

## Universal Milling Machine KUNZMANN WF 650

Working range		
X-axis (longitudinal)	mm	650
Y-axis (cross)	mm	500
Z-axis (vertical)	mm	450
Main spindle drive	kW (60% ED)	13,0
Spindle speed range	U/min <sup>-1</sup>	6.500 (12.000)
Tool taper		ISO 40
Feed rate	m/min	25
Rapid traverse	m/min	25
Contouring control		iTNC 530 840 D ShopMill
Weight	kg	min. 5.200 kg
Angular table, rigid		
Clamping surface	mm	1000 x 600
T-slots		8 x 14 H 7
Loading ability	kg	max. 450
Tool changer		
Number of tool positions		20
Tool change time	sec	approx. 6
Chip-to-chip time	sec	approx. 10

A cutting-edge, all-round high performance milling machine for modern production of precision single parts as well as variable series manufacturing. An extensive selection of accessories makes it easy to adapt the WF 650 to individual customer needs.



**Universal Milling Machine  
KUNZMANN WF 650**

Major characteristics of KUNZMANN are:

- Sophisticated ripped cast iron construction with high inherent rigidity in modern massive block design
- Vertical milling head swivel +/- 90° with manual extending quill
- Vertical milling head with integrated collision absorber
- Tolerance-free profile rail guideways with rollers
- Ground ball screws in all axes.
- Distance-coded linear measuring systems
- Stepless feed rate and spindle speed rate
- High-torque main drive with gearbox
- Hydraulic tool clamping
- Ergonomically designed machine with large front and side door, providing direct access to working area
- High performance contouring control Heidenhain iTNC 530 or Siemens 840 D ShopMill for 3-D processing.

**Options**

- 20-Position automatic tool changer
- Angular table
- Universal table 800 x 425 mm with digital readout
- Coolant through the tool
- Chip conveyer
- Motor spindle with spindle speed of 1 - 12.000 rpm
- Minimum-quantity lubrication system
- Digital readout for manual vertical swivelling milling head
- Controlled CNC-milling head (B-axis)
- Touch probe systems
- 4th axis / CNC-indexing unit and NC-rotary table

**More information, brochures or a detailed quotation**  
are available at

**KUNZMANN**

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