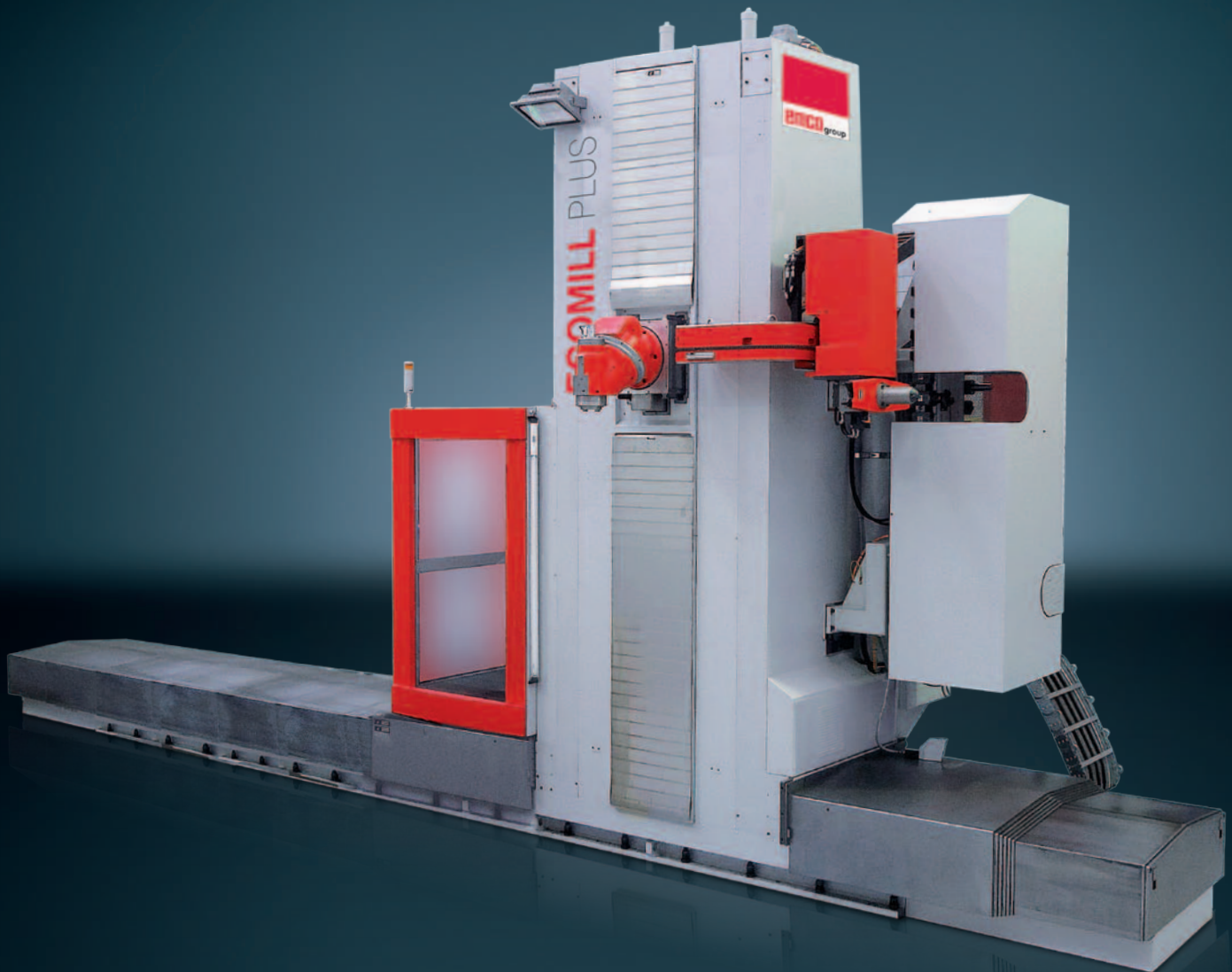


emco MECOF

Designed for your profit



Tailored for optimal production efficiency **ECOMILL PLUS**

Milling machine with horizontal spindle and moving column

[Ecological]

With significant improvements in energy management compared to traditional Mecof machines, Ecomill Plus needs **up to 20%** less electricity and **up to 50%** less consumables.

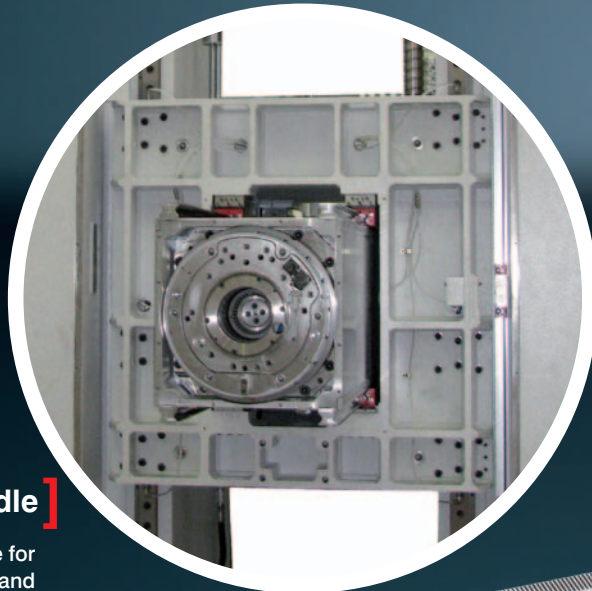


[Economical]

Thanks to the high standardization of the machine structures, it offers the **best quality/price ratio**.

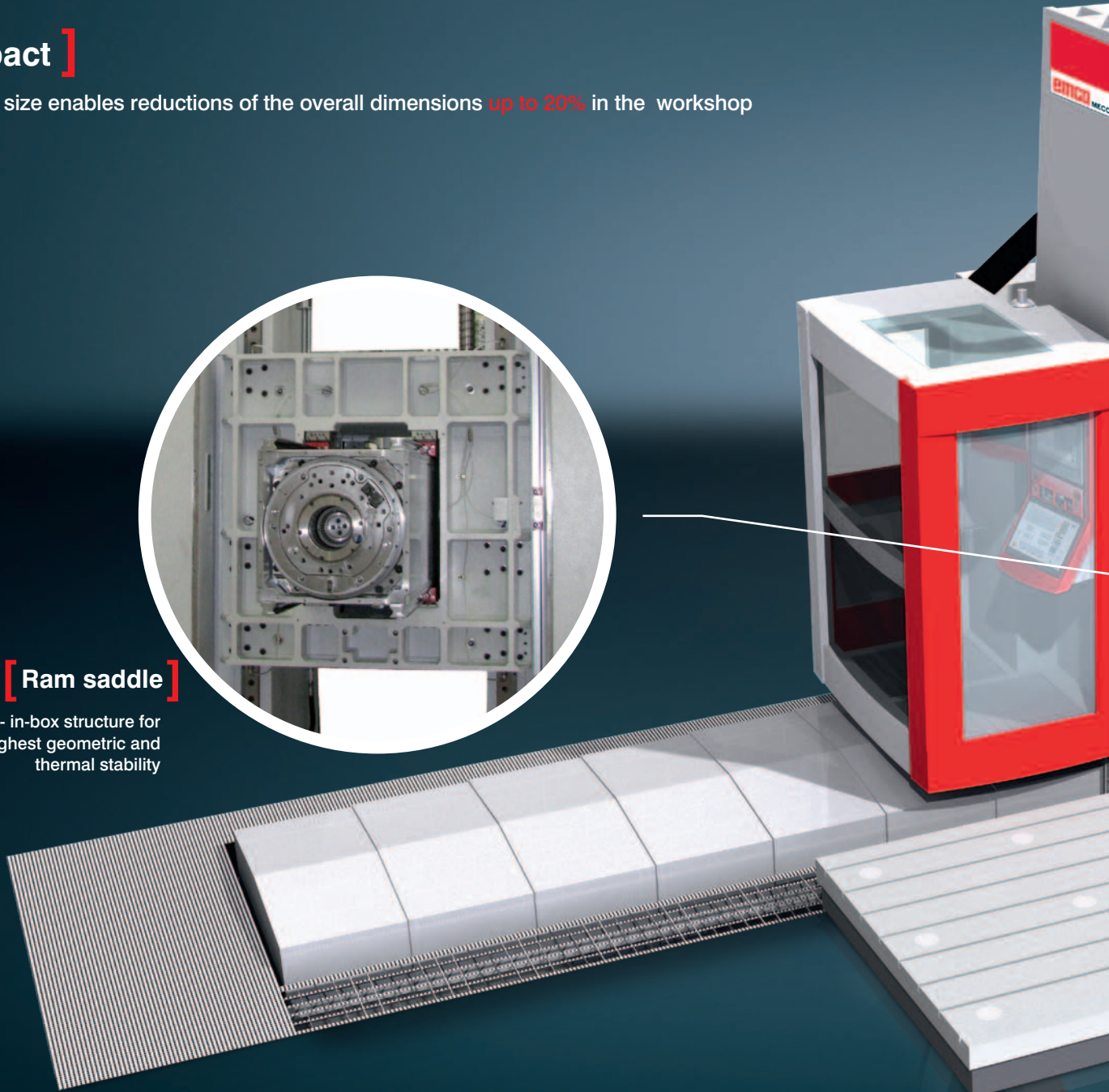
[Compact]

Its compact size enables reductions of the overall dimensions **up to 20%** in the workshop



[Ram saddle]

Box- in-box structure for the highest geometric and thermal stability



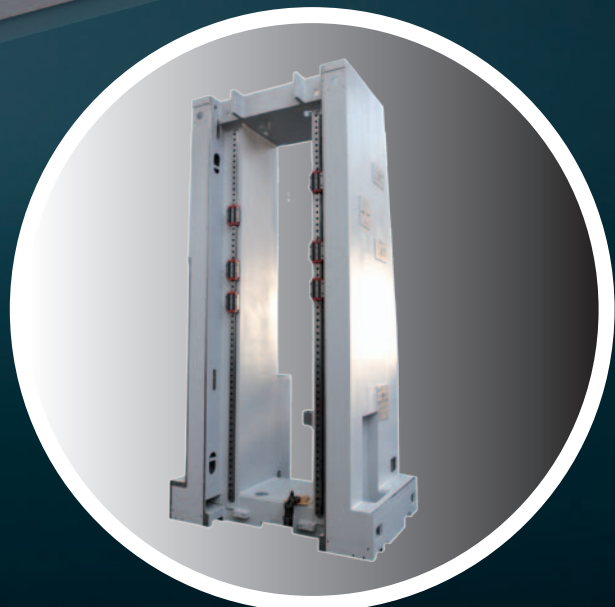
[Rotary platform]

Rotary platform with 360.000 positions, or with 4th axis, managed by the numerical control



[Machine column]

Box-in-box structure in electro-welded steel with heavily ribbed structure, resistant to deflection and torsion as well as being insensitive to vibrations.



[Technology]

Designed by FEM software used for structural analysis, the ECOMILL Plus has an excellent weight distribution that enables high levels of stiffness and dynamic performance to be achieved.

Multi-purpose configuration: several milling heads, from mechanical with a continuous axis to a full 5-axis fork-type with high speed spindles that meet the most exacting customer requirements.

An extensive range of options, such as an automatic tool changer with up to 228 pockets, automatic head and rotary tables in a variety of sizes complete the equipment.



Automatic head changer



Machining on a rotary table



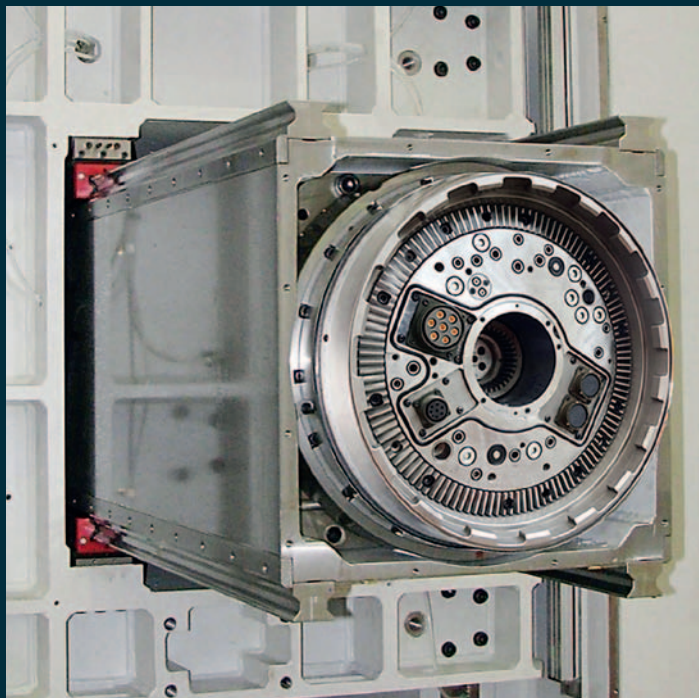
Roughing operation on a stamping die



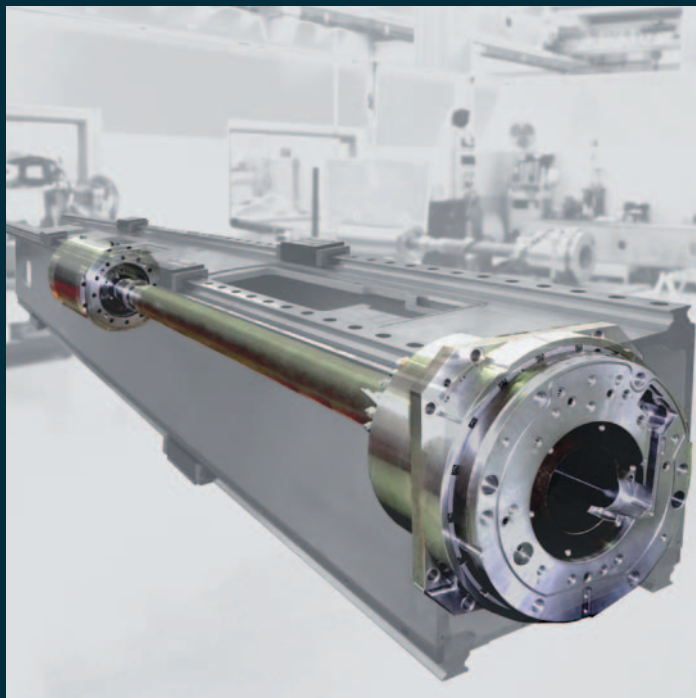
Machining of a housing of an electrical motor

Efficient and ecological

- A responsible energy consumption management for the various machining processes is essential for Mecof. The objective is the energy cost reduction by increasing the efficiency of all the components involved and the optimization of the process throughout the whole service life of the machine.
- Numerical control with dedicated functions for the monitoring and management of energy consumption.
- High-efficiency motors and drives with functions for the recovery of energy generated during the “braking” phases and automatic compensation of the reactive power
- Solutions for closed circuits for the use of lubricating oils limiting the dispersion of pollutants.



Ram in box-in-box configuration ensures high-stiffness and repeatability



Direct drive transmission ensures high reliability and long-life of the machine spindle line



Machining through a mechanical milling head of a bumper mould

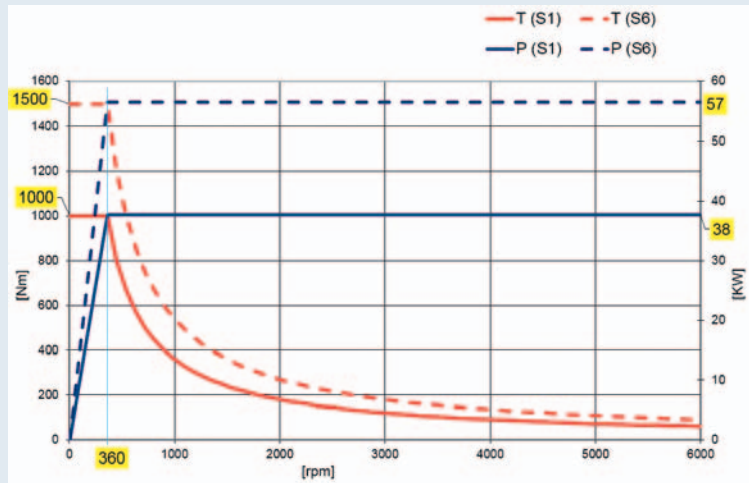


Machining of a hydraulic blade for turbines

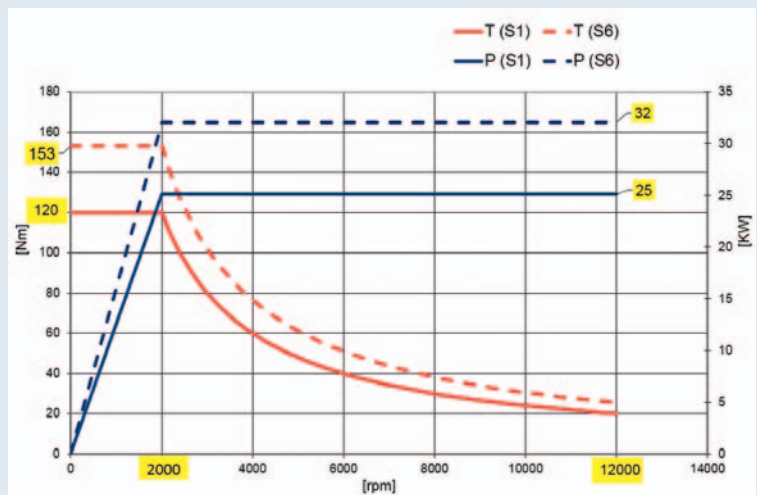
[Milling heads]



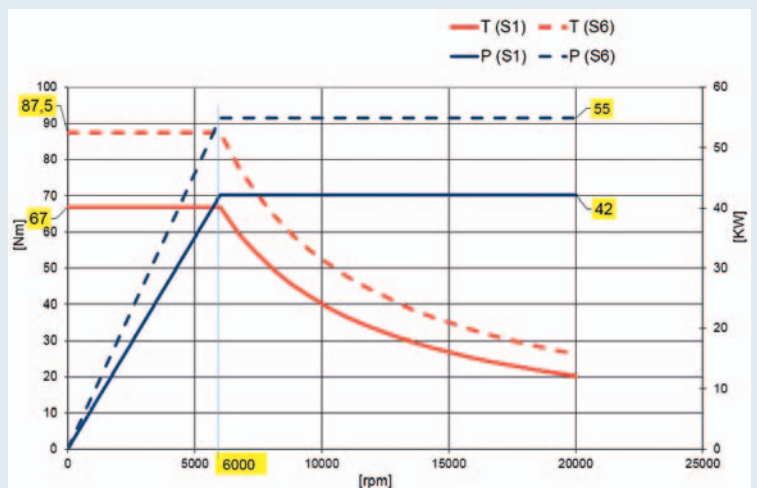
Universal milling head with automatic millesimal positioning



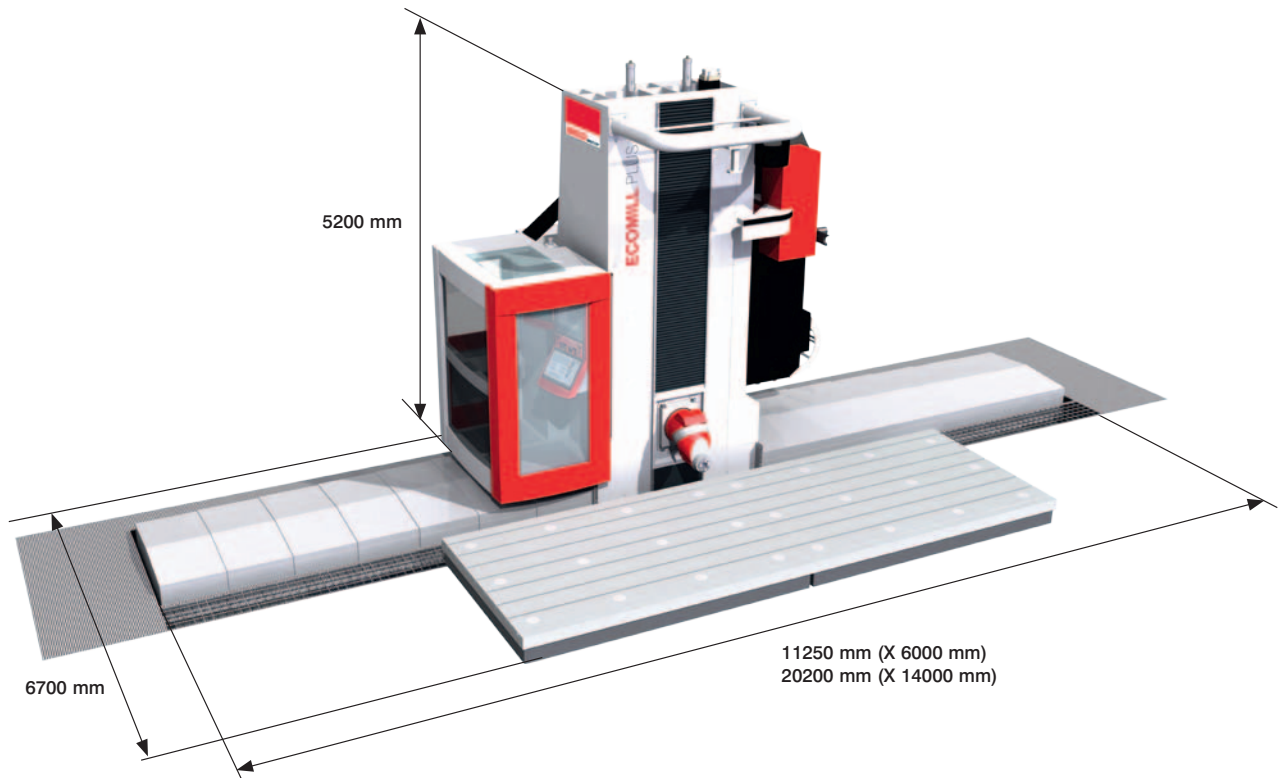
Full five axes fork type milling head with high-speed spindle



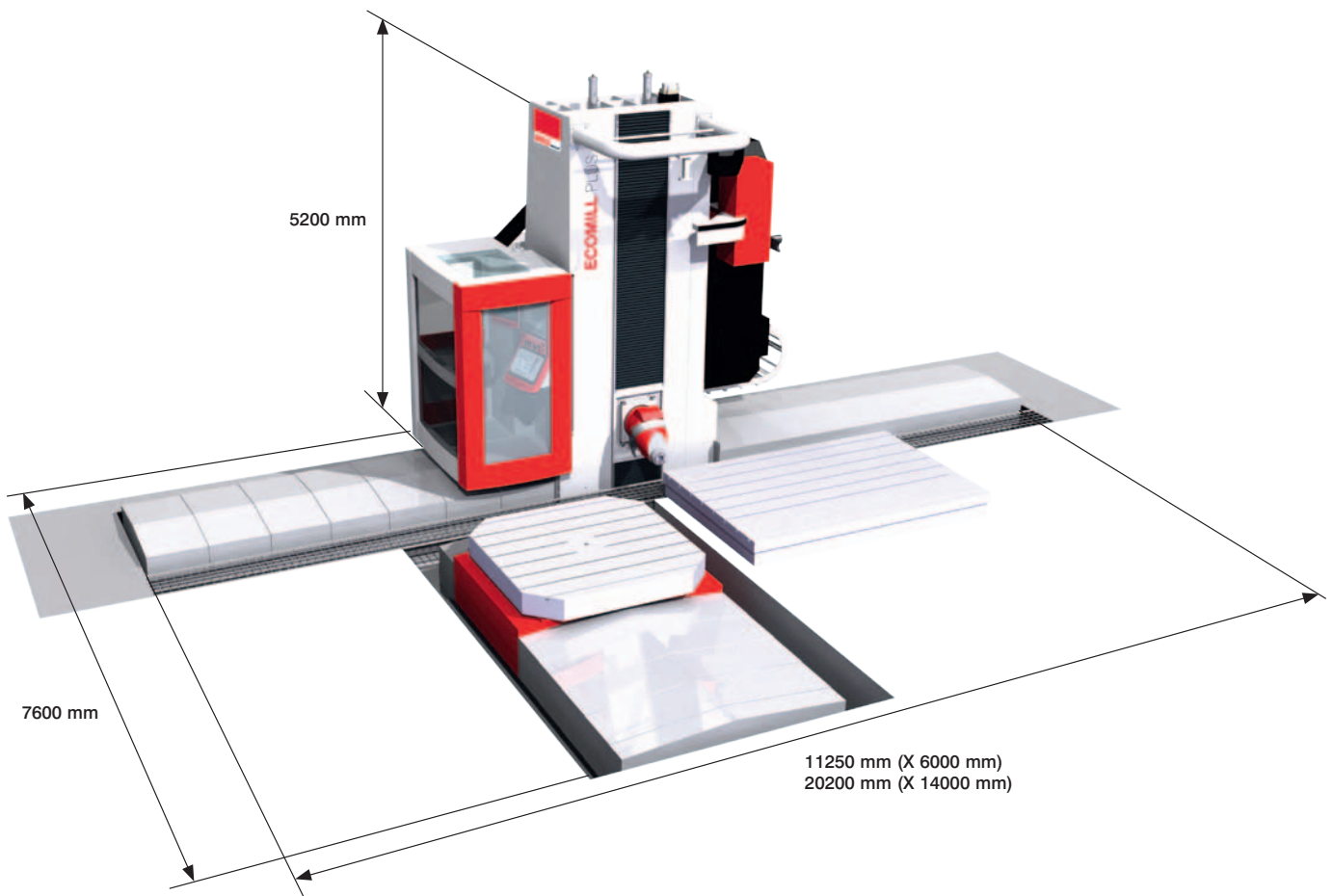
Universal milling head with high-speed spindle



Machine layout



Machine layout



[Technical data]

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ECOMILL PLUS

Linear axes	
Longitudinal axis	from 6000 mm (236") and over
Cross axis	1600 mm (63")
Vertical axis	3000 mm (118")
Axes feed rate	30 m/min (1181 ipm)
Ram	
Dimensions (overall)	585 x 500 mm (23 x 20")
Spindle motor - base	60 kW / 600 Nm (81 HP / 443 lbf-ft)
option	40 kW / 1200 Nm (54 HP / 885 lbf-ft)
Numerical control	
Heidenhain	iTNC530
Siemens	840D sl
Workpiece/tool coolant system	
Low pressure	28 l/min; 6 bar
High pressure (through the spindle)	20 l/min; 20 bar

Universal milling head with automatic millesimal positioning	
Power S1/S6	38 / 57 kW (51 - 76 HP)
Torque S1/S6	1000 / 1500 Nm (737.5 - 1106 lbf-ft)
Rotation speed	15 ÷ 6000 rpm
Tool taper standard	ISO 50 DIN 69871
option	HSK-100 DIN 69893
Accessories	
Milling head with extended spindle	8000 rpm
Full 5 axes universal milling head	6000 rpm
Milling head with offset spindle	3000 rpm
Universal milling head with high-speed spindle	20000 rpm
Full 5 axes fork type milling head with high-speed spindle	12000 rpm
Automatic tool changer	60 / 80 / 100 / 120 pockets
Automatic head changer	2 / 3 pockets

Machines with horizontal spindles



Ecomill



Mecmill



Mecmill Plus

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