

GARNET 5X

CNC Controlled Profile Machining Center (5 Axis)



FEATURES

The 5-axis CNC Machining Center, GARNET 5X, has the capacity to process Aluminum and Steel profiles of various sizes, thanks to its spindle, which allows processing at any angle between 0° / 180° on A-axis and 0° / 360° on B-axis degrees providing solutions in a wide range of operations. The machine is developed to carry out all-in-one milling, drilling, machining, cutting and end milling operations on profiles, and to perform various special operations on different profiles. The high processing capacity 21 ⁵/₈" x 8 ¹¹/₁₆" (550 mm x 220 mm) provides satisfactory user experience with the machines' performance in all operations.

By focusing on providing convenient solutions for customers, and combining power and precision, the machining capacity is only limited by the user imagination, thanks to the 11 kW spindle motor with automatic tool replacement feature. High speed rates on axis and automatic rotary tool replacement magazine which moves with gantry for 10 + 1 tools allow for time savings when running different processes which require tool replacement. With full automatic clamp positioning, GARNET 5X automates many tasks assuming the work load of the user. Maintenance of transmission elements is accomplished by the automatic lubrication system which is offered as an optional feature increasing the service life for accuracy in processes. Capacity may be varied for machining profiles with on demand optimization of machine length and number of clamps.

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MACHINING LENGTHS

X Axis (Longitudinal)	315" (8000mm)
Y Axis (Lateral)	21 ⁵ / ₈ " (550mm)
Z Axis (Vertical)	8 ¹¹ / ₁₆ " (220mm)
C Axis (Head rotation movement)	0° / 360°
A Axis (Head rotation movement)	0° / 180°

POSITIONING SPEED

X Axis (Longitudinal)	3300" (84m)/min
Y Axis (Lateral)	2950" (75m)/min
Z Axis (Vertical)	1575" (40m)/min
C Axis (Head rotation movement)	100°/sec
A Axis (Head rotation movement)	100°/sec

SPINDLE

Maximum power	11 kW
Maximum rotation speed	24000 rpm
Tool holder	ISO 30

TOOL STORAGE

Automatic tool storage system	●
Maximum number of tools	10
Maximum saw blade diameter	400 mm
Maximum dimension of tool in the standard storage system	ø20 L:149 mm
Maximum dimension of the notching blade in the standard storage system	ø180 L:160 mm

PROCESSABLE UNITS

With direct tool (upper surface, lateral surfaces, heads)	5
With saw blade (upper surface, heads)	3

PROFILE POSITIONING

Right and left pneumatic profile reference alignment	●
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CONTROL UNIT

Touchscreen	15" HMI
Remote access	●
Ethernet and USB	●
Barcode reader	○
Smart CAM post processing	●

OPERATIONAL AREA

Clamps, standard quantity	8
Clamps, maximum quantity	10
Automatic clamp positioning on X-axis	●
Automatic lubrication in processing area	●
Full guard cabin for machining area	●

● Included ○ Optional

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