

## OPTImill®\* MF 2-B / MF 4-B

### Multifunctional drilling/milling machines with mechanised continuously controllable drive for professional use

#### Facts that impress in terms of quality, performance and price

- ▶ Solid design using premium cast meehanite
- ▶ Excellent concentricity thanks to tapered roller bearings, better than 0.01 mm measured in the spindle sleeve
- ▶ Continuously variable speed control
- ▶ Right-handed/left-handed rotation for thread tapping
- ▶ X and Y axis with adjustable 55 ° dovetail guide
- ▶ Y axis with flat guide
- ▶ Tilting drilling/milling head ± 45°
- ▶ Coolant system
- ▶ Clockwise/Anti-clockwise run
- ▶ Automatic spindle sleeve feed, 3 stages, 0.04 - 0.15 mm/rev
- ▶ Motorised feed on X, Y and Z axes
- ▶ Precision micro feed
- ▶ Milling spindle with precision bearing
- ▶ Mechanical spindle brake
- ▶ Drilling depth scale and stop
- ▶ Cross table with T-slots and coolant channel
- ▶ Central lubrication
- ▶ Height-adjustable protective screen with microswitch for best possible user protection against chips and parts being flung out
- ▶ Solid and generously dimensioned cross table with precision surface finish and T-slots

#### MF 4-B:

- ▶ Cross table load bearing capacity 300 kg
- ▶ Long travel: X / Y / Z axis
- ▶ 740 mm / 330 mm / 320 mm

#### OPTi Control panel

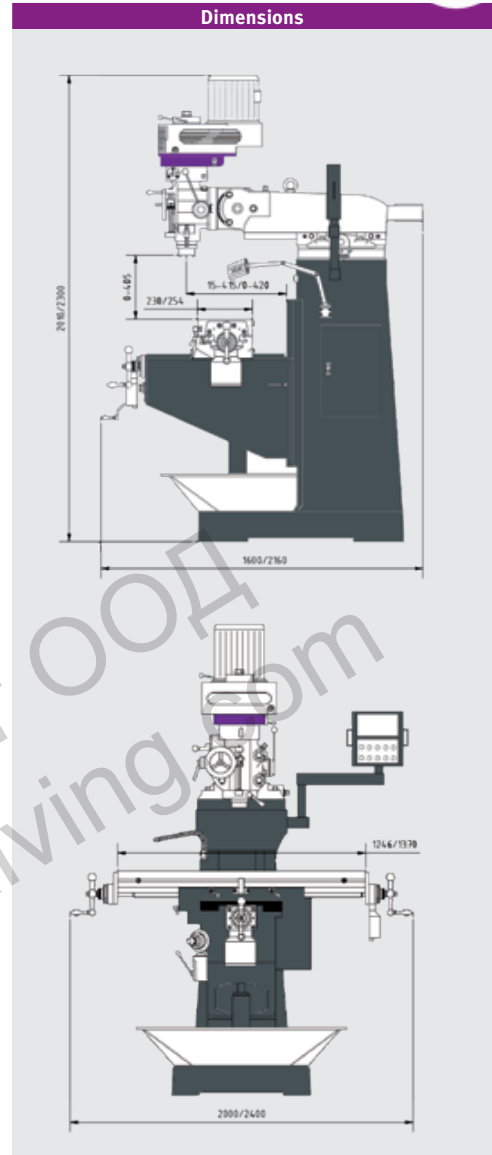
- > Integrated switch panel
- > Integrated digital position display **DPA 2000** with speed display
- > Rotates





## Technical specifications, accessories and dimensions

| Model   | MF 2-B  | MF 4-B                              |
|---|---|-------------------------------------|
| Article no.                                       | 3348330   | 3348340                             |
| <b>Technical specifications</b>                   |   |                                     |
| Electrical connection                             | 400 V / 3 Ph ~50 Hz                             |                                     |
| Total rated value                                 | 3 kW  |                                     |
| Drive motor                                       | 2.2 kW  |                                     |
| Coolant pump motor                                | 90 W  |                                     |
| <b>Drilling/milling output</b>                    |   |                                     |
| Drilling performance in steel (S235JR)            | Ø 24 mm   |                                     |
| Continuous drilling performance in steel (S235JR) | Ø 20 mm   |                                     |
| Max. sensor head size                             | Ø 76 mm   |                                     |
| Max. shaft milling cutter size                    | Ø 25 mm   |                                     |
| <b>Spindle</b>                                    |   |                                     |
| Spindle sleeve diameter                           | 86 mm   |                                     |
| Spindle sleeve stroke                             | 127 mm  |                                     |
| Spindle seat                                      | ISO 40 DIN 2080                                 |                                     |
| Throat  | 15 - 415 mm                                     | 0 - 420 mm                          |
| <b>Drilling/milling head</b>                      |   |                                     |
| Spindle speeds                                    | 60 - 4 200 rpm                                  |                                     |
| Speeds  | 2 speed, mechanically continuously controllable |                                     |
| Milling cutter head travel                        | 312 mm  | 470 mm                              |
| Swivel range spindle head horizontal              | ± 90°   |                                     |
| Swivel range spindle head vertical                | ± 45°   |                                     |
| Automatic spindle sleeve feed                     | 3 speeds: 0.038 / 0.076 / 0.152 mm/rev          |                                     |
| <b>Cross table</b>                                |   |                                     |
| Length x width                                    | 230 x 1 246 mm                                  | 254 x 1 370 mm                      |
| Cross table max. load bearing capacity            | 200 kg  | 300 kg                              |
| T-slot size / spacing / count                     | 16 mm / 63 mm / 3                               |                                     |
| Clearance spindle to cross table                  | 405 mm  |                                     |
| <b>Travel</b>                                     |   |                                     |
| X axis  | manual 690 mm /<br>automatic 610 mm             | manual 820 mm /<br>automatic 740 mm |
| Y axis  | manual 310 mm /<br>automatic 230 mm             | manual 410 mm /<br>automatic 330 mm |
| Z axis  | manual 390 mm /<br>automatic 310 mm             | manual 400 mm /<br>automatic 320 mm |
| <b>Dimensions</b>                                 |   |                                     |
| Length x width x height                           | 2 000 x 1 600 x 2 010 mm                        | 2 400 x 2 160 x 2 300 mm            |
| Weight  | 1 000 kg  | 1 260 kg                            |



### Scope of supply

> Operating tool

| Accessories  | Article no. |
|--|-------------|
| Parallel shim set, 20-part                                 | 3354001     |
| Horizontal-vertical rotary indexing table RT 150           | 3356150     |
| Horizontal-vertical rotary indexing table RT 200           | 3356200     |
| Horizontal-vertical rotary indexing table RTE 165          | 3356365     |
| Horizontal-vertical rotary indexing table RTU 165          | 3354165     |
| Assortment of clamping tools size 14, 58-parts             | 3352018     |
| End mill set HSS TiN-coated 12-part                        | 3352250     |
| End mill set HSS TiN-coated 20-part                        | 3352255     |
| Precision machine shoe SEU1 (4 pcs. required) see page 132 | 3352985     |
| Levelling platen SE 85 (4 pcs. required)                   | 3352982     |
| Arbor for drill chuck ISO 40/B16                           | 3352070     |
| Collet chuck set 18-part ISO40                             | 3352056     |
| Copying and facing blade head ISO 40 DIN 2080              | 3350216     |
| Precision bore head set ISO 40                             | 3352128     |
| > More accessories for milling machines from page 126      |             |

| Machine vices                           | Article no. |
|---|-------------|
| ZAS 50                                  | 3354170     |
| HMS 125                                 | 3355127     |
| FMS 125                                 | 3354125     |
| FMS 150                                 | 3354150     |
| FMSN 125                                | 3354120     |
| FMSN 150                                | 3354130     |
| VMQ 125                                 | 3354182     |
| VMQ 150                                 | 3354183     |
| MV3-75                                  | 3354175     |
| MV3-125                                 | 3354178     |
| DAS 100                                 | 3355500     |
| HCV 105                                 | 3536210     |
| > Information about vices from page 120 |             |