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Highest Precision

Easy Handling

Enormous time saving

PROFILE MILLING CENTER 4000/6000 CNC

Machining long workpieces made easy.

RÖDER PROFILE MILLING CENTER PFZ for precise and efficient machining of long parts made of steel, stainless steel and aluminum.

The functional and user-friendly control makes it easy for the user to create graphically assisted drilling and milling cycles. Due to its sturdy design, the PFZ CNC is particularly suitable for steel engineering and mechanical engineering.

www.roeder-maschinenbau.de

Technology – what's behind it

The machine base of the Profile Milling Center PFZ CNC consists of a welded steel construction which is distinguished by high stability and rigidity.
All guide axes are equipped with backlash-free guides and are driven by servomotors. The main spindle drive is provided by a powerful asynchronous motor.
The tool cooling may be provided by spray mist or emulsion (as an option). The internal coolant supply may be selected optionally. A special advantage is the travelling tool changer, which permits tool changes in any position and thus saves enormous amounts of time. The open table with a readily accessible chip tray facilitates an easy and time-saving cleaning procedure. Optionally, a chip conveyor can be integrated. A good accessibility to vice, spindle and tool is provided by the protective cover which is automatically adjustable in height. A safety fence with a light barrier guarantees the utmost safety for the operator.

The professional Heidenhain TNC 620 CNC control makes it easy to create graphically assisted functional drilling and milling cycles. Another convenient feature is the control panel which is movable along the entire machine length. For workpiece clamping, the customer can select between mechanical or hydraulic vices or, as an option, a T-slotted plate. Another big advantage is the possibility of frontal machining of panels up to a maximum size of 1,000 x 1,000 mm and a maximum thickness of 80 mm. The panels can be positioned vertically in the base frame for machining.

Control and Programming Software

Professional, manageable and user-friendly: the HEIDENHAIN TNC 620 interacting with the user.
The TFT 15-inch color flat screen provides a clearly structured overview of all information necessary for programming, operating and monitoring the control unit and the machine. Program blocks, instructions, graphical support for program input, easy-to-understand icons, etc., characterize the clear functionality. The excellent features of the completely digital concept guarantee highest precision and surface qualities, even at high traversing speeds, and high availability of the overall system. The USB interface enables you to conveniently connect storage media or pointing devices to the control panel.

Additional programming software is offered by us as an option for even more convenience.

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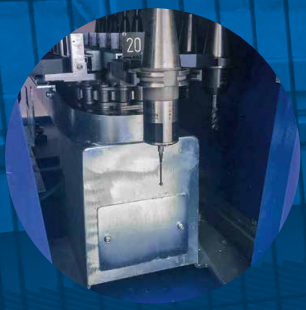
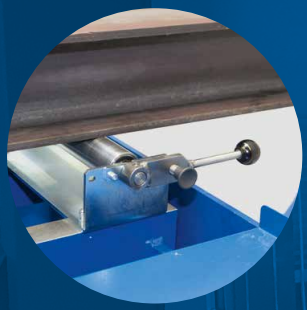


TOOL CHANGER

Select between an 8-fold rotary plate tool changer or a 24-fold chain tool changer.

WORKPIECE CLAMPING

Workpieces may be clamped using mechanical or hydraulic vices. In this context, the vices may be positioned freely via the continuous T-slot. Optionally, the workpiece may be clamped via a T-slotted plate

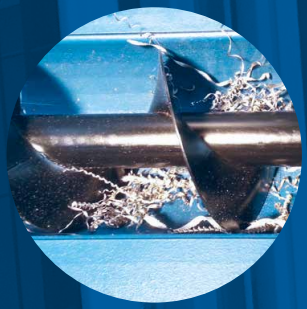


ECCENTRIC LEVER

The eccentric lever allows to easily lift the workpieces from the workpiece clamping, which is particular advantageous for an easier traversing of overlong workpieces.

DUO PENDULUM OPERATION

The possible total working length of the machine table can be divided into two working areas, allowing to make a new tool setup in the second area with the machining operation taking place in the first area.



CHIP CONVEYOR

To provide for a particular convenient cleaning of the chip tray, an automatic chip conveyor may be integrated into the machine.

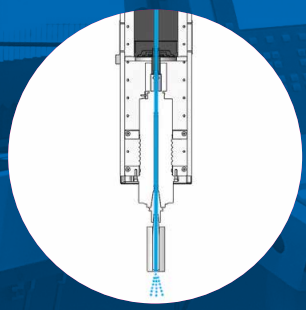
COOLING WATER UNIT

A spacious tank volume and a high-performance pump provide an optimal tool cooling.

THERE IS MORE TO BE HAD: ADDITIONAL OPTIONS

MINIMUM LUBRICATION SYSTEM

Featuring a high-precision nozzle technology facilitating the application of minimal quantities of medium.



INTERNAL COOLANT SUPPLY

Allows for the supply of the lubricant through the center of the spindle directly to the tool tip.

ELECTRONIC HANDWHEEL

You can move the axis slide very precisely via the feed drive in relation to the rotation of the electronic handwheel.

WORKPIECE MEASUREMENT

HEIDENHAIN 3D touch probe for program-controlled measuring of the workpiece.

TOOL MEASUREMENT

HEIDENHAIN tool length measuring system for measuring and checking tools.

ANGLE HEAD

For advanced processing requirements going beyond the capabilities of a 3-axis machine, angle heads may be used. The angle head is used as a driven tool.

PROFILE MILLING CENTER PFZ 4000/6000 CNC

SPECIFICATIONS

	PFZ 4000 CNC	PFZ 6000 CNC	
Maximum travel of x-axis	4,000	6,000	mm
Maximum travel of y-axis	400	400	mm
Maximum travel of z-axis	400 (600)	400 (600)	mm
Tool holder	SK 40, DIN 69871	SK 40, DIN 69871	
Speed of main spindle	8,000	8,000	RPM
Drive power of main spindle	11	11	kW
Torque of main spindle	90	90	Nm at 40% ED
Rapid traverse	30,000	30,000	mm/min
Drilling performance in S355	36	36	mm
Tapping in S355	M20	M20	
Milling performance in S355 40% ED	400	400	cm^3/min
Repeat accuracy	± 0,005	± 0,005	mm
Compressed air supply	6	6	bar
Maximum electrical output	28	28	kW
Time-lag fuse	63	63	A
Total machine footprint (L x W x H)	6,600 x 4,500 x 3,400	8,600 x 4,500 x 3,400	mm
Height of workpiece support	850	850	mm
Total weight approx.	5,500	7,500	kg
Tool changer	8 or 24	8 or 24	places
Maximum tool diameter (ø)	100	100	mm
Maximum tool length	270	270	mm

Custom machine designs on request

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Quality – Our Promise

The RÖDER brand stands for quality and efficiency. Based in Southern Germany, the home of mechanical engineering for generations, RÖDER engineers and manufactures machines for various industries. Based on many years of experience in special machine construction and communications with our customers, we have identified the demand for a solid, yet convenient and easy-to-use platform for machining long workpieces made of steel, stainless steel and aluminum: our PFZ CNC.

We look forward to getting in contact with you.

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