

Compact gantry 5-axis high-speed machining center **DYNAMILL** G5

LUL

# 5-AXISMACHININGIN ONE SET-UP

The Dynamill G5 is the most suitable solution for 5-axis machining in one single set up. The proven machine impresses with its high preprocessing performance and excellent finishing properties with high surface quality and precision. The portal design ensures excellent rigidity and stability combined with high dynamics.



Z-axis saddle integrated in the machine crossbeam, its structure ensures highest stiffness results and utmost dynamic.

#### **COMPACT DESIGN**

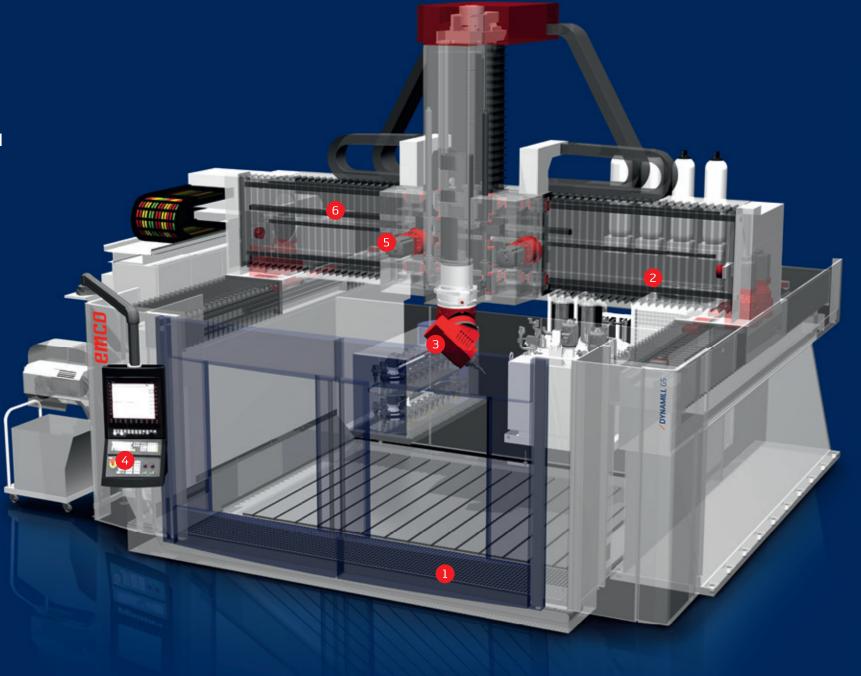
/ Maximum precision with top dynamics thanks to extraordinarily stable gantry design

## **2** ROLLER RECIRCULATING UNITS AND AXES GUIDEWAYS – BOSCH REXROTH



DIRECT DRIVE 5-AXIS MILLING HEADS BY MECOF DESIGN

/ Milling / Drilling / Tapping / Turning, etc.





4 CONTROL / Heidenhain TNC 640 HSCl or Sinumerik ONE

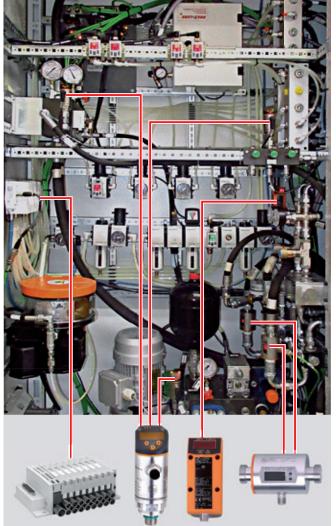


**SIEMENS AXES MOTORS REDEX SERVO-GEARBOXES** 

HEIDENHAIN ENCODERS







#### SMART DEVICES

IO-Link smart devices are the state-of-the-art technology for a quick and effective diagnosis on the functioning of: high-speed spindle, cooling system on milling head and high-speed spindle, hydraulic unit, air/oil lubrication of milling head and high-speed spindle, pneumatic system, hydraulic system and thermal compensation system.

## SUCTION SYSTEM



# machinings.



Dust and fumes can be easily conveyed by Mecof suction system integrated in the fork type milling head.



#### EASILY ACCESSIBLE WORK AREA

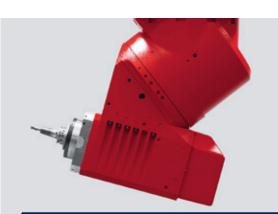
Wide sliding doors on the machine front side for easy loading and unloading of large workpieces.

### HIGHLIGHTS

- / High dynamics and accuracy by means of direct drive milling heads
- / Large working area small installation surface
- / Simple foundation design
- / Machine ready for Industry 4.0
- / 15° undercut on universal milling head with high-speed spindle
- / Direct drive technology on all milling heads with high-speed spindle
- / Automatic tool changer up to 200 tools

#### TCB6-E / MECOF DESIGN

Universal milling head with automatic millesimal positioning. A powerful mechanical spindle with high torque for heavy-duty



#### TWT / MECOF DESIGN

Direct drive universal milling head with high-speed spindle. New design 15° undercut makes it more agile in machining of complex workpieces.



#### SP20\_SP21 / MECOF DESIGN

Fork type milling head with high-speed spindle and torque motors. 20° undercut.

## TECHNICAL DATA

Longitudinal travel in X	2500 mm	4000 mm	6000 mm	8000 mm
Cross axis travel in Y	3500 mm	2200 mm		
Vertical axis travel in Z	1300 mm	1500 mm		
Feedrate	40 m/min			
Acceleration	4 m/s²			
Accuracy	X=2500 mm	Y=3500 mm	Z=1300 mm	
Linear accuracy positioning P [µm]	10	12	8	
Repeatability accuracy Ps [µm]	5	6	4	
Spindle motor				
Standard	51 kW 330 Nm (S1)			
Standard Option	51 kW 330 Nm (51) 74 kW 615 Nm (51)			
Option	. ,			
Option	. ,			
Option Workpiece/tool cooling system	74 kW 615 Nm (S1)	40 bar	60 bar	
Option Workpiece/tool cooling system External cooling	74 kW 615 Nm (S1) 28 l/min; 6 bar	40 bar	60 bar	
Option Workpiece/tool cooling system External cooling Internal cooling	74 kW 615 Nm (S1) 28 l/min; 6 bar 20 l/min; 20 bar	40 bar	60 bar	
Option Workpiece/tool cooling system External cooling Internal cooling Nebulized air/oil Minimal lubrication system	74 kW 615 Nm (S1) 28 l/min; 6 bar 20 l/min; 20 bar available	40 bar	60 bar	
Option Workpiece/tool cooling system External cooling Internal cooling Nebulized air/oil Minimal lubrication system Universal milling head with automatic	74 kW 615 Nm (S1) 28 l/min; 6 bar 20 l/min; 20 bar available	40 bar	60 bar	
Option Workpiece/tool cooling system External cooling Internal cooling Nebulized air/oil Minimal lubrication system Universal milling head with automatic millesimal positioning	74 kW 615 Nm (S1) 28 l/min; 6 bar 20 l/min; 20 bar available available	40 bar 38 / 56 kW	60 bar	
Option Workpiece/tool cooling system External cooling Internal cooling Nebulized air/oil Minimal lubrication system Universal milling head with automatic millesimal positioning	74 kW 615 Nm (S1) 28 l/min; 6 bar 20 l/min; 20 bar available available mechanical spindle		60 bar	
Option Workpiece/tool cooling system External cooling Internal cooling Nebulized air/oil Minimal lubrication system Universal milling head with automatic millesimal positioning Power (S1/S6)	74 kW 615 Nm (S1) 28 l/min; 6 bar 20 l/min; 20 bar available available mechanical spindle 38 / 48 kW	38 / 56 kW	60 bar	

# **REMOTE ACCESS WITH THE EMCO MECOF VIEWER APP**

Universal milling head with automatic millesimal positioning and high-speed spindle TWT E61G E62G E55 Fork type milling head with high-speed spindle SP21 A/C-axes rotation speed 60 rpm 60 rpm 60 rpm ≤ 12" Positioning accuracy ≤ 12" ≤ 12" ≤ 8" ≤ 8" Repeatability accuracy ≤ 8" Power (S1/S6) 50 / 63 kW 50 / 63 kW 42 / 55 kW Torque (S1 / S6) 100 / 125 Nm 100 / 125 Nm 67 / 87,5 Nm 24000 rpm Speed 20000 rpm 12000 rpm HSK 63-A Tool taper HSK 63-A HSK 100-A 15° / 20° Undercut 15° / 20° 15° / 20° Fork type milling head with high-speed spindle SP20 E58G E68 60 rpm A/C-axes rotation speed 60 rpm ≤ 12'' Positioning accuracy ≤ 12" ≤ 8" ≤ 8'' Repeatability accuracy Power (S1/S6) 45 / 58 kW 70 / 85 kW Torque (S1 / S6) 300 / 372 Nm 160 / 220 Nm Speed 12000 rpm 15000 rpm Tool taper HSK 100-A HSK 100-A 20° Undercut 20°

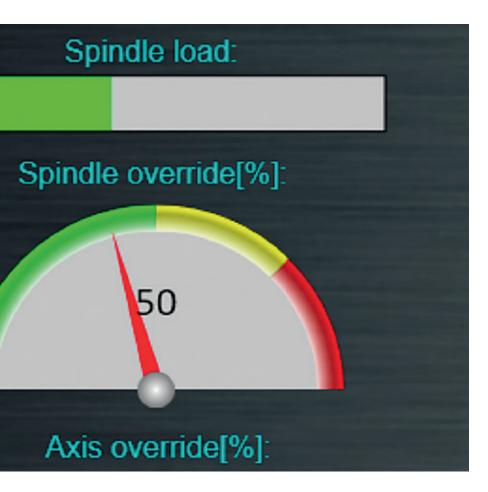
#### Main options

Tool changer

24 / 48 / 64 pockets

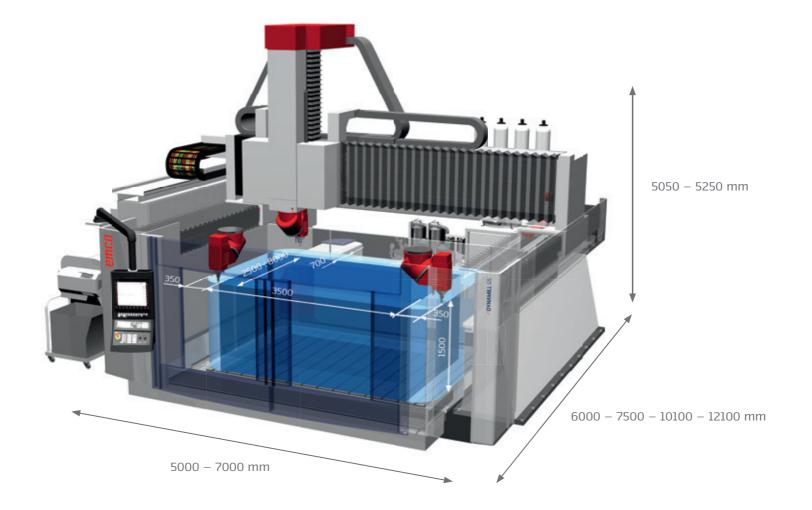
Through the implementation of smart sensors in the machine cabinets and the development of a dedicated software, Mecof created a mobile phone application that can support machine operators in identifying any problem to the electric and electronic components.







# OVERALL DIMENSIONS & WORKING AREA



## beyond standard/

EMC0 GmbH / Salzburger Str. 80 / 5400 Hallein-Taxach / Austria / T +43 6245 891-0 / F +43 6245 86965 / info@emco.at

www.emco-world.com