

High Quality –
made in Germany
since 1854.

FLOTT Product Range

- ▶ Drilling Machines
- ▶ Grinding Machines
- ▶ Metal Sawing Machines



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 in Remscheid, the FLOTT production plant in Radebeul near Dresden and at several FLOTT trade missions FLOTT wants to meet the customer's 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 230 V AC	13
TB 13 STW	15		400-4500	0.55	single phase 230 V AC	13
TB E1	15/18	–	400-3600	0.75	three phase motor 400 V single speed	15
TB / SB M1 ST	15/18	max. M10	100-4200	0.45 / 0.75	three phase 400 V AC pole-changing	17
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 400 V AC pole-changing	19
TB / SB E2	18/23	–	200-3600	0.45 / 0.75	three phase 400 V AC pole-changing	21
TB / SB M2 ST	18/23	max. M16	250-4000	0.45 / 0.80	three phase 400 V AC pole-changing	23
TB / SB / TBZ P23 ST	18/23	max. M16	250-4000 R1 125-2000 R2	0.45 / 0.80	three phase 400 V AC pole-changing	25
SB E3	20/25	–	250-4000	0.45 / 0.80	three phase 400 V AC pole-changing	27
SB E4	25/30	–	125-2500	0.9 / 1.9	three phase 400 V AC pole-changing	29
SB M3 ST / MV	25/30	max. M20	125-4000	0.9 / 1.45	three phase 400 V AC pole-changing	31
SB P30 ST / STG PV elec.	25/30	max. M20	125-4000	0.9 / 1.45	three phase 400 V AC pole-changing	33
SB E5	30/35	–	80-1600	0.9 / 1.45	three phase 400 V AC pole-changing	35
SB M4 ST / MV	30/35	max. M24	125-2000	1.5 / 2.0	three phase 400 V AC pole-changing	37
SB P35 ST / STG PV elec.	30/35	max. M24	125-2000 R1 80-1280 R2	1.5 / 2.0	three phase 400 V AC pole-changing	39
SB M5 ST / MV	35/40	max. M30	100-2000	1.5 / 3.0	three phase 400 V AC pole-changing	41
SB P40 ST / STG PV elec.	35/40	max. M30	100-2000 R1 70-1400 R2	1.5 / 3.0	three phase 400 V AC pole-changing	43
SB P50 ST MV	50	M36	64-2250	2.2	three phase 400 V AC	45
HST P50 STG MV digital	50	M36	40-2260	2.25 / 3.0	three phase 400 V AC pole-changing	47
BFM 50 STEG MV	50	M36	45-2150	3.0	three phase 400 V AC	49
Flow drilling capacity {3 mm sheet metal}						
SB P23 ST-FB	8		500-4000	1.5	three phase motor 400 V single speed	51
SB M3 ST-FB	18		500-4000	3.0	three phase motor 400 V single speed	53
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 400 V AC pole-changing	55
Drilling Capacity mm						
TBZ P12 GL	–	M12	275-1750	1.1	three phase 400 V AC	57

Colour Mapping

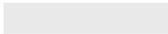
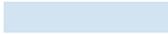
single-phase 230 V AC =	
E-series =	
M-series =	
P-series =	

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
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
Speed	rpm/min	2800	2800	2840	2740	2550	1400	1250
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
Weight	kg	14	15	14	15	20	32	40
Suction nozzle Ø	mm	42	42	42	42	42	42	42
	Page	69	69	69	69	71	71	71

Belt Grinding Machines		BSM 75	BSM 75 A	BSM 75 A/pol	BSM 150	BSM 150 A/pol	BSM 150 A	TBSM 75
Sanding belt length	mm	2000	2000	2000	2000	2000	2000	1000
Sanding belt width	mm	75	75	75	150	150	150	75
Motor three-phase 230/400 V AC	kW	3.75	3.75	2.2/3.75	3.75	2.2/3.75	3.75	0.55
Weight	kg	85	105	105	100	120	120	30
Motor exhaust	kW	–	0.37	0.37	–	0.37	0.37	–
	Page	73	73	73	73	73	73	73

Foot Stand with Dust Extraction		MA 400 D	MA 600 D
Motor three-phase 230/400 V AC	kW	–	0.55
Motor single-phase AC 230 V AC	kW	1.1	–
Speed	rpm/min	1600	2800
Extraction	m ³ /h	250	350
Weight	kg	25	45
	Page	75	75

Pipe Notcher		BSMR 100	BSMR 150
Sanding belt length	mm	2000	2000
Sanding belt width	mm	100	150
Grinding range Ø	mm	20-76	20-114
Motor three phase 400 V			
AC pole-changing	kW	2.2/3.75	2.2/3.75
Weight	kg	200	250
	Page	77	77

Deburring Machine		BEM 250
Steel brush diameter Ø	mm	250
Steel brush width		
standard/optional	mm	40/55
Brush speed	m/sec	38
Rotational speed/		
pole-changing	rpm/min	1500/3000
Installation surface W x D	mm	400 x 400 x 1380
Driving power	kW	2.2/2.4
	Page	79

Table of Content Metal Sawing Machinery

Metal Band Saws	Dimensions band saw blade-Ø mm	 * at 0°	 * at 0°	 * at 0°	Page
HBS 165 MA	2080 x 20 x 0,9	165	160	190 x 160	85
HBS 220 MA	2480 x 27 x 0,9	220	195	245 x 115	87
HBS 220 MAS	2480 x 27 x 0,9	220	195	245 x 115	89
HBS 255 MA	2750 x 27 x 0,9	255	350	300 x 180	91
HBS 300 HA digit	3310 x 27 x 0,9	300	260	330 x 260	93
Metal Circular Saw	Saw blade-Ø mm	 * at 0°	 * at 0°	 * at 0°	
KS 315 M	315 x 32	95	80	110 x 70	95

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

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 50 mm.

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

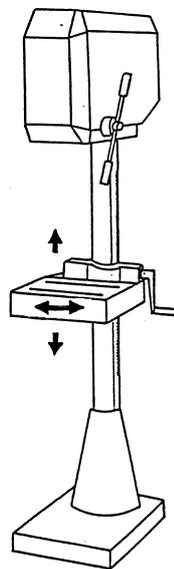
All FLOTT machines are characterized by a modern and ergonomic **design** and **the brands technological advance** is documented by numerous **patents** and **trademarks**.

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.

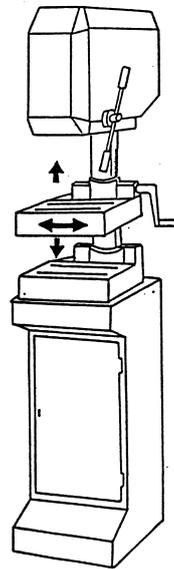
The extraordinary product quality, durability and **longevity** of the FLOTT machines are appreciated worldwide.

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.

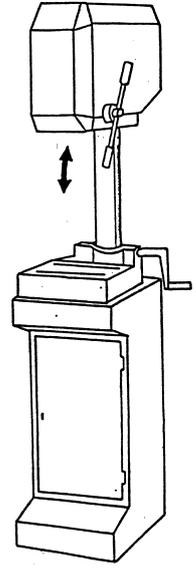
Types of Drilling Machines



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 10, 13 STW electronic
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.

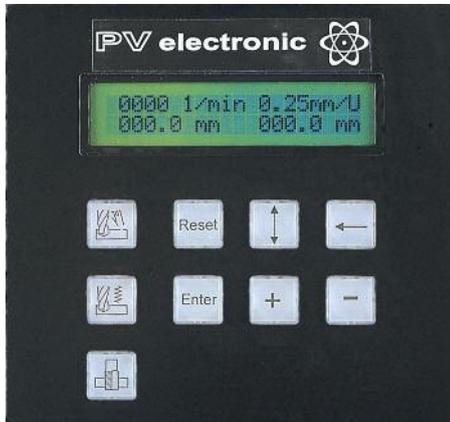
Products of the P-series/The FLOTT top series

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.

Drilling and milling machines

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

FLOTT-Highlights



Machine Height Adjustment

An option for the P 40 drilling machine series:

Electronic variable column height. The head and table of the machine can be electronically adjusted to suit any user's height. Tall or short the ergonomic design will reduce posture health risks.

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

Now all FLOTT PV-models are standardly equipped with LED-Lighting with hinged arm.

Thermal Protection Overload

All FLOTT drilling machines are by standard equipped with a thermal protection overload for machine safety.

FLOTT Machine Safety



Two-Hand Security Operation Control

Available for all FLOTT drill presses with automatic feed function and for tapping machines

Order No. 290.399



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.



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.



**Table drilling machines
in single phase execution
TB 10 STW electronic
TB 13 STW electronic**

Fig.: TB 10/13 STW electronic

By standard

- ▶ Quickly adjustable end stop ring
- ▶ Inf. var. speed adjustment
- ▶ Cable with grounded plug 1.2 m
- ▶ No volt release
- ▶ Keyless drill chuck B 16 1-13 mm
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional TB 10 STW electronic

- ▶ Drill head height adjustment with Spindle support
Order No. 290.302
- ▶ Emergency Switch-off button
Order No. 290.327
- ▶ Clear top machine cover
Order No. 290.081

Optional TB 13 STW electronic

- ▶ Drill head height adjustment with Spindle support
Order No. 290.337
- ▶ Machine light
Order No. 250.103
- ▶ Emergency Switch-off button
Order No. 290.325

Accessories

- ▶ Machine base with door and mounting plate 800 mm for TB 10 STW
Order No. 213.168
- ▶ Machine base with door and Shelve 800 mm TB 13 STW
Order No. 213.160
- ▶ Machine vice with prisms
Opening 85 mm,
clamping width 70 mm
Order No. 281.205
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0,5 mm incr.
Order No. 285.124

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	Ø 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
Machine size (WxDxH)	215 x 365 x 560 mm
Machine size (incl. packaging) (WxDxH)	310 x 410 x 600 mm
Drill head height adjustment	manually
Weight	20 kg
Distance spindle-table	105-275 mm
Motor 230 V, 50 Hz	0.45 kW
Speed range, inf. var.	500-3000 1/min
Order No.	217.010

TB 13 STW electronic

Drilling capacity steel	15 mm
Aluminium	25 mm
Soft wood	40 mm
Drilling depth	60 mm
Distance column-spindle	185 mm
Machine-column diameter	Ø 60 mm
Usable work table surface (L x W)	265 x 310 mm
T-slot size	quantity 2, distance 100 mm size width 12/20
Machine size (WxDxH)	230 x 290 x 640 mm
Machine size (incl. packaging) (WxDxH)	350 x 500 x 770 mm
Table height adjustment	with gas spring support
Weight	55 kg
Distance spindle-table	160-360 mm
Motor 230 V, 50 Hz	0.55 kW
Speed range, inf. var.	400-4500 1/min
Order No.	213.102



Table Drilling Machine TB E1

By standard

- ▶ **Transparent top cover for more safety**
- ▶ Emergency switch-off
- ▶ No volt release
- ▶ Electrical drill guard
- ▶ Quickly adjustable depth end stop
- ▶ Cabel 1.5 m with plug
- ▶ Thermal overload protection

Optional

- ▶ Machined base plate with T-slots
Order No. 290.091
- ▶ Electrically locked top cover,
machine engagement only with key
1 key incl.
Order No. 290.339
- ▶ Table height adjustment with rack,
incl. table with T slots, usable
table size 300 x 400 mm
Order No. 290.106

Accessories

- ▶ Machine base with
door height 800 mm
Weight 20 kg
Order No. 213.160
- ▶ Keyless drill chuck
B 16 1-13 mm
Order No. 285.131
- ▶ Machine vice with prisms
Opening 100 mm,
clamping width 95 mm
Order No. 281.206
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0,5 mm incr.
Order No. 285.124

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)	240 x 290 mm
T-slot size	quantity 2, distance 125 mm size width 13/26
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
Table height adjustment	Manually
Spindle speed	0-3600 1/min in 5 steps (400/700/1200/2100/3600 1/min)
Weight	77 kg

TB E1 Three phase AC

Motor 400 V 50 Hz	0.75 kW
Machine size (WxDxH)	280 x 655 x 860 mm
Machine size (incl. packaging) (WxDxH)	300 x 700 x 1000 mm
Order No.	213.540

Special feature with transparent top cover:

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



**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
- ▶ No volt release
- ▶ Cable 1.5 m with CEE plug
- ▶ Table height adjustment with rack
- ▶ Electrical drill guard
- ▶ Thermal overload protection

Optional

- ▶ Machined base plate with T-slots (TB type only)
Order No. 290.090
- ▶ Emergency switch-off button
Order No. 290.325
- ▶ LED light with hinged arm
Order No. 290.020

Accessories

- ▶ Machine base with door height 800 mm (TB type only)
Order No. 213.160
- ▶ Arbour MK2 B16
Order No. 285.320
- ▶ Keyless drill chuck B 16 1-13 mm
Order No. 285.131
- ▶ Machine vice with prisms
Opening 100 mm, clamping width 95 mm
Order No. 281.206
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm incr.
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.505

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 240 mm
T-slot size	quantity 2, distance 125 mm size width 13/26
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
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	100-4200 1/min step I 100-1200 1/min step II 350-4200 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)	280 x 655 x 860 mm
Machine size (incl. packaging) (WxDxH)	300 x 700 x 1000 mm
Weight	75 kg
Order No.	213.518

SB M1 ST

Distance spindle table	90-780 mm
Machine size (WxDxH)	280 x 655 x 1710 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 2100 mm
Weight	110 kg
Order No.	213.516

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 4 | 5 | 6 | 8



**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
- ▶ 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

Optional

- ▶ Machined base plate with T-slots (TB type only)
Order No. 290.090
- ▶ Tapping unit max. M10
Tapping depth adjustment via digital display
Order No. 290.620
- ▶ Emergency switch-off button
Order No. 290.325
- ▶ LED light with hinged arm
Order No. 290.020

Accessories

- ▶ Machine base with door height 800 mm (for TB type only)
Order No. 213.160
- ▶ Arbour MKII B16
Order No. 285.320
- ▶ Keyless drill chuck B 16 1-13 mm
Order No. 285.131
- ▶ Machine vice with prisms
Opening 100 mm,
clamping width 90 mm
Order No. 281.206
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.505

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 240 mm
T-slot size	quantity 2, distance 125 mm size width 13/26
Speed indication	digital
Drill depth indication	digital
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
Table height adjustment	With rack
Motor 400 V 50 Hz	0.75 kW single speed motor
Spindle speed with intermediate transmission	
R1 inf. var.	200-4200 1/min
in 2 steps	step I 200-1200 1/min step II 700-4200 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.	100-4200 1/min
in 2 steps	step I 100-1200 1/min step II 350-4200 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)	280 x 655 x 860 mm
Machine size (incl. packaging) (WxDxH)	300 x 700 x 1000 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)	280 x 655 x 1710 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 2100 mm
Weight	110 kg
Order No. R1	213.506
Order No. R2	213.508

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

By standard

- ▶ **Transparent hood for more safety**
- ▶ Emergency switch-off
- ▶ 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

- ▶ Electrically locked top cover machine engagement with key, 1 key incl.
Order No. 290.339

Accessories

- ▶ Machine base with door height 800 mm
Weight: 25 kg (TB type only)
Order No. 213.160
- ▶ Arbour MKII/B16
Order No. 285.320
- ▶ Keyless drill chuck
B 16 1-13 mm
Order No. 285.131
- ▶ Machine vice with prisms
Opening 100 mm,
clamping width 95 mm
Order No. 281.206
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm incr.
Order No. 285.124

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 240 mm
T-slot size	quantity 2, distance 125 mm size width 13/26
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
Table height adjustment	With rack
Motor 400 V 50 Hz	0.45/0.75 kW, 2 speed motor
Spindle speed	10 steps 1/min 200-350-400-600-700-1050 1200-1800-2100-3600

TB E2

Distance spindle table	0-330 mm
Machine size (WxDxH)	280 x 600 x 865 mm
Machine size (incl. packaging) (WxDxH)	300 x 700 x 1000 mm
Weight	84 kg
Order No.	213.545

SB E2

Distance spindle table	90-740 mm
Machine size (WxDxH)	280 x 600 x 1710 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 2100 mm
Weight	140 kg
Order No.	213.550

Special feature with transparent top cover:

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



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

By standard

- ▶ Inf. var. speed adjustment
- ▶ Emergency switch-off
- ▶ 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

- ▶ Combined drilling table/machine vice opening 120 mm, clamping width 105 mm, table size 350 x 350 mm (SB type only)
Order No. 290.116
- ▶ Machined base plate with integrated cooling unit max contents 15 l, max flow rate 30 l/min
Order No. 290.160
- ▶ Emergency switch-off button
Order No. 290.325
- ▶ LED light with hinged arm
Order No. 290.020



Accessories

- ▶ Machine base with door 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
B 18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

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
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
Table height adjustment (SB/TB)	With rack
Motor 400 V 50 Hz	0.45/0.8 kW 2-speed motor
Spindle speed, inf. var.	250-4000 1/min

TB M2 ST

Distance spindle table	90-420 mm
Machine size (WxDxH)	350 x 745 x 920 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 1600 mm
Weight	175 kg
Order No.	201.022

SB M2 ST

Distance spindle table	160-880 mm
Machine size (WxDxH)	350 x 745 x 1850 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	205 kg
Order No.	201.021

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**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

- ▶ Tapping unit max. M16 tapping depth adjustment via digital display
Order No. 290.624
- ▶ Motor with separate fan
Order No. 290.616
- ▶ Combined drilling table/machine vice opening 120 mm, clamping width 105 mm table size 350 x 350 mm (SB only)
Order No. 290.116
- ▶ Machined base plate incl integrated cooling Unit (SB only), contents max 15 l, Flow rate max 30 l/min
Order No. 290.160
- ▶ LED light with hinged arm
Order No. 290.020



Accessories

- ▶ 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 B 18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms Opening 120 mm, clamping width 105 mm
Order No. 281.207
- ▶ Spiral drill set HSSg DIN 338 25 parts 1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

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
Speed indication	digital
Drill depth indication	digital
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
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)	350 x 745 x 920 mm
Machine size (incl. packaging) (WxDxH)	540 x 940 x 1600 mm
Weight	175 kg
Order No. 201.051 R1	4.280,- €
Order No. 201.053 R2	4.480,- €

TBZ P23 ST*

Distance spindle table	120-550 mm
Machine size with base (WxDxH)	350 x 745 x 1870 mm
Machine size with base (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Machine size without base (WxDxH)	350 x 745 x 1070 mm
Machine size without base (incl. packaging) (WxDxH)	540 x 940 x 1600 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)	350 x 745 x 1850 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	205 kg
Order No. R1	201.050
Order No. R2	201.052

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*Our recommendation: order TBZ P23 ST with machine base



Column Drilling Machine SB E3

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

- ▶ Manual reverse switch
(max M10, depending on pitch)
Order No. 290.403

Accessories

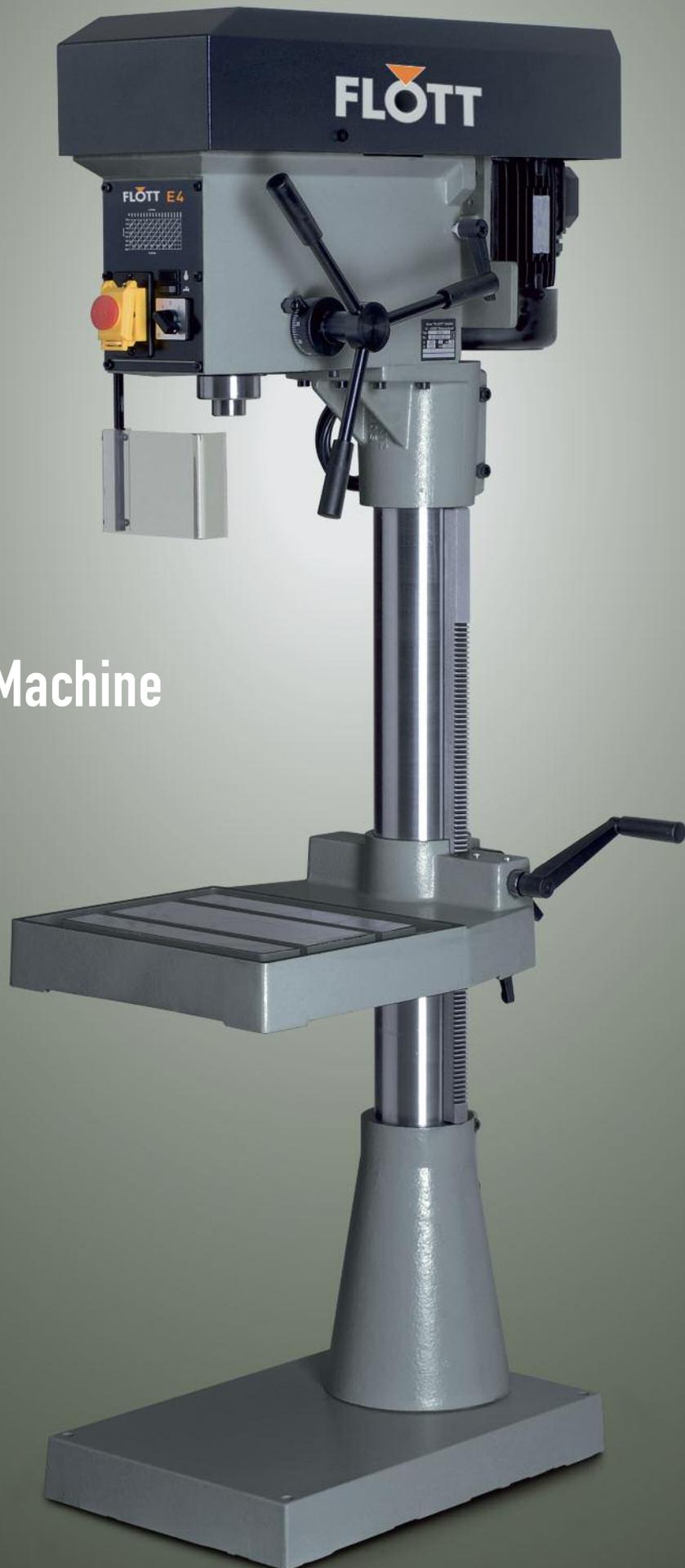
- ▶ Cooling unit, contents max 15 l
flow rate max 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
B18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms
opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm
incr. 0.5 mm
Order No. 285.124

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
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring adjustment range 0-90 mm
Feed	Manually
Table height adjustment	With rack
Motor 400 V 50 Hz	0.45/0.8 kW 2 speed motor
Spindle speed: 11 steps	250-315-500-630-800-1000 1250-1600-2000-2500-4000 1/min

SB E3

Distance spindle table	160-880 mm
Machine size (WxDxH)	420 x 740 x 1782 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	205 kg
Order No.	206.022



Column Drilling Machine SB E4

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

- ▶ Manual reverse switch
(max. M20, depending on pitch)
Order No. 290.403

Accessories

- ▶ 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
B18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms
opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm incr.
Order No. 285.124

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
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring adjustment range 0-90 mm
Feed	Manually
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	125-200-250-315-400-500-630 800-1000-1250-1600-2500 1/min

SB E4

Distance spindle table	270-820 mm
Machine size (WxDxH)	420 x 740 x 1782 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	255 kg
Order No.	206.060

Column Drilling Machine
SB M3 ST
SB M3 ST MV



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

- ▶ 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. 290.160
- ▶ 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**on request**



Accessories

- ▶ 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 B18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms Opening 120 mm, clamping width 120 mm
Order No. 281.210
- ▶ Spiral drill set HSSg DIN 338 25 parts 1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

FLOTT

Machine Tools

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	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
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	125-4000 1/min step I 125-2000 1/min step II 250-4000 1/min (step change is realized via belt position change)

SB M3 ST

Feed	Manually
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Distance spindle table	240-790 mm
Weight	275 kg
Order No.	205.180

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SB M3 ST MV

Feed Incl. electromagnetic clutch	0.10 / 0.16 / 0.25 mm 1/min
Distance spindle table	240-790 mm
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	300 kg
Order No.	205.215

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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 with hinged arm

Optional

- ▶ 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
- ▶ Machine light with bulb for P 30 ST
Order No. 201.500
- ▶ Machined base plate with integrated cooling unit max. contents 15 l, max. flow rate 30 l/min
Order No. 290.160
- ▶ LED light with hinged arm (for P30 ST)
Order No. 290.020
- ▶ Large machine base
- Machine-column diameter Ø 125 mm
- Usable work table surface (L x W) 590 x 450 mm
on request



Accessories

- ▶ 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	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
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. in 2 steps	125-4000 1/min step I 125-2000 1/min step II 250-4000 1/min (step change is realized via belt position change)

SB P30 ST

Feed	Manually
Distance spindle table	240-790 mm
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	275 kg
Order No.	205.181

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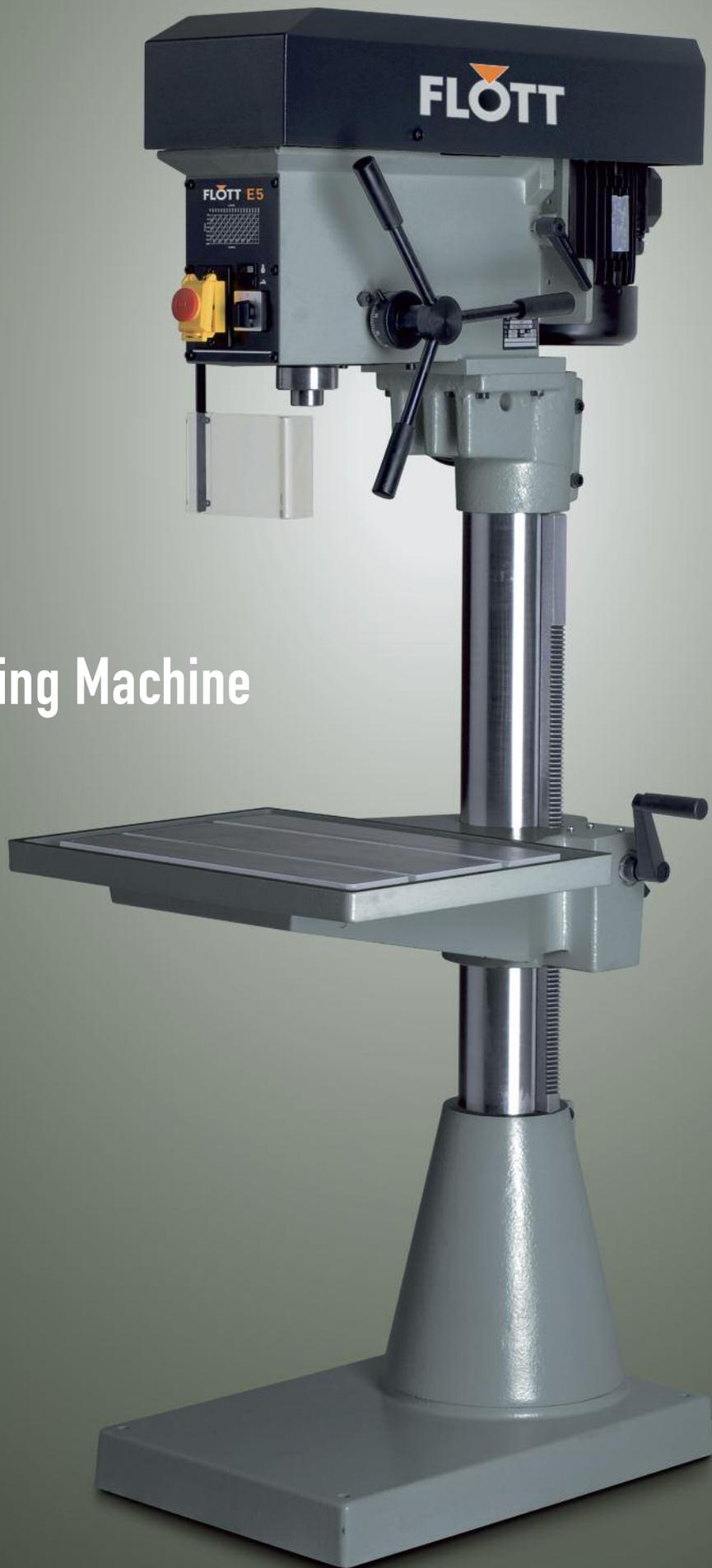
SB P30 STG PV electronic

Feed, inf. var. with electromagnetic clutch and digital display	0-300 mm/min
Distance spindle table	240-790 mm
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	300 kg
Order No. with transparent top cover	205.220
Order No. with grey top cover	205.183

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 7 | 10

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

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

- ▶ Manual reverse switch
(max. M24, depending on pitch)
Order No. 290.403

Accessories

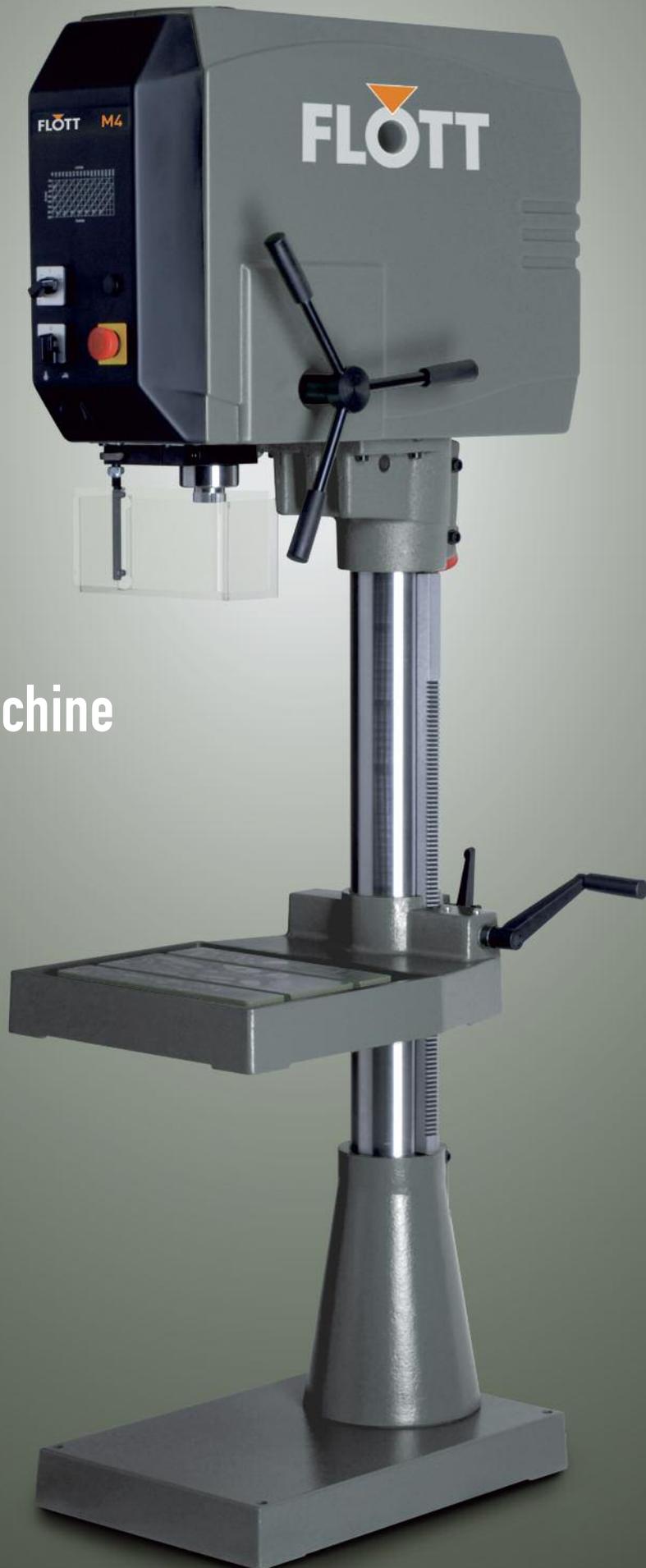
- ▶ Cooling unit, contents max. 15 l
flow rate max 30 l/min
Order No. 290.340
- ▶ Arbour MKIII/B18
Order No. 285.323
- ▶ Keyless drill chuck
B18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms
opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm incr.
Order No. 285.124

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
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	Quickly adjustable end stop ring Adjustment range 0-90 mm
Feed	Manually
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	80-125-160-200-250-315-400 500-630-800-1000-1600 1/min

SB E5

Distance spindle table	270-820 mm
Machine size (WxDxH)	420 x 740 x 1782 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	350 kg
Order No.	206.064



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

- ▶ 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. 290.160
- ▶ 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
on request



Accessories

- ▶ 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
B18 3-16mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 120 mm,
clamping width 120 mm
Order No. 281.210
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

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
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	125-2000 1/min

SB M4 ST

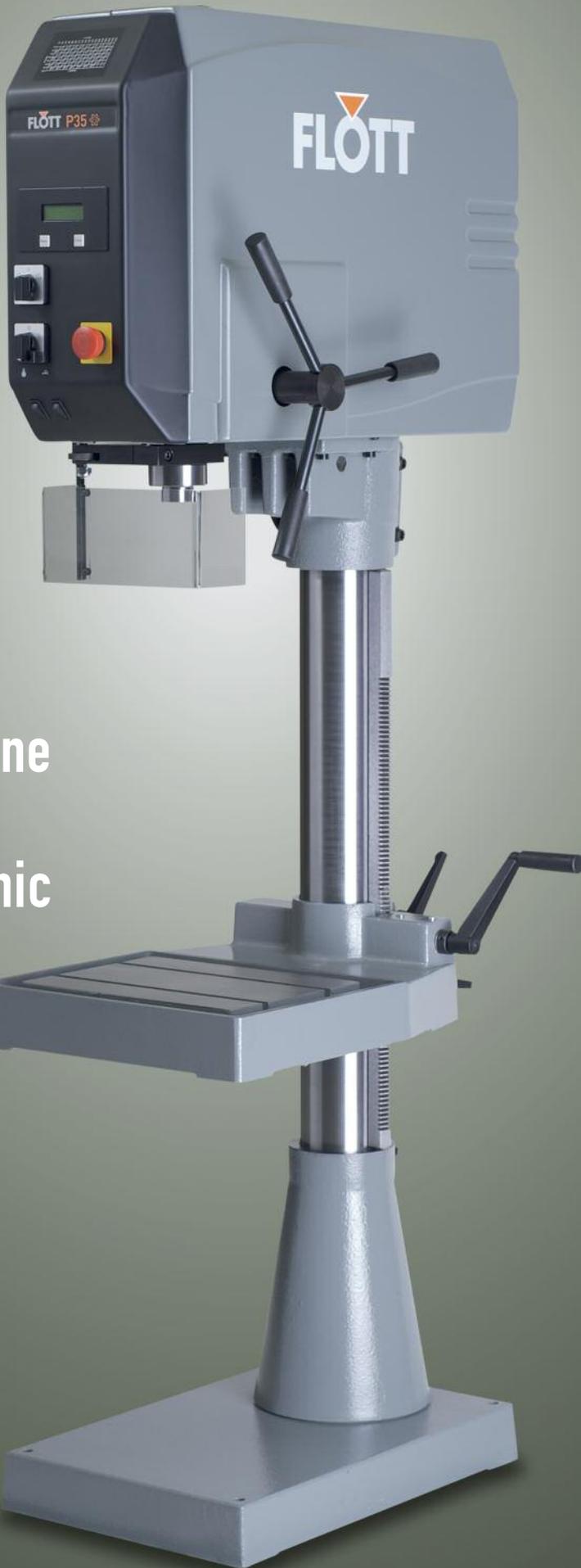
Feed	Manually
Distance spindle table	240-790 mm
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	275 kg
Order No.	205.192

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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)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	300 kg
Order No.	205.195

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 5 | 7 | 10



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

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 with hinged arm

Optional

- ▶ 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
- ▶ Machine light with bulb
for P35 ST
Order No. 201.500
- ▶ Machined base plate with integrated
cooling unit, max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.160
- ▶ LED light with hinged arm
(for P35 ST)
Order No. 290.020
- ▶ Large machine base
- Machine-column diameter Ø 125 mm
- Usable work table surface (L x W) 590 x 450 mm **on request**



Accessories

- ▶ Cooling unit (separate tank)
Contents max 15 l,
flow rate max 30 l/min
Order No. 290.340

FLOTT

Machine Tools

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
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	125-2000 1/min
Speed range R2	80-1280 1/min

SB P35 ST

Feed	Manually
Distance spindle table	240-790 mm
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Weight	275 kg
Order No. R1	205.193
Order No. R2	205.194

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 5 | 6 | 10

SB P35 STG PV electronic

Feed, inf. var. electromagnetic clutch and digital display	0-300 mm/min
Distance spindle table	240-790 mm
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 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

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 7 | 10

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

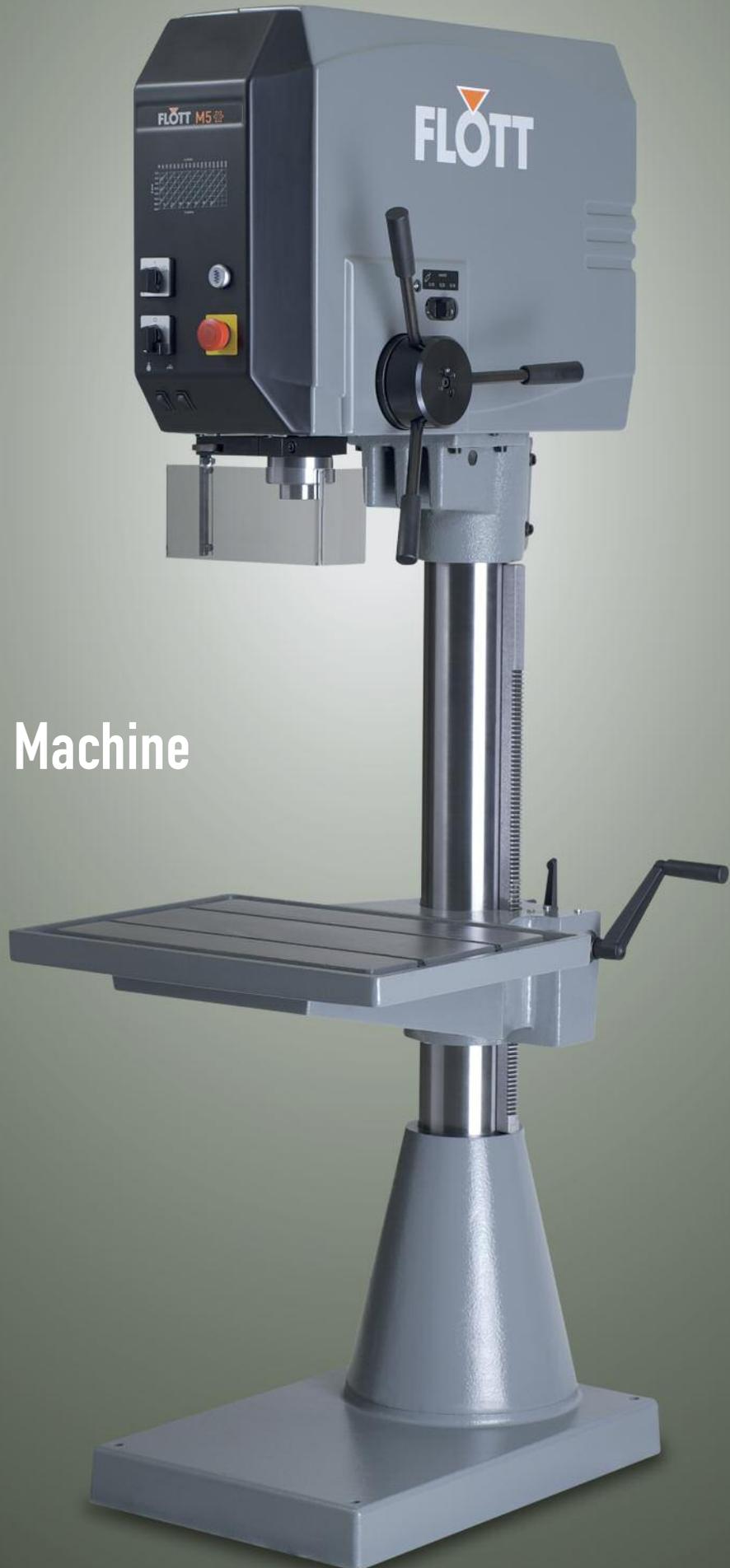


Fig.- SB M5 ST MV

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

- ▶ 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
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. 290.160
- ▶ LED light with hinged arm
Order No. 290.020



Accessories

- ▶ 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
B18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 140 mm,
clamping width 155 mm
Order No. 281.211
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

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
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	100-2000 1/min

SB M5 ST

Feed	Manually
Distance spindle table	150-700 mm
Machine size (WxDxH)	590 x 830 x 2100 mm
Machine size (incl. packaging) (WxDxH)	670 x 1100 x 2140 mm
Weight	420 kg
Order No.	205.204

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 5 | 6 | 11

SB M5 ST MV

Feed	0,10/0,16/0,25 mm/Umdr.
Incl. electromagnetic clutch	
Distance spindle table	150-700 mm
Machine size (WxDxH)	590 x 830 x 2100 mm
Machine size (incl. packaging) (WxDxH)	670 x 1100 x 2140 mm
Weight	445 kg
Order No.	205.207

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 5 | 7 | 11

**Column Drilling Machine
SB P40 ST
SB P40 STG PV electronic**

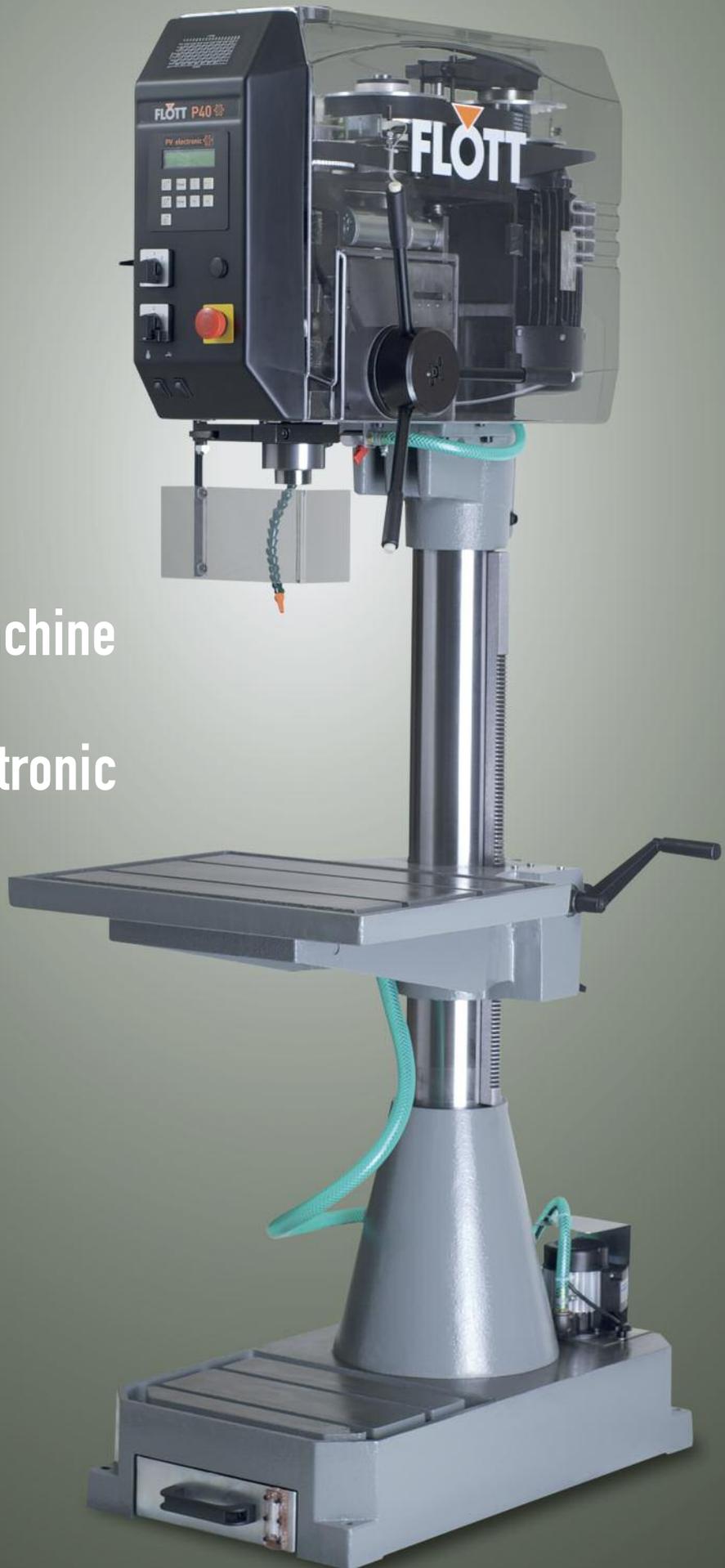


Fig.: SB P40 STG PV electronic with options

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 with hinged arm

Optional

- ▶ 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
- ▶ Machine light with bulb
for P40 ST
Order No. 201.500
- ▶ Machined base plate with
integrated cooling unit,
max. contents 15 l,
max. flow rate 30 l/min
Order No. 290.160
- ▶ LED light with hinged arm
(for P40 ST)
Order No. 290.020



Accessories

- ▶ 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
Speed indication	digital
Drill depth indication	digital
Drilling depth end stop	With fine adjustment
Table height adjustment	With rack
Machine size (WxDxH)	590 x 830 x 2100 mm
Machine size (incl. packaging) (WxDxH)	670 x 1100 x 2140 mm
Motor 400 V 50 Hz	1.5/3 kW 2-speed motor
Spindle speed with intermediate transmission	
Speed range R1	100-2000 1/min
Speed range R2	70-1400 1/min

SB P40 ST

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

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 5 | 6 | 11

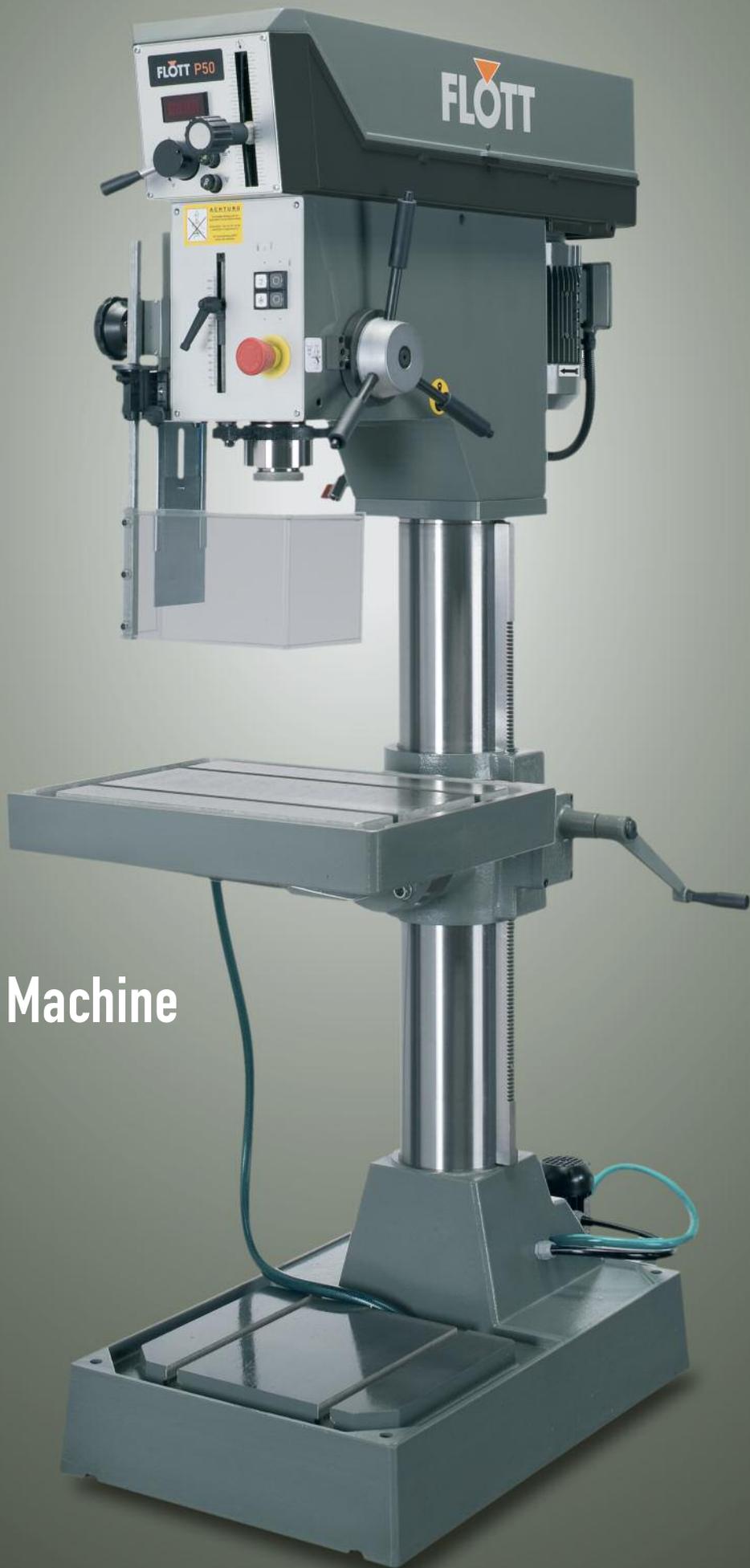
SB P40 STG PV electronic

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

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 7 | 11

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 P50 ST MV

Fig. - with options

By standard

- ▶ Automatic mechanical spindle feed
- ▶ Machined base plate with T slots and integrated cooling unit
- ▶ Precise mechanical drill depth adjustment
- ▶ Spindle lock for milling work and tool change
- ▶ Precise pinion adjustment with hand wheel for milling
- ▶ Motor protection switch with no-volt-release
- ▶ Emergency-off push button
- ▶ Cable with CEE plug
- ▶ Electrical drill guard

Optional

- ▶ Automatic and electromagnetic spindle feed
(0.05/ 0.1/ 0.2 mm/rev)
Order No. 287.021
- ▶ Digital display for speed
Order No. 287.022
- ▶ Tapping unit
Order No. 287.023
- ▶ Motor 2.2/3.0 kW
Spindle speed 32-2,340 1/rev
Order No. 287.024
- ▶ Halogen lightning 24 V/20 W
incl. assembly
Order No. 287.025
- ▶ Combined drilling table/machine vice
opening 145 mm,
clamping width 130 mm
Table size 375 x 375 mm
Order No. 287.026
- ▶ High precision sliding table with 3 T-slots
(attention: not applicable with rectangular table)
Table size 630 x 255 mm
Drive way x/y axis 425 x 240 mm
Scale division 0.05 mm
Order No. 287.027
- ▶ Coolant and chip trough
(for version with sliding table only)
Order No. 287.028

Accessories

- ▶ Milling cutter set MK4
with collet chucks
Diameter 4-6-8-10-12-16-20 mm
Order No. 287.020
- ▶ Keyless drill chuck
B18 3-16 mm
Order No. 285.161
- ▶ Arbour MK4 B18
Order No. 290.323

Technical Data

Drill capacity	50 mm
Tapping capacity (depending on size)	M36
Spindle	MK4
Drill depth	145 mm
Distance column spindle	350 mm
Column diameter	164 mm
Usable table size (swivellable)	600 x 460mm
Vertical table stroke (manually)	680 mm
Speed indication	scale
Drill depth indication	scale
Distance spindle/table	100-780 mm
Table height adjustment	with rack
Machine dimensions (L x D x H)	675 x 1,100 x 1,986 mm
Machine dimension packed (L x D x H)	720 x 1,210 x 2,220 mm
Motor three phase	2.2 kW
Spindle speed inf. var.	64-2,250 1/ rev.
With two speed gear	step I 64-510 1/rev. step II 340-2,250 1/ rev.
Automatic mechanical spindle feed	0.05 / 0.1 / 0,2 mm/ rev
Activation with drill lever	

SB P50 ST MV

Weight	548 kg
Order No.	287.000
Special colour (RAL colours only) available against surcharge	on request



Drilling & Milling Machine HST P50 STG MV digital

Fig. - with options

By standard

- ▶ Cooling unit integrated in base plate
- ▶ Tapping unit
- ▶ Precise mechanical drill depth adjustment
- ▶ Sliding table with 3 T slots
- ▶ Scale division 0.05 mm
- ▶ Motor protection switch with no-volt-release
- ▶ Emergency-off push button
- ▶ Halogen lightning 24 V
- ▶ Cable with CEE plug
- ▶ Electrical drill guard

Optional

- ▶ Telescopic table support
Order No. 287.030

Technical Data

Drill capacity	50 mm
Tapping capacity (depending on size)	M36
Spindle	MK4
Drill depth	145 mm
Distance column spindle	293 mm
Column/Post	Semi post
Usable table size sliding table, rotatable	800 x 255 mm
X axis drive way (manually)	570 mm
Y axis drive way (manually)	290 mm
Vertical drive way (Z axis, manually)	490 mm
Speed indication	digital
Drill depth indication Z axis	digital
Table X axis	digital
Table Y axis	digital
Distance spindle/table	150-640 mm
Table height adjustment	with spindle/manually
Machine dimension (L x D x H)	1,500 x 1,380 x 1,985 mm
Machine dimension packed (L x D x H)	1,170 x 1,440 x 2,220 mm
Motor three phase, 2speed motor	2.25 / 3.0 kW
Spindle speed inf. var. with gear	
Motor step I / gear position R	40-250 1/min.
Motor step II / gear position R	80-500 1/min.
Motor step I / gear position V	175-1,130 1/min.
Motor step II / gear position V	350-2,260 1/min.
Automatic mechanical spindle feed	0.05 / 0.1 / 0.2 mm/ rev

HST P50 STG MV digital

Weight	780 kg
Order No.	287.005
Special colour (RAL colours only) available against surcharge	on request



Drilling & Milling Machine BFM 50 STEG MV

Fig. - with options

By standard

- ▶ Cooling unit integrated in base plate
- ▶ Integrated tapping unit
- ▶ Automatic mechanical spindle feed
- ▶ Precise mechanical drill depth adjustment
- ▶ Spindle lock for milling work and tool change
- ▶ Sliding table with 3 T-slots
- ▶ Scale division 0.05 mm
- ▶ Precise pinion adjustment with hand wheel for milling
- ▶ Motor protection switch with no-volt-release
- ▶ Emergency-off push button
- ▶ Cable with CEE plug
- ▶ Electrical drill guard

Optional

- ▶ Automatic and electromagnetic spindle feed
(0.05/ 0.1/ 0.2 mm/ rev)
Order No. 287.021
- ▶ Telescopic spindle support
Order No. 287.030
- ▶ Cooling and chip trough
Order No. 287.031
- ▶ Halogen machine light
24 V/20 W with assembly
Order No. 287.025

Accessories

- ▶ Milling cutter set MK4
with collet chucks
Diameter 4-6-8-10-12-16-20 mm
Order No. 287.020
- ▶ Arbour MK4 B18
Order No. 285.161
- ▶ Keyless drill chuck B18 3-16mm
Order No. 290.323

Technical Data

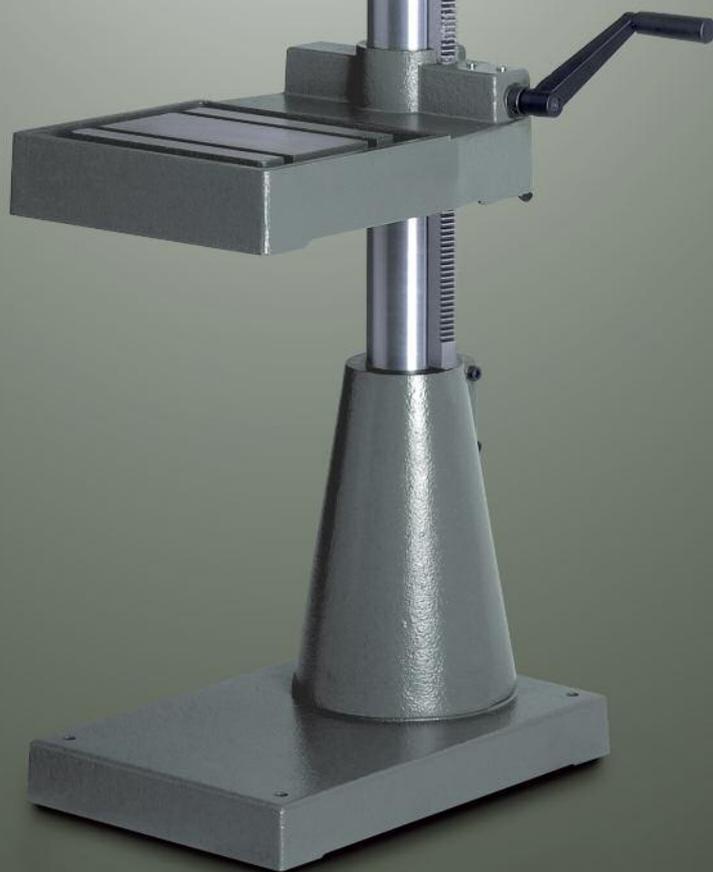
Drill capacity	50 mm
Tapping capacity (depending on size)	M36
Spindle	MK4
Drill depth	145 mm
Distance column spindle	293 mm
Column/Post	Semi post
Usable table size sliding table	800 x 255 mm
Rotatable	2 x 45°
X axis drive way (manually)	570 mm
Y axis drive way (manually)	290 mm
Vertical drive way (Z axis)	500 mm
Speed indication	digital
Drill depth indication	scale
Distance spindle/table	150-650 mm
Table height adjustment	with spindle/manually
Machine dimension (L x D x H)	1,340 x 1,280 x 1,985 mm
Machine dimension packed (L x D x H)	1,720 x 1,210 x 2,220 mm
Motor three phase with frequency Inverter and separate fan	3.0 kW
Spindle speed variable electronically in two ranges	
Upper belt position step I	45-900 1/min
Lower belt position step II	110-2150 1/min
Automatic mechanical spindle feed	0.5/0.1/0.2 mm/rev
Activation	with drill lever

BFM 50 STEG MV

Weight	780 kg with sliding table
Order No.	287.010
Special colour (RAL colours only) available against surcharge	on request



Column Flow Drilling Machine SB P23 ST-FB



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 B16 1-13 mm
Order No. 285.131
- ▶ Arbour MKII/B16
Order No. 285.320
- ▶ Spiral drill set HSSg DIN 338 25 parts 1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

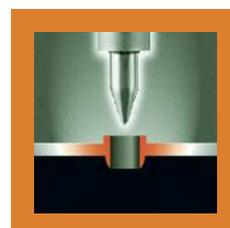
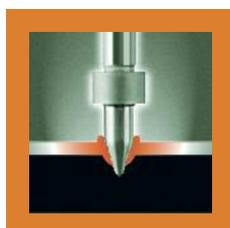
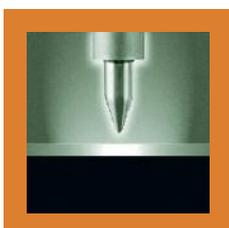
Technical Data

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
Speed indication	digital
Drill depth indication	digital
Drill depth end stop	Quickly adjustable end stop ring
Feed	Manually
Table height adjustment (SB/TB)	With rack
Machine size (WxDxH)	350 x 745 x 1850 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Drill head height adjustment (TBZ)	With rack
Motor 400 V 50 Hz	1.5 kW
Speed range inf. var.	500-4000 1/min

SB P23 ST-FB

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

SPECIAL OPTIONS ON PAGE 58 | 1 | 2 | 3 | 4 | 5 | 6 | 9



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

- ▶ 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. 290.160
- ▶ LED light with hinged arm
Order No. 290.020



Accessories

- ▶ 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
B18 3-16 mm
Order No. 285.161
- ▶ Machine vice with prisms
Opening 120 mm,
clamping width 105 mm
Order No. 281.207
- ▶ Spiral drill set HSSg
DIN 338 25 parts
1-13 x 0.5 mm
Order No. 285.124
- ▶ Machine light incl. bulb
Order No. 201.500

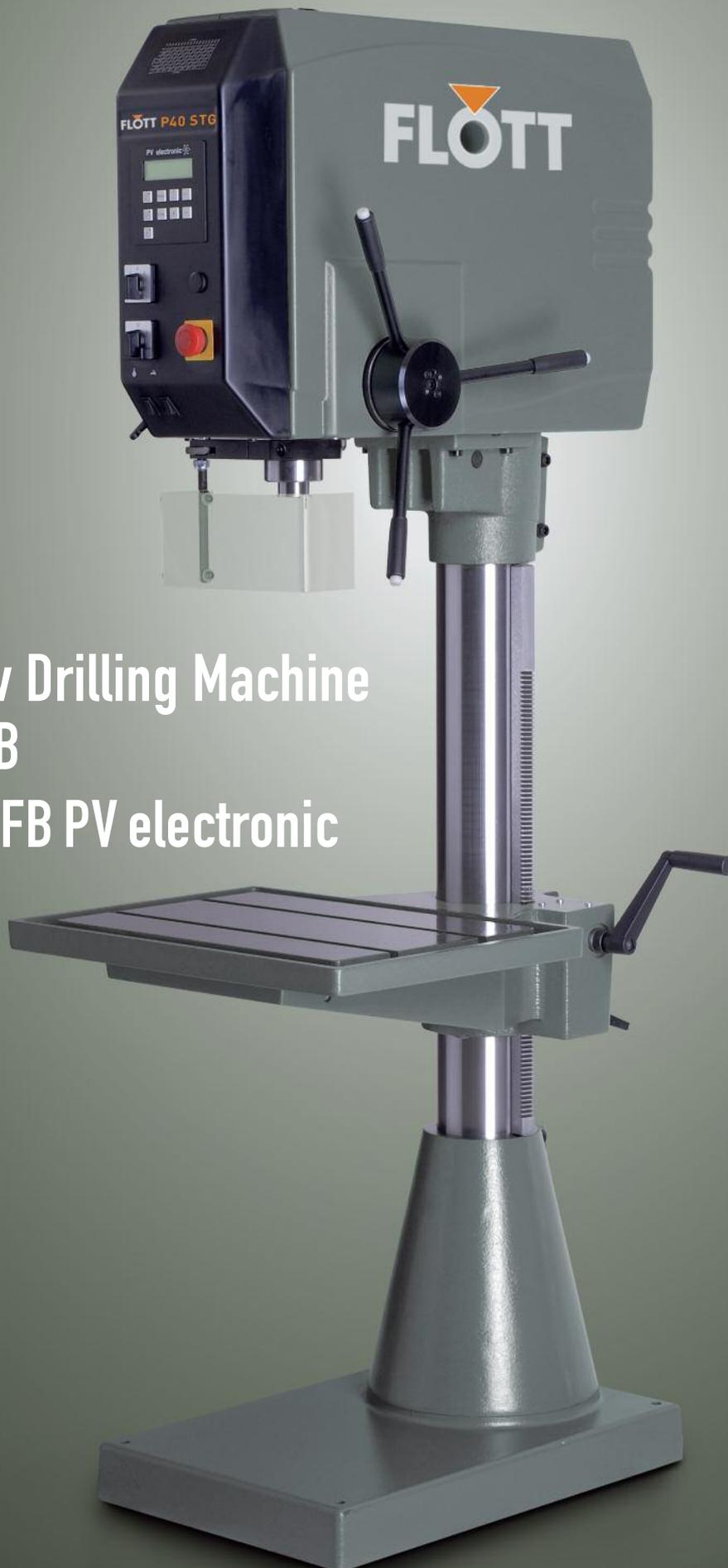
Technical Data

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)	240 x 340 mm
T-slot size	quantity 2, distance 125 mm size width 13/26
Speed indication	Scale
Drill depth indication	Scale
Drill depth end stop	With fine adjustment
Feed	Manually
Table height adjustment	With rack
Machine size (WxDxH)	420 x 830 x 1900 mm
Machine size (incl. packaging) (WxDxH)	572 x 940 x 2140 mm
Motor 400 V 50 Hz	3 kW
Spindle speed, inf. var with intermediate transmission	500-4000 1/min

SB M3 ST-FB

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

SPECIAL OPTIONS ON PAGE 58 | 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

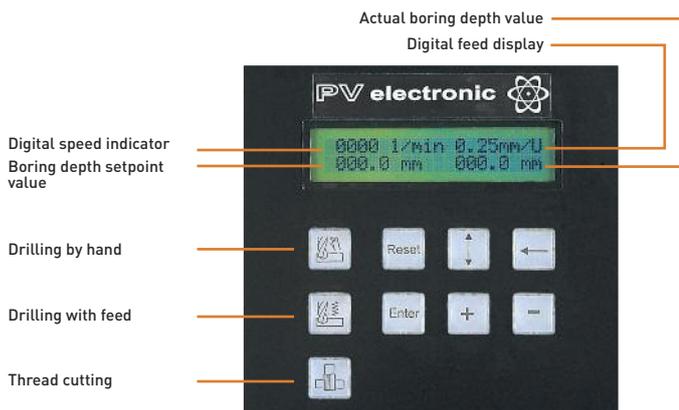
is being used for the perforation of thin walled metal sheets. The method of flowdrilling forms a sleeve by reshaping of the existing material. The material prolongation increases the number of leading threads up to three to five times. The material is not chipped, but used for loadable connections.

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



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
Speed indication	digital
Drill depth indication	digital
Drilling depth stop	With fine adjustment
Feed	Manually
Table height adjustment	With rack
Machine size (WxDxH)	590 x 830 x 2100 mm
Machine size (incl. packaging) (WxDxH)	670 x 1100 x 2140 mm
Motor 400 V 50 Hz, single speed motor	3 kW
Spindle speed, inf. var with speed range R1	500-4000 1/min
Motor 400 V 50 Hz	1.5/3 kW 2-speed motor
Spindle speed, inf. var with speed range R2	250-4000 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 58 | 1 | 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 58 | 1 | 3 | 4 | 5 | 7 | 11



Tapping machine series TBZ P12 GL



By standard

- ▶ Sensitive lever for reversing
- ▶ Single stroke operation
- ▶ Continuous stroke operation
- ▶ Continuous stroke operation with retention time 0-10 sec.
- ▶ Three phase motor with brake and separate fan
- ▶ Motor protection switch with no-volt-release
- ▶ Emergency-off push button
- ▶ Machine base
- ▶ One lead screw with nut included
as per your choice (please quote pitch with your order)
- ▶ Cable with CEE plug
- ▶ Electrical drill guard

Optional

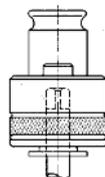
- ▶ Minimum quantity lubrication
Order No. 290.395

Accessories

- ▶ Lead screw with nut
Available pitches:
0.5 / 0.6 / 0.7 / 0.75 / 0.8/
1.0 / 1.25 / 1.5 / 1.75)
Order No. 287.033
(please quote requested pitch with your order)
- ▶ Floating safety tool holder MK II
Order No. 285.110
- ▶ Floating safety tool holder inserts
M3 to M12, without friction clutch
Order No. 285.118
(please quote tap size and drill size with our order)

Example:

Tap size:	M6
DIN ref.:	371
Round shank diameter Ø:	6 mm
Square shank diameter □:	4,9 mm



Technical Data

Tapping capacity (depending on size)	M12
Spindle	MK II
Tapping depth	60 mm
Distance column spindle	205 mm
Column diameter	98 mm
Usable table size	350 x 280 mm
Vertical stroke (manually)	400 mm
Speed indication	scale
Depth indication	scale
Distance spindle/table	200-600 mm
Machine head height adjustment	with rack
Machine dimensions	700 x 800 x 1,950 mm
Machine dimensions (packed)	800 x 900 x 2,300 mm
Three phase motor with brake and Separate fan	1.1 kW
Spindle speed inf. var.	275 x 1,750 1/min
Spindle feed (tapping)	with lead screw

TBZ P12 GL

Weight:	260 kg
Order No.	287.015
Special colour (RAL colours only) against surcharge available	on request

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

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 SB P50 ST MV, HST P50 STG MV DIGITAL,
TBZ P12 GL, BFM 50 STEG MV



Machine light with arm

Haloflex halogen low voltage machine light with magnetic base, complete with 12V/ 20W halogen bulb, AC single phase 230V. Lampshade diameter 70 mm; arm length: 600 mm, built-in safety transformer

Order No. 250.220



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 reproducibly 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 4/8/10/13 STW
- ▶ Standard colour RAL 7005 grey

Order No. 290.340

Accessories

F0 Precision sliding table*

- ▶ Table size 230 x 164 mm
- ▶ Width 120 mm x height 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
- ▶ Width 190 mm x height 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
- ▶ Width 240 mm x height 160 mm
- ▶ Scale increments 0.05 mm
- ▶ Weight 46 kg
- ▶ Suitable for series E5 / M5 ST / P40

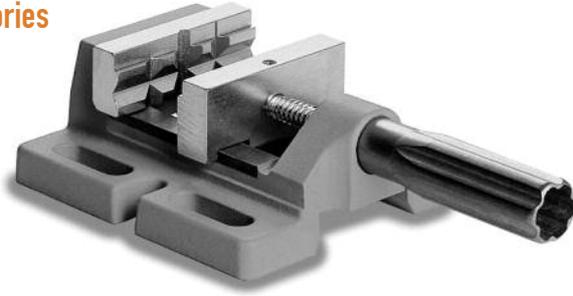
Order No.281.095

Mounting plate

Order No.281.092

*Needs mounting plate for fixation on the machine table.

Accessories



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

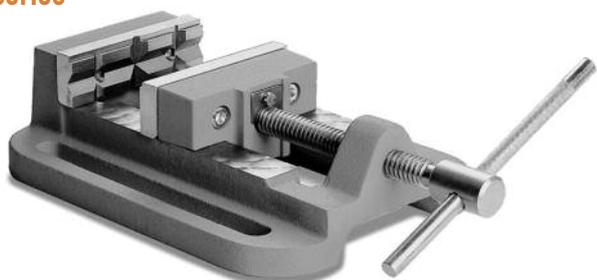
- ▶ **Nr. 1: 85**
 clamping jaw width: 85 mm
 clamping range: 75 mm
 clamping jaw height: 30 mm
 Weight: 3,3 kg
 Order No.....281.205

- ▶ **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

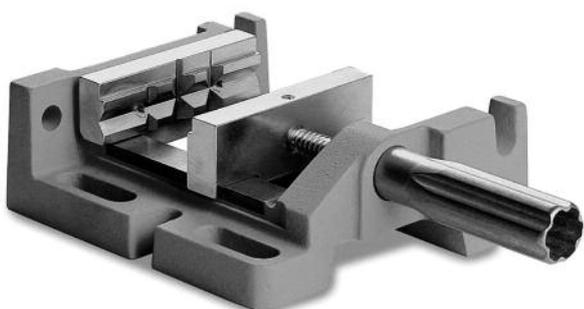
► **Nr. 2: 140**
clamping jaw width: 140 mm
clamping range: 155 mm
clamping jaw height: 40 mm
Weight: 13,5 kg
Order No.....281.211

► **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



Keyless drill chuck

- ▶ Clamping range 0-10 mm
- ▶ Tool holder B16

Order No. 285.101

Keyless drill chuck

- ▶ Clamping range 1-13 mm
- ▶ Tool holder B16

Order No. 285.131

Keyless drill chuck

- ▶ Clamping range 3-16 mm
- ▶ Tool holder B18

Order No. 285.161



Keyless precision drill chuck, ground

- ▶ Clamping range 0-10 mm
- ▶ Tool holder B16

Order No. 285.063

Keyless precision drill chuck, ground

- ▶ Clamping range 1-13 mm
- ▶ Tool holder B16

Order No. 285.064

Accessories

Arbour

size **B16/MK I**

Order No. 285.310

size **B16/MK II**

Order No. 285.320

size **B18/MK II**

Order No. 285.321

size **B18/MK III**

Order No. 285.323

size **B18/MK IV**

Order No. 290.323

Reducing chuck

size **MK II/MKI**

Order No. 285.330

size **MK III/MKII**

Order No. 285.331

size **MK III/MKI**

Order No. 285.332

size **MK IV/MKIII**

Order No. 285.333

size **MK IV/MKII**

Order No. 285.336



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 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 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 4/8/10/13 STW, M1, P18, E1/E2/E3/E3/E4/E5

Order No. 290.832

Spare shield: 120 x 170 mm

Order No. 290.825

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

Order No. 290.855

Spare shield: 120 x 250 mm

Order No. 290.854

Outside Dimensions Drill Presses

Outside dimensions drill presses **including** packaging

width x depth x height in mm

Series 10/13 STW

TB 10 STW	310 x 410 x 600
TB 13 STW	350 x 500 x 770

Series E1/M1/P18

SB	540 x 940 x 2100
TB	300 x 700 x 1000

Series E2

SB	540 x 940 x 2100
TB	300 x 700 x 1000

Series M2/P23

SB	572 x 940 x 2140
TB	540 x 940 x 1600
TBZ (without base)	540 x 940 x 1600
TBZ (with base)	572 x 940 x 2140

Series E3/E4/E5

SB	572 x 940 x 2140
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Series M3/M4/P30/P35

SB	572 x 940 x 2140
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Series E5/M5/P40

SB	670 x 1100 x 2140
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SB M3 ST-FB	572 x 940 x 2140
SB P50 ST MV	720 x 1210 x 2220
BFM 50 STEG MV	720 x 1210 x 2220
HST P50 STG MV	1170 x 1440 x 2220
P12 GL	800 x 900 x 2300

Outside dimensions drill presses **without** packaging

width x depth x height in mm

Series 10/13 STW

TB 10 STW	215 x 365 x 560
TB 13 STW	230 x 390 x 640

Series E1/M1/P18

SB	280 x 655 x 1710
TB	280 x 655 x 860

Series E2

SB	280 x 600 x 1710
TB	280 x 600 x 865

Series M2/P23

SB	350 x 745 x 1850
TB	350 x 745 x 920
TBZ (without base)	350 x 745 x 1070
TBZ (with base)	350 x 745 x 1870

Series E3/E4/E5

SB	420 x 740 x 1782
----	------------------

Series M3/M4/P30/P35

SB	420 x 830 x 1900
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Series E5/M5/P40

SB	590 x 830 x 2100
----	------------------

SB M3 ST-FB	420 x 830 x 1900
SB P50 ST MV	675 x 1100 x 1986
BFM 50 STEG MV	1340 x 1280 x 1985
HST P50 STG MV	1500 x 1380 x 1985
P12 GL	700 x 800 x 1950

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

Special feature for TS 150 SW/SD P

Precision drill grinding attachment



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 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	2800	2800
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	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
Precision drill grinding attachment	317.717	-

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	2840	2740
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	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
Precision drill grinding attachment	317.717	-

*Special Voltages on request

Bench Grinders

TS 200 SD P

TS 250 SD P

TS 300 SD P



Fig.: TS 300 SD P with optional pedestal 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

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	2550	1400	1250
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	350.435	–	–
Pedestal with water container Size 420 x 520 mm	–	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
Wheel dresser	350.101	350.101	350.101

Belt Grinding Machines

BSM 75

BSM 75 A

BSM 75 A pol.

BSM 150

BSM 150 A

BSM 150 A pol.



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 2000	2000	2000
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 1050	950 x 430 x 1050	950 x 430 x 1050
Machine size incl. packaging	W x D x H mm 1000 x 600 x 1100	1000 x 600 x 1100	1000 x 600 x 1100
Order Number	370.545	370.540	370.530

Technical Data	BSM 150	BSM 150 A	BSM 150 A/pol
Sanding belt length	mm 2000	2000	2000
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 –	ca. 700	ca. 700
Exhaustion motor	kW –	0.37	0.37
Machine size unpacked	W x D x H mm 950 x 430 x 1050	950 x 430 x 1050	950 x 430 x 1050
Machine size incl. packaging	W x D x H mm 1000 x 600 x 1100	1000 x 600 x 1100	1000 x 600 x 1100
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

**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 80-81.

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	1600	2800
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	1000
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

Pipe Notcher
BSMR 100
BSMR 150



Fig.- BSMR 150

Machine Features

- ▶ High quality and robust machine layout
- ▶ Two speeds
- ▶ Precision vice with handle on lead screw
- ▶ Precise fixing of the workpiece by central clamping
- ▶ Pipe notcher with integrated large surface grinding area and belt coverage
- ▶ Infinitely adjustable cross slide with adjustable clamp, allowing all kind of pipes to be fitted with an angle between 30 and 90 degrees
- ▶ Integrated tool cabinet for storage of up to five sized contact rollers
- ▶ Tension of the abrasive belt adjustable by wheel
- ▶ Adjustable depth stop
- ▶ Two suction nozzles for connection with external dust extraction systems
- ▶ Exceptionally smooth and quiet operating machine for an reduced noise level and safer working environment
- ▶ Driving roller is fully vulcanized and equipped with high quality barrels for best durability and smooth operation

Work Safety Features

- ▶ Thermo overload protection
- ▶ User friendly switch board with separate emergency-stop punch button
- ▶ Low noise machine – noise emission is far below 80 dB

Machine supplied with

- ▶ Connecting cable (Length: 1.5 m) with CEE-plug 16 A and integrated phase inverter
- ▶ Pedestal with integrated tool cabinet
- ▶ Fine adjustment of the abrasive belt by adjusting screw [+/-]



Technical Data		BSMR 100	BSMR 150
Sanding belt length	mm	2000	2000
Sanding belt width	mm	100	150
Grinding area Ø	mm	20-76	20-114
Belt speed	m/sec.	15/30	15/30
Motor AC 3 phase 400 V pole-changing	kW	2.2/3.75	2.2/3.75
Weight	kg	200	250
Grinding surface area	mm	100 x 390	150 x 390
Machine size unpacked	W x D x H mm	1300 x 600 x 1150	1350 x 800 x 1230
Machine size incl. packaging	W x D x H mm	1310 x 690 x 1310	1310 x 690 x 1310
Order Number		370.600	370.605

Accessories BSMR 100 / BSMR 150

Different sized contact rollers on request, abrasive belts please see page 80

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/optional	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	1500/3000
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	1250 x 400 x 400
Machine size incl. packaging	W x D x H mm	1390 x 400 x 400
Order Number		373.140

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

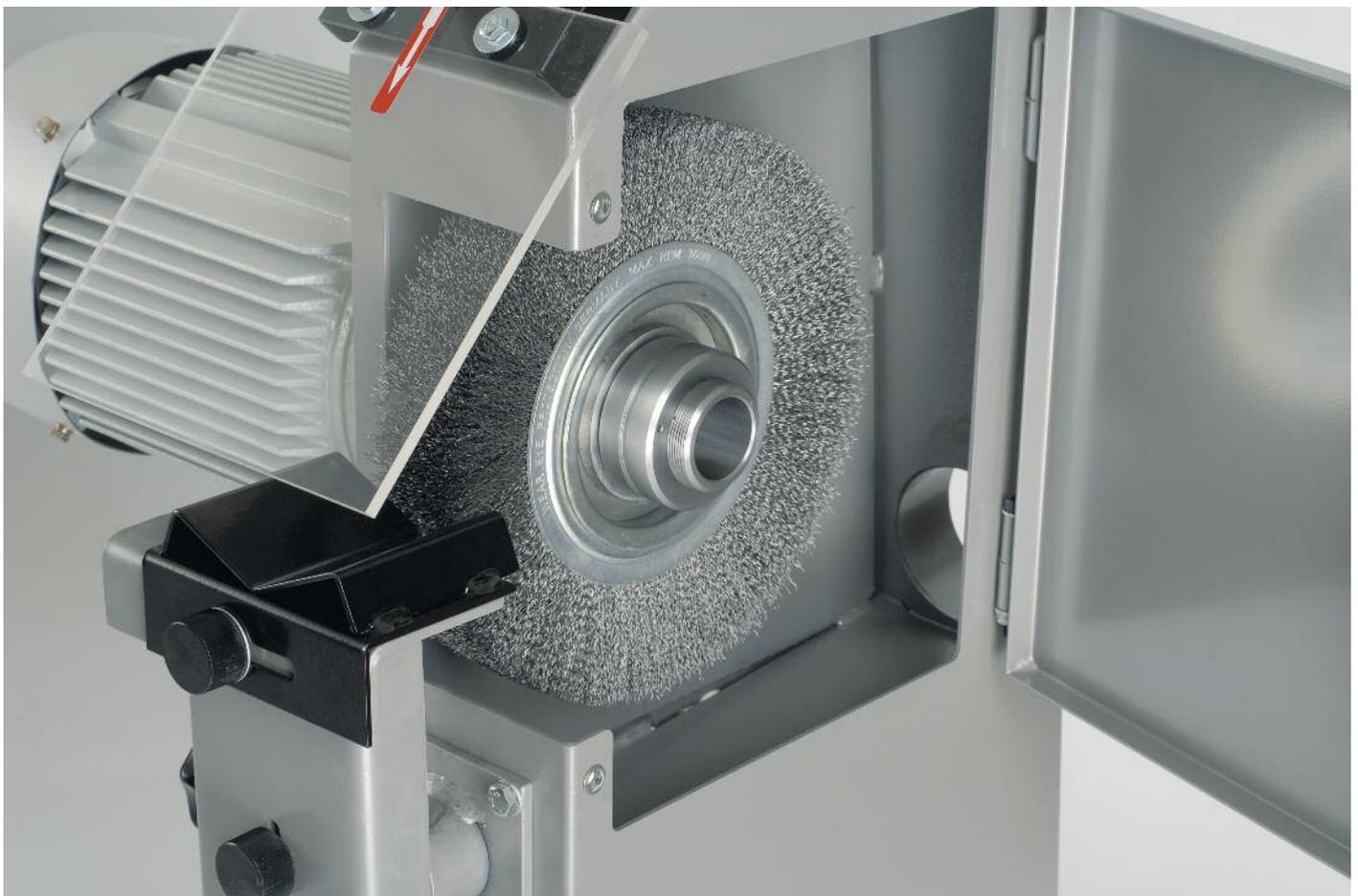


Fig. with angular base

Accessories Belt Grinding Machines

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 75 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

► Abrasive belt holder for proper storage

RAL 7005	Order No. 371.864
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► Graphite Layer

150 x 500 mm	Order No. 370.619
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TBSM 75

► Standard Abrasive Grinding Belts

Size: 75 x 1,000 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: 75 x 1,000 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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BSMR 100

► Standard Abrasive Grinding Belts

Size: 2,000 x 100 mm, Packaging Unit: 5 pc.

Corundum grit 36	Order No. 371.832
Corundum grit 40	Order No. 371.834
Corundum grit 60	Order No. 371.835
Corundum grit 80	Order No. 371.836
Corundum grit 100	Order No. 371.837
Corundum grit 120	Order No. 371.838

BSMR 150

► Standard Abrasive Grinding Belts

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

Corundum grit 36	Order No. 371.833
Corundum grit 40	Order No. 371.839
Corundum grit 60	Order No. 371.842
Corundum grit 80	Order No. 371.843
Corundum grit 100	Order No. 371.844
Corundum grit 120	Order No. 371.845

Accessories/Spare Parts Grinding Technology

			
<p>Wall Bracket</p> <p>Order No. 315.03598,- €</p>	<p>Eye Shields incl. holders (2 pcs.) for TS 150-TS 175</p> <p>Order No. 315.31160,- €</p>	<p>Eye Shields incl. holders (2 pcs.) for TS 200</p> <p>Order No. 315.31260,- €</p>	<p>Eye Shields incl. holders (2 pcs.) for TS 250-TS 300</p> <p>Order No. 315.31360,- €</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>Chamfering device KEV 45 for BSM models Sturdy steel support, with chamfer 45° and guiding bar</p> <p>Order No.370.547</p>	<p>Eye Shield (1 pc.) for BEM 250 incl. holder</p> <p>Order No.373.162</p>
		<p>Precision drill grinding attachment</p> <ul style="list-style-type: none"> - Clamping range for drills sized Ø 1-20 mm, robust layout - Useable for the sharpening of twist-, step-, wood-, forstner-, sheet- and stone- and carbide drills <p>Consisting of:</p> <ul style="list-style-type: none"> - Drill sliding unit - Lock-nut with scale for drill feeding - Movable prism for clamping of drill bits Ø 1-20 mm - Locking lever for acute angle adjustment - Receptive bracket with two separate holes for locking of prism 	
<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>	<p>Precision drill grinding attachment for TS 150</p> <p>Order No.317.717</p> <p>Diamond wheel dresser</p> <p>Order No.317.772</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	palett

Deburring Machine

BEM 250	1390 x 400 x 400
---------	------------------

Pipe Notcher

BSMR 100	1310 x 690 x 1310
BSMR 150	1310 x 690 x 1310

Belt Grinding Machines

BSM 75 / 75 A / 75 A pol	1000 x 600 x 1100
BSM 150 / 150 A / 150 A pol	1000 x 600 x 1100
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

Deburring Machine

BEM 250	1250 x 400 x 400
---------	------------------

Pipe Notcher

BSMR 100	1300 x 600 x 1150
BSMR 150	1350 x 800 x 1230

Belt Grinding Machines

BSM 75 / 75 A / 75 A pol	950 x 430 x 1050
BSM 150 / 150 A / 150 A pol	950 x 430 x 1050
TBSM 75	220 x 640 x 350

High Quality –
made in Germany
since 1854.

FLOTT Products Metal Sawing Machinery



Metal Band Saw HBS 165 MA



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
- ▶ 24 months warranty

Accessories

- ▶ Metal band saw blades

Technical Data

Three phase 400 V AC motor (pole-changing)	0.55/0.75 kW
Gear Reduction	28/1 I
Saw Band Dimension	2,080 x 20 x 0.9 mm
Flywheel	265 Ø mm
Cutting Speed	40/80 m/Min
Vice span	200 mm
Working height	910 mm
Machine size unpacked W x D x H	1,000 x 1,500 x 1,650 mm
Machine size packed W x D x H	580 x 1,350 x 890 mm
Weight	150 kg

HBS 165 MA

Order No.	560.800
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Sawing

	0°	45°
	165	120
	160	100
	190 x 160	120 x 100

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

HBS 165 Order No.	Dimensions in mm	Combi Set	Packaging Unit Unit = 2 pcs.
560.220	2080 x 20 x 0,9	4/6	1
560.221	2080 x 20 x 0,9	6/10	1
560.223	2080 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



Metal Band Saw HBS 220 MA



Fig. with special accessories

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
- ▶ 24 months warranty

Accessories

- ▶ Metal band saw blades

Technical Data

Three phase 400 V AC motor (pole-changing)	0.75/1.1 kW
Gear Reduction	28/1 I
Saw Band Dimension	2,480 x 27 x 0.9 mm
Flywheel	295 Ø mm
Cutting Speed	45/90 m/Min
Vice span	270 mm
Working height	940 mm
Machine size unpacked W x D x H	1,000 x 1,750 x 1,800 mm
Machine size packed W x D x H	580 x 1,400 x 980 mm
Weight	220 kg

HBS 220 MA

Order No.	560.805
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Sawing

	0°	45°	60°
	220	150	85
	195	140	85
	245 x 115	140 x 140	85 x 85

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.
560.224	2480 x 27 x 0,9	2/3	1
560.225	2480 x 27 x 0,9	3/4	1
560.226	2480 x 27 x 0,9	4/6	1
560.227	2480 x 27 x 0,9	5/8	1
560.228	2480 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



Metal Band Saw HBS 220 MAS



Fig. mit Sonderaccessories

Manual band saw with hydraulic saw frame lowering (infinitely adjustable)

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

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	2,480 x 27 x 0.9 mm
Flywheel	295 Ø mm
Cutting Speed	32/64 m/Min
Vice span	270 mm
Working height	970 mm
Machine size unpacked W x D x H	1,200 x 1,850 x 1,850 mm
Machine size packed W x D x H	800 x 1,500 x 1,700 mm
Weight	330 kg

HBS 220 MAS

Order No.	560.810
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Sawing

	0°	45°	60°
	220	150	85
	195	140	85
	245 x 115	140 x 140	85 x 85

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.
560.224	2480 x 27 x 0,9	2/3	1
560.225	2480 x 27 x 0,9	3/4	1
560.226	2480 x 27 x 0,9	4/6	1
560.227	2480 x 27 x 0,9	5/8	1
560.228	2480 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



Metal Band Saw HBS 255 MA



Fig. mit
Sonderaccessories

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
- ▶ 24 months warranty

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	2750 x 27 x 0,9	2/3	1
560.230	2750 x 27 x 0,9	3/4	1
560.231	2750 x 27 x 0,9	4/6	1
560.232	2750 x 27 x 0,9	5/8	1
560.233	2750 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



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
- ▶ 24 months warranty

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	3310 x 27 x 0,9	2/3	1
560.235	3310 x 27 x 0,9	3/4	1
560.236	3310 x 27 x 0,9	4/6	1
560.237	3310 x 27 x 0,9	5/8	1
560.238	3310 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
- ▶ 24 months warranty

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	120 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

Accessories for FLOTT Metal Sawing Machines

Metal Belt Saw Blades*

(Bi-Alfa Cobalt M42)

HBS 165 MA

▶ 2080 x 20 x 0,9 mm, Packing Unit 1 set (2 pcs)

Combi Serration 4/6

Order No.560.220

Combi serration 6/10

Order No.560.221

Combi serration 10/14

Order No.560.223

HBS 220 MA / HBS 220 MAS

▶ 2480 x 27 x 0,9 mm, Packing Unit 1 set (2 pcs)

Combi serration 2/3

Order No.560.224

Combi serration 3/4

Order No.560.225

Combi serration 4/6

Order No.560.226

Combi serration 5/8

Order No.560.227

Combi serration 10/14

Order No.560.228

HBS 255 MA

▶ 2750 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

▶ 3310 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

Cooling and lubrication liquids

TSF 5

- ▶ 5 l can transparent, water solublale 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

Service

Hotline: +49 / 21 91 / 979-121

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.*



*For orders under € 75.00 a surcharge of € 30.00 will apply.

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



The new FLOTT "Bohrstraße"

The FLOTT Drilling solution for effective and fully controlled X and Y axis one step machining of even long work pieces.



FLOTT CNC Milling Centers

BC 12
BC 16



Rapid Radial Drilling Machines

Professionally reconditioned radial drilling machine versions available on request.



Sawing Machines

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

Extract from our terms of delivery

- ▶ Delivery is ex works, including packaging
Place of dispatch: 01445 Radebeul, 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 are inclusive of packaging
- ▶ Accessories and spare parts prices are exclusive of packaging
- ▶ The time of limited warranty for FLOTT machines are based on single shift operation starting at date of delivery is:
 - 36 month (3 years) for drill presses
 - 24 month (2 years) for grinding and sawing machines
 - Spare parts are excluded
- ▶ For orders under € 75.00 plus VAT a surcharge of € 30.00 plus VAT will apply
- ▶ Please visit the FLOTT website at www.flott.de for our full terms and conditions

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