

GU Series

5-axis milling centre
Very high performance



The GU series is a range of very high-performance milling centres for 5-axis machining of workpieces.

The GU range has all the attributes of the HURON DNA: robustness, rigidity and accuracy. The structural design associated with maximised dynamics, as well as the choice of components, are geared towards performance and durability. The combination of dynamics and accuracy results in very high quality surface finishes. The universality of its configurations provides the assurance of an investment tailored to every need.

Design and Structure

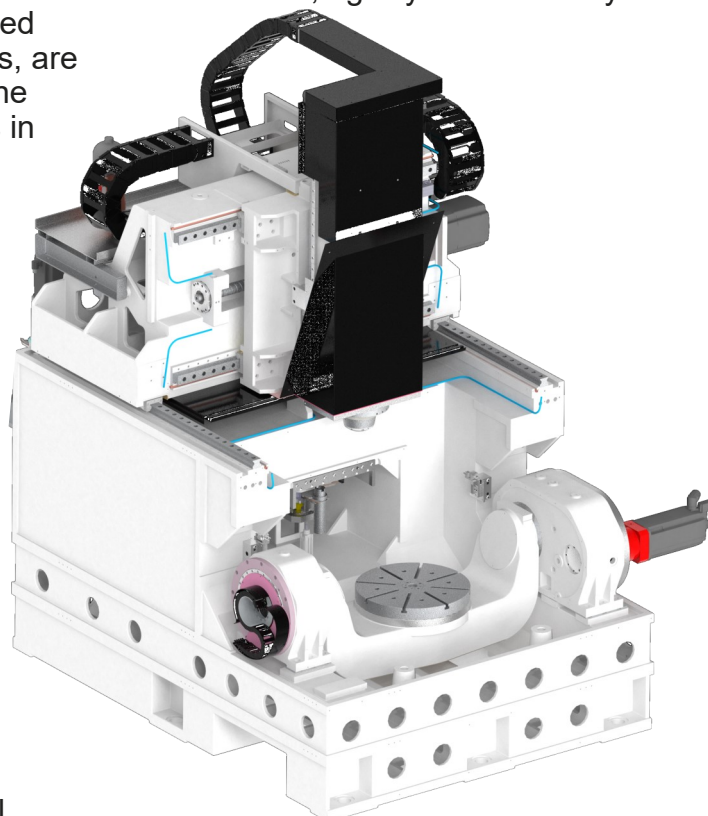
- Cast-iron structure with high mechanical properties for better damping of machining vibrations and longer component life
- Gantry architecture and calibrated guide rails for very high rigidity and excellent machine dynamics
- High dynamics for rapid changes of direction and acceleration
- Very high thermal and geometric stability

Linear axes

- Cooled roller guide rails for greater stability and precise guidance, thanks to the thermal holding system
- Direct linear measurement of axes
- Direct-drive ballscrew with direct coupling of the motors to the end of the ballscrew with cooling of the nut for high accuracy.

Environment - Ergonomics

- Very good access to the workpiece and spindle from the front of the machine
- Chip evacuation integrated into the bed directly under the machining area
- Excellent chip removal by use of the coolant liquid
- Tool loading/unloading in hidden time at the rear of the machine
- Full machine guarding for complete protection of machine, operator and environment
- Very good access to all maintenance points around the machine



- High performance in both roughing and finishing
- Excellent 5-sided approach to the workpiece
- 5-axis machining for parts weighting up to 400 kg
- Machining of tough materials in a minimum of time
- Highly accurate contours and profiles
- Cooling of the ballscrew nut to prevent thermal expansion
- Refrigeration of guide rails for good thermal stability
- A axis, driven by helical gear (standard)
- C axis, driven by torque motor (standard)
- Very compact machine with reduced footprint



Electrospindle

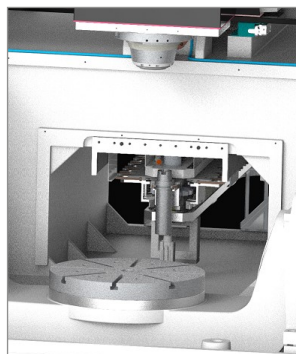
- Versatile electrospindle for high chip removal rates in roughing operations
- Production of accurate parts with irreproachable quality
- Allows greater flexibility in metalworking and the production of complex shapes
- Axial/radial rigidity of the tool guaranteed

Tools changer

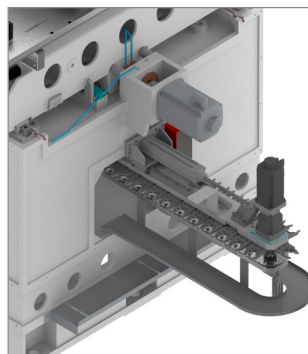
Pick-Up system.

Vertical loading/unloading of tools in the magazine at the rear of the machine. This operation can be carried out during machining.

Number of housings	40
Taper	HSK 63-A
Tool size :	
– Ø adjacent / not adjacent	100 / 110 mm
– Length	300 mm
– Weight	7 kg
Tool to tool changing time	3 sec

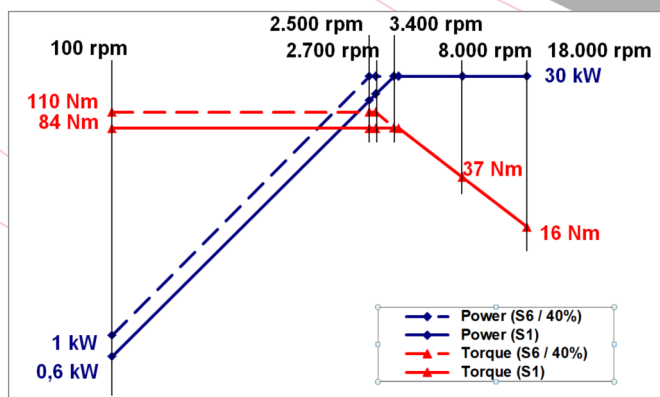


Front of the machine



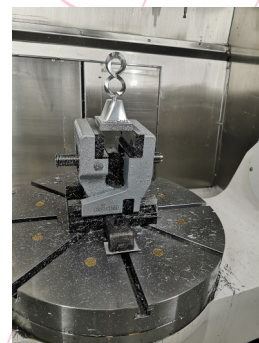
Rear of the machine

Spindle	BRO413
Taper	HSK 63-A
Rotating speed	18.000 rpm
Power (S6/S1)	30 / 30 kW
Torque (S6/S1)	110 / 84 Nm
Characteristic speed	3.400 rpm



Rotary / Swivelling table

- Table supports integrated directly into the side walls for maximum rigidity
- Axis measurement by absolute direct encoders
- Large machinable workpiece volume
- Wide angular variation of the A axis of $\pm 120^\circ$
- High clamping torque for significant roughing operations
- Milling/turning operations possible thanks to spindle blocking (GU MT version)



Working area configuration

The GU offers a wide range of possible configurations in 5-axis versions for more complex machining operations.

- **GU** : basic version, **3+2** and **5-axis continuous machining**
- **GU Five** : **full 5-axis continuous machining** version, for machining complex parts and shapes, whether one-off or in series, requiring precision, surface finish and productivity. This is made possible thanks to the two torque motors
- **GU MT** : **5-axis continuous machining** version with the option of running **turning operations**

Your benefits : ✓Performance ✓Competitiveness

Technical specifications

Linear axes X / Y / Z		GU 5 Five
Travels X / Y / Z	mm	600 / 600 / 500
Rapid feedrates	m/min	50
Acceleration on axes	m/s ²	5
Rotating axes A, C		
A axis : Swivelling axis - Rotating speed		± 120° - 50 rpm
C axis : Rotary axis - Rotating speed		360° continuous - 75 rpm
Table		Rotary / Swivelling table
Table dimension	mm	Ø 500
Max. load on table	kg	400
Distances		
- spindle nose / top table (rotating axes at 0°)	mm	100 - 600
- spindle nose / table axis (rotating axes at 90°)	mm	0 - 500
Number of T slots		8
- size of slots		14 H7 (x2) - 14 H12
- distance between slots		45°
Max. size of the workpiece :		
- Width x depth x height	mm	500 x 500 x 400
Spindle		
Rotating speed / Taper	rpm	18.000 / HSK 63-A
Power / Torque	kW / Nm	30 / 110
Characteristic speed	rpm	3.400
Accuracies (VDI DGQ 3441)		
Linear axes (X/Y/Z) :		
- Positioning (P) / Repeatability (Ps medium)	mm	0,006 / 0,003
Rotating axes (A, C)		
- Uncertainty (P) / Repeatability (Ps medium)	sec	7,2 / 3,6
Tools changer		
Quantity of housings		40
Tool length	mm	300
Tool Ø : adjacent / not adjacent	mm	100 / 110
Tool weight	kg	7
Tool to tool changing time	sec	3
Over-all measurements (Doors opened + conveyor)		
Width x Depth x Height	mm	3.900 x 3.650 x 2.900
Weight of the machine	kg	10.000

Optional equipments

Automatic lubrication Lubritool - ATC 60 housings - 20 or 70 bar coolant - Microspraying - Air blast - Workpiece probe - Tool probe - Oil extraction system - Pressurization of measuring scales - Oil skimmer - Sight glass - On-board high-definition camera



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