

# GARNET 5X

CNC Controlled Profile Machining Center (5 Axis)



## FEATURES

The 5-axis CNC machining center, GARNET 5X, has the capacity to process aluminum profiles of various sizes, thanks to its spindle, which allows processing at any angle between 0° / 180° on A-axis and 0° / 360° on C-axis degrees providing solutions in a wide range of operations. The machine is developed to carry out all-in-one milling, drilling, machining, marking and end milling operations on profiles, and to perform various special operations on different profiles. The high processing capacity 20 1/4" x 14 9/16" (515 mm x 370 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 processing 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 20 + 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 processing 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)	20 1/4" (515mm) Tool Length 2" from the collet
Z Axis (Vertical)	14 9/16" (370mm) Tool Length 2" from the collet
A Axis (Head processing angles)	-90° / +90°
C Axis (Head rotation movement)	0° / 360°
Optional length on X-axis	○

## POSITIONING SPEED

X Axis (Longitudinal)	275 ft (84m)/min
Y Axis (Lateral)	246 ft (75m)/min
Z Axis (Vertical)	131 ft (40m)/min
C Axis (Head rotation movement)	100°/sec
A Axis (Head rotation movement)	100°/ sec

## AIR

Pressure	6-8 Bar
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## ELECTRICAL

Maximum Power	17 kW
Voltage	220V 3Phs PE AC
Frequency	50-60 Hz

## SPINDLE

Maximum power	11 kW
Maximum rotation speed	24000 rpm
Tool Holder	HSK F63
Cooling Type	Liquid

## TOOL STORAGE

Automatic Umbrella Type Set Magazine System	●
Attributable Maximum Set Number – Umbrella Type	20+1
Maximum Saw Blade Diameter into the Storage System	15 3/4" (400 mm)
Automatic Tools Measuring	●

## SCREW-CUTTING CAPACITY

Tapping with Adapter	M8
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## PROFILE POSITIONING

Right and left one with pneumatic movement, two alignment bar in the middle	●
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● Included      ○ Optional

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## CONTROL UNIT

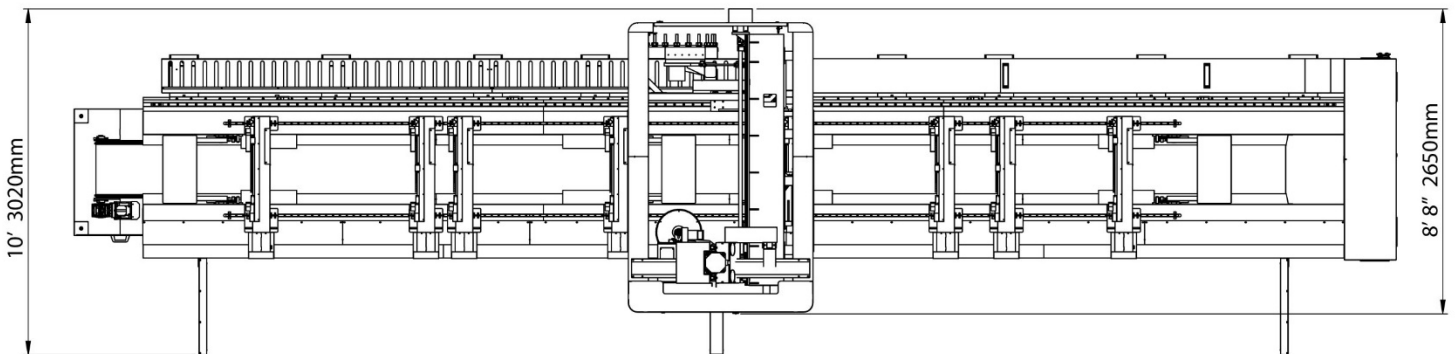
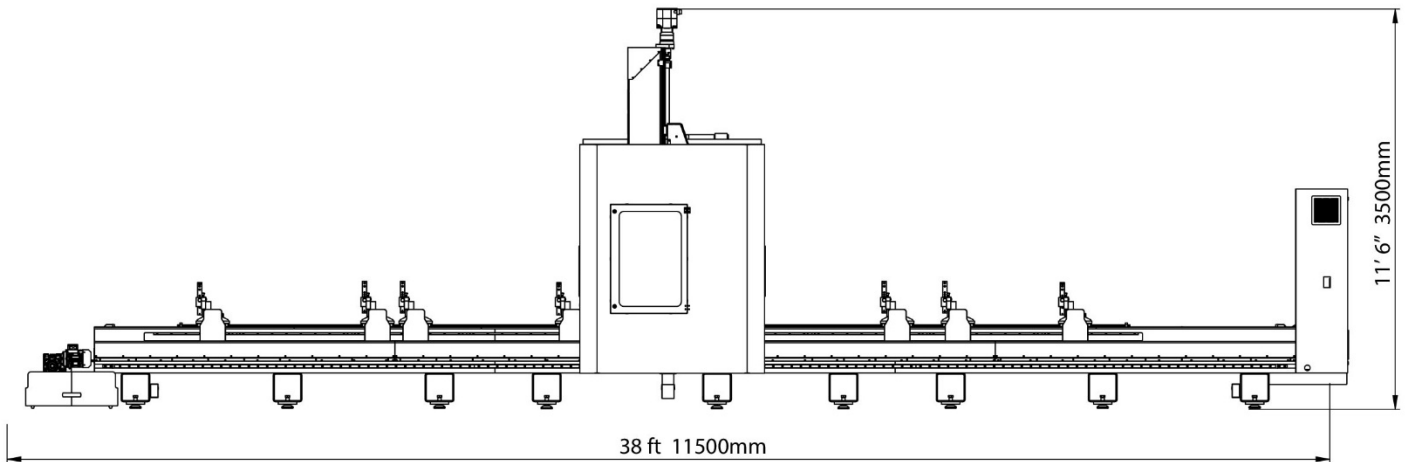
Industrial PC - Touchscreen	15" HMI
Data transfer via remote network connection, Ethernet and USB	●
Barcode Reader	●
Camquix CAM Program	●
CadXtract CAD-CAM Production Program	○

## OPERATIONAL AREA

Steel Machining Thickness	1/4" (6 mm)
Clamps, standard pcs	8
Clamps, maximum pcs	10
Servo-controlled automatic clamp positioning system	●
Automatic lubrication system in machining area	●
Cabinet providing protection in machining zone	●
Safety barrier (sensor)	●
Automatic lubrication system	○
Automatic sawdust discharge unit (8 m)	○

● Included      ○ Optional

## Floor Plans



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