

EMCO

DYNAMILL



Gantry milling center for dynamic 5-axis machining



HIGH DYNAMICS FOR COMPLEX PARTS

The Dynamill gantry-type machining center has been designed for HSC operations on complex workpieces. Characterized by rigidity and dynamics, the Dynamill provides ideal conditions for high-speed machining of medium-sized to large workpieces. Not only do the machine's energy-efficient equipment and powerful energy management contribute to reduced consumption costs, but they optimize the production costs and thus the ROI.



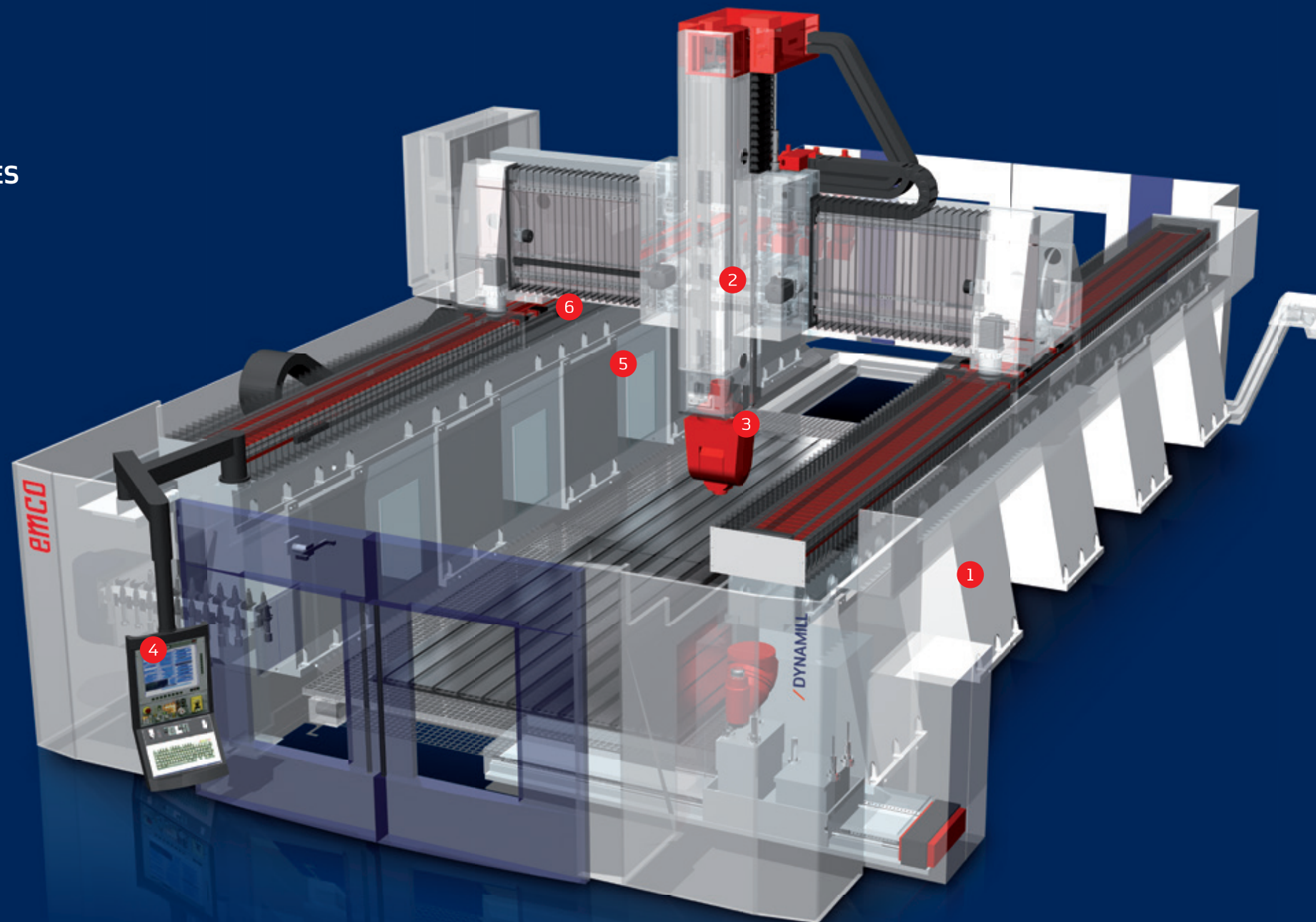
Installation of a Dynamill HP5 with mechanical and full 5-axis high-speed spindle milling head
 X= 12 050 mm
 Y= 4 000 mm
 Z= 1 500 mm

- 1 **COMPACT DESIGN**
 / Maximum precision with top dynamics thanks to extraordinarily stable gantry design
- 2 **HIGH PRECISION LINEAR GUIDES ON ALL AXES**
- 3 **5-AXIS MILLING HEADS WITH DIRECT DRIVE: MECOF DESIGN**

- / Milling
- / Drilling
- / Tapping
- / Turning, etc.



Proven technology and a compact design, available with different performances and tool tapers: HSK 63-A or HSK 100-A

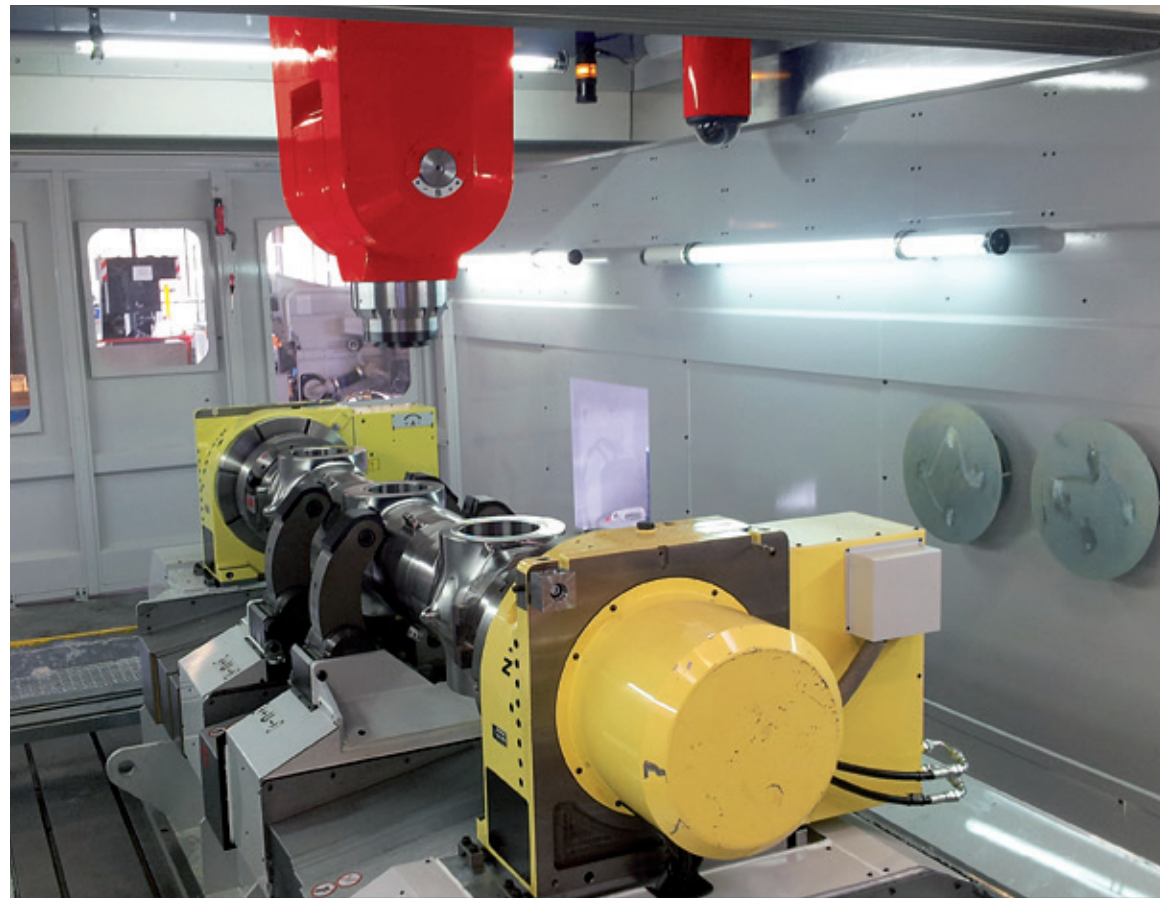


- 4 **CONTROL**
 / Heidenhain TNC 640 HSCI or Sinumerik ONE



- 5 **SIEMENS AXES MOTORS REDEX SERVO-GEARBOXES**
- 6 **HEIDENHAIN ENCODERS**

TECHNICAL HIGHLIGHTS



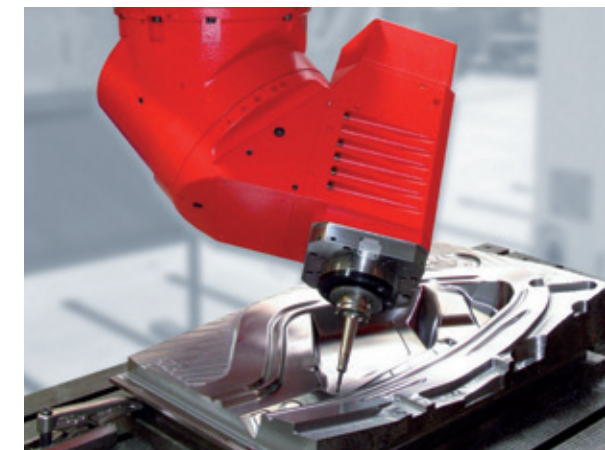
5-axis machining of a titan landing gear for aerospace industry



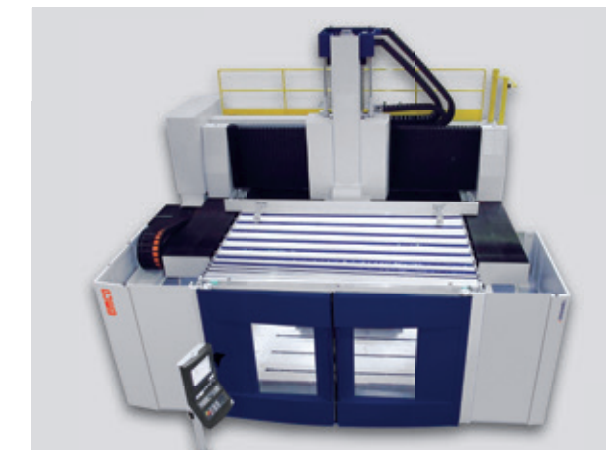
High speed machining of injection mould for bumpers in automotive industry



5-axis machining of a car model section for styling center



Machining of a stamping die for automotive industry

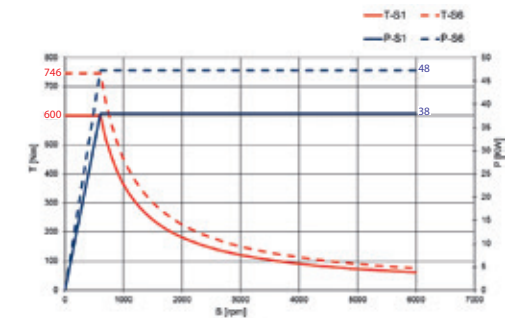
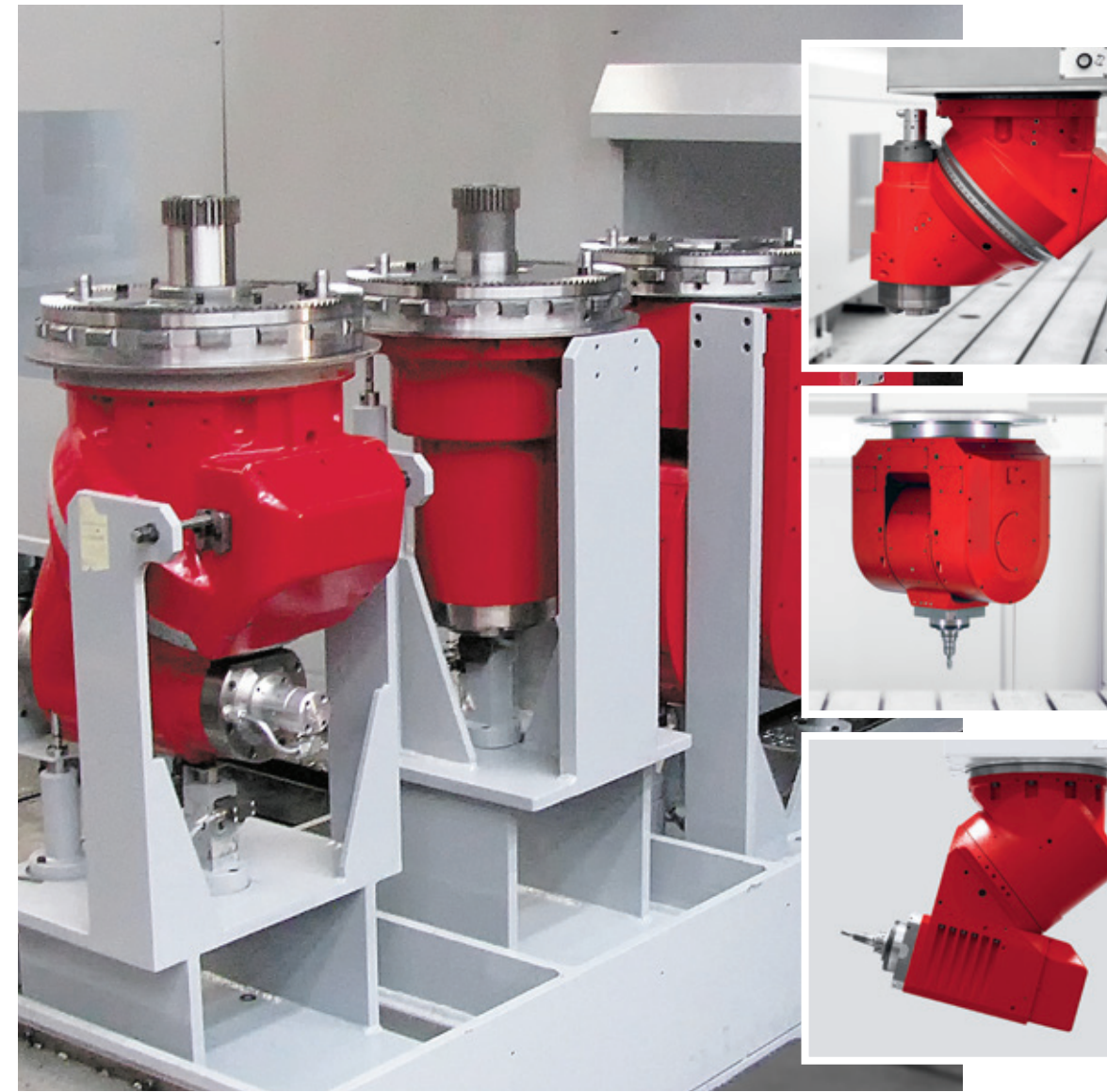


Fully enclosed (roof available as an option)

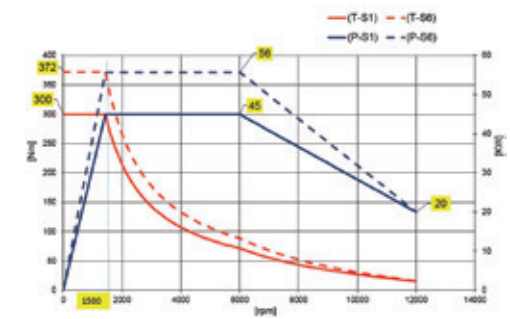
HIGHLIGHTS

- / Solid and modular construction
- / Versatile options available
- / Different heads can be used (including infinitely variable and 5-axis versions)
- / Automatic head change available as an option
- / Thermally stable and monitored
- / Special configuration with Z=2 500 mm for light machining with 5 continuous axes

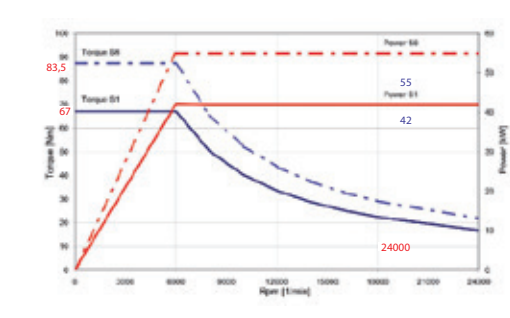
/ DYNAMILL MILLING HEADS



Universal milling head with automatic millesimal positioning

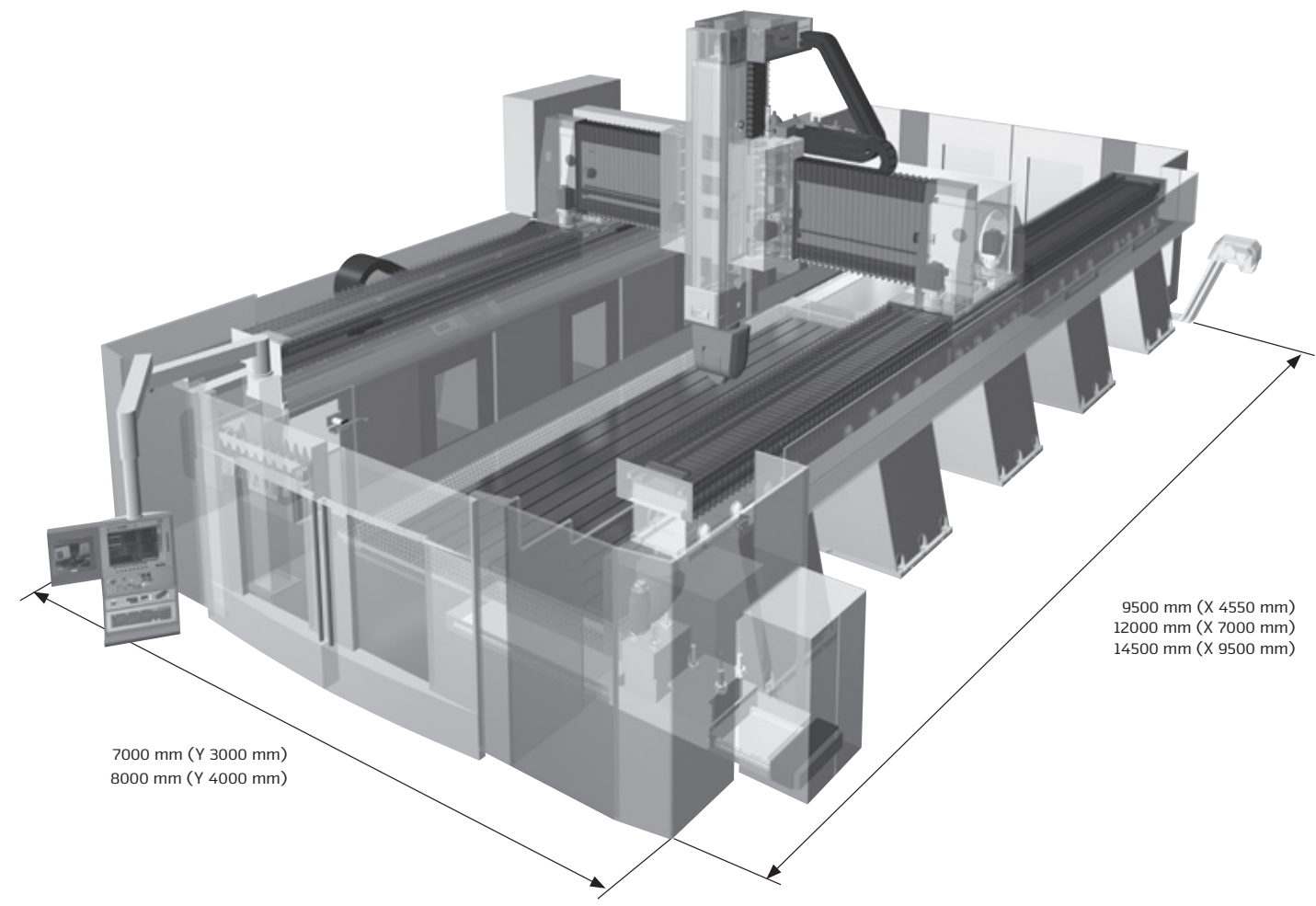


Full 5-axis fork type milling head with torque motors and high-speed spindle



Universal milling head with torque motors and high-speed spindle

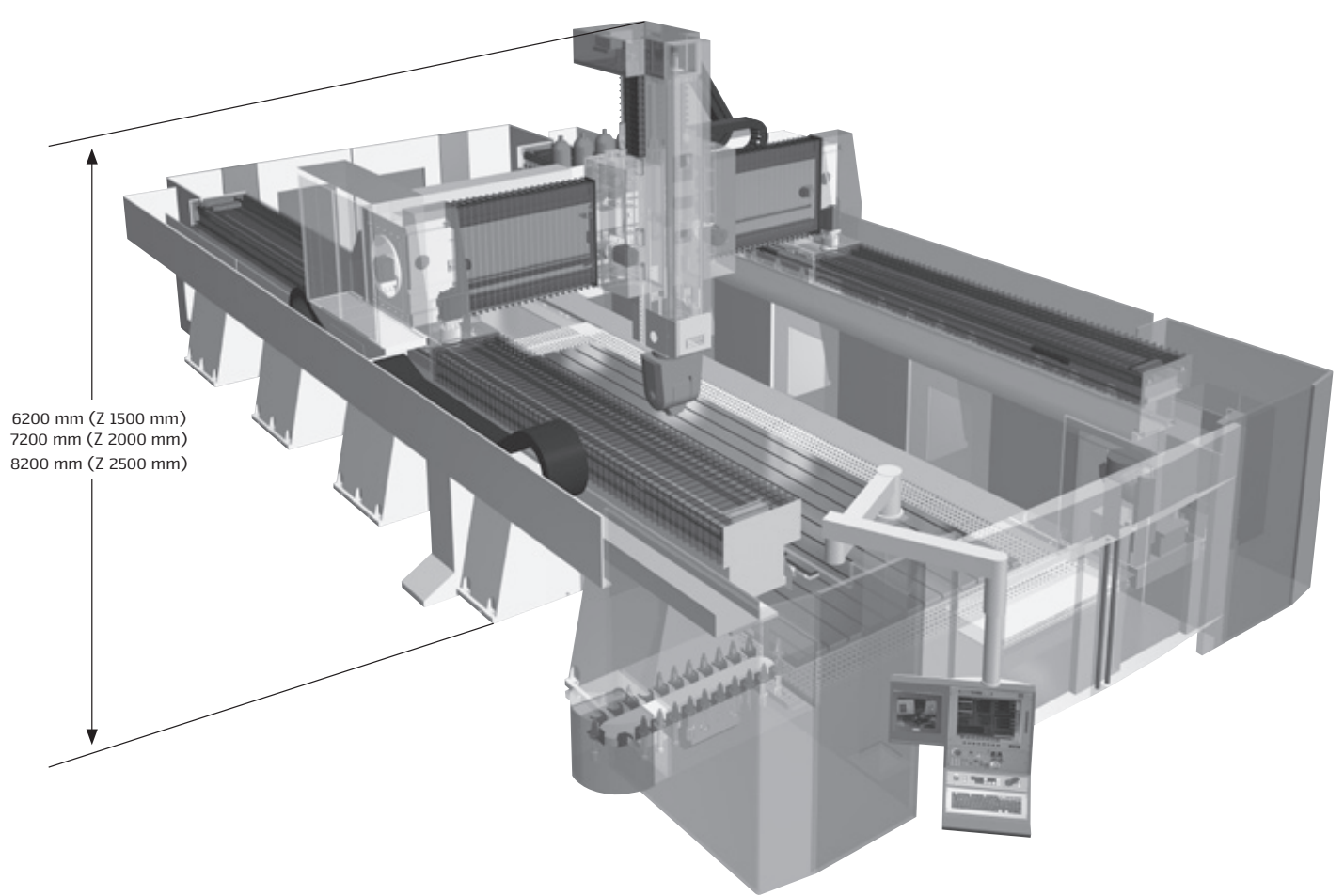
/ MACHINE DIMENSIONS



7000 mm (Y 3000 mm)
8000 mm (Y 4000 mm)

9500 mm (X 4550 mm)
12000 mm (X 7000 mm)
14500 mm (X 9500 mm)

/ MACHINE DIMENSIONS



6200 mm (Z 1500 mm)
7200 mm (Z 2000 mm)
8200 mm (Z 2500 mm)

TECHNICAL DATA

Linear axes

Longitudinal axis travel	4500 and more (in steps of 2500 mm)
Cross axis travel	3000 / 4000 mm
Vertical axis travel	1500 / 2000 / 2500* mm
Feedrate	40 m/min

Spindle motors

Standard	60 kW 600 Nm
Option	40 kW 1200 Nm

Tool/workpiece cooling system

Low pressure	28 l/min, 6 bar
High pressure (through the spindle)	20 l/min, 20/40/60 bar

Options

Full 5-axis universal milling head	6000 rpm
Milling head with offset spindle	3000 rpm
Universal milling head with torque motors and high speed spindle	24000 rpm
Full 5-axis fork type milling head with torque motors and high speed spindle	12000 / 20000 / 24000 rpm
Automatic tool magazine	48 / 64 / 96 pockets
Automatic head magazine	2 / 3 pockets

Universal milling head with automatic millesimal positioning

Power S1 / S6	38 / 48 kW (standard)
Power S1 / S6	38 / 57 kW (option)
Torque S1 / S6	600 / 750 Nm (standard)
Torque S1 / S6	1000 / 1500 Nm (option)
Rotation speed	15 – 6000 rpm
Tool taper standard	ISO 50 DIN 69871
Option	BIG PLUS
Option	HSK 100-A DIN 69893

High-speed spindle 50 / 63 kW

Power S1 / S6	50 / 63 kW
Torque S1 / S6	100 / 125 Nm
Rotation speed	12000 / 20000 rpm
Tool taper	HSK 100-A / HSK 63-A

High-speed spindle 42 / 55 kW

Power S1 / S6	42 / 55 kW
Torque S1 / S6	67 / 87.5 Nm
Rotation speed	24000 rpm
Tool taper	HSK 63-A

High-speed spindle 45 / 58 kW

Power S1 / S6	45 / 58 kW
Torque S1 / S6	300 / 372 Nm
Rotation speed	12000 rpm
Tool taper	HSK 100-A

High-speed spindle 76 / 86 kW

Power S1 / S6	70 / 86 kW
Torque S1 / S6	160 / 220 Nm
Rotation speed	15000 rpm
Tool taper	HSK 100-A

* Only for „S“ version

beyond standard /

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