

## Universal milling machine for horizontal and vertical milling work with digital 3-axis position display DPA 2000

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

- ▶ Heavy, solid design using premium vibration-absorbing grey cast material
- ▶ Halogen machine lamp with tight beam
- ▶ Spindle sleeve feed via spindle sleeve lever or manual fine feed hand wheel
- ▶ Counterholder for horizontal milling attached to rear for easy access
- ▶ Automatic end position cut-off on X axis
- ▶ X axis can be moved optionally with the hand wheel or the table feed unit
- ▶ Spindle head carrier pivots through 90° left and right
- ▶ Gears in oil bath with polished, hardened gear wheels
- ▶ Right-handed/left-handed rotation
- ▶ Coolant system
- ▶ Precision Cross table, generously dimensioned with precision surface finish
- ▶ Cross table turns through 45° on both sides



### Horizontal milling position

- › For work in horizontal milling position with arrester and collet for disc milling cutter



### Control panel

- › Pivots to left and right side of machine



### Cross table housing

- › Fold-up type
- › Removable
- › Swivelling



Fig.: OPTImill MT 50

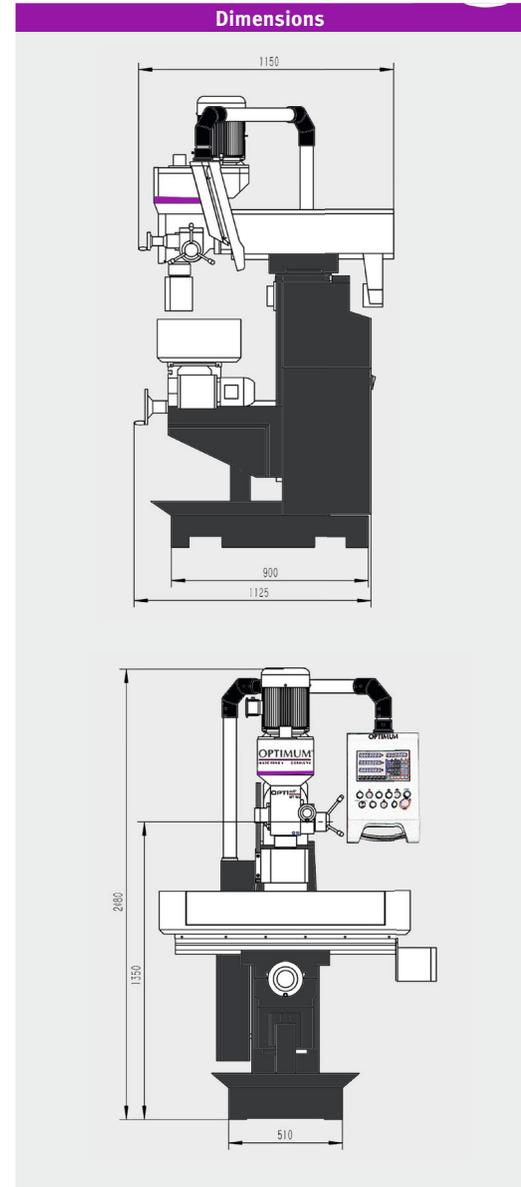


## Technical specifications, accessories and dimensions

Model	MT 50
Article no.	3336005
<b>Technical data</b>	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	4.5 kW
Vertical drive motor	1.1 / 2.2 kW
Horizontal drive motor	1.5 kW
Coolant pump motor	40 W
<b>Drilling/milling output</b>	
Drilling performance in steel (S235JR)	Ø 30 mm
Continuous drilling performance in steel (S235JR)	Ø 25 mm
Max. sensor head size	Ø 100 mm
Max. shaft milling cutter size	Ø 25 mm
<b>Spindle</b>	
Spindle seat	ISO 40 DIN 2080
<b>Vertical</b>	
Spindle sleeve stroke	120 mm
Spindle speeds	115 - 1 750 rpm
Speeds	8 speeds
Throat	240 - 650 mm
<b>Horizontal</b>	
Spindle speeds	60 - 1 350 rpm
Speeds	9 speeds
Throat	0 - 185 mm
<b>Cross table</b>	
Length x width	1 000 x 240 mm
Cross table max. load bearing capacity	160 kg
T-slot size / quantity	14 mm / 4
Rotating Cross table	± 45°
<b>Travel</b>	
X axis	manual 580 mm / automatic 500 mm
Table feed X axis (8 speeds)	24 / 720 mm/min.
Y axis manual	200 mm
Z axis manual	340 mm
<b>Dimensions</b>	
Length x width x height	2 270 x 1 500 x 2 080 mm
Weight	820 kg

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 12, 58 parts	3352017
End mill set HSS TiN-coated 12-part	3352250
End mill set HSS TiN-coated 20-part	3352255
Workpiece support WPS-4	3354264
Precision machine shoe SEU1 (4 pcs. required) see page 128	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
Hold-down unit set of 2	3352031
› More accessories for milling machines from page 122	

\* Important information on transport surcharge and lump sum see page 251



Scope of supply
› Key type drill chuck 1 - 16 mm / B18
› Arbor for drill chuck ISO40 / B18
› Cutter spindle horizontal milling Ø 22 / Ø 27 mm
› Reduction sleeve ISO 40-MT 3 / ISO 40-MT 2
› Tie rod vertical and horizontal
› T-slot nuts
› Push-out tool
› Operating tool

Machine vices	Article no.
FMS 125	3354125
FMSN 125	3354120
VMQ 100	3354181
MV3-75	3354175
MV3-125	3354178
DAS 100	3355500
ZAS 50	3354170
› Information about vices from page 116	

## Universal drilling/milling machine with automatic table feed for X and Y axis

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

- ▶ Vibration absorbing cast design
- ▶ Operation-friendly control panel
- ▶ LED lamp
- ▶ Milling head pivots through 45° to left and right
- ▶ Automatic feed of X and Y axis with speed adjustment
- ▶ Automatic and adjustable limit switch cut-off of the X axis
- ▶ Mechanical spindle sleeve feed for drilling via spindle sleeve lever
- ▶ Gears in oil bath with polished, hardened gear wheels
- ▶ Right-handed/left-handed rotation
- ▶ Coupling for switching from manual coarse feed to manual fine feed
- ▶ Large Y axis spindle head holder throat of 250 - 650 mm
- ▶ Precision Cross table, generously dimensioned with precision surface finish with adjustable V-ledges
- ▶ 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 dovetails, precision surface finish including T-slots and adjustable cleats, tilting ± 45
- ▶ Coolant system

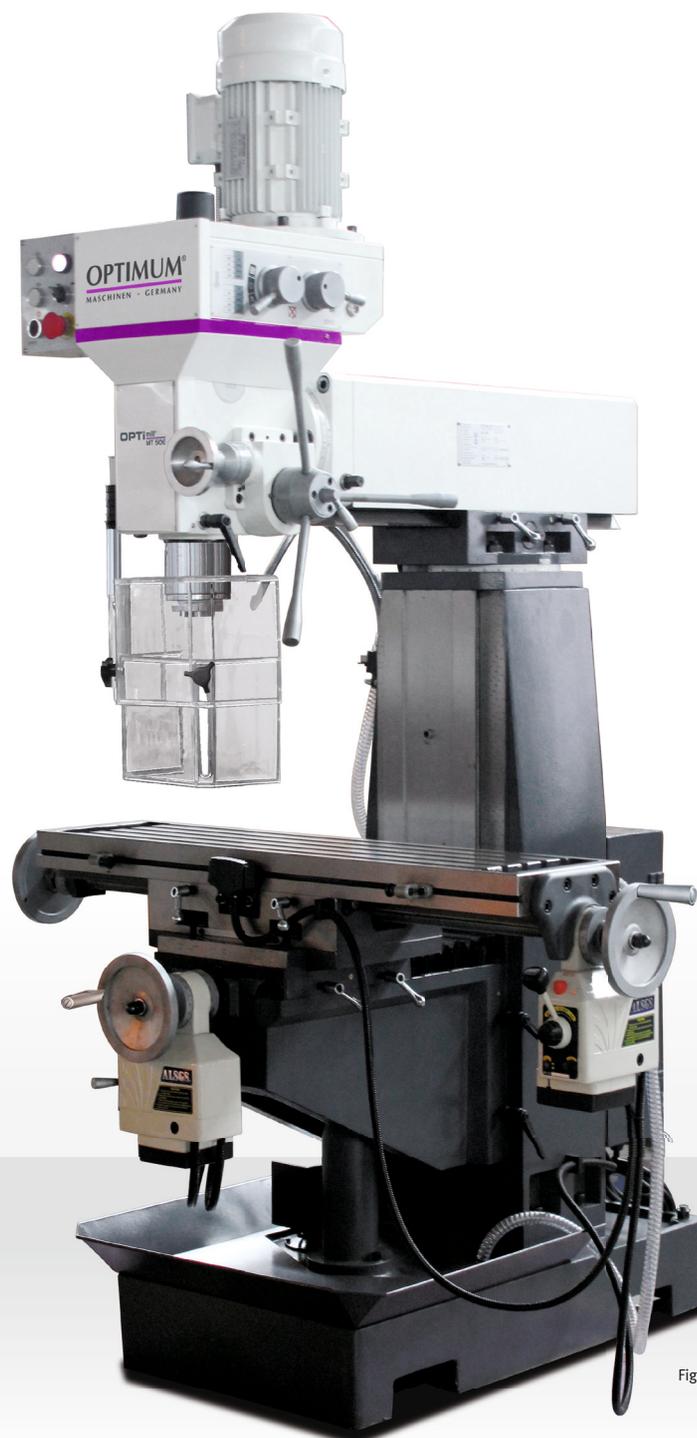


Fig.: MT 50E

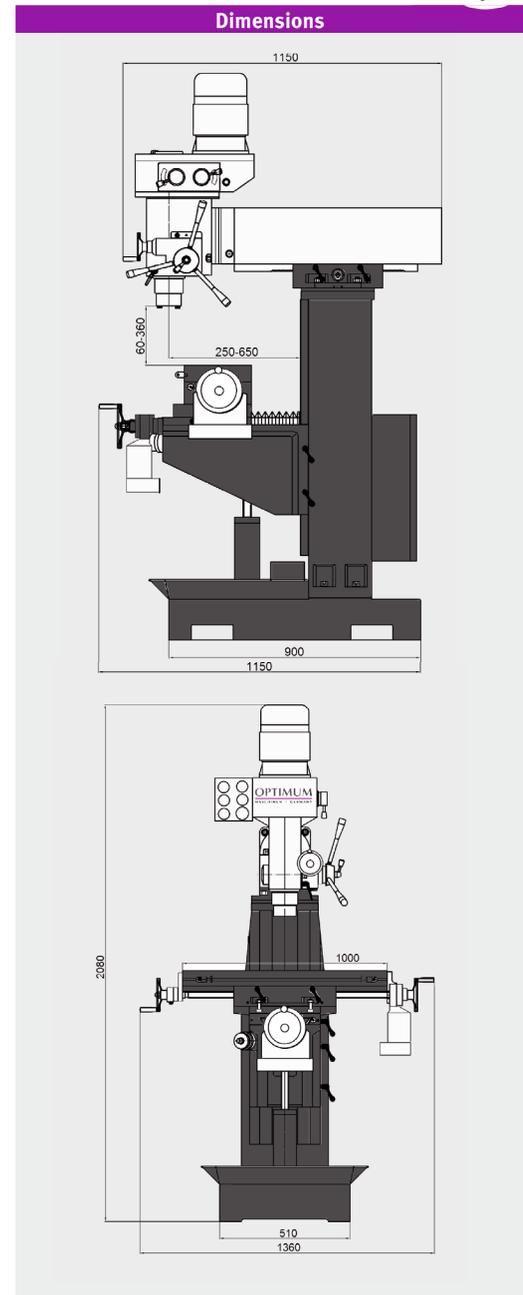
## Technical specifications, accessories and dimensions

Model	MT 50E
Article no.	3336010
<b>Technical data</b>	
Electrical connection	400 V / 3 Ph ~ 50 Hz
Drive motor	0.85 / 1.5 kW
Coolant pump motor	40 W
<b>Drilling performance</b>	
Drilling performance in steel (S235JR)	Ø 30 mm
Continuous drilling performance in steel (S235JR)	Ø 25 mm
Max. sensor head size	Ø 63 mm
Max. shaft milling cutter size	Ø 25 mm
<b>Spindle</b>	
Spindle seat	SK40 DIN 2080
Spindle sleeve stroke	120 mm
Draw-in rod	M16
Distance spindle to cross table	60 - 360 mm
<b>Drilling/milling head</b>	
Spindle speeds	115 - 1 750 rpm
Gears / motor speeds	4-speed / 2-speed
Milling head tilt	± 45°
Throat	250 - 650 mm
<b>Cross table</b>	
Length x width	1 000 x 240 mm
Cross table max. load bearing capacity	150 kg
T-slot size / quantity	14 mm / 4
Swivel range	± 45°
<b>Travel</b>	
X axis	manual 580 mm / automatic 500 mm
Y axis	manual 230 mm / automatic 150 mm
Z axis manual	400 mm
<b>Dimensions</b>	
Length x width x height	1 360 x 1 150 x 2 080 mm
Weight	760 kg

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 12, 58 parts	3352017
End mill set HSS TiN-coated 12-part	3352250
End mill set HSS TiN-coated 20-part	3352255
Workpiece support WPS-4	3354264
Precision machine shoe SEU1 (4 pcs. required) see page 128	3352985
Levelling platen SE 85 (4 pcs. required)	3352982
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Collet chuck set 18-part ISO40	3352056
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Precision bore head set ISO 40	3352128
Hold-down unit set of 2	3352031

> **More accessories for milling machines** from page 122

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### Scope of supply

- > Key type drill chuck 3 - 16 mm / B18
- > Arbor for drill chuck ISO40 / B18
- > T-slot nuts
- > Push-out tool
- > Reduction sleeve ISO40- MT 3/MT 3-MT 2
- > Operating tool

Machine vices	Article no.
FMS 125	3354125
FMSN 125	3354120
VMQ 100	3354181
MV3-75	3354175
DAS 100	3355500
ZAS 50	3354170

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Preface

Drilling

Milling

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