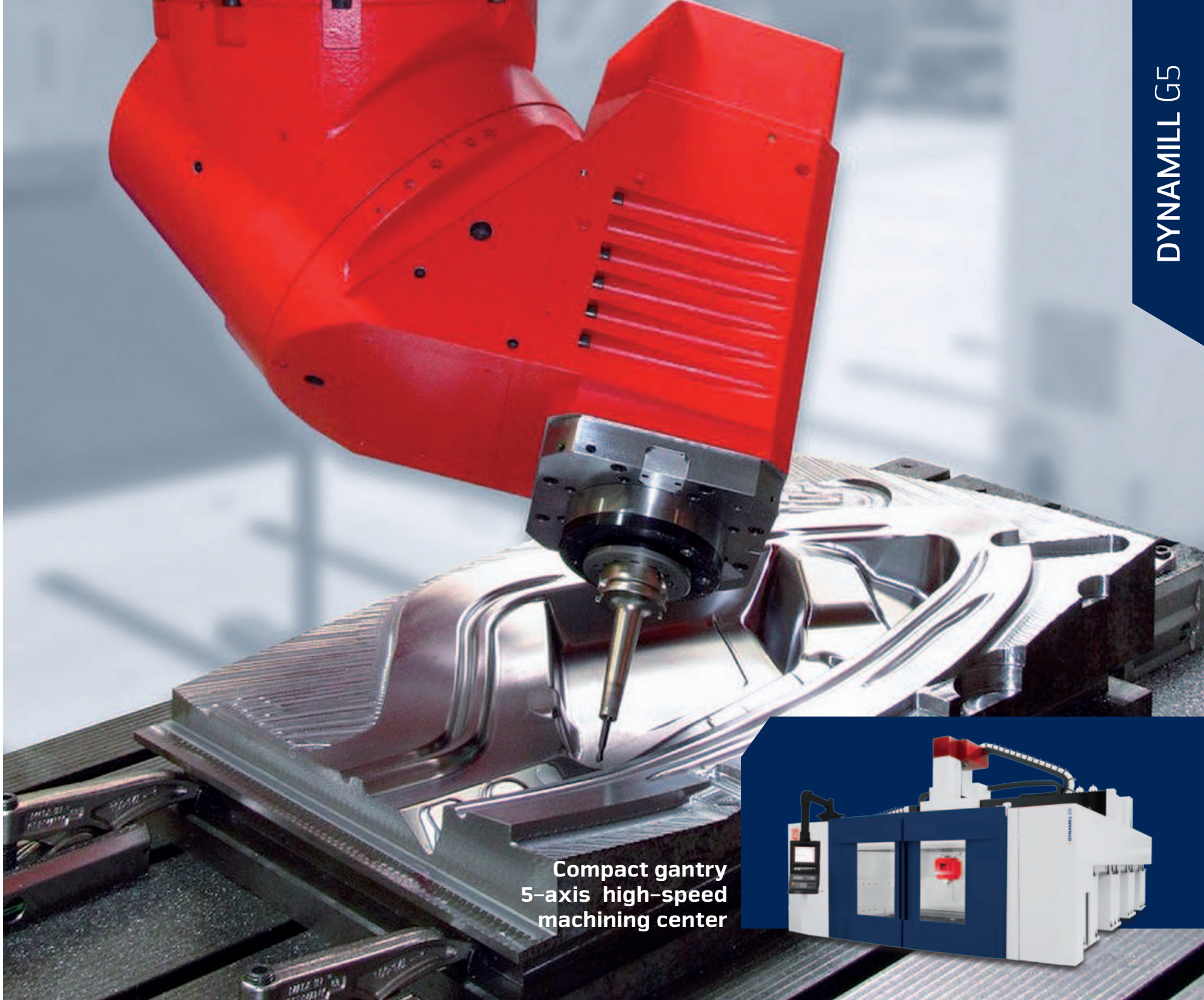


**EMCO**

**DYNAMILL G5**



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



# 5-AXIS MACHINING IN 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 pre-processing performance and excellent finishing properties with high surface quality and precision. The portal design ensures excellent rigidity and stability combined with high dynamics.

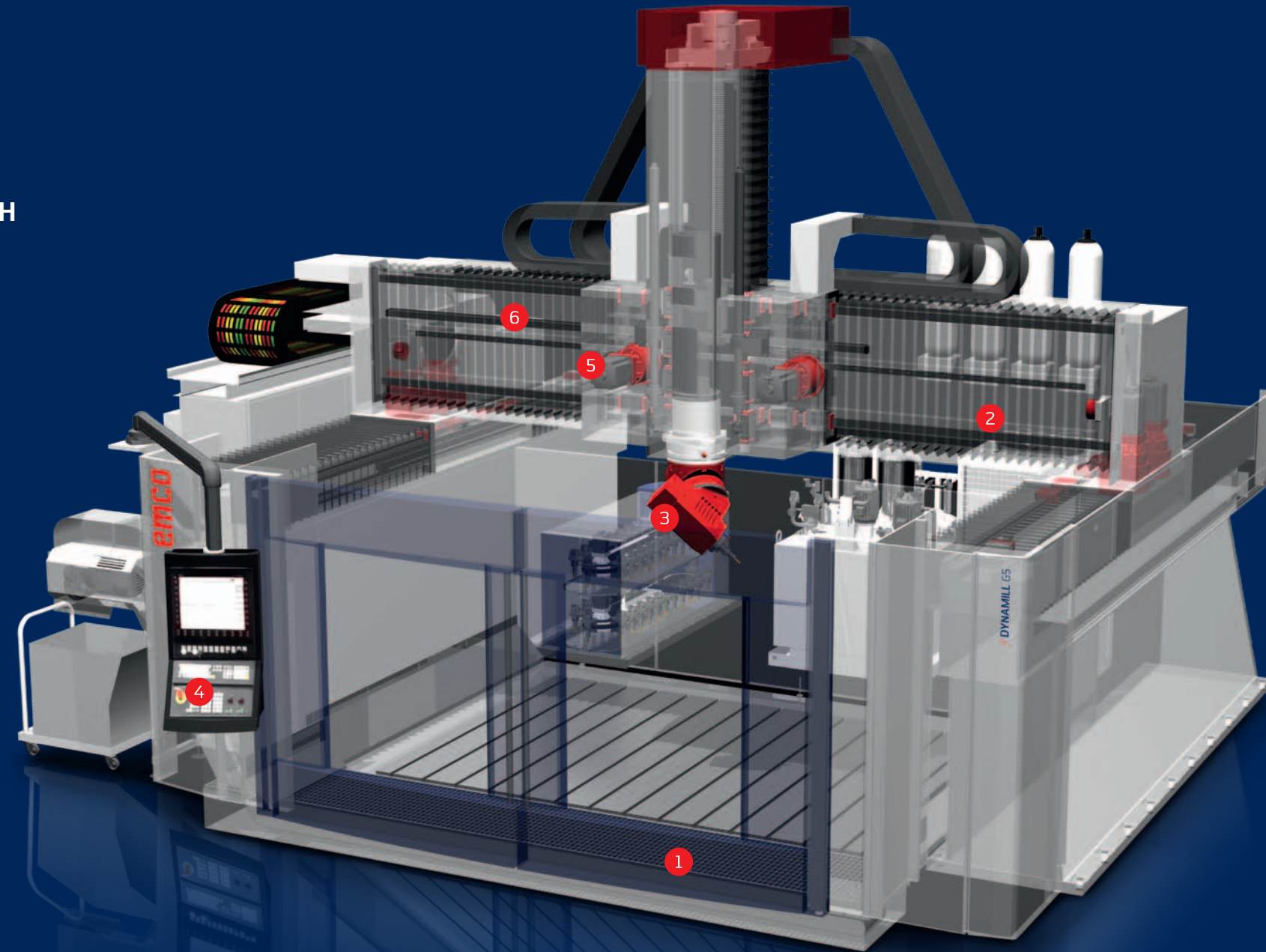


Z-axis saddle integrated in the machine crossbeam, its structure ensures highest stiffness results and utmost dynamic.

- 1 **COMPACT DESIGN**  
/ Maximum precision with top dynamics thanks to extraordinarily stable gantry design
- 2 **ROLLER RECIRCULATING UNITS AND AXES GUIDEWAYS – BOSCH REXROTH**



- 3 **DIRECT DRIVE 5-AXIS MILLING HEADS BY MECOF DESIGN**  
/ Milling  
/ Drilling  
/ Tapping  
/ Turning, etc.

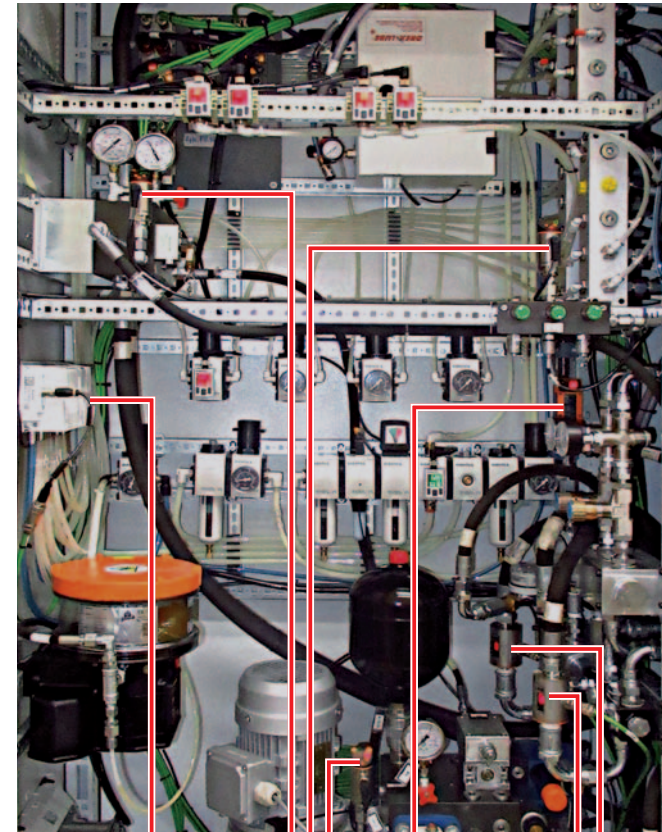


- 4 **CONTROL**  
/ Heidenhain TNC 640 HSCI or Siemens 840D sl



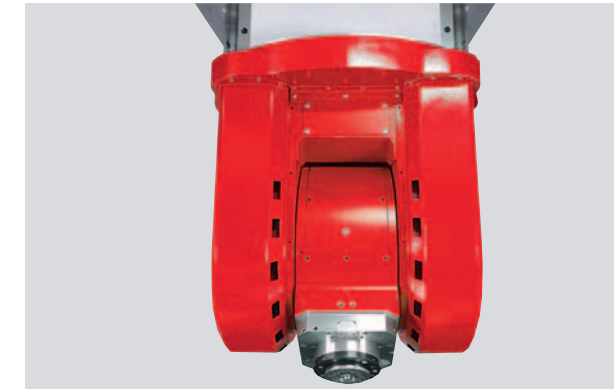
- 5 **AXES MOTORS SIEMENS, SERVO-GEAR – BOX REDEX**
- 6 **HEIDENHAIN ENCODERS**

# TECHNICAL HIGHLIGHTS



## 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.



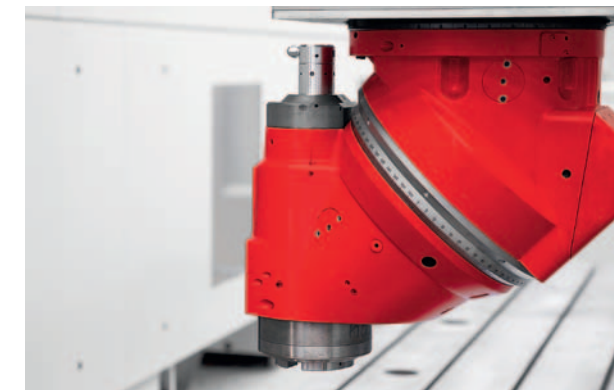
## SUCTION SYSTEM

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



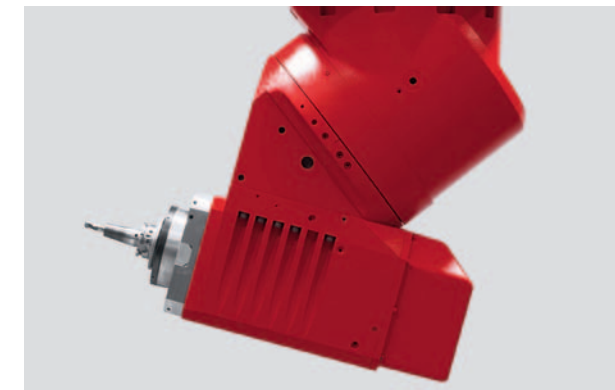
## EASILY ACCESSIBLE WORK AREA

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



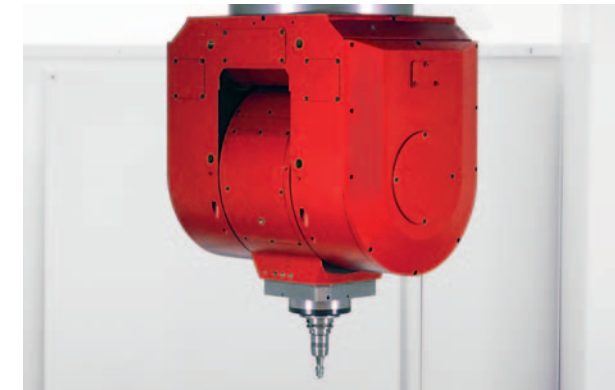
## TCB6-E / MECOF DESIGN

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



## 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.

## 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

# TECHNICAL DATA

## Linear axes

|                                    |                    |           |           |         |
|------------------------------------|--------------------|-----------|-----------|---------|
| Longitudinal travel in X           | 2500 mm            | 4000 mm   | 6000 mm   | 8000 mm |
| Longitudinal travel in Y           | 3500 mm            | 2200 mm   |           |         |
| Longitudinal travel in Z           | 1300 mm            | 1500 mm   |           |         |
| Feedrate                           | 40 m/min           |           |           |         |
| Acceleration                       | 4 m/s <sup>2</sup> |           |           |         |
|                                    | X=2500 mm          | Y=3500 mm | Z=1300 mm |         |
| Linear accuracy positioning P [µm] | 10 / 12 / 8        | 12        | 8         |         |
| Repeatability accuracy Ps [µm]     | 5 / 6 / 4          |           |           |         |

## Numerical control

|            |              |
|------------|--------------|
| Heidenhain | TNC 640 HSCI |
| Siemens    | 840D SL      |

## Spindle motor

|          |                   |
|----------|-------------------|
| Standard | 51 kW 330 Nm (S1) |
| Option   | 74 kW 615 Nm (S1) |

## Workpiece/tool cooling system

|                            |                                      |
|----------------------------|--------------------------------------|
| External cooling           | 28 l/min; 6 bar                      |
| Internal cooling           | 20 l/min; 20 bar    40 bar    60 bar |
| Nebulized air/oil          | available                            |
| Minimal lubrication system | available                            |

## Universal milling head with automatic millesimal positioning

|                  |                    |                    |
|------------------|--------------------|--------------------|
|                  | mechanical spindle |                    |
| Power (S1/S6)    | 38 / 48 kW         | 38 / 56 kW         |
| Torque (S1 / S6) | 330 / 373 Nm       | 615 / 900 Nm       |
| Speed            | 6000 rpm           | 6000 rpm           |
| Tool Taper       | ISO 50 / HSK 100-A | ISO 50 / HSK 100-A |

## Universal milling head with automatic millesimal positioning and high-speed spindle TWT Fork type milling head with high-speed spindle SP21

|                         | E61G         | E62G         | E55          |
|-------------------------|--------------|--------------|--------------|
| A/C-axes rotation speed | 60 rpm       | 60 rpm       | 60 rpm       |
| Positioning accuracy    | ≤ 12"        | ≤ 12"        | ≤ 12"        |
| Repeatability accuracy  | ≤ 8"         | ≤ 8"         | ≤ 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 |
| Speed                   | 20000 rpm    | 12000 rpm    | 24000 rpm    |
| Tool Taper              | HSK 63-A     | HSK 100-A    | HSK 63-A     |
| Undercut                | 15° / 20°    | 15° / 20°    | 15° / 20°    |

## Fork type milling head with high-speed spindle SP20

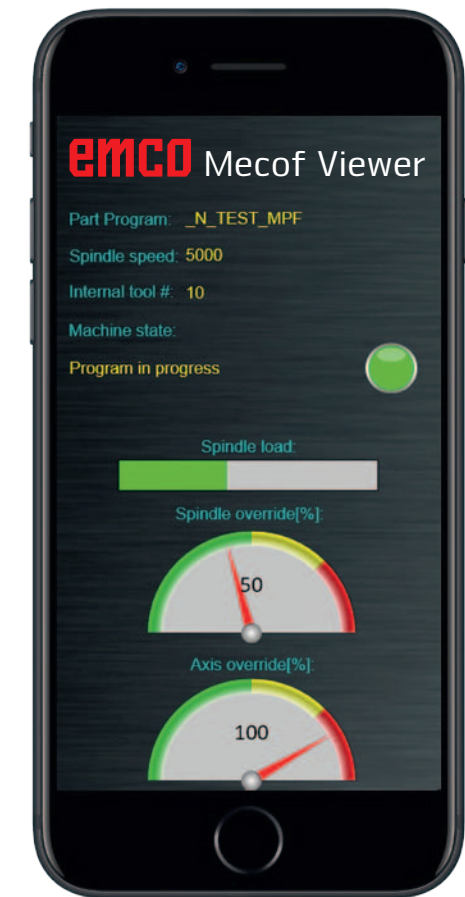
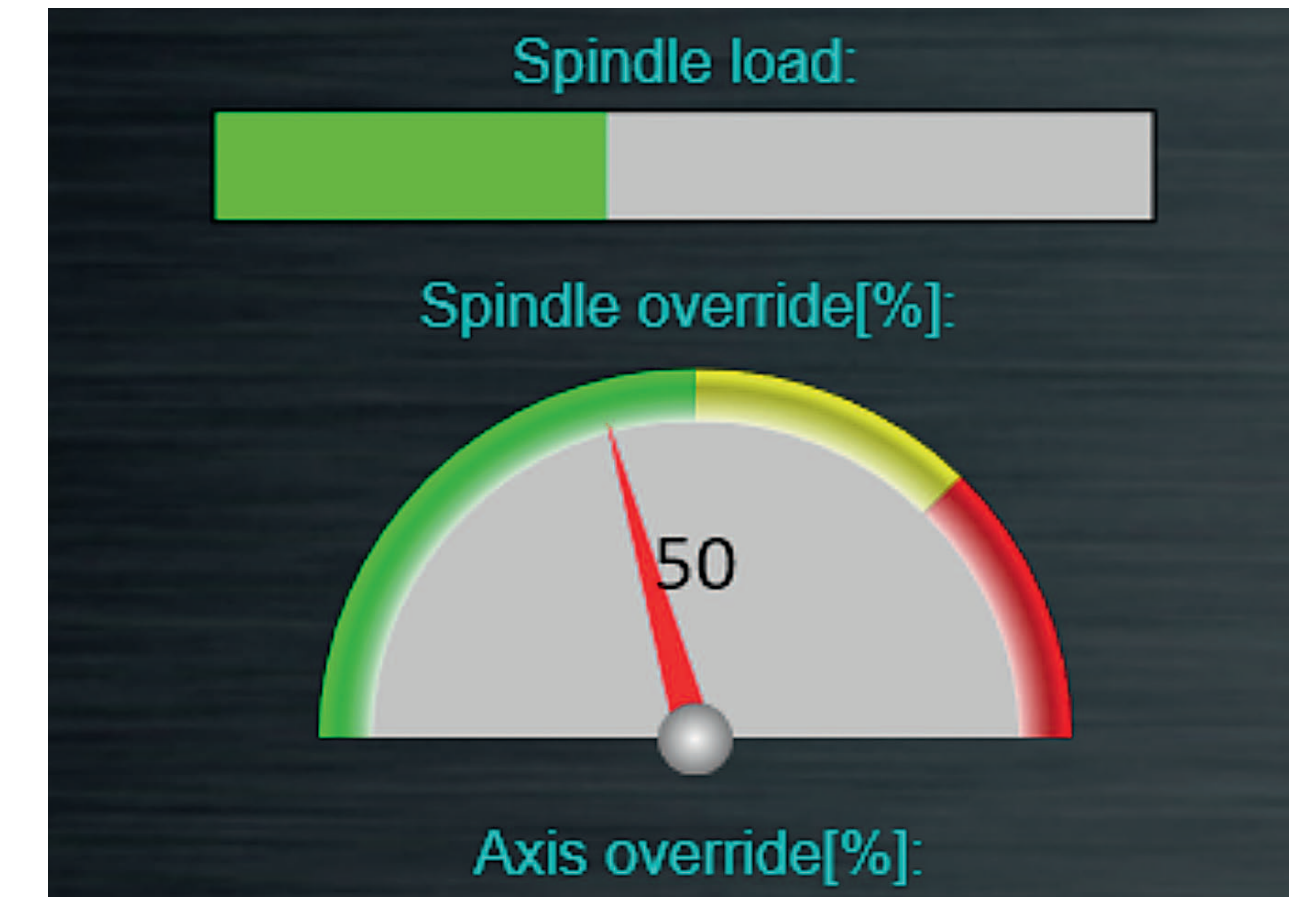
|                         | E58G         | E68          |
|-------------------------|--------------|--------------|
| A/C-axes rotation speed | 60 rpm       | 60 rpm       |
| Positioning accuracy    | ≤ 12"        | ≤ 12"        |
| Repeatability accuracy  | ≤ 8"         | ≤ 8"         |
| Power (S1/S6)           | 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    |
| Undercut                | 20°          | 20°          |

## Main options

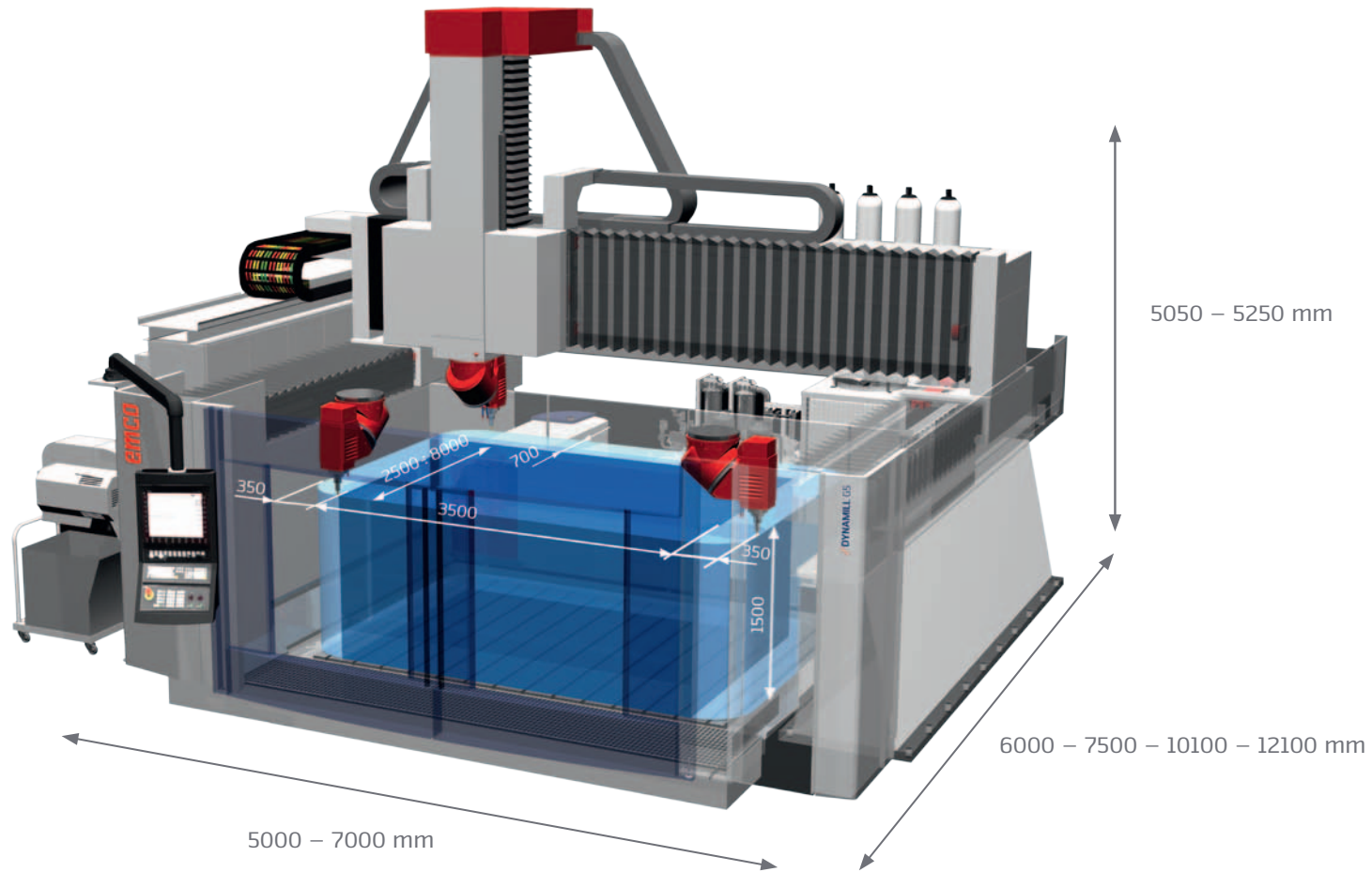
|              |                      |
|--------------|----------------------|
| Tool changer | 24 / 48 / 64 pockets |
|--------------|----------------------|

# REMOTE ACCESS WITH THE EMCO MECOF VIEWER APP

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 ENVELOPE



beyond standard /

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