



Grinding machines

Drilling machines

Metal sawing machines



Product range
2015

FLOTT - High Quality – made in Germany since 1854

In 1854, a small family business was founded in Remscheid, Germany which developed and manufactured breast drills and drilling equipment of the finest quality for the German market. With these simple machines and the over the years invented drill presses, the company Arnz FLOTT Machine Tools wrote history in the machine tool industry segment and is therefore recognized and often cited as the "pioneer" of the drilling technology.

Today FLOTT is due to its outstanding experience in engineering and product quality already well established in the international machine markets. Always close to our customers - "High Quality – made in Germany". With our global partners FLOTT is not only the oldest, but also one of the leading manufacturers of advanced, high-quality drilling-, grinding - and sawing machines in Europe.

Tradition commits – to innovation!

Standstill would be anything but FLOTT. As a future- and user-oriented company FLOTT continues to invest constantly nearly 5% of the annual sales for research and product development. Continuous improvements of our products and above all, intelligent solutions, industry-specific innovations in drilling-, sawing- and grinding technology - evidenced by numerous patents, copyrights, customer- and design awards – speak for the innovative and legendary pioneering spirit of FLOTT.

This means, by purchasing a FLOTT machine our customers can always rely on getting a perfectly developed, state-of-the-art and technically sophisticated as well as user ergonomics orientated high quality machine. With a better warranty and additional benefits included: Traditionally the high quality and service... Since 1854!

Service decides – on customer satisfaction

With stationary, modern training facilities for courses in theory and practice of the FLOTT drilling academy located at the FLOTT headquarter and production plant in Remscheid and at several FLOTT trade missions, we want to meet customers' expectations and needs highly efficient.

Service also means that as soon as necessary, a repair will be carried out in order to reduce the machine's downtime to a minimum. FLOTT offers a Europe wide service. If needed, we will capacitate your machine within 24 hours. Accordingly, a 24-hour spare parts shipment is possible.

These are just a few points of the FLOTT service concept. For additional information, please visit our website at www.flott.de, or contact your local FLOTT representative.





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Table of Content Drilling Machinery

	Drilling Capacity mm	Tapping Capacity	Speed rpm/min	Motor kW		Page
TB 10 STW	12	–	500-3000	0.45	Single phase AC 230 V	12
Turbo Drill	6/8	max. M5	200-10 000	0.54	Single phase AC 230 V (frequency converted)	14
TB 10 Plus	10/12	max. M6	120-6000	0.54	Single phase AC 230 V (frequency converted)	14
TB/SB 13 Plus	13/15	max. M8	40-4000	0.54	Single phase AC 230 V (frequency converted)	16
TB E1	15/18	–	400-3600	0.75	Three phase motor 400 V single speed	18
TB / SB M1 ST	15/18	max. M10	100-4200	0.45 / 0.75	Three phase AC 400 V pole-changing	20
TB / SB P18 ST	15/18	max. M10	200-4200 R1 100-4200 R2	0.75 0.45 / 0.75	Three phase motor 400 V single speed Three phase AC 400 V pole-changing	22
TB / SB E2	18/23	–	200-3600	0.45 / 0.75	Three phase AC 400 V pole-changing	24
TB / SB M2 ST	18/23	max. M16	250-4000	0.45 / 0.80	Three phase AC 400 V pole-changing	26
TB / SB / TBZ P23 ST	18/23	max. M16	250-4000 R1 125-2000 R2	0.45 / 0.80	Three phase AC 400 V pole-changing	28
SB E3	20/25	–	250-4000	0.45 / 0.80	Three phase AC 400 V pole-changing	30
SB E4	25/30	–	125-2500	0.9 / 1.9	Three phase AC 400 V pole-changing	32
SB M3 ST / MV	25/30	max. M20	125-4000	0.9 / 1.45	Three phase AC 400 V pole-changing	34
SB P30 ST / STG PV elec.	25/30	max. M20	125-4000	0.9 / 1.45	Three phase AC 400 V pole-changing	36
SB E5	30/35	–	80-1600	0.9 / 1.45	Three phase AC 400 V pole-changing	38
SB M4 ST / MV	30/35	max. M24	125-2000	1.5 / 2.0	Three phase AC 400 V pole-changing	40
SB P35 ST / STG PV elec.	30/35	max. M24	125-2000 R1 80-1280 R2	1.5 / 2.0	Three phase AC 400 V pole-changing	42
SB M5 ST / MV	35/40	max. M30	100-2000	1.5 / 3.0	Three phase AC 400 V pole-changing	44
SB P40 ST / STG PV elec.	35/40	max. M30	100-2000 R1 70-1400 R2	1.5 / 3.0	Three phase AC 400 V pole-changing	46
GB 50 MV	50	max. M36	Gear Drive	3.0	Three phase motor 400 V single speed	48
GB 50 MV plus	50	max. M36	Gear Drive	3.0	Three phase motor 400 V single speed	50
SB P50 STG MV*	50	max. M42	Gear Drive	4.0	Three phase motor 400 V single speed	52
GB 70 MV plus	70	max. M50	Gear Drive	5.5	Three phase motor 400 V single speed	54
BFM 40	35	max. M35	Gear Drive	0.9 / 1.5	Three phase AC 400 V pole-changing	56
Flow drilling capacity (3 mm sheet metal)						
SB P23 ST-FB	8	–	500-4000	1.5	Three phase motor 400 V single speed	58
SB M3 ST-FB	18	–	500-4000	3.0	Three phase motor 400 V single speed	60
SB P40 ST-FB/STG-FB PV elec.	20	–	500-4000 R1 250-4000 R2	3.0 1.5 / 3.0	Three phase motor 400 V single speed Three phase AC 400 V pole-changing	62

Colour Mapping

Single phase AC 230 V

E-series

M-series

P-series

Gear Driven Drilling Machine

*Combined of belt and gear drive

Table of Content Grinding Machinery

Bench Grinding Machines		TS 150 SW	TS 175 SW	TS 150 SD P	TS 175 SD P	TS 200 SD P	TS 250 SD P	TS 300 SD P	TSB 250 P
Wheel diameter	mm	150 x 25 x 32	175 x 25 x 32	150 x 25 x 32	175 x 25 x 32	200 x 32 x 32	250 x 40 x 51	300 x 40 x 51	250 x 40 x 51
Speed	rpm/min	2,800	2,800	2,840	2,740	2,550	1,400	1,250	1,400
Motor single-phase AC 230 V AC	kW	0.52	0.52	–	–	–	–	–	–
Motor three-phase AC 230/400 V AC	kW	–	–	0.6	0.7	1.0	1.4	2.2	1.4
Weight	kg	14	15	14	15	20	32	40	35
Suction nozzle Ø	mm	42	42	42	42	42	42	42	–
	Page	76	76	76	76	78	78	78	84

Belt Grinding Machines		BSM 75	BSM 75 A	BSM 75 A/pol	BSM 150	BSM 150 A	BSM 150 A/pol	TBSM 75
Sanding belt length	mm	2,000	2,000	2,000	2,000	2,000	2,000	1,000
Sanding belt width	mm	75	75	75	150	150	150	75
Motor three-phase AC 230/400 V AC	kW	3.75	3.75	2.2/3.75	3.75	3.75	2.2/3.75	0.55
Weight	kg	85	105	105	100	120	120	30
Motor exhaustion	kW	–	0.37	0.37	–	0.37	0.37	–
	Page	86	86	86	86	86	86	82







Foot Stand with

Dust Extraction		MA 400 D	MA 600 D
Motor three-phase AC 230/400 V AC	kW	–	0.55
Motor single-phase AC 230 V AC	kW	1.1	–
Speed	rpm/min	1,600	2,800
Extraction	m³/h	250	350
Weight	kg	25	45
	Page	82	82

Deburring Machine

		BEM 250
Steel brush diameter Ø	mm	250
Steel brush width standard	mm	40
Brush speed	m/s	38
Rotational speed/ pole-changing	rpm/min	1,500/3,000
Installation surface W x D	mm	400 x 400 x 1,380
Driving power	kW	2.2/2.4
Motor	V/Hz	400/50
	Page	80

Table of Content Metal Sawing Machinery

Metal Band Saws	Dimensions band saw blade-Ø mm	 * at 0°	 * at 0°	 * at 0°	Page
HBS 180 A	2,085 x 20 x 0.9	180	180	200 x 150	92
HBS 225 A	2,450 x 27 x 0.9	225	200	240 x 160	94
HBS 255 MA	2,750 x 27 x 0.9	255	350	300 x 180	96
HBS 300 HA digit	3,310 x 27 x 0.9	300	260	330 x 260	98
Metal Circular Saw	Saw blade-Ø mm	 * at 0°	 * at 0°	 * at 0°	
KS 315 M	315 x 32	95	80	110 x 70	100
Portable manual bandsaw					
PBS 105	1,335 x 13 x 0.65	105	95 x 95	100 x 85	102
PBS 120 ST	1,440 x 13 x 0.65	120	112 x 112	120 x 102	104
PBS 150 ST	1,735 x 13 x 0.90	150	150 x 150	160 x 140	106

*Miter cuts are possible, for details please check the specified catalogue pages.

Education & Training

FLOTT Training Charts

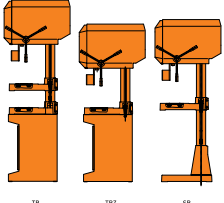
The safe use of all kinds of drilling machines is explained by this FLOTT training charts. Additionally the different types of drill press machines, working methods as well as the correct use of all common clamping devices are described here for the object training in schools and training facilities. This helpful FLOTT training charts is available free of charge on request.

Bohren mit FLOTT

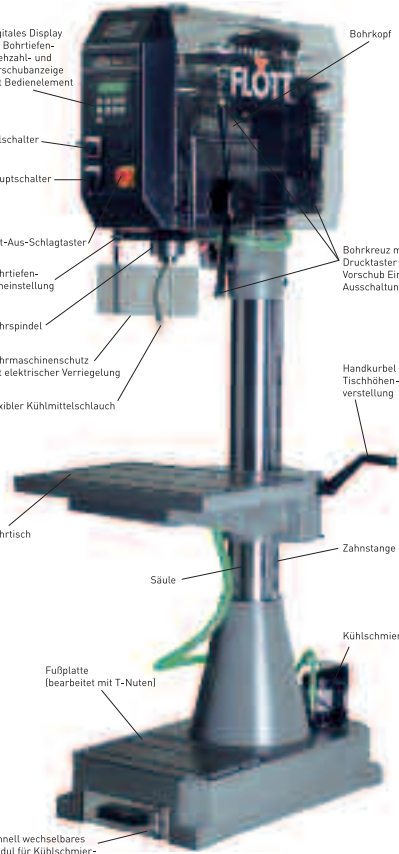
Werkzeugmaschinen

**High Quality –
made in Germany
since 1854.**

Bauarten



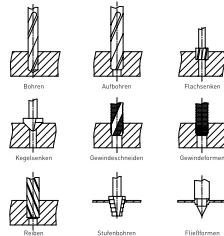
TB Tischbohrmaschine mit Zwischtisch
TBZ Tischbohrmaschine ohne Zwischtisch
SB Säulenbohrmaschine



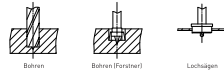
Digitales Display für Bohrtiefe-, Drehzahl- und Vorschubanzeige mit Bedienelement
Potschalter
Hauptschalter
Not-Aus-Schlagtaster
Bohrtiefeneinstellung
Bohrspindel
Bohrmaschinenschutz mit elektrischer Verriegelung
flexibler Kühlmittelschlauch
Bohrtisch
Säule
Fußplatte (bearbeitet mit T-Nuten)
Bohrkopf
Bohrkreuz mit Drucktaster für Vorschub Ein-/Ausschaltung
Handkurbel der Tischhöhenverstellung
Zahnstange
Kühlschmiermittelpumpe

Arbeitsverfahren

Metall, Kunststoff

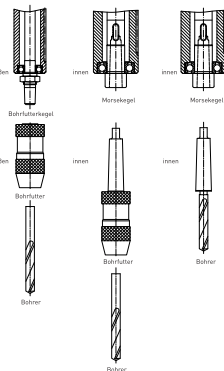


Holz, Kunststoff




Spannmittel

Für Werkzeuge



Anzeige und Bedienfeld

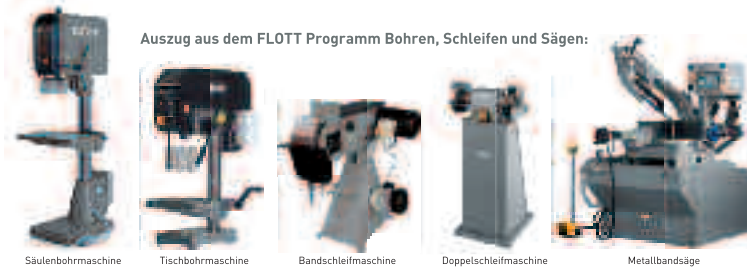


Spindeldrehzahl Vorschubgeschwindigkeit
Bohrtiefenwert Bohrleistungswert
Pos. Minus
Enter

Betriebsart: **Handvorschub**
Betriebsart: **Programmierbarer Vorschub**
Betriebsart: **Gewindeschneiden**
Reset-Taste setzt den aktuellen Bohrtiefenwert auf 0
Enter-Taste übernimmt den aktuellen Bohrtiefenwert
Zahlenreiser wechselt zwischen Bohrtiefenwert und Vorschubgeschwindigkeit
Spaltenreiser wechselt innerhalb der Stellen eines Wertes
Plus-Taste erhöht den Wert
Minus-Taste vermindert den Wert

schnell wechselbares Modul für Kühlschmieremulsion inkl. Anzeige


Auszug aus dem FLOTT Programm Bohren, Schleifen und Sägen:



Säulenbohrmaschine Tischbohrmaschine Bandschleifmaschine Doppelschleifmaschine Metallbandsäge

Sicherheit beim Bohren

Beim Bohren immer auf Nummer Sicher gehen, damit Dich die Maschine nicht beim Wickel kriegt.



Schutzbrille tragen!
Lange Haare von betriebsabkürzenden Stoffen und Kutten abdecken!
Körperschmuck (Kette, Halskette) entfernen!
Eig. polierfähige Werkstücke nicht an der Maschine bearbeiten!
Gepökelte Spindelbohrer benutzen!

Product Guide Drilling Machines

FLOTT offers the customer a wide selection of high quality drilling machines, which allows the user to select an optimal machine for working in the drilling range from 0.5 to 70 mm.

The machines are **sorted** by their drilling and tapping capacities. Among the assembly groups, the **essential accessories and optional equipment** available are listed.

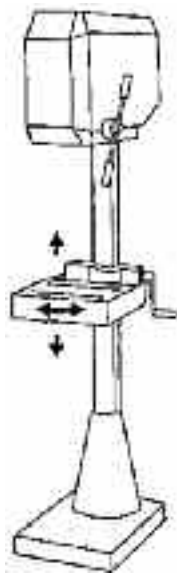
All FLOTT machines are characterized by a modern and ergonomic **design** and **the brands technological advance** is documented by numerous **patents** and **trademarks**.

A lot of the FLOTT drilling machines are standardly equipped **with modern electronic devices** such as **digital depth and speed indicating displays** as well as **electronic continuously variable drives** in order to facilitate the operation of our machines.

The extraordinary product quality, durability and **longevity** of the FLOTT machines are appreciated worldwide.

Product safety has top priority to us and it has always been. All FLOTT machines do fulfill the high European safety regulations and standards (CE) in total.

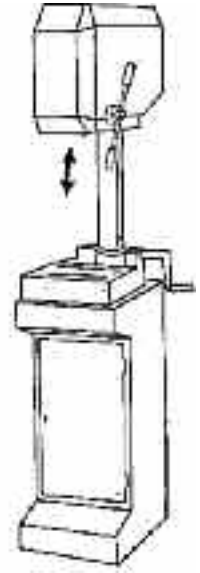
Types of Drilling Machines



SB
Column Drilling Machine



TB
Bench Drilling Machine
with Table



TBZ
Bench Drilling Machine
without Table
with rack

Additional Abbreviations

ST	Continuous variable drive
G electronic	Tapping device, electronically controlled
MV	Mechanical movement, with electromagnetic coupling
PV electronic	Programmable feed with electromagnetic coupling feed, electronically controlled; digital multi-functional display
FB	Flow-Forming



Description of the essential product range

Electronic AC machines of the series

TB 10 STW, TB 10 Plus, Turbodrill TB 13 Plus,

State of-the-art machinery, for use in laboratories, workshops and schools. For permanent or industrial use, we recommend the machines of the FLOTT E-, M- and P series.

Products of the E-series

Our value for money machine line for use in industry and trade. **Belt driven** machine with speed adjustment by manually switching the belt.

Products of the M-series

Production machines for use in industry and trade **with infinitely variable speed control**. From model M 3 onwards a mechanical **three speed drill feed** unit is as option available.

OUR TOP-SERIES! Products of the P-series/ The FLOTT top series

Production machines for industrial use equipped with infinitely variable speed control, **digital indicators of drilling depth and drilling speed**. From model P 30 ST onwards a programmable feed (range 0-300 mm/min.) is available.

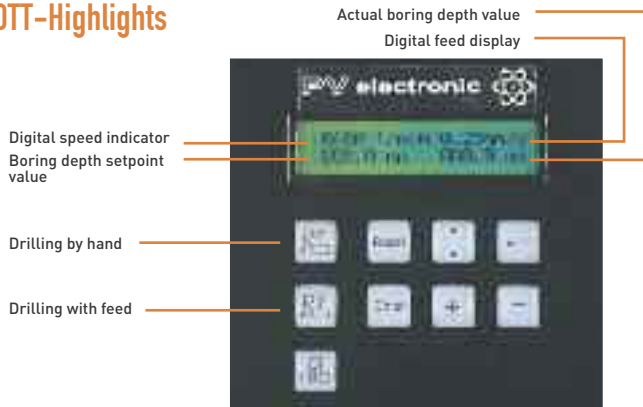
XYZ Lathe and milling machines

Heavy duty production machines for use in industry and trade with gear supported speed control.

Visit our website:

www.flott-xyz-werkzeugmaschinen.de

FLOTT-Highlights



Machine Height Adjustment

Option for the P40 drilling machine series:
Electronically variable height column adjustment. the combination of machine head and it's column are adjustable to user requested height (max 150 mm). Tall or short, the ergonomic design will reduce posture health risk.

Programmable drilling feed PV electronic
Our latest development, the patented programmable drilling feed PV electronic has state-of-the-art, electronically controlled drilling feed rate with an electromagnetic coupling.

All significant process data are digitally displayed and can be changed effectively and intuitively by keyboard at any time.

Apart from the standard functions "Manual Drilling" and "Feed Drilling", the series model **PV electronic** also features **electronic thread-cutting** and **peck-drilling cycles**.

The standard equipment of this highly sophisticated feed controller can be individually supplemented by the following optional software modules:

- Security module
- Chip-breaker module
- Multi Feed Unit

LED-Lighting for PV electronic

With immediate effect we supply all machines of the STG PV series installed with LED-light integrated in drill head 45°, LUMEN:150 cold white



Thermal Protection Overload

All FLOTT drilling machines use motors with thermal overload protection

FLOTT Machine Safety



Transparent Protective Hood

The FLOTT drilling machines can be supplied with transparent protective hoods at extra charge. This is a further contribution towards machine safety, as the transparent hood allows you to see immediately whether the machine is in operation. The set speed and the condition of the drive belts can be assessed at all times by the operator.



Available also with transparent protective hood: P30 / P35 / P40 STG PV electronic



Electrical Chuck Guard

All FLOTT drilling machines are by **standard equipped with an electrical chuck guard** that shuts the machine down while the chuck guard is opened. This is a further FLOTT contribution towards machine safety.



Drill guard with micro switch but with split guard

On request we can supply a drill guard with micro switch and split shield for all machines



**Table drilling machines
in single phase execution
TB 10 STW electronic**

Fig. TB 10 STW electronic

By standard

- ▶ Quickly adjustable end stop ring
- ▶ Inf. var. speed adjustment
- ▶ Cable with grounded plug 1.2 m
- ▶ No volt release
- ▶ Electrical drill guard
- ▶ Thermal overload protection
- ▶ Emergency Switch-off button

Optional/Accessories

- ▶ Drill head height adjustment with Spindle support
Order No. 290.302
- ▶ Clear top machine cover
Order No. 290.081
- ▶ Machine base with door and mounting plate 800 mm for TB 10 STW
Order No. 213.168
- ▶ Machine vice with prisms
clamping jaw width: 85 mm
clamping range: 75 mm
clamping jaw height: 30 mm
Order No. 281.205
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0,5 mm incr.
crosswise grounded drill tip 135°
Order No. 285.124
- ▶ keyless drill chuck (1-13 mm),
B16, Concentricity: 0.30 mm
Order No. 285.131
- ▶ Precision keyless drill chuck (1-13 mm)
B16, Concentricity: 0.06 mm
Order No. 285.064

Technical Data

Spindle	B 16 DIN 238
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	quickly adjustable end stop ring
Feed	Manual feed

TB 10 STW electronic

Drilling capacity steel	12 mm
Aluminium	20 mm
Soft wood	40 mm
Drilling depth	50 mm
Distance column-spindle	180 mm
Machine-column diameter	50 mm
Usable work table surface (L x W)	180 x 260 mm
T-slot size	quantity 2, distance 100 mm size width 12/20 mm
Machine size (WxDxH)	250 x 425 x 600 mm
Machine size (incl. packaging) (WxDxH)	452 x 696 x 813 mm
Drill head height adjustment	manual
Weight	20 kg
Distance spindle-table	105-275 mm
Motor 230 V, 50 Hz	0.45 kW
Speed range, inf. var.	500-3,000 1/min
Order No.	217.010

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



Table drilling machines
Turbo Drill
TB 10 ▶Plus

By standard

- ▶ Digitally controlled threading
- ▶ Tapping capacity TURBO DRILL max. M5/
- ▶ Tapping capacity TB 10 plus max. M6
- ▶ Precise adjustment of the thread cutting depth by digitally controlled depth indicator
- ▶ Integrated high power LED light with focus
- ▶ Emergency-OFF punch button
- ▶ Electrical drill guard
- ▶ Programmable Spindle Stop Function
- ▶ No voltage release
- ▶ Thermal overload protection
- ▶ Cable 1,2 m with plug

Accessories

- ▶ Machine cabinet with board made from multiplex wood and integrated metal drawer
Height: 840 mm / Weight: 28 kg
Order No. 250.208
- ▶ Standard keyed chuck for TURBO DRILL, B12
Clamping range 0.5-8 mm
Rotational accuracy: 0.20 mm
Order No. 285.103
- ▶ High precision keyless chuck for TURBO DRILL, B 12
Clamping range 0.5-6 mm
Rotational accuracy: 0.05 mm
Order No. 285.104
- ▶ Standard keyless chuck for TB 10 plus; B 16
Clamping range 1-13 mm
Rotational accuracy: 0.30 mm
Order No. 285.131
- ▶ High precision keyless chuck for TB 10 plus, B 16
Clamping range 1-13 mm
Rotational accuracy: 0.06 mm
Order No. 285.064
- ▶ Tapping Chuck with Range M3-M12 according to DIN 371 (please see page 67)
Order No. 285.109
- ▶ Worktable with T-Slots incl. height adjustment by geared rack (instead of height adjustment of the machine head)
Usable worktable surface (W x L): 300 x 250 mm
Order No. 290.521
- ▶ Drill depth fixed endstop
Order No. 212.716



Technical Data

Spindle	Turbodrill B 12/ TB 10 Plus B 16
Drill depth	60 mm
Distance column-spindle	220 mm
Column diameter	70 mm
Usable worktable surface (W x L)	300 x 250 mm
Dimensions of machine (W x D x H)	320 x 520 x 820 mm
Dimensions of machine (incl. packaging W x D x H)	452 x 700 x 1130 mm
Distance spindle – working surface	140-315 mm
Height Adjustment	manual
T-Slots size: 2 Cross Slots, Dimensions Width	14/ 26 mm
Speed Indication	digital (rpm)
Indication of Depth	digital (mm/inch)
Depth gauge	stop ring (pos. locking)
Feed	manual
Motor single phase AC 230 V (frequency converted)	0.54 kW
Weight	44 kg

Turbo Drill

Drilling performance (continuous/standard)	6/ 8 mm
Threading performance	max. M5
Speed (continuously variable/ digitally controlled)	200-10,000 1/min
Order No.	212.506

TB 10 Plus

Drilling performance (continuous/standard)	10/12 mm
Threading performance	max. M6
Speed (continuously variable/ digitally controlled)	120-6,000 1/min
Order No.	212.505

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Control Panel with Display

- ▶ Clearly laid out operating panel with a central metal rotary knob
- ▶ OLED-Display (organic light emitting diode) for best resolution, clearly visible from almost any angle
- ▶ Mode selection between drilling and tapping
- ▶ Precise display of depth (actual-target) and speed (rpm)
- ▶ Counting function of work cycles
- ▶ Energy saving mode with memory function of the settings
- ▶ Easy to maintain



Table and Column Drilling Machine

TB 13 ▶Plus

SB 13 ▶Plus

TB 13 ▶Plus
with MK II

to go

available for
immediate
delivery



Fig.: TB 13 ▶Plus with options

Fig.: TB 13 ▶Plus with MK II to go!

By standard

- ▶ Digitally controlled threading
- ▶ Tapping capacity max. M8
- ▶ Precise adjustment of the thread cutting depth by digitally controlled depth indicator
- ▶ Programmable Spindle Stop Function
- ▶ Integrated high power LED light with focus
- ▶ Emergency-OFF punch button
- ▶ Electrical drill guard
- ▶ No voltage release
- ▶ Thermal overload protection
- ▶ Cable 1,2 m with plug

Accessories

- ▶ Machine cabinet with board made from multiplex wood and integrated metal drawer
Height: 840 mm / Weight: 28 kg

Order No. 250.208

- ▶ Standard keyless chuck, B 16
Clamping range 1-13 mm
Rotational accuracy: 0.30 mm

Order No. 285.131

- ▶ High precision keyless chuck, B 16
Clamping range 1-13 mm
clockwise and counter-clockwise: 8,000 1/min
Rotational accuracy: 0.06 mm

Order No. 285.064

- ▶ Tapping Chuck with Range M3-M12
according to DIN 371 (please see page 59)

Order No. 285.109

- ▶ Machine vice with prisms
clamping jaw width: 100 mm
clamping range: 95 mm
clamping jaw height: 30 mm

Order No. 281.206

- ▶ Drill depth fixed endstop

Order No. 212.716

- ▶ Arbour (for 13 Plus MK II) MK II B16

Order No. 285.320



Control Panel with Display

- ▶ Clearly laid out operating panel with a central metal rotary knob
- ▶ OLED-Display (organic light emitting diode) for best resolution, clearly visible from almost any angle
- ▶ Mode selection between drilling and tapping
- ▶ Precise display of depth (actual-target) and speed (rpm)
- ▶ Counting function of work cycles
- ▶ Energy saving mode with memory function of the settings
- ▶ Easy to maintain



Technical Data

Spindle	B 16, optional MK II
Drill depth	60 mm
Threading performance	max. M8
Speed Indication	digital (rpm)
Indication of Depth	digital (mm/inch)
Depth gauge	stop ring (pos. locking)
Feed	manual
Table height adjustment	by rack
Motor single phase AC 230 V (frequency converted)	0.54 kW

TB 13 Plus

Drilling performance (continuous/standard)	13/15 mm
Distance column-spindle	220 mm
Column diameter	70 mm
Usable worktable surface (W x L)	300 x 250 mm
Distance spindle – working surface	
-to arm	0-350 mm
-to machine base	410 mm
T-slots size (arm)	2; distance 125 mm width dimension 14/26 mm
T-slots size (machine base)	2 cross slots width dimension 14/26 mm
Speed (continuously variable/ digitally controlled)	40-4,000 1/min
Dimensions of machine (W x D x H)	400 x 520 x 850 mm
Dimensions of machine (incl. packaging W x D x H)	420 x 700 x 1,130 mm
Weight	62 kg
Order No. (B 16)	212.500
Order No. (MK II)	212.503

SB 13 Plus

Drilling performance (continuous/standard)	13/15 mm
Distance column-spindle	220 mm
Column diameter	70 mm
Usable worktable surface (W x L)	300 x 240 mm
Distance spindle – working surface	750 mm (max.)
Eccentricity	20 mm
T-slots	2; distance 125 mm width dimension 13/ 26 mm
Speed (continuously variable/ digitally controlled)	40-4,000 1/min
Dimensions of machine (W x D x H)	420 x 540 x 1,780 mm
Dimensions of machine (incl. packaging W x D x H)	540 x 936 x 2,142 mm
Weight	85 kg
Order No. (B 16)	212.502
Order No. (MK II)	212.504

**Table Drilling
Machine
TB E1**



Fig.: TB E1

By standard

- ▶ **Transparent top cover for more safety**
- ▶ Emergency switch-off punch button
- ▶ No volt release
- ▶ Electrical drill guard
- ▶ Quickly adjustable depth end stop
- ▶ Cable 1.5 m with plug
- ▶ Thermal overload protection
- ▶ Machined base plate with T-slots
- ▶ Table height adjustment with rack

Optional/Accessories

- ▶ Electrically locked top cover, machine engagement only with key 1 key incl.
Order No. 290.339
- ▶ Machine base with door height 800 mm
Weight 20 kg
Order No. 201.173
- ▶ Precision keyless drill chuck tool holder: B16
clamping range: 1-13 mm
concentricity: 0.06 mm
Order No. 285.064
- ▶ Keyless drill chuck tool holder: B16
clamping range: 1-13 mm
concentricity: 0.3 mm
Order No. 285.131
- ▶ Machine vice with prisms
clamping jaw width: 100 mm
clamping range: 95 mm
clamping jaw height: 30 mm
Order No. 281.206
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs., crosswise precision ground 135°, Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	15/18 mm
Spindle	B16
Distance spindle table	0-330 mm
Drilling depth	95 mm
Distance column-spindle	200 mm
Machine-column diameter	Ø 70 mm
Usable work table surface (L x W)	300 x 250 mm
T-slots size (arm)	2; distance 125 mm width dimension 14/26 mm
T-slots size (machine base)	2 cross slots width dimension 14/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment	with rack
Spindle speed	0-3,600 1/min in 5 steps (400/700/1,200/2,100/3,600 1/min)
Weight	77 kg

TBE1

Motor 400 V 50 Hz	0.75 kW
Machine size (WxDxH)	275 x 640 x 860 mm
Machine size (incl. packaging) (WxDxH)	452 x 700 x 1.130 mm
Order No.	213.540

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Special feature with transparent top cover:

- Easy and quick recognition of the spindle speed
- Spindle rotation is visibly indicated by the belt rotation.

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



**Table and Column
Drilling Machine
TB M1 ST
SB M1 ST**

Fig.: TB M1 ST

By standard

- ▶ Inf. var. speed adjustment
- ▶ Quickly adjustable depth end stop
- ▶ Manual reverse switch
- ▶ Emergency switch-off punch button
- ▶ No volt release
- ▶ Cable 1.5 m with CEE plug
- ▶ Table height adjustment with rack
- ▶ Electrical drill guard
- ▶ Thermal overload protection
- ▶ Machined base plate with T-slots (TB type only)

Optional/Accessories

- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Machine base with door height 800 mm weight 20 kg (TB type only)
Order No. 201.173
- ▶ Arbour MK2 B16
Order No. 285.320
- ▶ Keyless drill chuck tool holder: B16 clamping range: 1-13 mm concentricity: 0.3 mm
Order No. 285.131
- ▶ Precision keyless drill chuck tool holder: B16 clamping range: 1-13 mm concentricity: 0.06 mm
Order No. 285.064
- ▶ Machine vice with prisms clamping jaw width: 100 mm clamping range: 95 mm clamping jaw height: 30 mm
Order No. 281.206
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs., crosswise precision grounded 135°, Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	15/18 mm
Tapping capacity (depending on size)	max. M10
Spindle	MKII
Drilling depth	95 mm
Distance column-spindle	200 mm
Column diameter	Ø 70 mm
Usable work table surface (L x W)	300 x 250 mm
T-slots size (arm)	2; distance 125 mm width dimension 14/26 mm
T-slots size (machine base)	2 cross slots width dimension 14/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment	With rack
Motor 400 V 50 Hz	0.45/0.75 kW 2 speed motor
Spindle speed, inf. var with intermediate transmission	100-4,200 1/min step I 100-1,200 1/min step II 350-4,200 1/min
(step change is realized by belt position change with fast tension system)	

TB M1 ST

Distance spindle table	0-350 mm
Machine size (WxDxH)	415 x 655 x 860 mm
Machine size (incl. packaging) (WxDxH)	452 x 700 x 1,130 mm
Weight	75 kg
Order No.	213.518

SB M1 ST

Distance spindle table	90-780 mm
Machine size (WxDxH)	280 x 655 x 1,710 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 2,100 mm
Weight	110 kg
Order No.	213.516

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

**Table and Column
Drilling Machines
TB P18 ST
SB P18 ST**



Fig.: TB P18 ST with special accessories

By standard

- ▶ Digital display for speed
- ▶ Digital display for drill depth
- ▶ Manual reverse switch
- ▶ Emergency switch off punch button
- ▶ No volt release
- ▶ Inf. var. speed adjustment
- ▶ Quickly adjustable end stop ring
- ▶ Cable 1.5 m with CEE plug
- ▶ Table height adjustment with rack
- ▶ Electrical drill guard
- ▶ Thermal overload protection
- ▶ Machined base plate with T-slots (TB type only)

Optional/Accessories

- ▶ Tapping unit max. M10
Tapping depth adjustment via digital display
Order No. 290.620
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Machine base with door height 800 mm weight 25 kg (for TB type only)
Order No. 201.173
- ▶ Arbour MKII B16
Order No. 285.320
- ▶ Keyless drill chuck tool holder: B16
clamping range: 1-13 mm
concentricity: 0.3 mm
Order No. 285.131
- ▶ Machine vice with prisms
clamping jaw width: 100 mm
clamping range: 95 mm
clamping jaw height: 30 mm
Order No. 281.206
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ Precision keyless drill chuck tool holder: B16
clamping range: 1-13 mm
concentricity: 0.06 mm
Order No. 285.064
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	15/18 mm
Tapping capacity (depending on size)	max. M10
Spindle	MKII
Drilling depth	95 mm
Distance column-spindle	200 mm
Machine-column diameter	Ø 70 mm
Usable work table surface (L x W)	300 x 250 mm
T-slots size (arm)	2; distance 125 mm width dimension 14/26 mm
T-slots size (machine base)	2 cross slots width dimension 14/26 mm
Speed indication	digital
Drill depth indication	digital
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment	With rack
Motor 400 V 50 Hz	0.75 kW single speed motor
Spindle speed with intermediate transmission	
R1 inf. var.	200-4,200 1/min
in 2 steps	step I 200-1,200 1/min step II 700-4,200 1/min
(step change is realized by belt position change with fast tension system)	
Motor 400 V 50 Hz	0.45/0.75 kW 2-speed motor
Spindle speed with intermediate transmission	
R2 inf. var.	100-4,200 1/min
in 2 steps	step I 100-1,200 1/min step II 350-4,200 1/min
(step change is realized by belt position change with fast tension system)	

TB P18 ST

Distance spindle table	0-350 mm
Machine size (WxDxH)	415 x 655 x 860 mm
Machine size (incl. packaging) (WxDxH)	452 x 700 x 1,130 mm
Weight	75 kg
Order No. R1	213.510
Order No. R2	213.512

SB P18 ST

Distance spindle table	90-780 mm
Machine size (WxDxH)	415 x 655 x 1,725 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	110 kg
Order No. R1	213.506
Order No. R2	213.508

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



**Table and Column
Drilling Machine
TB E2
SB E2**

Fig.: TB E2

By standard

- ▶ **Transparent hood for more safety**
- ▶ Emergency switch-off punch button
- ▶ No volt release
- ▶ 3-phase motor
- ▶ Table height adjustment with rack
- ▶ Quickly adjustable end stop ring
- ▶ Cable, 1.5 m with CEE plug
- ▶ Machined base plate (TB machine only)
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Electrically locked top cover machine engagement with key, 1 key incl.
Order No. 290.339
- ▶ Machine base with door height 800 mm
Weight: 25 kg (TB type only)
Order No. 201.173
- ▶ Arbour MKII/B16
Order No. 285.320
- ▶ Keyless drill chuck tool holder: B16
clamping range: 1-13 mm
Order No. 285.131
- ▶ Machine vice with prisms
clamping jaw width: 100 mm
clamping range: 95 mm
clamping jaw height: 30 mm
Order No. 281.206
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ Precision keyless drill chuck tool holder: B16
clamping range: 1-13 mm
concentricity: 0.06 mm
Order No. 285.064
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	18/23 mm
Spindle	MKII
Drilling depth	95 mm
Distance column-spindle	200 mm
Machine-column diameter	Ø 70 mm
Usable work table surface (L x W)	300 x 250 mm
T-slots size (arm)	2; distance 125 mm width dimension 14/26 mm
T-slots size (machine base)	2 cross slots width dimension 14/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment	With rack
Motor 400 V 50 Hz	0.45/0.75 kW, 2 speed motor
Spindle speed	10 steps 1/min 200-350-400-600-700-1,050 1,200-1,800-2,100-3,600 1/min

TB E2

Distance spindle table	0-330 mm
Machine size (WxDxH)	415 x 655 x 857 mm
Machine size (incl. packaging) (WxDxH)	452 x 700 x 1,130 mm
Weight	84 kg
Order No.	213.545

SB E2

Distance spindle table	90-740 mm
Machine size (WxDxH)	415 x 655 x 1,725 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	140 kg
Order No.	213.550

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Special feature with transparent top cover:

- Easy and quick recognition of the spindle speed
- Spindle rotation is visibly indicated by the belt rotation.

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



**Table and Column
Drilling Machine
TB M2 ST
SB M2 ST**

Fig.- SB/TB M2 ST

By standard

- ▶ Inf. var. speed adjustment
- ▶ Emergency switch-off punch button
- ▶ Manual reverse switch
- ▶ No volt release
- ▶ Table height adjustment with rack
- ▶ Quickly adjustable depth end stop
- ▶ Cable, 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Machined base plate with integrated cooling unit max contents 15 l, max flow rate 30 l/min
Order No. 290.160A
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Machine base with door for TB type only height 800 mm
Weight: 36 kg
Order No. 201.160
- ▶ Cooling unit (separate tank)
Max. contents 15 l, max flow rate 30 l/min
Order No. 290.340
- ▶ Arbour MKII/B18
Order No. 285.321
- ▶ Keyless drill chuck tool holder: B18 clamping range: 3-16 mm concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms clamping jaw width: 120 mm clamping range: 105 mm clamping jaw height: 30 mm
Order No. 281.207
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs., crosswise precision grounded 135°, Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	18/23 mm
Tapping capacity (depending on size)	max. M16
Spindle	MKII
Drilling depth	100 mm
Distance column-spindle	240 mm
Machine-column diameter	Ø 82 mm
Usable work table surface (L x W)	340 x 280 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment (SB/TB)	With rack
Motor 400 V 50 Hz	0.45/0.8 kW 2-speed motor
Spindle speed, inf. var.	250-4,000 1/min

TB M2 ST

Distance spindle table	90-420 mm
Machine size (WxDxH)	510 x 765 x 1,090 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 1,612 mm
Weight	175 kg
Order No.	201.022

SB M2 ST

Distance spindle table	160-880 mm
Machine size (WxDxH)	510 x 765 x 1,850 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	205 kg
Order No.	201.021

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



Table and Column Drilling Machine TB P23 ST SB P23 ST

By standard

- ▶ Digital display for speed
- ▶ Digital display for drill depth
- ▶ Depth end stop with fine adjustment
- ▶ Cable 1.5 m with CEE plug
- ▶ Table height adjustment with rack
- ▶ Emergency switch-off button
- ▶ Inf. variable speed adjustment
- ▶ No volt release
- ▶ Manual reverse switch
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Tapping unit max. M16 tapping depth adjustment via digital display
Order No. 290.624
- ▶ Motor with separate fan
Order No. 290.616
- ▶ Machined base plate incl integrated cooling Unit (SB only), contents max 15 l, Flow rate max 30 l/min
Order No. 290.160A
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Machine base height 800 mm (for TB/TBZ type), Weight: 36 kg
Order No. 201.160
- ▶ Cooling unit (separate tank) contents max 15 l Flow rate max. 30 l/min
Order No. 290.340
- ▶ Arbour MKII/B18
Order No. 285.321
- ▶ Keyless drill chuck tool holder: B18 clamping range: 3-16 mm concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms clamping jaw width: 120 mm clamping range: 105 mm clamping jaw height: 30 mm
Order No. 281.207
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs., crosswise precision grounded 135°, Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	18/23 mm
Tapping capacity (depending on size)	max. M16
Spindle	MKII
Drilling depth	100 mm
Distance column-spindle	240 mm
Machine-column diameter	Ø 82 mm
Usable work table surface (L x W)	340 x 280 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	digital
Drill depth indication	digital
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment (SB/TB)	With rack
Drill head height adjustment (TBZ)	With rack
Motor 400 V 50 Hz reversible	0.45/0.80 kW 2 speed motor
Spindle speed inf. var. speed range R1	250-4,000 1/min
Spindle speed inf. var. with intermediate gear, speed range R2	125-2,000 1/min

TB P23 ST

Distance spindle table	90-420 mm
Machine size (WxDxH)	510 x 765 x 1,090 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 1,612 mm
Weight	175 kg
Order No. R1	201.051
Order No. R2	201.053

TBZ P23 ST*

Distance spindle table	120-550 mm
Machine size with base (WxDxH)	350 x 745 x 1,870 mm
Machine size with base (incl. packaging) (WxDxH)	572 x 940 x 2,140 mm
Machine size without base (WxDxH)	350 x 745 x 1,070 mm
Machine size without base (incl. packaging) (WxDxH)	540 x 940 x 1,600 mm
Weight without base	160 kg
Order No. R1 without base	201.056
Order No. R2 without base	201.057

SB P23 ST

Distance spindle table	160-880 mm
Machine size (WxDxH)	510 x 765 x 1,850 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	205 kg
Order No. R1	201.050
Order No. R2	201.052

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

*Our recommendation: order TBZ P23 ST with machine base



Column Drilling Machine SB E3

Fig.: SB/E3
with options

By standard

- ▶ Emergency switch-off punch button
- ▶ No volt release
- ▶ Cable 1.5 m mit CEE plug
- ▶ Quickly adjustable end stop ring
- ▶ Three phase motor
- ▶ Table height adjustment with rack
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/ Accessories

- ▶ Manual reverse switch
(max M10, depending on pitch)
Order No. 290.403
- ▶ Cooling unit, contents max 15 l
flow rate max 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
tool holder: B18
clamping range: 3-16 mm
concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms
clamping jaw width: 120 mm
clamping range: 105 mm
clamping jaw height: 30 mm
Order No. 281.207
- ▶ Spiral Drill Set according
to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070

Technical Data

Drilling capacity	20/25 mm
Spindle	MKIII
Drilling depth	90 mm
Distance column-spindle	240 mm
Machine-column diameter	Ø 82 mm
Usable work table surface (L x W)	340 x 280 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring adjustment range 0-90 mm
Feed	manual
Table height adjustment	With rack
Motor 400 V 50 Hz	0.45/0.8 kW 2 speed motor
Spindle speed: 12 steps	250-315-500-630-800 1,000-1,250-1,600-2,000 2,500-3,600-4,000 1/min

SB E3

Distance spindle table	160-880 mm
Machine size (WxDxH)	460 x 740 x 1,800 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	205 kg
Order No.	206.022

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Column Drilling Machine SB E4



Fig.: SB/E4
with options

By standard

- ▶ Emergency switch-of punch button
- ▶ No volt release
- ▶ Cable 1.5 m mit CEE plug
- ▶ Quickly adjustable end stop ring
- ▶ Three phase motor
- ▶ Table height adjustment with rack
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Manual reverse switch
(max. M20, depending on pitch)
Order No. 290.403
- ▶ Cooling unit, contents max 15 l
flow rate max 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
tool holder: B18
clamping range: 3-16 mm
concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms
opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral Drill Set according
to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070

Technical Data

Drilling capacity	25/30 mm
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	260 mm
Machine-column diameter	Ø 110 mm
Usable work table surface (L x W)	420 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring adjustment range 0-90 mm
Feed	manual
Table height adjustment	With rack
Motor 400 V 50 Hz	0.9/1.3 kW 2-speed motor
Spindle speed with intermediate transmission 12 Steps	125-200-250-315-400-500-630 800-1,000-1,250-1,600-2,500 1/min

SB E4

Distance spindle table	270-820 mm
Machine size (WxDxH)	420 x 740 x 1,782 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2,140 mm
Weight	255 kg
Order No.	206.060

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



Column Drilling Machine
SB M3 ST
SB M3 ST MV

SB M3 ST
to go
available for
immediate
delivery



Fig.- SB M3 ST MV

By standard

- ▶ Inf. var. speed adjustment
- ▶ Emergency switch-off button
- ▶ No volt release
- ▶ Table height adjustment with rack
- ▶ Drill depth end stop with fine adjustment
- ▶ Cable 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/ Accessories

- ▶ Combined drilling table/machine vice opening 120 mm, clamping width 105 mm table size 350 x 350 mm
Order No. 290.135
- ▶ Drilling Cross-Piece with pressure button for feed-on/feed-off switch (only for ST MV)
Order No. 290.120
- ▶ Machined base plate with T Slots
Order No. 290.378
- ▶ Machined base plate with integrated cooling unit max. contents 15 l, max. flow rate 30 l/min
Order No. 290.160B
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Large machine base
 - Machine-column diameter \varnothing 125 mm
 - Usable work table surface (L x W) 590 x 450 mm**Order No. 205.036 on request**
- ▶ Cooling unit (separate tank) max. contents 15 l, max. flow rate 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck tool holder: B18 clamping range: 3-16 mm concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms Opening 120 mm, clamping width 120 mm
Order No. 281.210
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs., crosswise precision grounded 135°, \varnothing 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	25/30 mm
Tapping capacity (depending on size)	max. M20
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	260 mm
Machine-column diameter	\varnothing 110 mm
Usable work table surface (L x W)	420 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	With fine adjustment
Table height adjustment	With rack
Motor 400 V 50 Hz	0.9/1.45 kW 2-speed motor
Spindle speed, inf. var. with intermediate transmission in 2 steps	125-4,000 1/min step I 125-2,000 1/min step II 250-4,000 1/min (step change is realized via belt position change)

SB M3 ST

Feed	manual
Machine size (WxDxH)	520 x 820 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Distance spindle table	240-790 mm
Weight	275 kg
Order No.	205.180

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SB M3 ST MV

Feed	0.10 / 0.16 / 0.25 mm 1/min
Incl. electromagnetic clutch	
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 820 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	300 kg
Order No.	205.215

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

**Column Drilling Machine
SB P30 ST
SB P30 STG PV electronic**



Fig. SB P30 STG PV electronic with optional machined base plate

By standard

- ▶ Depth end stop with fine adjustment
- ▶ Emergency switch-off button
- ▶ No volt release
- ▶ Inf. var. speed adjustment
- ▶ Table height adjustment with rack
- ▶ Cable 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Series P30 ST

- ▶ Digital display for speed
- ▶ Digital display for drill depth
- ▶ Manual reverse switch

Series P30 STG PV electronic

- ▶ Continuous lubrication of feed gear
- ▶ Digital display for speed
- ▶ Digital display for drill depth
- ▶ Digital display for feed speed
- ▶ Continuously electronically variable feed incl spindle control
- ▶ Automatic cut-off function on reaching programmed drilling depth
- ▶ Tapping unit, tapping capacity max M20
- ▶ Tapping depth adjustment using digital display
- ▶ Easily programmable drill depth end stop
- ▶ Star wheel with buttons for feed on/off function
- ▶ Optionally transparent top cover without surcharge
- ▶ LED light

Optional/Accessories

- ▶ Tapping unit (P30 ST only)
max. M20, tapping depth
adjustment via digital display
Order No. 290.622
- ▶ Motor with separate fan
Order No. 290.617
- ▶ Combined drilling table/machine vice
opening 120 mm,
clamping width 105 mm
table size 350 x 350 mm
Order No. 290.125
- ▶ Machined base plate
Order No. 290.378
- ▶ Machined base plate with
integrated cooling unit
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.160B
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Large machine base
 - Machine-column diameter \varnothing 125 mm
 - Usable work table surface (L x W) 590 x 450 mm**Order No. 205.036**
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
(P30 ST only)
Order No. 290.070
- ▶ Cooling unit (separate tank)
Contents max 15 l, flow rate max 30 l/min
Order No. 290.340



Technical Data

Drilling capacity	25/30 mm
Tapping capacity (depending on size)	max. M20
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	260 mm
Machine-column diameter	\varnothing 110 mm
Usable work table surface (L x W)	420 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	digital
Drill depth indication	digital
Drilling depth end stop	With fine adjustment
Table height adjustment	With rack
Motor 400 V 50 Hz	0.9/1.45 kW 2-speed motor
Speed range with intermediate transmission inf. var.	125-4,000 1/min in 2 steps step I 125-2,000 1/min step II 250-4,000 1/min (step change is realized via belt position change)

SB P30 ST

Feed	manual
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 820 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	275 kg
Order No.	205.181

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SB P30 STG PV electronic

Feed, inf. var. with electromagnetic clutch and digital display	0-300 mm/min
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 820 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	300 kg
Order No. with transparent top cover	205.220
Order No. with grey top cover	205.183

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Available software options for PV electronic

- ▶ **Safety module** – Spindle stops automatically in upper position
Order No. 290.613
- ▶ **Chip cutter module**
to avoid long chips
Order No. 290.612
- ▶ **Multi feed unit** – Four free selectable feed speeds per cycle
Order No. 290.614



Column Drilling Machine SB E5

Fig.: SB/E5
with options

By standard

- ▶ Emergency switch-off
- ▶ No volt release
- ▶ Cable 1.5 m mit CEE plug
- ▶ Quickly adjustable end stop ring
- ▶ Three phase motor
- ▶ Table height adjustment with rack
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Manual reverse switch
(max. M24, depending on pitch)
Order No. 290.403
- ▶ Cooling unit, contents max. 15 l
flow rate max 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
tool holder: B18
clamping range: 3-16 mm
concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms
opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral Drill Set according
to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070

Technical Data

Drilling capacity	30/35 mm
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	300 mm
Machine-column diameter	Ø 125 mm
Usable work table surface (L x W)	590 x 450 mm
T-slot size	quantity 2, distance 160 mm size width 14/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring Adjustment range 0-90 mm
Feed	manual
Table height adjustment	With rack
Motor 400 V 50 Hz	0.9/1.45 kW 2-speed motor
Spindle speed with intermediate transmission 12 steps	80-125-160-200-250-315-400 500-630-800-1,000-1,600 1/min

SB E5

Distance spindle table	270-820 mm
Machine size (WxDxH)	460 x 740 x 1,800 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	350 kg
Order No.	206.064

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



Column Drilling Machine
SB M4 ST
SB M4 ST MV

Fig.: SB M4 ST

By standard

- ▶ Inf. var. speed adjustment
- ▶ Manual reverse switch
- ▶ Table height adjustment with rack
- ▶ Drill depth end stop with fine adjustment
- ▶ Emergency switch-off button
- ▶ No volt release
- ▶ Cable 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Combined drilling table/
machine vice opening 120 mm,
clamping width 105 mm
table size 350 x 350 mm
Order No. 290.125
- ▶ Drilling Cross-Piece
with pressure button for
feed-on/ feed-off switch
Order No. 290.120
- ▶ Machined base plate with T Slots
Order No. 290.378
- ▶ Machined base plate with
integrated cooling unit max.
contents 15 l, max flow
rate 30 l/min
Order No. 290.160B
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Large machine base
 - Machine-column diameter \varnothing 125 mm
 - Usable work table surface (L x W) 590 x 450 mm**Order No. 205.036**
- ▶ Cooling unit (separate tank)
Max. contents 15 l, max flow rate 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
tool holder: B18
clamping range: 3-16 mm
concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 120 mm,
clamping width 120 mm
Order No. 281.210
- ▶ Spiral Drill Set according
to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
 \varnothing 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	30/35 mm
Tapping capacity (depending on size)	max. M24
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	280 mm
Machine-column diameter	\varnothing 110 mm
Usable work table surface (L x W)	420 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	With fine adjustment
Table height adjustment	With rack
Motor 400 V 50 Hz	1.5/2.0 kW 2-speed motor
Spindle speed, inf. var with intermediate transmission	125-2,000 1/min

SB M4 ST

Feed	manual
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 850 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	275 kg
Order No.	205.192

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SB M4 ST MV

Feed	0.10 / 0.16 / 0.25 mm 1/min
Incl. electromagnetic clutch	
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 850 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2142 mm
Weight	300 kg
Order No.	205.195

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

**Column Drilling Machine
SB P35 ST
SB P35 STG PV electronic**



Fig.- SB P35 ST

By standard

- ▶ Depth end stop with fine adjustment
- ▶ Emergency switch-off button
- ▶ No volt release
- ▶ Inf. var. speed adjustment
- ▶ Table height adjustment with rack
- ▶ Cable 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Series P 35 ST

- ▶ Digital display for speed
- ▶ Digital display for drilling depth
- ▶ Manual reverse switch

Series P 35 STG PV electronic

- ▶ Continuous lubrication of feed gear
- ▶ Digital display for speed
- ▶ Digital display for drill depth
- ▶ Digital display for feed speed
- ▶ Continuously electronically variable feed incl spindle control
- ▶ Automatic cut-off function on reaching programmed drilling depth
- ▶ Tapping unit, tapping capacity max M24
- ▶ Tapping depth adjustment using digital display
- ▶ Easily programmable drill depth end stop
- ▶ Button for feed on/off function
- ▶ LED light

Optional/Accessories

- ▶ Tapping unit (P35 ST only) max. M24, tapping depth adjustment via digital display
Order No. 290.622
- ▶ Motor with separate fan
Order No. 290.618
- ▶ Combined drilling table/machine vice opening 120 mm, clamping width 105 mm table size 350 x 350 mm
Order No. 290.125
- ▶ Machined base plate (SB-version only)
Order No. 290.378
- ▶ Machined base plate with integrated cooling unit, max. contents 15 l, max. flow rate 30 l/min
Order No. 290.160B
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Large machine base
 - Machine-column diameter Ø 125 mm
 - Usable work table surface (L x W) 590 x 450 mm**Order No. 205.036**
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white (P35 ST only)
Order No. 290.070
- ▶ Cooling unit (separate tank) Contents max 15 l, flow rate max 30 l/min
Order No. 290.340



Technical Data

Drilling capacity	30/35 mm
Tapping capacity (depending on size)	max. M24
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	280 mm
Machine-column diameter	Ø 110 mm
Usable work table surface (L x W)	420 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	digital
Drill depth indication	digital
Drilling depth end stop	With fine adjustment
Table height adjustment	With rack
Motor 400 V 50 Hz	1.5/2 kW 2-speed motor
Spindle speed with intermediate transmission	
Speed range R1	125-2,000 1/min
Speed range R2	80-1,280 1/min

SB P35 ST

Feed	manual
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 850 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	275 kg
Order No. R1	205.193
Order No. R2	205.194

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SB P35 STG PV electronic

Feed, inf. var.	0-300 mm/min
electromagnetic clutch and digital display	
Distance spindle table	240-790 mm
Machine size (WxDxH)	520 x 850 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 936 x 2,142 mm
Weight	300 kg
Order No. transparent top cover, R1	205.222
Order No. transparent top cover, R2	205.224
Order No. grey top cover, R1	205.196
Order No. grey top cover, R2	205.197

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Available software options for PV electronic

- ▶ **Safety module** – Spindle stops automatically in upper position
Order No.290.613
- ▶ **Chip cutter module** to avoid long chips
Order No.290.612
- ▶ **Multi feed unit** – Four free selectable feed speeds per cycle
Order No.290.614

Column Drilling Machine
SB M5 ST
SB M5 ST MV



Fig.- SB M5 ST MV

By standard

- ▶ Manual reverse switch
- ▶ Inf. var. speed adjustment
- ▶ Emergency switch-off button
- ▶ Table height adjustment with rack
- ▶ No volt release
- ▶ Cable 1.5 m with CEE plug
- ▶ Spindle MK 4
- ▶ Drill depth end stop with fine adjustment
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/Accessories

- ▶ Combined drilling table/
machine vice opening 120 mm,
clamping width 105 mm
table size 350 x 350 mm
Order No. 290.125
- ▶ Machined base plate
with T Slots
Order No. 290.378
- ▶ Star wheel with push
buttons for feed on/off
function (ST MV only)
Order No. 290.120
- ▶ Machined base plate
with integrated cooling unit
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.160C
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Cooling unit (separate tank)
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.340
- ▶ Arbour MKIV/B18
Order No. 290.323
- ▶ Keyless drill chuck
tool holder: B18
clamping range: 3-16 mm
concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 140 mm,
clamping width 155 mm
Order No. 281.211
- ▶ Spiral Drill Set according
to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Drilling capacity	35/40 mm
Tapping capacity (depending on size)	max. M30
Spindle	MKIV
Drilling depth	160 mm
Distance column-spindle	300 mm
Machine-column diameter	Ø 125 mm
Usable work table surface (L x W)	590 x 450 mm
T-slot size	quantity 2, distance 160 mm size width 14/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	With fine adjustment
Table height adjustment	With rack
Motor 400 V 50 Hz	1.5/3.0 kW 2-speed motor
Spindle speed, inf. var. with intermediate transmission	100-2,000 1/min

SB M5 ST

Feed	manual
Distance spindle table	150-700 mm
Machine size (WxDxH)	610 x 850 x 1,920 mm
Machine size (incl. packaging) (WxDxH)	672 x 1,096 x 2,142 mm
Weight	420 kg
Order No.	205.204

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SB M5 ST MV

Feed	0.10/0.16/0.25 mm/min.
Incl. electromagnetic clutch	
Distance spindle table	150-700 mm
Machine size (WxDxH)	610 x 850 x 1,920 mm
Machine size (incl. packaging) (WxDxH)	672 x 1,096 x 2,142 mm
Weight	445 kg
Order No.	205.207

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Column Drilling Machine SB P40 ST SB P40 STG PV electronic



SB P40 STG
PV electronic R2

to go

with Chip cutter module
No. 290.612, Cooling unit
No. 290.340 and Multi feed
unit No. 290.614

available for
immediate
delivery



Fig.: SB P40 STG PV electronic with options

By standard

- ▶ Drill depth end stop with fine adjustment
- ▶ Emergency switch-off button
- ▶ No volt release
- ▶ Inf. var. speed adjustment
- ▶ Table height adjustment with rack
- ▶ Cable 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Series P40 ST

- ▶ Digital display for speed
- ▶ Digital display for drilling depth
- ▶ Manual reverse switch

Series P40 STG PV electronic

- ▶ Continuous lubrication of feed gear
- ▶ Digital display for speed
- ▶ Digital display for drill depth
- ▶ Digital display for feed speed
- ▶ Continuously electronically variable feed incl spindle control
- ▶ Automatic cut-off function on reaching programmed drilling depth
- ▶ Tapping unit, tapping capacity max M30
- ▶ Tapping depth adjustment using digital display
- ▶ Easily programmable drill depth end stop
- ▶ Star wheel with buttons for feed on/off function
- ▶ LED light

Optional/Accessories

- ▶ Tapping unit (P40 ST only)
max. M30, tapping depth adjustment via digital display
Order No. 290.622
- ▶ Motor with separate fan
Order No. 290.619
- ▶ Combined drilling table/
machine vice opening 120 mm,
clamping width 105 mm
table size 350 x 350 mm
Order No. 290.135
- ▶ Machined base plate
Order No. 290.378
- ▶ Machined base plate with
integrated cooling unit,
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.160C
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white (P40 ST only)
Order No. 290.070
- ▶ Cooling unit (separate tank)
Contents max 15 l, flow rate max 30 l/min
Order No. 290.340



Technical Data

Drilling capacity	35/40 mm
Tapping capacity (depending on size)	max. M30
Spindle	MKIV
Drilling depth	160 mm
Distance column-spindle	300 mm
Machine-column diameter	Ø 125 mm
Usable work table surface (L x W)	590 x 450 mm
T-slot size	quantity 2, distance 160 mm size width 14/26 mm
Speed indication	digital
Drill depth indication	digital
Drilling depth end stop	With fine adjustment
Table height adjustment	With rack
Machine size (WxDxH)	610 x 850 x 1,920 mm
Machine size (incl. packaging) (WxDxH)	672 x 1,096 x 2,142 mm
Motor 400 V 50 Hz	1.5/3 kW 2-speed motor
Spindle speed with intermediate transmission	
Speed range R1	100-2,000 1/min
Speed range R2	70-1,400 1/min

SB P40 ST

Feed	manual
Distance spindle table	150-700 mm
Weight	420 kg
Order No. R1	205.205
Order No. R2	205.206

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SB P40 STG PV electronic

Feed, inf. var. with electromagnetic clutch and digital display	0-300 mm/min
Distance spindle table	150-700 mm
Weight	440 kg
Order No. transparent top cover, R1	205.226
Order No. transparent top cover, R2	205.227
Order No. grey top cover, R1	205.208
Order No. grey top cover, R2	205.209

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FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Available software options for PV electronic

- ▶ Safety module – Spindle stops automatically in upper position
Order No. 290.613
- ▶ Chip cutter module
to avoid long chips
Order No. 290.612
- ▶ Multi feed unit – Four free selectable feed speeds per cycle
Order No. 290.614

Gear drilling machine GB 50 MV



Fig.: GB 50 MV with options

By standard

- ▶ Automatic electromagnetical feed
- ▶ Machined base plate with T slots and built-in cooling unit
- ▶ High precision drill depth end adjustment
- ▶ Turnable and titable table
- ▶ Motor protection switch with undervoltage release
- ▶ Electrical drill guard
- ▶ Machine light
- ▶ Automatic tool ejector
- ▶ Gears of hardened and ground steel
- ▶ Automized Central lubrication
- ▶ Hand wheel for precise manual feed
- ▶ Switch for r.h. and l.h. rotation
- ▶ Push button in star handle with feed on/off function

Options/Accessories

- ▶ Tapping unit
Order No.: 287.042
- ▶ Machine vice with prisms
jaw width 140 mm,
clamping width 155mm
Order No. 281.211
- ▶ Keyless drill chuck B 18 3-16 mm,
accuracy 0,3mm
Order No. 285.161
- ▶ Arbor, size MK 4 B18
Order No. 290.323

Further options on request against surcharge

Technical data

Drilling capacity	50 mm
Tapping capacity (depending on pitch)	M 36
Spindle	MK IV
Drill depth	230 mm
Distance column to spindle	400 mm
Column diameter	200 mm
Usable table size	550 x 550 mm
T Slots	3pcs, distance 160 mm size 16/28mm
Speed indication	scale
Drill depth indication	scale
Distance spindle to table	50-850 mm
Table height adjustment	with rack
machine size (BxTxH)	600 x 1,060 x 2,450 mm
machine size packed (BxTxH)	680 x 2,600 x 1,210 mm
Motor 400 V, 3phase	3,0 kW
Spindle speed	54-75-109-169-237
9 steps	344-507-712-1,032 1/min
mechanical spindle feed	0,1-0,2-0,3-0,4 mm/rev

GB 50 MV

Weight	795 kg
Order No.	287.040
Packing	V0
Special color (as per RAL table only)	on request.

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Gear drilling machine GB 50 MV plus



Fig.: GB 50 MV plus with options

By standard

- ▶ Automatic electromagnetical feed
- ▶ Machined base plate with T slots and built-in cooling unit
- ▶ High precision drill depth end adjustment
- ▶ Turnable and titable table
- ▶ Motor protection switch with undervoltage release
- ▶ Electrical drill guard
- ▶ Machine light
- ▶ Automatic tool ejector
- ▶ Gears of hardened and ground steel
- ▶ Automized Central lubrication
- ▶ Hand wheel for precise manual feed
- ▶ Switch for r.h. and l.h. rotation
- ▶ Push button in star handle with feed on/off function

Options/ Accessories

- ▶ Tapping unit
Order No.: 287.052
- ▶ Machine vice with prisms,
jaw width 140mm,
clamping width 155 mm
Order No. 281.211
- ▶ Keyless drill chuck B18 3-16 mm,
concentricity 0,3 mm
Order No. 285.161
- ▶ Arbor MK 4 -B 18
Order No. 290.323

Further options on request

Technical data

Drilling capacity	50 mm
Tapping capacity (depending on pitch)	M 36
Spindle	MK IV
Drill depth	230 mm
Distance column to spindle	400 mm
Column diameter	200 mm
Usable table size	550 x 550 mm
T Slots	3pcs, distance 160 mm Size 16/28 mm
Speed indication	Scale
Drill depth indication	Scale
Distance spindle to table	50-850 mm
Table height adjustment	with rack
Machine size (BxTxH)	600 x 1,060 x 2,450 mm
Machine size packed (BxTxH)	680 x 2,600 x 1,210 mm
Motor 400 V, 3phase	3,0 kW
Spindle speed	54-75-109-169-237
in 9 steps (with gear box)	344-507-712-1032 1/min
Automatic and electromagnetic spindle feed	0.1-0.2-0.3-0.4-0.5-0.6 mm/rev
GB 50 MVplus	
Weight	805 kg
Order No.	287.050
Packing	VO
Special color (as per RAL table only)	on request.

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Column Drilling Machine SB P50 STG MV



Fig.: SB P50 STG MV with options

By standard

- ▶ Drive: combined belt and gear drive
- ▶ Automatic electromagnetical spindle feed
- ▶ Machined base plate with T-slots and built-in cooling unit
- ▶ High precision mechanical end stop
- ▶ Automatic tool ejection
- ▶ Machine light
- ▶ Motor protection switch with undervoltage release
- ▶ Emergency off push button
- ▶ Electrical drill guard
- ▶ Turnable and tiltable table
- ▶ Tapping unit
- ▶ Gear lubrication with automatic pump
- ▶ Push button for feed on/off control
- ▶ Stepless speed adjustment, frequency inverter and with three speed gear drive for step change

Accessories

- ▶ Machine vice with prims
jaw width 140 mm, opening 155 mm
Order No. 281.211
- ▶ Keyless drill chuck B18, 3-16 mm,
accuracy 0,30 mm
Order No. 285.161
- ▶ Arbor B18 - MK 4
Order No. 290.323

Technical data

Drilling capacity	50 mm	
Tapping capacity (depending on pitch)	M 42	
Spindle	MK IV	
Drill depth	200 mm	
Distance column to spindle	360 mm	
Column diameter	175 mm	
Usable table size	550 x 550 mm	
T Slots	3 pcs, distance 160 mm size width 16/28 mm	
Speed indication	digital	
Drill depth indication	scale	
Distance spindle to table	55-850 mm	
Table height adjustment	with rack	
machine size (BxTxH)	550 x 950 x 2,170 mm	
machine size packed (BxTxH)	740 x 2,220 x 1,320 mm	
Motor 400 V, 3phase	4,0 kW	
Adjustable spindle speed	step I	30-230 1/min
with 3 step gear box	step II	90-730 1/min
	step III	190-1,500 1/min
Automatic and electromagnetical spindle feed		
0.1-0.2-0.3-0.4 mm/rev		

SB P50 STG MV

Weight	850 kg	
Order No.	287.060	
Packing	V0	
Special color (as per RAL table only)	on request.	

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70

Gear drilling machine GB 70 MVplus



Fig.: GB 70 MVplus with options

By standard

- ▶ Automatic electromagnetical feed
- ▶ Machined base plate with T-slots and built-in Cooling unit
- ▶ High precision mechanical end stop
- ▶ Turnable and tiltable table
- ▶ Motor protection switch with undervoltage release
- ▶ Emergency off push button
- ▶ Electrical drill guard
- ▶ Machine light
- ▶ Automatic tool ejection
- ▶ Gear of hardened and ground steel
- ▶ Gear lubrication with automatic pump
- ▶ Handwheel for high-precision manual feed
- ▶ Reverse switch for r.h. and l.h. rotation
- ▶ Push button for feed on/off control

Options/ Accessories

- ▶ Tapping unit
Order No.: 287.072
- ▶ Machines vice with prisms, jaw width 140 mm, clamping width 155 mm
Order No. 281.211
- ▶ Keyless drill chuck B18 3-16 mm, concentricity 0,3 mm
Order No. 285.161
- ▶ Arbor B18 - MK 5
Order No. 287.097

Technical data

Drilling capacity	70 mm
Tapping capacity (depending on pitch)	M 50
Spindle	MK V
Drill depth	260 mm
Distance column to spindle	420 mm
Column diameter	220 mm
Usable table size	600 x 600 mm
T Slots	3pcs, distance 191 mm width 18/30 mm
Speed indication	scale
Drill depth indication	scale
Distance spindle to table	25-825 mm
Table height adjustment	with rack
Machine size (BxTxH)	600 x 1,060 x 2,640 mm
Machine size packed (BxTxH)	770 x 2,760 x 1,220 mm
Motor 400 V, 3phase	5,5 kW
Spindle speed	51-64-84-110-158-198-262
12 steps (gear)	342-447-559-738-966 1/min
Automatic and electromagnetic spindle feed	0.1-0.2-0.3-0.4-0.5-0.6 mm/rev

GB 70 MVplus

Weight	940 kg
Order No.	287.070
Packing	V0
Special color (as per RAL table only)	on request.

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



**Drilling and milling machine
BFM 40**

Fig.- BFM40 with options

By standard

- ▶ Automatic mechanical spindle feed
- ▶ Cooling unit fully integrated in base plate
- ▶ Machine light
- ▶ High precision mechanical drill depth arrester
- ▶ Sliding table with 3 T slots
- ▶ Motor protection switch with undervoltage release
- ▶ Emergency off push button
- ▶ Electrical drill guard
- ▶ Vertical motor driven drill head adjustment
- ▶ Tilttable drill head (+/- 45 °)
- ▶ Machine bed with cooling unit and pump
- ▶ Automatical tool ejector
- ▶ Gear of hardened and ground steel
- ▶ Centralized and automatical lubrication
- ▶ Switch for r.h. and l.h. rotation
- ▶ Push button for feed start/stop function in star handle

Options/Accessories

- ▶ Digitally displayed work table position of various axis (X,X-Y,X-Y-Z)
on request
- ▶ ISO 30 spindle
Order No.: 287.082
- ▶ Gear box feed system in X-axis 8 feed speeds (20-550 mm/min, rapid return speed 850 mm/min.)
Order No. 287.083
- ▶ Gear box feed system in Y-axis 8 feed speeds (20-550 mm/min, rapid return speed 850 mm/min.)
Order No.: 287.084
- ▶ Quick tools change unit for ISO 30 spindle
Order No.: 287.085
- ▶ Tapping unit
Order No.: 287.086
- ▶ Machine vice with prisms, jaw width 140 mm, clamping width 155 mm
Order No. 281.211
- ▶ Keyless drill chuck, B18 3-16mm, concentricity 0,30 mm
Order No. 285.161
- ▶ Arbor MK 4-B18
Order No. 290.323

Technical data

Drilling capacity	35 mm
Milling capacity	55 cm ³ /min
Tapping capacity (depending on pitch)	M 35
Spindle	MK IV
Drill depth	180 mm
Distance column to spindle	390 mm
Usable table size (sliding table)	1200 x 360 mm
T Slots	3pcs, distance 95 mm size 16/28 mm
Table slide way (X) manually	700 mm
Table slide way (Y) manually	360 mm
Speed indication	Scale
Drill depth indication Z-Achse	Scale
Distance spindle to table	190-650 mm
Motorical drill head height adjustment	drive way 150 mm
Machine size (BxTxH)	1,660 x 1,520 x 2,450 mm
Machine size packed (BxTxH)	1,680 x 1,680 x 2,520 mm
Motor 400 V, 3phase	0,9/1,5 kW
Spindle speed	94-135-189-207-271-303-347-414-497- in 16 steps 606-760-995-1,112-1,520-2,225 1/min (with gear box)
Automatic and electromagnetic spindle feed	0,1-0,18-0,24 mm/Umdr.
BFM 40	
Weight	1,400 kg
Order No.	287.080
Packing	V0
Special color (as per RAL table only)	on request.

Column Flow Drilling Machine SB P23 ST-FB



Abb.: SB P23 ST-FB
mit Sonderausstattung

Flow drilling

is being used for the perforation of thin walled metal sheets. The method of flowdrilling forms a sleeve by reshaping of the existing material. The material prolongation increases the number of leading threads up to three to five times. The material is not chipped, but used for loadable connections.

Advantages of flow drilling:

- ▶ Low costs per thread
- ▶ Loadable joints
- ▶ High-quality threads
- ▶ No special equipment needed
- ▶ Low start-up costs
- ▶ No third party material needed
- ▶ Less steps of production
- ▶ No chip removal

Accessories

- ▶ Machine vice with prisms opening 120 mm, clamping width 105 mm
Order No. 281.207
- ▶ Keyless drill chuck tool holder: B16 clamping range: 1-13 mm
Order No. 285.131
- ▶ Arbour MKII/B16
Order No. 285.320
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs., crosswise precision grounded 135°, Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head 45°, LUMEN:150 cold white
Order No. 290.070

Technical Data

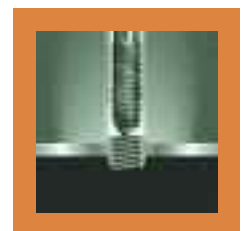
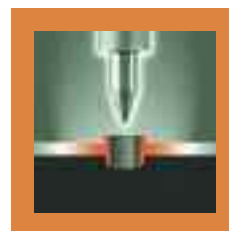
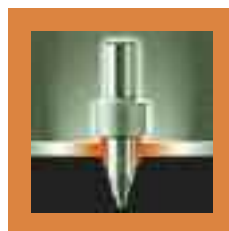
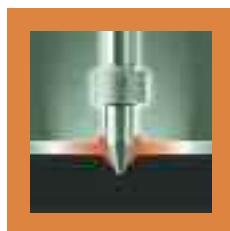
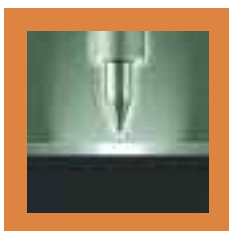
Flow drilling capacity (3 mm sheet iron)	8 mm
Spindle	MKII
Drilling depth	100 mm
Distance column-spindle	240 mm
Machine-column diameter	Ø 82 mm
Usable work table surface (L x W)	340 x 280 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	digital
Drill depth indication	digital
Drill depth end stop	Quickly adjustable end stop ring
Feed	manual
Table height adjustment (SB/TB)	With rack
Machine size (WxDxH)	350 x 745 x 1,850 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2,140 mm
Drill head height adjustment (TBZ)	With rack
Motor 400 V 50 Hz	1.5 kW
Speed range inf. var.	500-4,000 1/min

SB P23 ST-FB

Distance spindle table	160-880 mm
Weight	205 kg
Order No.	201.054

SPECIAL OPTIONS ON PAGE 64 | 1 | 2 | 3 | 4 | 5 | 6 | 9

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70





Column Flow Drilling Machine SB M3 ST-FB

By standard

- ▶ Inf. var. speed adjustment
- ▶ Emergency switch-off button
- ▶ No volt release
- ▶ Table height adjustment with rack
- ▶ Drill depth end stop with fine adjustment
- ▶ Cable 1.5 m with CEE plug
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional/ Accessories

- ▶ Machined base plate with T Slots
Order No. 290.378
- ▶ Machined base plate with integrated cooling unit
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.160B
- ▶ LED light with hinged arm
Order No. 290.020
- ▶ Cooling unit (separate tank)
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
tool holder: B18
clamping range: 3-16 mm
concentricity: 0.30 mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral Drill Set according to DIN 338 HSSG 25 pcs.,
crosswise precision grounded 135°,
Ø 1.0 – 13.0 x 0.5 mm
Order No. 285.124
- ▶ LED-light integrated in drill head
45°, LUMEN:150 cold white
Order No. 290.070



Technical Data

Flow drilling capacity (3 mm sheet metal)	18 mm
Spindle	MKIII
Drilling depth	125 mm
Distance column-spindle	260 mm
Machine-column diameter	Ø 110 mm
Usable work table surface (L x W)	420 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26 mm
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	With fine adjustment
Feed	manual
Table height adjustment	With rack
Machine size (WxDxH)	420 x 830 x 1,900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2,140 mm
Motor 400 V 50 Hz	3 kW
Spindle speed, inf. var with intermediate transmission	500-4,000 1/min

SB M3 ST-FB

Distance spindle table	240-790 mm
Weight	275 kg
Order No.	205.188

SPECIAL OPTIONS ON PAGE 64 | 1 | 2 | 3 | 4 | 5 | 6 | 10



Column Flow Drilling Machine
SB P40 ST-FB
SB P40 STG-FB PV electronic

Fig.: SB P40 ST-FB PV electronic

Flow drilling

is being used for the perforation of thin walled metal sheets.

The method of flowdrilling forms a sleeve by reshaping of the existing material. The material prolongation increases the number of leading threads up to three to five times.

The material is not chipped, but used for loadable connections.

Advantages of flow drilling:

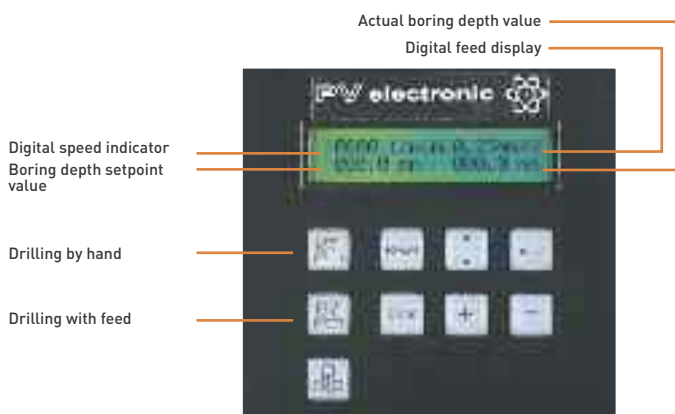
- ▶ Low costs per thread
- ▶ Loadable joints
- ▶ High-quality threads
- ▶ No special equipment needed
- ▶ Low start-up costs
- ▶ No third party material needed
- ▶ Less steps of production
- ▶ No chip removal

Accessories

- ▶ Combined drilling table/
machine vice opening 120 mm,
clamping width 210 mm
Order No. 281.210

Available software options for PV electronic

- ▶ **Safety module** – Spindle stops automatically in upper position
Order No. 290.613
- ▶ **Chip cutter module**
to avoid long chips
Order No. 290.612
- ▶ **Multi feed unit** – Four free selectable feed speeds per cycle
Order No. 290.614



Technical Data

Flow Drilling capacity (3 mm sheet iron)	20 mm
Spindle	MKIV
Drilling depth	160 mm
Distance column-spindle	300 mm
Machine-column diameter	Ø 125 mm
Usable work table surface (L x W)	590 x 450 mm
T-slot size	quantity 2, distance 160 mm size width 14/26 mm
Speed indication	digital
Drill depth indication	digital
Drilling depth stop	With fine adjustment
Feed	manual
Table height adjustment	With rack
Machine size (WxDxH)	590 x 830 x 2,100 mm
Machine size (incl. packaging) (WxDxH)	670 x 1,100 x 2,140 mm
Motor 400 V 50 Hz, single speed motor	3 kW
Spindle speed, inf. var with speed range R1	500-4,000 1/min
Motor 400 V 50 Hz	1.5/3 kW 2-speed motor
Spindle speed, inf. var with speed range R2	250-4,000 1/min

SB P40 ST-FB

Distance spindle table	150-700 mm
Weight	420 kg
Order No. R1	205.212
Order No. R2	205.213

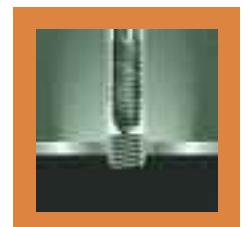
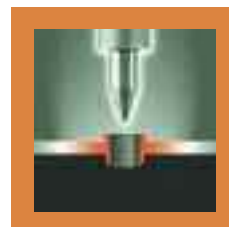
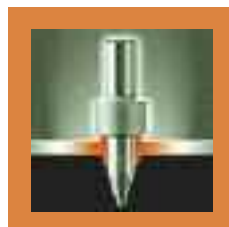
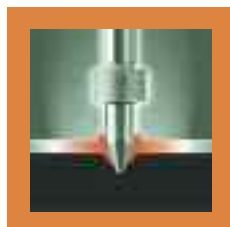
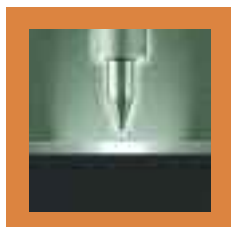
SPECIAL OPTIONS ON PAGE 64 | 1 | 2 | 3 | 4 | 5 | 6 | 11

SB P40 STG-FB PV electronic

Feed inf. var. with electromagnetic clutch and digital display	0-300 mm/min
Distance spindle table	150-700 mm
Weight	445 kg
Order No. R1	205.217
Order No. R2	205.218

SPECIAL OPTIONS ON PAGE 64 | 1 | 2 | 3 | 4 | 5 | 7 | 11

FURTHER TAPPING AND DRILLING TOOLS STARTING P. 70



Special options

1

Machines with special voltage motor: **available on request**

2

Machine light with transformer, incl. bulb
(for machines with non-standard voltage)

Order No.201.510

3

Machined base plate with T-slots
(for SB type machines only)

Order No.290.378

4

Food button as "emergency switch-off"

Order No.290.320

5

Food on/off switch

Order No.290.321

6

Food reverse switch

Order No.290.324

7

Food start/stop switch – function of star wheel buttons

Order No.290.401

8

Extended column 70 mm diameter (max. 200 mm)

Order No.296.286

9

Extended column 82 mm diameter (max. 150 mm)

Order No.296.287

10

Extended column 110 mm diameter (max. 300 mm)

Order No.296.288

11

Extended column 125 mm diameter (max. 300 mm)

Order No.296.289

12

Drill depth fixed end stop

Order No.212.716

Accessories

All machines in standard gray RAL 7005 colour.

Special colours (RAL) available at extra charge*

Order No. 290.200

When ordering, please state order no. and RAL colour.

*except GB 50 MV, GB 50 MV plus, SB 50 STG MV, GB 70 MV plus



LED workplace light LUX 1 incl. table clamp

600 lumen, 8 Watts with flexible shaft and rubber covered magnetic holder, light temperature cold white 6000 K, overall length 560 mm, flexible shaft length 350 mm, lamp dia 69 mm

Order no. 290027

LED workplace light LUX 2 with table clamp

350 lumen, 3 Watts with flexible shaft und rubber covered magnetic holder, light temperature 5000 K, overall length 600mm, flexible shaft length 420 mm, head section LxWxH 75x25x9 mm

Order no. 290028



Minimum lubrication system

A small pump brings pure lubrication fluid to the top of the dispenser, where both compressed air and lubricant are mixed and formed to a spray mist. Lubricant and compressed air are guided separately from each other to the nozzle. The relation between compressed air and lubricant can be reproducable adjusted.

Advantages:

- ▶ As the hose must be filled with lubricant without any bubbles, the spraying process starts immediately on engagement.
- ▶ Wide adjustment range of the dose pump, from hardly visible up to the Maximum flow capacity rated up to 3 cm³ /min.

The minimum lubrication system: As less as possible, but as much as necessary. Always optimal dosed for production purpose.

Order No. 290.395



Electrical cooling unit

- ▶ Complete with pump, tank and tube
- ▶ Cable and switch
- ▶ Dimension 350 x 250 x 250 mm
- ▶ Mains 230 V 50 Hz
- ▶ Contents max. 15 l
- ▶ Flow rate max. 30 l/min
- ▶ Needs loadable N conductor
- ▶ Not usable for: TB 10 STW, TB 10 plus, TB 13 plus, SB 13 plus, Turbodrill
- ▶ Standard colour RAL 7005 grey

Order No. 290.340

Accessories

F0 Precision sliding table*

- ▶ Table size 230 x 164 mm
- ▶ Traverse path (Travelling Distance) x/y 120 x 110 mm
- ▶ Scale increments 0.05 mm
- ▶ Weight 16 kg
- ▶ Suitable for series E1/E2, M1 ST/M2 ST, and series P18 ST/P23 ST

Order No. 281.085

Mounting plate

Order No. 281.087

F1 Precision sliding table*

- ▶ Table size 330 mm x 220 mm
- ▶ Traverse path (Travelling Distance) x/y 190 x 130 mm
- ▶ Scale increments 0.05 mm
- ▶ Weight 33 kg
- ▶ Suitable for series E2/E3/E4, M2 ST/M3 ST/M4 ST and P23 ST/P30 ST/P35 ST

Order No. 281.090

Mounting plate

Order No. 281.092



F2 precision sliding table*

- ▶ Table size 430 mm x 240 mm
- ▶ Traverse path (Travelling Distance) x/y 240 x 160 mm
- ▶ Scale increments 0.05 mm
- ▶ Weight 46 kg
- ▶ Suitable for series E5 / M5 ST / P40

Order No. 281.095

Mounting plate

Order No. 281.092

*Netting to unit. Mounting plate for fixed to work table is not included!

Accessories



**Moderately heavy machine vice
made of cast iron with ergonomic handle**

- ▶ **Nr. 1: 85**
 - clamping jaw width: 85 mm
 - clamping range: 75 mm
 - clamping jaw height: 30 mm
 - Weight: 3.3 kg
 - Order No. 281.205
- ▶ **Nr. 1: 100**
 - clamping jaw width: 100 mm
 - clamping range: 95 mm
 - clamping jaw height: 30 mm
 - Weight: 4.0 kg
 - Order No. 281.206
- ▶ **Nr. 1: 120**
 - clamping jaw width: 120 mm
 - clamping range: 105 mm
 - clamping jaw height: 30 mm
 - Weight: 6.6 kg
 - Order No. 281.207
- ▶ **Spare pair of clamping jaws (2 pcs/set)**
 - Nr. 1: 85
 - Order No. 281.212
 - Nr. 1: 100
 - Order No. 281.213
 - Nr. 1: 120
 - Order No. 281.214

Accessories



Heavy machine vice, hardened and closed jaws with toggle for maximum tension

► **Nr. 2: 100**
clamping jaw width: 100 mm
clamping range: 90 mm
clamping jaw height: 40 mm
Weight: 7.5 kg
Order No. 281.209

► **Nr. 2: 120**
clamping jaw width: 120 mm
clamping range: 120 mm
clamping jaw height: 40 mm
Weight: 11.5 kg
Order No. 281.210

► **Nr. 2: 140**
clamping jaw width: 140 mm
clamping range: 155 mm
clamping jaw height: 40 mm
Weight: 13.5 kg
Order No. 281.211

► **Spare pair of clamping jaws (2 pcs/set)**
Nr. 2: 100
Order No. 281.215
Nr. 2: 120
Order No. 281.216
Nr. 2: 140
Order No. 281.217



All-purpose angle vice with three face milled contact surfaces

► **Nr. 3: 100**
clamping jaw width: 100 mm
clamping range: 85 mm
clamping jaw height: 30 mm
Weight: 4.9 kg
Order No. 281.208

► **Spare pair of clamping jaws (2 pcs/set)**
Nr. 3: 100
Order No. 281.218

Accessories

Standard Drill Chuck, self-tightening

- ▶ Clamping range: 1-10 mm
- ▶ Tool holder B 12 for Turbodrill
- ▶ Concentricity: 0.20 mm

Order No. 285.103



Precision keyless drill chuck, grinded, self-tightening

- ▶ Clamping range: 0.5-6 mm
- ▶ Tool holder: B 16
- ▶ Concentricity: 0.05 mm

Order No. 285.104



Keyless precision drill chuck, ground self-tightening, for clockwise and counterclockwise work

- ▶ Clamping range 1-13 mm
- ▶ Tool holder B16
- ▶ Concentricity: 0.06 mm

Order No. 285.064



Keyless drill chuck

- ▶ Clamping range 1-13 mm
- ▶ Tool holder B16
- ▶ Concentricity: 0.30 mm

Order No. 285.131



Keyless drill chuck

- ▶ Clamping range 3-16 mm
- ▶ Tool holder B18
- ▶ Concentricity: 0.30 mm

Order No. 285.161



Two-jaw-chuck, no loosening due to vibration, with additional entrainment for tapping drills M3-M12 DIN 371

- ▶ Clamping range: 1-10 mm
- ▶ Tool holder: B 16
- ▶ Length: 75.6 mm

Order No. 285.109

Zubehör



Tab holder:
Infinite variable safety clutch adjustment with cap nut and scale, suitable for rh and lh tapping

- ▶ **GBH 10/MK 2**
Tap range M3-M10
for shaft diameter 2.5-10 mm
Art.-No. 285.080
- ▶ **GBH 16/MK 3**
Tap range M6-M16
for shaft diameter 4.5-12.5 mm
Art.-No. 285.081
- ▶ **GBH 27/MK 3**
Tap range M14-M27
for shaft diameter 11-22.4 mm
Art.-No. 285.082



Tapping chuck
Wide range collet with length compensation (self feed tension and compression)
Suitable for rh and lh tapping

- ▶ **GBF 12/MK 2**
Cutting range M3-M12
Without collets
Art.-No. 285.083
- ▶ **Multi range collet for GBF 12**
Clamping range 3.5-6.5 mm
Art.-No. 285.084
Clamping range 6.5-10 mm
Art.-No. 285.085
- ▶ **GBF 18/MK 3**
Cutting range M 5 – M 18
Without collets
Art.-No. 285.086
- ▶ **Multi range collet for GBF 18**
Clamping range 2.8-7 mm
Art.-No. 285.087
Clamping range 7-13 mm
Art.-No. 285.088
- ▶ **GBF 30/ MK 4**
Cutting range M 10 – M 30
Without collets
Art.-No. 285.089
- ▶ **Multi range collet for GBF 30**
Clamping range 10-16 mm
Art.-No. 285.090
Clamping range 16-23 mm
Art.-No. 285.091

Zubehör



HSS G standard spiral drill set in ABS Box

- ▶ DIN 338 N, 25 parts
1-13 mm x 0,5 mm
Art.-No. 285.124

HSS-G Spiralbohrersatz in ABS-Box

- ▶ Wide range spiral drills with enhanced core and parabolic groove for better chip removal
DIN 338, cross ground 130°, 25 parts
1-13 mm x 0,5 mm
Art.-No. 285.123



HSS countersink and deburring drill set in ABS Box

- ▶ DIN 335 C, 90°, 6 parts
6,3-8,3-10,4-12,4-16,5-20,5 mm
Art.-No. 285.162



HSS-E spiral drill set in ABS Box

- ▶ DIN 371/376, M 3 – M 12, Form B,
with core drill, 14 parts, for through hole cutting
Art.-No. 285.163

HSS-E spiral drill set in ABS Box

- ▶ DIN 371/376, M 3 – M 12, Form C
35° r.h. spiral grooves
14 parts, for blind hole cutting
Art.-No. 285.164

Accessories



Arbour

Size **B 16/MK I**
Order no. 285.310

Size **B 16/MK II**
Order no. 285.320

Size **B 18/MK II**
Order no. 285.321

Size **B 18/MK III**
Order no. 285.323

Size **B 18/MK IV**
Order no. 290.323

Size **B 18/MK V**
Order no. 287.097



Reducing chuck

Size **MK II/MK I**
Order no. 285.330

Size **MK III/MK II**
Order no. 285.331

Size **MK III/MK I**
Order no. 285.332

Size **MK IV/MK III**
Order no. 285.333

Size **MK IV/MK II**
Order no. 285.336

Size **MK V/MK IV**
Order no. 285.092



Drill drift, semi-mechanical

Size **1-3**
Order no. 285.334

Size **4-6**
Order no. 285.335

Accessories



Complete drill guard

to be mounted on the machine head, easy height adjustment swivelled mounted for quick tool change adjustment range max 150 mm.

Series 10 STW / M1 / P18 / E1/E2/E3/E4/E5

Shield dimension: 120 mm x 170 mm

Order No. 290.815

Spare shield

Order No. 290.825

Series Turbo Drill, TB 10 Plus, TB 13 Plus

Shield dimension: 120 mm x 120 mm

Order No. 212.597

Spare shield

Order No. 212.598

Series M2/M3/M4/M5 / P23/P30/P35/P40

Shield dimension: 120 mm x 250 mm

Order No. 290.852

Spare shield

Order No. 290.854



Complete drill guard, with micro switch

Machine is switched-off if the drill guard is opened

Series 10 STW / P18 / M1 / E1/E2/E3/E4/E5

Order No. 290.832

Spare shield: 120 x 170 mm

Order No. 290.825

Series Turbo Drill, TB 10 Plus, TB 13 Plus

Bestell-Nr. 212.585

Spare shield: 120 x 120 mm

Order No. 212.596

Series M2/M3/M4/M5 / P23/P30/P35/P40

Bestell-Nr. 290.855

Spare shield: 120 x 250 mm

Order No. 290.854



Complete Drill guard in accordance with DIN EN 12717, extendable, incl. micro switch locking (replacement set)

Series 10 STW

Order-Nr. 290.031

Spare shield: 170 x 250 x 130 mm

Order 290.030

Series 13Plus, 10Plus and Turbo Drill

Order-Nr. 290.032

Spare shield: 170 x 250 x 130 mm

Order 290.030

Series E1, M1, P18, E2, M2, P23, E3, E4, E5

Order-Nr. 290.036

Spare shield: 210 x 250 x 150 mm

Order 290.035

Series M3, P30, M4, P35, M5, P40

Order-Nr. 290.041

Spare shield: 270 x 300 x 150 mm

Order-Nr. 290.040

Outside Dimensions Drilling Machines

Outside dimensions drill presses **including** packaging

width x depth x height in mm

Series 10 STW, 10 Plus, 13 Plus, Turbo Drill

TB 10 STW	310 x 410 x 600
Turbo Drill	452 x 700 x 1,130
TB 10 Plus	452 x 700 x 1,130
TB 13 Plus	452 x 700 x 1,130
SB 13 Plus	540 x 940 x 2,100

Series E1/M1/P18

SB	540 x 940 x 2,100
TB	300 x 700 x 1,000

Series E2

SB	540 x 940 x 2,100
TB	300 x 700 x 1,000

Series M2/P23

SB	572 x 940 x 2,140
TB	540 x 940 x 1,600
TBZ (without base)	540 x 940 x 1,600
TBZ (with base)	572 x 940 x 2,140

Series E3/E4/E5

SB	572 x 940 x 2,140
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Series M3/M4/P30/P35

SB	572 x 940 x 2,140
----	-------------------

Series E5/M5/P40

SB	670 x 1100 x 2,140
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SB M3 ST-FB	572 x 940 x 2,140
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Gear drilling machines

GB 50 MV	680 x 2600 x 1210
GB 50 MV/plus	680 x 2600 x 1210
SB P50 STG MV	740 x 2220 x 1320
GB 70 MV plus	770 x 2760 x 1220
BFM 40	1680 x 1680 x 2520

Outside dimensions drill presses **without** packaging

width x depth x height in mm

Series 10 STW, 10 Plus, 13 Plus, Turbo Drill

TB 10 STW	215 x 365 x 560
Turbo Drill	330 x 450 x 820
TB 10 Plus	330 x 450 x 820
TB 13 Plus	420 x 450 x 860
SB 13 Plus	420 x 480 x 1,780

Series E1/M1/P18

SB	280 x 655 x 1,710
TB	280 x 655 x 860

Series E2

SB	280 x 600 x 1,710
TB	280 x 600 x 865

Series M2/P23

SB	350 x 745 x 1,850
TB	350 x 745 x 920
TBZ (without base)	350 x 745 x 1,070
TBZ (with base)	350 x 745 x 1,870

Series E3/E4/E5

SB	420 x 740 x 1,782
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Series M3/M4/P30/P35

SB	420 x 830 x 1,900
----	-------------------

Series E5/M5/P40

SB	590 x 830 x 2,100
----	-------------------

SB M3 ST-FB	420 x 830 x 1,900
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Gear drilling machines

GB 50 MV	600 x 1060 x 2450
GB 50 MV/plus	600 x 1060 x 2450
SB P50 STG MV	550 x 950 x 2170
GB 70 MV plus	600 x 1060 x 2640
BFM 40	1660 x 1520 x 2450



High Quality –
made in Germany
since 1854.

FLOTT Products Grinding Technology



Bench Grinders

TS 150 SW / TS 175 SW
TS 150 SD P / TS 175 SD P



Fig. above: TS 150 SW / TS 150 SD P
Fig. below: TS 175 SW / TS 175 SD P

By standard

- ▶ Smooth running and maintenance free high-quality motor
- ▶ Closed guards at both sides
- ▶ Rigid and adjustable tool support
- ▶ Equipped with two adjustable eye shields for safe work
- ▶ Can be used for grinding, sharpening and chamfering of all types of tools and metal profiles, etc.
- ▶ Motor-circuit switch and low voltage release

Machine supplied with

- ▶ Eye shields for both sides
- ▶ Connecting cable with earthed plug
- ▶ One coarse and one fine abrasive disc

Technical Data		TS 150 SW	TS 175 SW
Wheel diameter	mm	150 x 25 x 32	175 x 25 x 32
Machine size unpacked	W x D x H mm	230 x 440 x 210	230 x 440 x 210
Machine size incl. packaging	W x D x H mm	260 x 450 x 250	260 x 450 x 250
Speed	rpm/min	2,800	2,800
Weight	kg	14	15
Suction nozzle Ø	mm	42	42
Motor single phase 230 V*	kW	0.52	0.52
Order Number		317.760	317.766

Accessories	TS 150 SW Order Number	TS 175 SW Order Number
Pedestal with water container Size 355 x 300 mm / Weight: 12 kg	350.435	350.435
Wall bracket	315.035	315.035
Grinding wheel corundum coarse	317.522	317.526
Grinding wheel corundum fine	317.523	317.527
Wheel dresser	350.101	350.101

Technical Data		TS 150 SD P	TS 175 SD P
Wheel diameter	mm	150 x 25 x 32	175 x 25 x 32
Machine size unpacked	W x D x H mm	230 x 440 x 210	230 x 440 x 210
Machine size incl. packaging	W x D x H mm	260 x 450 x 250	260 x 450 x 250
Speed	rpm/min	2,840	2,740
Weight	kg	14	15
Suction nozzle Ø	mm	42	42
Motor 3 phase 230 V/400 V*	kW	0.6	0.7
Order Number		317.765	317.761

Accessories	TS 150 SD P Order Number	TS 175 SD P Order Number
Pedestal with water container, Size 355 x 300 mm / Weight: 12 kg	350.435	350.435
Wall bracket	315.035	315.035
Grinding wheel corundum coarse	317.522	317.526
Grinding wheel corundum fine	317.523	317.527
Wheel dresser	350.101	350.101
Dust extractor MA 400 D	330.295	330.295

Bench Grinders

TS 200 SD P

TS 250 SD P

TS 300 SD P



Abb.: TS 300 SD P mit Maschinenständer 350.436

By standard

TS 200 SD P / TS 250 SD P / TS 300 SD P

- ▶ Smooth running and maintenance free high-quality motor
- ▶ Closed guards at both sides
- ▶ Rigid and adjustable tool support
- ▶ Equipped with two adjustable eye shields for safe work
- ▶ Can be used for grinding, sharpening and chamfering of all types of tools and metal profiles, etc.
- ▶ Motor-circuit switch and low voltage release

Machine supplied with

- ▶ Eye shields for both sides
- ▶ Connecting cable with CEE-plug 16A
- ▶ One coarse and one fine abrasive disc



Fig.: TS 200 SD P
with pedestal with
exhaustion unit,
emergency off push
button and brake

Technical Data	TS 200 SD P	TS 250 SD P	TS 300 SD P
Wheel diameter mm	200 x 32 x 32	250 x 40 x 51	300 x 40 x 51
Machine size unpacked W x D x H mm	250 x 470 x 230	280 x 530 x 270	350 x 530 x 340
Machine size incl. packaging W x D x H mm	300 x 480 x 275	325 x 540 x 310	Palette
Speed rpm/min	2,550	1,400	1,250
Weight kg	20	32	40
Suction nozzle Ø mm	42	42	42
Motor 3 phase 230 V/400 V* kW	1.0	1.4	2.2
Order Number	317.762	317.763	317.764

Accessories	TS 200 SD P Order Number	TS 250 SD P Order Number	TS 300 SD P Order Number
Pedestal with water container Size 355 x 300 mm Weight: 12 kg	350.435	-	-
Pedestal with water container Size 420 x 520 mm Weight: 15 kg	-	350.436	350.436
Wall bracket	315.035	-	-
Sep. Grinding wheel corundum coarse	317.532	317.542	317.622
Sep. Grinding wheel corundum fine	317.533	317.543	317.624
Dressing Stone	350.101	350.101	350.101
MA 400	330.295	-	-
MA 600	-	330.080	330.080
with pedestal, emergency off push button and brake	317.774	317.775	317.776
with pedestal with ex- haustion unit, emergency off push button and brake (see picture)	317.777	317.778	317.779

Deburring Machine BEM 250



Fig.- BEM 250 with prism support

By standard

- ▶ Wavy wire round brush with wire \varnothing 0.35 mm for steel processing
- ▶ Height adjustable angular setting
- ▶ Height adjustable prismatic base
- ▶ Clear and pivotable high resistance eye shield 200 x 200 mm
- ▶ Connection for external dust extraction system, with plastic plug and Chip sieve
- ▶ Pedestal with integrated chip container and torsion plate below the steel brush
- ▶ Combined Switch- and plug box 16A, ergonomically mounted with an angle of 45° above the motor
- ▶ Emergency-off push button in knee height for hands-free use and best working safety
- ▶ Large door opening for easy replacement of the steel brush as well as fast and convenient emptying of the chip container

Technical Data		BEM 250
Steel brush diameter \varnothing	mm	250
Steel brush width standard	mm	40
Bore \varnothing	mm	100
Brush speed	m/sec.	38
Working height	mm	1000
Installation surface	W x D x H mm	400 x 400 x 1380
Rotational speed	rpm/min	1,500/3,000
Motor AC 3 phase 400 V/ 50 Hz (pole-changing)	kW	2.2/2.4
power connection	V/Hz	400/50
Weight	kg	60
Machine size unpacked	W x D x H mm	1,250 x 400 x 400
Machine size incl. packaging	W x D x H mm	1,390 x 400 x 400
Order Number		373.140

Accessories BEM 250	Order Number
Steel brush with \varnothing 40 mm	373.161



Fig. with angular base

Pedestals with integrated dust extraction system MA 400 D / MA 600 D



Belt Grinding Machine TBSM 75



Fig. above: MA 400 with TS 200 SD P
Fig. below: TBSM 75

Pedestals with integrated dust extraction system MA 400 D / MA 600 D

- ▶ MA 400 usable for machine types TS 150-200 SD P + TBSM 75
- ▶ MA 600 usable for machine types TS 250-300 SD P

By standard

- ▶ Plug connection including electronically controlled on-off delay for the extraction system

Delivery Contents

- ▶ 1 pc. of suction hose

Belt Grinding Machine TBSM 75

- ▶ Can be used in both horizontal and vertical position

Delivery Contents

- ▶ 1 pc. abrasive belt grit 80
- ▶ Suction nozzle
- ▶ Abrasive belt coverage
- ▶ Fixed stop, adjustable angle stop

All common abrasive belts, dust collection panel and other accessories, please see page 88-89.

Technical Data		MA 400 D**	MA 600 D
Motor 3 phase 230 V/ 400	kW	–	0.55
Motor single phase 230 V	kW	1.1	–
Speed	1/min	1,600	2,800
Suction capacity	m ³ /h	250	350
Suction hose	Ø mm	50	50
Dimensions baseplate	mm	355 x 300	420 x 520
Height	mm	820	840
Weight	kg	25	45
Order Number		330.295	330.080

**Only usable with loadable neutral conductor

Accessories MA 400/600 D	Order Number
Filter fabric for MA 400	330.289
1 pc. Suction hose Ø 50 mm (length: 1,300 mm)	330.086
Dust bag for MA 600	371.055

Special features	Order Number
Electronic machine braking system for greater machine safety when using bench grinding machines (only available in combination with pedestal)	350.040

Technical Data		TBSM 75
Sanding belt length	mm	1,000
Sanding belt width	mm	75
Grinding surface area	mm	300
Belt speed	m/sec.	15
Suction nozzle	mm	50
Weight	kg	30
Motor 3 phase 230 V/ 400 V	kW	0.55
Machine size unpacked	W x D x H mm	220 x 640 x 350
Machine size incl. packaging	W x D x H mm	400 x 700 x 300
Order Number		371.400

Accessories TBSM 75	Order No.
Connecting cable (Length: 3 m) Incl. CEE-plug and integrated phase inverter	488.761
Pedestal	350.435
Pedestals with integrated dust extraction system MA 400	330.295
Graphite layer 80 x 286 mm	371.477

**Combined belt
and wheel grinder
TSB 250 P**



Combined belt and wheel grinder P-series

- ▶ Powerful
- ▶ Belt grinding arm adjustable in height 0-90 °
- ▶ Maximum usable grinding area
- ▶ Belt fine adjustment
- ▶ Length end stop as workpiece guide
- ▶ Balanced and low-vibration
- ▶ Hose adaptor 500 mm dia on both sides
- ▶ Motor protection and low voltage switch
- ▶ Fixed end stop

By standard

- ▶ 1 standard grinding belt, grit 80 (brown)
- ▶ 1 standard grinding wheel, grit 80
- ▶ Eye protection
- ▶ Cable with CEE plug

Accessories

- ▶ Grinding wheel 250x40x51 mm coarse (grit 36)
Bestell-Nr. 371.542
- ▶ Grinding wheel 250x40x51 mm fine (grit 80)
Bestell-Nr. 317.543
- ▶ Grinding belt 1300 x 75 mm brown (grit 40)
Bestell-Nr. 316.042
- ▶ Grinding belt 1300 x 75 mm brown (grit 80)
Bestell-Nr. 316.041
- ▶ Graphite support 80 x 350 mm
Bestell-Nr. 316.045
- ▶ Machine pedestal with water container**
Bestell-Nr. 350.436
- ▶ Machine support with built-in exhaustion unit (MA 600)***
Bestell-Nr. 330.080

Technical Data		TSB 250 P
Grinding wheel size (grit 60)	mm	250 x 40 x 51
Machine size without packing material	B x T x H mm	600 x 320 x 700
Machine size packed	B x T x H mm	650 x 800 x 350
Speed	1/min	1400
Weight	kg	35
Belt Speed	(m/s)	15
Belt Size	(mm)	1300 x 75
Grit		80
Noise	dB (A)	78
Motor 3-phase 230 V/400 V*	kW	1.4
Machine size with grinding arm in vertical position	B x T x H mm	560 x 320 x 680
Order Number		330.360

*Grinding belts packed in sets of 5 pcs

**Size and technical data as shown on page 81

***Size and technical data as shown on page 85



Belt Grinding Machines

BSM 75

BSM 75 A

BSM 75 A pol.

BSM 150

BSM 150 A

BSM 150 A pol.



BSM 75
BSM 75A
BSM 150A

to go

available for
immediate
delivery



Fig. above: BSM 75

Fig. below: BSM 150 A with exhaustion

FLOTT belt grinding machines were designed to fulfill the highest demands of our customers and to serve their professional needs best.

All new machines of the FLOTT BSM series have been continually developed to meet highest quality standards, to ensure the best ergonomics and ease of use. In addition, the machines are equipped with the latest safety features according to CE specifications and regulations.

Machine Features

BSM 75 / BSM 75 A / BSM 75 A pol. und BSM 150 / BSM 150 A / BSM 150 A pol.

- ▶ High quality and robust machine layout
- ▶ Exceptionally smooth and quiet operating machine for an reduced noise level and safer working environment
- ▶ Driving and contact rollers are fully vulcanized and equipped with high quality barrels for best durability and smooth operation
- ▶ Driving and guiding rollers in convex form, ensuring the belt is always automatically centered on the rollers whilst in operation
- ▶ Tool-free, fast and easy to change abrasive belt for maximum comfort
- ▶ Continuously variable height adjustment for optimal setting of the machine to the machine operators needs with additional locking lever for higher safety and extended setting of the machine head
- ▶ Free adjustable metal arrester for optimal and safe control of the work piece while using the machine's surface grinding area
- ▶ Free adjustable tool rest
- ▶ Models with integrated dust extraction system are equipped with reinforced composite aluminum hoses for longest durability
- ▶ Equipped with CEE plug with integrated phase inverter

Machine supplied with

- ▶ Grinding Belt grit 60
- ▶ Connecting cable (Length: 1.5 m) with CEE-plug 16 A and integrated phase inverter
- ▶ Dust bag (models with integrated exhaust system only)

Different types of abrasive belts for all BSM models are available on request.

Technical Data	BSM 75	BSM 75 A	BSM 75 A/pol
Sanding belt length	mm 2,000	2,000	2,000
Sanding belt width	mm 75	75	75
Grinding surface area	mm 500	500	500
Belt speed	m/sec. 30	30	15/30
Colour	RAL 9007	9007	9007
Weight	kg 85	105	105
Motor 3 phase 400 V	kW 3.75	3.75	2.2/3.75
Extraction	m ³ /h –	app. 700	app. 700
Exhaustion motor	kW –	0.37	0.37
Machine size unpacked	W x D x H mm 950 x 430 x 1,050	950 x 430 x 1,050	950 x 430 x 1,050
Machine size incl. packaging	W x D x H mm 1,000 x 600 x 1,100	1,000 x 600 x 1,100	1,000 x 600 x 1,100
Order Number	370.545	370.540	370.530

Technical Data	BSM 150	BSM 150 A	BSM 150 A/pol
Sanding belt length	mm 2,000	2,000	2,000
Sanding belt width	mm 150	150	150
Grinding surface area	mm 500	500	500
Belt speed	m/sec. 30	30	15/30
Colour	RAL 9007	9007	9007
Weight	kg 100	120	120
Motor 3 phase 400 V	kW 3.75	3.75	2.2/3.75
Extraction	m ³ /h –	app. 700	app. 700
Exhaustion motor	kW –	0.37	0.37
Machine size unpacked	W x D x H mm 950 x 430 x 1,050	950 x 430 x 1,050	950 x 430 x 1,050
Machine size incl. packaging	W x D x H mm 1,000 x 600 x 1,100	1,000 x 600 x 1,100	1,000 x 600 x 1,100
Order Number	370.546	370.541	370.531

Accessories BSM 75+150 / A	Order No.
Sep. Composite aluminum hose for exhaust system (Length: 1.50 m/delivered in two parts)	370.580
Graphite Base for BSM 75 – BSM 75 A/ pol.	370.618
Graphite Base for BSM 150 – BSM 150 A/ pol.	370.619
Sep. Dust bag for BSM 75 A – BSM 150 A/ pol.	370.593

Zubehör Schleiftechnik

BSM 75 Models

► Standard Abrasive Grinding Belts

Size: 2,000 x 75 mm, Packaging Unit: 5 pc.

Corundum grit 40	Order No. 371.150
Corundum grit 60	Order No. 371.151
Corundum grit 80	Order No. 371.152
Corundum grit 100	Order No. 371.153
Corundum grit 120	Order No. 371.154

► Abrasive Grinding Belts for the processing of stainless steel and cast iron

Size: 2,000 x 75 mm, Packaging Unit: 5 pc.

Corundum grit 40	Order No. 371.824
Corundum grit 60	Order No. 371.825
Corundum grit 80	Order No. 371.826
Corundum grit 120	Order No. 371.827

► Graphite Layer

75 x 500 mm	Order No. 370.618
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BSM 150 Models

► Standard Abrasive Grinding Belts

Size: 2,000 x 150 mm, Packaging Unit: 5 pc.

Corundum grit 40	Order No. 371.125
Corundum grit 60	Order No. 371.126
Corundum grit 80	Order No. 371.127
Corundum grit 100	Order No. 371.128
Corundum grit 120	Order No. 371.129

► Abrasive Grinding Belts for the processing of stainless steel and cast iron

Size: 2,000 x 150 mm, Packaging Unit: 5 pc.

Corundum grit 40	Order No. 371.828
Corundum grit 60	Order No. 371.829
Corundum grit 80	Order No. 371.830
Corundum grit 120	Order No. 371.831

► Graphite Layer

150 x 500 mm	Order No. 370.619
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TBSM 75

► Standard Abrasive Grinding Belts

Size: 1,000 x 75 mm, Packaging Unit: 5 pc.

Corundum grit 40	Order No. 371.410
Corundum grit 60	Order No. 371.411
Corundum grit 80	Order No. 371.412
Corundum grit 100	Order No. 371.413
Corundum grit 120	Order No. 371.414

► Abrasive Grinding Belts for the processing of stainless steel and cast iron

Size: 1,000 x 75 mm, Packaging Unit: 5 pc.

Corundum grit 40	Order No. 371.820
Corundum grit 60	Order No. 371.821
Corundum grit 80	Order No. 371.822
Corundum grit 120	Order No. 371.823

► Graphite Layer

80 x 286 mm	Order No. 371.477
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TSB 250 P

► Standard Abrasive Grinding Belts

Size: 1,300 x 75 mm

Corundum grit 120	Order No. 316.042
Corundum grit 120	Order No. 316.041

► Graphite Layer

80 x 350 mm	Order No. 316.045
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Accessories/Spare Parts Grinding Technology

			
<p>Wall Bracket</p> <p>Order No. 315.035</p>	<p>Eye Shields incl. holders (2 pcs.) for TS 150-TS 175</p> <p>Order No. 315.311</p>	<p>Eye Shields incl. holders (2 pcs.) for TS 200</p> <p>Order No. 315.312</p>	<p>Eye Shields incl. holders (2 pcs.) for TS 250-TS 300</p> <p>Order No. 315.313</p>
			
<p>Eye Shield (2 pc.) incl. holder</p> <p>for BSM 75 models Order No. 370.565 for BSM 150 models Order No. 370.566</p>	<p>Contact rollers BSM Series (from year 2011 and after)</p> <p>for BSM 75 models Order No. 370.585 for BSM 150 models Order No. 370.586</p>	<p>Dust collection insert for embers box (suitable for filling with water/coolant)</p> <p>for BSM 75 models Order No. 370.535 for BSM 150 models Order No. 370.534</p>	<p>Eye Shield (1 pc.) for BEM 250 incl. holder</p> <p>Order No. 373.162</p>
			
<p>Angled base for BEM 250</p> <p>Order No. 373.163</p>	<p>Prismatic seat for BEM 250</p> <p>Order No. 373.164</p>		

Please note: For faster processing of your spare requests, please have your machine number and machine type available

Dimensions Grinding Machines

Dimensions including packing

width x depth x height in mm

Double End Grinders

TS 150 SW	260 x 450 x 250
TS 175 SW	260 x 450 x 250
TS 150 SD P	260 x 450 x 250
TS 175 SD P	260 x 450 x 250
TS 200 SD P	300 x 480 x 275
TS 250 SD P	325 x 540 x 310
TS 300 SD P	380 x 560 x 380

Combined belt and wheel grinder

TSB 250 P	650 x 800 x 350
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Deburring Machine

BEM 250	1,390 x 400 x 400
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Belt Grinding Machines

BSM 75 / 75 A / 75 A pol	1,000 x 600 x 1,100
BSM 150 / 150 A / 150 A pol	1,000 x 600 x 1,100
TBSM 75	400 x 700 x 300

Dimensions without packing

width x depth x height in mm

Double End Grinders

TS 150 SW	230 x 440 x 210
TS 175 SW	230 x 440 x 210
TS 150 SD P	230 x 440 x 210
TS 175 SD P	230 x 440 x 210
TS 200 SD P	250 x 470 x 230
TS 250 SD P	280 x 530 x 270
TS 300 SD P	350 x 530 x 340

Combined belt and wheel grinder

TSB 250 P	600 x 320 x 700
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Deburring Machine

BEM 250	1,250 x 400 x 400
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Belt Grinding Machines

BSM 75 / 75 A / 75 A pol	950 x 430 x 1,050
BSM 150 / 150 A / 150 A pol	950 x 430 x 1,050
TBSM 75	220 x 640 x 350



High Quality –
made in Germany
since 1854.

FLOTT Products Metal Sawing Machinery



FLOTT Metal Band Saw HBS 180 A



Handy manual band saw with hydraulic saw frame lowering and miter cutting from 0° to 45° right

Standard Equipment

- ▶ Saw frame made of a sturdy cast iron construction
- ▶ Oil bath supported reduction gear drive consisting of a bronze gear wheel with hardened and ground steel worm
- ▶ Mechanical blade tensioning with electrical tape monitoring
- ▶ Quick clamping saw vice
- ▶ High-performance electric coolant solution pump for lubrication and cooling of the saw band
- ▶ Two cutting speeds
- ▶ Operating tool kit
- ▶ Machine colour
 - Saw frame RAL 7035
 - Machine body RAL 7037

Accessories

- ▶ Metal band saw blades




Technical Data

Three phase 400 V AC motor (pole-changing)	kW 0.37/0.75
Gear Reduction	28/1 I
Saw Band Dimension	2,085 x 20 x 0.9 mm
Flywheel	265 Ø mm
Cutting Speed	40/80 m/Min
Vice span	200 mm
Working height	920 mm
Machine size unpacked W x D x H	1,300 x 720 x 1,450 mm
Machine size packed W x D x H	700 x 1,450 x 1,000 mm
Weight	180 kg

HBS 180 A

Order No.	560.801
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Sawing

	0°	45° re	60° re
	180	115	70
	180	110	70
	200 x 150	125 x 110	70 x 70

Metal band saw blades (differently setted saw blades available on request)

HBS 180 A	Dimensions in mm	Combi Set	Packaging Unit Unit = 2 pcs.
560.240	2,085 x 20 x 0.9	4/6	1
560.241	2,085 x 20 x 0.9	6/10	1
560.242	2,085 x 20 x 0.9	10/14	1

Convenient "push-pull" control knob for "Start and Stop" of the saw frame lowering (requires no modification of the preset lowering speed)



Hydraulic device for infinitely adjustable, independent lowering of the saw frame



FLOTT Metal Band Saw HBS 225 A



Fig. with options

The new manual band saw for economical, professional cutting of metal profiles

- ▶ Saw frame made of a sturdy cast iron construction
- ▶ Oil bath supported reduction gear drive consisting of a bronze gear wheel with hardened and ground steel worm
- ▶ Two cutting speeds
- ▶ Mechanical blade tensioning with electrical tape monitoring
- ▶ Quick clamping saw vice
- ▶ Hydraulic lowering of the saw frame (continuously variable)
- ▶ High-performance electric coolant solution pump for best lubrication and cooling of the saw band
- ▶ Carbide guides
- ▶ Miter cutting from 0° to 60° right
- ▶ Operating tool kit
- ▶ Machine colour
 - Saw frame RAL 7035
 - Machine body RAL 7037

Accessories

- ▶ Metal band saw blades




Technical Data

Three phase 400 V AC motor (pole-changing)	kW 0.55/1.1
Gear Reduction	1 40/1
Saw Band Dimension	2,450 x 27 x 0.9 mm
Flywheel	Ø 290 mm
Cutting Speed	32/64 m/Min.
Vice span	250 mm
Working height	980 mm
Machine size unpacked W x D x H	1,400 x 750 x 1,600 mm
Machine size packed W x D x H	800 x 1,400 x 1,050 mm
Weight	225 kg

HBS 225 A

Order No.	560.806
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Sawing

	0°	45° re	60° re
	225	160	90
	200	140	90
	240 x 160	155 x 115	90 x 100

Metal band saw blades (differently setted saw blades available on request)

HBS 220 MA Order No.	Dimensions in mm	Combi Set	Packaging Unit Unit = 2 pcs.
560.243	2,450 x 27 x 0.9	2/3	1
560.244	2,450 x 27 x 0.9	3/4	1
560.245	2,450 x 27 x 0.9	4/6	1
560.246	2,450 x 27 x 0.9	5/8	1
560.247	2,450 x 27 x 0.9	10/14	1

Convenient "push-pull" control knob for "Start and Stop" of the saw frame lowering (requires no modification of the preset lowering speed)



Hydraulic device for infinitely adjustable, independent lowering of the saw frame



FLOTT Metal Band Saw HBS 255 MA



Fig. with options

Manual, heavy duty and high performance band saw with hydraulic saw frame lowering and miter cutting from 45° left to 60° right

- ▶ Saw frame made of a sturdy cast iron
- ▶ Massive rotary table
- ▶ Oil bath supported reduction gear drive consisting of a bronze gear wheel with hardened and ground steel worm
- ▶ Carbide guides
- ▶ Quick clamping saw vice with additional quick adjustment and quick release levers
- ▶ High-performance electric coolant solution pump
- ▶ Mechanical blade tensioning with electrical tape monitoring
- ▶ Two cutting speeds
- ▶ Miter cutting from 45° left to 60° right
- ▶ Operating tool kit
- ▶ Machine colour
 - Saw frame RAL 7035
 - Machine body RAL 7037

Accessories

- ▶ Metal band saw blades




Technical Data

Three phase 400 V AC motor (pole-changing)	1/1.4 kW
Gear Reduction	40/1 I
Saw Band Dimension	2,750 x 27 x 0.9 mm
Flywheel	300 Ø mm
Cutting Speed	33/66 m/Min
Vice span	305 mm
Working height	940 mm
Machine size unpacked W x D x H	1,200 x 2,000 x 1,950 mm
Machine size packed W x D x H	900 x 1,900 x 1,750 mm
Weight	440 kg

HBS 255 MA

Order No.	560.815
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Sawing

	45° left	0°	45° right	60°
	160	255	190	110
	140	250	180	110
	170 x 120	300 x 200	190 x 170	110 x 150

Metal band saw blades (differently setted saw blades available on request)

HBS 220 MA Order No.	Dimensions in mm	Combi Set	Packaging Unit Unit = 2 pcs.
560.229	2,750 x 27 x 0.9	2/3	1
560.230	2,750 x 27 x 0.9	3/4	1
560.231	2,750 x 27 x 0.9	4/6	1
560.232	2,750 x 27 x 0.9	5/8	1
560.233	2,750 x 27 x 0.9	10/14	1

Convenient "push-pull" control knob for "Start and Stop" of the saw frame lowering (requires no modification of the preset lowering speed)



Hydraulic device for infinitely adjustable, independent lowering of the saw frame



FLOTT Metal Band Saw HBS 300 HA digit



The new FLOTT semi-automatic high performance band saw (fully hydraulic) with user-friendly interface

- ▶ The multi-functional digital display system provides information about:
 - Cycle counter (programmable)
 - Sawing time counter (partial and total)
 - Operating condition
 - Troubleshooting Tool
 - Self Diagnosis
 - Belt speed (optional)
- ▶ Pivotal heavy duty saw frame made of a sturdy cast iron with adjustment of the saw frame from 45° left up to 60° right for miter cutting
- ▶ Hydraulic saw frame lowering (continuously variable)
- ▶ Electrical high performance coolant solution pump
- ▶ Integrated sliver brush for elimination of interfering metal shavings
- ▶ Hydraulic blade tensioning with electrical tape monitoring
- ▶ Fully hydraulic clamping saw vice
- ▶ Massive rotary table
- ▶ Carbide guiding rolls
- ▶ Operating tool kit
- ▶ Machine colour
 - Saw frame RAL 7035
 - Machine body RAL 7037

Accessories

- ▶ Metal band saw blades




Technical Data

Three phase 400 V AC motor (pole-changing)	1.5/1.8 kW
Power Electric Pump	0.12 kW
Power Hydraulic Motor	0.40 kW
Gear Reduction	40/1 I
Saw Band Dimension	3,310 x 27 x 0.9 mm
Flywheel	355 Ø mm
Cutting Speed	40/80 m/Min
Vice span	340 mm
Working height	940 mm
Machine size unpacked W x D x H	1,700 x 2,150 x 2,250 mm
Machine size packed W x D x H	1,100 x 1,900 x 1,750 mm
Weight	750 kg

HBS 300 HA digit

Order No.	560.820
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Sawing

	45° left	0°	45° right	60° right
	220	300	260	180
	180	260	250	170
	200 x 160	330 x 260	270 x 200	170 x 170

Metal band saw blades (differently setted saw blades available on request)

HBS 220 MA Order No.	Dimensions in mm	Combi Set	Packaging Unit Unit = 2 pcs.
560.234	3,310 x 27 x 0.9	2/3	1
560.235	3,310 x 27 x 0.9	3/4	1
560.236	3,310 x 27 x 0.9	4/6	1
560.237	3,310 x 27 x 0.9	5/8	1
560.238	3,310 x 27 x 0.9	10/14	1

**FLOTT Metal
Circular Saw
KS 315 M**



Universal circular saw with pivoting machine head (left/right) for miter cutting and two machine speeds

- ▶ Massive sturdy cast iron machine housing
- ▶ Oil bath supported reduction gear drive consisting of a bronze gear wheel with hardened and ground steel worm
- ▶ Quick clamping saw vice with double side fixture for double strength work piece fixation
- ▶ Durable, mechanical cooling solution pump
- ▶ Length adjustable arrester
- ▶ Operating tool kit
- ▶ Machine colour RAL 7037

Accessories

- ▶ Metal circular saw blades

This machine is also available as single phase 230 V AC version. Price on request!

Technical Data

Three phase 400 V AC motor (pole-changing)	1.3/1.9 kW
Dimension circular saw blade (Not included in delivery)	315 x 32 Ø mm
Vice span	110 mm
Capacity Tank Cooling Solution	5 l
Working height incl. foot stand	980 mm
2 Cutting Speeds	41/ 82 m/Min
Machine size unpacked with foot stand W x D x H	1,000 x 1,100 x 1,800 mm
Machine size packed with foot stand W x D x H	630 x 1,030 x 880 mm
Weight	128 kg

KS 315 M

Order No.	560.835 (without foot stand)
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Machine Foot Stand

Steel machine foot stand size packed W x D x H	250 x 720 x 840 mm
Order No.	560.830

Sawing

	45° left	0°	45° right
	90	95	90
	75	80	75
	80 x 70	100 x 70	80 x 70

Metal Circular saw blades (differently shaped saw blades available on request)

KS 315 M Order No.	Dimensions in mm	Number of Teeth	Packaging Unit
560.310	315 x 2.5 x 32	220	1
560.311	315 x 2.5 x 32	160	1

FLOTT Portable Band Saw PBS 105



PBS 105
to go

available for
immediate
delivery



Product Information

The PBS 105 portable, manual band saw was designed to facilitate the work of a craftsman who needs to carry out lightweight any profile sawing operations on site offering all advantages of cutting with a band saw.

This machine offers 2 speeds for good cutting performance and allows miter cutting from 0° to 45° (left). The light weight of this machine makes it easy to transport to any place needed.

This entry model FLOTT PBS 105 portable band saw offers a great price to value ratio!

Features

- ▶ Sawing without lubricant and coolant (dry cutting)
- ▶ Biased-off switch and overload protection for work safety
- ▶ Bow locking for easy transportation
- ▶ High performance saw band with combi tothing 8/12 for pipes and profiles
- ▶ Easy tensioning of the saw blade with band tensioning protection
- ▶ 2 speeds 60/80 m/min
- ▶ AC motor with 230 V
- ▶ Power 0.95 kW with high torque




Technical Data

Cutting Speed	60/80 m/min
Saw Band Dimension	1,335 x 13 x 0.65 mm
Motor 230 V	0.95 kW
Machine size unpacked W x D x H	850 x 360 x 650 mm
Machine size packed W x D x H	720 x 340 x 520 mm
Weight	16 kg

PBS 105

Order No.	560.720
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Sawing

	0°	45° left
	105 mm	65 mm
	95 x 95 mm	65 x 65 mm
	100 x 85 mm	65 x 60 mm

Metal band saw blades (differently setted saw blades available on request)

Order No. PBS 105	Dimensions in mm	Teeth per inch	Packaging Qty: 5 pcs.
560.860	1,335 x 13 x 0.65	8/12*	1
560.861	1,335 x 13 x 0.65	6	1
560.862	1,335 x 13 x 0.65	14	1
560.863	1,335 x 13 x 0.65	18	1

*Combi tothing

FLOTT Portable Band Saw PBS 120 ST



PBS 120 ST
to go

available for
immediate
delivery



Product Information

The PBS 120 ST portable, manual band saw was designed to facilitate the work of a craftsman who needs to carry out any profile sawing operations on site offering all advantages of cutting with a powerful band saw.

This machine offers variable speed for best cutting performance and allows miter cutting from 0° to 60° (left). The light weight of this machine makes it easy to transport to any place needed.

The FLOTT PBS 120 ST high performance portable band saw offers the professional user a variety of applications combined with compelling force development and is delivered with the proverbial longevity of any FLOTT product!

Features

- ▶ Up to 60% faster cutting compared to traditional band saws
- ▶ Saw band tensioning knob with integrated clutch for best control and setting of correct saw band tension
- ▶ Bow locking for easy transportation
- ▶ Saw band guided by twin ball precision bearings for precision cutting
- ▶ Sawing without lubricant and coolant (dry cutting)
- ▶ Biased-off switch
- ▶ Saw band for pipes and profiles 14 Z/"
- ▶ Variable speeds 35-80 m/min
- ▶ AC motor with 230 V and 1.3 kW power output




Technical Data

Cutting Speed infinitely variable	35-80 m/min
Saw Band Dimension	1,440 x 13 x 0.65 mm
Motor 230 V	1.30 kW
Machine size unpacked W x D x H	850 x 830 x 600 mm
Machine size packed W x D x H	390 x 870 x 520 mm
Weight	18 kg

PBS 120 ST

Order No.	560.725
-----------	---------

Sawing

	0°	45° left	60° left
	120 mm	80 mm	50 mm
	112 x 112 mm	78 x 78 mm	48 x 48 mm
	120 x 102 mm	78 x 78 mm	50 x 43 mm

Metal band saw blades (differently setted saw blades available on request)

Order No. PBS 120 ST	Dimensions in mm	Teeth per inch	Packaging Qty: 5 pcs.
560.864	1,440 x 13 x 0.65	14	1
560.865	1,440 x 13 x 0.65	8/12*	1
560.866	1,440 x 13 x 0.65	6	1
560.867	1,440 x 13 x 0.65	18	1

FLOTT Portable Band Saw PBS 150 ST



PBS 150 ST
to go

available for
immediate
delivery



Product Information

The PBS 150 ST portable, manual band saw was designed to facilitate the work of a craftsman who needs to carry out heavy profile and full material sawing operations on site offering all advantages of cutting with a powerful, professional band saw.

This machine offers variable speed combined with a powerful motor with high torque layout for superior cutting performance. The PBS 150 ST allows miter cutting from 0° to 45° (left). The comparable light weight of this machine makes it easy to transport to any place needed.

The FLOTT PBS 150 ST high performance portable band saw offers the professional user a variety of applications combined with compelling force development and is delivered with the proverbial longevity of any FLOTT product!

Features

- ▶ Up to 40% faster cutting compared to traditional band saws
- ▶ Saw band tensioning knob with integrated clutch for best control and setting of correct saw band tension
- ▶ Machine vice with quick setting
- ▶ Bow locking for easy transportation
- ▶ Saw band guided by twin ball precision bearings for precision cutting
- ▶ Sawing without lubricant and coolant (dry cutting)
- ▶ Biased-off switch
- ▶ Saw band with combi tothing 6/10 for pipes and profiles
- ▶ Variable speed from 35-80 m/min
- ▶ AC motor with 230 V, power output 2.0 kW and high torque layout


Technical Data

Cutting Speed infinitely variable	35-80 m/min
Saw Band Dimension	1,735 x 13 x 0.90 mm
Motor 230 V	2.00 kW
Machine size unpacked W x D x H	1,080 x 750 x 800 mm
Machine size packed W x D x H	1,000 x 390 x 750 mm
Weight	35 kg

PBS 150 ST

Order No.	560.730
-----------	---------

Sawing

	0°	45° Li
	150 mm	100 mm
	150 x 150 mm	100 x 100 mm
	160 x 140 mm	120 x 100 mm

Metal band saw blades (differently setted saw blades available on request)

Order No. PBS 150 ST	Dimensions in mm	Teeth per inch	Packaging Qty: 5 pcs.
560.868	1,735 x 13 x 0.9	6/10*	1
560.869	1,735 x 13 x 0.9	14	1
560.870	1,735 x 13 x 0.9	6	1

*Combi tothing

Accessories for FLOTT Metal Sawing Machines

Metal Belt Saw Blades*

(Bi-Alfa Cobalt M42)

HBS 180 A

- ▶ 2,085 x 20 x 0.9 mm, Packing Unit 1 set (2 pcs)
 - Combi Serration 4/6
 - Order No. 560.240
 - Combi serration 6/10
 - Order No. 560.241
 - Combi serration 10/14
 - Order No. 560.242

HBS 225 A

- ▶ 2,450 x 27 x 0.9 mm, Packing Unit 1 set (2 pcs)
 - Combi serration 2/3
 - Order No. 560.243
 - Combi serration 3/4
 - Order No. 560.244
 - Combi serration 4/6
 - Order No. 560.245
 - Combi serration 5/8
 - Order No. 560.246
 - Combi serration 10/14
 - Order No. 560.247

HBS 255 MA

- ▶ 2,750 x 27 x 0.9 mm, Packing Unit 1 set (2 pcs)
 - Combi serration 2/3
 - Order No. 560.229
 - Combi serration 3/4
 - Order No. 560.230
 - Combi serration 4/6
 - Order No. 560.231
 - Combi serration 5/8
 - Order No. 560.232
 - Combi serration 10/14
 - Order No. 560.233

HBS 300 HA

- ▶ 3,310 x 27 x 0.9 mm, Packing Unit 1 set (2 pcs)
 - Combi serration 2/3
 - Order No. 560.234
 - Combi serration 3/4
 - Order No. 560.235
 - Combi serration 4/6
 - Order No. 560.236
 - Combi serration 5/8
 - Order No. 560.237
 - Combi serration 10/14
 - Order No. 560.238

Circular Saw Blades*

KS 315 M

- ▶ 315 x 2.5 x 32 mm, Packing Unit 1 pc
 - Teeth 220
 - Order No. 560.310
 - Teeth 160
 - Order No. 560.311

PBS 105

- ▶ 1,335 x 13 x 0.65 mm, 1 Unit (= 5 pcs)
 - Combi toothing 8/12
 - Order No. 560.860
 - Teeth per inch 6
 - Order No. 560.861
 - Teeth per inch 14
 - Order No. 560.862
 - Teeth per inch 18
 - Order No. 560.863

PBS 120 ST

- ▶ 1,440 x 13 x 0.65 mm, 1 Unit (= 5 pcs)
 - Teeth per inch 14
 - Order No. 560.864
 - Combi toothing 8/12
 - Order No. 560.865
 - Teeth per inch 6
 - Order No. 560.866
 - Teeth per inch 18
 - Order No. 560.867

PBS 150 ST

- ▶ 1,735 x 13 x 0.9 mm, 1 Unit (= 5 pcs)
 - Combi toothing 6/10
 - Order No. 560.868
 - Teeth per inch 14
 - Order No. 560.869
 - Teeth per inch 6
 - Order No. 560.870

Cooling and lubrication liquids

TSF 5

- ▶ 5 l can transparent, water soluble high compound fluid
- ▶ Chemically neutral
- ▶ Skin friendly
- ▶ Non-foaming
- ▶ Innovative composition avoiding bacterial degradation
- ▶ without emulgent and non adhesive
 - Order No. 560.841

Fluid 5

- ▶ 5 l can environment-friendly cutting liquid based on colza oil with high-performance lubrication
- ▶ Suitable for micro lubrication units
- ▶ Improves cutting performance
- ▶ Guarantees mid-life-update of machines and tools
- ▶ For undiluted use
 - Order No. 560.842

Race and discharge way

- ▶ On request

Minimum lubrication unit

- ▶ On request

*Differing circular saw blades on request

FLOTT Spare Parts

All FLOTT products are long lasting and highly reliable. However, if once, usually after many years, a spare part is needed we will deliver it quickly.*



Please note: To ensure a quick processing of your spare part request please provide the machine type and machine number with your order!

FLOTT Special Machinery



ProtoTrak control



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Additional sawing machines in semi- or fully automatic versions available on request.

Extract from our terms of delivery

- ▶ Delivery is ex works, excluding packaging
Place of dispatch: 42857 Remscheid, Germany
- ▶ Seaworthy packaging is available at extra cost
- ▶ Standard colours for FLOTT products are:
 - Drill presses RAL 7005
 - Grinding machines RAL 9007
 - Sawing machines: Saw frame RAL 7035; machine body RAL 7037
- ▶ FLOTT reserves the right to carry out design- and/or dimensional changes during the term of a contract.
- ▶ Recommended retail prices are exclusive of applicable VAT.
- ▶ All machine prices, accessories and spare parts are exclusive of packaging
- ▶ The limited warranty for Flott machines is based on single shift operation starting at date of delivery
 - 36 month (3 years) for drill presses
 - 12 months for GB 50 MV, GB 50 MV plus, SB P50 STG MV, GB 70 MV plus and BFM 40
 - 12 month (1 year) for grinding and sawing machines based on single-shift operation starting at date of delivery
 - Spare parts are excluded
- ▶ Please visit the FLOTT website at www.flott.de for our full terms and conditions

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FLOTT is a certified manufacturer according to DIN ISO



CERTIFICATE

The AGQS Qualitäts- und Umweltmanagement GmbH hereby certifies that the company



Arnz Flott GmbH
Werkzeugmaschinen
Vieringhausen 131
D-42857 Remscheid

at the locations

Vieringhausen 131, 42857 Remscheid
Weststraße 42, 42857 Remscheid

for the scope

development, marketing and distribution as well as assembly of tooling machines for drilling, sawing and grinding processing

has implemented and maintains a quality management system. An audit, documented in a report, has verified that this management system fulfils the requirements of the following standard:

DIN EN ISO 9001:2008



J. 992
Remscheid, 2014-08-11

Audit	297-QMS-R20	AGQS Qualitäts- und Umweltmanagement GmbH
Certificate	297-QMS-08-02	Elberfelder Straße 77 · D-42853 Remscheid
Valid from	2014-07-28	Telefon +49 2191 438 24
Valid until	2017-07-27	Telefax +49 2191 438 26
1st certification	2008-07-28	email@agqs.de





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