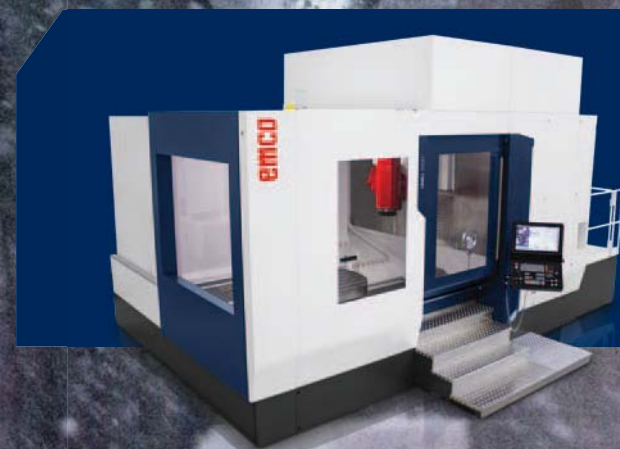


EMCO

UMILL 1500

**Gantry-type milling machine
for 5-axis machining**



PERFECTLY EQUIPPED FOR 5-AXIS MACHINING

When it comes to typical applications in the area of 5-axis machining, the Umill 1500 ensures that you are perfectly prepared for all machining operations. Be it milling, drilling, tapping or turning in one set-up, you can always take full advantage of the machine's strengths! Built as a gantry-type machine, the Umill 1500 delivers optimal results thanks to its particularly stable and rigid construction and top dynamics.



Milling, drilling and tapping on a milling head holder saddle

1 COMPACT DESIGN

/ Maximum precision with top dynamics thanks to extraordinarily stable gantry design

2 NO FOUNDATION REQUIRED

/ Machine bed with inherent rigidity

3 STABILITY & RIGIDITY

/ Machine bed and cross traverse based on FEM analyses as steel cast construction

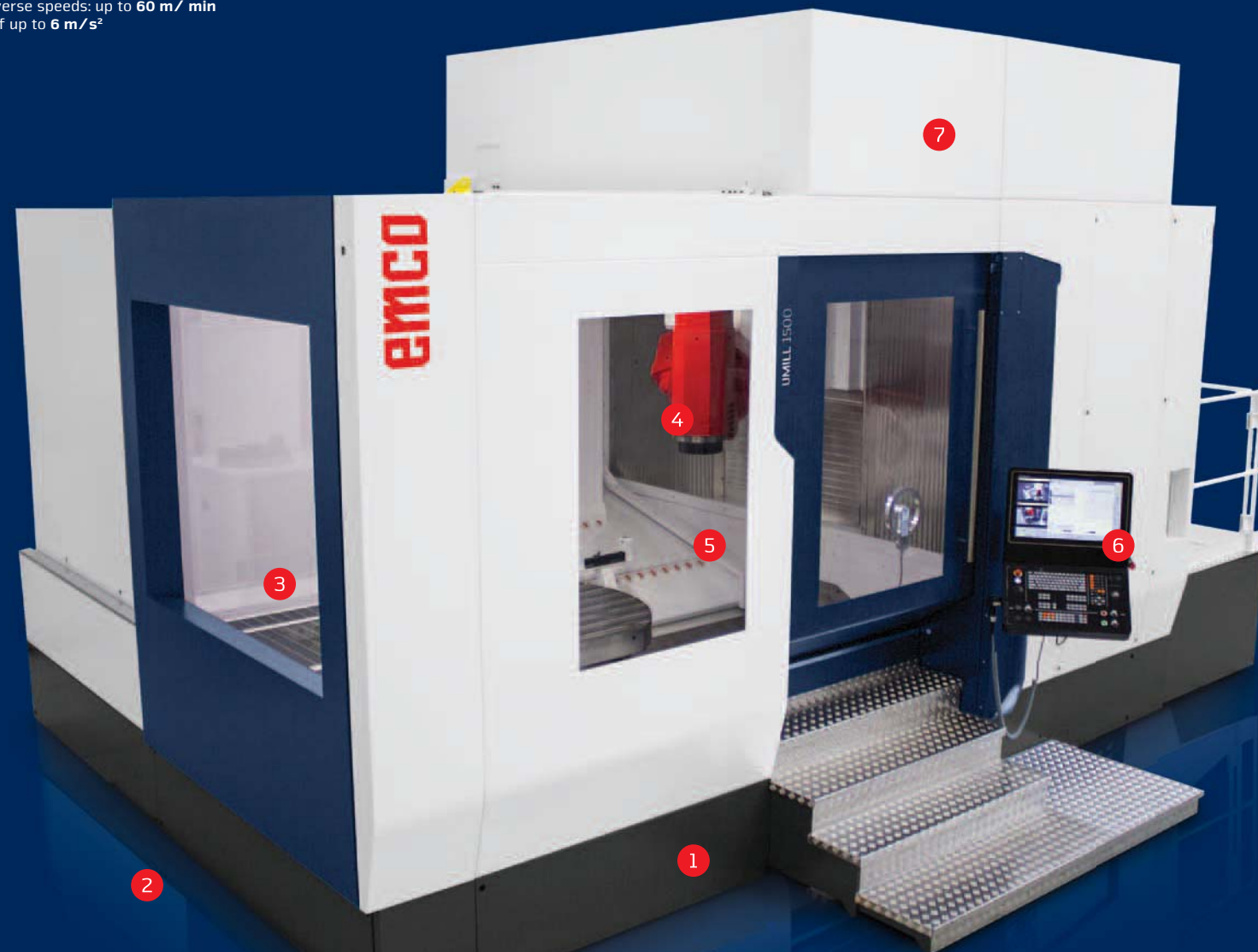


4 5-AXIS MACHINING IN ONE STEP

/ Milling
/ Drilling
/ Tapping
/ Turning, etc.

5 HIGH DYNAMICS & PERFORMANCE

/ Milling head with electric spindle:
45 kW / 300 Nm / 12000 U/min
- further customised solutions on request
/ High rapid traverse speeds: up to **60 m/min**
/ Acceleration of up to **6 m/s²**



6 CONTROL

/ Heidenhain TNC 640 HSCI or Siemens 840D sl

7 MAXIMUM MACHINE AVAILABILITY

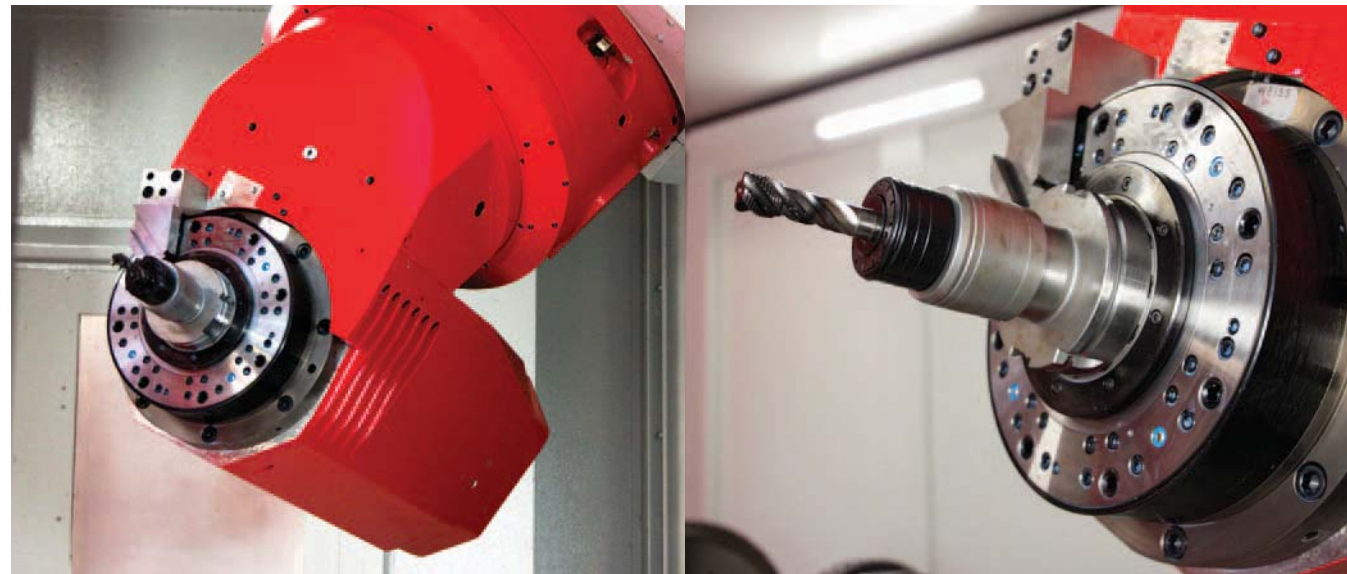
/ Automatic temperature compensation (Z-axis thermal growth)
/ Automatic adjustment of the machine kinematics
/ Continuous and dynamic vibration adjustment
/ Dynamic collision monitoring
/ Remote maintenance and teleservices
/ Imbalance analyses (optional)



MODULAR SOLUTIONS ARE THE PREREQUISITE FOR PRODUCTIVITY

Today, modern production processes are only feasible when the machinery is utilized to the maximum extent possible. Automation is a crucial factor, because the market demands quick response and

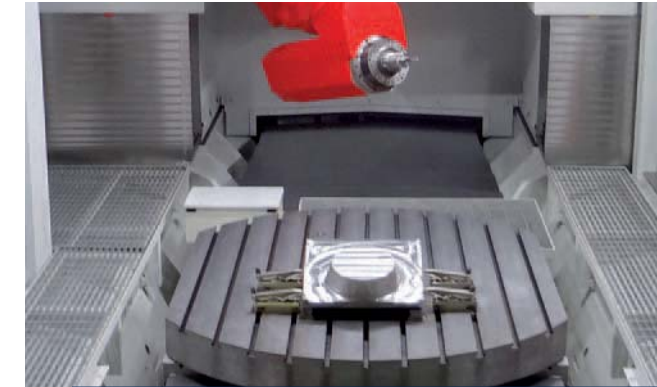
short production times. With our modular solutions, you will be perfectly prepared to face this challenge and remain competitive.



UNIVERSAL HEAD ELECTRIC SPINDLE

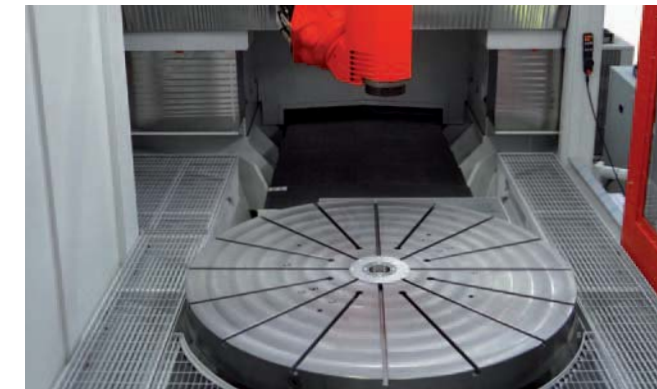
ELECTRIC SPINDLE

Compact design with high-performance electric spindle. Continuously variable universal head offering high dynamics for simultaneous machining in connection with the NC rotary table.



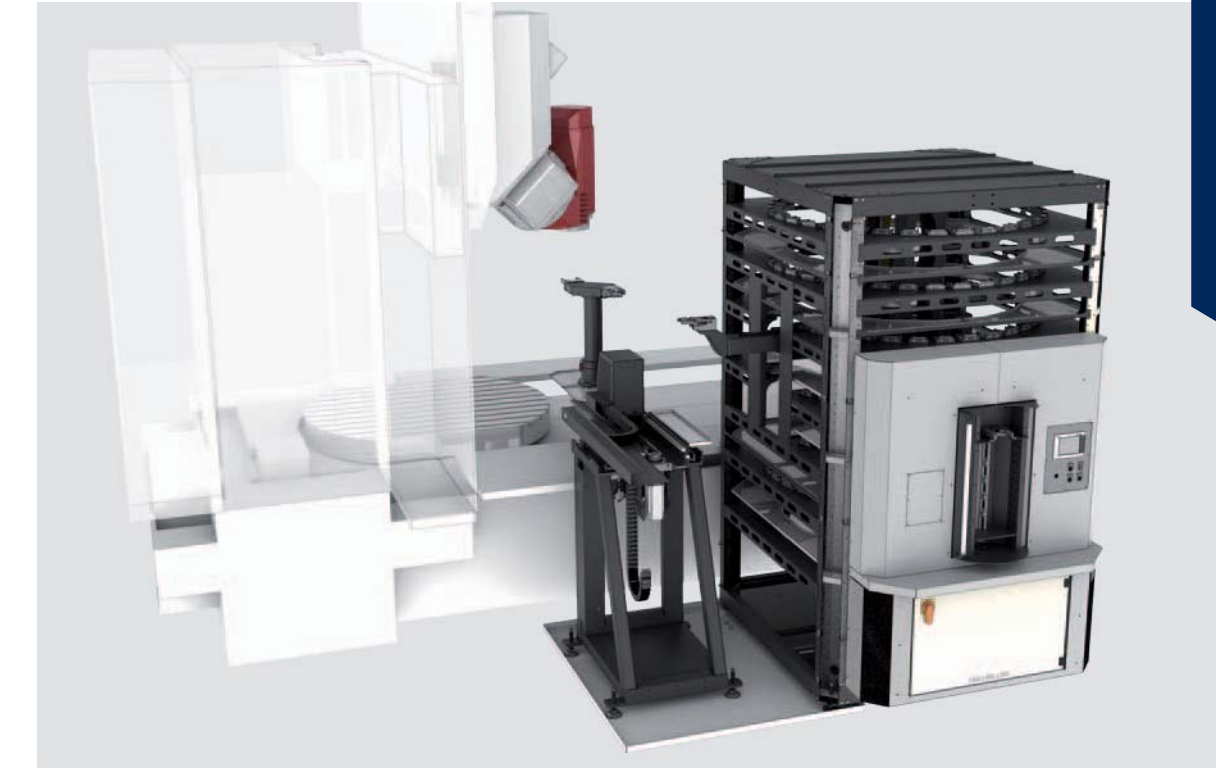
NC WORK TABLE WITH TORQUE DRIVE

NC work table with torque drive for milling operations in the positioner and simultaneous operation. Designed for workpieces with a weight of up to 4.5 tons.



NC WORK TABLE

NC work table with radial groove for milling and turning operations. High-performance torque drive with high torques.

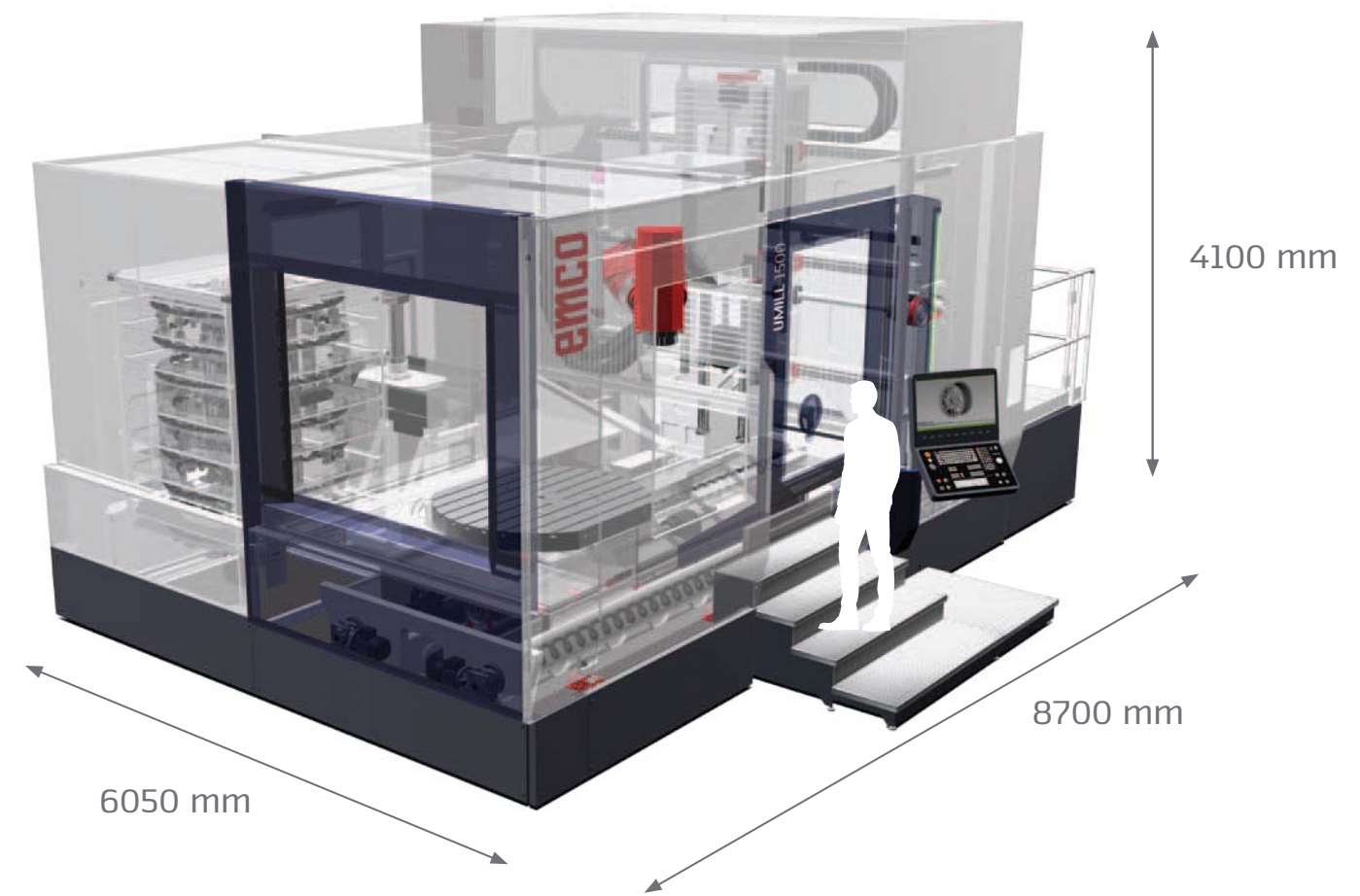


TOOL MAGAZINE

Placed outside the work space and separated from the machine base. Our tool magazines are offered in different customised configurations. Tool management systems and tool monitoring systems are available as an option.

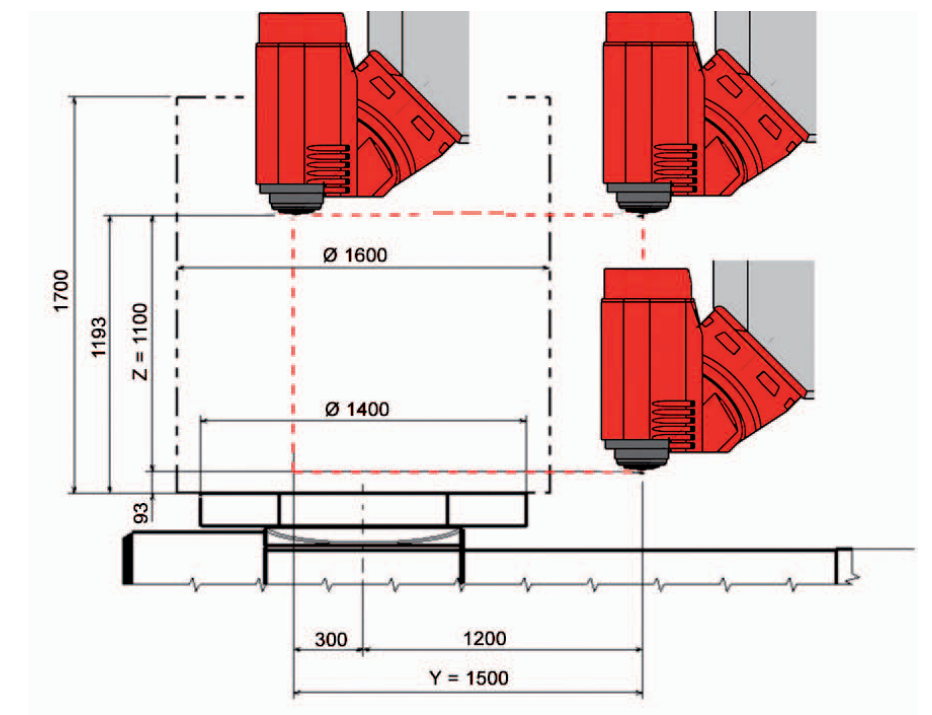
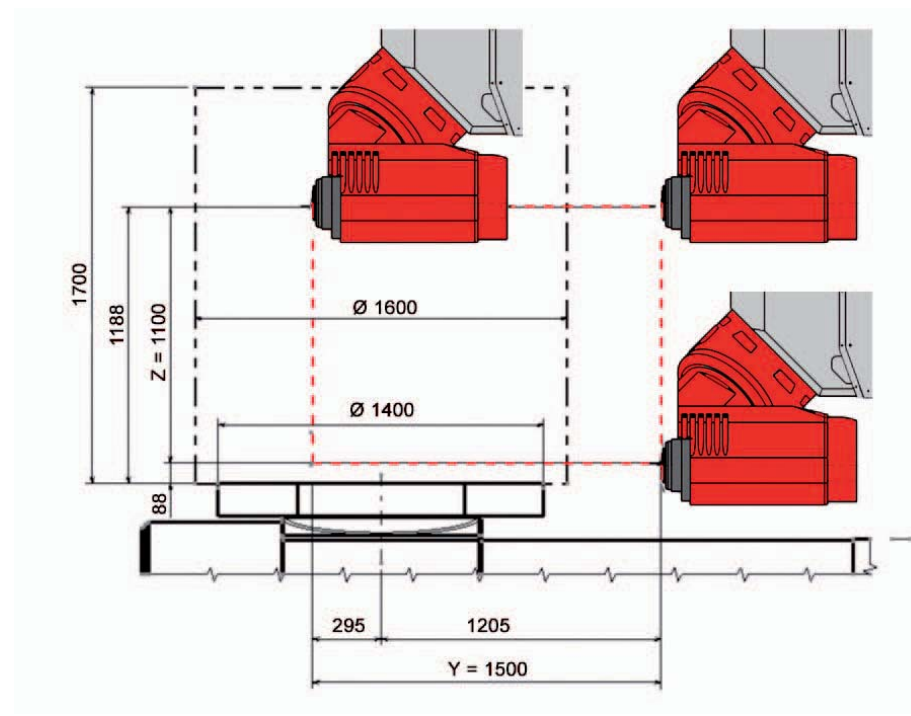
TOOL MAGAZINE UP TO 203 POCKETS

/ MACHINE DIMENSIONS



COMPACT DESIGN

/ MACHINE WORK SPACE



Indications in millimetres

TECHNICAL DATA

Linear axes

Cross travel in X	1500 mm
Longitudinal travel in Y	1500 mm
Vertical travel in Z	1100 mm
Feed rate	60 m/min

Numerical control

Heidenhain	TNC 640 HSCI
Siemens	840D sl

Workpiece/tool cooling system

External cooling	28 l/min; 6 bar
Internal cooling	20 l/min; 40 bar

Milling head with high-speed spindle E58

Power (S1 / S6)	45 / 58 kW
Torque (S1 / S6)	300 / 372 Nm
Speed	12000 rpm
Tool taper	HSK 100-A/T
Undercut	15°

Milling head with high-speed spindle E61

Power (S1 / S6)	50 / 63 kW
Torque (S1 / S6)	100 / 125 Nm
Speed	20000 rpm
Tool taper	HSK 63-A
Undercut	15°

Options

Tool changer	88 / 122 / 203 pockets
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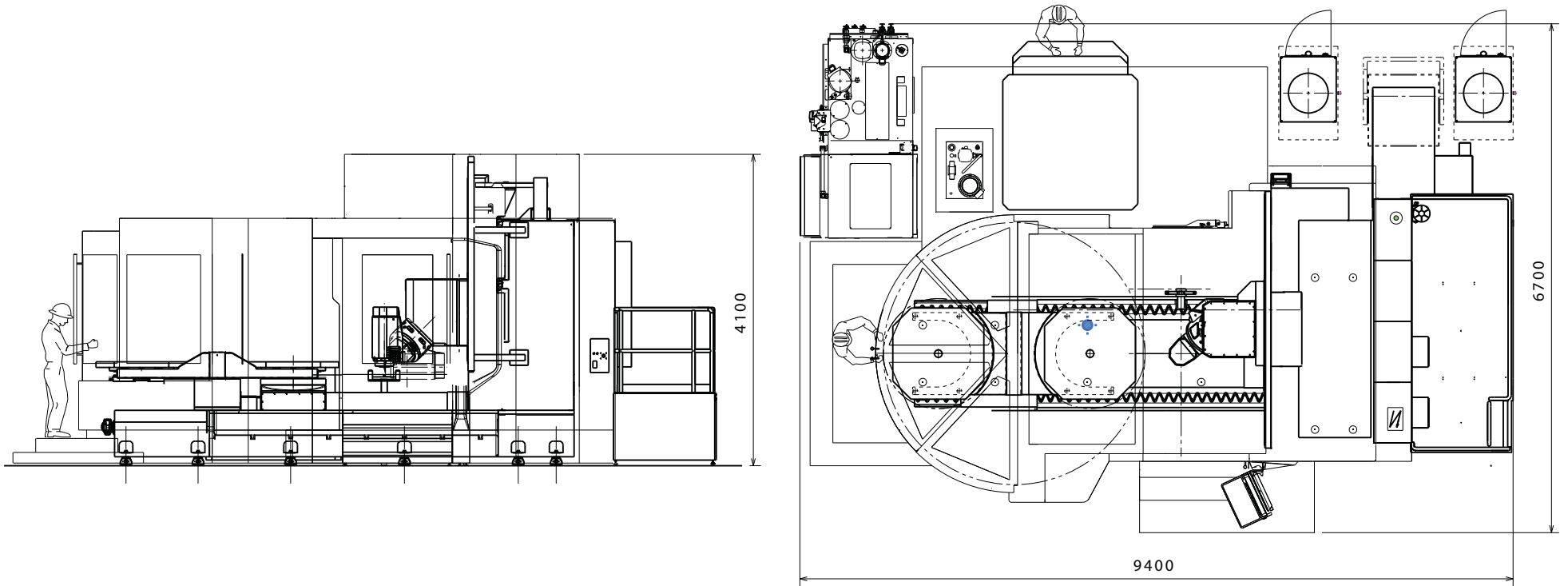
Rotary table for milling operations

Size	1400 x 1200 mm
Max. load capacity	4500 kg
Drive	Torque motor
Max. torque	3000 Nm
Max. speed	20 rpm

Rotary table for milling and turning operations

Size	∅ 1400 mm
Max. load capacity	3500 kg
Drive	Torque motor
Max. torque	3000 Nm
Max. speed	up to 400 rpm

MODULAR SOLUTIONS FOR MORE PRODUCTIVITY



beyond standard /

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