 Model BL 40



## Scraping tools

for BIAX electric scrapers

#### Application:

No. 70602: For rough scraping of surfaces. For machining grey cast iron, machine cast iron, steel and cast steel, bronze, brass, hard materials.

No. 70609: For finish and precision scraping of surfaces, prisms, dovetail guides etc.

For machining grey cast iron, machine cast iron, bronze, brass and hard material



No. 70602



- No. 70602: Carbide-tipped scraping blade
- No. 70609: Internally sprung scraping blade



Туре		Scraping blade	Scraping blade	Scraping blade	Scraping blade sprung	Scraping blade sprung
Length x width		90 x 20 mm	90 x 25 mm	90 x 30 mm	150 x 15 mm	150 x 20 mm
Edge radius (mm)		60	90	140	60	60
70602	Ident. No.	030	040	050		
70002	Unit price, €	O. R.	(O. R.)	O. R.		_
70609	Ident. No.				020	030
70809	Unit price, €		-	_	O. R.	O. R.



#### Clamp holder for BIAX electric scraper

Application:

For standard scraping of surfaces.

#### Advantage:

• For use in electric scrapers, models BL and BS 40



Execution:

■ Straight version

Туре		Clamp holder	Clamp holder
Length x width		23 x 85 mm	23 x 135 mm
70603	Ident. No.	010	020
70603	Unit price, €	O. R.	O. R.

Prod. group 749



#### Scraper plates for BIAX electric scraper

made from cemented carbide and HHS

Application:

Ident. No. 020–030: For rough and finish scraping of surfaces.

**Ident. No. 040:** For rough and finish scraping of surfaces.

For machining grey cast iron, machine cast iron, steel and cast steel, bronze, brass and hard

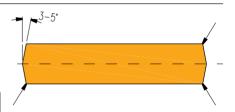
m	а	16	٩r	ia	ls

#### **Execution:**

 Ident. No. 020-030: For machining grey cast iron, machine cast iron, steel and cast steel, bronze, brass and hard materials



Prod. group 749



Carbide scraping plate



#### Tin snips

#### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For cutting sheet-metal.

#### Execution:

- allow chip-free cutting
- High curve and radial manoeuvrability
- Ident. No. 160: Cutting table made of highstrength steel

Ident. No. 250: Free view of work surface and cutting line

#### Advantage:

- Low exertion of force necessary due to optimum cutting geometry
- Ident. No. 160:
- Reversible blade with four cutting sides
- Smallest and most manoeuvrable shears in their performance class

 Ident. No. 250: Fast and precise cutting even for overhead work

#### scope of supply and services:

Ident. No. 160: 2 x batteries (12 V), 4-sided reversible blade, in plastic case

Ident. No. 250: 2 x batteries (28 V), 4-sided reversible blade, in plastic case



ldent. No. 160 Similar image



ldent. No. 250 Similar image



TruTool S 250 Model TruTool S 160 Max. cutting capacity in sheet metal (400 N/mm²) (mm) 1.6 2.5 Max. cutting capacity in sheet metal (600N/mm²) (mm) Max. cutting capacity in sheet metal (800N/mm²) (mm) 2.0 1.0 2.0 Max. cutting capacity in aluminium sheet (250 N/mm²) (mm) 3.0 8-12 m/min Min./max. cutting speed 4-7 m/min Min. radius (mm) 350 500 Power input (W) Stroke rate (U/min(rpm)) 4800 1760 Weight (kg) 1.6 2.2 Ident. No. 160 250 71061... Unit price, € O.R O. R.

Prod. group 717

1766

Accessories for		71061 160	71061 250
71061 Reversible blade for	Ident. No.	616	
TruTool S 160	Set price, €	O. R.	-
71061 Reversible blade for	Ident. No.		625
TruTool S 250	Set price, €	-	O. R.



#### Sheet metal nibblers TruTool N 500

#### 1400 watt

#### Application:

For cutting flat and corrugated sheet metal, particularly for cuts over folds, edges, welding seams and double sheet metal.

#### Execution:

■ Four cutting directions

Also available as an electrical version

#### Advantage:

■ Optimal weight/performance ratio

#### scope of supply and services:

Punch 5/P5, die 5, in plastic case

Model		TruTool N 500
Max. cutting capacity in sheet metal	(400 N/mm²) (mm)	5.0
Max. cutting capacity in sheet metal		3.0
Max. cutting capacity in sheet metal		2.5
Max. cutting capacity in aluminium s	heet (250 N/mm²) (mm)	7.0
Cutting speed (m/min)		1.5
Min. radius (mm)		90
Power input (W)		1400
Stroke rate (U/min(rpm))		720
Weight (kg)	4.0	
71070	ldent. No.	021
71070	Unit price, €	O. R.
Drod group 717		



	Accessories for		71070 021
71070	Punch for TruTool N	ldent. No.	121
500		Unit price, €	O. R.
71070	Die 5 for TruTool N	ldent. No.	220
500		Unit price, €	O. R.



Similar image



#### **Electric sabre saws**

### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For removing old components and for cutting pipes.

#### Execution:

- No. 71168:
  - with connectible pendulum stroke and VV electronic control
  - Soft start with throttle switch
  - Fast and tool-free exchanging of saw blades
- No. 71170:
- With constant pendulum stroke for fast sawing progress
- Vibration-reduced for effortless work
- Bright LED light
- Metal hook for hanging up the tool during an interruption of work
- Rubberised gear case for safe and comfortable gripping

■ Powerful motor with Constant Electronic

#### Advantage:

- No. 71168: Fast and tool-free exchanging of saw blades
- No. 71170: Faster tool change with one hand thanks to SDS saw blade replacement

#### scope of supply and services:

No. 71168: Assortment of saw blades, in plastic

No. 71170: Saw blade wood S 2345 X, saw blade metal S 123 XF, in plastic case

#### **Technical Data:**

- Stroke length: 28 mm
- With rubber-coated handle: Yes
- With electronic feedback: Yes



FLEX = Prod. group 707 BOSCH = Prod. group 731



No. 71168



No. 71170

# HAHN+KOLB

## metabo

#### **Jigsaws**

#### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For powerful cutting in wood, non-ferrous base metal and steel

#### Execution:

- Switchable chip-blowing function
- Deep saw blade guide
- Ident. No. 021: Vario (V) electronics for working with stroke counts suitable for the material
- Ident. No. 047:
- Fin can be inserted into guide plate for easy straight cutting
- Vario-Tacho-Constamatic (VTC) full-wave electronics
- Integrated LED work light

#### Advantage:

- Metabo Quick for tool-free replacement of saw blades
- Extraction option by connecting an all-purpose vacuum cleaner

#### scope of supply and services:

Extractor connection, sight glass, splinter protection plate, hexagon key, in plastic case

Model		STEB 70 Quick	STE 90 SCS
Design of the handle		Stirrup handle	Knob
Max. cutting capacity of wo	od (mm)	70	90
Max. cutting capacity of ste	el (mm)	6	6
Max. cutting capacity of nor	n-ferrous metals (mm)	20	20
Min./max. idle stroke speed	d	900-3300 U/min	1000-3000 U/min
Power input (W)		570	610
Power output (W)		335	360
Number of pendulum-stroke	Number of pendulum-stroke stages		4
Weight (kg)		2.0	2.3
With working lights		No	Yes
With rubber-coated handle		No	No
With electronic feedback		No	Yes
With restart protection		No	No
71127	Ident. No.	021	047
/112/	Unit price, €	O. R.	O. R.
Prod. group 745			



Ident. No. 021



Ident. No. 047

## BOSCH

#### Jigsaws

#### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For complex radius cuts in wood and sheet metal.

#### Execution:

- Ident. No. 112:
- Switchable chip-blowing function
- Control electronics
- Ident. No. 112-119: 4-stage oscillation
- Ident. No. 114-119: Electronic speed preselection
- Ident. No. 143:
- Constant-Electronic
- Connection for a wet and dry vacuum cleaner possible
- Highly precise saw blade guide with patented double roller
- Bright LED light
- Rugged magnesium baseplate

#### Advantage:

- Ident. No. 112-119: Saw blade change with no tools
- Ident. No. 143:
  - "Parking position" for fast, practical saw blade replacement with just one hand
- First rate smooth running thanks to mass compensation system

#### scope of supply and services:

Ident. No. 112: Extractor set, sight glass, splinter protection plate, hexagon key, plastic case

Ident. No. 114-119: Saw blade T 144 D, cover hood, sliding shoe, suction nozzle, splinter protection, 1/1 L-BOXX insert, in L-BOXX 136

Ident. No. 143: Saw blade T 144 DP, saw blade T 244 D, saw blade T 308 B, splinter protection, extractor adapter 1/1 L-BOXX insert, in L-BOXX 136



Ident. No. 114



Ident. No. 143

Model		GST 90 E	GST 150 CE	GST 150 BCE	GST 160 BCE
BOSCH no.		0 601 58G 000	0 601 512 003	0 601 513 003	0 601 518 000
Design of the handle		Knob	Knob	Stirrup handle	Stirrup handle
Max. cutting capacity of wo	od (mm)	90	150	150	160
Max. cutting capacity of ste	eel (mm)	10	10	10	10
Max. cutting capacity in alu	minium (mm)	20	20	20	20
Min./max. idle stroke speed	d	500-3100 U/min	500-3100 U/min	500-3100 U/min	800-3000 U/min
Lift height (mm)		26	26	26	26
Power input (W)		650	780	780	800
Weight (kg)		2.3	2.6	2.7	2.3
With working lights		No	No	Yes	Yes
With rubber-coated handle		No	Yes	Yes	No
With electronic feedback		No	Yes	Yes	Yes
With soft start		No	No	No	No
71128	Ident. No.	112	114	119	143
/ 1120	Unit price. €	O R	O R	O R	O R



# Jigsaw 4351 FCTJ

#### Application:

For complex radius cuts in wood and sheet metal.

#### Execution:

- 4-stage pendulum stroke adjustment
- Bright LED light
- Extraction adapter

#### Advantage:

- Square lifting rod reduces tilting in curved cuts
- Reduced vibrations
- Saw blade change with no tools

#### scope of supply and services:

Suction connector, saw blade set, plastic slide plate, splinter guard, in plastic case MAKPAC 1

Model		4351 FCTJ
Design of the handle		Knob
Max. cutting capacity of wood (mm)		135
Max. cutting capacity of steel (mm)		10
Max. cutting capacity of non-ferrous	20	
Min./max. idle stroke speed	800-2800 U/min	
Lift height (mm)		26
Power input (W)		720
Number of pendulum-stroke stages		4
Weight (kg)		2.5
With working lights	Yes	
71124	ldent. No.	031
71124	Unit price, €	O. R.



Prod. group 715



#### Sabre saw blades

for the following makes: BOSCH, AEG, FEIN, METABO (for FLEX all models except SR 602)

#### Advantage:

- For extremely heavy loads
- Highly flexible
- Long service life

#### scope of supply and services:

1 pack of 5

#### Technical Data:

■ Cutting material: Bimetal

BOSCH no.		S 922 BF	S 922 EF	S 922 AF	S 1122 BF	S 1122 EF	S 1022 VF	S 1211 H	S 1211 VF
Saw blade desig	n	Restricted	Corrugated	Corrugated	Restricted	Corrugated	Restricted	Restricted	Restricted
		Milled	Milled	Milled	Milled	Milled	Milled	Milled	Milled
Length (mm)		150	150	150	200	200	200	300	300
Teeth spacing (n	nm)	1.8	1.4	1.0	1.8	1.4	-	2.5	-
Min./max teeth	spacing	-	1	-	-	-	1.8-2.4 mm	-	1.8-2.4 mm
Applications		Sheet metals (3-8 mm)   Solid pipes (Ø 10-100 mm)   Solid profiles (Ø 10-100 mm)   Fast cutting	Sheet metals (1.5-4 mm)   Pipes (Ø 5-100 mm)   Profiles (Ø 5-100 mm)	Sheet metals (0.7-3 mm)   Fine pipes (Ø 5-10 mm)   Fine profiles (Ø 5-10 mm)   Ef- fortless cutting   Fine cut	Sheet metals (3-8 mm)   Solid pipes (Ø 10-175 mm)   Solid profiles (Ø 10-175 mm)   Flexible flush cuts   Fast cutting	Sheet metals (1.5-4 mm)   Pipes (Ø 5-175 mm)   Profiles (Ø 5-175 mm)   Flexible flush cuts	St 37   Non- ferrous metals   Stainless steel   Steel tubes   V2A   Cast iron (3-8 mm)	St 37   Profiles   Nonferrous metals   Steel tubes   Steel tubes   Insu- lating material (3-10 mm)	St 37   Nonferrous metals   Cast-iron pipes up to 3-8 mm   Steel pipes up to 3-8 mm   Pallet construction
71134	ldent. No. Price/pack, €	<b>010</b> O. R.	<b>020</b> O. R.	<b>030</b> O. R.	<b>040</b> O. R.	<b>050</b> O. R.	<b>060</b> O. R.	<b>070</b> O. R.	<b>080</b> O. R.

Prod. group 793

## **BOSCH**

#### Sabre saw blades

for the following makes: BOSCH, AEG, FEIN, METABO (for FLEX all models except SR 602 VV)

#### Advantage:

- For extremely heavy loads
- Highly flexible
- Long service life

#### scope of supply and services:

1 pack of 5

#### **Technical Data:**

■ Cutting material: Bimetal



 Ident. No. 235
 Ident. No. 505
 Ident. No. 515
 Ident. No. 525

 el
 BOSCH no.
 Saw blade design
 Length (mm)
 Teeth spacing (mm)
 Min./max teeth
 Applications
 7

Model	BOSCH no.	Saw blade design	Length (mm)	Teeth spacing (mm)	Min./max teeth spacing	Applications	<b>7113</b> ID no	
S 922 EF	2 608 656 015	Restricted   Milled	150	1.4	-	Sheet metals (1.5-4 mm)   Pipes (Ø 5-100 mm)   Pro- files (Ø 5-100 mm)	015	O. R.



Model	BOSCH no.	Saw blade design	Length (mm)	Teeth spacing (mm)	Min./max teeth spacing	Applications	<b>7113</b> ID no	
S 922 BF	2 608 656 014	Restricted   Milled	150	1.8	-	Sheet metals (3-8 mm)   Solid pipes (Ø 10-100 mm)   Solid profiles (Ø 10-100 mm)   Fast cutting	055	O. R.
S 1122 BF	2 608 656 019	Restricted   Milled	225	1.8	-	Sheet metals (3-8 mm)   Solid pipes (Ø 10-175 mm)   Solid profiles (Ø 10- 175 mm)   Flexible flush cuts   Fast cutting	065	O. R.
S 1122 HF	2 608 656 021	Restricted   Milled	225	2.5	-	Pallet repairs   Timber with nails (5-175 mm)   Wood with metal (5-175 mm)   Sheet metals   Tubes   Aluminium profiles (3-12 mm)   Flex- ible flush cuts	115	O. R.
S 1222 VF	2 608 656 022	Restricted   Milled	300	-	1.8-2.6 mm	Timber with nails (5-250 mm)   Wood with metal (5-250 mm)   Sheet metals   Aluminium profiles (3-10 mm)   Plastic profiles (Ø 3-250 mm)   Flexible flush cuts	155	O. R.
S 1411 DF	2 608 654 763	Restricted   Milled	300	4.3	-	Timber with nails   Wood with metal   Chipboard (10- 250 mm)   Aerated concrete (10- 250 mm)   Plastics   GRP   Profiles (5-60 mm)	235	O. R.
S 644 D	2 608 650 673	Restricted   Ground	150	4.3	-	Construction timber (6-100 mm)   Timber walls (< 75 mm)   Boards: chip (6-60 mm)   Boards: MDF (6-60 mm)   Ply- wood   Plastic (6- 100 mm)   Specially for plunge cuts	505	O. R.
S 1531 L	2 608 650 676	Restricted   Ground	240	5.0	-	Rough timber   Free of nails (15- 190 mm)   Live wood   Pruning green wood (Ø < 190 mm)   Firewood (Ø 15-190 mm)	515	O. R.
S 1542 K	2 608 650 682	Restricted   Ground	240	8.5	-	Rough timber   Free of nails (15- 190 mm)   Live wood   Pruning green wood (Ø < 190 mm)   Firewood (Ø 15-190 mm)	<b>525</b>	O. R.



## Jigsaw blades

 $for the following \ makes \ BOSCH, Makita, Metabo, AEG, DeWALT, FESTOOL, FLEX, HOLZ-HER, Milwaukee$ 

#### Advantage:

■ Ident. No. 010: Outstanding edge holding ability

■ Ident. No. 110, 130: High heat and wear resistance

• Ident. No. 120, 210: Bimetal, made from HSS and HCS, unbreakable, for extreme stresses, highly flexible, long service life

scope of supply and services: Ident. No. 010-110, 130: 1 pack of 20 in practical plastic box

Ident. No. 120, 210: 1 pack of 5



Model	Cutting material	Saw blade design	Length (mm)	Teeth spacing (mm)	Applications	<b>7113</b> ID no.	
T 101 B	HCS	Ground (HCS)	75	2.5	Softwood   Chipboard (3-30 mm)   Core boards (3-30 mm)   Fibreboard (3-30 mm)   Plastics (Ø < 30 mm)   Epoxy (Ø < 30 mm)		O. R.
T 118 A	HSS	Corrugated (HSS)	50	1.2	Sheet metals (1-3 mm)	110	O. R.

Model	Cutting material	Saw blade design	Length (mm)	Teeth spacing (mm)	Applications	7113	
						ID no.	
T 118 B	HSS	Corrugated (HSS)	50	2.0	Sheet metals (2.5-6 mm)	120	O. R.
T 127 D	HSS	Straight-set (HSS)	75	3.0	Sheet metals (3-15 mm)   Pipes (Ø < 30 mm)     Profiles (Ø < 30 mm)	130	O. R.
T 118 AF	Bimetal	Corrugated (bimetal)	50	1.2	Sheet metals (1-3 mm)	210	O. R.
						Price /	/nack €

## <u>ATORN</u>®

#### Jigsaw blades

for the following makes BOSCH, Makita, Metabo, AEG, DeWALT, FESTOOL, FLEX, HOLZ-HER, Milwaukee

#### Execution:

- Suitable for BOSCH, Makita, Metabo, AEG, DeWALT, FESTOOL, FLEX, HOLZ-HER, Milwaukee
- Ident. No. 410:
- Consisting of: 8 x coarse and fast (T 144 D), 8 x fine and clean (T 101 B), 4 x curve (T 119 BO)
- The jigsaw blade demonstrates outstanding edge holding ability thanks to hard carbon steel HCS
- Corresponds to BOSCH model: 8 x T 144 D/8 x T 101 B/4 x T 119 BO
- Ident. No. 510:
- Consisting of: 8 x fine ( T 118 A), 8 x medium ( T 118 B), 4 x coarse ( T 127 D)
- The jigsaw blade exhibits high heat and wear resistance thanks to the fully hardened highperformance high-speed steel HSS
- Corresponds to BOSCH model: 8 x T 118 A/8 x T 118 B/4 x T 127 D

#### scope of supply and services:

**Ident. No. 410:** 1 pack of 20 in practical plastic box: 8 x coarse and fast (corresponds to T 144 D) 8 x fine and clean (corresponds to T 101 B) 4 x curve (corresponds to T 119 BO)

**Ident. No. 510:** 1 pack of 20 in practical plastic box:  $8 \times 6$  fine (corresponds to T 118 A)  $8 \times 6$  medium (corresponds to T 118 B)  $4 \times 6$  coarse (corresponds to T 127 D)





Ident. No. 410

Ident. No. 510

Suitable for		Wood	Metal
Saw blade design		Ground (HCS)   Restricted	Straight-set (HSS)   Milled
Number of pieces in assortment/set (PCS		20	20
71130	Ident. No.	410	510
71130	Price/pack, €	0. R.	O. R.

Prod. group 793

## **BOSCH**

#### Jigsaw blades - HSS

for the following makes BOSCH, Makita, Metabo, AEG, DeWALT, FESTOOL, FLEX, HOLZ-HER, Milwaukee

#### Advantage:

- Ident. No. 205: Bimetal, made from HSS and HCS, unbreakable, for extreme stresses, highly flexible, long service life
- Ident. No. 215–295: High heat and wear resistance

#### scope of supply and services:

1 pack of 5

#### **Technical Data:**

Cutting material: HSS



Ident. No. 255 Ident. No. 265 Ident. No. 275 Ident. No. 295

							-	
Model	BOSCH no.	Saw blade design	Length (mm)	Teeth spacing (mm)	Min./max teeth spacing	Applications	<b>7113</b> ID no	
T 118 G	2 608 631 012	Corrugated   Milled	92	0.7	-	Sheet metals (0.5-1.5 mm)	205	O. R.
T 118 A	2 608 631 013	Corrugated   Milled	92	-	1.1-1.5 mm	Sheet metals (1-3 mm)	215	O. R.
T 218 A	2 608 631 032	Corrugated   Milled	92	-	1.1-1.5 mm	Sheet metals (1-3 mm)   Specially for curved cuts	225	O. R.
T 318 A	2 608 631 319	Corrugated   Milled	132	1.2	-	Sheet metals (1-3 mm)   Pipes incl. aluminium (Ø < 65 mm)   Profiles incl. aluminium (Ø < 65 mm)	235	O. R.
T 118 B	2 608 631 014	Corrugated   Milled	92	-	1.9-2.3 mm	Sheet metals (2.5-6 mm)	247	O. R.
T 318 B	2 608 631 404	Corrugated   Milled	132	2.0	-	Sheet metals (2.5-6 mm)   Pipes incl. aluminium (Ø < 65 mm)   Profiles incl. aluminium (Ø < 65 mm)   Precise angle cutting	255	O. R.
T 123 X	2 608 638 473	Restricted   Milled	74	-	1.2-2.6 mm	Sheet metals (1.5-10 mm)   Pipes incl. aluminium (Ø < 30 mm)   Profiles incl. aluminium (Ø < 30 mm)	265	O. R.

Model	BOSCH no.	Saw blade design	Length (mm)	Teeth spacing (mm)	Min./max teeth spacing	Applications	<b>7113</b> ID no	
T 127 D	2 608 631 017	Restricted   Milled	100	3.0	-	Sheet metals (3-15 mm)   Pipes (Ø < 30 mm)   Pro- files (Ø < 30 mm)	275	O. R.
T 101 A	2 608 631 010	Ground	100	2.0	-	Plexiglas (2-20 mm)   Polycarbonate (2-20 mm)	295	O. R.
							Price,	/pack, €

## metabo

#### Mitre and chop saws

voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For all blank cutting work, ideal for interior work, for sawing wood, coated panels and plastic materials.

- Wear-free cast aluminium gear case
- Laser for exact display of the cutting line
- Pulling function for broad workpieces
- Bright LED light
- With depth stop for easily producing grooves
- Ident. No. 211:
- Fast and precise setting of common angles using snap-in points
- with spindle lock
- Ident. No. 225:
  - fast and precise setting of common angles using snap-in points
  - With spindle lock

Length x width x height

Max. cutting depth at 90 degrees (mm) Max. cutting depth at 45 degrees (mm) Max. idle speed (U/min(rpm)) Rotation speed (U/min(rpm)) Power input (kW) Power output (kW) Saw blade Ø (mm) Weight (kg)

#### Advantage:

- Also suitable for single-hand carrying
- Ident. No. 225: Saw head tiltable to the left, with extra angle range for undercuts

#### scope of supply and services:

Ident. No. 211: Cemented carbide saw blade (40 teeth), 2 integrated table width extensions, cut-off stop, material clamp, tool for changing blades, cable wind-up, chip collection bag

Ident. No. 225: Cemented carbide saw blade (48 teeth), 2 integrated table width extensions, cut-off stop, material clamp, tool for changing blades, cable wind-up, chip collection bag

#### **Technical Data:**

- Max. cutting width at 90 degrees: 305 mm
- Max. cutting width at 45 degrees: 205 mm

	<ul><li>Cutting speed: 42 m/s</li><li>Saw blade hole: 30 mm</li></ul>		
	KGS 216 M	KGS 254 M	
	760 x 475 x 340 mm	790 x 515 x 515 mm	
	65	90	
	36	47	
	5000	4500	
	3750	3150	
	1500	1800	
	900	979	
	216	254	
	13.5	16.3	
Ident. No.	211	225	





Ident. No. 211



Ident. No. 225

#### Tnakita

## Plunge-cut saw SP6000J1

Unit price, €

1300 watt

#### Application:

For sawing deep and precise cuts.

#### **Execution:**

- with constant electronics, soft start-up and overload protection
- Continuous electronic speed control
- Angle adjustment from -1° to +48° (undercut
- Angle quick adjustment for -1°; 22.5° and quick pre-selection of 45° or 48° as max. tilting angle
- With marking mode for splinter-free cutting

with saw blade lock

#### Advantage:

- Does not tip off the guide rail even at greatest angles of inclination
- Cutting point stays at exactly the same position with all angle settings

#### scope of supply and services:

Carbide saw blade, assembly tool, MAKPAC size 4, guide rail

	•	
Model		SP6000J1
Power input (W)	1300	
Min./max. idle speed	2000-5800 U/min(rpm)	
Max. cutting depth at 0 degrees (mm	56	
Max. cutting depth at 45 degrees (mi	40	
Saw blade Ø (mm)	165	
Saw blade hole (mm)	20	
Weight (kg)		4.4
With soft start		Yes
With overload protection		Yes
With electronic feedback	Yes	
71182	ldent. No.	110
71102	Unit price, €	O. R.





#### **Bandsaws**

#### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For cutting metals.

#### **Execution:**

- Small band saw for professional use
- Gear drive with long-life lubricants and automatic belt tensioning

Ident. No. 010



- Ident. No. 010: Electronic speed regulator 20÷100 m/min. with torque control
- Ident. No. 020: Electronic speed regulator 25÷138 m/min. with torque control

#### scope of supply and services:

**Ident. No. 010:** 1 saw band (1138 x 13 x 0.65 mm)



**Ident. No. 020:** 1 saw band (1440 x 13 x 0.65 mm)

#### **Technical Data:**

- Power input: 1800 WSaw band width: 13 mm
- Saw band thickness: 0.65 mm



Ident. No. 020 Practical transportation

Model		W. Z. 100/R	W. Z. 150/R			
Min./max. belt speed		20-100 m/min	25-138 m/min			
Cutting capacity of round materials at 0 de	egrees (mm)	100	150			
Cutting capacity of round materials at 45	degrees (mm)	55	75			
Cutting capacity of square materials at 0 c	degrees (mm)	-	125			
Cutting capacity of square materials at 45		-	50			
Cutting capacity of flat materials at 0 degr	rees	100 x 105 mm	150 x 125 mm			
Cutting capacity of flat materials at 45 deg	grees	55 x 60 mm	70 x 50 mm			
Saw band length (mm)		1138	1440			
Weight (kg)		20.0	35.0			
71200	Ident. No.	010	020			
/ 1200	Unit price, €	O. R.	O. R. <sup>+</sup>			

Prod. group 703

	Accessories for			71200 010	71200 020
	Number of teeth per inch 6/10	Ident. No. Unit price, €	006 O. R.	026 O. R.	
<b>51725</b> blade	Bimetal band saw	Number of teeth per inch 8/12	Ident. No. Unit price, €	008 O. R.	028 O. R.
	Number of teeth per inch 10/14	Ident. No. Unit price, €	010 O. R.	030 O. R.	

# metabo Hot air guns

#### voltage 230 V, 50 Hz, shockproof, suppressed

#### Application:

For removing paint, shaping, shrink-fitting and welding.

#### Execution:

- High-quality ceramic heater, powerful motor and optimal device cooling
- Ident. No. 011: Temperature adjusted with adjusting wheel
- Ident. No. 013:

- Efficient work owing to four pre-set, adaptable programs
- Suitable for temperature-sensitive materials due to precise control of air quantity and

scope of supply and services: Ident. No. 006-011: Broad jet nozzle (50 mm), reducing nozzle (20 mm), in plastic case

Ident. No. 013: Broad jet nozzle (50 mm), reflector nozzle, reducing nozzle (9 mm), in plastic case

Model		H 16-500	HE 20-600	HE 23-650 Control
Min./max. air current		240-450 I/min	150-500 I/min	150-500 I/min
Min./max. blower temperature		300 bis 500 °C	50 bis 600 °C	50 bis 650 °C
Power input (W)		1600	2000	2300
Weight (kg)		0.6	0.7	0.9
71172	Ident. No.	006	011	013
/11/2	Unit price, €	O. R.	O. R.	O. R.



Ident. No. 006



Ident. No. 013

## HAHN+KOLB

#### **Pneumatic drills**

#### Application:

Ident. No. 010-015: For drilling bore holes.

Ident. No. 110, 220: For drilling boreholes in poorly accessible places.
Ident. No. 210: For drilling boreholes, particularly for bodywork and industry.

#### Execution:

- Ident. No. 010-015:
- With toothed ring drill chuck
- With clockwise rotation
- Ident. No. 010-015, 210: Handle insulated against cold



- Ident. No. 110: With sensitive valve control
- Ident. No. 110-220: With clockwise and anti-clockwise rotation

#### Advantage:

■ Ident. No. 210–220: Suitable for continuous operation

scope of supply and services: Ident. No. 010-110, 220: In box







Ident. No. 010 Ref. no. 012 and ref. no. 015 similar

Ident. No. 110

ldent. No. 210 Ideal for bodywork and industry

Ident. No. 220

Model			9030-1	9030-5	CP-879	-	-
BOSCH r	10.		-	-	-	0 607 160 501	0 607 160 504
Max. idle	speed (U/min(rpm))		2600	1200	1800	2800	850
Power in	put (W)		375	373	370	320	320
Air consu	umption (I/min)		113	113	480	510	510
Min./ma	x. drill chuck span widt	th	1-10 mm				
Connecti	ion thread		G 1/4 inch	G 1/4 inch	G 1/4 inch	NPT 1/4 inch	NPT 1/4 inch
Max. dril	ling Ø in steel (mm)		10	10	10	6	10
Inner hos	se Ø (mm)		10	10	10	10	10
Weight (I	(g)		1.25	1.36	1.00	0.62	0.70
HAZET	75032	Ident. No. Unit price, €	<b>210</b> O. R.	<b>220</b> O. R.	-	-	-
<b>(</b>	75032	Ident. No. Unit price, €	-	-	<b>110</b> O. R.	-	-
	75032	Ident. No. Unit price, €	-	-	-	<b>010</b> O. R.	<b>015</b> O. R.

BOSCH = Prod. group 728 HAZET = Prod. group 738 CP = Prod. group 752



#### Pneumatic ratcheting screwdriver 0 607 460 401

Tightening torque 1.5-10 Nm

#### Application:

For light screw-driving work.

#### **Execution:**

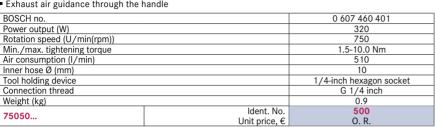
- With ratchet coupling
- With external torque adjustment
- Handle insulated against cold
- Exhaust air guidance through the handle

#### Advantage:

- Highly comfortable grip thanks to slender handle
- Adjustable without using tools

#### scope of supply and services:

In box





Pistol design

Prod. group 728

#### Pneumatic straight screwdrivers

All screwdrivers with clockwise and anti-clockwise rotation, tool holder: 1/4-inch hexagon socket

#### Application:

For light screw-driving work.

#### Execution:

- Air discharge to the rear
- Ident. No. 020, 820:
- With shut-off clutch
- With push start
- With quick-change chuck
- Ident. No. 600:
- With ratchet coupling With external torque adjustment
- Ident. No. 600-820:
  - Handle insulated against cold

• With clockwise and anti-clockwise rotation

#### Advantage:

■ Ident. No. 020: Low noise

#### scope of supply and services:

Ident. No. 020: With coupling spring 1x each green + black, key for setting torque, 1.5-m DL hose, 0.5-m exhaust air hose, in box

Ident. No. 600: With extra handle, G 1/4 hose nipple, in box

Ident. No. 820: With arresting hook, hanging bracket, G 1/4 hose nipple, additional handle, in box



Ident. No. 600

Туре	Туре		Straight screwdriver	Straight ratcheting screwdriver	
Model	Model		-	-	
BOSCH no.		-	0 607 461 206	0 607 460 001	
Power output (W)		=	400	380	
Max. idle speed (U/min(rpm))		500	700	900	
Min./max. tightening torque		0.3-4.0 Nm	5.5-15.0 Nm	1.5-10.0 Nm	
Air consumption (I/min)	Air consumption (I/min)		660	720	
Tool holding device		1/4-inch hexagon socket	1/4-inch quick-action chuck	1/4-inch hexagon socket	
Inner hose Ø (mm)		7	10	10	
Connection thread		G 1/8 inch	G 1/4 inch	NPT 1/4 inch	
Weight (kg)	Weight (kg)		1.30	1.00	
<b>⊘BIAX</b> 75050	Ident. No.	020	_		
Professional Power 7 90 90	Unit price, €	O. R.	-	i	
BOSCH 75050	Ident. No.	_	820	600	
75050	Unit price, €	=	O. R.	O. R.	

BOSCH = Prod. group 728 BIAX DRUCKLUFT = Prod. group 748

#### Pneumatic ratchet screwdrivers

with clockwise and anti-clockwise rotation

#### Application:

For heavy screw-driving work in poorly accessible places.

■ With ratchet coupling



- No. 75050 200-75053 420: With clockwise and anti-clockwise rotation
- No. 75050 980-75053 420: Continuously variable torque adjustment
- No. 75053: Handle insulated against cold



No. 75050 200 No. 75053 420

#### Advantage:

■ No. 75053: Reduced vibration for effortless work

scope of supply and services:

In box



No. 75050 980



# HAHN+KOLB

Model			CP 7830 HQ	MR-2410 B	-	9020-2	9022-2
BOSCH r	10.		-	-	0 607 450 795	-	-
Max. idle	speed (U/min(rpm))		190	135	160	170	160
Tool hold	ling device		1/2-inch external	1/2-inch external	1/4-inch external	1/4-inch external	1/2-inch external
			square	square	square	square	square
Max. tigh	ntening torque (Nm)		122	78	70	35	70
Air consu	umption (I/min)		524	480	480	180	180
Connecti	ion thread		G 1/4 inch	G 1/4 inch	NPT 1/4 inch	G 1/4 inch	G 1/4 inch
Inner hos	se Ø (mm)		10	10	10	10	10
Screw-he	ead height (mm)		45.0	50.0	42.5	30.0	45.0
Length (r	nm)		300	255	300	165	230
Weight (k	(g)		1.20	1.90	1.30	0.5	1.2
9	75050	ldent. No. Unit price, €	<b>196</b> O. R.	-	-	-	-
<b>⇔</b> Yokota	75050	Ident. No. Unit price, €	-	<b>200</b> O. R.	-	-	-
BOSCH	75050	Ident. No. Unit price, €	-	-	<b>980</b> O. R.	-	-
HAZET	75053	Ident. No. Unit price, €	-	-	-	<b>410</b> O. R.	<b>420</b> O. R.

75050 980 = Prod. group 728, 75053 410 = Prod. group 738, 75053 420 = Prod. group 738, 75050 196 = Prod. group 752, 75050 200 = Prod. group 752



#### Pneumatic impact screwdriver CP 721

Tightening torque 68 Nm

#### Application:

For heavy screw-driving work with soft screwing applications.

#### Execution:

- With built-in power regulator
- 4 power stages in clockwise rotation
- Impact mechanism engages gently and has very good durability
- With clockwise and anti-clockwise rotation
- Square drive 3/8 inch

#### scope of supply and services:

In bo

Model	CP 721	
Max. idle speed (U/min(rpm))		11000
Max. tightening torque (Nm)		650
Air consumption (I/min)		300
Length (mm)	71	
Inner hose Ø (mm)	8.0	
Connection thread	G 1/4 inch	
Drive	3/8 inch	
Hammer mechanism system	Rocking-Dog striking mechanism	
Weight (kg)		1.20
75066	ldent. No. Unit price, €	<b>007</b> O. R.

Prod. group 752

#### Pneumatic impact screwdriver, 1/2" drive square

#### for heavy-duty screwdriving tasks

#### Application:

For heavy screw-driving work.

#### Execution:

- With clockwise and anti-clockwise rotation
- Square drive 1/2 inch
- No. 75065:
- 1 power stage in anti-clockwise rotation
- Handle insulated against cold
- Exhaust air guidance through the handle



No. 75066 004 RR-160 H

- No. 75065 010–75065 020, 75066 110–75066
   310: 3 power stages in clockwise rotation
- No. 75066 004: Automatic full unscrewing torque in anticlockwise rotation
- No. 75066 110-75066 310:
- Rubberised handle insulated against cold
- High rotation speeds for quick and economical working
- Automatic full unscrewing torque can be achieved in anticlockwise rotation



No. 75066 110

#### Advantage:

 No. 75066 110-75066 310: Reduced vibration thanks to finely balanced impact mechanism for effortless work

#### scope of supply and services:

In box

#### Technical Data:

■ Drive: 1/2 inch



No. 75066 310

Model		9012 SPC	9012 MG	-	-	RR-160 H
BOSCH no.		-	-	0 607 450 628	0 607 450 615	-
Max. idle speed (U/min(rpm))		7000	7500	7000	7000	8000
Max. tightening torque (Nm)		750	1590	310	350	580
Air consumption (I/min)		127	133	510	540	252
Length (mm)		200	208	190	200	195
Inner hose Ø (mm)		10.0	10.0	10.0	10.0	9.5
Connection thread		G 1/4 inch	G 1/4 inch	NPT 1/4 inch	NPT 1/4 inch	3/8 inch
Hammer mechanism system		Pin impact mechanism	High-performance twin hammer mechanism	Pin impact mechanism	Twin hammer mechanism	Dynapact hammer mechanism
Weight (kg)		2.6	2.5	2.30	2.40	2.30
<b>75065</b>	Ident. No. Unit price, €	<b>020</b> O. R.	<b>010</b> O. R.	-	-	-
<b>BOSCH</b> 75066	Ident. No. Unit price, €	-	-	110 O. R.	<b>310</b> O. R.	-
	Ident. No. Unit price, €	-	-	-	-	<b>004</b> O. R.

BOSCH = Prod. group 728 HAZET = Prod. group 738 YOKOTA = Prod. group 752



### Pneumatic impact screwdriver 9013 SPC

Tightening torque 1400 Nm

#### Application:

For heavy screw-driving work.

#### Execution:

Prod. group 738

- High-performance pin impact mechanism
- 3 power stages in clockwise rotation
- 1 power stage in anti-clockwise rotation
- Handle insulated against cold
- Exhaust air guidance through the handle
- With clockwise and anti-clockwise rotation
- Square drive 3/4 inch

#### Advantage:

■ Reduced vibration for effortless work

#### scope of supply and services:

In bo

Madal		0010 000
Model	9013 SPC	
Max. idle speed (U/min(rpm))	3800	
Max. tightening torque (Nm)		1800
Air consumption (I/min)		176
Length (mm)		200
Inner hose Ø (mm)	10.0	
Connection thread		G 3/8 inch
Drive		3/4 inch
Hammer mechanism system		High-performance pin impact
•		mechanism
Weight (kg)		5.4
75065	Ident. No.	040
/5005	Unit price €	O R



9013 SPC



For a complete range of products that meet the toughest demands, visit www.hahn-kolb.com

#### Pneumatic impact screwdriver

#### Application:

Ident. No. 031: For heavy screw-driving work, particularly for suspension, automotive and bus maintenance, agricultural implements and construction implements.

Ident. No. 410: For heavy screw-driving work.

#### Execution:

- With clockwise and anti-clockwise rotation
- Square drive 3/4 inch
- Ident. No. 031: Automatic full unscrewing torque in anticlockwise rotation

#### ■ Ident. No. 410:

- Rubberised handle insulated against cold
- High rotation speeds for quick and economical working
- 3 power stages in clockwise rotation
- Automatic full unscrewing torque can be achieved in anticlockwise rotation

#### scope of supply and services:

In box



Ident. No. 031 CP 772 H



Ident. No. 410

Model			CP 772 H	-
BOSCH r	10.		-	0 607 450 616
Max. idle	speed (U/min(rpm))		4200	4500
Max. tigh	tening torque (Nm)		950	950
Air consu	umption (I/min)		678	720
Length (r	nm)		244	220
Inner hos	se Ø (mm)		10.0	13.0
Connecti	Connection thread		3/8 inch	NPT 3/8 inch
Drive	Drive		3/4 inch	3/4 inch
Hammer	Hammer mechanism system		Pin impact mechanism	Twin hammer mechanism
Weight (kg)		4.70	5.00	
<b>(P)</b>	75066	ldent. No. Unit price, €	<b>031</b> O. R.	-
BOSCH	75066	ldent. No. Unit price. €.	-	<b>410</b> O R

BOSCH = Prod. group 728 CP = Prod. group 752

## **BOSCH**

#### Pneumatic chisel hammer set 0 607 560 501

#### Application:

Set for cutting sheet metal, plastering, separating, striking and chipping, in particular for body work.

#### Execution:

■ Suitable for round-shaft and hexagonal chisels

With adjustable striking force

#### scope of supply and services:

Includes 1 each: pipe cutting chisel, sheet metal cutting chisel and flat chisel (Bosch no. 160 939 098/300 and no. 2 609 390 015), in box

Type	In a set	
BOSCH no.	0 607 560 501	
Max. working range (mm)		67
Max. impact rate (U/min(rpm))	3600	
Air consumption (I/min)	510	
Tool holding device	Hexagon shank   10 mm/round	
	shank   10.2 mm	
Connection thread	NPT 1/4 inch	
Inner hose Ø (mm)	10	
Weight (kg)	0.98	
75084	Ident. No.	030
73004	Unit price, €	O. R.





With hardened steel needles

# Electric tools

## **BOSCH**

#### Pneumatic needle scaler 0 607 560 502

Impact rate 3900/min

#### Application:

Execution:

For cleaning work, particularly for removing rust and paint, and for cleaning concrete formwork and boilers

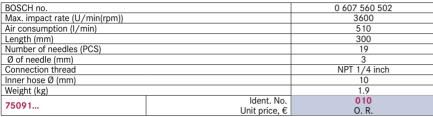
#### Needles adapt to elevations and depressions of the material

■ With pistol grip

the material

#### scope of supply and services:

With 1 set of 19 needles, in box





Prod. group 728

	Accessories for		75091 010
75091	Replacement needle	Ident. No.	210
set	·	Set price, €	O. R.

#### Pneumatic angle grinders and vertical grinders

#### Application:

**Ident. No. 041–056:** For grinding work particularly in bodywork and in mechanics' workshops.

**Ident. No. 116–125:** For grinding work in poorly accessible places.

#### **Execution:**

- Air discharge to the rear
- Ident. No. 041-056:
- Controlled rotational speed for constant speeds
- With dead-man and locking switch
- Handle insulated against cold
- With key for changing tools

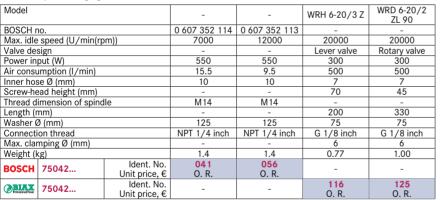
- Ident. No. 116-125: With collet chuck system for holding a wide variety of tools
- Ident. No. 125: With extended neck and small angle head

#### Advantage:

Ident. No. 041–056: Highly comfortable grip thanks to slender handle

#### scope of supply and services:

With key for changing tools, models BIAX WRH/ WRD with collet chuck according to table, in box



BOSCH = Prod. group 728 BIAX DRUCKLUFT = Prod. group 748

	Accessories for		75042 116	75042 125
75036	Spare collet chuck ZG	ldent. No.	600	600
4/3	•	Unit price, €	O. R.	O. R.
75036	Spare collet chuck ZG	Ident. No.	610	610
4/6	•	Unit price, €	O. R.	O. R.
75048	Hose unit 78 N 3665	Ident. No.	780	780
75048	HOSE UIII /8 N 3005	Unit price, €	O. R.	O. R.



Ident. No. 116 Model WRH 6-20/3 Z



Ident. No. 125 Model WRD 6-20/2 ZL 90



#### Pneumatic straight grinders

with turning valve

#### Application:

Ident. No. 015-035, 065: For fine finishing, smoothing and deburring.

**Ident. No. 045:** For fine finishing, smoothing and deburring, for powerful working.

#### Execution:

- Environmentally friendly owing to central air discharge
- Air discharge to the rear
- Ident. No. 015-035: With complete hose unit and silencer
- Ident. No. 045-065: Air connection thread G 1/8 inch

#### Advantage:

 Ident. No. 015-035: Handy ergonomics for effortless grinding

#### scope of supply and services:

With collet chuck according to table, 2 keys for changing tools, straight grinder with complete hose unit and silencer, in box



Ident, No. 015

Model SRD 3-85/2





 Ident. No. 035
 Ident. No. 045-065

 Model SRD 3-55/2
 Model SRD 6-45/2

Model		SRD 3-85/2	SRD 3-55/2	SRD 6-45/2	SRD 8-30/2
Valve design		Rotary valve	Rotary valve	Rotary valve	Rotary valve
Ø of housing (mm)		19	15	32	31
Max. idle speed (U/min(rpn	n))	85000	55000	45000	30000
Power input (W)		80	60	260	240
Air consumption (I/min)		170	170	380	450
Length (mm)		170	150	196	189
Inner hose Ø (mm)		4.5	4.5	7.0	7.0
Max. clamping Ø (mm)		3	3	6	6
Suitable for max. sanding bl	lock Ø (mm)	6	8	10	16
Max. HM rotating milling cu	tter Ø (mm)	4	6	8	10
Weight (kg)		0.13	0.09	0.31	0.37
75036	ldent. No.	015	035	045	065
75036	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 748

	Accessories for		75036 015	75036 035	75036 045	75036 065
<b>75036</b> 5/3	Spare collet chuck ZG	Ident. No. Unit price, €	630 O. R.	630 O. R.	-	-
<b>75036</b> 4/3	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	600 O. R.	-
<b>75036</b> 4/6	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	610 O. R.	-
75048	Hose unit 77 N 3665	Ident. No. Unit price, €	-	-	770 O. R.	770 O. R.
<b>75036</b> 7/3	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	-	640 O. R.
<b>75036</b> 7/6	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	-	660 O. R.
<b>75036</b> 7/8	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	-	<b>680</b> (O. R.)



#### Pneumatic straight grinders

with lever valve

#### Application:

**Ident. No. 025, 075:** For fine finishing, smoothing and deburring.

**Ident. No. 055:** For fine finishing, smoothing and deburring, for powerful working.

**Ident. No. 095:** For fine finishing, smoothing, deburring and polishing.

#### Execution:

- Environmentally friendly owing to central air discharge
- Air discharge to the rear
- Ident. No. 025:
- $\blacksquare$  With high speed for a clean grinding pattern
- With complete hose unit and silencer

■ Ident. No. 055-095: Air connection thread G 1/8 inch

#### Advantage:

 Ident. No. 025: Handy ergonomics for effortless grinding

#### scope of supply and services:

With collet chuck according to table, 2 keys for changing tools, in box



Ident. No. 095 Model SRH 8-20/2



Ident. No. 025 Model SRH 3-85/2



Ident. No. 055-075 Models SRH 6-45/2, SRH 8-30/2

# Electric tools

Model		SRH 3-85/2	SRH 6-45/2	SRH 8-30/2	SRH 8-20/2
Valve design		Lever valve	Lever valve	Lever valve	Lever valve
Ø of housing (mm)		19	32	31	41
Max. idle speed (U/min(rpn	n))	85000	55000	30000	20000
Power input (W)		80	260	240	300
Air consumption (I/min)		170	380	450	500
Length (mm)		170	196	189	191
Inner hose Ø (mm)	Inner hose Ø (mm)		7.0	7.0	7.0
Max. clamping Ø (mm)		3	6	6	6
Suitable for max, sanding bl	lock Ø (mm)	6	10	16	24
Max. HM rotating milling cutter Ø (mm)		4	8	10	12
Weight (kg)		0.17	0.36	0.41	0.62
75036	ldent. No.	025	055	075	095
	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 748

	Accessories for		75036 025	75036 055	75036 075	75036 095
<b>75036</b> 5/3	Spare collet chuck ZG	Ident. No. Unit price, €	630 O. R.	-	-	-
<b>75036</b> 4/3	Spare collet chuck ZG	Ident. No. Unit price, €	-	600 O. R.	-	-
<b>75036</b> 4/6	Spare collet chuck ZG	Ident. No. Unit price, €	-	610 O. R.	-	-
75048	Hose unit 77 N 3665	Ident. No. Unit price, €	-	770 O. R.	770 O. R.	-
<b>75036</b> 7/3	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	640 O. R.	640 O. R.
<b>75036</b> 7/6	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	660 O. R.	660 O. R.
<b>75036</b> 7/8	Spare collet chuck ZG	Ident. No. Unit price, €	-	-	<b>680</b> (O. R.)	<b>680</b> (O. R.)
75048	Hose unit 78 N 3665	Ident. No. Unit price, €	-	-	-	780 O. R.



#### Pneumatic straight grinders

speed regulated, with lever valve

#### Application:

For milling, roughing and rough machining.

#### Execution:

- With double bearing of the drive spindle for particularly quiet running during milling work
- Controlled speed, for constant speeds and low air consumption when idling
- With energy-saving motor technology
- Air connection thread G 1/8 inch

#### scope of supply and services:

With 6-mm collet chuck and key for changing tools, in box



**⊘BIAX** 

Ident. No. 280 Model SARH 820

Model		SARH 830	SARH 820
Valve design		Lever valve	Lever valve
Ø of housing (mm)		32	38
Max. idle speed (U/min(rpr	n))	30000	20000
Power input (W)		260	300
Air consumption (I/min)		400	500
Length (mm)		185	220
Inner hose Ø (mm)		7.0	7.0
Max. clamping Ø (mm)		6	6
Suitable for max, sanding b	lock Ø (mm)	16	24
Max. HM rotating milling cu	Max. HM rotating milling cutter Ø (mm)		12
Weight (kg)		0.52	0.83
	Ident. No.	240	280
75036	Unit price, €	O. R.	O. R.

	Accessories for		75036 240	75036 280
75036	Spare collet chuck ZG	Ident. No.	640	640
7/3		Unit price, €	O. R.	O. R.
75036	Spare collet chuck ZG	ldent. No.	660	660
7/6	•	Unit price, €	O. R.	O. R.
75036	Spare collet chuck ZG	ldent. No.	680	680
7/8	•	Unit price, €	(O. R.)	(O. R.)
75048	Hose unit 5 N 3665	ldent. No.	050	050
75046	Hose unit 5 N 3005	Unit price, €	O. R.	O. R.

# HAHN+KOLB

#### Pneumatic straight grinders

#### Application:

No. 75037 100: For fine grinding work, particularly in metalworking crafts and bodywork construction.

**No. 75037 300:** For precision grinding work, perfectly suitable for roughing and rough machining.

No. 75038: For grinding, buffing, polishing and deburring.

**No. 75039:** For grinding and deburring, particularly in metal work, toolmaking, form construction and bodywork construction.

#### Execution:

- No. 75037:
  - Handle insulated against cold
  - Controlled rotational speed for constant speeds
  - Air discharge to the rear
- With locking switch
- No. 75038:
  - Speed regulation with adjusting wheel
  - Max. operating pressure: 6.3 bar

#### ■ No. 75038 210:

- Straight version
- Sound-pressure level: 91 db(A)

#### ■ No. 75038 220:

- Angled version
- Sound-pressure level: 90 db(A)
- No. 75039: One-hand operation

#### Advantage:

• No. 75037: Slender handle for highly comfortable grip

#### scope of supply and services:

No. 75037-75038: With 6-mm collet chuck and key for changing tools, in box

#### **Technical Data:**

- Max. clamping diameter: 6 mm
- Connection thread: G 1/4 inch









No. 75037 300

No. 75038 210

No. 75038 220

No. 75039

Model			-	-	9032-1	9032-5	MG-7206B
BOSCH no	D.		0 607 260 100	0 607 252 103	-	-	-
Ø of hous	sing (mm)		48	54	39	39	-
Min./max	. idle speed		-	-	2000-25000 U/min	2000-22000 U/min	-
Max. idle s	speed (U/min(rpm))		21000	21000	25000	22000	23000
Power inp	ut (W)		290	550	164	160	380
Air consur	mption (I/min)		510	750	113	113	500
Length (m	ım)		200	320	158	160	-
Inner hose			10.0	10.0	10.0	10.0	6.5
Suitable for	or max. sanding block	Ø (mm)	40	40	6	6	25
Weight (kg	g)		0.58	1.10	0.63	0.77	0.56
воѕсн	75037	Ident. No. Unit price, €	<b>100</b> O. R.	<b>300</b> O. R.	-	-	-
HAZET	75038	Ident. No. Unit price, €	-	-	<b>210</b> O. R.	<b>220</b> O. R.	-
<b>♦</b> Yokota	75039	Ident. No. Unit price, €	-	-	-	-	<b>010</b> O. R.

BOSCH = Prod. group 728 HAZET = Prod. group 738 YOKOTA = Prod. group 752



#### Compressed air turbine grinders

oil free

#### Application:

For grinding work on metallic materials.

#### Execution:

- Can be operated without oil
- Ident. No. 005: Exhaust air discharge to the front
- Ident. No. 405:

- Air discharge to the rear
- Controlled rotational speed for constant speeds
- With run-out brake

#### Advantage:

- With elastic spindle bearing for improved surface quality and lower wear on cutters
- Ident. No. 005:

- Low noise
- Low maintenance as no need to change blades
- Ident. No. 405: Maintenance-free owing to turbine drive

#### scope of supply and services:

With collet chuck 3 mm diameter, and complete hose unit, in box



Example application





Ident. No. 405

# Electric tools

Model	Model		T 365/2
Valve design		Rotary valve	Gate valve
Ø of housing (mm)		32	23/38
Max. idle speed (U/min(rpm))		100000	65000
Air consumption (I/min)		180	180
Length (mm)	Length (mm)		166
Inner hose Ø (mm)	Inner hose Ø (mm)		4.0
Max. clamping Ø (mm)		3	3
Suitable for max. sanding block Ø (mm)		5	8
Max. HM rotating milling cutter Ø (mm)	Max. HM rotating milling cutter Ø (mm)		6
Weight (kg)		0.25	0.22
75036	ldent. No. Unit price, €	<b>005</b> O. R.	<b>405</b> O. R.

Prod. group 748

	Accessories for		75036 005	75036 405
<b>75036</b> 5/3	Spare collet chuck ZG	Ident. No. Unit price, €	630 O. R.	630 O. R.



#### Pneumatic hand belt sander 9033-4

300 watt

#### Application:

For working on narrow surfaces.

#### Execution:

- Head can be adjusted through 360°
- With continuously variable speed regulation
- With automatic belt adjustment

 With practical locking for fast sanding belt replacement

■ Belt speed 1188 m/min.

#### scope of supply and services:

With three sanding belts size 10 x 330 mm (grain size 80, 100, 120), in box

Max. idle speed (U/min(rpm))	18000	
Air consumption (I/min)		240
Ø of housing (mm)		36
Connection thread		G 1/4 inch
Length (mm)	330	
Inner hose Ø (mm)		9.5
Max. sanding belt width (mm)		10
Weight (kg)		1.11
75070 Ident. No.		010
73070	O. R.	
Prod. group 738		



ATODA

#### Pneumatic blow-out gun

Standard nozzle, air jacket nozzle, safety nozzle

#### Application:

For cleaning workpieces, machine parts and the like.

#### Execution

- Airflow can be regulated roughly by actuation lever
- Valve head made of oil-resistant special rubber
- Blast nozzle interchangeable
- Air connection G 1/4 inch
- Air jacket nozzle for eye protection with 8 laterally exiting nozzle bores
- $\blacksquare$  Safety nozzle for noise reduction by approx. 25 dB
- 75175210 straight version

#### Advantage:

■ With additional noise reduction by approx. 25 dB(A) for low-noise working

#### scope of supply and services:

In box



No. 75175 060-75175 200 Image with standard nozzle



No. 75175 210 Image: straight version



Image with air jacket nozzle



Image with safety nozzle

Max. working pres	ssure (bar)			-	-	-	10	8
Connection threa	d			G 1/4 inch				
Inner hose Ø (mm	1)			6	9	13	-	-
Nozzle size (mm)				1.5	1.5	1.5	1.5	2.0
Nozzle connection	n thread			M12 x 1.25				
		Nozzle design						
75175	Hose nozzle	With normal	ldent. No.	060	090	130	_	_
70170	1103C 110ZZIC	nozzle	Unit price, €	O. R.	0. R.	0. R.		
75175	Plug-in nipple	With normal	ldent. No.	_	_	_	200	210
70170	1 lug III llippic	nozzle	Unit price, €				0. R.	O. R.
75 174		With air	Ident. No.	060	090			
<b>75176</b> Hose n	Hose nozzie	Hose nozzle sheathed air nozzle	Unit price, €	O. R.	O. R.	-	-	-
75177	Hose nozzle	With safety	ldent. No.	060	090			
/51//	Hose nozzie	nozzle	Unit price, €	O. R.	O. R.	-	-	-



#### Compressed air safety nozzle

For pneumatic blow-out guns

#### Application:

For noise reduction and for safe handling of compressed air.

#### $\blacksquare$ Conforms to BG regulation B3 for noise control

#### ■ Conforms to EC machine directive

#### Technical Data:

■ Nozzle connection thread: M12 x 1.25



Execution:

Satisfies OSHA requirements

		Type		1
	75177	Safety nozzle	ldent. No.	145
			Unit price, €	O. R.

Prod. group 790



#### Low-noise, energy-saving nozzle

for blow-out gun

#### Application

For regulating the air quantity and reducing the pressure in connection with the blow-out gun.

#### Evacution

75178...

Prod. group 758

- Max. operating pressure: 10 bar
- Basic body made from aluminium, other parts POM
- Volume flow: 10 to 95 I/min at 6 bar

■ Controllable by rotating the operating shell in 7	
click stops	

■ Characterized by a total of +/- 125°

#### Advantage:

Ident. No.

Unit price, €

 Regulating the flow downwards prevents sharp and pointed chips or harmful fluids flying around uncontrollably, for safe working.

M12 x 1.25

**200** O. R.



Nozzle connection thread

## Parking station

#### For blow-out and compressed air guns

#### Application:

For secure holding of blow-out and compressed air guns in standard operation.

#### Execution:

- Installed using included angle bracket
- Can be installed anywhere

75156	Ident. No.	010
/5150	Unit price, €	O. R.

Prod. group 758

#### Advantage:

- Lowers energy costs by minimising leaks in the compressed air network
- Increases operational safety with no hosing left lying around
- Saves working time and costs with quick, direct access to the gun





#### Pneumatic blow-out gun

With hose nozzle or plug-in nipple

#### Application:

For cleaning workpieces, machine parts and the like.

## Execution:

- Ref. nos. 006-013 with hose nozzle
- Ref. no. 050 with plug-in nipple
- Nozzles and extensions from aluminium series (no. 75177-75178) can be used
- With 30° offset extension, rotatable and dismountable

With continuously variable air flow regulation

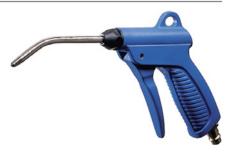
#### scope of supply and services:

In box

#### **Technical Data:**

- Connection thread: G 1/4 inch
- Nozzle size: 2.3 mm
- Nozzle connection thread: M12 x 1.25
- Air consumption: 120 I/min

Inner hose Ø (mm)			6	9	13	-
75174	75474		006	009	013	
/51/4	Hose nozzle	Unit price, €	O. R.	0. R.	O. R.	-
75174	Diug in pipple	Ident. No.	_		-	050
75174	Plug-in nipple	Unit price, €		-		O. R.



#### Pneumatic blow-out gun

#### With hose nozzle, for internal hose diameter 10 mm

#### Application

For targeted and precise blowing out of workpieces and injection moulded parts.

#### Execution:

- With compressed air regulation via counter screw
- With multi-duct nozzle
- Nozzle made from steel, therefore no breakage of nozzle tip
- Noise level at 6 bar = 79 dB(A)

#### Advantage:

Low noise

scope of supply and services: In box

#### **Technical Data:**

- Max. working pressure: 10 bar
- Connection thread: G 1/4 inch
- Inner hose diameter: 6 mm
- Nozzle size: 65.0 mm



75179	Ident. No. Unit price, €	<b>200</b> O. R.	
Prod group 7	753		

Prod. group 753

Accessories for		75179 200
<b>75179</b> Compressed air nozzle	Ident. No. Unit price, €	260 O. R.



#### Compressed air and liquid blast guns (series 208)

for cleaning with compressed air or non-explosive water-based liquids

#### Application:

For cleaning workpieces, machine parts and the like with compressed air or non-explosive water-based liquids.

#### Execution:

■ Ident. No. 003-006:



Ident. No. 005

- Nozzle made of brass
- With flow regulation
- Ident. No. 005-006: Satisfies OSHA and ArbStättV requirements
- Ident. No. 105: Consisting of blow gun, silencer, rubber nozzle (diameter 14 mm), protective shield

#### Advantage:

- Ergonomic handle piece for working comfortably
- Ident. No. 005-006: Noise-reduced

scope of supply and services: Ident. No. 105: In box



Magnetic holder

Model		With 90 mm   permanently attached pipe	Removable 90 mm pipe	Star-Tip   low-noise   permanently attached pipe	Star-Tip   low-noise   removable pipe	Blow gun blister pack
Max. working pressure	(bar)	16	16	16	16	16
Burst pressure (bar)		64	64	64	64	64
Connection thread	Connection thread		R 1/4 inch	R 1/4 inch	R 1/4 inch	G 1/4 inch
Sound-pressure level (d	Sound-pressure level (dB)		94	79	79	96
Min./max. temperature con	conditions	-20 bis +60 °C	-20 bis +60 °C	-20 bis +60 °C	-20 bis +60 °C	-20 bis +60 °C
75179	Ident. No. Unit price, €	<b>003</b> O. R.	<b>004</b> O. R.	<b>005</b> O. R.	<b>006</b> O. R.	105 O. R.
Prod. group 753						

•	110d. group 700								
		Accessories for		75179 003	75179 004	75179 005	75179 006	75179 105	
	75103	Magnetic holder	Ident. No.	190	190	190	190	190	
			Unit price, €	O. R.					



#### Compressed air and liquid blast guns MultiFLOW

for cleaning jobs using water, coolant or compressed air

#### Application:

For cleaning work with compressed air, coolant or non-explosive water-based liquid.

#### Execution:

- Precisely adjustable flow rate regulation
- Satisfies OSHA requirements



- Planar or pointed jet with adjustable jet nozzle
- Ident. No. 010:
  - Nickel-plated steel nipple
  - Conforms to European standard 7.6 (nominal diameter 7.6 mm, Euro profile)
  - Compatible with all standard pneumatic systems
  - Matching coupling, e.g. no. 75135 010-113
- Ident. No. 020:

- Nickel-plated steel nipple (Gardena nipple)
- Especially suitable for liquids
- Ident. No. 030:
- Nickel-plated steel universal nipple
- Female thread 1/4 inch

#### Advantage:

With recoil dampening for comfortable working



Removes swarf reliably, even in places difficult to access

Efficient cleaning of machines using coolant

Туре	Min./max. flow capacity	Min./max. air consumption	Max. working pressure (bar)	Burst pressure (bar)	Connection thread	Min./max. sound-pressure-	Min./max. temperature	<b>7510</b> ID no	
320 nipple	5-25 I/min	200-1200 I/min	16	64	R 1/4 inch	level 79-101 dB	conditions -20 bis +60 °C	010	O. R.
Liquid nipple	5-25 I/min	200-1200 I/min	16	64	R 1/4 inch	79-101 dB	-20 bis +60 °C	020	O. R.
Steel nipple   1/4 inch female thread	5-25 I/min	200-1200 I/min	16	64	R 1/4 inch	79-101 dB	-20 bis +60 °C	030	0. R.
								Unit	price, €

Prod. group 753

Acc	essories for	75103 010	75103 020	75103 030
<b>75103</b> Magnetic		nt. No. 190 rice, € <b>0. R.</b>	190 O. R.	190 O. R.



#### Compressed air safety washing gun Multiclean

With hose nozzle, for internal hose diameter 12.5 mm

#### Application:

For cleaning or washing machines and parts in machining areas, for higher pressures up to 40 bar with water or drilling fluid.

#### Execution:

- With lever and regulating wheel
- With nozzle
- With rubber handle
- Nickel-plated aluminium housing

Model	Multiclean	
Min./max. flow capacity	4-13 l/min	
Max. working pressure (bar)	40	
Connection thread	G 1/2 inch	
Nozzle size (mm)	2	
Min./max. temperature conditions	+5 bis +90 °C	
75202	Ident. No.	010
/5202	Unit price, €	O. R.

Prod. group 753

Accessories for			75202 010
	Multiclean 2	Ident. No.	100
75202 Replacement nozzle	mm	Unit price, €	O. R.
for washing gun	Multiclean 4	Ident. No.	110
	mm	Unit price, €	O. R.



#### Compressed air spray gun

Nozzle diameter 3 mm

#### Application:

For spraying low-viscosity media such as oils.

- Matt transparent
- Jet adjustable with nozzle
- With pivoting nozzle

#### **Execution:**

■ With plastic cup

Max. working pressure (bar)	6	
Nozzle size (mm)	3	
75201	Ident. No.	010
75201	Unit price, €	O. R.

	Accessories for		75201 010
75201	Spare cup with lid	Ident. No. Unit price, €	100 O. R.







#### Cleaning nozzles for compressed air

suitable for suction and blowing operations

#### Application:

For cleaning workpieces, machine parts incl. by blowing away or suctioning chips or slurry, and for drying and cooling machines and tools.



#### **Execution:**

■ Ident. No. 210-220: With easy changing of functions from suction to blowing work by reversing the internal nozzle



■ Ident. No. 230: With special version for cleaning blind holes by simultaneously blowing and suctioning



Ident. No. 210

Ident. No. 220

Ident. No. 230

Model		1	2	3
Type		With female thread	With female thread	With female thread
Connection thread		G 1/4 inch	G 1/4 inch	G 1/4 inch
75154	Ident. No.	210	220	230
75154	Unit price, €	O. R.	O. R.	O. R.

Prod. group 753



#### Compressed air tyre inflation gauge

0-10 bar, can be calibrated; EU type approval

#### Application:

For filling, bleeding and testing tyre pressure in workshops and filling stations.

- Manometer with plastic protective cap for protection against shock and impacts
- Manometer diameter: 80 mm
- With safety against overpressure
- Can be loaded up to final display value ■ With plug-in nipple ■ Scale interval in bar and psi
- With EU type test approval
- Can be calibrated



Ident. No. 050



Ident. No. 030



Ident. No. 040

Туре		With automotive valve lever connector	With double-sided filling station connector	With clip connector
Min./max. pressure measuring ra	nge	0-12 bar	0-12 bar	0-12 bar
75180	ldent. No. Unit price, €	<b>030</b> O. R.	<b>040</b> O. R.	<b>050</b> O. R.

Prod. group 753



#### Couplings

#### automatic shut-off, made of brass, e.g. for handheld pneumatic machines, DN 7.2

For connecting hoses to compressed air tools and compressed air machines.

- DN 7 2
- Automatic shut off
- Immediate seal, therefore no loss of pressure
- Not necessary to push back sleeve when coupling
- Seal oil-, gasoline- and heat-resistant Rollers made from stainless steel
- Perbunan (NBR) seal
- Ident. No. 010-030, 110-125: Spring made of V2A steel



Ident. No. 010-030 Couplings with male thread



Ident. No. 060-100 Couplings with hose connection



Ident. No. 110-125 Couplings with female thread

Version		With male	With male	With male	With female	With female	With female	With hose	With hose
		thread	thread	thread	thread	thread	thread	connection	connection
Connection	thread	G 1/4 inch	G 3/8 inch	G 1/2 inch	G 1/4 inch	G 3/8 inch	G 1/2 inch	-	-
Width acros	ss flats	21 mm	21 mm	21 mm	21 mm	21 mm	24 mm	21 mm	21 mm
Suitable for Ø (mm)	hose internal	-	-	-	-	-	-	6	8
75141	Ident. No.	<b>010</b> O R	<b>020</b> O. R	030 O. R	110 O R	120 O. R	<b>125</b> O R	060 O. R	080 O. R



Version		With hose connection	With hose connection	With hose connection
Connection	n thread	-	-	-
Width acro	ss flats	21 mm	21 mm	21 mm
Suitable fo Ø (mm)	r hose internal	9	10	13
75141	ldent. No. Unit price, €	<b>090</b> O. R.	<b>095</b> O. R.	<b>100</b> O. R.



#### Compressed air plug-in nipple

With G 1/4 inch male thread

#### Application:

For connecting the hose, the tool or the machine to the compressed air coupling.

#### Execution:

■ Fits pneumatic couplings no. 75141

■ Made of brass









#### Compressed air plug-in nipple

With G 1/2 inch female thread

#### Application:

For connecting the hose, the tool or the machine to the compressed air coupling.

#### Execution

- Fits pneumatic couplings no. 75141
- Made of brass

Туре		With female thread	With female thread	With female thread
Length (mm)		33	33	33
Connection thread		G 1/4 inch	G 3/8 inch	G 1/2 inch
Thread length (mm)		10	10	10
Width across flats		17 mm	19 mm	24 mm
75149	ldent. No.	170	180	190
/5149	Unit price, €	O. R.	O. R.	O. R.







#### Pneumatic plug-in connector

For hose internal diameter 9 mm

#### Application:

For connecting the hose, the tool or the machine to the compressed air coupling.

#### Execution:

- Fits pneumatic couplings no. 75141
- Made of brass



Suitable for hose internal Ø (mm)		6.0	8.0	9.0	10.0	13.0
Length (mm)		45	45	45	45	45
75145	Ident. No.	060	080	090	100	130
	Unit price, €	O. R.				

Prod. group 790



#### Compressed air plug-in nipple

With R 1/2 inch male thread

#### Application

For connecting the hose, the tool or the machine to the compressed air coupling.

- Fits pneumatic safety coupling no. 75135
- Made of steel, galvanised

Type		With male thread	With male thread	With male thread
Connection thread		R 1/4 inch	R 3/8 inch	R 1/2 inch
Thread length (mm)		11	11	15
Width across flats		14 mm	17 mm	22 mm
75136	ldent. No.	010	020	030
	Unit price, €	O. R.	O. R.	O. R.







#### Air diffusers

with 2 or 3 exits

#### Application:

For distributing compressed air and connecting multiple hoses to one point.

#### Execution:

Connections can be cut off individually

Number of connections (PCS)		Number of connections (PCS)		2	2	3	3
Connection thread	d	G 3/8 inch	G 1/2 inch	G 3/8 inch	G 1/2 inch		
75150	Ident. No. Unit price, €	<b>010</b> O. R.	<b>015</b> O. R.	<b>020</b> O. R.	<b>025</b> O. R.		

Prod. group 758



Ident. No. 010-015



Ident. No. 020-025

#### PTFE thread tape

#### from 100 % PTFE, for sealing of threads (DVGW and BMA approved)

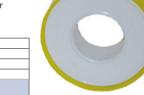
#### Application:

For sealing metal and plastic threads for gas and water lines.

#### Execution:

■ Made from 100% PTFE

- Complies with DIN EN 751-3 (domestic construction)
- Does not contain any oil or grease
- Suitable for gas lines up to 5 bar
- Suitable for drinking water lines up to 16 bar
- Suitable for hot water lines up to 7 bar



Length of tape (m)		12
Thickness of tape (mm)	0.1	
Width of band (mm)	12	
Min./max. temperature conditions		-20 bis +125 °C
75100	Ident. No.	010
75100	Unit price, €	O. R.

Prod. group 752



#### Compressed air safety coupling HSK 2

#### Compatible with BILZ HERMETIKUS compressed air system

#### Application:

For connecting hoses to compressed air tools and compressed air machines.

#### Execution:

- Fits pneumatic hose nozzles no. 75115 -75121
- Suitable for permanently installed compressed air lines
- The cut-off valve is automatically opened when coupling, and when uncoupling, the flow is automatically cut off

#### Advantage:

- Prevention of whiplash effect when uncoupling, for increased safety at the workplace
- Low pressure losses due to favourably shaped valve in terms of airflow



Model		HSK 0	HSK 0	HSK 1	HSK 1	HSK 2
Connection thread		G 1/4 inch	G 3/8 inch	G 3/8 inch	G 1/2 inch	G 1/2 inch
Opening (mm)		4.0	4.0	7.5	7.5	10.0
Outer Ø (mm)		28	28	36	36	44
Width across flats		24 mm	24 mm	30 mm	30 mm	36 mm
Thread length (mm)		8	10	10	12	12
Length (mm)		61	63	72	74	82
75105	Ident. No.	010	020	110	120	210
1	I Init price €	∩ D	∩ P	D	∩ D	∩ D

Prod. group 754



#### Pneumatic hose nozzle

made of steel, hardened, gunmetal finish

#### Application:

For connecting the hose, the tool or the machine to the compressed air coupling.

- Fits BILZ HERMETIKUS couplings no. 75105
- Hardened
- Burnished



Model		K-T 0	K-T 0	K-T 1	K-T 1	K-T 1	K-T 2	K-T 2
Suitable for hose i	internal Ø (mm)	6	10	6	10	13	13	16
Clearance hole (m	im)	4.0	6.0	7.5	7.5	7.5	10.0	10.0
Length (mm)		60.0	60.0	70.0	70.0	70.0	81.0	81.0
75115	Ident. No.	010	020	110	120	130	210	220
75115	Unit price, €	O. R.						

## metabo

#### Compressed air hose reels

in rotating, manual and automatic design

#### Application:

For space-saving storage of pneumatic hoses and rolling up correctly.

#### Execution:

- Ident. No. 210:
  - With rotary joint
  - Can be rotated 360°
- Ident. No. 210, 231–240: Highly flexible PU hose
- Ident. No. 220:
- With 20-m pressure hose with fabric inlay









■ With quick-release coupling

■ With ergonomic handle for carrying comfort

Ident. No. 220, 240: With plug-in nipple ■ Ident. No. 231: Plastic housing

With wall and ceiling mounting bracket

Locking and rolling up simply by pulling

■ Ident. No. 231-240:

■ Ident. No. 240:

■ Metal housing



Ident. No. 210

Ident. No. 220

Ident. No. 231

Ident. No. 240

Model		ST 200 pivot-mounted	SA 100 manual	SA 250 automatic	SA 300 automatic
Hose length (m)		30	20	8	15
Inner hose Ø (mm)		9	9	8	8
Outer Ø of hose (mm)		12.5	15.0	12.0	12.0
Max. working pressure (bar)		12	15	15	12
75014	ldent. No. Unit price, €	<b>210</b> O. R.	<b>220</b> O. R.	<b>231</b> O. R.	<b>240</b> O. R.

Prod. group 745

#### Compressed air hose winder

automatic version; closed or open hose winder

Application: For space-saving storage of pneumatic hoses and rolling up correctly.

- With possibility of locking on each revolution to release tension
- Release of lock by briefly pulling on the hose
- Complete roll-up of the hose by spring tension
- With nylon-reinforced PVC hose for operating pressure up to 20 bar
- Automatic version

- Ident. No. 045: Stand made from galvanised sheet steel
- Ident. No. 100-115:
  - For wall, floor and ceiling mounting
  - Drum diameter 300 mm



Ident. No. 020-040, 070 Model 4 closed version (G)



Ident. No. 045 Model 4 open version (O) stands made of galvanised steel sheet



Ident. No. 100-115 Model 3 open version (O) for wall, floor and ceiling mounting



Ident. No. 100-115



## Compressed air hoses and hose winder

Туре	,	Closed	Closed	Closed	Open	Open	Open	Open
Model		40808	41210	42008	30810	31208	31210	42008
Hose length (m)		8	12	20	8	12	12	20
Inner hose Ø (mm	)	8	10	8	10	8	10	8
Width x height		140 x 270 mm	140 x 370 mm	140 x 370 mm	155 x 325 mm	155 x 325 mm	155 x 325 mm	140 x 360 mm
Housing connection thread		3/8-inch male	3/8-inch male	3/8-inch male	3/8-inch female	3/8-inch female	3/8-inch female	3/8-inch male
		thread	thread	thread	thread	thread	thread	thread
Hose connection	thread	1/4 inch	3/8 inch	1/4 inch	3/8 inch	1/4 inch	3/8 inch	1/4 inch
Max. working pressure (bar)		15	20	15	20	20	20	15
75015	Ident. No.	020	070	040	105	100	115	045
75015	Unit price, €	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

Prod. group 750

	Accessories for		75015 020	75015 040	75015 045	75015 070	75015 100	75015 105
75015	W-plate For model 4	Ident. No. Unit price, €	400 O. R.	400 O. R.	400 O. R.	400 O. R.	-	-
75015	W-plate For model 3	Ident. No. Unit price, €	-	-	-	-	500 O. R.	500 O. R.

	Accessories for		75015 115
75015	W-plate For model 4	Ident. No. Unit price, €	-
75015	W-plate For model 3	Ident. No. Unit price, €	500 O. R.

## metabo

#### **Recoil hoses**

Made from PA or PU (polyurethane)

#### Application:

For connection to compressed-air tools and compressed-air machines.

#### Execution:

- For a clearly organised workplace
- For reducing the risk of accidents
- Ident. No. 002-004: With brass quick-action coupling and plug-in nipple
- Ident. No. 110-140:
- With rotating brass connection parts
- With straight input and output piece (10 and 50 cm)



Hose length (m)		5.0	7.5	5.0	5.0	10.0	10.0
Inner hose Ø (mm)		8.0	8.0	6.5	8.0	6.5	8.0
Connection thread		-	-	G 1/4 inch	G 1/4 inch	G 1/4 inch	G 1/4 inch
Max. working pressure (bar)		8	8	10	10	10	10
75051	Ident. No.	002	004	110	120	130	140
75051	Unit price, €	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

Prod. group 758



#### Pneumatic spiral hose

made of polyamide

#### Application:

For connection to compressed-air tools and compressed-air machines.

#### Execution:

- With special fitting connections at both ends
- Suitable for water and air
- Max. pressure: 10 bar
- Max. temperature: 90°C
- lacktriangle For a clearly organised workplace
- For reducing the risk of accidents



Hose length (m)		2.5	2.5	5.0	5.0	10.0	10.0
Outer Ø of hose (mm)		8	10	8	10	8	10
Inner hose Ø (mm)		6.0	8.0	6.0	8.0	6.0	8.0
Connection thread		G 1/4 inch					
Max. working pressure (bar)		10	10	10	10	10	10
75052	ldent. No.	010	025	030	045	050	065
75052	Unit price, €	O. R.					

Prod. group 758

## prevost

#### Pneumatic spiral hose

made of polyurethane

#### Application:

For connection to compressed-air tools and compressed-air machines.

#### Execution

- With one fixed and one rotating screwed joint with ball bearing, can also be rotated with slight pressure
- Connections pre-coated with Teflon, therefore scratch-resistant
- Max. pressure: 8 bar
- Max. temperature: 70°C

#### Advantage:

Extremely flexible for better handling





Hose length (m)		2.0	4.0	4.0	6.0
Outer Ø of hose (mm)		8	8	10	10
Inner hose Ø (mm)		5.0	5.0	6.5	6.5
Connection thread		G 1/4 inch	G 1/4 inch	G 1/4 inch	G 1/4 inch
Max. working pres	ssure (bar)	10	10	10	10
75054	Ident. No.	015	025	035	045
70004	Unit price, €	0. R.	O. R.	O. R.	O. R.

Prod. group 758



# Pneumatic spiral hose

# made of polyurethane with steel coupling and nipple, fully assembled

# Application:

For connection to compressed-air tools and compressed-air machines.

# Execution:

- With steel coupling and nipple
- With ends and rotary joint axially offset on both sides

■ Max. pressure: 10 bar

# Advantage:

- Spark-resistant for working in a welding environment
- Immediately usable as coupling and nipple (DN 7.2) already installed

sides	, , , , , , , , , , , , , , , , , , , ,	,				
Hose length (m	)	2.0	4.0	6.0	4.0	6.0
Outer Ø of hose (mm)		10	10	10	12	12
Inner hose Ø (n	Inner hose Ø (mm)		6.5	6.5	8.0	8.0
Max. working p	ressure (bar)	10	10	10	10	10
75055	Ident. No.	010	020	030	040	050
75055	Unit price, €	O. R.	O. R.	O. R.	0. R.	O. R.







# Compressed air hoses

# in various designs; for compressed air and water

# Application:

For transporting compressed air and water.

# Execution:

- Cadmium- and silicone-free
- Ident. No. 305-325:
- For a broad spectrum of applications
- Partly oil-, gasoline- and alkali-resistant
- Abrasion-proof, weatherproof and UV-resistant
- Unlimited storage life
- Ident. No. 350-360:
  - Made from high-quality polyester fibres in soft technology

- 3-layer
- Oil- and petrol-repellent
- High durability, pressure and UV resistance

# Advantage:

 Ident. No. 350-360: Low weight and very flexible for better handling

# **Technical Data:**

- Max. working pressure: 15 bar
- Burst pressure: 60 bar
- Hose length: 50 m



Ident. No. 305-325



Ident. No. 350-360

Inner hose	Ø (mm)	6.0	8.0	9.0	10.0	13.0	6.3	9.0	12.7
Outer Ø of	hose (mm)	12.0	14.0	15.0	16.0	20.0	11.0	14.5	19.0
Cladding (n	nm)	3.00	3.00	3.00	3.00	3.50	2.35	2.75	3.15
Min./max. conditions	temperature	-15 bis +60 °C	-20 bis +60 °C	-20 bis +60 °C	-20 bis +60 °C				
75390	Ident. No. Unit price, €	<b>305</b> O. R.	<b>310</b> O. R.	<b>315</b> O. R.	<b>320</b> O. R.	<b>325</b> O. R.	<b>350</b> O. R.	<b>355</b> O. R.	<b>360</b> O. R.

Prod. group 758

# Hose clamp

# Application:

For securing the end of a hose.

# Execution:

- With worm gear
- Head shape C8
- Galvanised
- Free of chromium 6

- Secure sealing owing to elastic tightening
- Band made of stainless steel
- Low risk of injury from hose thanks to stamped band

# Technical Data:

- Width of band: 9.0 mm
- Included in delivery: 50 units



Ident No. 010 015 020 020 040	
75406 Ident. No. 010 015 020 030 040	050
Unit price, € O. R. O. R. O. R. O. R. O. R.	O. R.

r	rou. group 756							
	Accessories for		75406 010	75406 015	75406 020	75406 030	75406 040	75406 050
	75406 Hose clamps assort-	Ident. No.	210	210	210	210	210	210
	ment Band width 9 mm 105-part	Unit price, €	O R	OR	OR	OR	OR	O R

# Hose clamp

# Application:

For securing the end of a hose.

# **Execution:**

- With worm gear
- Head shape C14
- Galvanised

- Free of chromium 6
- Secure sealing owing to elastic tightening
- Band made of stainless steel
- Low risk of injury from hose thanks to stamped band



Min./max. Ø		16-27 mm	20-32 mm	25-40 mm	32-50 mm
Width of band (mn	n)	12.0	12.0	12.0	12.0
Included in deliver	у	50 units	50 units	50 units	50 units
75407	ldent. No.	020	030	040	050
/540/	Unit price, €	O. R.	O. R.	O. R.	O. R.

# Prod. group 758

metabo

# Mobile compressed air systems (direct drive)

single and double cylinder, IP 54 degree of protection

# Application:

For producing compressed air for simple commercial applications.

# Execution:

- Oil-lubricated piston compressor
- For single-phase alternating current
- Pressure reducer with manometer for controllable working pressure
- Good cold start by push button with start-up valve
- Thermal motor protection
- No testing before commissioning necessary
- Two manometers for controlled working and boiler pressure
- Rubberised, robust wheels for mobile application

# Advantage:

- 10-year boiler warranty against rust penetration
- Rubberised pull handle for comfortable handling

# **Technical Data:**

- Working pressure: 8 bar
- Intake air capacity: 200 I/min
- Delivery quantity effective at 80% max. pressure:
- 95 I/min
   Filling capacity: 110 I/min
- Power input: 1500 W
- Max. rotation speed: 2850 U/min
- Sound-pressure level: 97 dB
- With overload protection: Yes



Ident. No. 214



0 .				
	Accessories for		75290 214	75290 312
75290	Compressed air tool	ldent. No.	506	506
set LPZ 4	•	Set price, €	O. R.	O. R.
75290	Compressed air tool	ldent. No.	511	511
set LPZ 7	·	Set price, €	O. R.	O. R.



Ident. No. 312





# metabo

# Mobile compressed air systems (V-belt driven)

Two-cylinder, IP 54 degree of protection

# Application:

For producing compressed air for simple commercial applications.

# Execution:

- Belt drive for low motor speeds and quiet running
- Oil-lubricated piston compressor
- With filter pressure reducer including manometer and mist oiler for improved air quality and controllable working pressure
- Good cold start by push button with start-up valve
- Two manometers for controlled working and boiler pressure
- Thermal motor protection
- Pull handle with integrated cable wind-up
- Ident. No. 027: For single-phase alternating current

# ■ Ident. No. 041:

- For three-phase current
- With after-cooler for producing less condensation water

### Advantage:

- 10-year boiler warranty against rust penetration
- Steering rollers with parking brake for good manoeuvrability
- Large rubberised wheels for comfortable transport
- Ident. No. 041: Two-stage compression for particularly high performance and long service life

# **Technical Data:**

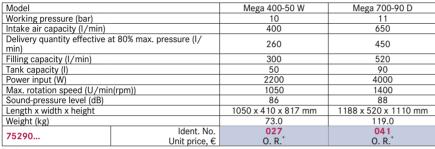
■ With overload protection: Yes



Ident. No. 027



Ident. No. 041



Prod. group 745

	Accessories for		75290 027	75290 041
75290	Compressed air tool	Ident. No.	506	506
set LPZ 4	·	Set price, €	O. R.	O. R.
75290	Compressed air tool	Ident. No.	511	511
set LPZ 7	·	Set price, €	O. R.	O. R.



# Compressed air mini-oiler

with connecting thread G 3/8"

# Application:

For attachment to impact compressed air tools for oil supply.

- Oil level easy to check through transparent sight glass
- With pulsed operation rhythm





# Execution:

■ With fine adjustment of oil metering

Connection thread		G 1/4 inch	G 3/8 inch
75420	ldent. No.	010	020
	Unit price, €	O. R.	O. R.

Prod. group 758



# Filter pressure reducer

min./max. pressure control range: 0.5-10 bar

# Application:

For cleaning and adjusting the working air.

■ With manual drain valve for emptying condensate

Connection thread		G 1/2 inch	
Air flow (I/min)	5500		
Width x height	70 x 273 mm		
Container volume, filter (cm <sup>3</sup> )	85		
Min./max. pressure control range	0.5-10 bar		
Filtration grade (µm)		40	
Max. primary pressure (bar)	16		
75422	ldent. No.	030	
/5422	Unit price €	O R	





# Compressed-air conditioning unit

for cleaning compressed air

Application:

For cleaning compressed air, adjusting the desired pressure and for oil atomisation for a long service

life for various compressed air tools and pneumatic controllers.  $% \label{eq:controllers}%$ 

Connection thread		G 3/8 inch	G 1/2 inch
Air flow (I/min)		1800	3400
Container volume, filter (cm <sup>3</sup> )		25	85
Container volume, lubricator (cm <sup>3</sup> )		50	125
Width x height		96 x 203 mm	140 x 273 mm
75424	Ident. No.	020	030
75424	Unit price, €	O. R.	O. R.

Prod. group 758

Accessories for		75424 020	75424 030
<b>75424</b> Spare plastic container	Ident. No.	110	130
For maintenance unit	Unit price, €	O. R.	(O. R.)
75424 Spare plastic container	Ident. No.	210	230
For oilers	Unit price, €	O. R.	(O. R.)
75424 Bracket mount	Ident. No.	305	330
73424 Diacket mount	Set price, €	O. R.	O. R.





# **Energy supply unit**

**Electrical version** 

# Application:

Stationary and detachable power supply for use at any work height

### Execution

 Sockets have self-closing covers for protection against dust and dirt

- Impact resistant plastic housing with large tool hook
- With 3-m long, robust and galvanised steel link chain

# Advantage:

Operate without entangled cables at the workplace

Cable length (m)		5
Cable type		H05VV-F3G1.5 mm <sup>2</sup>
Cable material		Plastic
Number of sockets (Schuko) (PCS)		8
Width (mm)		100
Height (mm)		150
Depth (mm)		560
Colour		Yellow
IP protection class		IP 20
Weight (kg)		1.48
75000 Ident. No.		200
75000	Unit price, €	0. R.



Prod. group 750



# Multiple socket outlets

in various designs for use in industry, trade, offices or private homes

# Application:

For connecting up to six electrical consumers.

# Execution:

■ With on/off switch for controllable power supply

Cable length (m)		1.4	1.4	3.0
Cable type		H05VV-F3G1.5 mm <sup>2</sup>	H05VV-F3G1.5 mm <sup>2</sup>	H07RN-F3G1.5 mm <sup>2</sup>
Cable material		PVC	PVC	Rubber
Number of sockets (Schuko) (PCS)		6	6	6
Colour		Black	Black	Black
IP protection class		IP 20	IP 20	IP 44
Weight (kg)		0.40	0.43	0.95
75000	Ident. No.	010	015	020
	Unit price, €	O. R.	O. R.	O. R.







Ident. No. 020



# **Extension cables**

Approved for continuous use outside, as well as on construction and installation sites, in accordance with BGI 608

# Application:

For extending the connection cable of an electrical device.

- Suitable for continuous use outdoors
- Approved for use on construction and assembly sites in accordance with BGI 608

# Execution:

■ With splash-proof coupling and plug

					1
Nominal voltage (V/AC)		250	250	400	400
Cable length (m)		10	25	10	25
Cable type		H07RN-F3G1.5	H07RN-F3G1.5	H07RN-F5G1.5	H07RN-F5G1.5
		mm²	mm²	mm²	mm <sup>2</sup>
Cable material		Rubber	Rubber	Rubber	Rubber
Number of sockets (Schuko) (PCS)		1	1	-	-
Number of sockets (CEE) (PCS)		-	-	1	1
Colour		Black	Black	Black	Black
IP protection class		IP 44	IP 44	IP 44	IP 44
Weight (kg)		1.5	4.0	2.4	5.4
75000	ldent. No.	050	055	060	065
/5000	Unit price, €	O. R.	O. R.	O. R.	O. R.

Prod. group 750



Ident. No. 050-055 Extension cable for 250 V DC



Ident. No. 060-065 Extension cable for 400 V AC



# Cable boxes

for use in dry environments, 250 V, with overload protection

# Application:

Multiple socket outlet with extension cable for use in a dry environment.

# Execution:

- With overload and overheating protection
- Impact-resistant plastic housing

# Advantage:

- Only suitable for use in a dry environment
- Indicator lamp for overload and overheating
- Good stability thanks to a robust double foot
- Ergonomically shaped carrying handle



Cable length (m)		10	15
Cable type		H05VV-F3G1.5 mm <sup>2</sup>	H05VV-F3G1.5 mm <sup>2</sup>
Cable material		Plastic	Plastic
Number of sockets (Schuko) (PCS)		4	4
Colour		Black/light grey	Black/light grey
Width x height x depth		225 x 270 x 80 mm	225 x 270 x 120 mm
Weight (kg)		1.6	2.3
75002	ldent. No.	210	215
	Unit price, €	O. R.	O. R.

Prod. group 750



# Cable drum

Drum body made of plastic

# Application:

Extension cable drum with multiple socket outlet for use in a dry environment.

# Execution:

- With overload protection
- Plug parking station
- Rotation stop switch

# Advantage:

- With thermal circuit breaker
- $\blacksquare$  Tested to VDE standard
- Vertical and horizontal application possible
- Easy handling thanks to low weight
- Ergonomic, insulated bow handle



Cable length (m)		25
Cable type		H05VV-F3G1.5 mm <sup>2</sup>
Number of sockets (Schuko) (PCS)		4
Drum body material		Plastic
Ø (mm)		255
Colour of cable		Black
Width x height x depth		260 x 297 x 215 mm
IP protection class		IP 20
Weight (kg)		1.9
75006	ldent. No.	005
75000	Unit price, €	O. R.



# Cable drum - for short-term outdoor use

Drum designed in plastic or galvanised sheet steel

# Application:

Extension cable drum with multiple socket outlet for brief use outdoors.

# Execution:

- With overload protection
- Splash-proof
- Plug parking station
- Rotation stop switch
- Steel pipe frame for stable positioning

With integrated HEDI DiagS cable drum diagnostic system

# Advantage:

- Suitable for short-term use outdoors
- With thermal circuit breaker
- Tested to VDE standard
- Vertical and horizontal application possible
- Ident. No. 015: Steel sheet drum is earthed



Ident. No. 010



Ident. No. 015



Prod. group 750



# Cable drum - for continuous outdoor use

Drum in plastic/galvanised sheet steel design, AC/DC

# Application:

**Ident. No. 030:** Extension cable drum with multiple socket outlet for continuous use outdoors.

Ident. No. 045: Extension cable drum with multiple socket outlet and CEE socket for continuous use outdoors.

# **Execution:**

- With overload protection
- Splash-proof
- Plug parking station
- Rotation stop switch

- Steel pipe frame for stable positioning
- With integrated HEDI DiagS cable drum diagnostic system
- Ident. No. 045: With 1 CEE socket

### Advantage

- Suitable for continuous use outdoors
- With thermal circuit breaker
- Tested to VDE standard
- Vertical and horizontal application possible



ldent. No. 030 With black or red cable



Ident. No. 045 With Schuko and CEE sockets



Prod. group 750



# Cable drum

# Drum body made of special hard rubber

# Application:

Extension cable drum with multiple socket outlet for continuous use outdoors.

# **Execution:**

- Splash-proof
- Self-closing hinged lid

# Advantage:

- Suitable for continuous use outdoors
- With thermal circuit breaker
- Drum body made of synthetic rubber load capacity like steel, but lighter
- Resistant to chemicals, oils and petrol

Cable length (m)		25	25	50
Cable type		H07RN-F3G1.5 mm <sup>2</sup>	H05RR-F3G1.5 mm <sup>2</sup>	H05RR-F3G1.5 mm <sup>2</sup>
Number of sockets (S	chuko) (PCS)	3	4	4
Drum body material		Hard rubber	Hard rubber	Hard rubber
Ø (mm)		235	310	310
Colour of cable		Black	Black	Black
Width x height x depth		235 x 300 x 205	310 x 310 x 229	310 x 310 x 229
		mm	mm	mm
IP protection class		IP 54	IP 54	IP 54
Weight (kg)		4.9	6.0	9.6
75011	ldent. No.	003	025	050
75011	Unit price, €	O. R.	O. R.	O. R.



Ident. No. 003



Ident. No. 025-050

# HAHN+KOLB



# Spring balance drums

**Electrical version** 

# Application:

Cable drum for all operations in which carrying the drum is a hindrance.

# Execution:

- Maximum power with cable wound: 800 W
- Maximum power with cable unwound: 2000 W
- 1-metre connecting cable

Robust, closed housing

# Advantage:

- With thermal circuit breaker
- For use in areas with dust and dirt hazards
- Swivelling bracket for wall and ceiling mounting with 150° rotation
- Cable can be snapped in

Cable length (m)		10	15
Cable type		H07RN-F3G1.5 mm <sup>2</sup>	H07RN-F3G1.5 mm <sup>2</sup>
Cable material		Rubber	Rubber
Number of sockets (Schuke	o) (PCS)	1	1
Drum body material		Plastic	Plastic
Ø (mm)		290	290
Width x height x depth		275 x 325 x 18.5 mm	275 x 325 x 18.5 mm
Colour of cable		Black	Black
IP protection class		IP 44	IP 44
Weight (kg)		5.8	6.6
75006	Ident. No. Unit price, €	<b>110</b> O. R.	<b>115</b> O. R.



# Non-contact voltage tester

12-1000 V, visual and vibrating display

EN standard 61010



For non-contact testing and detection of energised conductors and cable breaks.

### Execution:

- Impact and breakage resistant ABS plastic
- Anti-slip surface

	75016	Ident. No.	305
ı	/5010	Unit price, €	O. R.

Prod. group 793

# Advantage:

- Capacitive measuring method
- Measurements from 12 V
- Vibrating display
- Integrated LED pocket torch
- 5-year manufacturer's warranty



EN standard 61243-3



Voltage tester Simple operation; IP65



Ident. No. 027-037: For use in all installation fields and renewable energy

Ident. No. 055: For checking absence of voltage including in very heavy application up to 400 V AC/DC.

# Execution:

- Ident. No. 027:
  - Diode testing
  - Resistance measurement
  - Frequency measurement
- Ident. No. 027-032:
- Conductivity testing
- Cable break detector
- Ident. No. 027-037: Phase sequence display
- Ident. No. 032-037:
- One-pole phase testing



Ident. No. 027



Ident. No. 055



Ident. No. 032



Vibration alarm

- Ident. No. 037: Load connection
- Ident. No. 055:
  - Very rugged
  - Epoxy resin display
  - Rubberised handle

# Advantage:

- Easy to use
- Reliable display
- Ident. No. 027: TRUE RMS
- Ident. No. 027-037: High voltage display
- Ident. No. 032: Functional even without batteries
- Ident. No. 037-055: No batteries necessary



Ident. No. 037



Model		DUSPOL digital	DUSPOL   analogue	DUSPOL expert	PROFIPOL
Display		LED/LCD   Audible	LED/moving coil	LED   Audible	LED
Length x width x height		330 x 85 x 55 mm	330 x 85 x 55 mm	330 x 85 x 55 mm	255 x 69 x 42 mm
Min./max. voltage range AC		1-1000 V/AC	12-1000 V/AC	12-1000 V/AC	6-400 V/AC
Min./max. voltage range DC		1-1200 V/DC	12-1000 V/DC	12-1000 V/DC	6-400 V/DC
Min./max. frequency		1 / 1000 Hz	-	-	-
Min./max. continuity test		0-100 kOhm	-	0-100 kOhm	-
Min./max. electrical-resistan	ce measuring range	0.1-300 kOhm	-	-	-
Phase-sequence test		Yes	Yes	Yes	No
Phase sequence test		Yes	Yes	Yes	No
Polarity testing		Yes	Yes	Yes	Yes
Vibration control system		Yes	Yes	Yes	No
Measurement point lighting		Yes	No	Yes	No
Width (mm)		85	85	85	69
IP protection class		IP 65	IP 65	IP 65	IP 65
Weight (kg)		0.380	0.350	0.370	0.190
CAT measurement category		CAT IV/600 V   CAT III/1000 V	CAT IV/600 V   CAT III/1000 V	CAT IV/600 V   CAT III/1000 V	CAT III/400 V
75017	Ident. No. Unit price, €	<b>027</b> O. R.	<b>037</b> O. R.	<b>032</b> O. R.	<b>055</b> O. R.

	Accessories for		75017 027	75017 032	75017 037	75017 055
75017	DUSPOL quick-access	Ident. No.	111	111	111	111
case	•	Unit price, €	O. R.	O. R.	O. R.	O. R.

# **DUTEST PRO continuity tester**

Suitable for high and low impedance resistance measurement

EN standard 61010

**Application:** For detecting wiring faults and cable disruptions.

■ Torch function (adjustable in 4 levels)

# Advantage:

■ Easy to use

Execution: Acoustic test buzzer

Model		DUTEST PRO
Display		LED   Audible
Min./max. test current, audible		0-60 mA
Protected for external voltage up to (	V/AC)	400
Min./max. continuity test		0-100 Ohm
Phase sequence test		Yes
Polarity testing		Yes
Non-contact test		No
CAT measurement category		CAT II/300 V
75021 Ident. No		011
/3021	Unit price, €	0. R.



Prod. group 751



# **TRITEST Pro rotation field direction indicator**

Displays clockwise rotation field or anticlockwise rotation field via green/red LED

EN standard 61557-7

Application:

For testing the rotation field direction in threephase networks.

# ■ With alligator clip

# Advantage:

■ Easy detection of rotation field direction



■ LED torch function

Display		
Min./max. voltage range AC		
EN standard		
	CAT III/300 V	
ldent. No.	101	
Unit price, €	O. R.	
		Ident. No. 101







# **Test buzzer TESTOFON**

# **TACO NAUERT**

# Application:

For testing electric appliances, telephones and telecommunication systems, measuring and control equipment as well as electronic circuits.

### Execution:

- Low impedance
- Voltage-resistant
- No blow out protection
- Tone scale proportional to resistance

Max. test voltage (V/AC/DC)		4.2
Max. test current (mA)		2
Min./max. range		40-1000 Hz
Voltage-resistant up to (V/AC)		420
Briefly able to withstand voltage (V/AC)		420
75022	ldent. No.	010
79022	Unit price, €	O. R.



Prod. group 751

# **ATORN®**

# **Digital multimeter**

With integrated cable breakage detector and LED torch

FN standard 61010

# Application:

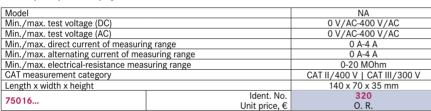
For universal application in electrical installation, service and industry.

# Execution:

- Compact design
- Very rugged
- Break-proof plastic display

# Advantage:

- For universal use
- Easy to use
- Non-contact cable breakage detector
- LED torch
- 5-year manufacturer's warranty







# **Pocket multimeter MMP3**

Small digital multimeter in leather case

EN standard 61010

# Application:

For use in installation fields and simple, industrial fields.

# Execution:

- AC/DC voltage measurement
- Resistance measurement

- Continuity/diode testing
- Frequency measurement
- Capacitance measurement

# Advantage:

Easy to use

Model		MM P3
Display range		5000 digits
Measuring accuracy		+/- 0.6 %
Min./max. test voltage (DC)		100 μV/AC-600 V/AC
Min./max. test voltage (AC)		100 μV/AC-600 V/AC
Min./max. electrical-resistance meas	0.0000001-40 MOhm	
Min./max. frequency		0.000000001 / 5 MHz
Min./max. capacitor capacity	10 pF-100 μF	
Measuring procedure	RMS	
CAT measurement category		CAT III/300 V   CAT II/600 V
Length x width x height		132 x 86 x 19 mm
75021	Ident. No.	200
70021	Unit price, €	O. R.







# Multi-purpose measuring instruments Digital multimeter

EN standard 61010

# Application:

For use in installation fields.

### Execution:

- AC/DC voltage measurement
- Volt sensor
- Resistance measurement



Ident. No. 111 BENNING MM 1-1

- Continuity/diode testing
- Ident. No. 111: HOLD memory function
- Ident. No. 121-131:
  - AC/DC current measurement up to 10 A
  - Frequency measurement
  - Capacitance measurement



Ident. No. 121 BENNING MM 1-2



# Advantage:

- Robust
- Easy to use
- Good price/performance ratio



Ident. No. 131 BENNING MM 1-3

Model		MAN 1-1	MAN 1-2	MAN 1-3
Display range		2000 digits	2000 digits	2000 digits
Measuring accuracy		+/- 0.5 %	+/- 0.5 %	+/- 0.5 %
Min./max. test voltage (DC)		100 μV/AC-1000 V/AC	100 μV/AC-1000 V/AC	100 μV/AC-1000 V/AC
Min./max. test voltage (AC)		100 μV/AC-750 V/AC	100 μV/AC-750 V/AC	100 μV/AC-750 V/AC
Min./max. direct current of meas	suring range	-	1 mA-10 A	1 mA-10 A
Min./max. alternating current of		-	1 mA-10 A	1 mA-10 A
Min./max. electrical-resistance n	neasuring range	0.0000001-20 MOhm	0.0000001-20 MOhm	0.0000001-20 MOhm
Min./max. frequency		-	0.000001 / 20 MHz	0.000001 / 20 MHz
Min./max. capacitor capacity		-	1 pF-2 mF	1 pF-2 mF
Temperature range		-	-	-20 °C to +800 °C
Measuring procedure		-	RMS	RMS
CAT measurement category		CAT III/600 V   CAT II/1000 V	CAT III/600 V   CAT II/1000 V	CAT III/600 V   CAT II/1000 V
Length x width x height		156 x 74 x 44 mm	156 x 74 x 44 mm	156 x 74 x 44 mm
75024	Ident. No.	111	121	131
/5024	Unit price, €	O. R.	O. R.	O. R.

Prod. group 751

# BENNING

# High-performance multi-purpose measuring instruments Digital multimeter

■ Continuity/diode testing

EN standard 61010

# Application:

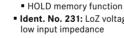
Ident. No. 210: For use in installation fields.

Ident. No. 231: For use in installation fields/

Ident. No. 240: For use in installation fields/industry with recording capability.

# Execution:

- AC/DC voltage measurement
- Resistance measurement



■ Ident. No. 210:

- Ident. No. 231: LoZ voltage measurement with
- Ident. No. 231-240:
  - AC/DC current measurement up to 10 A

■ AC current measurement up to 300 A

- Volt sensor
- Frequency measurement

■ Capacitance measurement

# Advantage:

- Easy to use
- Ident. No. 210:
- High AC current measurement up to 300 A
- Good price/performance ratio
- Ident. No. 231-240: Robust
- Ident. No. 240: PC connection via USB



Ident. No. 210 BENNING MM4



Ident. No. 231 BENNING MM7-1



Ident. No. 240 BENNING MM10

Model		MM 4	MAN 7-1	MM 10
Display range		4200 digits	6000 digits	6000 digits
Measuring accuracy		+/- 0.5 %	+/- 0.08 %	+/- 0.5 %
Min./max. test voltage (DC)		1 mV/AC-600 V/AC	10 μV/AC-1000 V/AC	100 μV/AC-1000 V/AC
Min./max. test voltage (AC)		1 mV/AC-600 V/AC	10 μV/AC-1000 V/AC	100 μV/AC-750 V/AC
Min./max. direct current of meas	suring range	-	10 μA-10 A	0.1 μA-10 A
Min./max. alternating current of		0.1 A-300 A	10 μA-10 A	1 mA-10 A
Min./max. electrical-resistance n	neasuring range	0.0000001-42 MOhm	0.0000001-40 MOhm	0.0000001-60 MOhm
Min./max. frequency		-	0.00001 / 100 kHz	0.000001 / 60 MHz
Min./max. capacitor capacity		-	1 nF-10 mF	1 pF-6 mF
Temperature range		-	-40 °C to +400 °C	-
Measuring procedure		RMS	TRUE RMS	TRUE RMS
CAT measurement category		CAT III/300 V   CAT II/600 V	CAT IV/600 V   CAT III/1000 V	CAT IV/600 V   CAT III/1000 V
Length x width x height		225 x 77 x 35 mm	190 x 94 x 48 mm	164 x 82 x 44 mm
75024	Ident. No. Unit price, €	<b>210</b> O. R.	<b>231</b> O. R.	<b>240</b> O. R.

# BENNING

# Multi-purpose measuring instruments

Digital current clamp multimeter

EN standard 61010

Ident. No. 300: For AC current measurement in electrical installations. Ident. No. 310-320: For measurement in electrical installations.

- Ident. No. 300-310: AC current up to 400 A
- Ident. No. 310:
- Voltage up to 600 V AC/DC
- Continuity testing
- Ident. No. 310-320: Resistance measurement







Ident. No. 310 BENNING CM 1-2



- AC current up to 200 A
- Voltage up to 750 V AC / 1000 V DC
- Continuity/diode testing

- Robust
- Small
- Handy
- Easy to use



Ident. No. 320 BENNING CM 1-3

Model		CM 1-1	CM 1-2	CM 1-3
Display range		2000 digits	2000 digits	2000 digits
Measuring accuracy		+/-2 %	+/- 1 %	+/- 1 %
Min./max. test voltage (DC)		-	0.1 V/AC-600 V/AC	0.1 mV/AC-1000 V/AC
Min./max. test voltage (AC)		-	0.1 V/AC-600 V/AC	0.1 mV/AC-750 V/AC
Min./max. alternating current of	measuring range	0.01 A-400 A	0.1 A-400 A	0.1 A-200 A
Min./max. operating temperature		0 bis 50 °C	0 bis 50 °C	0 bis 50 °C
Max. collet opening (mm)		30	30	16
Memory function		HOLD   MAX	HOLD	HOLD
Measuring procedure		RMS	RMS	RMS
CAT measurement category		CAT III/600 V	CAT III/600 V	CAT IV/600 V   CAT III/1000 V
Length x width x height		180 x 70 x 42 mm	190 x 70 x 38 mm	190 x 60 x 40 mm
75024	Ident. No.	300	310	320
75024	Unit price, €	O. R.	O. R.	O. R.

Prod. group 751

# BENNING

# High-performance measuring instruments

Digital current clamp multimeter

FN standard 61010

Application: For measurement in electrical installations/ industry/PV.

# Execution:

- Resistance measurement
- Ident. No. 330:
- AC/DC current up to 300 A
- Voltage up to 600 V AC/DC
- Continuity testing
- Ident. No. 335: Voltage up to 750 V AC / 1000 V DC
- Ident. No. 335-340:
- AC/DC current up to 600 A
- Continuity/diode testing

- Ident. No. 340:
  - Voltage up to 600 V AC / 600 V DC
  - Power measurement with power factor cos phi
  - Frequency measurement
- Temperature measurement

# Advantage:

- TRUE RMS voltage measurement
- Handy
- Easy to use
- Ident. No. 330: Small
- Ident. No. 335: Automatic function/measuring range selection



• Ident. No. 340: Large measuring ranges

Model		CM 8	CM 5-1	CM 2	
Display range		6000 digits	9999 digits	4000 digits	
Measuring accuracy		+/-0.7 %	+/- 0.9 %	+/- 0.5 %	
Min./max. test voltag	e (DC)	10 mV/AC-600 V/AC	1.3 V/AC-750 V/AC	0.1 mV/AC-600 V/AC	
Min./max. test voltag	e (AC)	10 mV/AC-600 V/AC	0.7 V/AC-1000 V/AC	1 mV/AC-600 V/AC	
Min./max. direct curr range	ent of measuring	0.1 A-600 A	0.9 A-600 A	10 mA-300 A	
Min./max. alternating current of measuring range		0.1 A-600 A	0.9 A-600 A	100 mA-300 A	
Min./max. effective power		0.001-600 kW	-	-	
Min./max. frequency		0.0001 / 4 kHz	-	-	
Min./max. operating t	temperature	0 bis 50 °C	0 bis 50 °C	0 bis 50 °C	
Max. collet opening (n	nm)	40	35	25	
Memory function		HOLD   MAX/MIN   PEAK   INRUSH	HOLD	HOLD   MAX	
Measuring procedure		TRUE RMS	TRUE RMS	TRUE RMS	
CAT measurement category		CAT III/600 V	CAT IV/600 V   CAT III/1000 V	CAT III/300 V   CAT II/600 V	
Length x width x heigh	nt	235 x 85 x 51 mm	215 x 85 x 51 mm	192 x 66 x 27 mm	
75024	Ident. No.	<b>340</b> O. R	<b>335</b> O R	<b>330</b> O. R	

# BENNING

# Insulation and resistance meter IT101

TRUE RMS insulation resistance meter with calculation of resulting leakage current

# Application:

For insulation resistance and low impedance measurement in electrical installations.

# Execution:

- R ISO test voltages up to 1000 V
- R PE test current 200 mA
- Polarisation index (PI), dielectric absorption ratio (DAR)
- TRUE RMS voltage measurement with low-pass filter

# Advantage:

- High R ISO test voltage
- TRUE RMS voltage measurement
- Handv
- Easy to use



BENNING IT 101



# (DAR) Switchable test probe

Display range	4000 digits	
Measuring accuracy		0.015%
Min./max. insulation resistance	1 kOhm-20 GOhm	
Min./max. test voltage (DC)	0.1 V/AC-600 V/AC	
Min./max. test voltage (AC)	0.1 V/AC-600 V/AC	
Min./max. electrical-resistance meas	0.00001-40 kOhm	
Length x width x height	207 x 95 x 52 mm	
Measuring procedure		TRUE RMS
CAT measurement category	CAT IV/600 V	
75024 Ident. No.		610
75024	Unit price, €	O. R.

Prod. group 751

# BENNING

# Leakage current clamp CM 9

TRUE RMS leakage current clamp, digital current clamp for current of 1  $\mu A$  to 100 A AC

### Application

For finding leakage and discharge currents (insulation faults) in electrical installations.

# Execution:

- AC current from 1 µA to 100 A
- Low-pass filter
- Threshold value setting

# Advantage:

- TRUE RMS voltage measurement
- Large measuring range
- Handy
- Easy to use



12 12 13 N PE

BENNING CM 9

Differential current process example: washing

Display range		6000 digits
Measuring accuracy	+/- 1 %	
Min./max. alternating current of mea	1 μA-100 A	
Max. collet opening (mm)	40	
Length x width x height	205 x 75 x 40 mm	
Measuring procedure	TRUE RMS	
CAT measurement category		CAT III/300 V
75024 Ident		390
75024	Unit price, €	0. R.

Prod. group 751

10d. group 7 31		
Accessories for		75024 390
<b>75024</b> Schuko plug/coupling	Ident. No. Unit price, €	410 O. R.
<b>75024</b> 16 A CEE-CEE measuring adapter	Ident. No. Unit price, €	420 O. R.
<b>75024</b> 32 A CEE-CEE measuring adapter	Ident. No. Unit price, €	430 O. R.

# **BOSCH**

# Position finder GMS 120 Professional

voltage 230 V, 50 Hz, shockproof, suppressed

# Application:

For locating energised conductors, metals and wooden substructures.

# Execution:

- Automatic calibration
- Three-colour LED light ring
- Precise display of object centre with 'Centre Finder' scale
- Display of material properties
- Illuminated display

# Advantage:

- Three locating modes: Drywall mode, metal mode, mode for energised conductors
- Location of deep objects up to 12 cm down

BOSCH no.		0 601 081 000
Model		GMS 120
Max. detection depth of ferrous meta	als (mm)	120
Max. detection depth of non-ferrous	metals (mm)	80
Max. detection depth of live cables (r	nm)	50
Max. detection depth of wood (mm)	38	
Automatic switch-off	5min	
Number of rechargeable batteries/ba	1	
Rechargeable battery/battery design	9 V 6LR61	
Weight (kg)	0.27	
75016	ldent. No.	010
75010	Unit price, €	O. R.





# HAHN+KOLB

# Nilfisk Wet/dry vacuum cleaners ALTO voltage 230 V, 50 Hz

# Application:

No. 75520: Handy and robust vacuum cleaner for use in the workshop.

**No. 75521:** Multi-purpose vacuum cleaner for crafts, industry and professionals.

# Execution:

- No. 75520:
- Washable PET filter element with a filtration of at least 99.9%
- MultiFit connection system
- Tool adapter with suction power regulation
- Numerous options for holding accessories
- Blow-out function
- No. 75521:
- Washable PET fleece filter element
- With socket for power tools
- No. 75521 041: Professional extraction of water, sand, earth, slurry, ashes or wood chips and much more
- No. 75521 051:
- Compact, ergonomic and powerful design

- With continuously variable speed control and soft start-up
- Antistatic function

# Advantage:

 No. 75521: Semi-automatic Push & Clean filter cleaning system for consistently high suction power (cleans itself at the push of a button)

# scope of supply and services:

**No. 75520:** With suction hose (diameter 32 mm), hand tube with suction power regulation, extension tube, floor nozzle, brush nozzle, universal and joint nozzle, filter element and filter bag

No. 75521 041: With suction hose (diameter 32 mm), hand tube, aluminium extension tube, combination floor nozzle, joint nozzle, non-woven fabric filter bag

**No. 75521 051:** With suction hose (diameter 32 mm), hand tube, aluminium extension tube, combination floor nozzle, joint nozzle, non-woven fabric filter bag and tool adapter



No. 75520

Model		21-01 PC INOX	ATTIX 30-01	ATTIX 30-21
Power input (W)		1250	1500	1500
Max. air delivery volui	me (I/min)	3600	3700	3700
Underpressure (mbar	)	210	250	250
Container capacity (I)		20	30	30
Sound-pressure level	(dB)	64	59	59
With device connecto	r	No	Yes	Yes
With antistatic system	With antistatic system		-	Yes
Weight (kg)		8.5	10.0	10.0
Length x width x heigh	ht	390 x 400 x 525	450 x 380 x 595	450 x 380 x 595
		mm	mm	mm
Cable length (m)		5.0	7.5	7.5
75520	ldent. No.	012	_	
75520	Unit price, €	O. R.	-	-
75521	ldent. No.		041	051
/5521	Unit price, €	· -	O. R.	O. R.

Prod. group 759

Accessories for		75520 012	75521 041	75521 051
<b>75520</b> Filter pack 4 non- woven fabric filters and 1 wet filter	Ident. No. Price/pack, €		-	-
75521 Filter element	Ident. No. Unit price, €		440 O. R.	440 O. R.
75521 Filter bags, 5 units	Ident. No. Price/pack, €	-	341 O. R.	341 O. R.

# Nilfisk ALTO Wet/dry vacuum cleaners voltage 230 V, 50 Hz

# Application:

No. 75522: Professional vacuum cleaner for the workshop, with long usage periods.

**No. 75524 011:** Suction in continuous operation for dust classes L and M and ATEX Zone 22, all non-carcinogenic dust with MAK values > 0.1 mg/m<sup>3</sup> and/or combustible dust from Zone 22.

**No. 75524 020:** Flexible high-performance vacuum cleaner with two-motor drive for demanding cleaning tasks.

No. 75522

# Execution:

- No. 75522 036, 75524 020:
- With SoftStart
- Antistatic function
- Washable PET fleece filter element

- No. 75522 036-75524 011: With socket for power tools
- No. 75524 011:
- Electronic follow-up control
- Secure suction into the filter; the whole system is completely de-dusted
- Variable speed control
- Tilting container for easy emptying
- No. 75524 020:
- Tilting container removable
- Two-motor drive 2 x 1500 W

# Advantage:

- No. 75522: Fully automatic XtremeClean filter cleaning system
- No. 75524 011: Brushless long-life motor



No. 75524 011

 No. 75524 020: Semi-automatic Push&Clean filter cleaning system

# scope of supply and services:

**No. 75522:** With 4-m suction hose (diameter 36 mm), with rubberised tapered hose nozzle, filter element and filter bag, power cable holder, 7.5-m rubberised mains cable

**No. 75524 011:** With 3.5-m suction hose AntiStatic (diameter 27 mm), tool adapter, filter element and filter bag, cable holder, rubberised 7.5-m mains cable

**No. 75524 020:** With 4-m suction hose (38 mm), stainless steel extension tube  $2 \times 0.5$  m, bent hand pipe, non-woven fabric filter bag, filter element, filter element PET nano fibre, floor nozzle 400 mm, joint nozzle plastic 300 mm



No. 75524 020



Model		ATTIX 791-2 M/B1	ATTIX 961-01	ATTIX 751-11
Power input (W)		1500	1500	1500
Max. air delivery volume (I/min)		3800	3600	3600
Underpressure (mbar)		250	250	230
Container capacity (I)		70	70	70
Sound-pressure level (dB)		59	67	57
With device connector		-	-	Yes
With antistatic system		-	-	Yes
Weight (kg)		25.0	30.0	25.0
Length x width x height		650 x 580 x 970 mm	580 x 600 x 970 mm	605 x 580 x 970 mm
Cable length (m)		7.5	10.0	7.5
75524	Ident. No.	011	020	
75524	Unit price, €	(O. R.) <sup>+</sup>	O. R.	-
75522	Ident. No.	_	_	036
73322	Unit price, €	-	_	O. R. <sup>+</sup>

Prod. group 759

	Accessories for		75522 036	75524 011	75524 020
75521	Chip set for ATTIX	Ident. No.	110	_	110
961-01		Unit price, €	O. R.		O. R.
75521	Filter bags, 5 units	Ident. No. Price/pack, €	360 O. R.	360 O. R.	365 O. R.
75521	Filter element	Ident. No. Unit price, €	440 O. R.	440 O. R.	460 O. R.
<b>75521</b> 961-01	Chip basket for ATTIX	Ident. No. Unit price, €	-	-	120 (O. R.)

# **▼KARCHER** Wet/dry vacuum cleaners

voltage 230 V, 50 Hz

# Application:

For vacuuming dirt, liquids and large quantities of fine dust.

No. 75523

# Execution:

- Wet/dry floor nozzle and joint nozzle
- Filter bag
- Maintenance-free suction turbines
- No. 75523-75525: Flat folding filter
- No. 75526: Cartridge filter

# Advantage:

- No. 75523:
  - Discharge hose (oil resistant)
- Tilting frame
- No. 75523-75525:
  - Automatic shutdown at maximum filling quantity
  - Automatic filter cleaning Tact
  - Stop castor

scope of supply and services: No. 75523: With 4.0-m suction hose, C 40 with elbow, electrostatically earthed, 2 x 0.5-m suction



No. 75525

tubes made from metal, wet/dry suction nozzle (360 mm) joint nozzle, flat folded filter (dust class M)

No. 75525: With suction hose 2.5 m, metal suction tube 2 x 0.5 m, wet/dry suction nozzle (300 mm), joint nozzle, paper filter bag (dust class M)

No. 75526: With 2.5-m suction hose with elbow, cartridge filter, metal suction hose 2 x 0.5 m, wet and dry floor nozzle, joint nozzle, paper filter bag (double layered, BIA C)



No. 75526

Model		NT 65/2 Tact 2	NT 35/1 Tact	NT 27/1 ME Advance
Power input (W)		2760	1380	1380
Max. air delivery volume (I/min)		4440	3660	4020
Underpressure (mbar)		254	230	208
Container capacity (I)		65	35	27
Sound-pressure level (dB)		73	67	72
Weight (kg)		24.5	11.5	8.2
Length x width x height		575 x 490 x 880 mm	520 x 380 x 580 mm	420 x 420 x 540 mm
Cable length (m)		10.0	7.5	7.5
75523	ldent. No. Unit price, €	<b>017</b> O. R.	-	-
75525	ldent. No. Unit price, €	-	<b>029</b> O. R.	-
75526	ldent. No. Unit price, €	-	-	<b>023</b> O. R.

roa. group 707					
	Accessories for		75523 017	75525 029	75526 023
<b>75523</b> units	Paper filter bags, 5	Ident. No. Price/pack, €	315 O. R.	-	-
75523	Filter element	Ident. No. Unit price, €	420 O. R.	-	-
75525	Filter element	Ident. No. Unit price, €	-	422 O. R.	-
<b>75526</b> units	Paper filter bags, 5	Ident. No. Price/pack, €	-	-	320 O. R.
75526	Filter element	Ident. No. Unit price, €	-	-	422 O. R.





# Wet and dry vacuum cleaner 1432 ST

Power consumption 1400 watt

# Application:

For greater stresses in commercial application.

### Execution:

- For wet/dry cleaning of buildings (commercial, garage, household, etc.)
- High-power motor fan with bypass cooling
- Extremely robust folding filter cartridge (IFA (BIA) tested for dust class M)
- Impact-resistant plastic container resists all common fats and alkalis
- Pneumatic water level detection
- With accessory holder

# scope of supply and services:

With 1.75-m suction hose, 2x suction tubes (made of plastic, 50 cm each), 1x joint nozzle, 1x coarse dust nozzle, 1x coarse dust nozzle, 1x coarse dust floor nozzle (36 mm wide)

Model		1432 ST
Power input (W)		1400
Max. air delivery volume (I/min)		4140
Underpressure (mbar)		259
Container capacity (I)	32	
Weight (kg)	9.3	
Length x width x height	417 x 390 x 640 mm	
Cable length (m)		8
75534	ldent. No.	011
75554	Unit price, €	0. R.



	Accessories for		75534 011
75534	Paper filter bags, 5	Ident. No.	111
units	_	Price/pack, €	O. R.
75534	Spare fold filter	ldent. No.	210
75554	Spare rold filter	Unit price, €	O. R.
75535	Filter bag FST (fine	Ident. No.	228
dust pre-fil	ter)	Unit price, €	O. R.







# Special accessories

for wet and dry vacuum cleaner No. 75534

# Application:

Ident. No. 320: For metal chips, oil, emulsion, dirt,

**Ident. No. 340:** For universal cleaning in crafts, business and industry.

# Execution:

■ Ident. No. 320: All parts oil-resistant

# scope of supply and services:

**Ident. No. 320:** With 1 suction hose (Ø 49 mm x 3.0 m), 1 steel joint nozzle (25 cm), 1 connection sleeve for power tools (conical), 1 adapter piece from Ø 49 mm to Ø 35 mm connection system

**Ident. No. 340:** With 1 suction hose (Ø 35 mm x 3.2 m), 1 stainless steel handle tube with admixed air slider, 2 stainless steel suction tubes (Ø 35 mm x 50 cm each), 1 joint nozzle (37 cm), round suction brush, 1 professional floor nozzle 45 (aluminium)

75534	Machine cleaning set MZ	Ident. No.	320
	special accessories	Set price, €	O. R.
75534	Special professional ac-	Ident. No.	340
75534	cessories set PZ	Set price, €	O. R.





Ident. No. 320 Machine cleaning set MZ



Ident. No. 340 Professional set of accessories PZ



# Industrial cleaner - for cleaning swarf, liquids and dust voltage 230 V, 50/60 Hz

# Application:

Ident. No. 005: For industrial application especially for vacuuming metal chips, granules, liquids, oils, slurry and dust, for cleaning machines, systems and production sites as well as for replacing coolants.

Ident. No. 010: Especially suitable for vacuuming up metal chips, granules, coolants and slurry as well as leaked oil from machine tools, and for cleaning tool-changing areas and workpieces.

### Execution:

- Service life of carbon brushes approximately 2500 operating hours
- With bearing shaft for tilt emptying
- Drive unit W 2 G is sound-damped and splash-proof
- With nozzle holder

# Advantage:

- Conforms to the basic safety and health requirements of EC guidelines (CE declaration of conformity)
- The removable hose swivelling through 360° allows convenient emptying of liquids and is used as a visual fill level monitor

• Ident. No. 005: Vacuums both wet and dry

Ident. No. 010:

- With ergonomic control handle
- Filling level display hose with chip pre-filter
- Quick connector for fast emptying

# scope of supply and services:

Drive unit has  $2 \times 1.0 \text{ kW}$  high-performance bypass suction turbines and integrated safety filter, steel collection container, corner screen, fill level and emptying hose, connection cable with plug, rubber-wheeled chassis made from steel, 2 lockable castors and 2 block rollers, 1 unit each of nos. 75540-105, 110 and 130

# Technical Data:

- Power input: 2000 W
- Max. air delivery volume: 6000 l/min
- Underpressure: 220 mbar
- Cable length: 5.0 m
- Hose length: 3 m
- Inner hose diameter: 51 mm



Ident. No. 005



Ident. No. 010

Model		RI 100 W2G	RI 300 W2G
Container capacity (I)		80	125
Length x width x height		740 x 620 x 1180 mm	750 x 700 x 1420 mm
Weight (kg)		74.0	84.0
75540	Ident. No.	005	010
75540	Unit price, €	(O. R.)	(O. R.)







# **Smoke extraction equipment**

with filter and flexible extractor arm, hose version, >99 % filtration efficiency

# Application:

Ident. No. 011: For extracting fumes, dust and also gases that are released during welding processes for cutting and joining when machining unalloyed steels, including high-alloy chromium/nickel steels.

Ident. No. 020: For extracting fumes during welding work with unalloyed steels and precious metals.

# Execution:

- With flexible suction arm in hose version
- With filter
- Suction arms can be swivelled through 360° and can be moved into any desired position, which is self-supporting

# ■ Ident. No. 011:

- When the filter is saturated, an indicator lamp shows that a filter change is necessary
- The particles and gases are filtered out of the air stream in a multi-stage filtering process and the clean air is fed back to the working area
- Filter elements are accessible via a maintenance hatch and therefore can be easily and quickly removed

# ■ Ident. No. 020:

 Monitoring of the volume flow and filter indicates when a filter change is necessary

- Thanks to effective air guidance in the unit, the operator cannot come into contact with the harmful substances
- Air discharge on the rear of the unit is via an outlet grille facing upwards, rendering undetectable disruptive air flow at a distance of 1 m
- With operating hours counter
- With powerful fan using high negative pressure, which guarantees a high volume flow even when the filter is saturated

# Advantage:

 Ident. No. 011: Tested based on DIN EN ISO 15012-1 (2005) and IFA (previously BGIA) certified (IFA no. 201020469/1140) for welding fume class W3

# ■ Ident. No. 020:

- Complies with the safety requirements for equipment in welding fume class W3 (highly alloyed steels)
- When used as intended, the system can be used for air circulation, as the prerequisites for exemption clauses in accordance with the new statutory German Hazardous Materials Ordinance (GefstoffV) are satisfied
- Seal seat raising unit guarantees complete seal integrity and thus the filtration efficiency of the filter equipment

Version		On castors	On castors
Nominal voltage (V/AC)		230	400
Max. idle speed (U/min(rpr	n))	2800	2800
Motor output (kW)		1.1	1.1
Extraction arm (PCS)		1	1
Nominal width of extraction	arm (mm)	150	150
Max. suction capacity (m <sup>3</sup> /	h)	1000	1250
Overhang (mm)	Overhang (mm)		3000
Air supply quantity (m <sup>3</sup> /h)		2500	2500
Roll Ø (mm)		75	125
Number of fixed rollers (PC	S)	2	2
Number of steering rollers (	PCS)	2	2
Energy efficiency (%)	Energy efficiency (%)		99
Length x width x height		580 x 580 x 900 mm	665 x 681 x 995 mm
Weight (kg)		80	130
75736	Ident. No. Unit price, €	<b>011</b> (O. R.) <sup>†</sup>	<mark>020</mark> (O. R.)⁺







	Accessories for		75736 011	75736 020
75736	Coarse filter set	Ident. No. Set price, €	<b>290</b> (O. R.) <sup>†</sup>	<b>300</b> (O. R.) <sup>†</sup>
75736	Pre-filter	Ident. No. Unit price, €	<b>320</b> (O. R.) <sup>†</sup>	-
75736	Activated carbon filter	Ident. No. Unit price, €	<b>340</b> (O. R.) <sup>†</sup>	-
75736	Main filter	Ident. No. Unit price, €	<b>400</b> (O. R.) <sup>†</sup>	<b>410</b> (O. R.) <sup>†</sup>



# **Electric scribers ARKOGRAF**

Labels made of metal, steel and non-metal materials with oscillating electrode

# Application:

No. 78010: For marking metal and steel with oscillating electrode.

**No. 78025:** For marking metal, steel and non-metallic materials with oscillating electrode.

# **Execution:**

- Frequency 50-60 Hz
- Not suitable for anodised parts
- Suitable for thicker writing
- For 6 writing widths
- Operates with an oscillating electrode according to the electric arc short circuit principle
- Consisting of special transformer for 1-8 V secondary voltage, with on/off switch, indicator lamp, approx. 1 m connection cable with Schuko plug, writing pencil, 3 electrodes each for 1.2 x 25 mm and 1.5 x 25 mm, for steel and metals, baseplate and wooden box.
- Surface must be grease free, without rust, scale or other contamination!

# Advantage:

 No. 78025: With intensity controller, branding pencil and 3 electrodes (hot loops)

Suitable for		Steel   Metal	Steel   Metal   Nonferrous
Power input (W)		50	50
78010	Ident. No. Unit price, €	<b>010</b> O. R.	-
78025	Ident. No. Unit price, €	-	<b>010</b> O. R.





Accessories for		78010 010	78025 010
78025 Writing pencil For steel	Ident. No.	100	100
and metals	Unit price, €	O. R.	O. R.
78025 Electrodes For steel	Ident. No.	111	111
and metals 1.2 x 25 mm	Unit price, €	O. R.	O. R.
78025 Electrodes For steel	Ident. No.	121	121
and metals 1.5 x 25 mm	Unit price, €	O. R.	O. R.
78025 Branding pencil For	Ident. No.		200
non-metallic materials	Unit price, €	-	O. R.
78025 Electrodes (hot loops)	Ident. No.		211
For non-metallic materials	Unit price, €	-	O. R.

# Rotoscriber labeller

# **Transformer-operated**

# Application:

For varied labelling tasks, such as labelling metal, plastic, glass, object carriers and much more.

### Execution

- Automatic adjustment as soon as it is brought into the writing position
- Shuts down when released from hand
- No tools necessary to replace the rotating writing tips
- To change tools, the worn-out tip is pulled out and the new one is attached with slight pressure

# Advantage:

 Drive shaft in stainless steel with special ball bearing

78035	Ident. No.	010
76035	Unit price, €	O. R.

Prod. group 780

Accessories for		78035 010
78035 Replacement writing	ldent. No.	030
tips For metal	Unit price, €	O. R.
<b>78035</b> Replacement writing tips For glass and similar hard materials	ldent. No. Unit price, €	040 O. R.

# scope of supply and services:

With transformer and writing tip for metal

# **Technical Data:**

- Operating voltage: 12 V/AC
- Current consumption: 400 mA
- Max. idle speed: 20000 U/min
- Material of the housing: Aluminium
   Surface: Anodised
- Length: 125 mm
- Diameter of housing: 20 mm
- Weight: 0.07 kg

Advantage:

ated versions

scope of supply and services:

With engraving needle, medium

Operates with approximately 3 times higher

frequency than conventional pneumatically oper-



# Compressed air marking pencil

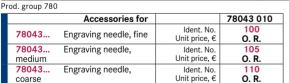
# Pneumatically operated, with R 1/4 inch male thread

# Application:

For applying markings and labels to metal, glass, plastics and hardened steel.

- Maintenance unit, e.g. no. 75424, should be connected upstream
- With rotary valve for switching on and off
- Hose 2 m

Min./max. number of strokes		500-600 U/min	
Min./max. air consumption		25-30 I/min	
Inner hose Ø (mm)		4.0	
Working pressure (bar)		6	
Vibration (m/s²)		0.7	
Sound-pressure level (dB)		62	
Weight (kg)		0.25	
78043	Ident. No.	010	
78043	Unit price, €	O. R.	









# Pneumatic hand stamp BM 10

# Pneumatically operated, impact force 1 kN

# Application:

For marking parts produced from material up to max. 40 HRC.

# Execution:

- Patented
- With pneumatic impact triggering
- Low pressure forces are necessary on the workpiece for impact triggering
- Embossing power continuously adjustable via pressure controller
- Recoilless
- Fast and easy replacement of the engraving stamp
- Engraving stamp: Individual and multiple symbols in different font sizes, such as check marks listed in the table, digits from 0-9 and capital letters from A-Z deliverable within 3-4 weeks. Production is order based, price on request.

 Note for ordering engraving stamps: please specify the font size and symbol (number, letter or check mark).

# **Technical Data:**

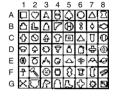
- Model: BM 10
- Impact force: 1 kN
- Adapter diameter: 8 mm
- Max. script height for 1-digit engravings: 4.0 mm
- Max. script height for 2-digit engravings: 2.5 mm
- Max. script height for 3-digit engravings: 2.0 mm
- Diameter of housing: 25 mm
- Length: 260 mm
- Weight: 0.6 kg





Example application: Pneumatic stamp with AUTOSTAT air spring balance





Engraving example

Control stamp selection table

78048	ldent. No. Unit price, €	
Prod. group 785		

Prod. group 785

# Bench drill ALZTRONIC

power supply 230 V

# Application

Robust bench drilling machines for use in workshops.

- On/Off switch with lockable EMERGENCY OFF cover
- reversing switch for clockwise and anti-clockwise rotation
- degree of protection IP 54
- spindle protection with electric protection
- connection plug (already fitted), cable length: 3 metres
- digital speed display (LED)
- paint DD structure finish RAL 7035 light grey and 7016 anthracite



ZM1603-1, ZM1603-2, ZM1603-3

ZM1603-4, ZM1603-5

Model	ALZTRONIC 6	ALZTRONIC 9	ALZTRONIC 12	ALZTRONIC 14	ALZTRONIC 16
Max. drill Ø in steel E335/ St 60 (continuous mode) (mm)	6	9	12	14	16
Drill chuck holder	B 16	B 16	B 16	MT 2	MT 2
Spindle stroke (mm)	40	40	40	80	80
Overhang (mm)	200	200	200	190	190
Pillar Ø (mm)	50	50	50	65	65
Clamping area	240 x 300 mm	240 x 300 mm	240 x 300 mm	240 x 300 mm	240 x 300 mm
T-slots on clamping table (number x width x spacing)	2 x 12 x 80 mm	2 x 12 x 80 mm	2 x 12 x 80 mm	2 x 12 x 80 mm	2 x 12 x 80 mm
Feed type	Manual	Manual	Manual	Manual	Manual
Weight (kg)	64	64	64	83	83
Number of drive levels	Continuous	Continuous	Continuous	Continuous	Continuous
Motor output (kW)	0.54	0.54	0.54	0.54	0.54
Min./max. spindle speed	700-10000 U/min	390-6500 U/min	250-5000 U/min	230-4000 U/min	100-2000 U/min



# **Bench drill ALZSTAR**

power supply 400 V

# Application:

Economical drills for use in workshops.

### Execution

- main switch with motor protection switch, lockable
- mushroom pushbutton (locking) for EMERGENCY-STOP
- degree of protection IP 54
- reversing switch for clockwise/anti-clockwise rotation
- paint DD structure finish RAL 7035 light grey and 7016 anthracite

Model	ALZSTAR 18-T/S
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	18
Drill chuck holder	MT 2
Spindle stroke (mm)	80
Overhang (mm)	190
Pillar Ø (mm)	65
Clamping area	240 x 300 mm
T-slots on clamping table (number x width x spacing)	2 x 12 x 18 mm
Feed type	Manual
Rotational speed indicator	Scale
Weight (kg)	110
Number of drive levels	Continuous
Total engine capacity	0.37/0.55 kW
Min./max. spindle speed	225-4300 U/min



Model ALZSTAR 18-T/S

**ALZMETALL** 

# Bench drill AX

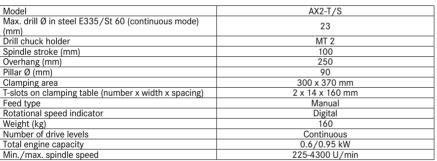
power supply 400 V

# Application:

Robust, economical drill for use in workshops.

### Execution:

- main switch with motor protection switch, lockable
- mushroom pushbutton (locking) for EMERGENCY-STOP
- degree of protection IP 54
- digital speed gauge
- paint DD structure finish RAL 7035 light grey and 7016 anthracite
- additional motor and speed variations on request







Model AX 2-T/S



# Bench drills TB 10 Plus / TB 10 Eco Plus

power supply 230 V

# Application:

**TB** 10 Eco Plus: Sensitive precision drill in alternating current version with electronically, infinitely variable controlled motor speeds, with quiet operation and excellent user comfort.

TB 10 Plus: The new TB 10 bench drill generation — innovative design meets impressive technical features. From the new touchscreen display, the ergonomically adapted drilling lever and the ideal lighting to simplified application thanks to fewer operating controls. Complemented by optional and innovative safety features, such as the newly developed drill protection, the machine quickly becomes indispensable in daily use.

- quickly adjustable drill depth stop
- emergency stop palm button
- infinitely variable speed control
- digital rotation speed and drilling depth display (TB 10 Plus only)
- LED lighting (TB 10 Plus only)
- drill protection with electric protection
- thread cutting device (max. M5)
- spindle stop

Model	TB 10 Eco Plus	TB 10 Plus
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	10	10
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	12	12
Max. thread-cutting performance	-	M6
Drill chuck holder	B 16	B 16
Spindle stroke (mm)	50	60
Pillar Ø (mm)	50	70
Overhang (mm)	180	220



TB 10 Plus; image with option



Clamping area	180 x 260 mm	250 x 300 mm
Feed type	Manual	Manual
Rotational speed indicator	Digital	Digital
Weight (kg)	30	44
Number of drive levels	Continuous	Continuous
Motor output (kW)	0.45	0.54
Min./max. spindle speed	500-3000 U/min	120-6000 U/min

Prod. group



# Bench drills TB 13 Plus / TB 18 Plus

power supply TB 13 Plus = 230 V / TB 18 Plus = 400 V

# Application:

The new TB 13 Plus and TB 18 Plus bench drill generation — innovative design and impressive technical features. From the new touchscreen display, the ergonomically adapted drilling lever and the ideal lighting to simplified application thanks to fewer operating controls. Complemented by optional and innovative safety features, such as the newly developed drill protection, the machine quickly becomes indispensable in daily use.

- emergency stop palm button
- infinitely variable speed control
- digital rotation speed and drilling depth display
- LED lighting
- drill protection with electric protection
- thread cutting device
- spindle stop
- with intermediate table
- TB 13 Plus MK2: "TO GO" version available from the warehouse!

# Execution:

quickly adjustable drill depth stop

Model	TB 13 Plus B16	TB 13 Plus MK2	TB 18 Plus
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	13	13	16
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	15	15	20
Max. thread-cutting performance	M8	M8	M10
Drill chuck holder	B 16	MT 2	MT 2
Spindle stroke (mm)	60	60	100
Pillar Ø (mm)	70	70	82
Overhang (mm)	220	220	240
Clamping area	250 x 300 mm	250 x 300 mm	280 x 340 mm
Feed type	Manual	Manual	Manual
Rotational speed indicator	Digital	Digital	Digital
Weight (kg)	62	62	110
Number of drive levels	Continuous	Continuous	Continuous
Motor output (kW)	0.54	0.54	1
Min./max. spindle speed	40-4000 U/min	40-4000 U/min	40-4000 U/min





TB 13 Plus B16, TB 13 Plus MK2 TB 13 Plus; image with option



TB 18 Plus SB/TB 18 Plus; image with option



# Bench drill power supply 400 V

# Application:

Universal drill with infinitely variable speed drive, digital drilling depth and rotation speed display, depth stop with precision adjustment, including connection cable with CEE plug.

- quickly adjustable drill depth stop
- emergency stop palm button
- thermal overload protection

- undervoltage trigger
- Connection cable (1.5 m) with CEE plug
- drill protection with electric protection
- infinitely variable speed control
- table height adjusted via rack
- manual reversing switch for clockwise/anticlockwise rotation
- digital rotation speed and drilling depth display

Model	TB P23 ST
Max. drill Ø in steel E335/St 60 (continuous mode)	18
(mm)	10
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	23
Drill chuck holder	MT 2
Spindle stroke (mm)	100
Pillar Ø (mm)	82
Clamping area	280 x 340 mm
Overhang (mm)	240
Feed type	Manual
Rotational speed indicator	Digital
Weight (kg)	175
Number of drive levels	Continuous
Total engine capacity	0.45/0.8 kW
Spindle speed level	Level 1: 125-2000   Level 2: 250-4000





Model TB P 23 ST

# Electric tools

# **MAXION**

# **Bench drills BT-series**

power supply 400 V

**Application:**Powerful, precise bench drill with high accuracy and quality.

# Execution:

optional with tapping function





- also available as a pillar drill
- additional motor and speed variations on request





BT 13 ST BT 18 ST BT 25 ST

Model	BT 13 ST	BT 18 ST	BT 25 ST
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	13	18	25
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	15	20	30
Max. thread-cutting performance	-	M16	M20
Drill chuck holder	B 16	MT 2	MT 3
Spindle stroke (mm)	70	100	120
Overhang (mm)	180	215	260
Pillar Ø (mm)	65	75	110
Clamping area	170 x 230 mm	285 x 220 mm	420 x 390 mm
T-slots on clamping table (number x width x spacing)	4 x 10 mm cross slot	2 x 12 x 120 mm	2 x 14 x 180 mm
Weight (kg)	65	85	215
Feed type	Manual	Manual	Manual
Rotational speed indicator	Scale	Digital	Digital
Total engine capacity	0.45/1 kW	0.6/1.2 kW	0.8/1.5 kW
Min./max. spindle speed	420-2100 U/min	200-3600 U/min	160-2800 U/min

Prod. group

# **MAXION**

# **Bench drill UNIMAX**

power supply 230 V

Powerful, universal and infinitely variable drill with clockwise/anti-clockwise rotation and digital

Model	UNIMAX 1 Tab	
Max. drill Ø in steel E335/St 60 (continuous mode)	15	
(mm)	15	
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	18	
Max. thread-cutting performance	M8	
Drill chuck holder	MT 2	
Spindle stroke (mm)	80	
Overhang (mm)	180	
Pillar Ø (mm)	65	
Clamping area	220 x 250 mm	
T-slots on clamping table (number x width x spacing)	2 x 10 x 80 mm	
Weight (kg)	80	
Feed type	Manual	
Number of drive levels	Continuous	
Motor output (kW)	1.1	
Min./max. spindle speed	200-4000 U/min	

display.





# HAHN+KOLB

# **ALZMETALL**

# Pillar drills ALZSTAR-series

power supply 400 V

# Application:

Heavy-duty, precise production drill with increased characteristics.

# Execution:

- main switch with motor protection switch
- mushroom pushbutton (locking) for EMERGENCY-STOP
- reversing switch for clockwise/anti-clockwise rotation
- degree of protection IP 54
- paint DD structure finish RAL 7035 light grey and 7016 anthracite
- infinitely variable speed adjustment with digital display
- fully assembled connector plug (2 m)
- spindle protection with electric protection



ZM1603-7

Model	ALZSTAR 30/S	ALZSTAR 40/S	ALZSTAR 40/SV
Max. drill Ø in steel E335/St 60 (continuous	30	40	40
mode) (mm)			
Drill chuck holder	MT 3	MT 3	MT 3
Spindle stroke (mm)	140	120	120
Overhang (mm)	293	293	293
Pillar Ø (mm)	115	115	115
Clamping area	360 x 514 mm	360 x 514 mm	360 x 514 mm
T-slots on clamping			
table (number x width x	2 x 14 x 224 mm	2 x 14 x 224 mm	2 x 14 x 224 mm
spacing)			
Feed type	Manual	Manual	2 steps
Feed stages	-	-	0.1 mm/U   0.2 mm/U
Rotational speed indicator	Digital	Digital	Digital
Number of drive levels	Continuous	Continuous	Continuous
Weight (kg)	260	270	285
Total engine capacity	1/1.6 kW	1.45/1.9 kW	1.45/1.9 kW
Min./max. spindle speed	225-4300 U/min	160-2250 U/min	160-2250 U/min

Prod. group

# **ALZMETALL**

# Pillar drills AX-series

power supply 400 V

# Application:

Heavy-duty, precise production drill with increased characteristics.

- main switch with motor protection switch
- mushroom pushbutton (locking) for EMERGENCY-STOP
- degree of protection IP 54

- paint DD structure finish RAL 7035 light grey and 7016 anthracite
- infinitely variable speed adjustment with digital display
- feed overload protection
- spindle protection with electric protection
- Machine oil: initial filling with loose container, supplied in delivery
- additional motor and speed variations on request

Model	AX3/SV	AX4/SV
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	40	55
Drill chuck holder	MT 3	MT 4
Spindle stroke (mm)	120	140
Overhang (mm)	293	300
Pillar Ø (mm)	115	145
Clamping area	360 x 515 mm	430 x 615 mm
T-slots on clamping table (number x width x spacing)	2 x 14 x 224 mm	2 x 14 x 224 mm
Feed type	2 steps	2 steps
Feed stages	0.1 mm/U   0.2 mm/U	0.1 mm/U   0.3 mm/U
Number of drive levels	Continuous	Continuous
Weight (kg)	270	380
Total engine capacity	1.45/1.9 kW	1.8/2.9 kW
Min./max. spindle speed	160-2250 U/min	70-1200 U/min







# Pillar drills AB-series

power supply 400 V

# Application:

Heavy-duty, precise production drill with increased characteristics.

# Execution:

- electromagnetic feed clutch
- lockable main switch
- mushroom pushbutton, locking, for EMERGENCY STOP
- degree of protection IP 54
- infinitely variable speed adjustment with digital display
- spindle protection with electric protection
- Machine oil: initial filling with loose container, supplied in delivery
- with overload protection and electric star handle switch

Model	AB 26/SV	AB 34/SV	AB 40/SV	AB 50/SV
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	26	34	40	50
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	30	40	50	60
Drill chuck holder	MT 3	MT 4	MT 4	MT 4
Spindle stroke (mm)	160	160	160	200
Overhang (mm)	293	300	300	350
Pillar Ø (mm)	115	145	145	200
Clamping area	360 x 514 mm	430 x 615 mm	430 x 615 mm	510 x 720 mm
T-slots on clamping table (number x width x spacing)	2 x 14 x 224 mm			
Feed type	4 steps	4 steps	4 steps	4 steps
Feed stages	0.1 mm/U   0.2 mm/U   0.3 mm/U   0.4 mm/U	0.1 mm/U   0.2 mm/U   0.3 mm/U   0.4 mm/U	0.1 mm/U   0.2 mm/U   0.3 mm/U   0.4 mm/U	0.15 mm/U   0.2 mm/U   0.3 mm/U   0.36 mm/U
Number of drive levels	Continuous	Continuous	Continuous	Continuous
Rotational speed indicator	Digital	Digital	Digital	Digital
Weight (kg)	440	470	470	605
Total engine capacity	1/1.6 kW	1.4/2.2 kW	1.8/2.9 kW	3.6/4.3 kW
Min./max. spindle speed	120-2200 U/min	100-1800 U/min	70-4000 U/min	60-1530 U/min
Prod. group		·		



ZM1604-6



# Pillar drills power supply 400 V

# Application:

SB M3 ST MV: Universal drill with infinitely variable speed drive, depth stop with precision adjustment, including connection cable with CEE plug. With optional mechanical feed.

**SB P23 ST:** Universal drill with infinitely variable speed drive, digital drilling depth and rotation speed display, depth stop with precision adjustment, including connection cable with CEE plug.

SB P40 STG PV electronic: Universal drill with infinitely variable speed drive; digital drilling depth and rotation speed display and infinitely programmable feed with integrated thread cutting device. A chip-break module, an automatic spindle stop and intermittent control are optional.

- emergency stop palm button
- thermal overload protection
- undervoltage trigger
- Connection cable (1.5 m) with CEE plug
- drill protection with electric protection
- infinitely variable speed control
- table height adjusted via rack
- SB M3 ST MV, SB P40 STG PV electronic: finely adjustable drill depth stop
- SB P23 ST: quickly adjustable drill depth stop



SB M3 ST MV



SB P23 ST



SB P40 STG PV electronic Image with options

		illiage .	with options
Model	SB P23 ST	SB M3 ST MV	SB P40 STG PV electronic
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	18	25	35
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	23	30	40
Max. thread-cutting performance	M16	M20	M30
Drill chuck holder	MT 2	MT 3	MT 4
Spindle stroke (mm)	100	125	160
Overhang (mm)	240	280	300
Pillar Ø (mm)	82	110	125





Clamping area	280 x 340 mm	340 x 420 mm	450 x 590 mm
T-slots on clamping table (number x width x spacing)	2 x 13 x 125 mm	2 x 13 x 125 mm	2 x 14 x 160 mm
Feed type	Manual	3 steps	Continuous
Feed stages	Manual	0.1 mm/U   0.16 mm/U   0.25 mm/U	=
Min./max. continuous feed motion	-	-	0-300 mm/U
Number of drive levels	Continuous	Continuous	Continuous
Weight (kg)	205	275	440
Total engine capacity	0.45/0.8 kW	0.9/1.45 kW	1.5/3 kW
Spindle speed level	Level 2: 250-4000   Level 1: 125-2000	Level 1: 125-2000   Level 2: 250-4000	Level 2: 100-2000   Level 1: 70-1400

Prod. group

# **MAXION**

# Pillar drills UNIMAX-series

power supply 400 V

Powerful, universal and infinitely variable drill with clockwise/anti-clockwise rotation and digital display.



■ AV = optional with automatic feed, chip breaking, digital drill depth display







UNIMAX 2

UNIMAX 3

**UNIMAX 4 Basic** 

Model	UNIMAX 2	UNIMAX 3	UNIMAX 4 Basic
	UNIIVIAA Z	UNIIVIAA 3	UNIVIAN 4 DASIC
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	18	25	35
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	20	30	40
Max. thread-cutting performance	-	-	M30
Drill chuck holder	MT 2	MT 3	MT 4
Spindle stroke (mm)	100	125	175
Overhang (mm)	225	260	300
Pillar Ø (mm)	90	110	120
Clamping area	315 x 450 mm	365 x 500 mm	400 x 550 mm
T-slots on clamping table (number x width x spacing)	2 x 12 x 120 mm	2 x 14 x 180 mm	2 x 14 x 180 mm
Feed type	Manual	Manual	Continuous
Number of drive levels	Continuous	Continuous	Continuous
Weight (kg)	170	250	450
Total engine capacity	1.5/1.5 kW	0.8/1.5 kW	1.5/3 kW
Spindle speed level	Level 1: 100-2000   Level 2: 200-4000	Level 1: 80-1440   Level 2: 180-3200	Level 1: 120-2500   Level 2: 60-1250

Prod. group

# Radial drill AB-series

power supply 400 V

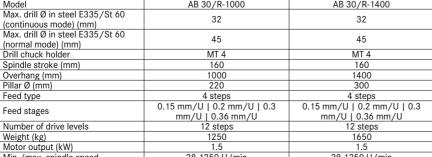
# Application:

Heavy-duty, precise production drill with increased characteristics.

- electromagnetic feed clutch with overload protection and electric star handle switch
- clockwise rotation through contactor control including motor protection switch for drive and
- control transformer (VDE 0113)

- lockable main switch
- base plate with T-slots
- mushroom push-button (locking) for EMERGENCY
- degree of protection IP 54
- spindle protection with electric protection
- paint: DD structure finish light grey RAL 7035 and anthracite RAL 7016, black
- additional motor and speed variations on request

Model	AB 30/R-1000	AB 30/R-1400
Max. drill Ø in steel E335/St 60 (continuous mode) (mm)	32	32
Max. drill Ø in steel E335/St 60 (normal mode) (mm)	45	45
Drill chuck holder	MT 4	MT 4
Spindle stroke (mm)	160	160
Overhang (mm)	1000	1400
Pillar Ø (mm)	220	300
Feed type	4 steps	4 steps
Feed stages	0.15 mm/U   0.2 mm/U   0.3 mm/U   0.36 mm/U	0.15 mm/U   0.2 mm/U   0.3 mm/U   0.36 mm/U
Number of drive levels	12 steps	12 steps
Weight (kg)	1250	1650
Motor output (kW)	1.5	1.5
Min./max. spindle speed	28-1250 U/min	28-1250 U/min







ZM1606-4



# Rapid radial drill ALZSPRINT

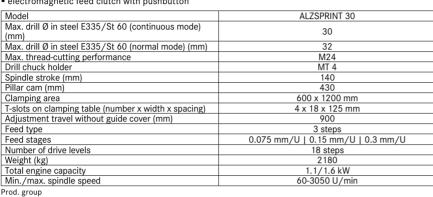
power supply 400 V

# Application:

Heavy-duty, precise production drill with increased characteristics.

# Execution:

- mushroom pushbutton (locking) for EMERGENCY STOP
- degree of protection IP 54
- electromagnetic feed clutch with pushbutton
- thread cutting device with double return speed
- clockwise rotation through contactor control
- control transformer (VDE 0113)
- spindle protection with electric protection
- lockable main switch
- hydraulic central clamp
- lighting





ALZSPRINT 30



# High-performance circular saws VMS

manual version

# Application:

Easy to operate, sturdy design and precise cutting make this saw a must for every steel and metal construction workshop.

# Execution:

- manual version
- saw blade feed via safety ratchet lever
- convenient mitre setting with fixed stops
- powerful pole-switching motors for 2 speeds
- large gearbox with EISELE rotation compensation
- heavy machine underframe
- integrated coolant equipment and chip drawer
- paint: RAL 4002 red violet; RAL 7035 light grey



VMS 300

Model	VMS 300	VMS 350	VMS 370
Max. machining cross- section, round, at 90° (mm)	90	120	130
Max. machining cross- section, rectangular, at 90°	120 x 75 mm	170 x 100 mm	200 x 100 mm
Max. machining cross- section, round, at 45° (mm)	90	120	130
Max. machining cross- section, rectangular, at 45°	80 x 75 mm	120 x 100 mm	140 x 100 mm
Saw blade Ø (mm)	275	350	370
Saw blade width (mm)	2	3	3
Bore Ø (mm)	40	40	40
Adjustable sawblade speed	40   80	17   34	17   34
Adjustable sawblade speed (optional)	-	34   68	34   68
Pivot-mounted upper machine part	45-90-45-30°	45-90-45-30°	45-90-45-30°
Total engine capacity	1/1.2 kW	1.4/1.9 kW	2/2.6 kW
Weight (kg)	190	330	460
Length x width x height	900 x 800 x 1600 mm	800 x 900 x 1700 mm	1000 x 1100 x 1800 mm
Daniel annua			





# High-performance circular saws VMS-PV

semi-automatic version

### Application:

Easy to operate, sturdy design and precise cutting make this saw a must for every steel and metal construction workshop.

# Execution:

- semi-automated version
- pneumatic, fast-action chuck devices, optional with clamping force reduction
- infinitely variable hydropneumatic saw blade feed
- stroke adjustment of the saw unit via clamping lever
- large gearbox with EISELE rotation compensation
- convenient saw blade changeover
- additional add-on gear with 4 speeds
- clamping pressure reduction
- micro-spray system
- paint: RAL 4002 red violet; RAL 7035 light grey



VMS 350-PV Model VMS 350 PV

Model	VMS 300-PV	VMS 350-PV	VMS 370-PV
Max. machining cross- section, round, at 90° (mm)	90	120	130
Max. machining cross- section, rectangular, at 90°	120 x 75 mm	170 x 100 mm	200 x 100 mm
Max. machining cross- section, round, at 45° (mm)	90	120	130
Max. machining cross- section, rectangular, at 45°	80 x 75 mm	120 x 100 mm	140 x 100 mm
Saw blade Ø (mm)	275	350	370
Saw blade width (mm)	2	3	3
Bore Ø (mm)	40	40	40
Adjustable sawblade speed	40   80	17   34	17   34
Adjustable sawblade speed (optional)	-	34   68	34   68
Pivot-mounted upper machine part	45-90-45-30°	45-90-45-30°	45-90-45-30°
Total engine capacity	1/1.2 kW	1.4/1.9 kW	2/2.6 kW
Width (mm)	900	900	1000
Length x width x height	1050 x 900 x 1800 mm	1050 x 900 x 1900 mm	1150 x 1000 x 2000 mm

Prod. group



# High-performance circular saws VMS-A

# fully-automatic version

# Application:

The ease of use and sturdy design for precise cutting ensure these automatic saws are indispensable for serial cutting with medium and large batches. Some of highlights include feeding with flat guide and ball bearing spindle for maximum precision in the positioning, the generous lining meets the most stringent safety requirements and offers the easiest operation in both automatic and manual modes.

- fully automated version
- integrated coolant equipment and micro-spray system
- pneumatic or hydraulic saw feed and quick-action clamping vice with clamping pressure reduction
- NC controller with graphic display and keypad
- convenient clamping lever
- paint: RAL 4002 red violet; RAL 7035 light grey

Model	VMS 370 A	VMS 400 A
Max. machining cross-section, round, at 90° (mm)	130	140
Max. machining cross-section, rectangular, at 90°	200 x 100 mm	200 x 120 mm
Max. machining cross-section, round, at 45° (mm)	130	140
Max. machining cross-section, rectangular, at 45°	140 x 100 mm	140 x 120 mm
Saw blade Ø (mm)	370	400
Bore Ø (mm)	40	40
Adjustable sawblade speed	8   16   32   64	8   16   32   64
Pivot-mounted upper machine part	45-90-45-30°	45-90-45-30°
Total engine capacity	2/2.6 kW	2/2.6 kW
Weight (kg)	600	700
Length x width x height	2150 x 770 x 1540 mm	2150 x 770 x 1540 mm





VMS 400 A



# High-performance circular saws

# semi-automated version

# Application:

The universal mitre circular saws ensure high cutting performance and long saw blade service life thanks to a robust and stable machine base for vibration-damped and low-noise operation of the saw.

- easy-to-use mitre setting
- hydraulic clamping device
- clamping pressure reduction
- infinitely variable saw blade feed
- paint: RAL 4002 red violet; RAL 7035 light grey

# Execution:

■ semi-automated version

Model	PSU 450 H
Max. machining cross-section, round, at 90° (mm)	150
Max. machining cross-section, rectangular, at 90°	240 x 70 mm
Max. machining cross-section, round, at 45° (mm)	145
Max. machining cross-section, rectangular, at 45°	170 x 70 mm
Saw blade Ø (mm)	450
Bore Ø (mm)	40
Adjustable sawblade speed	6   12   24   48
Pivot-mounted upper machine part	90-45-30-0°
Total engine capacity	3/3.6 kW
Weight (kg)	1250
Length x width x height	1610 x 1400 x 1900 mm





Model PSU 450 H



# High-performance circular saws VS

manual version

# Application:

The proven VS series circular saws are ideally suited for robust long-term use. The hardened and polished guide paths and the gears, which have been tried and tested for many years, help to achieve low-vibration sawing that protects the saw blade.

- hardened, grounded gear wheels in the gear
- groove for precise cuts combining two round tubes

- second clamping vice groove for slotting
- powerful drive motor
- table plate with low tension equipment
- hardened, ground, adjustable guide rails

# Execution:

■ manual version

Model	VS 300	VS 350	VS 370
Max. machining cross- section, round, at 90° (mm)	95	110	130
Max. machining cross- section, rectangular, at 90°	125 x 90 mm	170 x 105 mm	170 x 115 mm
Max. machining cross- section, round, at 45° (mm)	95	110	130
Max. machining cross- section, rectangular, at 45°	95 x 85 mm	130 x 105 mm	130 x 115 mm
Saw blade Ø (mm)	300	350	370
Saw blade width (mm)	2.5	3	3
Bore Ø (mm)	40	40	40
Adjustable sawblade speed	40   80	36   72	36   72
Adjustable sawblade speed (optional)	20   40	18   36	18   36
Pivot-mounted upper machine part	45-90-45-30°	45-90-45-30°	45-90-45-30°
Total engine capacity	1.6/2.1 kW	1.9/2.6 kW	1.9/2.6 kW
Weight (kg)	230	360	380
Length x width x height	620 x 580 x 1700 mm	750 x 650 x 1700 mm	750 x 650 x 1700 mm





VS 300



# High-performance circular saws VS-HA

semi-automatic version

# Application:

The proven VS series circular saws are ideally suited for robust long-term use. The hardened and polished guide paths and the gears, which have been tried and tested for many years, help to achieve low-vibration sawing that protects the saw blade.

- groove for precise cuts combining two round tubes
- second clamping vice groove for slotting
- powerful drive motor
- table plate with low tension equipment
- hardened, ground, adjustable guide rails
- pneumatic clamping device
- infinitely variable hydro-pneumatic saw blade feed



VS 350 HA Model VS 350 HA

# Execution:

- semi-automated version
- hardened, grounded gear wheels in the gear

Model	VS 300 HA	VS 350 HA	VS 370 HA
Max. machining cross- section, round, at 90° (mm)	95	110	130
Max. machining cross- section, rectangular, at 90°	125 x 90 mm	170 x 105 mm	170 x 105 mm
Max. machining cross- section, round, at 45° (mm)	95	110	130
Max. machining cross- section, rectangular, at 45°	95 x 85 mm	130 x 105 mm	130 x 115 mm
Saw blade Ø (mm)	300	350	370
Saw blade width (mm)	2.5	3	3
Bore Ø (mm)	40	40	40
Adjustable sawblade speed	40   80	36   72	36   72
Adjustable sawblade speed (optional)	20   40	18   36	18   36
Pivot-mounted upper machine part	45-90-45-30°	45-90-45-30°	45-90-45-30°
Total engine capacity	1.6/2.1 kW	1.9/2.6 kW	1.9/2.6 kW
Weight (kg)	250	400	420
Length x width x height	700 x 700 x 1600 mm	800 x 850 x 1900 mm	800 x 850 x 1900 mm

Prod. group



# Underfloor lightweight metal circular saw

manual version

# Application:

Manual undertable mitre saw for aluminium and plastic. For universal use in workshops and on construction sites

- manual version
- vertical material clamping from above
- clamping of material on right and left of saw blade
- material quick-action chuck device using cam
- mitre setting on the right and left up to 45°
- manual saw blade feed
- carry handles for mobile use
- including lightweight longitudinal stop
- includes manual sprayer

Model	LS 300 M
Max. machining cross-section, round, at 90° (mm)	100
Max. machining cross-section, rectangular, at 90°	50 x 160 mm
Max. machining cross-section, round, at 45° (mm)	80
Max. machining cross-section, rectangular, at 45°	50 x 100 mm
Saw blade Ø (mm)	300
Bore Ø (mm)	40
Adjustable sawblade speed	3000
Pivot-mounted upper machine part	45-90-45°
Motor output (kW)	1.5
Weight (kg)	65
Length x width x height	600 x 450 x 550 mm





Image with option



# Aluminium circular saws AL

manual version

# Application:

Fast-running precision circular mitre saw for nonferrous metals and plastics.

# Execution:

- manual version
- bench model
- cooling system with minimal lubrication
- 2 manual vices
- pulse switch on hand lever
- emergency stop palm button

- chip collection tray and chip container
- available at extra cost: accessories such as spray system, roller conveyors or pneumatic clamping system

# Advantage:

- versatile, powerful production saw
- fast-running, rotation speeds up to 2800 rpm
- mitre cuts up to 45° possible
- free demo service available



Model	AL 350	AL 380
Max. machining cross-section, round, at 90° (mm)	120	140
Max. machining cross-section, rectangular, at 90°	150 x 80 mm	165 x 80 mm
Max. machining cross-section, round, at 45° (mm)	110	120
Max. machining cross-section, rectangular, at 45°	110 x 80 mm	120 x 70 mm
Saw blade Ø (mm)	350	380
Bore Ø (mm)	40	40
Adjustable sawblade speed	1400   2800	2600
Total engine capacity	1.85/2.5 kW	3/3 kW



# Circular mitre saw S 225

manual version

# Application:

Portable, compact saw for cutting steel, stainless steel and non-ferrous metals.

# Execution:

- manual version
- bench model
- cooling system with minimal lubrication
- hand vice

- pulse switch on hand lever
- motor protection main switch

# Advantage:

- versatile, compact circular mitre saw
- mitre cuts up to 60° possible
- free demo service available



Model	S 225
Max. machining cross-section, round, at 90° (mm)	70
Max. machining cross-section, rectangular, at 90°	80 x 50 mm
Max. machining cross-section, round, at 45° (mm)	64
Max. machining cross-section, rectangular, at 45°	60 x 50 mm
Saw blade Ø (mm)	225
Bore Ø (mm)	32
Adjustable sawblade speed	42   56
Motor output (kW)	0.8
Optional total motor capacity	0.8/1.2 kW
Prod. group	



# Pipe and steel section circular saws

manual version

# Application:

Compact and powerful mitre saw for cutting stainless steel, steel and nonferrous metals.

# Execution:

- manual version
- cooling system (membrane pump)
- emergency stop switch
- available at extra cost: accessories such as spray system or pneumatic clamping system
- H 250, H 300:





- manual vice with brace
- H 350:
  - free-standing model with closed floor unit
  - manual vice with quick-action clamping lever and brace

# Advantage:

- versatile, powerful production saw
- mitre cuts up to 45° possible
- free demo service available





H 350

# Vertical bandsaws



Model	H 250	H 300	H 350
Max. machining cross-section, round, at 90° (mm)	80	95	120
Max. machining cross-section, rectangular, at 90°	110 x 50 mm	145 x 60 mm	160 x 70 mm
Max. machining cross-section, round, at 45° (mm)	75	90	105
Max. machining cross-section, rectangular, at 45°	70 x 50 mm	110 x 60 mm	110 x 70 mm
Saw blade Ø (mm)	250	315	350
Bore Ø (mm)	40	40	40
Adjustable sawblade speed	50   100	44   88	44   88
Total engine capacity	0.8/1.2 kW	1.1/1.4 kW	1.8/2.2 kW

Prod. group



# Metal bandsaws BB-series

power supply 400 V

# Application:

The BB models feature different cutting speeds, which means they can be used for virtually any material. Be it tool steel, structural steel or stainless steel, aluminium, copper, brass or plastics such as polyamide.

### Execution:

closed, stable machine housing in stand-LEFT design

- safety guard protected by limit switch
- swivel-mounted grey cast iron table (up to 45°)
- aluminium cast wheels with vulcanised and ground linings
- precision cemented carbide guide, for high loads
- vibration-damping wheel suspension
- gearbox motor with 2 speeds
- runs extremely quiet



BB 315/3M Image with optional floor unit

Model	BB 315/M	BB 315/3M
Max. cutting height (mm)	205	250
Max. cutting width (mm)	295	600
Clamping area	450 x 450 mm	450 x 820 mm
Roll Ø (mm)	315	315
Total engine capacity	0.55/0.88 kW	0.55/0.88 kW

Prod. group

# Zh

# Steel and metal bandsaws SM-series

power supply 400 V

# Application:

The solid and powerful band saws are used in the most versatile of applications in all industry sectors. The heavy-duty and low-vibration design ensures smooth operation and durability of these machines. The band saws are designed according to EU standard and have the CE certificate.

# Execution:

- band saw stand in robust grey cast iron construction/steel construction
- infinitely variable via gearboxes, frequency inverters and three-phase motors

- saw band tension indicator
- tilting workbench
- replaceable aluminium running wheels with vulcanised hard rubber coating
- swivelling upper running wheel
- complete electric design in accordance with VDE
- position switch for securing safety guards
- saw band guide with jaws or rollers
- 1 bimetal saw band and 1 set of operating keys



SM 320 Image with options

inverters and three-phase motors		
Model	SM 320	SM 420
Max. cutting height (mm)	170	230
Max. cutting width (mm)	310	410
Roll Ø (mm)	320	420
Projection at width (mm)	310	410
Projection at height (mm)	170	230
Clamping area	500 x 500 mm	600 x 600 mm
Total engine capacity	0.9/1.3 kW	1.1/1.7 kW
Weight (kg)	470	590



# Steel and metal bandsaw SSF-series

# as model SM 320 and 420, however with adjustable cutting speed

# Application:

The solid and powerful band saws are used in the most versatile of applications in all industry sectors. The heavy-duty and low-vibration design ensures smooth operation and durability of these machines. The band saws are designed according to EU standard and have the CE certificate.

# Execution:

- band saw stand in robust grey cast iron construction/steel construction
- infinitely variable via gearboxes, frequency inverters and three-phase motors

saw bar	d tensior	n indicator
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- tilting workbench
- replaceable aluminium running wheels with vulcanised hard rubber coating
- swivelling upper running wheel
- complete electric design in accordance with VDE
- position switch for securing safety guards
- saw band guide with jaws or rollers
- 1 bimetal saw band and 1 set of operating keys



SSF 420 Image with options

Model	SSF 420	SSF 520
Max. cutting height (mm)	230	520
Max. cutting width (mm)	410	510
Roll Ø (mm)	420	520
Projection at width (mm)	410	510
Projection at height (mm)	230	520
Clamping area	600 x 600 mm	785 x 740 mm
Min./max. cutting speed	12-2000 m/min	22-2280 m/min
Motor output (kW)	2.2	5.5
Weight (kg)	680	1100
Prod. group		



# Twist drill sharpener V 391

Grinding range Ø 3-19 mm

# Application:

Economical and practical regrinding solution for simple trade and industrial requirements. With camcontrolled chuck for excellent conical grinding with cross thinning

# **Execution:**

■ motor 230 V/3.0 A/50 Hz

- rotation speed: 2850 rpm
- extremely simple drill positioning
- adjustable tip angle 118-140°
- thinning in one clamping operation
- infinitely variable relief grinding
- with CBN sanding disc



Image with options

Model Min./max. sanding area 3-19 mm Min./max. point angle 118-140 Degree Length x width x height 300 x 280 x 230 mm Weight (kg) 8.2

Prod. group

# Twist drill sharpener XT 3000

Grinding range Ø 3-21 mm

# Application:

With practical quick-change system, a particularly powerful regrinding solution for twist drills, NC spotting drills, conical countersinks and stepped drill bits. An excellent grinding centre with floor unit and suction system options

# Execution:

■ motor 230 V/3 0 A/50 Hz

- rotation speed: 2850 rpm
- infinitely variable change to tip angle of 118°-150° without changing discs (90° option)
- precise grinding in one clamping
- 2 high-quality CBN sanding discs
- 1 x 6-jaw precision chuck for 3-12 mm diameter
- 1 x 6-jaw precision chuck for 12-21 mm diameter

Model	XT 3000
Min./max. sanding area	3-21 mm
Min./max. point angle	118-150 Degree
Length x width x height	410 x 410 x 260 mm
Weight (kg)	25
Prod. group	



Image with options

# Twist drill sharpener Micra 10 Integral

Grinding range Ø 0.5-16 mm, option to Ø 20 mm

# Application:

This machine produces four-surface grinding, which is recommended for narrow bore tolerances in particular. Even twist drills with standard shanks can be clamped securely. This particular type of grinding is also increasingly used with solid carbide drills.

- tip angle of 80°-180° for drills with 2 and 3 cutting edges
- clearance angle can be adjusted between 0°-18°
- adjustable pointed angle between -40° and +10°
- universal collet with 4 tensioning pins 0.5-6.35
- 1 set of collet chucks 6-16 mm (10x) with associated chuck
- centring socket to hold twist drills with Morse taper no. 1, 2, 3 and 4
- micrometer screw stop for thinning
- projector with 15x zoom including cold light
- 4 sanding disc flanges, 1 CBN thinning sanding disc, 3 sanding discs (grain 60, 100, 220)
- at

,	<ul> <li>sanding disc dressing tool with diamond, 0.5 carat</li> </ul>
Model	Micra 10 Integral
Min./max. sanding area	0.5-16 mm
Min./max. point angle	80-180 Degree
Length x width x height	680 x 500 x 520 mm
Weight (kg)	57
Prod. group	



MICRA 10 INTEGRAL

# CUDCH

# Twist drill grinding machine APE 40

Grinding range Ø 2-40 mm

# Application:

This model creates excellent conical grinding with extremely low cutting impact so that even closely toleranced drill holes can be created with larger drills. Also available as an automatic machine.

### Execution:

- tip angle of 40-180° for left-cutting or right-cutting tools with 1-12 cutting edges
- 6-jaw precision chuck
- 4-part set of cam discs for right-cutting tools with 1, 2, 3, 4, 6 cutting edges
- Morse taper no. 1, 2, 3 and 4
- integrated cooling system
- pointed device for cross grinding and standard web thinning
- Sanding disc Tyrolit 89A60J5AV217 200 x 25 x 32 grain 60
- cup sanding disc 125 x 13 x 20 for thinning with electric drive
- sanding disc dressing tool with diamond, 0.5 carat
- halogen bulb

Model	APE 40
Min./max. sanding area	2-40 mm
Min./max. point angle	40-180 Degree
Length x width x height	840 x 820 x 1200 mm
Weight (kg)	170

Prod. group



APE 40



# **Engraver's milling cutter FSS**

Grinding range Ø 3-20 mm

# Application:

The FSS is a proven model, and its simple, robust machine design guarantees long-term precision. The excellent precision and handling of this model have proven themselves over several decades in extreme workshop applications.

- robust drive
- precise grinding spindle
- integrated dressing unit

- easy handling
- variety of grinding options
- e.g.: single-lip milling cutter in wide variety of
- Twist drill 3-20 mm diameter, stamp up to max. 25 mm diameter
- eiector pins, tracer pins, electrodes
- cemented carbide blade, flat and round, turning and shaping steels

Model	FSS
Max. relief angle (Degree)	45
Max. grinding radius (mm)	20
Max. collet chuck Ø (mm)	18
Rotation speed (U/min(rpm))	4600
Max. fine adjustment of tool carrier (mm)	10
Max. movement of tool carrier (mm)	120
Adjust travel of tool clamping unit (mm)	35
Adjustment travel of transverse carriage (mm)	30
Length x width x height	500 x 500 x 300 mm
Weight (kg)	32







# Steel grinding and lapping machine

Table-top or stand version

# Application:

For rough and fine grinding of lathe chisels and reversible tips.

# Execution:

- protective cover
- clamping flange for diamond discs or, alternatively. for ceramic discs with 125 mm diameter
- Support table ATS (ST1 = 1 table, ST2 = 2 tables)
- spring table ATS: can be adjusted axially and locked into position, infinitely variable adjustment of the table tilt with threaded spindle from -5 to +15 degrees, with scale and clamping lever. This

table also features a locking lever, which prevents lateral movement. The table therefore becomes rigid if required, such as during radius grinding. The milled T-groove is used to guide an angle stop, which can be supplied as an optional accessory. This groove enables the required angle of the tool to the sanding disc to be easily maintained during the grinding process.

The grinding motor comes with a reversing switch for clockwise/anti-clockwise rotation.

Model	ST 1/125	ST 2/125	
Grinding wheel dimensions	125 x 22 x 32 mm	125 x 22 x 32 mm	
Diamond grinding wheel dimensions	96 x 14 mm	96 x 14 mm	
Rotation speed (U/min(rpm))	2900	2900	
Motor output (kW)	0.37	0.37	





ST 1-125 In bench version; image with options



ST 2-125 Image with options



# Double-ended grinding machine

Table-top or stand version

# Application:

The classic quality machine for grinding and sharpening workpieces for your workshop. As a bench model, with stand without suction system or stand with suction system (both available as an option).

Grinding wheel dimensions

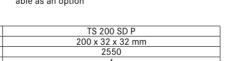
Motor output (kW) Weight (kg)

Rotation speed (U/min(rpm))

# Execution:

smooth-running, maintenance-free motor

- protective cover closed on the side
- sturdy and adjustable workpiece support
- motor protection switch and undervoltage circuit
- stand with or without dust suction system available as an option



20

TS 200 SD P



# Electric double-ended grinders

Table-top or stand version

The DS machine series offers a complete range of machines for the most varied of grinding and sharpening applications. Machines with 150-mm to 200-mm grinding disc diameters are also available as alternate current machines.

# Execution:

■ Model DS 12/200-DS 15/300: The machines are delivered as a bench-mounted model or a freestanding model with integrated water immersion tank. Included in standard accessories: sanding discs (synthetic corundum), protective covers

workpiece supports. The machines can also be delivered with eye protection shields

 Model DS 12/200A-DS 15/300A: The DS series workshop grinding machine, with a suction system integrated in the machine stand, is characterised by its compact design. Any resulting coarse sanding dust is pre-cleaned by a water preseparator and filtered effectively by a downstream pre-filter and post-filter. Pre-cleaning the sanding dust guarantees a long service life for the filter elements.

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Model	DS 12/200	DS 12/250	DS 12/300					
Grinding wheel dimensions	200 x 32 x 51 mm	250 x 32 x 51 mm	300 x 40 x 76 mm					
Rotation speed (U/ min(rpm))	2900	1450	1450					
Motor output (kW)	0.9	0.73	1.1					
Weight (kg)	40	47	80					

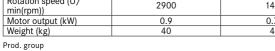




Table version



# **Arbour presses**

# subframe option

# Application:

Arbour presses are invaluable for driving in and driving out arbours, spindles, pins etc. They are also essential in the CIM age for mechanical workshops and repair shops. The arbour presses are designed to be mounted on a workbench. Sizes 2, 3 A and 3 B are available with an underframe, which allows vibration-proof work processes.

# Execution:

- for mounting on a workbench
- 1633-6, 1633-7, ZM1633-8: with underframe (optional)



1633-4 Size 0



1633-5 Size 1



1633-6 Size 2



1633-7 Size 3 A



ZM1633-8 Size 3 B



Frame for arbour press

Model	C:== 0	C:== 1	C: 2	C: 2A	C: 2D
	Size 0	Size 1	Size 2	Size 3A	Size 3B
Max. Ø of workpiece (mm)	180	200	320	450	450
Throat depth to centre of spindle (mm)	100	104	164	230	230
Max. distance between table and rack (mm)	110	200	300	400	400
Slot widths of support	10 mm   15 mm   20 mm	10 mm   15 mm   22 mm	15 mm   25 mm   35 mm	25 mm   45 mm   65 mm	25 mm   45 mm   65 mm
table	25 mm	30 mm	I 50 mm	85 mm	85 mm
Pusher rod Ø (mm)	28	36	42	48	48
Cast iron body height (mm)	260	400	545	700	700
Compressive force (kN)	3.5	5	7	8	8
Width x depth	195 x 130 mm	277 x 172 mm	358 x 198 mm	480 x 250 mm	480 x 250 mm
Weight (kg)	11	25	42	92	96
Weight of base frame (kg)	-	-	55	55	55



