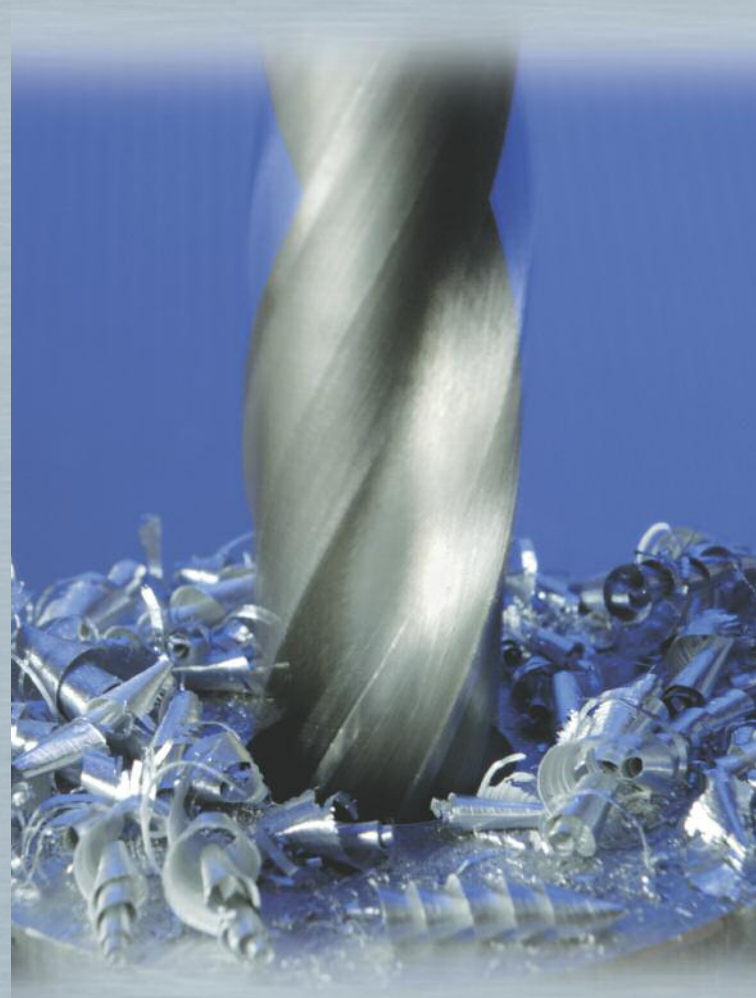


High Quality –  
made in Germany  
since 1854.

## FLÖTT 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](http://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<br>100-4200 R2 | 0.75<br>0.45 / 0.75 | three phase motor 400 V single speed<br>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<br>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<br>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<br>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<br>(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<br>250-4000 R2 | 3.0<br>1.5 / 3.0    | three phase motor 400 V single speed<br>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                     | m³/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<br>saw blade-Ø mm |  *<br>at 0°  |  *<br>at 0°  |  *<br>at 0°  | Page |
|-------------------------|-----------------------------------|---|---|--|------|
| <b>HBS 165 MA</b>       | 2080 x 20 x 0,9                   | 165   | 160   | 190 x 160 .....  | 85   |
| <b>HBS 220 MA</b>       | 2480 x 27 x 0,9                   | 220   | 195   | 245 x 115 .....  | 87   |
| <b>HBS 220 MAS</b>      | 2480 x 27 x 0,9                   | 220   | 195   | 245 x 115 .....  | 89   |
| <b>HBS 255 MA</b>       | 2750 x 27 x 0,9                   | 255   | 350   | 300 x 180 .....  | 91   |
| <b>HBS 300 HA digit</b> | 3310 x 27 x 0,9                   | 300   | 260   | 330 x 260 .....  | 93   |
|                         |                                   |   |   |  |      |
| Metal Circular Saw      | Saw blade-Ø mm                    |  *<br>at 0° |  *<br>at 0° |  *<br>at 0° |      |
| <b>KS 315 M</b>         | 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.

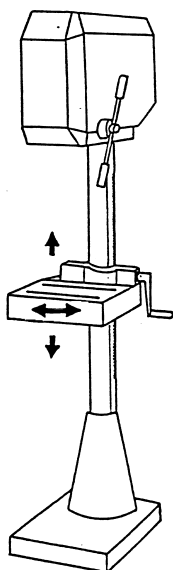
All FLOTT machines are characterized by a modern and ergonomic **design** and **the brands technological advance** is documented by numerous **patents** and **trademarks**.

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.

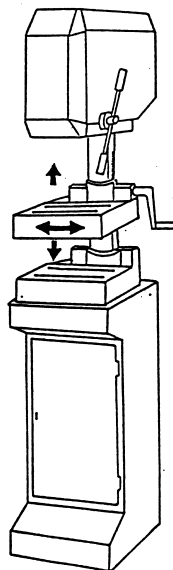
**The extraordinary product quality, durability and longevity** of the FLOTT machines are appreciated worldwide.

**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.

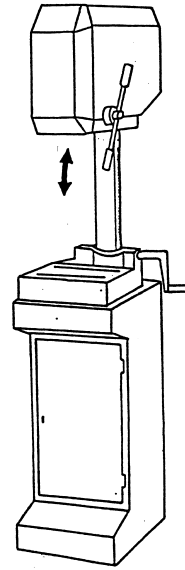
## Types of Drilling Machines



**SB**  
Column Drilling Machine



**TB**  
Bench Drilling Machine  
with Table



**TBZ**  
Bench Drilling Machine  
without Table  
with rack

### Additional Abbreviations

|                      |   |
|----------------------|---|
| <b>ST</b>            | Continuous variable drive   |
| <b>G electronic</b>  | Tapping device, electronically controlled   |
| <b>MV</b>            | Mechanical movement, with electromagnetic coupling  |
| <b>PV electronic</b> | Programmable feed with electromagnetic coupling feed, electronically controlled; digital multi-functional display |
| <b>FB</b>            | 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.

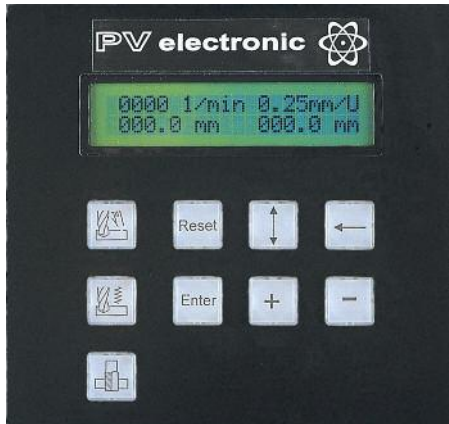
### Products of the P-series/The FLOTT top series

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



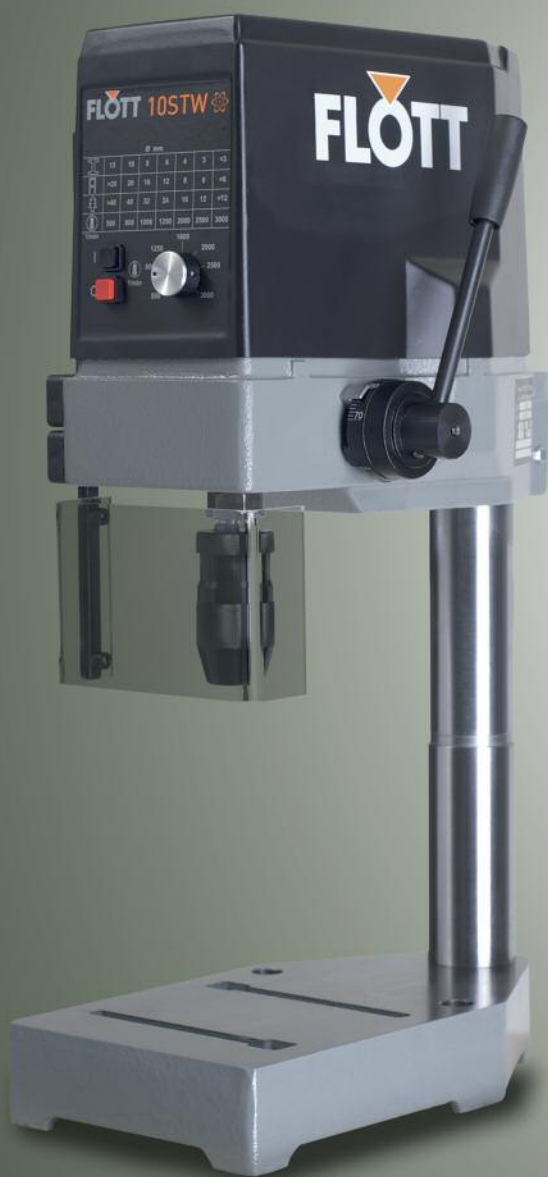
### Transparent Protective Hood

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<br>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<br>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
- ▶ Cable 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<br>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<br>(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<br>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<br>intermediate transmission                     | 100-4200 1/min<br>step I 100-1200 1/min<br>step II 350-4200 1/min |
| (step change is realized by belt<br>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               |
| <b>Order No.</b>                       | <b>213.518</b>      |

## 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              |
| <b>Order No.</b>                       | <b>213.516</b>      |

**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<br>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<br>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<br>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             |

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



**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<br>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<br>200-350-400-600-700-1050<br>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<br>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             |

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



**Table and Column  
Drilling Machine  
TB P23 ST  
SB P23 ST**

Fig.: SB/TB 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<br>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.<br>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              |
| <b>Order No. 201.051 R1</b>            | <b>4.280,- €</b>    |
| <b>Order No. 201.053 R2</b>            | <b>4.480,- €</b>    |

## TBZ P23 ST\*

|  |                     |
|--|---------------------|
| Distance spindle table                                 | 120-550 mm          |
| Machine size<br>with base (WxDxH)                      | 350 x 745 x 1870 mm |
| Machine size<br>with base (incl. packaging) (WxDxH)    | 572 x 940 x 2140 mm |
| Machine size<br>without base (WxDxH)                   | 350 x 745 x 1070 mm |
| Machine size<br>without base (incl. packaging) (WxDxH) | 540 x 940 x 1600 mm |
| Weight without base                                    | 160 kg              |
| <b>Order No. R1 without base</b>                       | <b>201.056</b>      |
| <b>Order No. R2 without base</b>                       | <b>201.057</b>      |

## 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              |
| <b>Order No. R1</b>                    | <b>201.050</b>      |
| <b>Order No. R2</b>                    | <b>201.052</b>      |

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

\*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

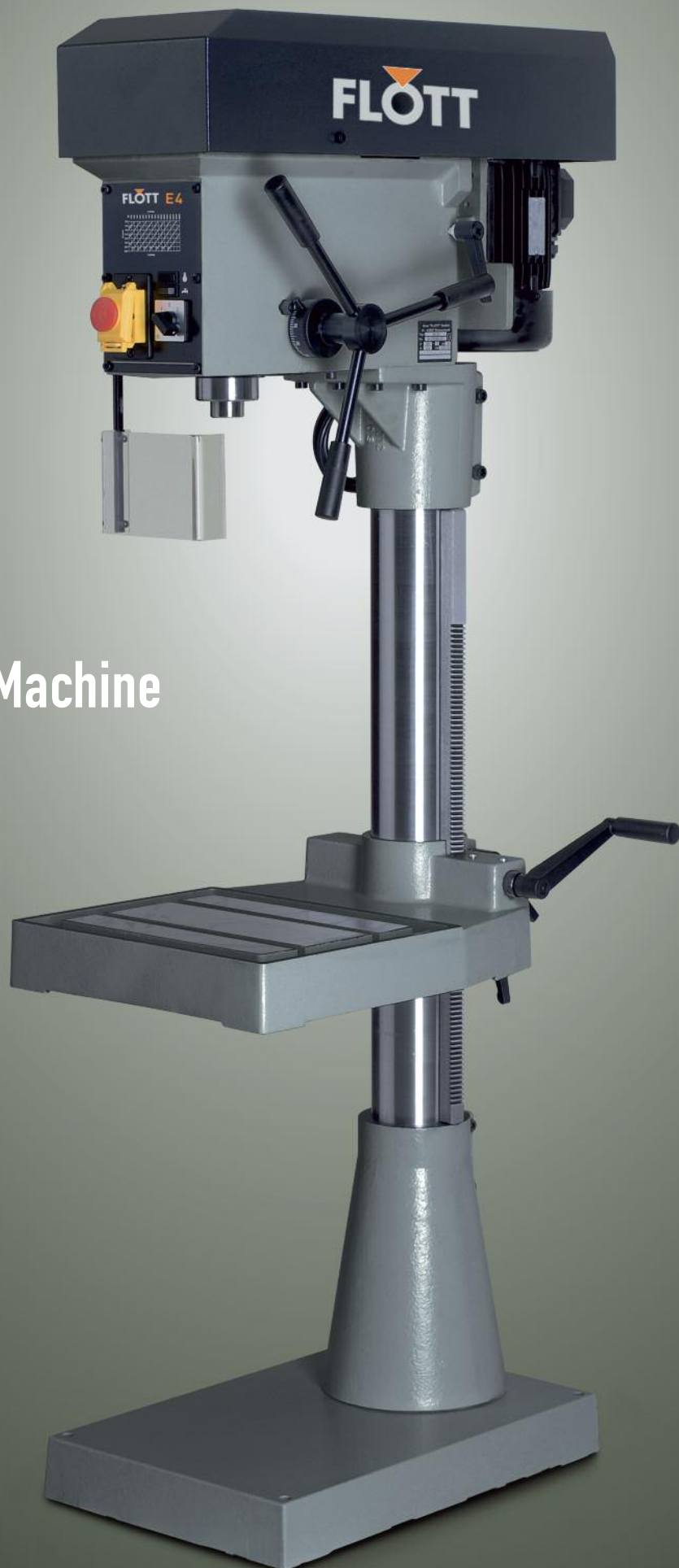
- ▶ Cooling unit, contents max 15 l  
flow rate max 30 l/min  
Order No. .... 290.340
- ▶ Arbour MKIII/B18  
Order No. .... 285.323
- ▶ Keyless drill chuck  
B18 3-16 mm  
Order No. .... 285.161
- ▶ Machine vice with prisms  
opening 120 mm,  
clamping width 105 mm  
Order No. .... 281.207
- ▶ Spiral 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<br>size width 13/26              |
| Speed indication                  | Scale  |
| Drill depth indication            | Scale  |
| Drill depth end stop              | Quickly adjustable end stop ring<br>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<br>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<br>size width 13/26              |
| Speed indication   | Scale  |
| Drill depth indication                                   | Scale  |
| Drill depth end stop                                     | Quickly adjustable end stop ring<br>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<br>transmission 12 Steps | 125-200-250-315-400-500-630<br>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

## 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<br>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<br>step I 125-2000 1/min<br>step II 250-4000 1/min<br>(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             |

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

## SB M3 ST MV

|  |                             |
|--|-----------------------------|
| Feed<br>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                     |

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

# 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<br>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<br>transmission inf. var.<br>in 2 steps | 125-4000 1/min<br>step I 125-2000 1/min<br>step II 250-4000 1/min<br>(step change is realized via belt position change) |

## SB P30 ST

|  |                     |
|--|---------------------|
| Feed                                       | Manually            |
| Distance spindle table                     | 240-790 mm          |
| Machine size (W x D x H)                   | 420 x 830 x 1900 mm |
| Machine size (incl. packaging) (W x D x H) | 572 x 940 x 2140 mm |
| Weight                                     | 275 kg              |
| <b>Order No.</b>                           | <b>205.181</b>      |

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

## SB P30 STG PV electronic

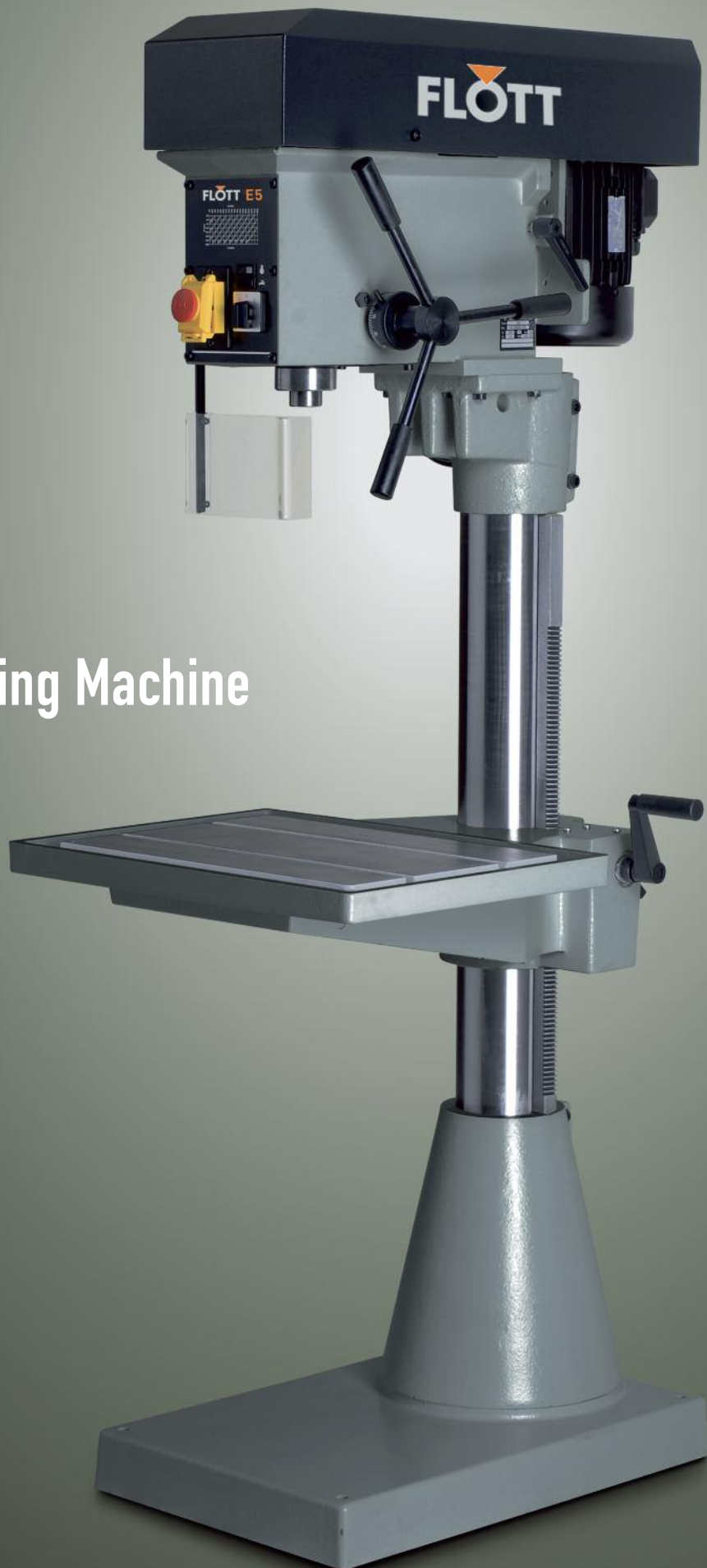
|  |                     |
|--|---------------------|
| Feed, inf. var.<br>with electromagnetic clutch and digital display | 0-300 mm/min        |
| Distance spindle table   | 240-790 mm          |
| Machine size (W x D x H)   | 420 x 830 x 1900 mm |
| Machine size (incl. packaging) (W x D x H)     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

**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<br>size width 14/26              |
| Speed indication   | Scale  |
| Drill depth indication                                   | Scale  |
| Drill depth end stop                                     | Quickly adjustable end stop ring<br>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<br>transmission 12 steps | 80-125-160-200-250-315-400<br>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 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 3-16mm  
**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                                   | Ø 110 mm  |
| Usable work table surface (L x W)                         | 420 x 340 mm                                    |
| T-slot size   | quantity 2, distance 125 mm<br>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<br>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              |
| <b>Order No.</b>                       | <b>205.192</b>      |

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

## 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                      |
| <b>Order No.</b>                       | <b>205.195</b>              |

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

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

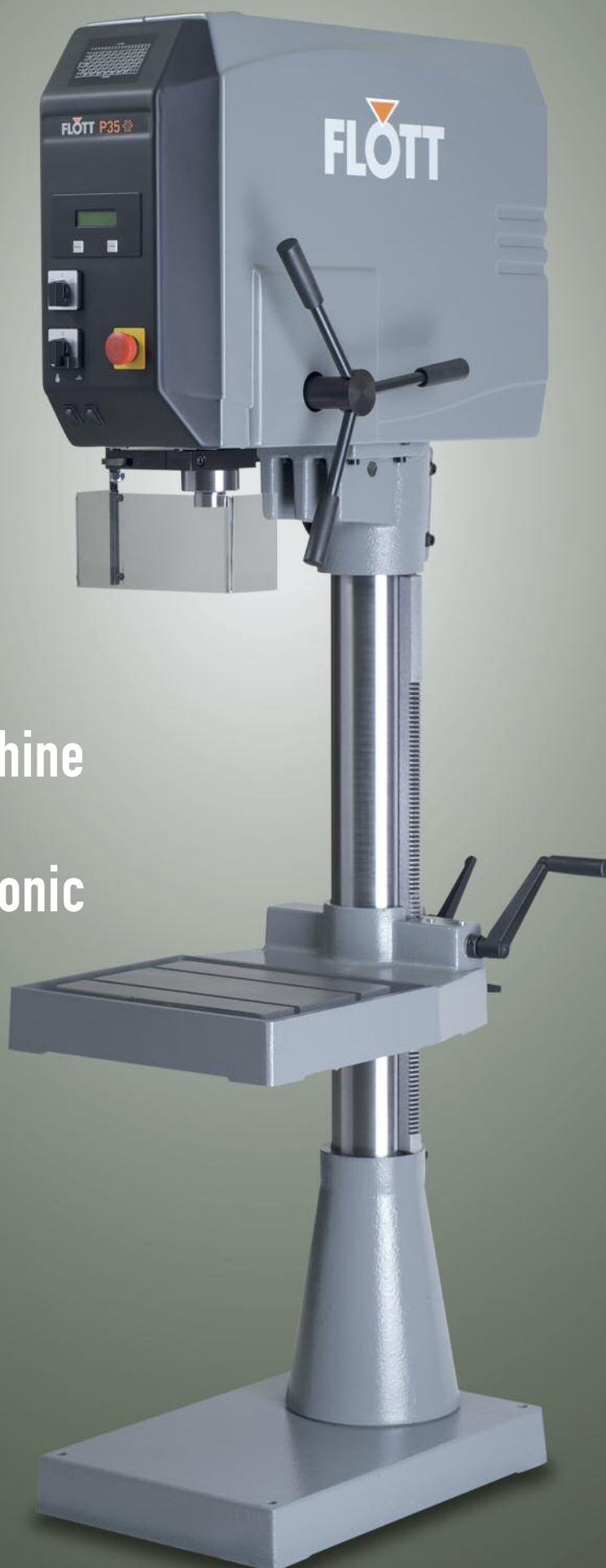


Fig.: SB P35 ST

## By standard

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

## Series P 35 ST

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

## Series P 35 STG PV electronic

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

### 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<br>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 (W x D x H)                   | 420 x 830 x 1900 mm |
| Machine size (incl. packaging) (W x D x H) | 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.<br>electromagnetic clutch and digital display | 0-300 mm/min        |
| Distance spindle table  | 240-790 mm          |
| Machine size (W x D x H)                                      | 420 x 830 x 1900 mm |
| Machine size (incl. packaging) (W x D x H)                    | 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

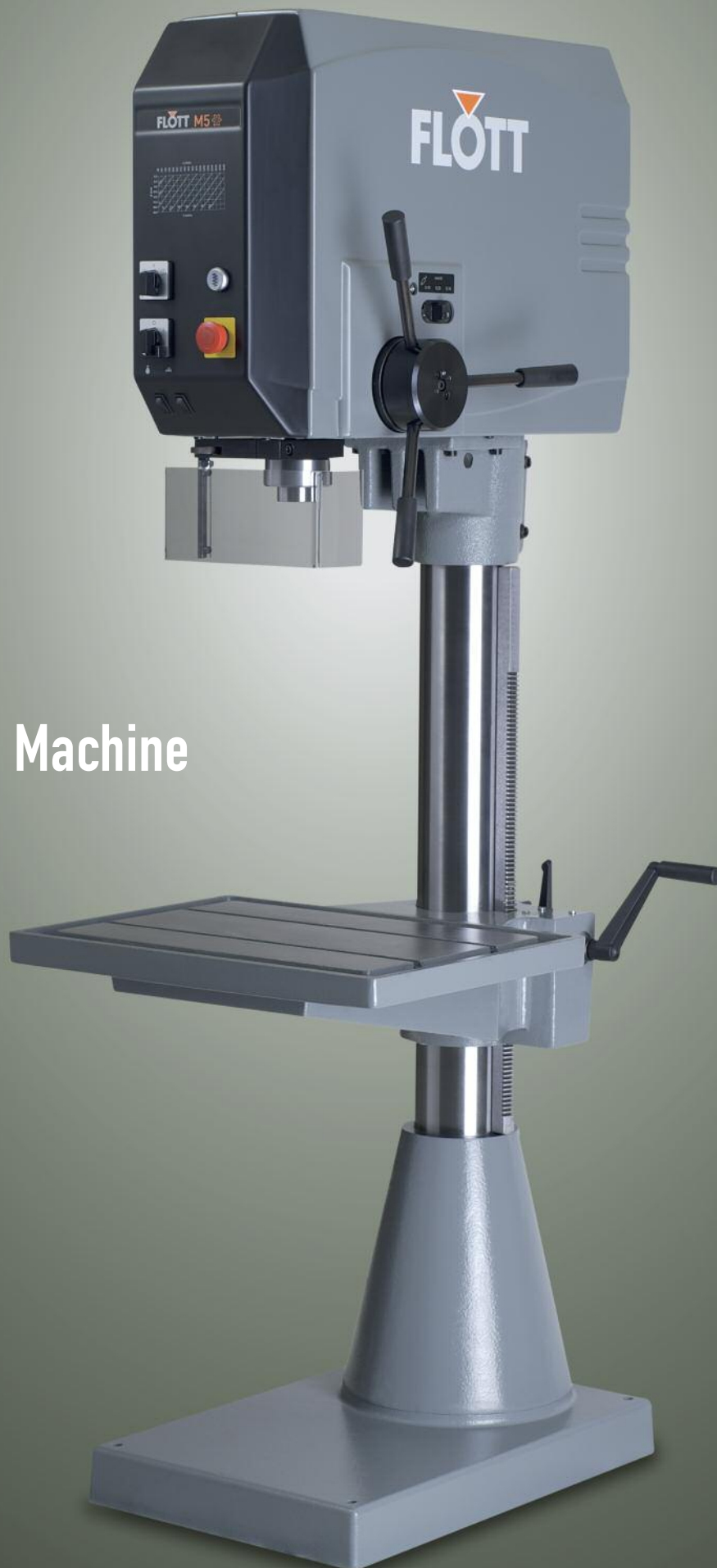


Fig.: SB M5 ST MV

## 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<br>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<br>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               |
| <b>Order No.</b>                       | <b>205.204</b>       |

**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                  |
| <b>Order No.</b>                       | <b>205.207</b>          |

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



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

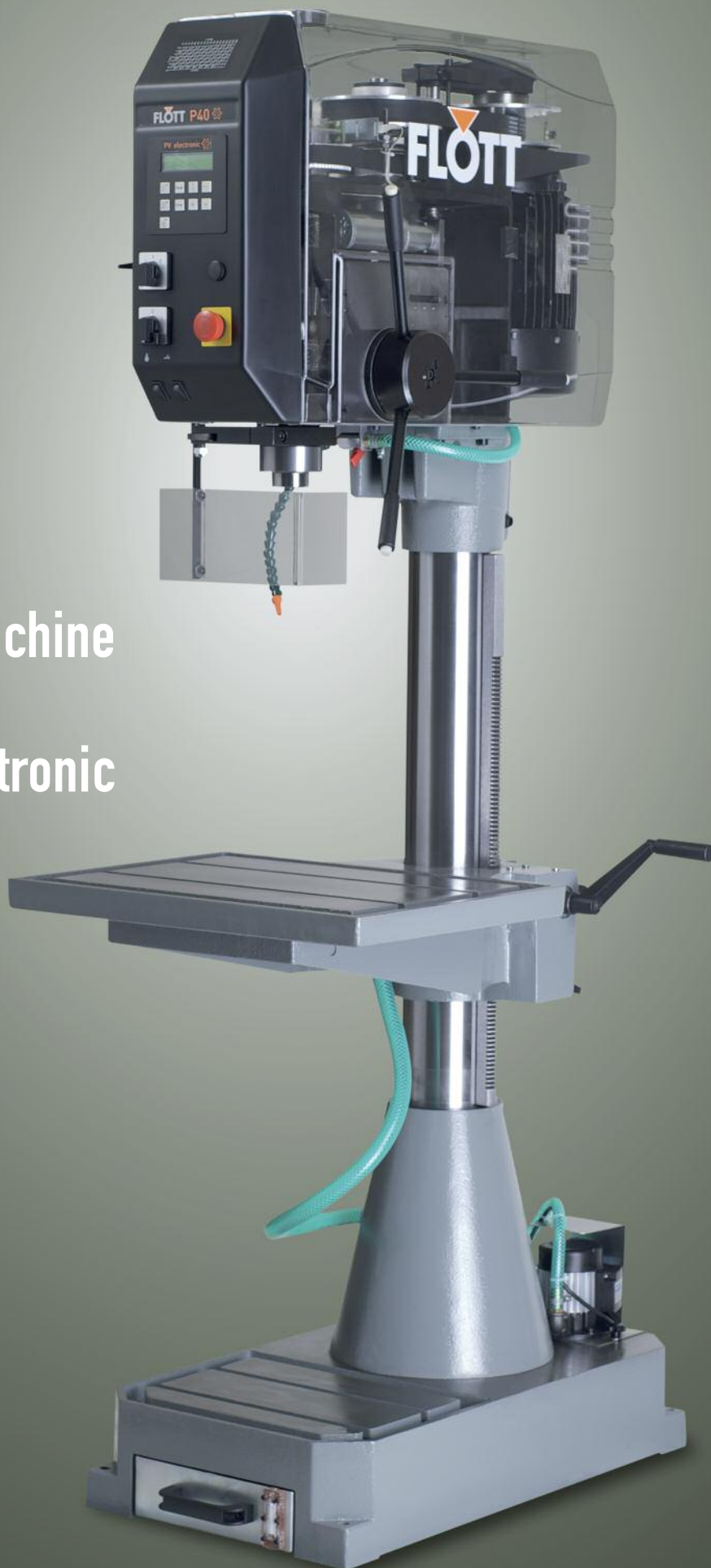


Fig.: SB P40 STG PV electronic with options

## 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<br>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**

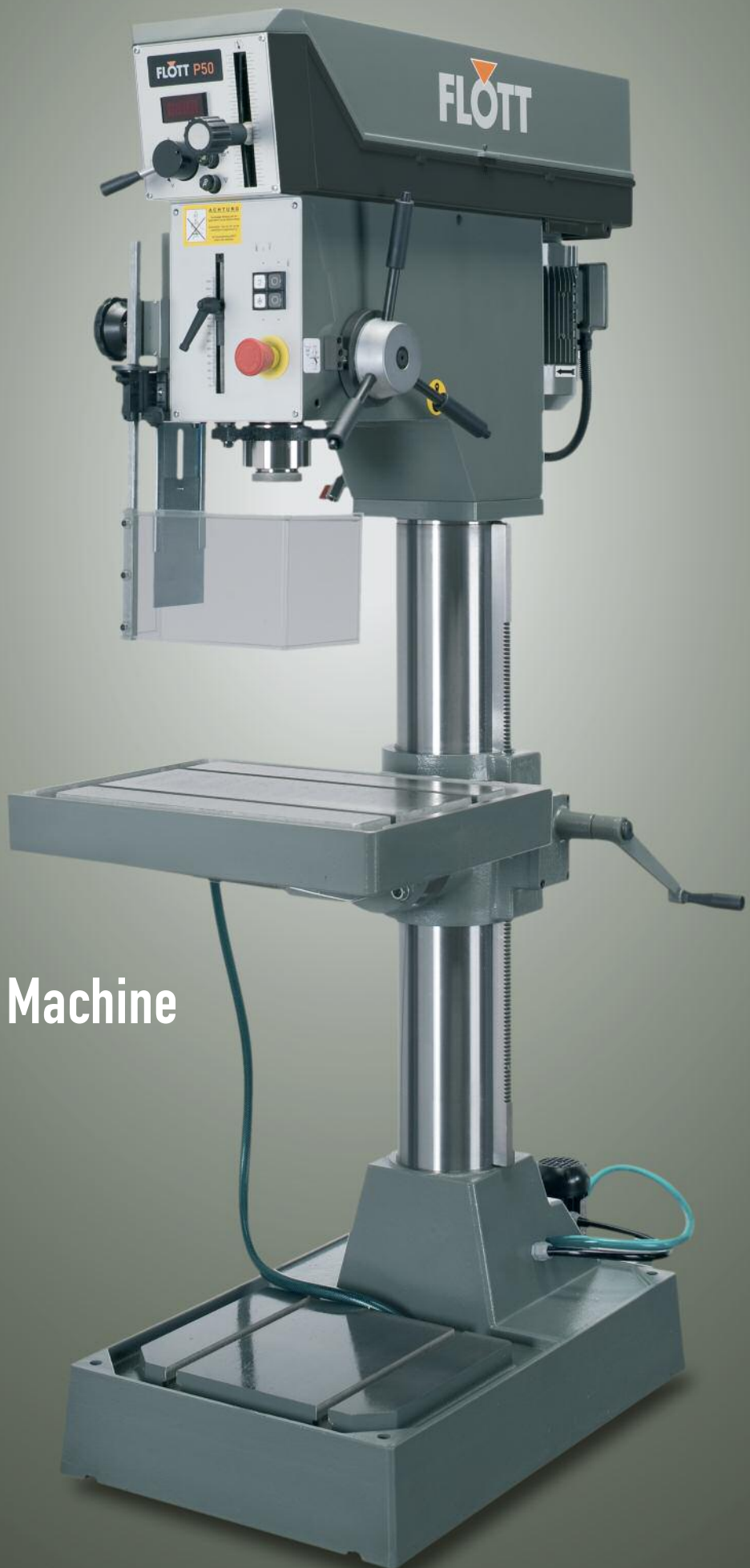
## SB P40 STG PV electronic

|  |              |
|--|--------------|
| Feed, inf. var.<br>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         |
| <b>Order No.</b>   | <b>287.000</b> |
| Special colour (RAL colours only)<br>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)<br>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

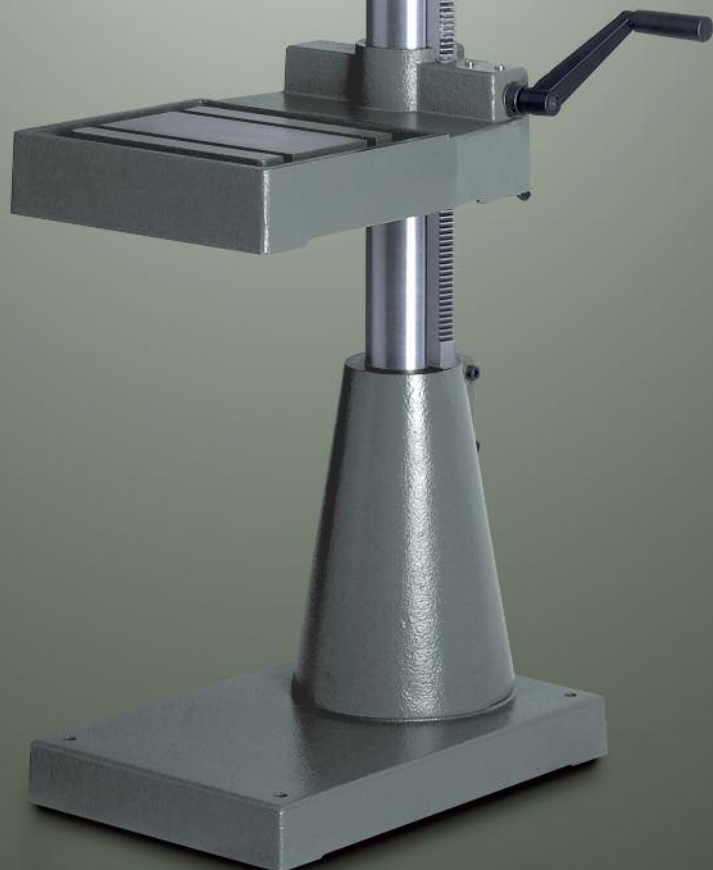
|   |                          |
|---|--------------------------|
| Drill capacity  | 50 mm                    |
| Tapping capacity (depending on size)                          | M36                      |
| Spindle   | MK4                      |
| Drill depth   | 145 mm                   |
| Distance 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<br>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 |
| <b>Order No.</b>   | <b>287.010</b>            |
| Special colour (RAL colours only)<br>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

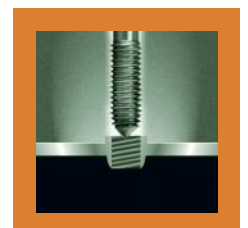
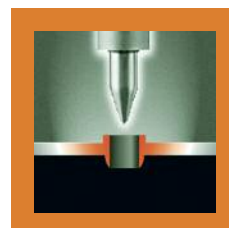
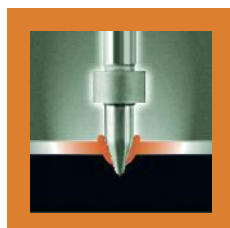
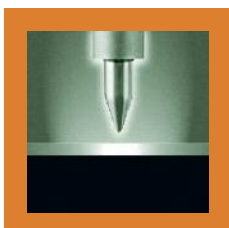
## Technical Data

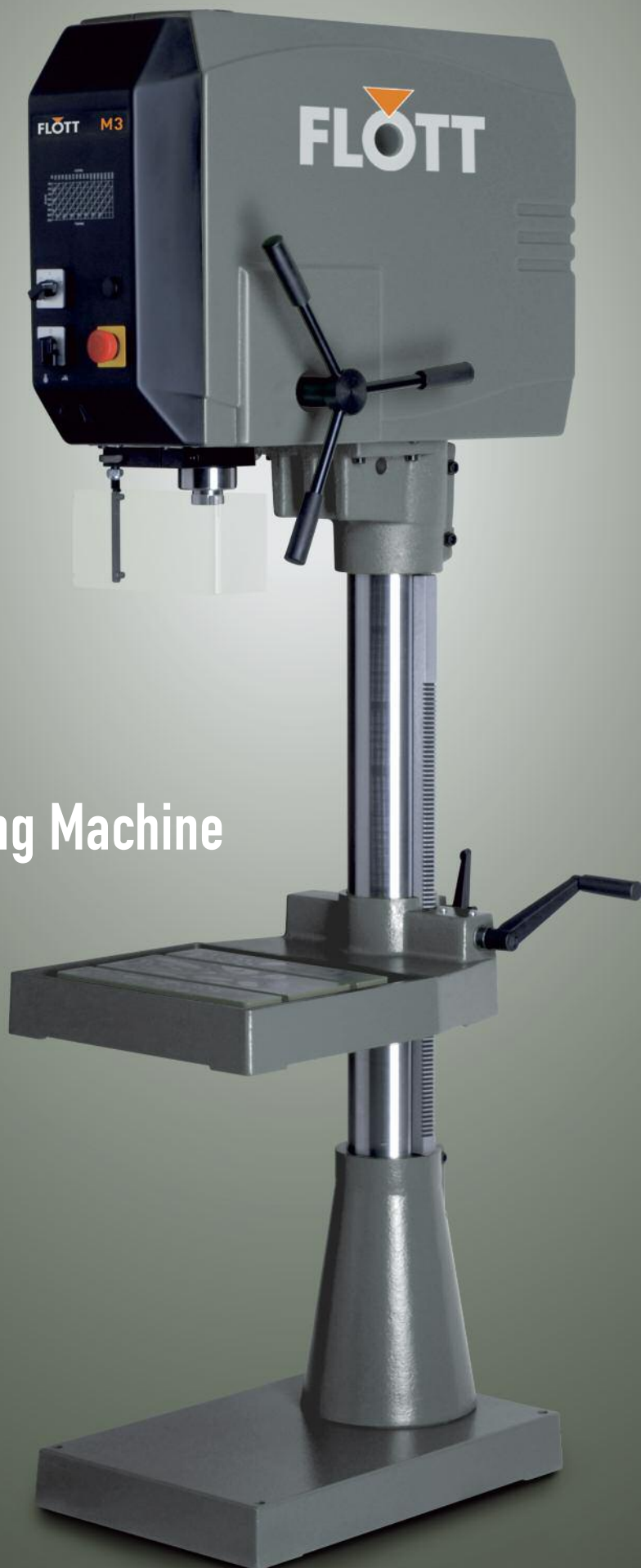
|  |   |
|--|---|
| Flow drilling capacity (3 mm sheet iron) | 8 mm  |
| Spindle                                  | MKII  |
| Drilling depth                           | 100 mm  |
| Distance column-spindle                  | 240 mm  |
| Machine-column diameter                  | Ø 82 mm   |
| Usable work table surface (L x W)        | 340 x 280 mm                                    |
| T-slot size                              | quantity 2, distance 125 mm<br>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         |
| <b>Order No.</b>       | <b>201.054</b> |

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





## Column Flow Drilling Machine SB M3 ST-FB

## By standard

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

## Optional

- ▶ 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

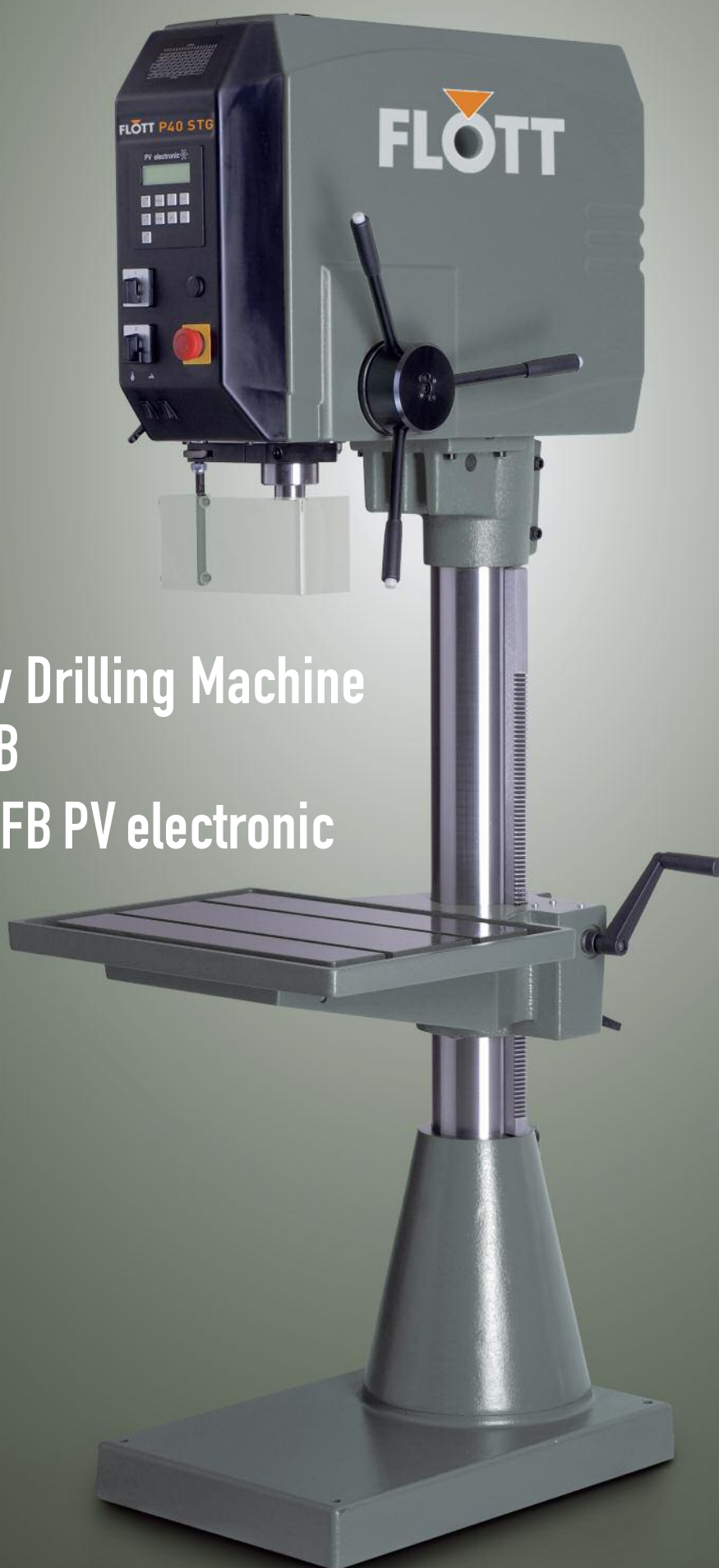
|  |   |
|--|---|
| Flow drilling capacity (3 mm sheet metal)              | 18 mm   |
| Spindle  | MKIII   |
| Drilling depth   | 125 mm  |
| Distance column-spindle                                | 260 mm  |
| Machine-column diameter                                | Ø 110 mm  |
| Usable work table surface (L x W)                      | 240 x 340 mm                                    |
| T-slot size  | quantity 2, distance 125 mm<br>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.

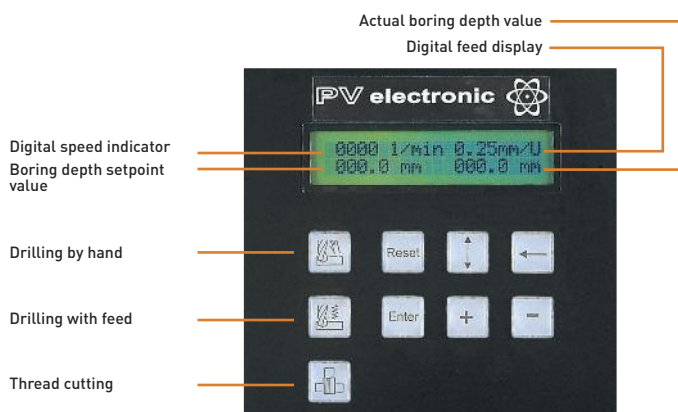
The material is not chipped, but used for loadable connections.

## 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<br>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<br>speed range R1 | 500-4000 1/min                                  |
| Motor 400 V 50 Hz                              | 1.5/3 kW 2-speed motor                          |
| Spindle speed, inf. var with<br>speed range R2 | 250-4000 1/min                                  |

## SB P40 ST-FB

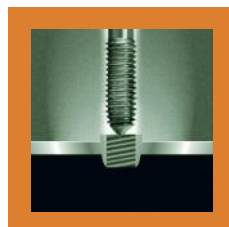
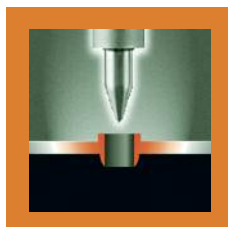
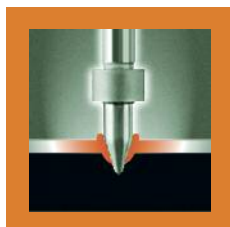
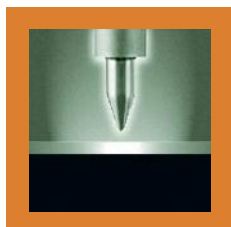
|                        |            |
|------------------------|------------|
| Distance spindle table | 150-700 mm |
| Weight                 | 420 kg     |
| Order No. R1           | 205.212    |
| Order No. R2           | 205.213    |

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

## SB P40 STG-FB PV electronic

|   |              |
|---|--------------|
| Feed inf. var.<br>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

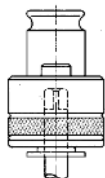
- ▶ Minimum quantity lubrication  
Order No. .... 290.395

## 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)<br>against surcharge available | on request |

## Special options

|   |   |  |   |
|---|---|--|---|
| <b>1</b><br>Machines with special voltage motor: <b>available on request</b>      | <b>2</b><br>Machine light with transformer, incl. bulb<br>(for machines with non-standard voltage)<br>Order No. ....201.510 | <b>3</b><br>Machined base plate with T-slots<br>(for SB type machines only)<br>Order No. ....290.378 | <b>4</b><br>Food button as "emergency switch-off"<br>Order No. ....290.320        |
| <b>5</b><br>Food on/off switch<br>Order No. ....290.321                           | <b>6</b><br>Food reverse switch<br>Order No. ....290.324  | <b>7</b><br>Food start/stop switch – function of star wheel buttons<br>Order No. ....290.401         | <b>8</b><br>Extended column 70 mm diameter (max. 200 mm)<br>Order No. ....296.286 |
| <b>9</b><br>Extended column 82 mm diameter (max. 150 mm)<br>Order No. ....296.287 | <b>10</b><br>Extended column 110 mm diameter (max. 300 mm)<br>Order No. ....296.288   | <b>11</b><br>Extended column 125 mm diameter (max. 300 mm)<br>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 cm<sup>3</sup> /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

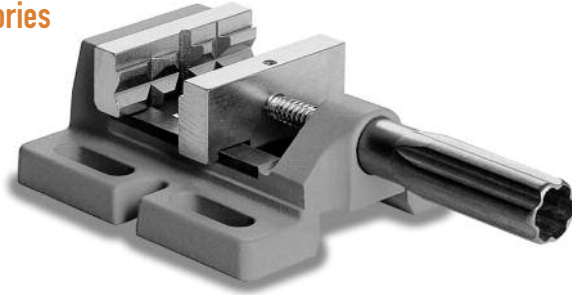
Order No. ....281.095

Mounting plate

Order No. ....281.092

\*Needs mounting plate for fixation on the machine table.

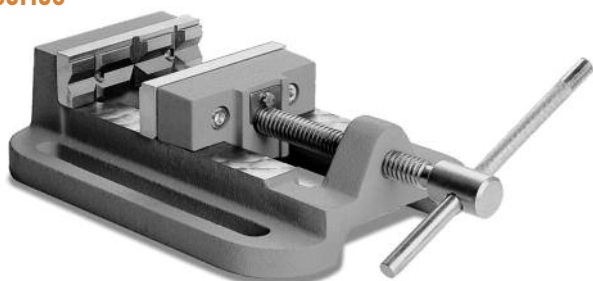
## Accessories



### 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

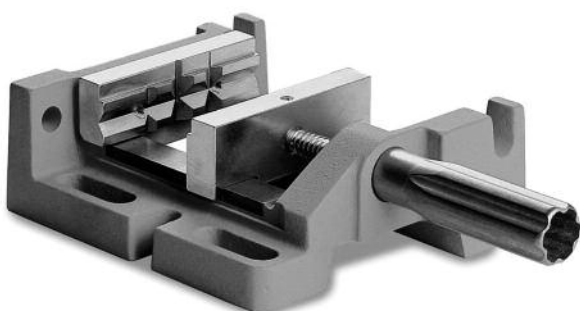
► **Nr. 2: 140**  
 clamping jaw width: 140 mm  
 clamping range: 155 mm  
 clamping jaw height: 40 mm  
 Weight: 13,5 kg  
 Order No.....281.211

#### ► 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 |
|----|------------------|

### Series M3/M4/P30/P35

|    |                  |
|----|------------------|
| SB | 572 x 940 x 2140 |
|----|------------------|

### Series E5/M5/P40

|    |                   |
|----|-------------------|
| SB | 670 x 1100 x 2140 |
|----|-------------------|

|                |                    |
|----------------|--------------------|
| 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 |
|----|------------------|

### 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.

## FLÖTT 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<br>Order Number | TS 175 SW<br>Order Number |
|--|---------------------------|---------------------------|
| Pedestal with water container<br>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<br>Order Number | TS 175 SD P<br>Order Number |
|---|-----------------------------|-----------------------------|
| Pedestal with water container,<br>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<br>W x D x H mm        | 250 x 470 x 230 | 280 x 530 x 270 | 350 x 530 x 340 |
| Machine size incl.<br>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<br>230 V/400 V* kW             | 1,0             | 1,4             | 2,2             |
| Order Number                                 | 317.762         | 317.763         | 317.764         |

| Accessories   | TS 200 SD P<br>Order Number | TS 250 SD P<br>Order Number | TS 300 SD P<br>Order Number |
|---|-----------------------------|-----------------------------|-----------------------------|
| Pedestal with water<br>container<br>Size 355 x 300 mm | 350.435                     | –                           | –                           |
| Pedestal with water<br>container<br>Size 420 x 520 mm | –                           | 350.436                     | 350.436                     |
| Wall bracket  | 315.035                     | –                           | –                           |
| Sep. Grinding wheel<br>corundum coarse                | 317.532                     | 317.542                     | 317.622                     |
| Sep. Grinding wheel<br>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 exhaust

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                   | m³/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                   | m³/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

| 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 <sup>3</sup> /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      |

## 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               |              | 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)<br>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

| 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

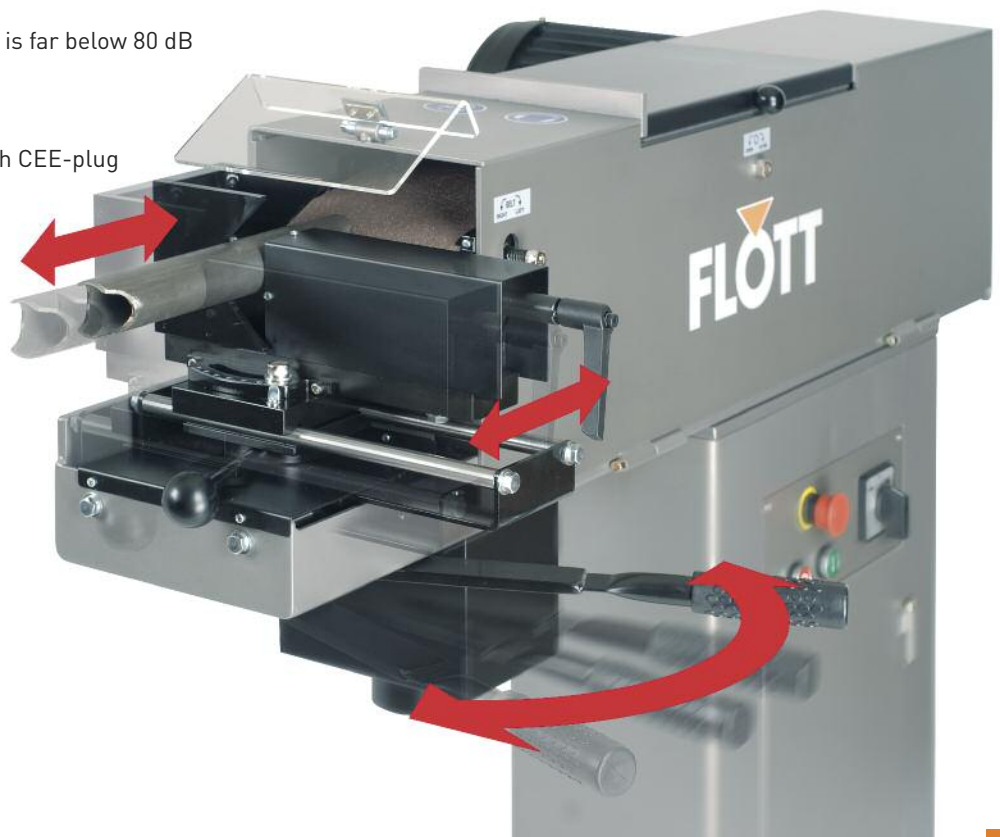
Different sized contact rollers on request, abrasive belts please see page 80

## 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 [ +/- ]





# Deburring Machine BEM 250



Fig.: BEM 250 with prism support

## By standard

- ▶ Wavy wire round brush with wire Ø 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 Ø                        | mm           | 250              |
| Steel brush width standard/optional           | mm           | 40               |
| Bore Ø  | 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 Ø 40 mm | 373.161      |

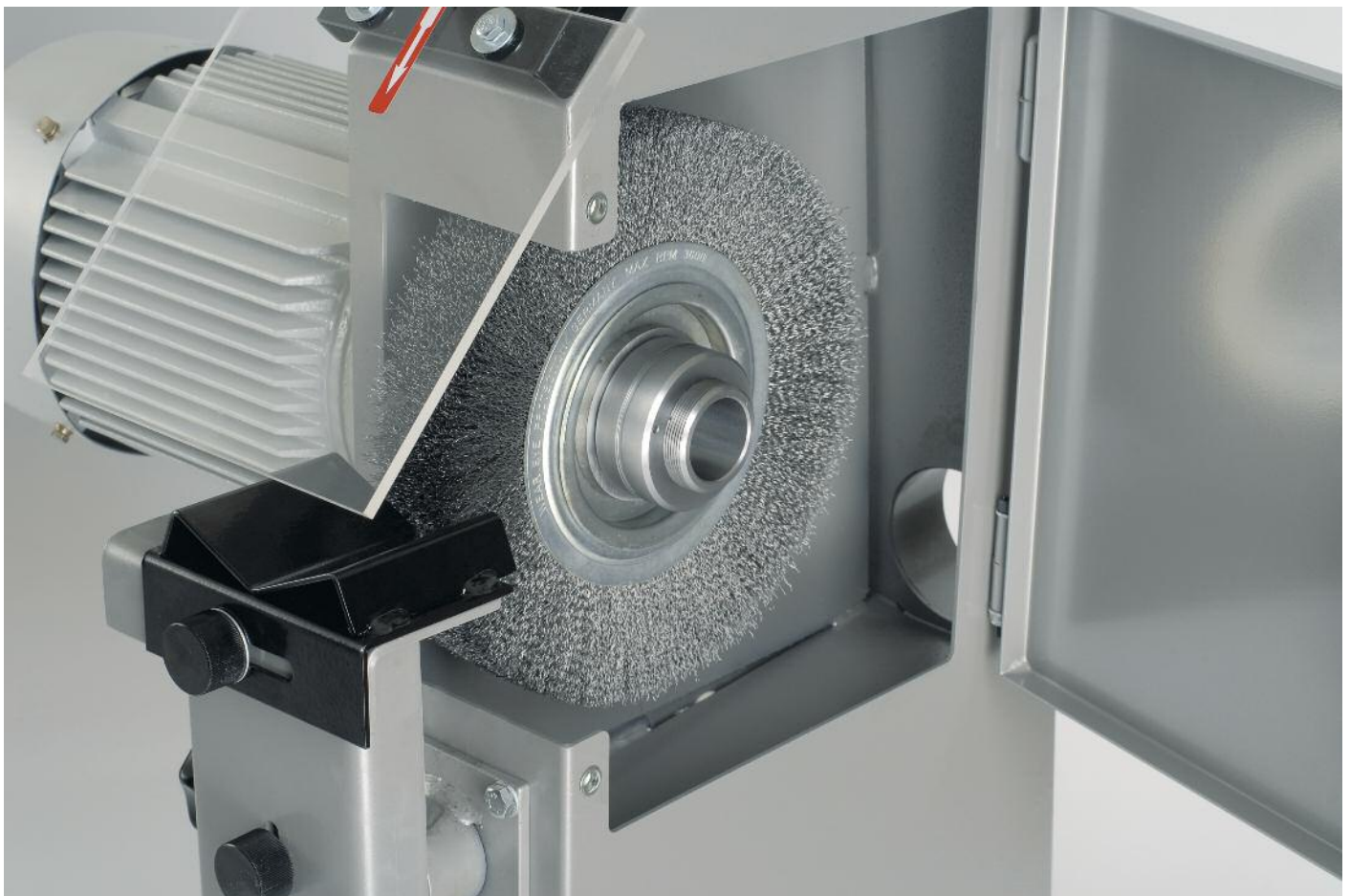


Fig. with angular base

## Accessories Belt Grinding Machines

### BSM 75 Models

#### ► Standard Abrasive Grinding Belts

Size: 2000 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 |
|-------------------|-------------------|

### 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 |
|----------------|-------------------|

#### ► Graphite Layer

|                    |                   |
|--------------------|-------------------|
| 150 x 500 mm ..... | Order No. 370.619 |
|--------------------|-------------------|

### 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 |
|-------------------|-------------------|

### 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. 315.035 ..... 98,- €</p>  |  <p>Eye Shields incl. holders<br/>(2 pcs.) for TS 150-TS 175</p> <p>Order No. 315.311 ..... 60,- €</p>   |  <p>Eye Shields incl. holders<br/>(2 pcs.) for TS 200</p> <p>Order No. 315.312 ..... 60,- €</p>  |  <p>Eye Shields incl. holders<br/>(2 pcs.) for TS 250-TS 300</p> <p>Order No. 315.313 ..... 60,- €</p>  |
|  <p>Contact rollers BSM Series<br/>(from year 2011 and after)</p> <p>for BSM 75 models ..... Order No. 370.585<br/>for BSM 150 models ..... Order No. 370.586</p> |  <p>Dust collection insert for<br/>embers box (suitable for filling<br/>with water/coolant )</p> <p>for BSM 75 models ..... Order No. 370.535<br/>for BSM 150 models ..... Order No. 370.534</p> |  <p>Chamfering device KEV 45 for<br/>BSM models Sturdy steel support,<br/>with chamfer 45° and guiding bar</p> <p>Order No. .... 370.547</p>   |  <p>Eye Shield (1 pc.) for BEM<br/>250 incl. holder</p> <p>Order No. .... 373.162</p>   |
|  <p>Angled base<br/>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</p> <ul style="list-style-type: none"> <li>- Clamping range for drills sized<br/>Ø 1-20 mm, robust layout</li> <li>- Useable for the sharpening of<br/>twist-, step-, wood-, forstner-, sheet-<br/>and stone- and carbide drills</li> </ul> <p>Consisting of:</p> <ul style="list-style-type: none"> <li>- Drill sliding unit</li> <li>- Lock-nut with scale for drill feeding</li> <li>- Movable prism for clamping of drill<br/>bits Ø 1-20 mm</li> <li>- Locking lever for acute angle<br/>adjustment</li> <li>- Receptive bracket with two separate<br/>holes for locking of prism</li> </ul> |  <p>Precision drill grinding attachment<br/>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 |
|-----------|---------|

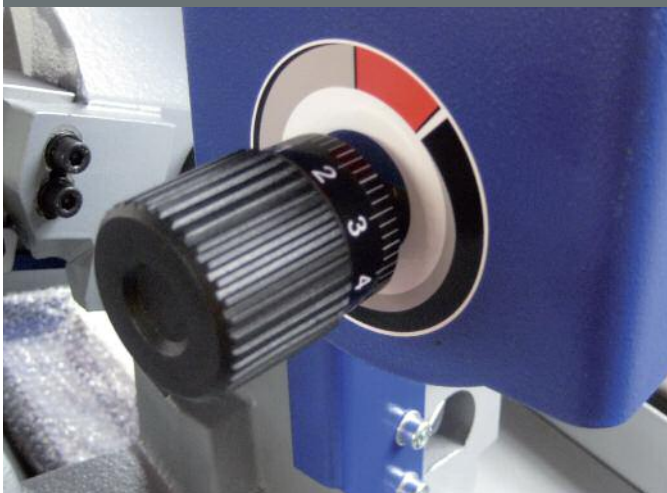
### Sawing

|   | 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<br>Order No. | Dimensions<br>in mm | Combi Set | Packaging Unit<br>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 |
|-----------|---------|

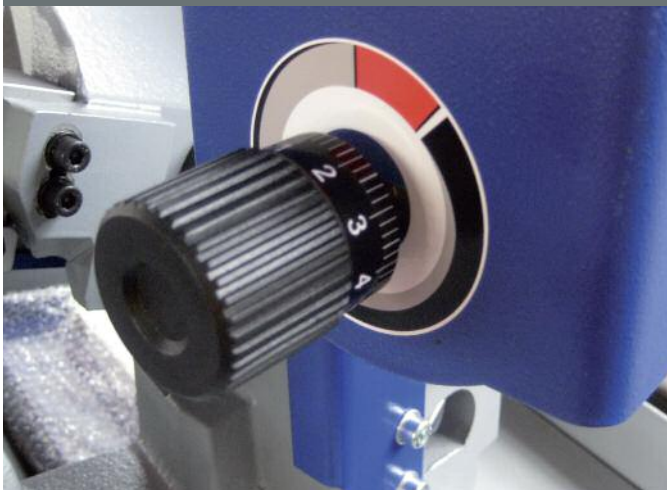
## Sawing

|   | 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<br>Order No. | Dimensions<br>in mm | Combi Set | Packaging Unit<br>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 |
|-----------|---------|

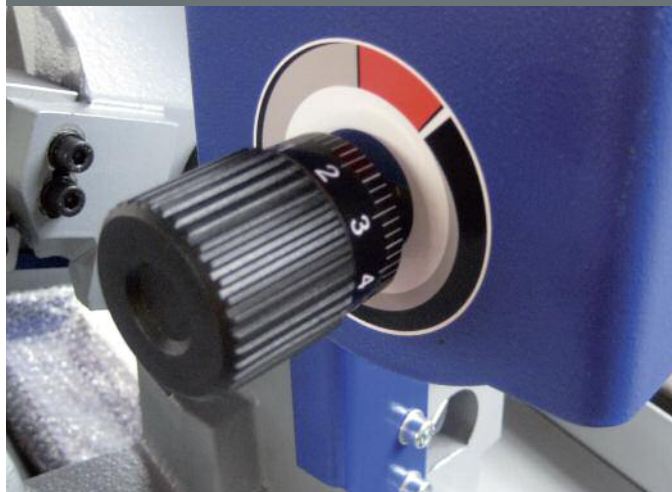
## Sawing

|   | 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 |
|-----------|---------|

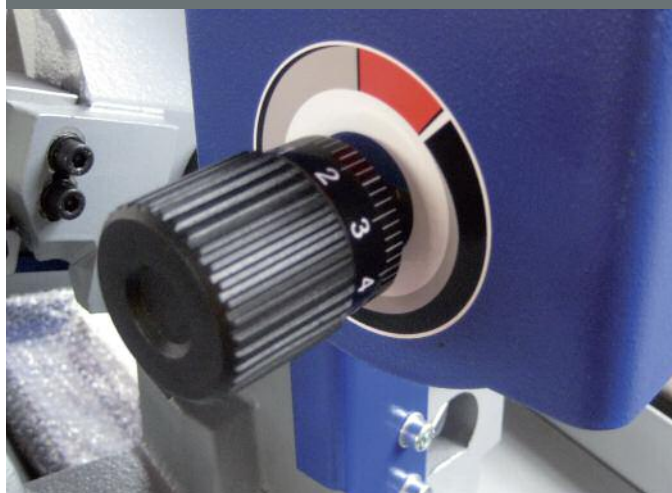
## Sawing

|   | 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<br>Order No. | Dimensions<br>in mm | Combi Set | Packaging Unit<br>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 |
|-----------|---------|

### 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<br>Order No. | Dimensions<br>in mm | Combi Set | Packaging Unit<br>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                               |

# FLÖTT 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) |
|-----------|------------------------------|

### 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



**Hotline: +49 / 21 91 / 979-121**

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.\*

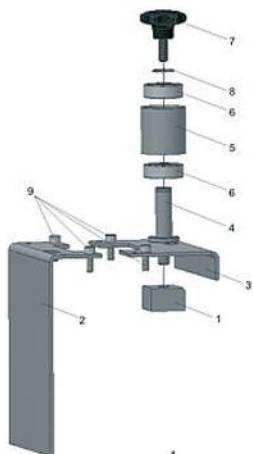


Abb./fig. 13

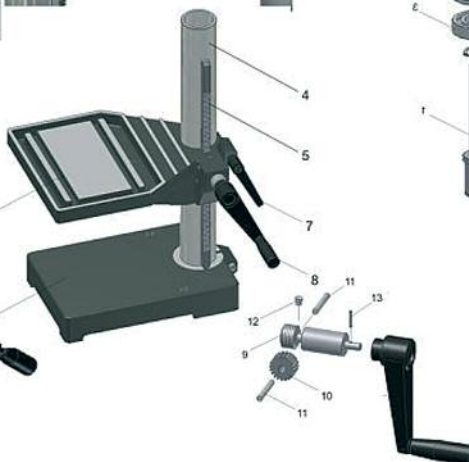
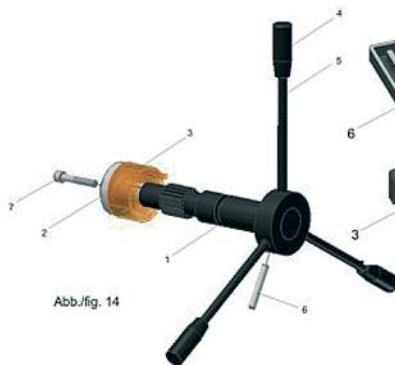
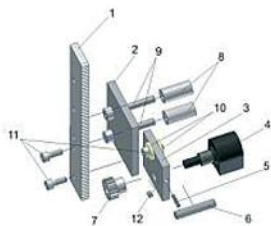


Abb./fig. 14

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## 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](http://www.flott.de) for our full terms and conditions

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## Notes





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