

TM 125 – foundation-free set-up and large degrees of freedom



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The TM 125 combines the advantages of a machining center with the characteristics of a boring mill. Column and boring spindle allow for large degrees of freedom; the Monolith™ machine bed permits a set-up directly on the floor.

TM 125 – table-type compact boring mill with Monolith™ bed

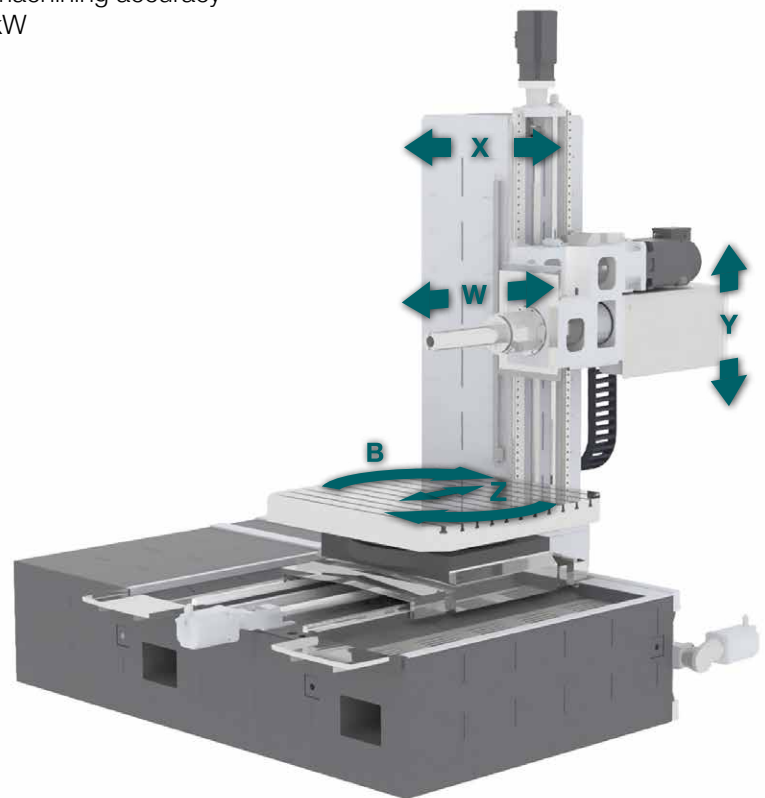
Foundation-free compact boring mill for the effective and cost-efficient machining of workpieces up to 10 t with a set-up area of up to 2,500 x 2,000 x 1,600 mm. It combines the advantages of a table-type boring mill with those of a compact machining center.

Your advantages at a glance:

- Long travel range and large degrees of freedom for machining
- Inherently rigid, vibration-damping machine bed in Monolith™ design
- Strongly ribbed, torsionally rigid column
- Compact precision roller guideways for highest machining accuracy
- Speeds of up to 6,000 min⁻¹; power of up to 34 kW
- Comprehensive equipment for high flexibility
- Working area that is easy to access

Traversing range

X (column lengthwise)	up to 2,000 mm,
Y (vertical)	up to 1,600 mm,
Z (table lengthwise)	up to 1,000 mm,
W (boring spindle)	up to 600 mm



Classification

Table-type	T
Monolith™ bed	M
Boring spindle diameter	125 mm

Machine highlights

Monolith™ machine bed

in sandwich design with a welded, strongly ribbed upper section, fiber-reinforced high-performance concrete and a steel floor panel with special damping elements. Developed and implemented successfully in roll grinding machines hundreds of times by the sister company Maschinenfabrik Herkules:

- Torsionally rigid and thermostable
- Effective damping of vibrations
- Set-up directly on the floor and small footprint

Extremely stiff, welded steel column

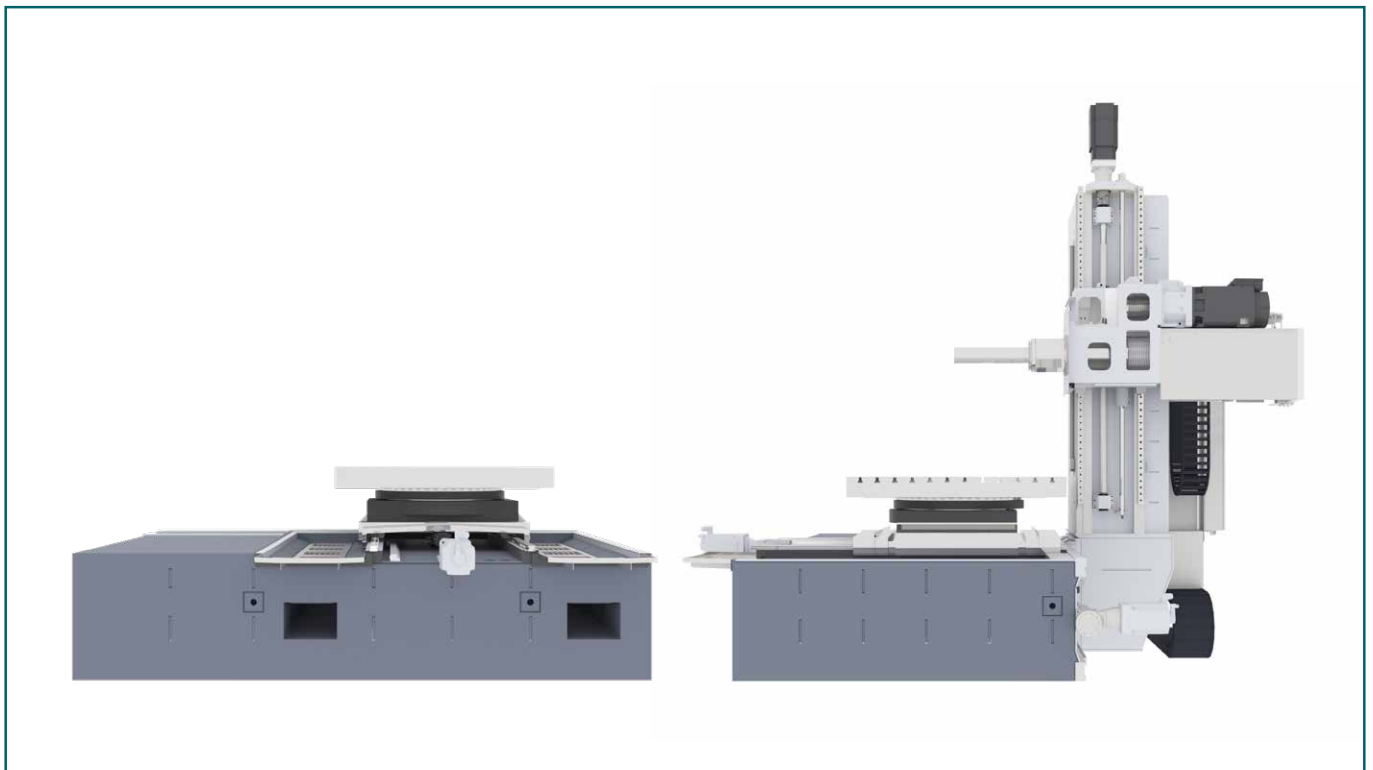
- Strong inner ribbing that prevents bending and torsional deformation
- Preloaded linear compact roller guides and spaciouly dimensioned, preloaded ball screw drives

Headstock and boring spindle

- Produced in-house to ensure highest quality
- Low wear and high machining quality

Rotary clamping table

- Precise and backlash-free positioning of the workpieces



Inherently rigid Monolith™ machine bed in sandwich design; robust construction of column and boring spindle

Optionally available

Automatic tool change

- Tool magazine with up to 120 tools
- Tool gripper SK 50 or HSK 100, others on request
- Changing cycles for heavy tools, tool taper cleaning

Compact cooling units

- External cooling at the headstock with 80 l / 8 bar
- Internal cooling through the middle of the boring spindle / optionally through the milling head spindle with up to 70 bar
- Paper band filter and coolant circulation with timer switch
- Extraction device / connection for central extraction device

Work area protection / CE-approved operation

- Operator panel swivelling into working area, option: angled desk design
- Full enclosure

Process optimization

- Tool life monitoring
- Tool breakage monitoring
- Automatic identification of tools
- Torque monitoring
- Data recording
- Remote touch probe

CNC controls

- Siemens 840 D sl
- Heidenhain TNC 640
- Fanuc 31i

// Further options are available on request.



UC-L40 – lateral milling head

Equipment

- Exchangeable single lateral milling head UC-L40 with 5,000 min⁻¹, 1,000 Nm and internal / external cooling, manufactured within the group of companies
- Integrated Capto interface combined with a turning table for all turning operations
- Tool changing system developed within the Herkules-Group

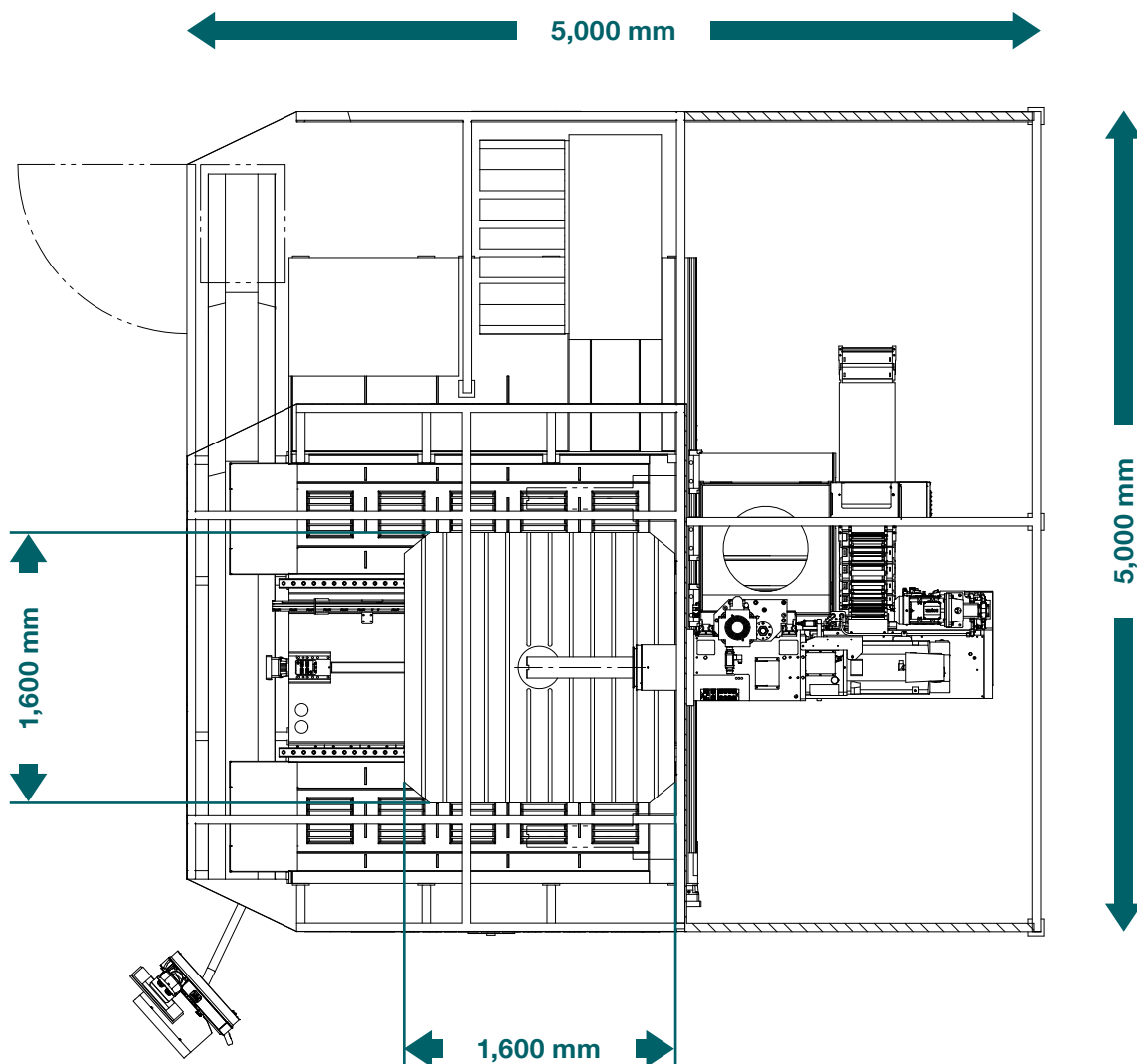
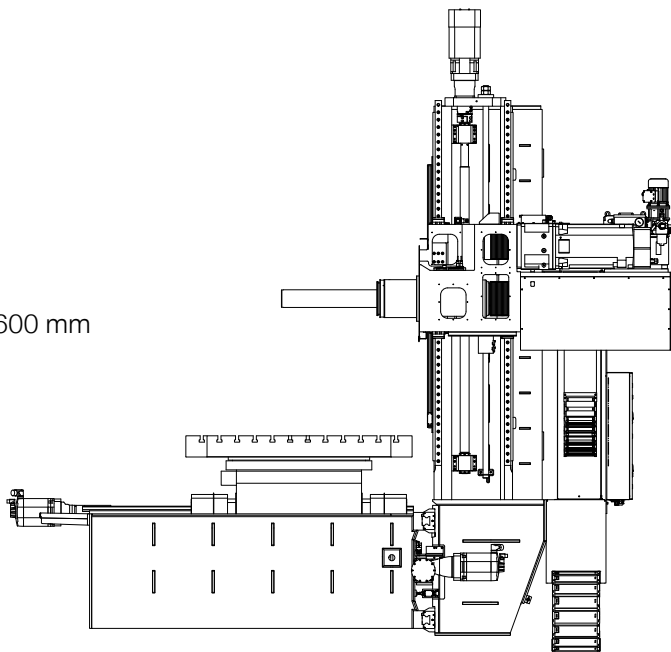
Optimize your machining process: we can optionally integrate a 3D measuring probe including measurement cycles for automatic measurement of workpieces or a 3D table touch probe system for tool breakage control and tool measurement.

// Further options are available on request.

Layout of a TM 125

Design with

X = 2,000 mm, Y = 1,600 mm, Z = 1,000 mm, W = 600 mm



Technical data

Boring spindle

Diameter	125 mm
Drive power, max. (S6)	34 kW
Torque, max. (S6)	1,660 Nm
Speed range, continuous, max.	6,000 min ⁻¹

Clamping table

Size of clamping table	1,600 × 1,600 mm
Table load, max.	10,000 kg

Traverses

	Axis	
Column lengthwise	X	2,000 mm
Headstock vertical	Y	1,600 mm
Table longitudinal	Z	1,000 mm
Boring spindle axial	W	600 mm

Axis speed

Traversing speed of all axes	30,000 mm/min
Speed rotary table	10 min ⁻¹

Automatic tool change

Number of tools in magazine	60
Tool diameter, max.	250 mm
Tool length, max.	500 mm
Tool weight, max.	35 kg

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