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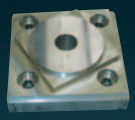
[E[M]CONOMY means:]

Compact technology for maximum efficiency EMCOMILL 1200 and EMCOMILL 750

3-axis CNC milling machines for the machining of small to medium lot sizes

EMCOMILL 1200



Test UNI ISO 10791-7
(Aluminum)

Tool
(Steel)

Contour machining
(Aluminium)

[Tool drum]

- Tool drum with 30 or 40 stations
- Quick release with double-gripper

[Work area]

- Large machine doors
- Optimum view into the work area
- Protected, elevated guide systems
- Fixed table for high workpiece weights

[Control]

- Cutting-edge digital control technology
- SIEMENS 828D with ShopMill
- FANUC 0i-MF with Manual Guide i and 3D-graphic
- Colour monitor

[Machine base]

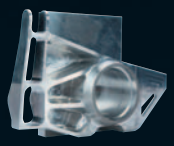
- Machine base made from vibration-damping polymer concrete

[Spindle]

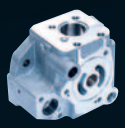
- Mechanical spindle direct drive: 10000 rpm
- Water-cooled motor spindle: 15000 rpm

The new moving column milling machine EMCOMILL 1200 is an addition to EMCO's product range: the flexible, vertical CNC milling machine for 3-axis milling work has a compact machine layout, a travel of 1200 mm in the X-axis, 600 mm in the Y-axis, the latest control technology, as well as a very attractive price-performance ratio. The solid fixed table and large work area enable the machining of heavy workpieces weighing up to 1500 kg.

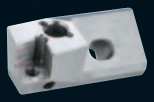
EMCOMILL 750



Bearing housing
(Steel)



Pump housing
(Aluminium)



Sliding carriage mount
(Steel)

[Work area]

- Large machine doors
- Optimum view into the work area
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- Fixed table for high workpiece weights

[Tool drum]

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[Machine base]

- Machine base made from vibration-damping polymer concrete

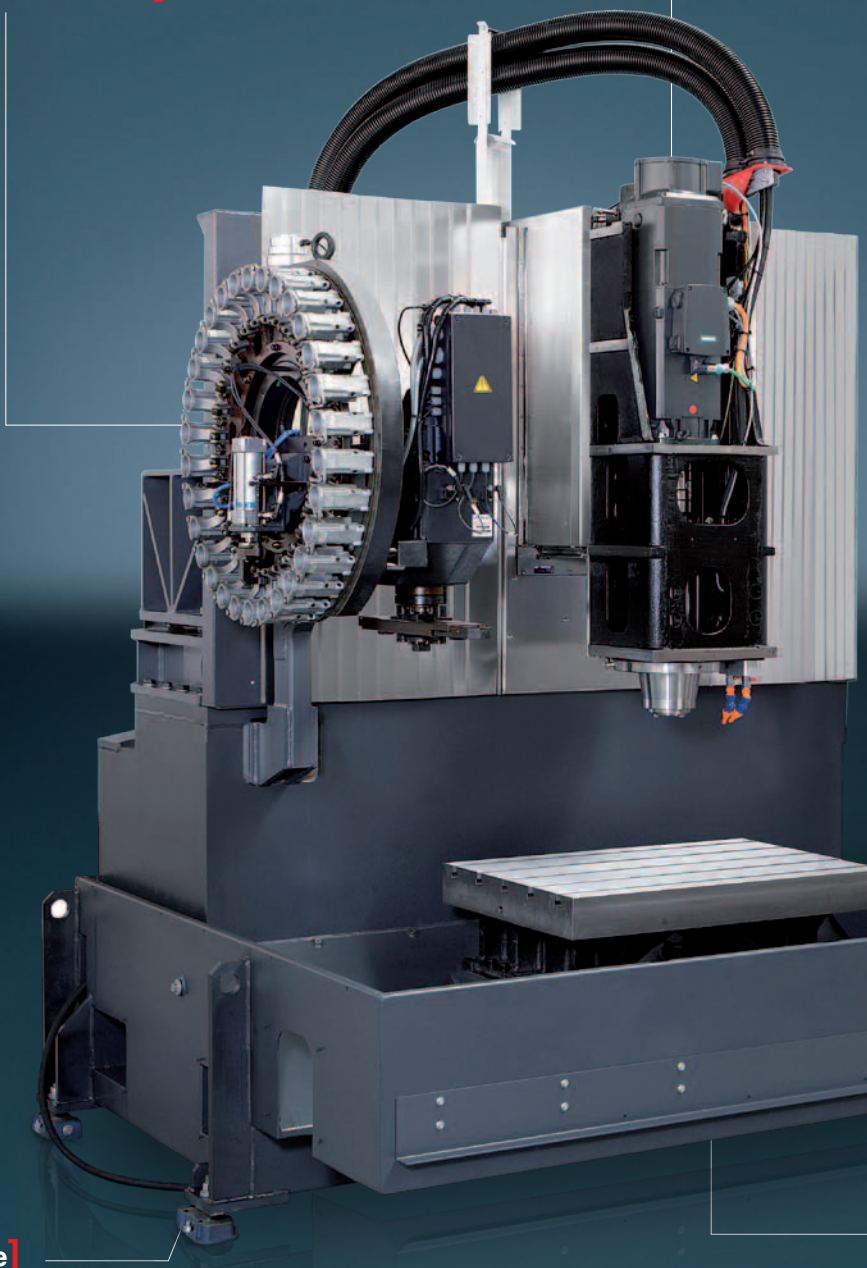
[Spindle]

- Mechanical spindle direct drive: 10000 rpm
- Water-cooled motor spindle: 15000 rpm

With a travel of 750 mm in the X-axis and a maximum workpiece weight of 800 kg, the EMCOMILL 750 is the smaller version of the EMCOMILL 1200. A compact machine design, generous work area and maximum stability are just some of its excellent features.

[Machine construction]

The new EMCOMILL 1200 and EMCOMILL 750 series is designed as a moving column milling machine. The machine base is made from particularly vibration-damping polymer concrete. The X-slide is made from welded steel; the Y- and X-slides are made from a stress-free mould.



[Spindle]

[Drum magazine]

[Machining table]

Cast iron fixed table with T-grooves, dimensions 1300 x 630 mm, on which clamping systems can be installed. Due to the rigid table automation solutions with robot or pallet changer can be perfectly integrated. Large-dimension workpieces with a total weight of up to 1500 kg can be machined, achieving high accuracy thanks to the moving column technology.

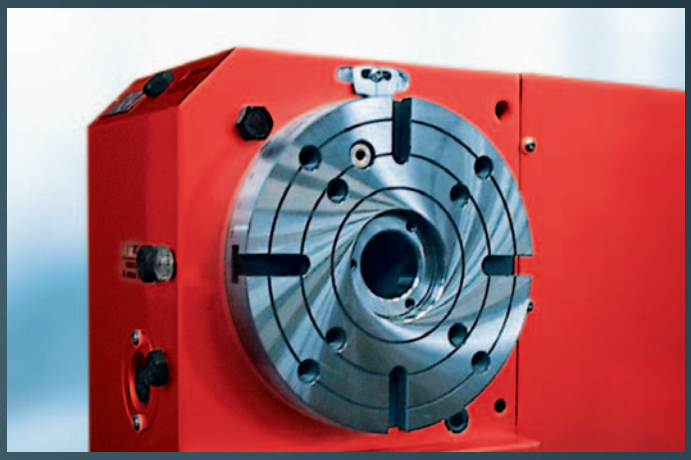
[Machine base]

[Chip flushing system]

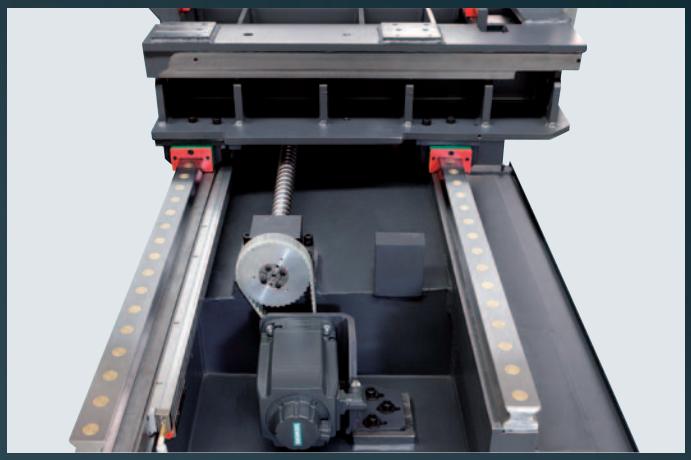
[Technology]

Highlights

- High-performance milling spindles
- Flexible tool system
- Large work area with wide machine doors
- Solid fixed table for workpiece weights up to 1500 kg
- State-of-the-art control technology from SIEMENS and FANUC
- Large number of options
- Best price-performance ratio
- Made in the Heart of Europe

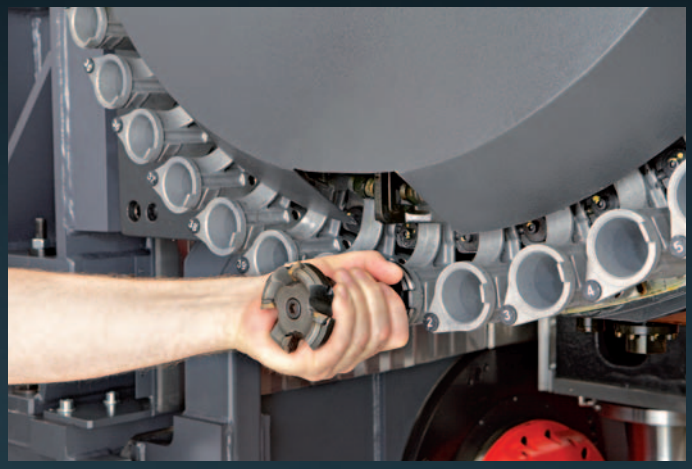


As a 4th axis, a rotary table with a diameter of 200 mm is available, offering up to 0.001° precise resolution and NC-interpolation.



Caged roller ways and ball screws. Oil-lubricated caged roller ways size 45 mm in X-axis and 35 mm in Y-, Z-axis, with high resistance to mechanical strains and at the same time high displacement speed with no vibrations and fluid motions.

High-performance spindle ISO 40 DIN 69871 / ISO 7388/2 type B.
Option: ISO 40 DIN 69871 / DIN 69872, BT40, HSK-A63 (only for motor spindle)

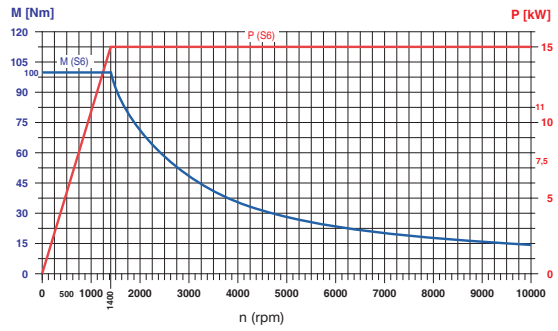


The tool magazine has 30 stations (40 as option). The tool management with random tool selection uses a double-gripper that allows to make a pre-search of the tool during the machining cycle. Alternatively it is possible to utilise the tool magazine with a fixed place for big-dimensioned tools, leaving the two adjacent stations free.

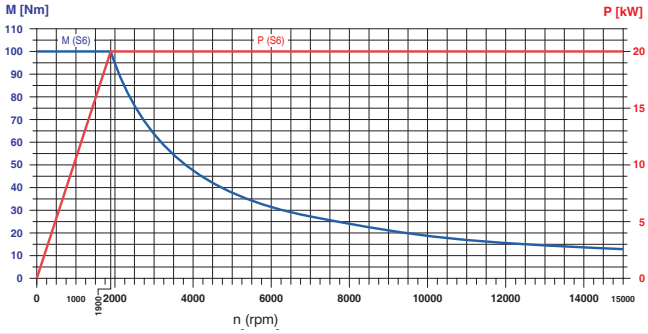
[Technology]

Power

Machanical spindle



Motor spindle



Control

The EMCOMILL 1200 and 750 use state-of-the-art control technology. Siemens 828D with Shopmill and Fanuc 0i-MF with Manual Guide i are the latest products on the market and provide optimum CNC control experiences for both operators and programmers.

SIEMENS 828D

- SHOPMILL dialog programming
- USB interface
- Network drive / Ethernet
- TFT colour monitor 10.4"
- 3D simulation

FANUC 0i-MF

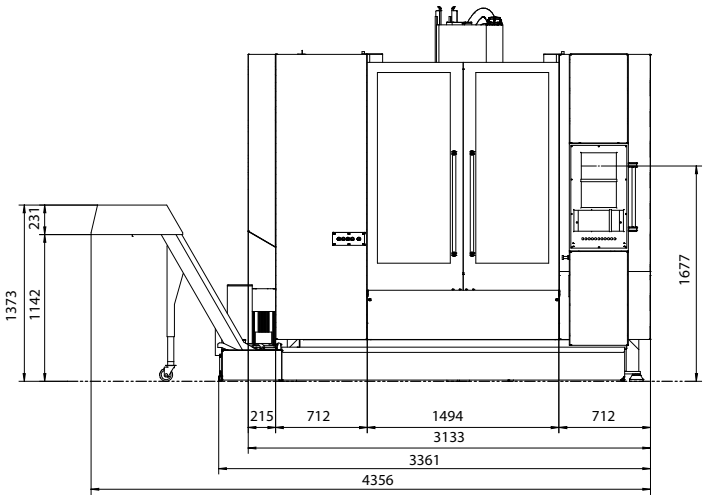
- Manual Guide i dialog programming
- USB interface
- Network drive / Ethernet
- PCMCIA slot
- Colour monitor
- 3D simulation

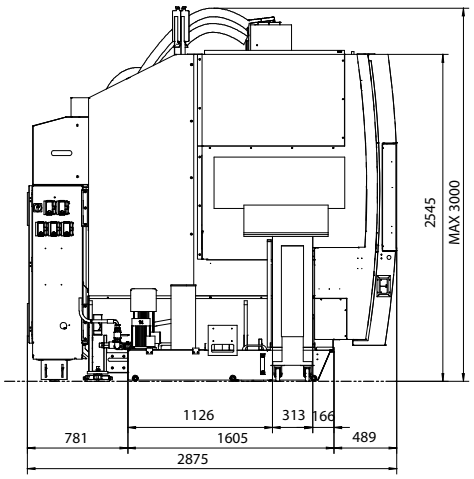
[Options]

- **Tool magazine with 40 stations**
- **Tool holder BT40, HSK-A63, ISO 40 DIN 69871/69872**
- **4th axis**
- **Glass scales in all axes**
- **Handwheel**
- **Alarm status lamp**
- **Control cabinet cooling unit**
- **Automatic tool measuring**
- **Coolant and air through the spindle**
- **Bandpass filters with high pressure pumps**
- **Chip flushing**
- **Coolant gun**
- **Integrated hydraulics unit for clamping systems**
- **Oil mist separator**
- **Automatic doors**
- **Chip conveyor**

[Installation plans]

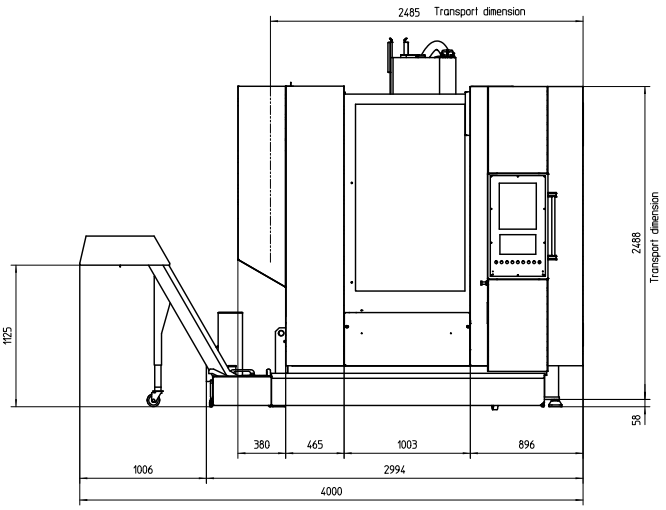
Installation plan EMCOMILL 1200

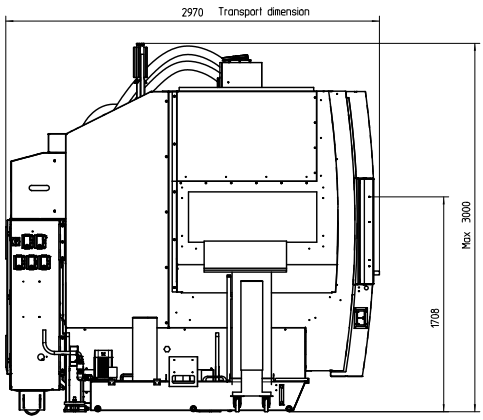




Details in millimeters

Installation plan EMCOMILL 750





Details in millimeters

[Technical data]

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Work area	EMCOMILL 750	EMCOMILL 1200
Travel in X - axis	750 mm (29.5")	1200 mm (47.2")
Travel in Y - axis	550 mm (21.6")	600 mm (23.6")
Travel in Z - axis	500 mm (19.7")	500 mm (19.7")
Min./max. motor spindle nose-table distance	100 / 600 mm (3.9 / 23.6")	100 / 600 mm (3.9 /23.6")
Min./max. motor spindle nose-table distance	70 / 570 mm (2.7 / 22.4")	70 / 570 mm (2.7 /22.4")
Table		
Table dimensions length / width	900 / 630 mm (35.4 / 24.8")	1300 / 630 mm (51.2 / 24.8")
T-grooves: number, width, spacing	5 x 18 x 125 mm (0.2 x 0.71 x 4.92")	5 x 18 x 125 mm (0.2 x 0.71 x 4.92")
Max. table load	800 kg (1763.68 lb)	1500 kg (3306.93 lb)
Distance table surface / floor	790 mm (31.1")	790 mm (31.1")
Main spindle (mechanical spindle)		
Speed range	50 – 10000 rpm	50 – 10000 rpm
Torque (S6)	100 Nm (73.8 ft/lbs)	100 Nm (73.8 ft/lbs)
Spindle motor power (S6)	15 kW (20.1 hp)	15 kW (20.1 hp)
Tool holder (DIN 69871)	ISO40 (BT40, HSK-A63)	ISO40 (BT40, HSK-A63)
Drive	Direct drive	Direct drive
Main spindle (motor spindle)		
Speed range	50 – 15000 rpm	50 – 15000 rpm
Torque S6	100 Nm (73.8 ft/lbs)	100 Nm (73.8 ft/lbs)
Spindle motor power S1 / S6	20 kW (26.8 hp)	20 kW (26.8 hp)
Tool holder (DIN 69871)	ISO BT40, HSK-A63	ISO BT40, HSK-A63
Tool change		
Number of tool stations	30 (40)	30 (40)
Tool change time (tool / tool)	2 sec	2 sec
Max. tool diameter	80 mm (3.1")	80 mm (3.1")
Max. tool diameter (with empty station)	125 mm (4.9")	125 mm (4.9")
Max. tool length	250 mm (9.8")	250 mm (9.8")
Max. tool weight	8 kg (17.6 hp)	8 kg (17.6 hp)
Axes		
Rapid motion speed in X, Y, Z	30 m/min (1181.1 ipm)	30 m/min (1181.1 ipm)
Feed force in X, Y, Z	5000 N (1124 lbs)	5000 N (1124 lbs)
Axis acceleration in X, Y, Z	3 m/s^2	3 m/s^2
General data		
Power supply	20 kVA	20 kVA
Overall height	3000 mm (118.1")	3000 mm (118.1")
Installation area W × D (without chip conveyor, with tank)	2994 x 2925 mm (117 x 115.2")	3361 x 2875 mm (132 x 113")
Total weight of the machine	9000 kg (19841.6 lbs)	10450 kg (23038 lbs)
Compressed air required	6 bar	6 bar

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