EMCO

EMCOMILL 800 / 1100

3-axis CNC machining centers

PERFORMANCE AND FLEXIBILITY WRAPPED IN A COMPTACT DESIGN

The flexible, vertical CNC milling machines for 3-axis milling operations have a compact machines layout, a travel of 800/1100 mm in the X-axis, 550/600 mm in the Y-axis, the latest control technology, as well as a very attractive price-performance ratio. The moveable table and large work area enable the machining of heavy workpieces weighing up to 600kg for the EMCOMILL 800 and 800kg for the EMCOMILL 1100.

Counterform
(Aluminium)

1 TOOL CHANGER

/ Tool changer with 30 stations
/ Quick release with double-gripper

2 WORK AREA

/ Large machine doors
/ Optimum view into the work area
/ High dynamic/moveable table with up to 42/36 m/min rapid speeds.

3 THE NOTION OF STRUCTURE DESIGN

/ Machine bed made of FEM-optimized gray cast iron

Machines with optional equipment.

4 CONTROL

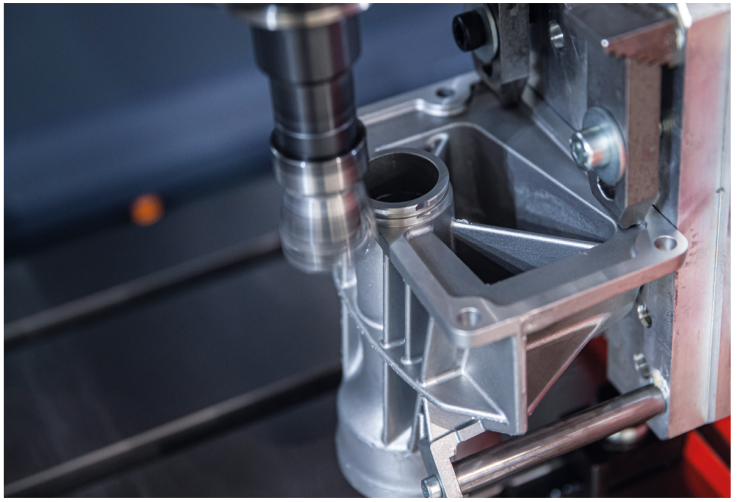
/ Cutting-edge digital control technology
/ SIEMENS 828D with ShopMill
/ 15-inch color monitor

5 SPINDLE

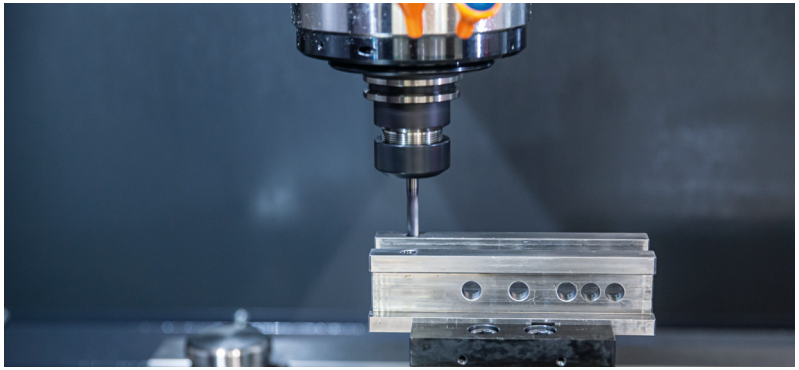
/ Inline spindle: 12 000 U/min

TECHNICAL HIGHLIGHTS

The EMCOMILL Series 800/1100 is equipped with state-of-the-art control technology, featuring the Siemens 828D with ShopMill. The machine's control panel includes a swivel function for ergonomic operation.

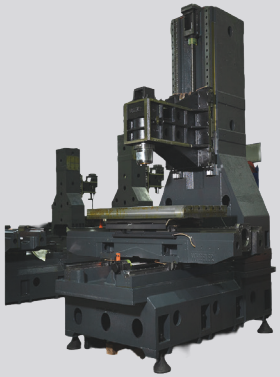


FIELDS OF APPLICATION



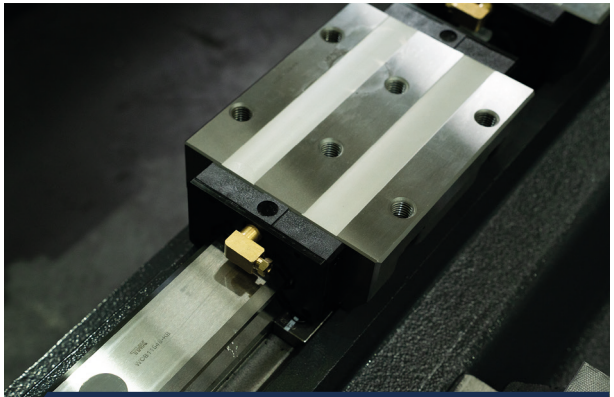
HIGHLIGHTS

/ High-performance milling spindle
/ Flexible tool system
/ Large work area with wide machine doors
/ Table for workpiece weights up to 800kg
/ State-of-the-art control technology from Siemens
/ Best price-performance ratio



DESIGN

The machine tool's optimized structural design, combined with high rigidity, stability, precision, and carefully selected high-quality components, ensures efficient processing and time savings.

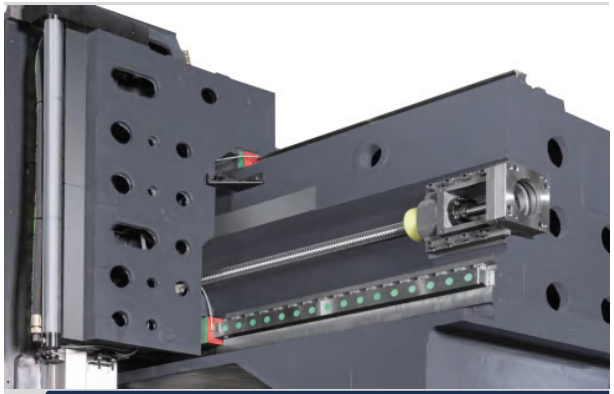


LINEAR GUIDE RAIL & BALL SCREW

Grease-lubricated (central) ball screws and linear roller guides (45 mn in the X and Y axes; 35 in the z-axis) offer high resistance against mechanical stress and a high, zero-vibration traver-se speed. On the picture, machine equipped with glass scales (option).

TOOL CHANGER

The tool changer is equipped with 30 tool stations. The tool management system is based on the principle of variable tool position coding (random), meaning that, for time efficiency, the tool is always stored in the next available magazine slot. Alternatively, fixed position coding can also be used, for example for larger tools.



SOLID STRUCTURE

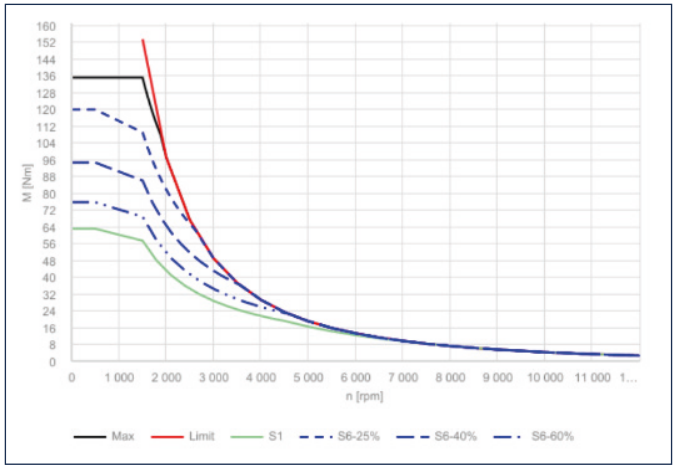
Optimised on the basis of FEM analyses and made of cast iron, the guide retainers, carriages and spindle carriers ensure maxi-mum stability and perfectly finished workpieces.

TECHNICAL HIGHLIGHTS

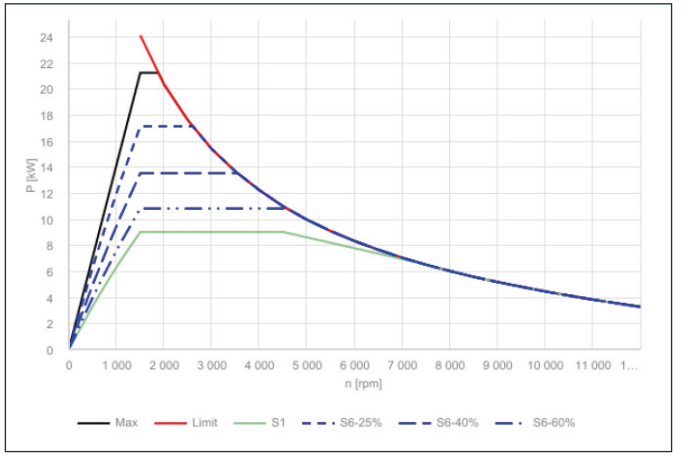
HIGH-PERFORMANCE SPINDLE

A 12,000 rpm direct-drive spindle powered by a 13,6 kW motor.

Power and Torque



Mechanical spindle



In-line spindle

STANDARD EQUIPMENT

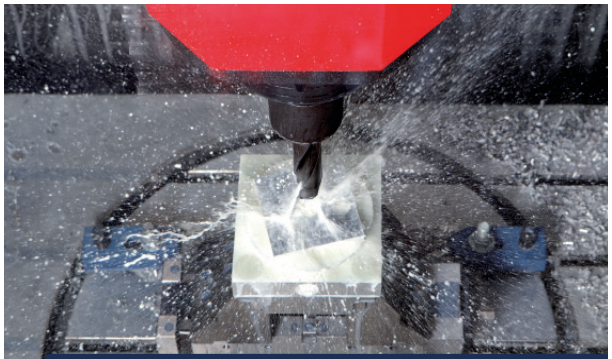
- / 30-positions tool magazine
- / SK 40 tool holder
- / Coolant spray gun
- / Electrical cabinet cooling unit
- / Handwheel standard
- / Alarm lamp
- / Automatic tool measurement
- / Spindle-through coolant and air supply
- / Belt-type filter units with high-pressure pumps
- / Shopmill
- / Chip conveyor
- / Oil mist separator

CHIP CONVEYOR

A simple and efficient chip removal system flushes chips to the front chain conveyor with cutting fluid, which transports them to the storage area. The chip cart allows easy and convenient collection.

OIL MIST SEPARATOR

Integrated extraction sytem specially designed for the extraction of oil mist.. Only in combination with option 8AO-COPSUPEM1200 upper machine enclore.



THROUGH-TOOL COOLANT

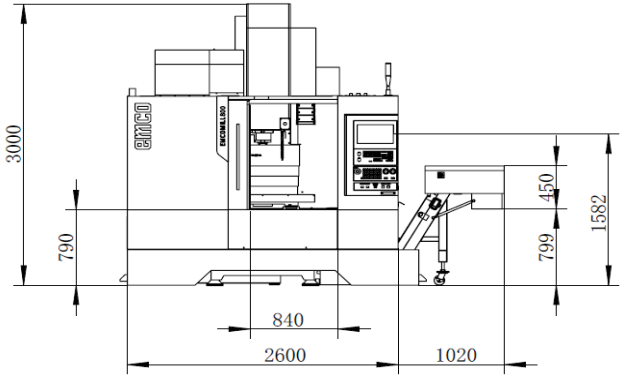
The spindle can be optionally flooded with high-pressure coolant (30 bar). This ensures reliable chip removal from holes and pockets and reduces cycle times for this type of machining.

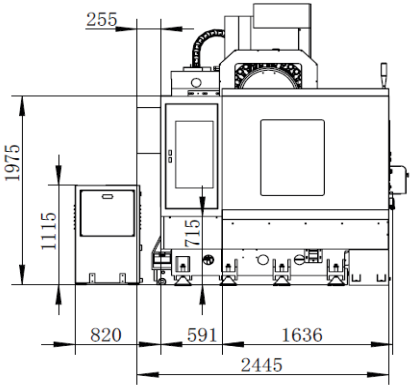
TOOL MEASUREMENT

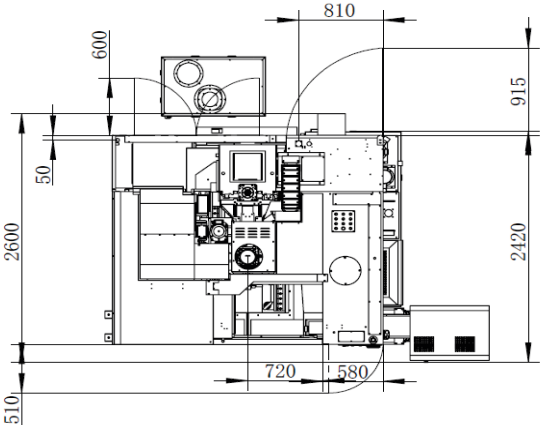
Compact, contact-type 3D tool presetter with wired signal transmission for tool breakage detection and rapid measurement of tool length and diameter on a wide range of tools. Includes a TS27R probe holder, a probe module, 2 sacrificial tips, and a 12.7 mm diameter disc probe.

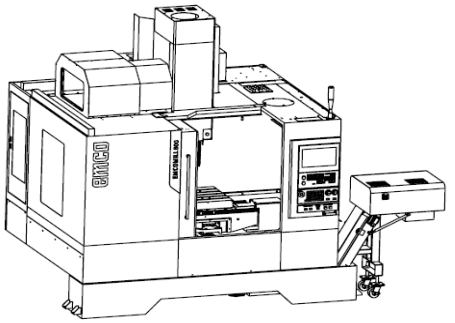
INSTALLATION PLAN

EMCOMILL 800





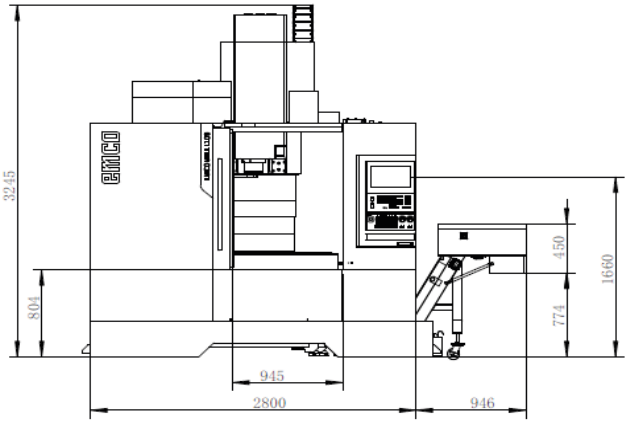


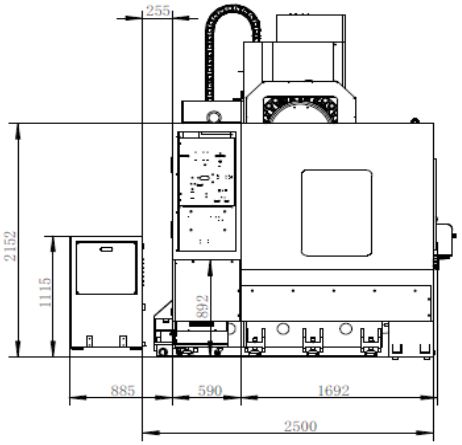


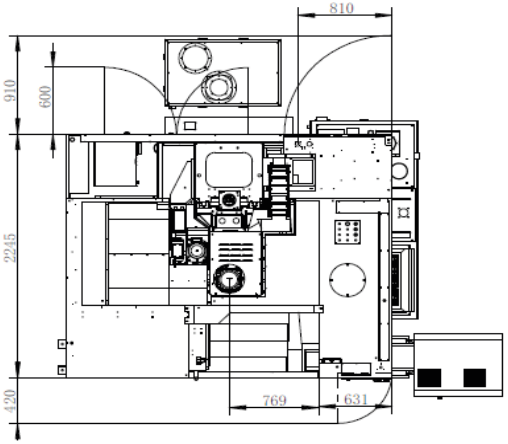
Dimensions in millimeters

INSTALLATION PLAN

EMCOMILL 1100



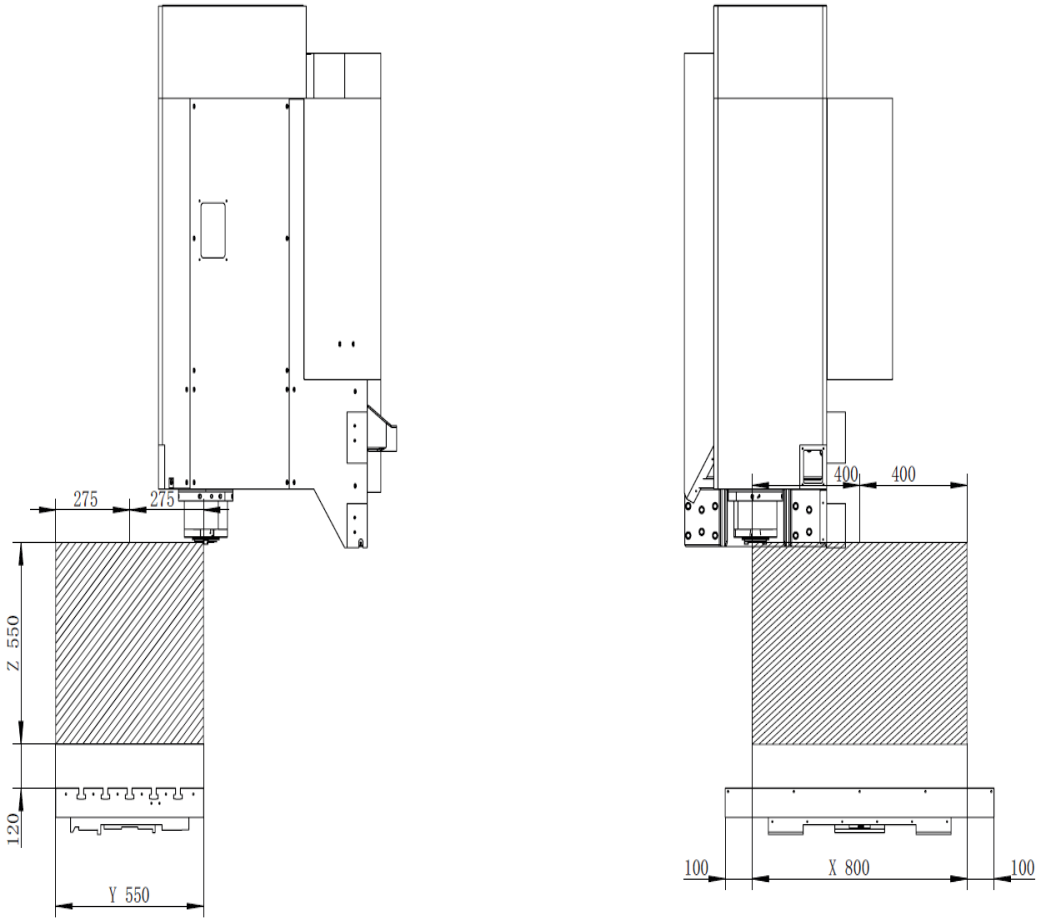




Dimensions in millimeters

WORKING AREA

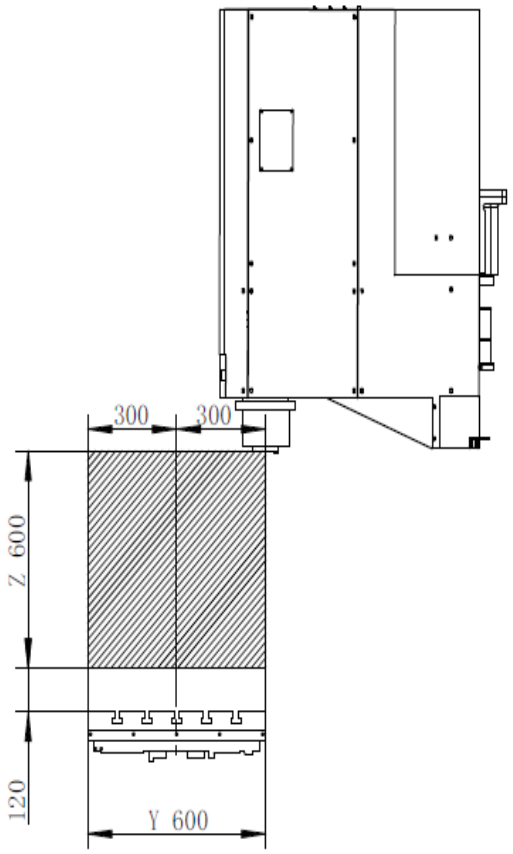
EMCOMILL 800

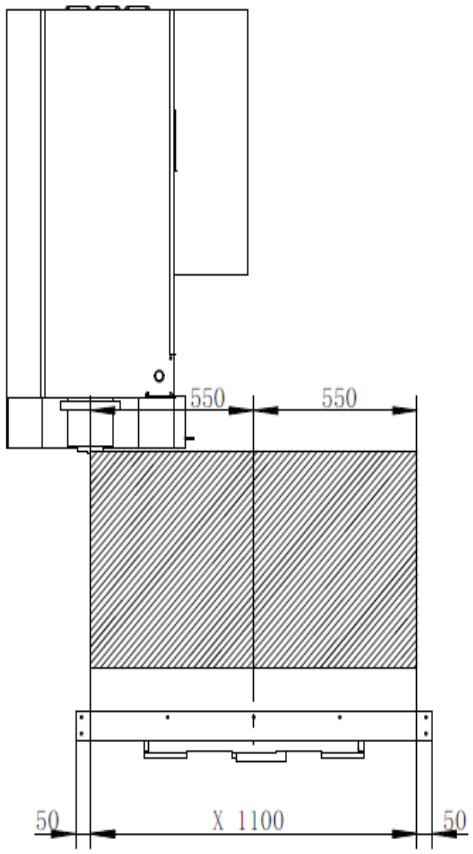


Dimensions in millimeters

WORKING AREA

EMCOMILL 1100





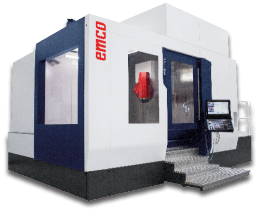
Dimensions in millimeters

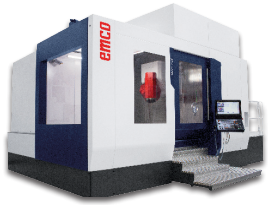
TECHNICAL DATA

Work area	EMCOMILL 800	EMCOMILL 1100
Travel in X-axis	800 mm	1100 mm
Traveel in Y-axis	550 mm	600 mm
Verfahrweg Z-Achse	550 mm	600 mm
Min. / max. spindle nose-table distance (mechanical spindle)	120 / 670 mm	120 / 720 mm
Table		
Table dimensions (lengh x width)	1000 x 550 mm	1200 x 600 mm
T-grooves: number, width, spacing	5 x 18 x 90 mm	5 x 18 x 100 mm
Max. table load	600 kg	800 kg
Distance table surface / floor	945 mm	965 mm
Main spindle (direct drive)		
Speed range	50 – 12000 U/min	50 – 12000 U/min
Torque (S6)	95 Nm	95 Nm
Spindle motor power (S6)	13,6 kW	13,6 kW
Tool holder (DIN 69871)	SK40	SK40
Drive	Direct drive	Direct drive
Tool changer		
Number of tool stations	30	30
Tool time change (tool to tool)	2,5 Sek.	2,5 Sek.
Max. tool diameter	76 mm	76 mm
Max. tool diameter (with empty station)	150 mm	150 mm
Max. tool length	300 mm	300 mm
Max. tool weight	8 kg	8 kg
Axes		
Rapid speed in X, Y, Z	42/42/42 m/min	36/36/36 m/min
Feed force in X, Y, Z	7000 N	10000 N
Axis acceleration in X, Y, Z	5 m/s^2	5 m/s^2
General data		
Power supply	30 kVA	30 kVA
Overall height	3000 mm	3245 mm
Installation area W x D (without chip conveyor, with tank)	2600 x 2600 mm	2800 x 2245 mm
Total weight of the basic machine	5,400 kg	6,500 kg
Compressed air required	6 bar	6 bar
Required installation area	3620 x 3335 mm	3746 x 3575 mm

UMILL

UNIVERSAL MACHINING CENTRES FOR 5-AXIS SIMULTANEOUS MACHINING


UMILL 1800


UMILL 1500

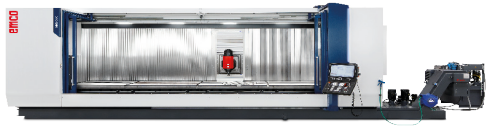

UMILL 1000


UMILL 750


UMILL 630

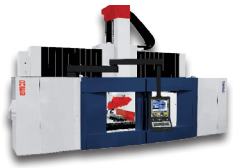
MMV

TRAVELLING-COLUMN MACHINING CENTERS


MMV 3200 / MMV 4200 / MMV 5200 / MMV 6200

GANTRY MILLING MACHINES

GANTRY MILLING MACHINES FOR LARGE-VOLUME PARTS


DYNAMILL

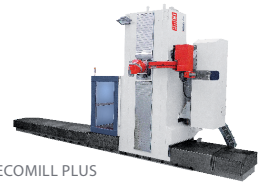

DYNAMILL G5


MEGAMILL


POWERMILL

TRAVELLING-COLUMN MACHINES

UNIVERSAL TRAVELLING-COLUMN MACHINES FOR LARGE-VOLUME PARTS


ECOMILL PLUS


ECOMILL


MECMILL PLUS


MECMILL

MAXXMILL

VERTICAL MACHINING CENTRES FOR 4+1-AXIS


MAXMILL 630


MAXMILL 750

EMCOMILL

AND 3-AXIS MACHINING


EMCOMILL 1100


EMCOMILL 800


EMCOMILL E350

beyond standard

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