



***New technology with direct drive: Quiet and vibration-free.  
Made in Germany.***



**1** During milling operation the spindle sleeve may be clamped with a T-screw.

## ***Milling machine FF 500/BL***

**With variable speed pre-selection from 200 - 4,000rpm and high precision (accuracy 0.05mm). With digital speed indication.**

The sophisticated control via rotor position and speed sensors guarantees high torque for use of large milling cutters in the lower speed range. Solid column with dovetail guides. Milling head can be rotated to the left and right by 90° (with graduation). The clampable spindle sleeve is prepared for mounting of the fine feed adapter NO 24 254. Tool holder using multiple range collets type ER 20: One each of 6 - 8 - 10 and 12mm are included. Height adjustment of milling head via hand wheel. Solid plane-milled steel compound table with 3 continuous MICROMOT standard T-slots (12 x 6 x 5mm). All 3 hand wheels with graduated scale ring (1 rev. = 2mm).

**Technical data:**

230V. 400W. 50/60Hz. Spindle speeds 200 - 4,000rpm. Throat 125mm. Sleeve stroke 30mm. Column 120 x 100 x 430mm. Table 400 x 125mm. Transverse range vertical (Z-axis) 220mm, transverse (X-axis) 310mm, depth (Y-axis) 100mm. Dimensions: H = 750mm, W = 550mm, D = 550mm. Weight approx. 47kg.

**NO 24 350**



See us on YouTube!

**Note:**

Clamping jaws, milling machine and work piece are not included in the scope of delivery.

The Milling machine FF 500/BL is also available as "CNC-ready" version (NO 24 364): With recirculating ball spindles and powerful step motors on all 3 axes.

## Digital position indicator DA 3.1



**With large multi-function display, 3 glass rulers (with one sensor each) and fastening elements.**

Reasonable for repetitive machining: A second start point in addition to the zero point can be set anywhere. Most important computing functions:

- Calculation and indication of a centre position
- Basic arithmetic operations
- Positioning of drill holes on any straight lines and circular paths
- Milling of crooked planes
- Milling of radii in different planes

### Technical data:

Digital display 265 x 182 x 48mm for 110 - 230V. 50/60Hz. Glass rulers for travel distances: vertical (z-axis) 220mm, transverse (x-axis) 300mm, depth (y-axis) 100mm. With a 200cm metal-sheathed plug connecting line to the display.

See photo of mounting kit for full contents (click to enlarge).

**NO 24 323**



Digital position indicator DA 3.1 Mounting kit

## More accessories for the FF 500/BL

### MICROMOT adapter

For use with high-speed MICROMOT rotary tools in combination with the Milling machine FF 500/BL.

The standard milling head is exchanged for the adapter in just a few steps. Our 20mm collar enables to fasten all appliances of the MICROMOT 60 series, the MICROMOT precision drill/grinder FBS 240/E and the MICROMOT professional drill/grinder IBS/E. Especially for applications that require high speeds for small milling cutters (e.g. milling electronic boards), but also for micro drilling. Complete with fastening screws.

The professional drill/grinder IBS/E depicted here is not included.

**NO 24 346**



### Splash guard and chip collecting tray for PROXXON milling machines

Made of 1.5mm thick sheet steel, powder-coated. Secure stand due to drill holes for fastening to a work surface (the use of steel sleeves keeps the tray tightly sealed). L 700mm, W 420mm, H 40mm.

Suitable for FF 230, FF 400, FF 500, FF 500/CNC, FF 500 - ready for CNC, FF 500/BL, FF 500/BL-CNC and FF 500/BL-CNC-ready as well as for mill/drill unit BFB 2000 and compound table KT 150.

Note: The milling machine depicted here is not included.

**NO 24 322**



### Fine feed for accurate adjustments

Quick and easy to install. The clutch system enables feed via either the drill handle or the handwheel. The handwheel has 0.025 graduations and may be set to zero. 1 division = 0.05mm.

**NO 24 254**



### Automatic universal axial feed AV/E

For the X axis of the Milling machine FF 500/BL. Will also fit the predecessor compound table KT 400 and the Milling machine FF 400. Simple assembly: The unit is mounted to the compound table with two bolts and automatically drives the spindle of the X-axis. For manual operation the handwheel needs to be mounted on the spindle of the drive-axis. Balanced special DC motor with electronic speed control (full-wave electronics). Manual drive with freewheeling function and two speed levels: Stage 1 for common machining (20 - 75mm/min). Stage 2: for machining at higher speed or quick adjustment of the X axis (90 - 260mm/min). Freewheeling function for manual operation by handwheel. 230V. 100W. 50/60Hz. Spindle speeds 10 - 130rpm. Dimensions: H 120, W 170, D 210mm. Weight 3.5kg. Insulated to Class 2.

**NO 24 326**



**Gear tooth chuck (10mm). With adapter.**

Industrial quality, however not as accurate as the collets. With 10mm adapter which fits into the 10mm collet. Includes the chuck key.

**NO 24 110**



**Universal dividing table UT 400**

For accurate machining of circular work pieces. The table may be fixed horizontally or vertically. Worm drive for division through 360° allowing for almost all possible divisions below 100. Supplied with 4 index plates: 27/42, 33/40, 34/39 and 36/38. Used to manufacture sprockets, gearboxes and drives, ratchets, cams, etc. (the faceplate is not included). The taper is identical to the main spindle of the lathe. With matching nuts and screws for fixation in MICROMOT standard T-slots (12 x 6 x 5mm). Supplied in a wooden box with sliding lid.

**NO 24 421**



**Multiple range standard type ER 20 collets (not depicted)**

For the Milling machine FF 500/BL. But also for older versions of the Mill/drill head PF 400 (from production no. 401-10910) and of the Milling machine FF 500 (from production no. 5648). High concentricity and repeat accuracy. May be reduced to 0.5mm below their nominal diameter (intermediate sizes not required). D = 21mm, L = 31.5mm. One each of 2.5 - 3 - 3.5 - 4 and 5mm are included. Supplied in a wooden box with sliding lid.

**NO 24 253**

**Step clamp set of steel.**

**2 step blocks and clamps each.**

With matching slot nuts and fastening screws for T-slots as per MICROMOT standard (12 x 6 x 5mm). In wooden box with sliding lid.

**NO 24 256** For work pieces up to 20mm thickness

**NO 24 257** For work pieces up to 35mm thickness



**Precision vice PM 60**

Perfectly rectangular. To be placed sideways and on the end face. With matching nuts and screws for fixation in MICROMOT standard T-slots (12 x 6 x 5mm). Supplied in wooden box with sliding lid. Jaw width 60mm. Clamping capacity 42mm. Total length 100mm.

**NO 24 255**



**Precision V-blocks**

Used to clamp various work pieces. Made from hardened steel, precision ground in pairs. Four different depths of prism incisions V, all at 90°. Size 50 x 30 x 30mm. The solid clamp and knurled knob ensure superb securing of the workpiece. Supplied in a wooden box with sliding lid.

**NO 24 262** 2 pieces



**Three piece centre drill set**

Made of HSS steel. DIN 333 (type A) 60°. Complete set centre drills with sizes of 2 - 2.5 and 3.15mm.

**NO 24 630****Milling cutter set (2 - 5mm)**

All cutters with 6mm shaft. Cutters of Ø 2 - 3 - 4 and 5mm. Double fluted according to DIN 327. Made of HSS. Comes in wooden box with sliding lid.

**NO 24 610****Milling cutter set (6 - 10mm)**

4 cutters Ø 6 - 7 - 8 and 10mm. Four flute design according to DIN 844. Shafts 6 and 10mm respectively. Made of HSS. Comes in wooden box with sliding lid.

**NO 24 620****Edge finder set**

Used for fast and accurate location of starting point of work pieces with respect to the machine spindle on milling machines. Size 6 x 6 x 50mm and 6 x 5 x 75mm. Comes in wooden box with sliding lid.

**NO 24 434****14-piece parallel supports set**

For adjusting work on drilling machines, lathes and milling machines. Made of high-alloy, hardened steel (58 - 62 HRC). Parallel accuracy 0.02mm. 2 each of 8 x 10, 15, 20, 25, 30, 35 and 40mm. Length 100mm. Packed in a wooden box.

**NO 24 266****Universal dividing attachment UT 250**

For fixation on compound table KT 150 and milling machines FF 230 and FF 500/BL. Worm drive for divisions through 360°. Feed adjustment by handwheel with graduated, zero-adjustable dial (1 revolution = 10°). Unit may be fixed horizontally or vertically. For compound tables with distances between T-slots of 45 - 60mm. The flange of the dividing attachment is the same size as that of the main spindle of the PD 250/E lathe, thus 3 jaw chuck (NO 24 034) and 4 jaw chuck (NO 24 036) may be mounted. Incl. faceplate Ø100mm and step clamp set of steel: Two each step blocks and clamps. With matching slot nuts, threaded rods and nuts. Packed in a wooden box.

**NO 24 046**