emco group

Designed for your profit


# EMCOMILL 1200 and 750

**3-axis CNC milling machines**

**MILLING**

EMCO-WORLD.COM

# EMCOM

## 1 TOOL DRUM

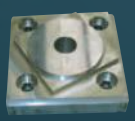
- Tool drum with 30, 40 or 60 stations (chain magazin)
- Quick release with double-gripper

## 2 WORK AREA

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

## 3 MACHINE BASE

- Machine bed made of a special ribbed welded steel construction

Test UNI ISO 10791-7
(Aluminum)

Tool
(Steel)

# ILL 1200

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, 610 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.


## 4 CONTROL

- Cutting-edge digital control technology
- SIEMENS 828D with ShopMill
- Heidenhain TNC620
- FANUC 0i-MF with Manual Guide i and 3D-graphic
- Colour monitor

## 5 SPINDLE

- Mecanical spindle 12000 rpm
- Water-cooled motor spindle 15000 rpm

Contour machining
(Aluminium)

# EMCOM

## 1 TOOL DRUM

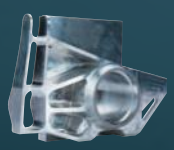
- Tool drum with 30, 40 or 60 stations (chain magazin)
- Quick release with double-gripper

## 2 WORK AREA

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

## 3 MACHINE BASE

- Machine bed made of a special ribbed welded steel construction

Bearing housing
(Steel)

Pump housing
(Aluminium)

# MILL 750

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.


Sliding carriage mount
(Steel)

## 4 CONTROL

- Cutting-edge digital control technology
- SIEMENS 828D with ShopMill
- Heidenhain TNC620
- FANUC 0i-MF with Manual Guide i and 3D-graphic
- Colour monitor

## 5 SPINDLE

- Mecanical spindle 12000 rpm
- Water-cooled motor spindle 15000 rpm

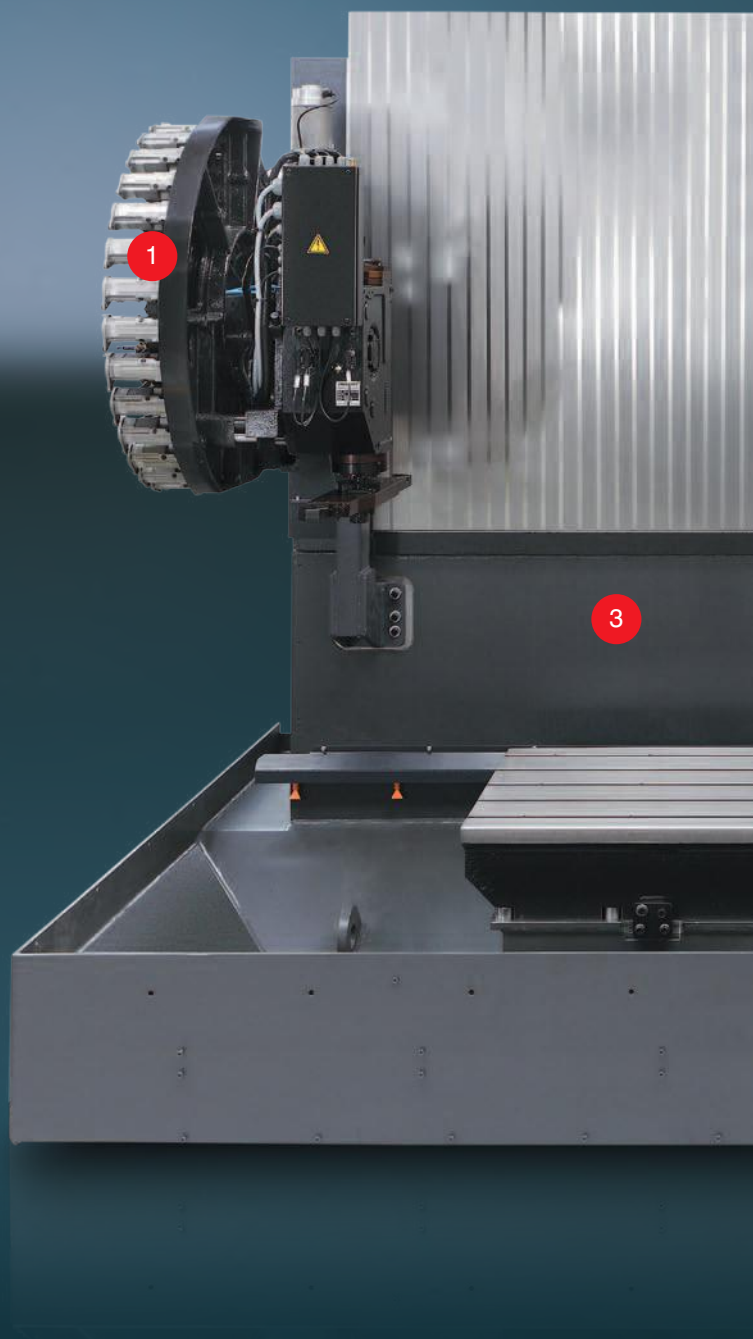
# Machine co

1 DRUM MAGAZINE

2 SPINDLE

3 MACHINE BASE

4 CHIP FLUSHING SYSTEM

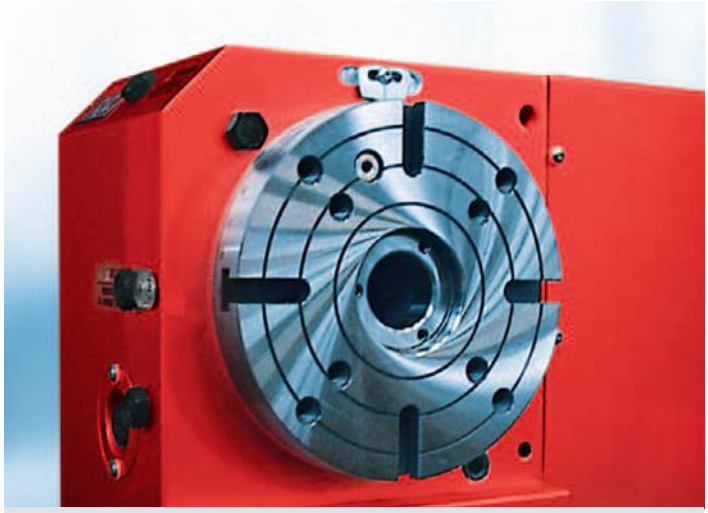


# onstruction

The new Emcomill 1200 and EMCOMILL 750 series is designed as a moving column milling machine. The machine bed is made in welded steel, optimised by FEM analysis. The X-, Y- and Z-Slides are made in cast iron.


## 4 MACHINING TABLE

- Cast iron fixed table with T-grooves, dimensions 1340 x 650 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.



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.

The grease-lubricated (cental) ballscrews and linear roller guides (45 mm in the X- and Y-axis, 35 mm in the Z-axis) provide high resistance to mechanical strains and at the same time high displacement speed with no vibrations and fluid motions.

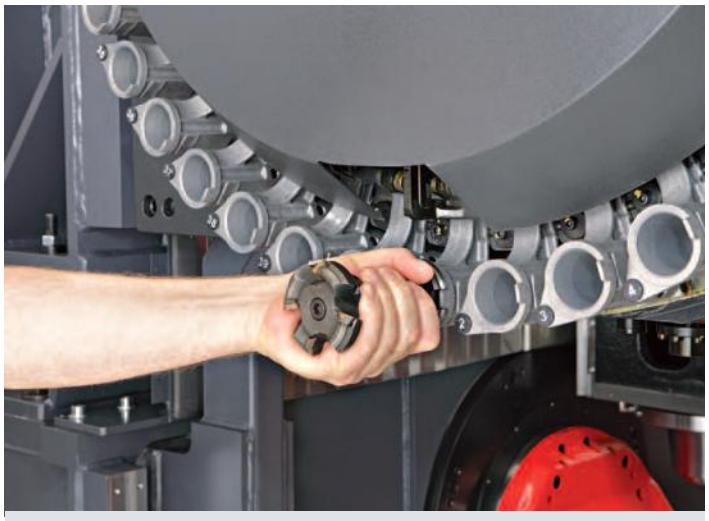
# Highlights

- **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, Heidenain, Fanuc**
- **Large number of options**
- **Best price-performance ratio**
- **Made in the Heart of Europe**

## EMCOMILL 1200 und 75

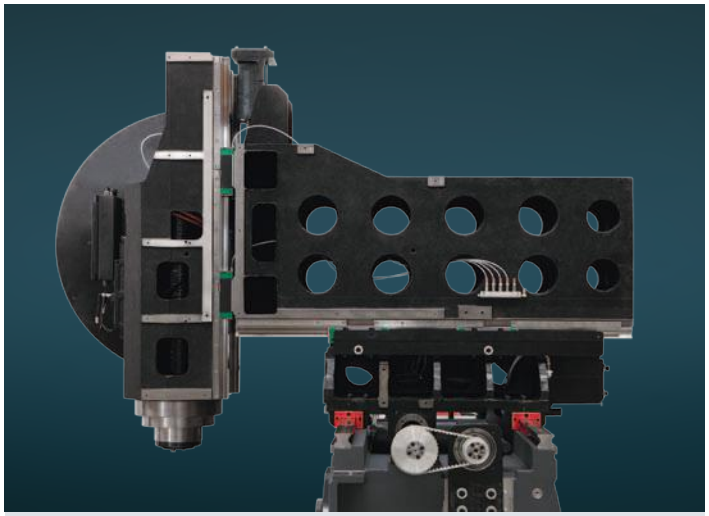
# Technical

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 (40/60 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.

The side tool magazine door allows fast loading and unloading, as well as control and cleaning of the tools.



**Massive structure.** The carriage, slide and machining head are made of cast iron for maximum stability and best workpiece finishing. Cast components are optimized by means of FEM analysis, which means that these components are lightweight and stable at the same time.

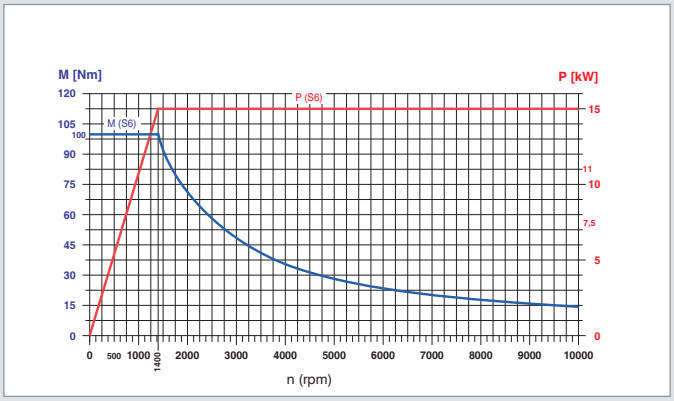
50

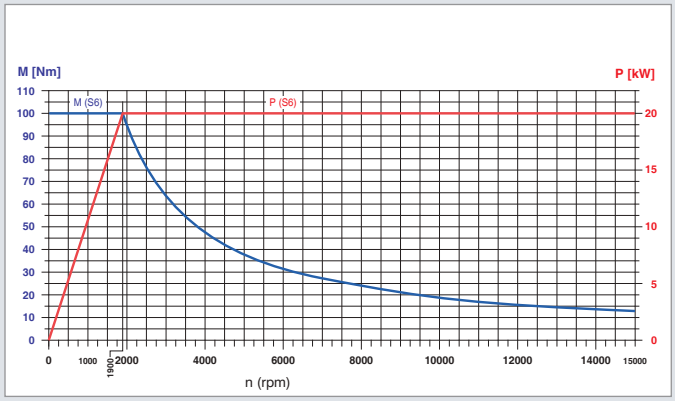
# Highlights

# Options

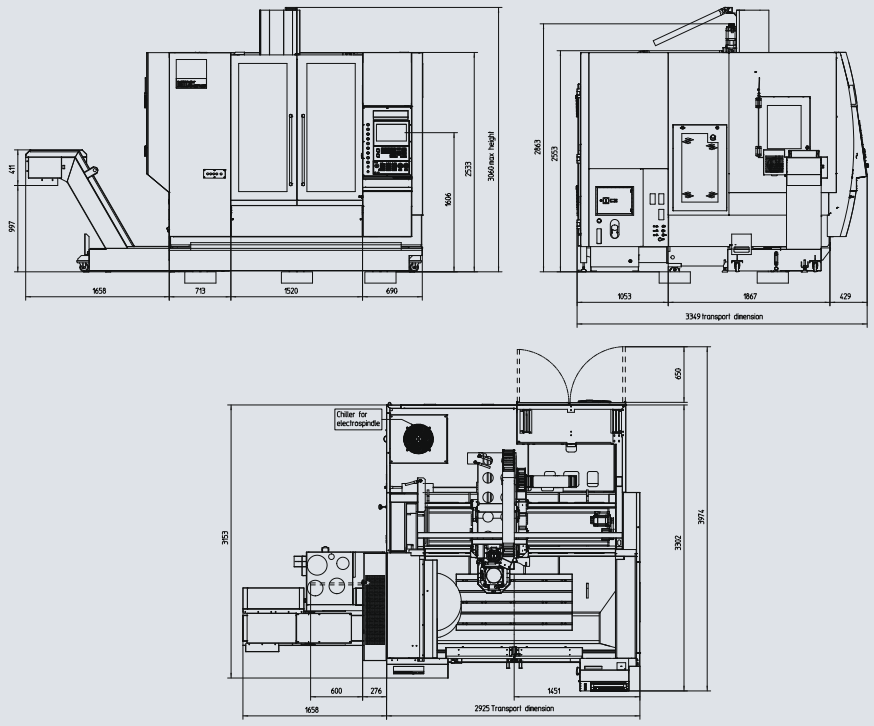
- Tool magazine with 40 or 60 stations
- Tool holder BT40, HSK-A63, ISO 40 DIN 69871/69872
- 4th axis
- Glass scales in all axes
- Handwheel
- Alarm status lamp
- Control cabinet cooling unit
- Automatic tool measuring
- Coolant and air through the spindle
- Bandpass filters with high pressure pumps

# Power



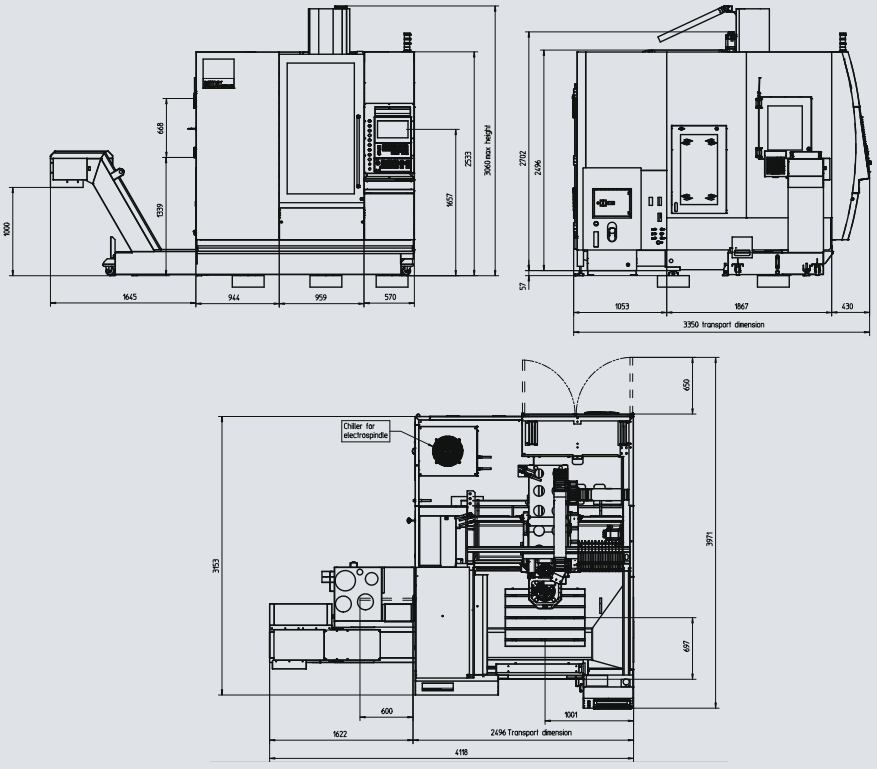



# Installation plans EMCOMILL 1200




Details in millimeters

# Installation plans EMCOMILL 750




Details in millimeters

## EMCOMILL 1200 und 750

# Technical data

| Work area | EMCOMILL 750 | EMCOMILL 1200 |
|---|---|---|
| Travel in X - axis | 750 mm (29.5") | 1200 mm (47.2") |
| Travel in Y - axis | 610 mm (24") | 610 mm (24") |
| Travel in Z - axis | 500 mm (19.7") | 500 mm (19.7") |
| Min./max. motor spindle nose-table distance (Mechanical spindle) | 175 / 675 mm (6,9 / 26,6") | 175 / 675 mm (6,9 / 26,6") |
| Min./max. motor spindle nose-table distance (Motor spindle) | 150 / 650 mm (5,9 / 25,6") | 150 / 650 mm (5,9 / 25,6") |
| **Table** | | |
| Table dimensions length / width | 900 / 650 mm (35.4 / 25.6") | 1340 / 650 mm (52,8 / 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") | 800 mm (31,5") |
| **Main spindle (mechanical spindle)** | | |
| Speed range | 50 – 12000 rpm | 50 – 12000 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 (40/60) | 30 (40/60) |
| 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 | 3060 mm (120,5") | 3060 mm (120,5") |
| Installation area W × D (without chip conveyor, with tank) | 2770 x 3350 mm (109,1 / 131,9") | 3200 x 3350 mm (126 / 131,9") |
| Total weight of the machine | 7500 kg (16543,7 lbs) | 10000 kg (22046,23 lbs) |
| Compressed air required | 6 bar | 6 bar |


EMCO GmbH
Salzburger Str. 80 · 5400 Hallein-Taxach · Austria
T +43 6245 891-0 · F +43 6245 86965 · info@emco.at · www.emco-world.com