

Kunzmann WF 410 MA/M



KUNZMANN[®]
FRÄSMASCHINEN

The KUNZMANN WF 410 MA/M is the latest conventional milling machine on the market, well suited for workshops in production and vocational training centers.

Characterized by high quality, performance, the highest levels of precision, and simple handling procedures.

Major characteristics:

- Stable multi-ripped cast iron construction with horizontal-/vertical spindle and a manual quill
- Hardened and ground flat guideways in all axes for highest rigidity
- Backlash-free ballscrews for up- and down milling
- Automatic axis clamping for operational safety
- Stepless feed rate and spindle speed rate
- High-torque main spindle drive with a gear box (automatically changed)
- Hydraulic tool clamping
- Mechanical hand wheels in all axes
- Coolant fluid tank free-standing, capacity 66 liters
- Overall ergonomic and user-friendly machine design
- WF 410 MA - with 3 axis-active digital readout Heidenhain
- WF 410 M - with positioning control Heidenhain TNC 128 including processing cycles and 3-axis-digital readout

Control:

The standard version of the WF 410 MA is fitted with a Heidenhain 3-axis-active digital readout.

A positioning control system Heidenhain TNC 128 is already included in the WF 410 M.

HEIDENHAIN DIGITAL READOUT

3-axis DRO. Paraxial axes movement of minimal position, jog increments

Operation modes:

- Manual mode
- Positioning with MDI
- Jog increment positioning

HEIDENHAIN TNC 128 POSITIONING CONTROL

Combination of a DRO and a control system for the efficient machining of individual parts and small series.

Operation modes:

- Manual operation
- Positioning with MDI
- Program run (block by block / in full sequence*)
- Programming

Simple, dialogue-guided data input and simulation with following cycles:

- different drilling cycles
- Tapping with compensation chuck
- Circles hole patterns

- Linear hole patterns
- Rectangular pocket milling further:
- Tool table and datum points
- Cutting data calculator
- On-Screen operating instructions
- Data interface V24 / RS-232-C, Fast-Ethernet, USB

Display:

- 12,1"-TFT-Flatscreen
 - Topview
 - Display in 3 layers
 - 3D-Display
 - Detail magnification

* Program run in a full sequence is only available in combination with a splash-guard cabin (reason: CE-rules)

WF 410 MA *_ Technical Data*

TECHNICAL DATA		WF 410 MA	STANDARD EQUIPMENT:
Working range	longitudinal X-axis cross Y-axis vertical Z-axis	410 mm 350 mm 450 mm	<ul style="list-style-type: none"> ▶ Vertical milling head with extending quill ▶ Horizontal spindle ▶ Stable cast iron column with flat guideways in all axes (hardened) ▶ Ball screws ▶ Automatic axis clamping ▶ Hydraulic tool clamping ▶ Automatically shifted gear stage ▶ Anti-collision coupling in Z-axis ▶ Distance-coded linear measuring systems ▶ Mechanical hand wheels ▶ Automatic central lubrication system ▶ Chip tray ▶ Coolant fluid tank, free-standing, 66 litres ▶ Machine light ▶ Leveling elements ▶ 3 axis digital readout Heidenhain
Main spindle drive	A.C. motor	10,0 kW	
Spindle speed range	horizontal and vertical spindle infinitely variable 1 mechanical gear stage	1 – 4500 rpm	
Feed drives		AC single drives	
Feed rate	infinitely variable	0 – 2000 mm/min	
Rapid traverse	X- and Y-axis Z-axis	5000 mm/min 4000 mm/min	
Swivel range vertical milling head		+/- 90°	
Extending quill, vertical		stroke 70 mm	
Tool taper		SK 40 DIN 69871 / 2080 / 7388	
Linear measuring systems	direct, distance-coded	resolution 0,001 mm	
Machine accuracy		0,005 mm	
Operating voltage		400 Volt, 50 Hz	
Power consumption		approx. 12 kVA	
Weight		approx. 1.700 kg	
			<p>OPTIONS:</p> <ul style="list-style-type: none"> ▶ Angular table: WF 410 MA: 650 x 375 mm WF 610 MA: 800 x 425 mm ▶ Universal table 650 x 395 mm (rotating angle digital indicated) ▶ Star handle for quill ▶ Digital readout for quill stroke ▶ Plexiglass splash protection ▶ Minimum-quantity lubrication system ▶ Arbor holder ▶ Dividing unit

