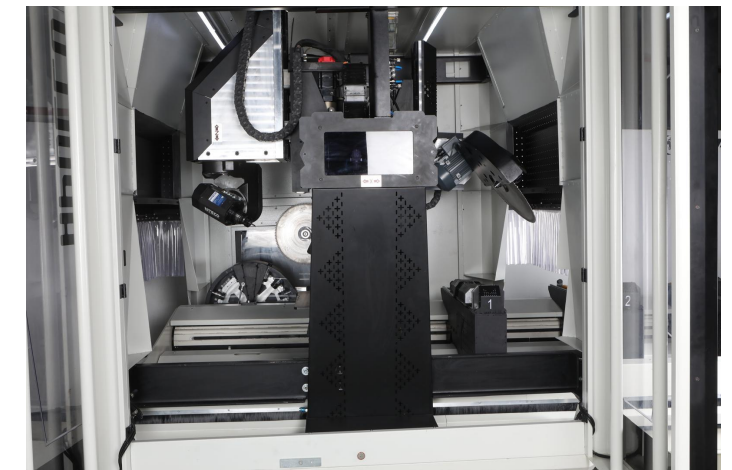
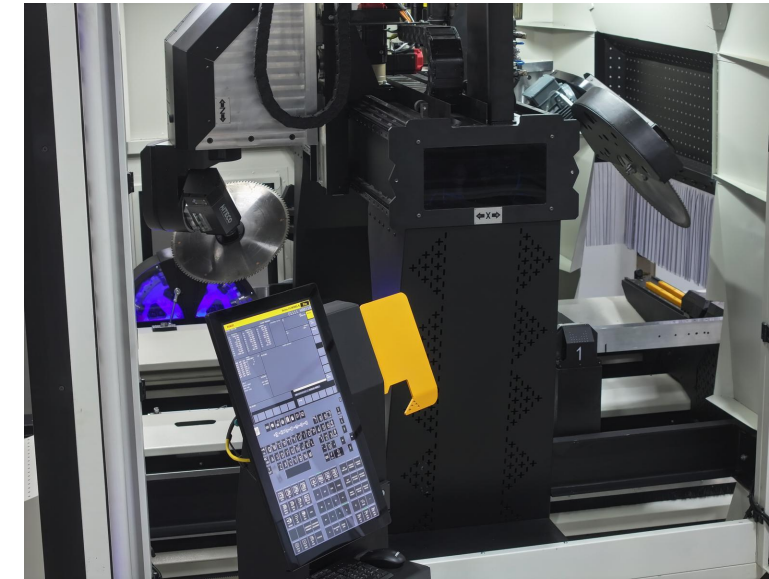
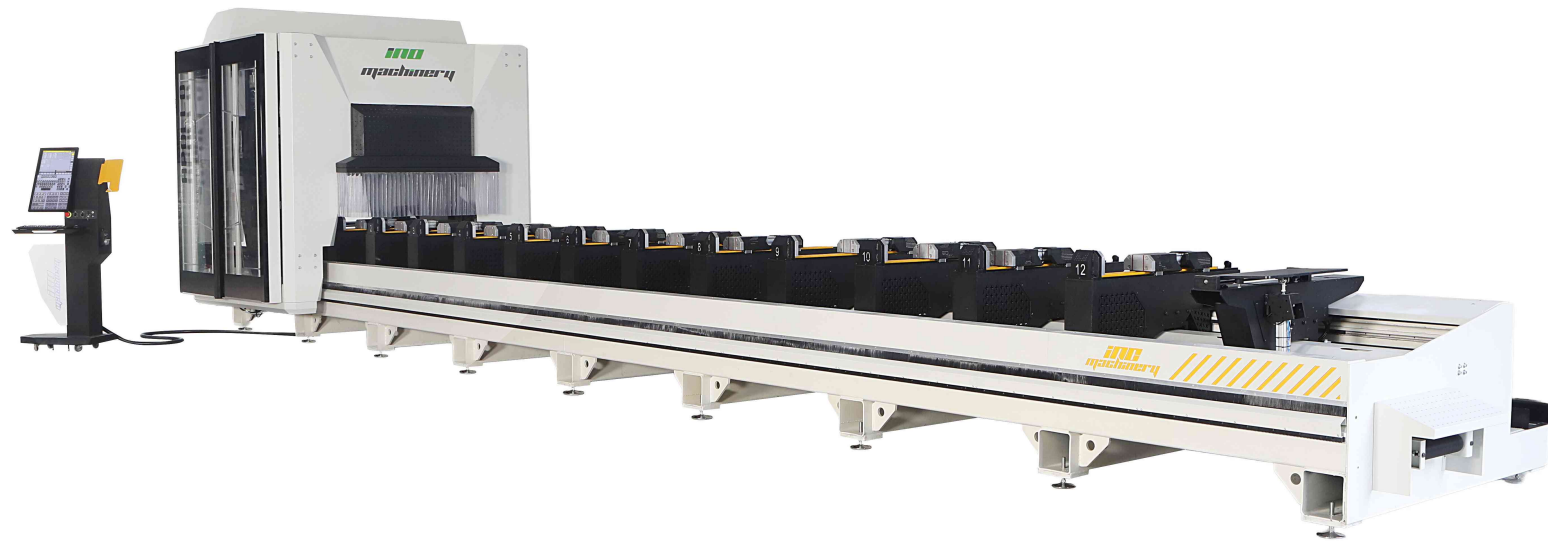


APOLLO

5-AXIS CNC PROFILE CUTTING & MACHINING CENTER



MACHINE DESCRIPTION

INO APOLLO is a 5-Axis CNC Profile Machining Center with a separate cutting module adopted optionally. The clamps are positioned or by a separate positioning head independent from the processing bridge; or completely independent with one servo motor placed under each clamp. CNC controlled Gantry CNC PROFILE CUTTING & MACHINING CENTER customized for Aluminum and Steel profiles processing equipped with 5-Axis independently programmable high speed Bi-Rotary Spindle, 0-135 degrees tilting sawblade with 600 mm. diameter, automatic tool changer magazine with 16 pos., independently positioning profile clamping devices, NC positioned pneumatic reference stoppers and 3D programming software.

APOLLO can cut, separate, notch, mill, route and drill a full bar all by itself without the help of the operator. The user shall just load and offload the profiles, thanks to independent positioning clamps with each moving via servo motors.

Body: All machined metal profile structure. Thermally treated vibration free.

Spindle: 12.0 kW 0 - 24.000 rpm adjustable, HSK-F63 with ceramic bearings, liquid-cooled.

A-Axis tilting at any angle between 0°-180°.

C-Axis rotating at any angle between 0°-360°.

Automatic Tool Changing Magazine: Placed on the machine bridge, moving along with the machine body with 16 positions of standard tools. The tool changing time is minimized by carrying the turret type NC controlled turning tool changer magazine on the bridge. The 200 mm. disc cutter is also placed inside.

Notching blade: 500 mm.

Optional cutting unit: Thanks to NC controlled Y and Z axes, it is possible to cut and also notch with the same blade. The sawblade is turning in any degree independently from the drive between 0-135 degrees. 3.0 kW 2.800 rpm A/C motor drives the 600 mm sawblade without any vibration during stable radial move. The machine can cut 1 piece that is clamped by 2 pneumatic clamps at a time.

Axis Information:

X-Axis: Real Gantry with 2 servo motors on both sides of the bridge. Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 90 m/min.

Y-Axis: Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides.

V/max: 65 m/min.

Z Axis: Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides.

V/max: 65 m/min.

A Axis: +/- 185 degrees

C Axis: +/- 320 degrees

APOLLO 10: Machining center only, processing length: 7.800 mm. / 8 clamps

APOLLO 11: Machining center only, processing length: 9.300 mm. / 12 clamps

APOLLO 20: Cutting & machining center processing length: 7.000 mm. / 8 clamps

APOLLO 21: Cutting & machining center processing length: 8.500 mm. / 12 clamps

760 mm. x 400 mm. Profile processing in 5 Axis.

760 mm. x 200 mm. Profile cutting dimension in 90°

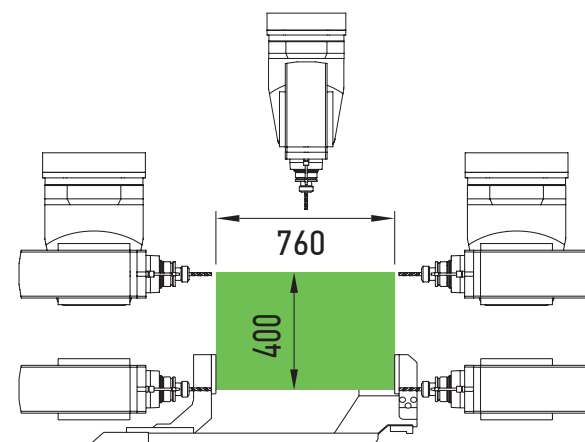
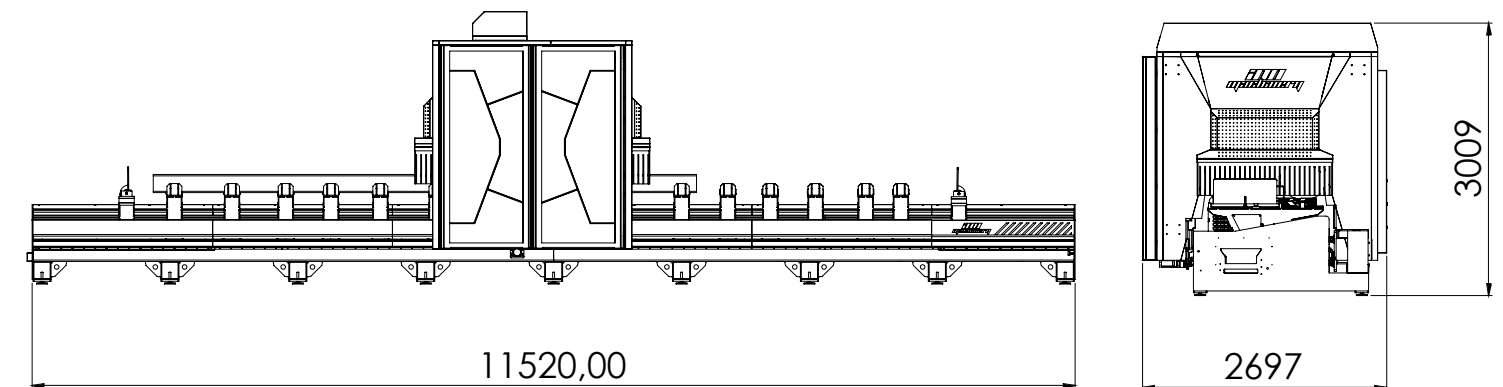
760 mm. x 50 mm. Profile cutting dimension in 45°

Maximum tool length: 300 mm.

Maximum disc cutter diameter: 500 mm.

Total installed power: 40 kW / 100A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. - 180 L/min.



OPTIONAL EQUIPMENT

- 0°-135° automatic tilting radial moving saw blade with 600 mm diameter connected on a separate portal behind the bridge.
- Independently controlled clamps with one axis per each clamp.
- Machine length extension by 1,5 meter.
- 18,0 kW 24.000 rpm HSK F63 Liquid cooled Spindle.
- Tapping with compensation up to 12 mm.
- Air conditioning inside the electrics panel.
- Data import with barcode reader from production softwares.
- Cut and separate software upgrade.
- 5-Axis simultaneous interpolation.
- 3D file import with auto tooling and direct machining.

STANDARD EQUIPMENT

- Gantry portal 5-axis processing spindle with 16 NC-controlled tool changes.
- 8/12 clamps placed by NC positioning pin moving independently on X axis. The processing bridge is not used for positioning.
- 500 mm notching blade.
- Double station working capacity thanks to the pneumatic reference points placed at both sides of the machine.
- The width of the clamps are adjustable and they are also suitable for fixture connection.
- 12.0 kW 24,000 rpm HSK-F63 high-speed spindle has an automatic tool changer magazine with 16 positions placed stable on the body of the machine.
- NC-controlled dust extraction conveyor.
- Pulse spray mist coolant system.
- 3D CAD-CAM software.
- 21.5" TFT-LCD Screen.
- Laser safety barriers.

