



A selection of our machine tools for professional training in the field of metalworking.
With assistance in the selection of machines for the areas of drilling technology,
grinding technology and clamping technology.



DRILLING
TECHNOLOGY



GRINDING
TECHNOLOGY



SAWING
TECHNOLOGY



CLAMPING
TECHNOLOGY

MACHINE TOOLS

FOR PROFESSIONAL TRAINING

Making training centers fit for the future

From the very beginning, FLOTT Werkzeugmaschinen from Remscheid has been supporting training centers throughout Europe in the selection of suitable machine tools for training in metalworking. We are pleased to be able to use our expertise and many years of experience to advise and equip training centers every year.

We place a special focus on the following topics:
Occupational safety and user-friendliness



SAFETY

Work with safety

The safety of our machine tools is always the focus of development. With over 150 years of experience in the production and design of machine tools, the highest safety requirements are our standard.

In addition, we are continuously innovating to further expand safety equipment and make it user-friendly and thus create an optimal working environment.



Photos: BZI Competence Campus Technology and Economy Bergisches Land





OPERATION

Simple and intuitive operation

Our machine tools are designed for simple and intuitive operation. For optimal handling, not only state-of-the-art operating elements have been developed, but also an ergonomic design that simplifies access to important operating elements and thus optimizes processes and contributes to occupational safety.

Here is an explanation of operating elements using the example of our TB 13 Plus bench drill.

Ergonomic hood

Robust and high-quality hood with ergonomically inclined front panel for better reading and input of process parameters.

Control panel with OLED display

Clear and understandable input menu with easy-to-read and bright OLED display. Large, central rotary/push button for intuitive operation as well as energy-saving mode and memory function.



Emergency stop push button

All our machine tools are equipped with a centrally located emergency stop push button.



LED lighting

Standard LED lighting for optimal workpiece illumination.



Drill protection

Drill protection with electrical interlock.

Drilling depth stop

Quickly adjustable and ergonomic drilling depth stop.

Large table work surface

Large and freely adjustable table work surface with fixtures for drill vices and locking systems.

Robust and stable stand

Very robust stand with workpiece locking devices.



3-year warranty for single-shift operation.
Warranty extension to 4 or 5 years possible.

USER-FRIENDLY & SAFE

TB 13_{Plus}





TB 10 Basic Plus

Bench drill TB 10 Basic Plus

The TB 10 Basic Plus belongs to the smallest model series of our bench drills and is designed for maximum bore diameters of 12 mm in structural steel and 40 mm in softwood.

TB 10 Basic Plus



SPEED
CONTROL



LED
LIGHTING

Standard equipment

- Robust, high-quality and inclined rotary hood
- LED lighting
- Quickly adjustable and ergonomic drilling depth stop with scale
- Variable speed control via central rotary / push button
- Emergency stop push button
- Thermal overload protection
- Undervoltage release drilling
- Drilling protection with electrical interlock
- Connection cable with Schuko plug (1.2 m)
- 3 years warranty for single-shift operation

Technical data, equipment options and matching drilling packages for TB 10 Basic Plus can be found on page 16.



DRILLING PERFORMANCE

Continuous drilling capacity 10 mm
Normal drilling capacity 12 mm

Bench drill TB 10 Basic Plus

The **TB 10 Basic Plus** bench drill from FLOTT Werkzeugmaschinen impresses with its robust design and precise drilling performance. With the variable speed control, it enables optimal adaptation to different materials and drilling diameters. In addition, the integrated LED lighting ensures efficient work, while the safety functions guarantee optimal protection.



DRILLING DEPTH STOP

Quickly adjustable and ergonomic drilling depth stop.



EMERGENCY STOP

Centrally placed emergency stop button.



DRILL PROTECTION

Maximum occupational safety thanks to plexiglas drill protection with electronic interlock.

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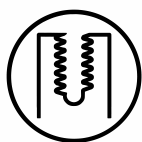


TB 10 Plus

Bench drill TB 10 Plus

In addition to a maintenance-free and infinitely variable AC motor, the **TB 10 Plus** also has a threading function and an optional spindle stop.

TB 10 Plus



THREADING
DEVICE



SPEED
CONTROL



SPINDLE
STOP



LED
LIGHTING

Standard equipment

- Threading device
- Control panel with OLED display
- Robust drill head hood with ergonomically inclined front
- LED lighting
- Quickly adjustable and ergonomic drilling depth stop with scale
- Variable speed control via central rotary / push button
- Emergency stop push button
- Thermal overload protection
- Spindle stop
- Drilling protection with electrical interlock
- Connection cable with Schuko plug
- 3 year warranty for single-shift operation

Technical data, equipment options and Matching drilling packages for TB 10 Basic Plus can be found on page 16.



DRILLING PERFORMANCE

Continuous drilling capacity 10 mm
Normal drilling capacity 12 mm

Bench drill TB 10 Plus

The **TB 10 Plus** bench drill is equipped with a threading device, LED lighting and a digital OLED display. The control panel can be used to set important parameters such as speed and target drilling depth. We offer you the highest level of occupational safety as standard with drilling protection with electrical interlock and an emergency stop push button that can be reached at any time. To be able to complete the drilling process safely, you can activate a spindle stop function .



CONTROL PANEL WITH OLED DISPLAY

Intuitive control panel with OLED display for optimal readability. The integrated OLED display clearly shows you the current settings and operating statuses. With the touch of a button, you can choose between drilling or tapping mode and then program it intuitively.



DRILL PROTECTION

Maximum occupational safety thanks to plexiglas drill protection with electrical interlock.



THREADING DEVICE

Fully adjustable threading device programmable via the control panel. Tapping capacity up to M6.

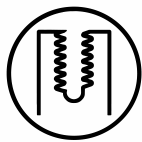


TB 13 Plus

Bench drill TB 13 Plus

With its maintenance-free AC motor in combination with the tapping option, it is the absolute all-rounder among our bench drills.

TB13_{Plus}



THREADING
DEVICE



SPEED
CONTROL



SPINDLE
STOP



LED
LIGHTING

Standard equipment

- Threading device
- Control panel with OLED display
- Robust drill head hood with ergonomically inclined front
- LED lighting
- Quickly adjustable and ergonomic drilling depth stop with scale
- Variable speed control via central rotary / push button
- Emergency stop push button
- Thermal overload protection
- Spindle stop
- Drilling protection with electrical interlock
- Connection cable with Schuko plug
- 3 year warranty for single-shift operation

Technical data, equipment options and suitable drilling packages for TB 13 Plus can be found on page 16.



DRILLING PERFORMANCE

Continuous drilling capacity 13 mm
Normal drilling capacity 15 mm

Bench drill TB 13 Plus

The **TB 13 Plus** is the absolute all-rounder among our bench drills. With maintenance-free AC motor and tapping option, this bench drill is also available as a column drill, i.e. as SB 13 Plus. We offer the highest level of occupational safety as standard with drill protection and an emergency stop push button. In order to be able to complete the drilling process safely, you can also activate a spindle stop function.



DRILLING PERFORMANCE

Continuous drilling capacity 13mm
Normal drilling capacity 15mm



THREADING PERFORMANCE

Threading capacity M10

STRONG PERFORMANCE AS STANDARD

The TB 13 Plus is characterized by a strong drilling performance. Continuous/normal drilling capacity (mm) 13/15 (in E335/ST60), 12 Nm. In addition, there is a threading capacity up to size M10.

TABLE HEIGHT ADJUSTMENT

With rack for precise work.

INTERMEDIATE TABLE

With a large working area of 300mm x 250mm.

ROBUST STAND

Fixed mounting or free-standing.

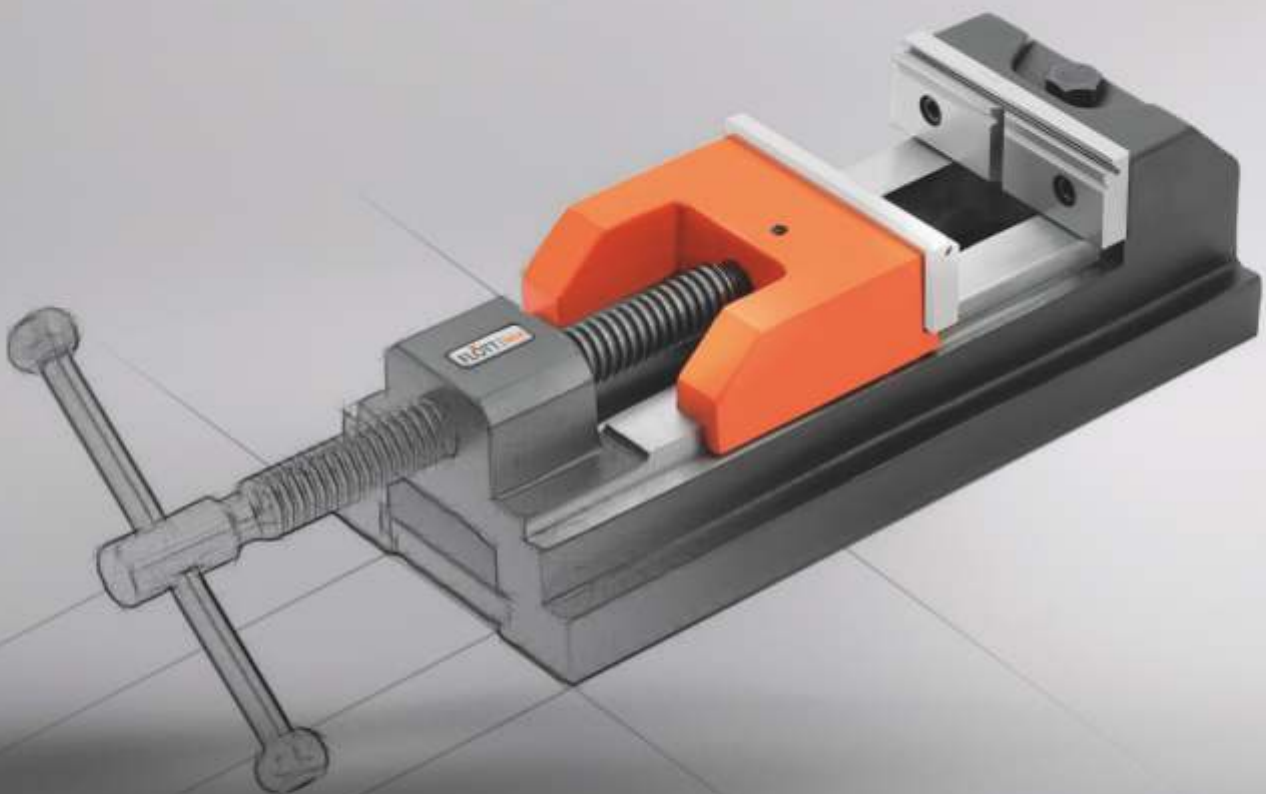


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DEVELOPMENT & INNOVATION



[felix]2.0

Machine Vice [felix] 2.0

Easy and safe drilling with [felix] 2.0 – thanks to the innovative drill vice from Felix Röwekämper. A milestone in the areas of safety and productivity.



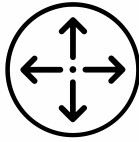
[felix]2.0



SAFETY



PRODUCTIVITY



FLEXIBILITY

Excellent safety and time savings

The [felix] 2.0 has already received several awards for its functionality and occupational safety. In addition to a very robust special cast body, precision-ground jaws and very precise flat web guides, it has a unique and patented clamping mechanism. This vise can be mounted on all drills easily and quickly.

The highlights:

Large clamping range

Prism jaws with heel as well as horizontal and vertical recesses for a wide range of workpieces

Patented quick clamping via external hexagon screw

Full occupational safety

Freely positionable workpiece

No turning and lifting of the workpieces

Extremely short set-up time (up to 95% time savings)

AWARDED

German Labor
Safety Award 2019



Machine vice [felix]2.0

The drill vice for freely adjustable clamping of the workpiece. Simple, fast, safe and better to use. In two movements, the vise is clamped on the workbench and secured in a precisely adjusted manner. **Awarded the Occupational Safety Award 2019.**



PATENTED QUICK-RELEASE SYSTEM

Patented quick clamping via external hexagon screw. The [felix]2.0 has a unique and patented clamping mechanism. This allows the vise to be secured to the machine extremely quickly and easily to prevent it from bouncing up, around and away.





TS175_{SD P}

Double grinding machine TS 175 SD P

Our TS 175 SD P is designed for the use of grinding wheels with diameters of 175 mm. The machine is optionally available with a wall bracket, machine stand or machine stand with extraction.

TS175 SD P

Double grinding machine TS 175 SD P

Designed for the use of grinding wheels with a diameter of 175 mm and equipped with a smooth-running, maintenance-free motor, the **TS 175 SD P** is an excellent double grinder for short operation. The machine is optionally available with a wall bracket, machine stand or machine stand with extraction. We offer the highest level of occupational safety as standard with side-closed protective hoods and spark deflectors that can be adjusted on both sides.

Standard equipment

- Smooth-running, maintenance-free motor
- Laterally closed protective covers
- Stable, adjustable workpiece supports
- High safety comfort thanks to adjustable spark deflectors
- Suitable for grinding, deburring and sharpening tools of all kinds, metal profiles, etc.
- Motor circuit breaker and undervoltage tripper
- Double-sided spark/eye protection
- Connection cable with CEE plug 16 A
- 1 grinding wheel on each side - coarse and fine
- 12 month warranty for single-shift operation

Specifications and equipment options
for the TS 175 SD P can be found on page 17.



GRINDING WHEEL

175 x 25 x 32 mm



WORK WITH SAFETY

The vibration-free motor guarantees safe sharpening or grinding. In addition, a high level of safety comfort is provided by adjustable spark deflectors, laterally closed protective hoods and stable workpiece supports.

SPARK DEFLECTORS

Spark deflectors that can be adjusted on both sides.

PROTECTIVE HOODS

Protective hoods closed on both sides.

WORKPIECE SUPPORTS

Stable and adjustable workpiece supports.



Suction, emergency stop and brake available in conjunction with machine stand **MA 400 D**.



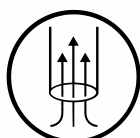


TS 200_{SD P}

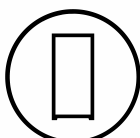
Double grinding machine TS 200 SD P

Our TS 200 SD P is our clear recommendation for your training institution. It is designed for the use of grinding wheels with diameters of 200 mm and is characterized by a maintenance-free and very smooth running three-phase motor.

TS200_{SD P}



SUCTION
UNIT



MACHINE
STAND



BREAK



EMERGENCY
STOP

Standard equipment

- Smooth-running and maintenance-free motor
- Laterally closed protective covers
- Stable, adjustable workpiece supports
- High safety comfort thanks to adjustable spark deflectors
- Suitable for grinding, deburring and sharpening tools of all kinds, metal profiles, etc.
- Motor circuit breaker and undervoltage tripper
- Double-sided spark/eye protection
- Connection cable with CEE plug 16 A
- 1 grinding wheel on each side - coarse and fine
- 12 month warranty for single-shift operation

Specifications and equipment options
for the TS 200 SD P can be found on page 17.



GRINDING WHEEL
200 x 32 x 32 mm

Double grinding machine TS 200 SD P

The stable and adjustable workpiece supports guarantee vibration-free and safe sharpening or grinding of a wide variety of workpieces and materials. Here is the variant with machine stand, Emergency stop push button, brake and integrated suction. We offer the highest level of occupational safety as standard through laterally closed protective hoods, spark protection that can be adjusted on both sides and connections for central dust extraction.



WORKPIECE SUPPORTS

The stable and adjustable workpiece supports guarantee vibration-free and safe sharpening or grinding of a wide variety of workpieces and materials.

SPARK PROTECTION

Spark deflectors that can be adjusted on both sides.

PROTECTIVE HOODS

Protective hoods closed on both sides.

WORKPIECE SUPPORTS

Stable and adjustable workpiece supports.



SUCTION
Connections for central dust extraction.



EMERGENCY STOP
Centrally placed emergency stop button.



EQUIPMENT OPTIONS

AND TECHNICAL DATA



DRILLING TECHNOLOGY



TB 10 Basic Plus



TB 10 Plus



TB 13 Plus

Technical Data

Continuous/normal drilling performance (mm) in E335/ ST60	10/12	10/12	13/15
Threading capacity max. *(gradient dependent)	--	M6 *	M10 *
Spindle holder	B16	B16	B16, optional MK II
Drilling depth (mm)	60	60	60
Projection (mm)	220	220	220
Column diameter (mm)	70	70	70
Speed- / Drilling depth indicator	digital / scale	digital / scale	digital /digital
Drilling depth stop	Stop ring	Stop ring	Stop ring
Feed rate (mm/rdr.)	by hand	by hand	by hand
Drill head- / Table height adjustment	by hand	by hand	by hand over rack
Usable Work surface WxL (mm)	300x250	300x250	300x250
Spindle speeds	250-3.000	60-6.000	40-4.000
Stepless (1/min)			
Mains voltage (V/Hz)	230/50-60	230/50-60	230/50-60
Drive (kW)	Alternating current-engine 0,45	Three-phase motor 0,54 Frequency-controlled	Three-phase motor 0,54 Frequency-controlled
Dimension (mm)	320x520x820	320x520x820	400 x520 x 850
Weight without VP (kg)	44	44	62
Order No.	217.400	212.505	B16 212.500 MK 2 212.503

Extras

Drilling depth fixed stop for optimal repeatability	Order No. 212.716	Order No. 212.716	Order No. 212.716
Table height adjustment via rack incl. table (instead of head height adjustment)	Order No. 217.410 (machine and intermediate table)	Order No. 290.521 Usable table surface (W x L): 300 x 250 mm	Also available as SB and TBZ

Accessories

Machine cabinet with door and drawer height: 840 mm	Order No. 250.208	Order No. 250.208	Order No. 250.208
Vise (felix) 80 2.0 Jaw width: 80 mm Wingspan: 0-120 mm	Order No. 281.140	Order No. 281.140	Order No. 281.140
Keyless Drill Chuck B16 Clamping range 1-13 mm Concentricity: 0.17 mm	Order No. 285.133	Order No. 285.133	Order No. 285.133
Precision keyless chuck for clockwise/counterclockwise Rotation 8,000 1/min. Clamping range 1-13 mm, Mounting B16 Concentricity: 0.06	Order No. 285.064	Order No. 285.064	Order No. 285.064
Tap holder M4-M12 DIN 371 Span: 1-10 mm Mount: B16, Total length: 80 mm		Order No. 285.109	Order No. 285.109
Cone mandrel DIN 238 MK2/B16			Order No. 285.320

Technical advice

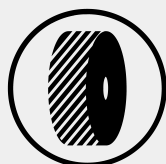


Our employees and trained sales partners are happy to be your contact persons at any time if you have any questions or queries.

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VAMATEC

GRINDING- AND CLAMPING TECHNOLOGY



GRINDING TECHNOLOGY

Technical data

	TS 200 SD P	TS 175 SD P
Grinding wheel dimension (mm)	200 x 32 x 32	175 x 25 x 32
Machine without VP (mm) Machine	270 x 470 x 1.050	230 x 440 x 210
Machine with VP (mm)	600 x 800 x 1.350	260 x 450 x 250
Speed (1/min)	2.550	2.740
Weight (kg)	60 incl. stand	15
Motor three-phase 400 V (kW)	1,0, S2-30 min (short-term operation)	0,7, S2-30 min (short-term operation)
Suction nozzle Ø (mm)	42	42
Grinding machine with brake and machine stand	Order No. 317.774	Order No. 317.798
Grinding machine with brake and machine stand with suction unit	Order No. 317.777	Order No. 317.797

Extras

Different colour shade (one-component lacquer RAL colour)	Order No. 309.010	Order No. 309.010
Footswitch emergency stop (only in combination with it brake, machine stand. Or extraction can be ordered)	Order No. 317.859	Order No. 317.859

Accessories

Stand with water immersion vessel, dimensions: 355 x 300 mm, weight: 12 kg		Order No. 350.435
Wall bracket		Order No. 315.035
Loose replacement grinding wheel normal corundum coarse	Order No. 317.532	Order No. 317.526
Loose replacement grinding wheel normal corundum fine	Order No. 317.533	Order No. 317.527
Dressing stone	Order No. 350.101	Order No. 350.101
Dust extraction MA 400 D (TS 175 SD P and TS 175 Pro only) without brake, emergency stop button		Order No. 330.295

Technical data

	Flott [felix] 80 2.0	Flott [felix] 100 2.0	Flott [felix] 120 2.0	Flott [felix] 150 2.0
Jaw width (mm)	80	100	120	150
Wingspan (mm)	0 - 120	0 - 135	0 - 168	0 - 200
Jaw height (mm)	28	32	40	40
Travel (mm)	150	165	200	220
Weight (kg)	11,6	12,8	20,3	32,4
Dimensions WxLxH (mm)	95 x 280 x 78	122 x 343 x 85	140 x 395 x 105	170 x 451 x 103
Order No.	281.140	281.141	281.142	281.143



TS 200 SD P



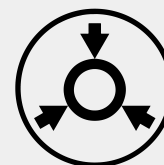
TS 175 SD P

Technical consultation



In addition to personal advice, we also offer you online consultations and professional training.

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CLAMPING TECHNOLOGY



ENGINEERING EXCELLENCE WITH TRADITION!

Because uncompromising standards are our promise. Made in Remscheid.

In 1854, a small family-owned company was founded in Remscheid, developing and producing high-quality hand braces and breast drills for the German market. Today, thanks to decades of experience and outstanding product quality, the company is successfully positioned on the international stage—while always staying close to its customers. FLOTT is not only one of the most traditional, but also one of the leading manufacturers of state-of-the-art, high-quality drilling, grinding, and sawing machines.

Browse through our product catalog to discover our full range of machines.



**DRILLING
TECHNOLOGY**



**GRINDING
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**SAWING
TECHNOLOGY**



**CLAMPING
TECHNOLOGY**





FLÖTT AKADEMIE



The FLOTT AKADEMIE with Felix Röwekämper. He will show you how it's done.

Learn the basics of drilling technology.

Here you will find more videos on drilling, sawing and grinding.

see. understand. learn.



FLÖTT

Werkzeugmaschinen

Machine tools for professional training

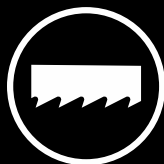
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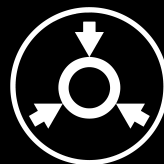
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THE PLACE TO BE FOR THE METAL INDUSTRY

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