

## Kunzmann WF 400 CNC



**KUNZMANN**<sup>®</sup>  
FRÄSMASCHINEN

A compact CNC milling machine for workshops, production, and training purposes. This universal milling machine is characterized by high quality, performance, the highest levels of precision, and optimal accessibility.

Major characteristics are:

- Stable multi-ripped cast iron construction with horizontal-/vertical spindle and manual quill
- Hardened and ground flat guideways in all axes for highest rigidity
  - Backlash-free ballscrews for up- and down milling
- Stepless feed rate and spindle speed rate
- High-torque main spindle drive with gear box (automatically changed)
- Hydraulic tool clamping
- Recirculating cooling system in machine ram, incl. temperature compensation system of Y-axis for high milling precision and surface quality
- Ergonomically designed machine with large front and side door, providing direct access to working area
- High performance contouring control Heidenhain TNC 640 or Siemens 840 D sl ShopMill for 3-D processing.

### Control:

#### HEIDENHAIN TNC 640 CONTOURING CONTROL

Modern CNC-high performance control for 3-D-processing of complex workpieces with a fast block processing time.

The control provides a hard disk as well as USB/Fast-Ethernet-Interfaces for a fast program management.

Extensive functions for graphics and simultaneous possibilities.

Especially Heidenhain TNC 640:

- Programming with Heidenhain conversational, DIN/ISO-Code
- Making of angular boring holes automatically / machining of cylindrical contours (option)
- DXF-Converter (option), load directly and convert DXF-files

#### SIEMENS 840 D sl ShopMill COUNTOURING CONTROL

Modern CNC-high performance control for 3-D-processing of complex workpieces with a fast block processing time.

The control provides a memory card as well as USB/Fast-Ethernet-Interfaces for a fast program management.

Extensive functions for graphics and simultaneous possibilities.

Especially Siemens 840 D sl:

- ShopMill user interface - Wide range of programming possibilities in the DIN/ISO code

## WF 400 CNC *Technical Data*

TECHNICAL DATA		WF 400 CNC	STANDARD EQUIPMENT:	
<b>Working range</b>	longitudinal cross vertical	X-axis Y-axis Z-axis	400 mm 350 mm 400 mm	<ul style="list-style-type: none"> <li>▶ Vertical milling head with extending quill</li> <li>▶ Horizontal spindle</li> <li>▶ Stable cast iron column with flat guideways in all axes (hardened)</li> </ul>
<b>Main spindle drive</b>	A.C. motor Power rating at 100% duty cycle Power rating at 60% duty cycle		5,5 kW 7,0 kW	<ul style="list-style-type: none"> <li>▶ Recirculation cooling system in the ram</li> <li>▶ Temperature compensation of the Y-axis</li> </ul>
<b>Spindle speed range</b>	horizontal and vertical spindle Infinitely variable by gear stages		1 – 5000 min <sup>-1</sup>	<ul style="list-style-type: none"> <li>▶ Hydraulic tool clamping</li> <li>▶ Ballscrews</li> <li>▶ Anti-collision couplings in Z-Axis</li> </ul>
<b>Feed drives</b>	AC-drives		digital	<ul style="list-style-type: none"> <li>▶ Distance-coded linear measuring systems</li> <li>▶ Elektronic handwheel</li> <li>▶ Full-protection cabin</li> </ul>
<b>Feed rate</b>	X- and Y-axis Z-axis		10,0 m/min 7,5 m/min	<ul style="list-style-type: none"> <li>▶ Coolant fluid tank, free-standing, 70 litres</li> <li>▶ Leveling elements</li> </ul>
<b>Rapid traverse</b>	X- and Y-axis Z-axis		10,0 m/min 7,5 m/min	<ul style="list-style-type: none"> <li>▶ Contouring control Heidenhain iTNC 530</li> </ul>
<b>Swivelling range vertical milling head</b>			+/- 90°	
<b>Extending quill, vertical</b>			stroke 60 mm	
<b>Tool taper</b>			ISO 40 DIN 69871 / 2080 / 7388	
<b>Linear measuring systems</b>	direct, distance-coded		resolution 0,001 mm	<ul style="list-style-type: none"> <li>▶ Angular table: WF 400 CNC: 650 x 350 mm WF 600 CNC: 800 x 425 mm</li> </ul>
<b>Machine accuracy</b>	Pmax as per VDI/DGQ 3441		0,010 mm	<ul style="list-style-type: none"> <li>▶ Universal table 650 x 395 mm (rotating angle with digital readout)</li> </ul>
<b>Operating voltage</b>			400 Volt, 50 Hz	<ul style="list-style-type: none"> <li>▶ Arbor holder</li> <li>▶ Touch probe systems</li> <li>▶ Oriented spindle stop</li> </ul>
<b>Power consumption</b>			ca. 15 kVA	<ul style="list-style-type: none"> <li>▶ Minimum-quantity lubrication system</li> <li>▶ CNC dividing units – 4th / 5th axis</li> </ul>
<b>Weight</b>			ca. 2.000 kg	<ul style="list-style-type: none"> <li>▶ Contouring control Siemens 840 D ShopMill</li> </ul>