

PREMIUM5030

Granite, steel and linear motors for
highest machining quality!

The precision

- steel-granite structure with linear motors
- high frequency spindle up to 6 kW / 50,000 rpm
- Heidenhain TNC 640 control
- small footprint with large traverse paths,
fast change from 3 to 5 axes



PREMIUM5030 | The precision

The PREMIUM 5030 is a 3- to 5-axis HSC milling system specially designed for the requirements of high-precision machining of small precision mechanical parts, micromachining and milling of graphite/copper electrodes. In order to meet this demand for precision, all essential points for process-reliable manufacturing have been integrated into the machine concept. The solid machine base, consisting of a natural hard stone granite gantry with decoupled Y-axis, guarantees high rigidity and long-term stability. The individual granite elements are manufactured to DIN 876 / grade 00 accuracy. The pioneering linear motor technology and the incremental measuring method guarantee highest positioning accuracies at highly dynamic feed rates. The fastest control technologies (high-speed cutting) ensure harmonious path movements with maximum precision and simple user guidance, the control used here is the Heidenhain® TNC 640.

Features

- solid and stable machine structure made of ground granite components
- small footprint due to compact design
- high-frequency spindle with up to 2 kW power and 50,000 rpm
- HSK-E 25 change system
- HSC control technology with a block processing time in real time < 1 ms
- high path accuracies due to digital length measuring system
- high-load linear guides
- low-maintenance linear motors in X, Y, Z
- Heidenhain® TNC 640 control system
- zero point clamping system in the granite table for fast changeover from 3 to 5 axes

Options

- 3D measuring probe for recording the workpiece zero points or remeasurement of workpieces
- laser for non-contact tool control
- high frequency spindles up to 100,000 rpm
- 4th/5th axis as rotary/swivel axis
- minimum quantity cooling lubrication system
- various control systems from Heidenhain
- manual control unit
- professional CAD/CAM solutions

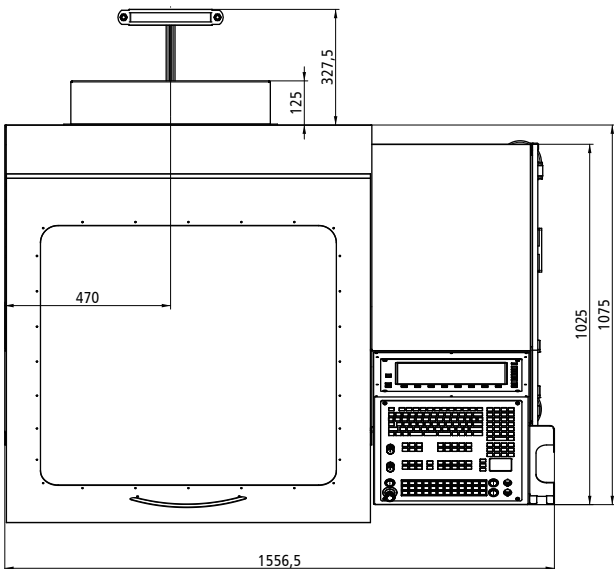
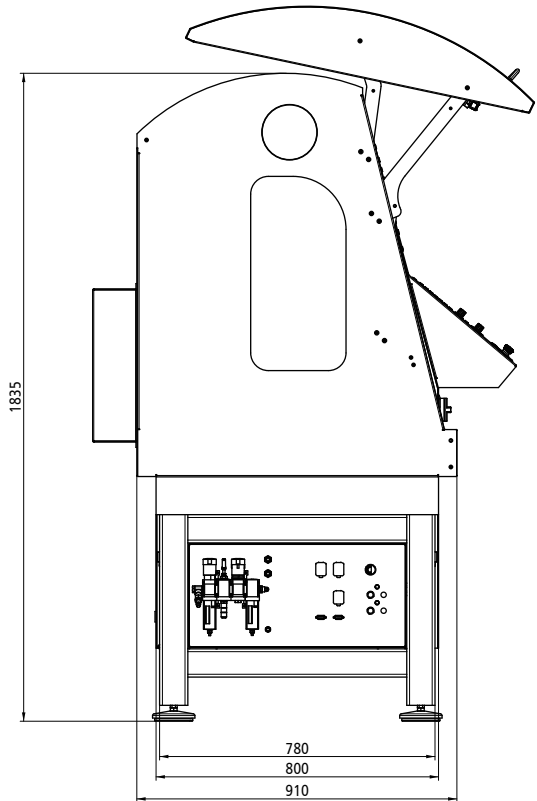
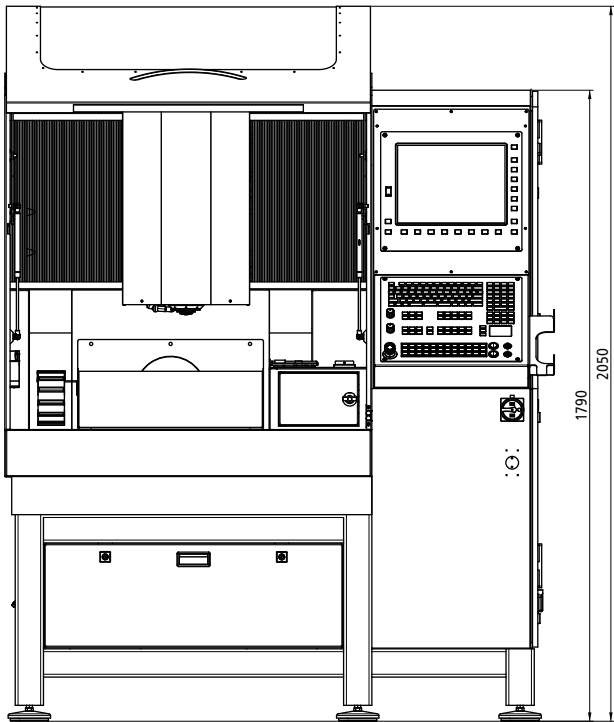
Technical data

Premium5030

Travel ranges X/Y/Z [mm]*	500 / 350 / 180
Table clamping surface WxD [mm]	450 x 350
Table load capacity [kg]	200
Dimensions WxDxH [mm]	1560 x 1200 x 2050
Type	Steel granite superstructure
Drive motors	Linear motors
Travel speed [m/min]	20
Milling spindles	High frequency spindle up to 2 kW / 50,000 rpm (optionally up to 100,000 rpm)
Repeatability [μm]	± 3
Positioning accuracy [μm]	± 5
Resolution measuring system [μm]	0,5
Operation	Heidenhain® operator terminal with 24" full HD touchscreen
Control	Heidenhain®
Software	Heidenhain® / isyCAM 2.8 (optional isyCAM 3.6)
Weight [kg]	ca. 1000
Electrical specifications	32 A / 400 V
Part No. 3-Achs	282023 9300
Part No. 5-Achs	282023 9350

Machine dimensions without control panel or additional accessories. Travel ranges without machining unit and other attachments (tool changer, length measuring probe, etc.).

PREMIUM5030 | Dimensional drawing [dimensions in mm]



PREMIUM5030 | highest machining quality

Typical materials:

- stainless steel
- graphite
- copper
- steel
- titanium
- aluminum
- brass
- hardened steel
- ceramics
- special materials



Application areas:

- micromachining
- precision machining
- medical Technology
- electronics Industry
- watch and jewelry industry
- automotive supply industry
- tool/mold making
- electrode production

