

EMCO



DYNAMILL

Gantry milling center for 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

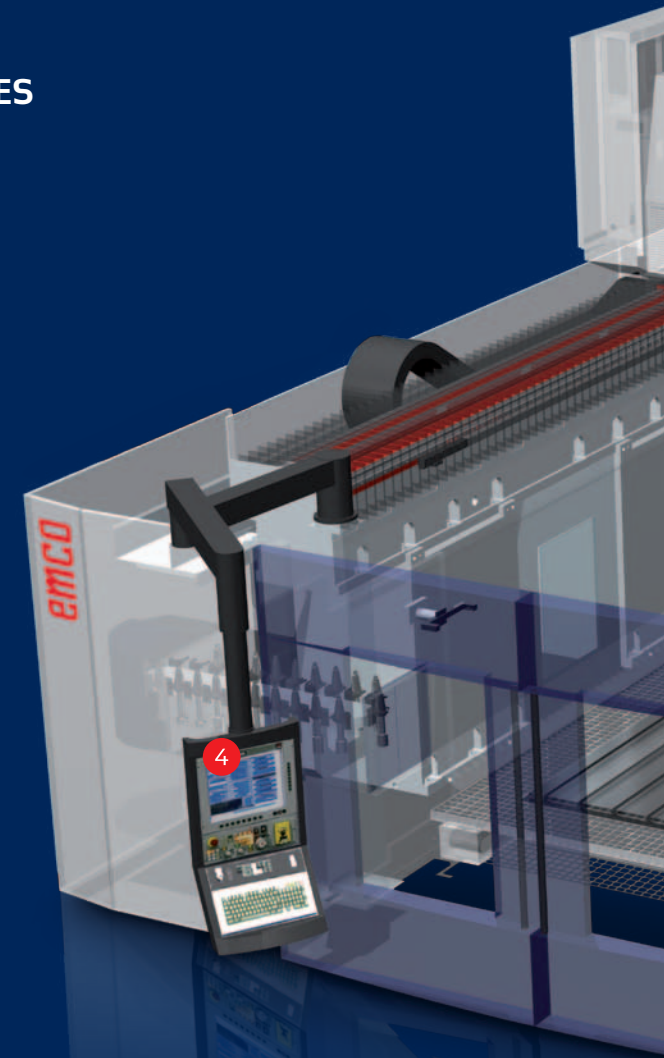
2 HIGH PRECISION LINEAR GUIDES ON ALL AXES

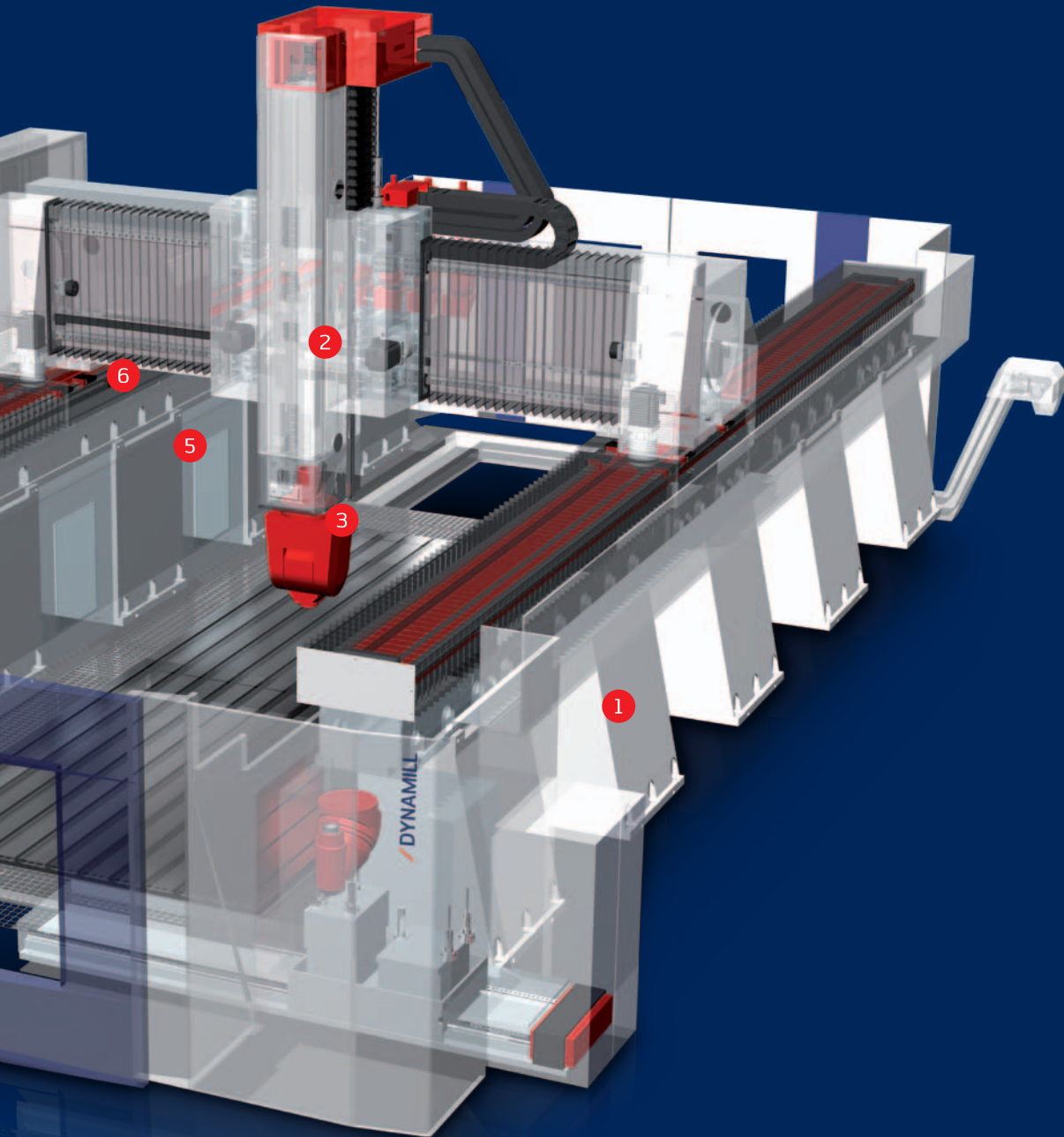
3 5-AXIS MILLING HEADS WITH DIRECT DRIVE: MECOF DESIGN

/ Milling
/ Drilling
/ Tapping
/ Turning, etc.



Tried and tested, infinitely variable or Hirth-coupled milling head technology available in different versions and with different performances





4

CONTROL

/ Heidenhain TNC 640 HSCI or Siemens 840D sl



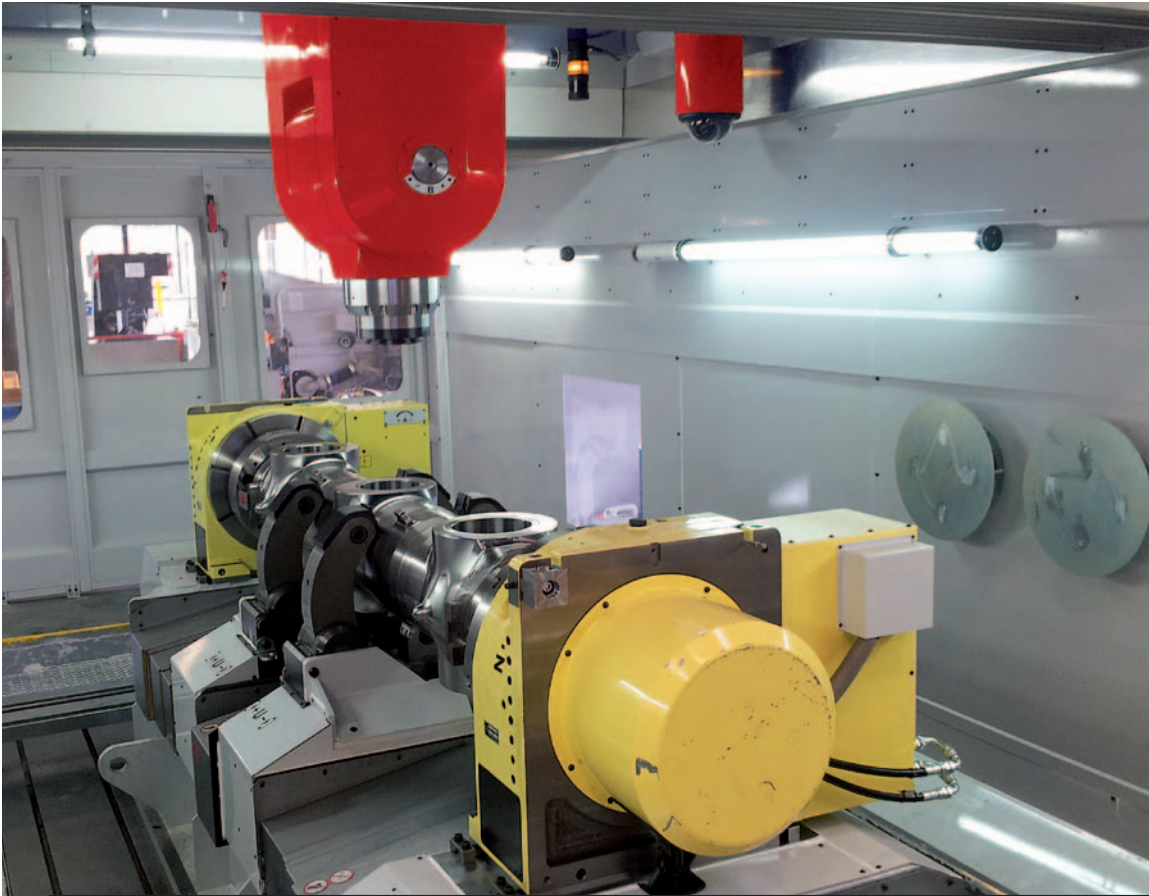
5

SIEMENS AXIS MOTORS – REDEX SERVO DRIVES

6

HEIDENHAIN ENCODERS

/ TECHNICAL HIGHLIGHTS



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



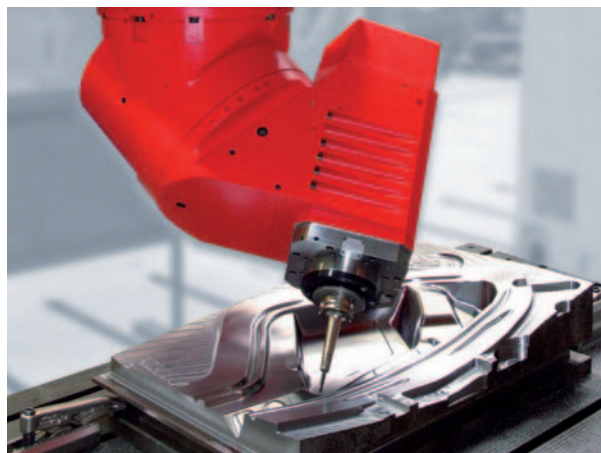
High speed machining of injection mould for bumpers in automotive industry

HIGHLIGHTS

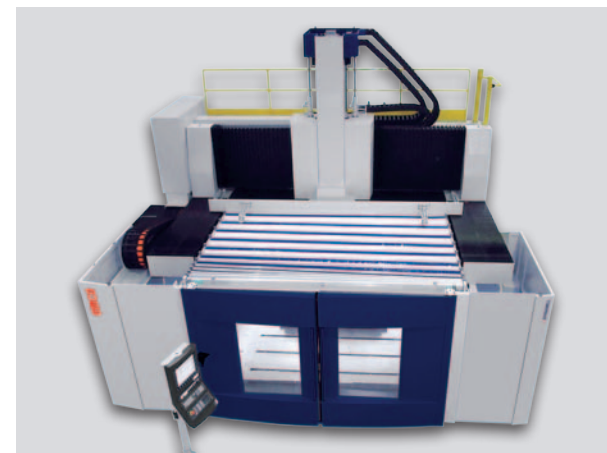
- / Solid and modular construction
- / Versatile options available
- / Different heads can be used (including infinitely variable and 5-axis versions)
- / Automatic head change available as an option
- / Thermally stable and monitored



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

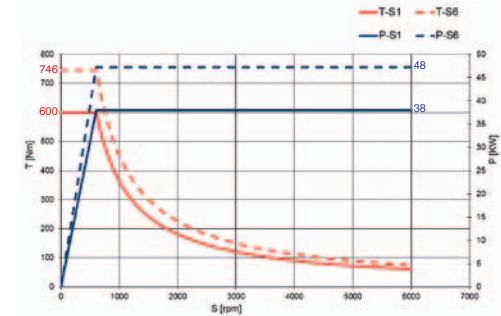
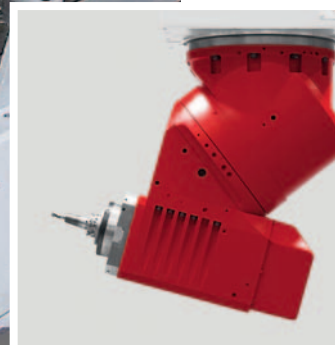
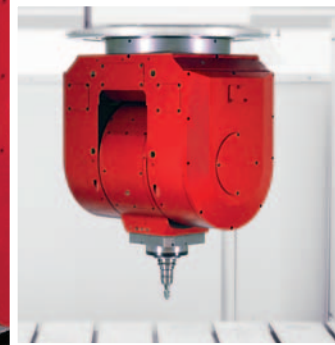
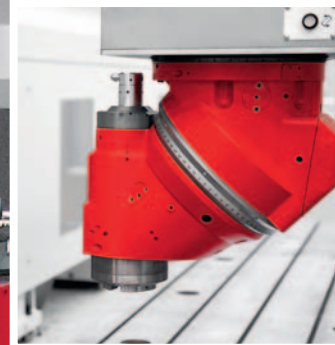
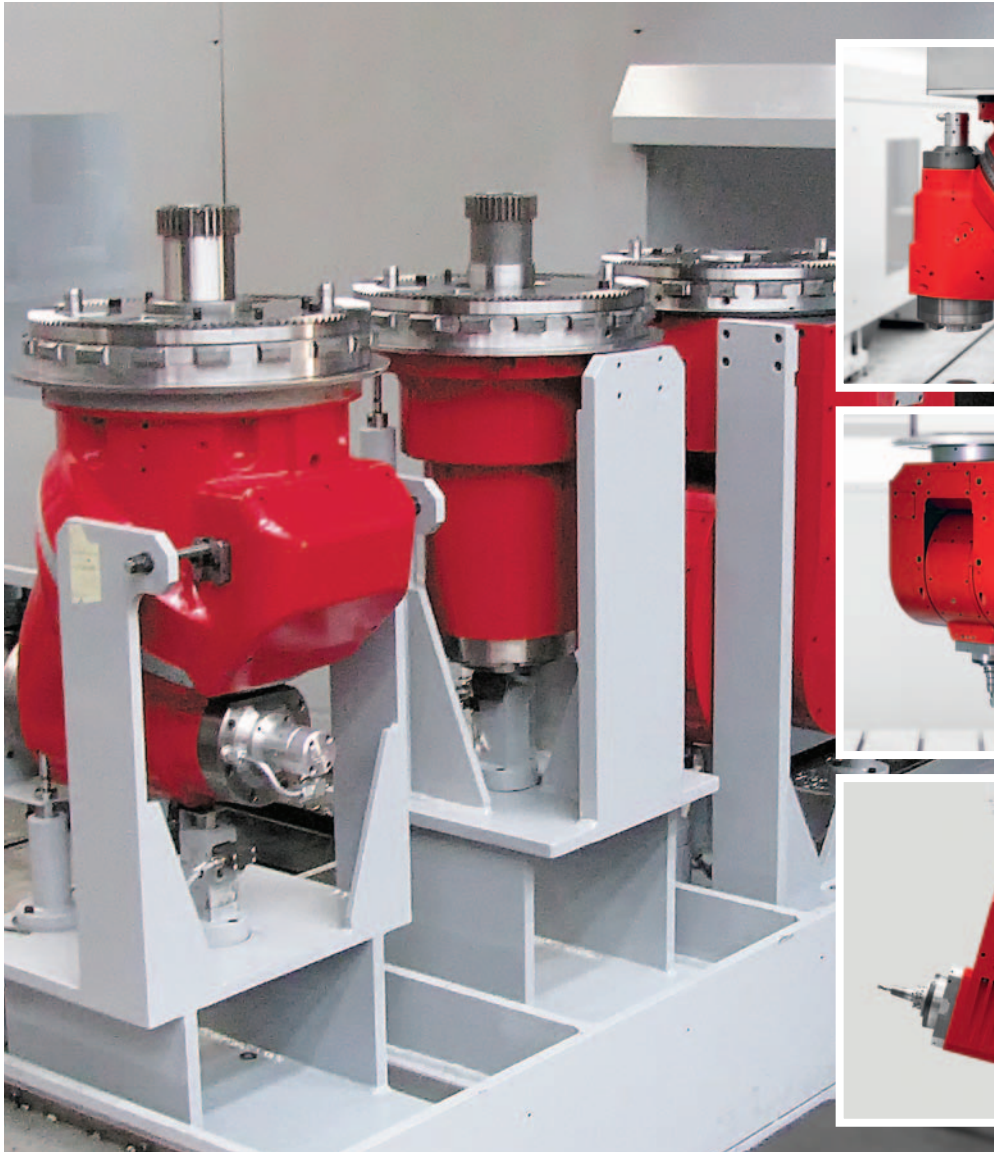


Machining of a plastic injections mould for automotive industry

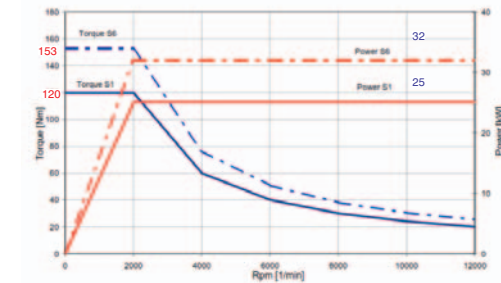


Fully enclosed (roof available as an option)

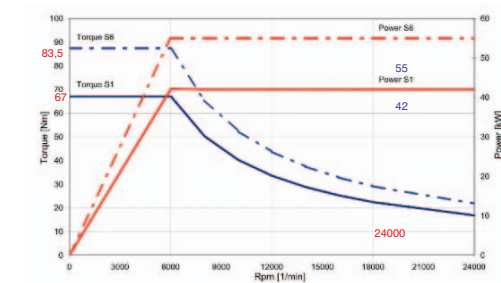
/ DYNAMILL MILLING HEADS



Universal milling head with automatic millesimal positioning

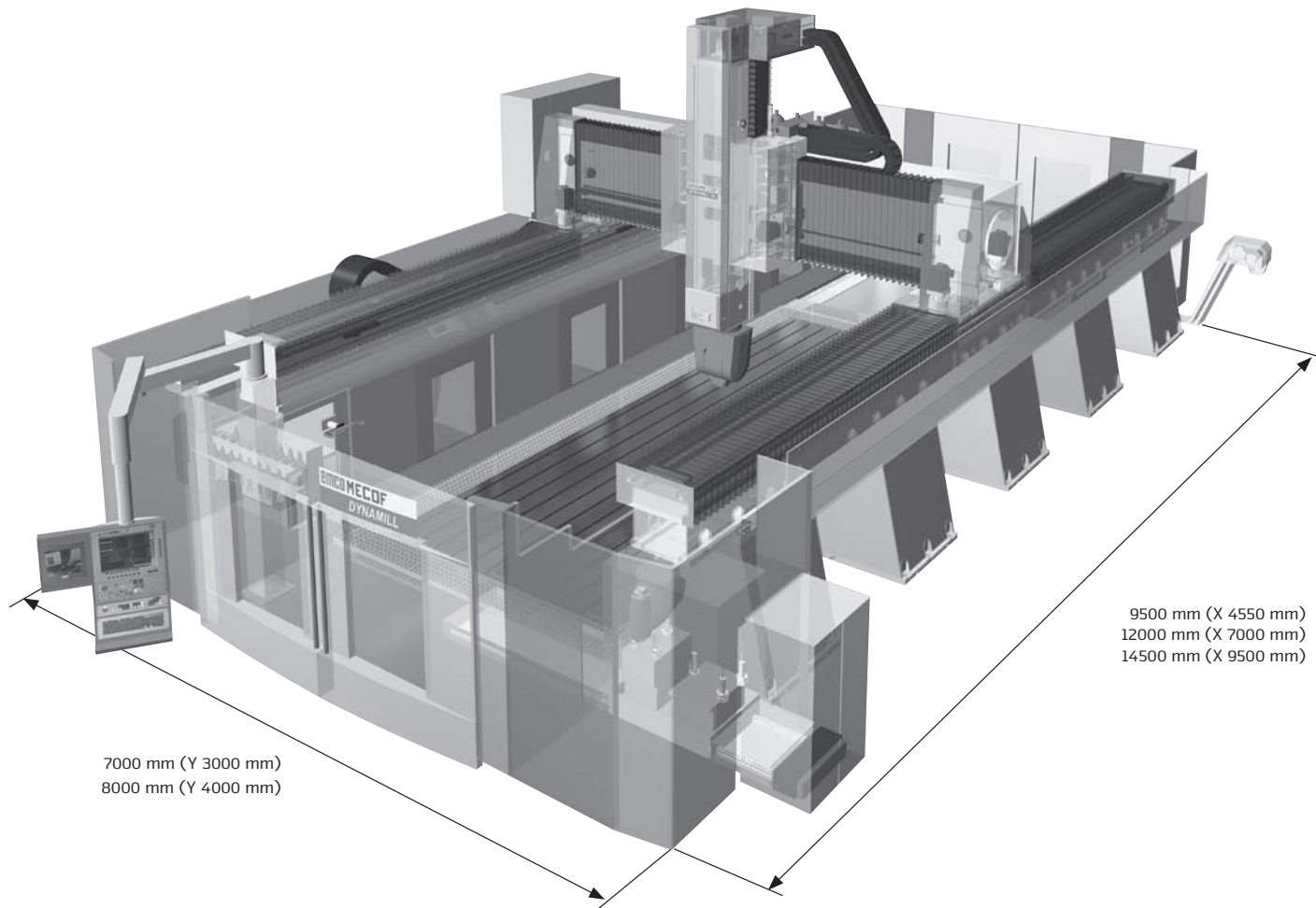


Full 5-axis fork type milling head with torque motors and high speed spindle

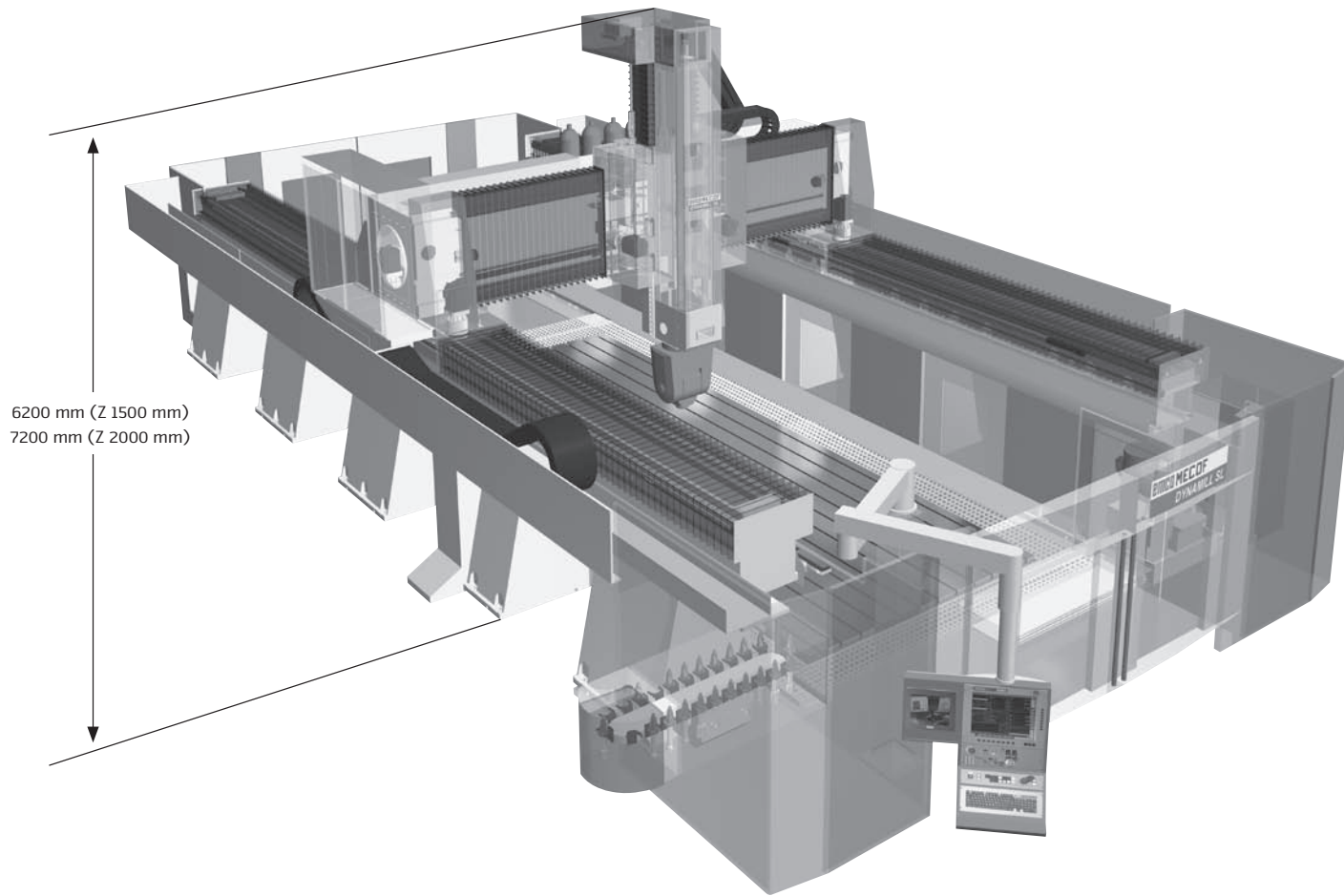


Universal milling head with torque motors and high speed spindle

/ MACHINE DIMENSIONS



/ MACHINE DIMENSIONS



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 mm
Feedrate	40 m/min

Numerical control

Heidenhain	TNC 640 HSCI
Siemens	840D sl

Motor Spindle

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

Electric 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

Electric 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

Electric 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

Electric 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

beyond standard /

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