

GARNET 5X

CNC Profile Machining Center (5 Axis)

Automation by
FANUC



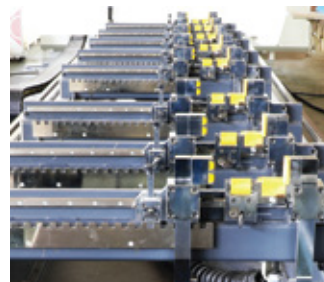
The GARNET 5X, a 5-axis CNC machining center, empowers a wide range of users by efficiently processing aluminum [PVC, light alloy and even steel] profiles of various sizes. Its spindle allows for multi-angle machining between 0° and 360° on the C-axis and 0° to 180° on the A-axis. Designed for versatility, it tackles non-standard operations on diverse profiles, including cutting, drainage channel opening, drilling, marking, and notching – all in a single setup. This multi-functionality is complemented by a generous working area of 550 mm x 340 mm, boosting user productivity.



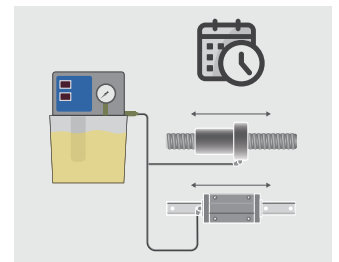
By focusing on providing convenient solutions for customers, and combining power and precision, GARNET 5X lets the processing capacity be only limited by the users imagination, thanks to the 11 kW spindle motor with automatic tool replacement feature.



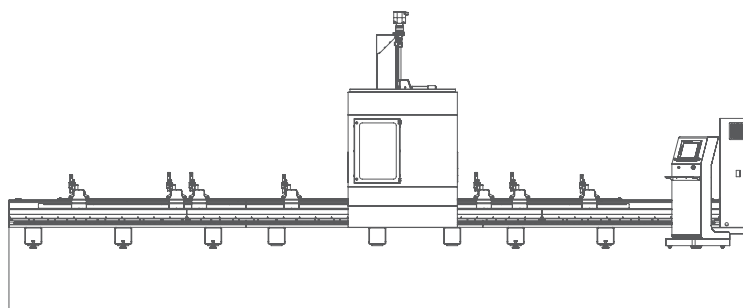
High speed rates on axes and internal automatic tool replacement magazine which moves with gantry for 20+1 tools allow for time savings when running different processes which require tool replacement.



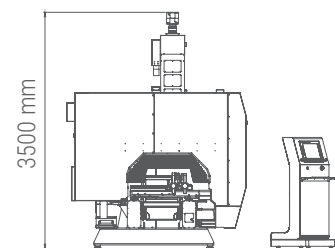
With full automatic clamp positioning, GARNET 5X automates many tasks assuming the work load of the user.



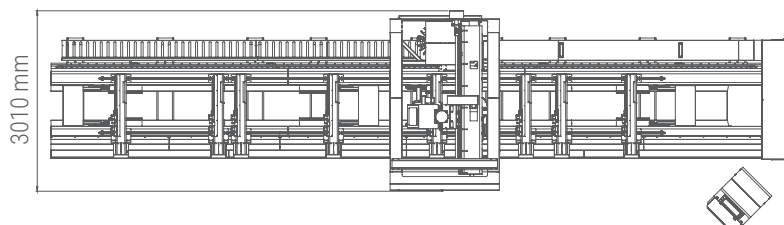
Maintenance of transmission elements is accomplished by the automatic lubrication system which is offered as an optional feature increasing the service life for accuracy in processes. Capacity may be varied for processing of non-standard profiles with on demand optimization of size and number of clamps.



11.500 mm



3500 mm



3010 mm

GARNET

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MACHINING LENGTHS

X Axis (Longitudinal)	8000 mm
Y Axis (Lateral)	550 mm (Tool length 50 mm from the collet)
Z Axis (Vertical)	340 mm
A Axis (Head processing angles)	-90° / +90°
C Axis (Head rotation movement)	0° / 360°
Optional length on X-axis	○

POSITIONING SPEED

X Axis (Longitudinal)	84 m/min
Y Axis (Lateral)	75 m/min
Z Axis (Vertical)	40 m/min
A Axis (Rotational Movement)	100° /sec
C Axis (Rotation movement)	100° /sec

AIR

Pressure	6-8 Bar
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ELECTRICAL

Max. Power	17 kW
Voltage	400V 3N PE AC
Frequency	50-60 Hz

SPINDLE

Max. Power	11 kW
Maximum rotation speed	24.000 rpm
Tool holder	HSK F63
Cooling type	Liquid

TOOL STORAGE

Automatic umbrella typed set magazine system	●
Attributable maximum set number - Umbrella type	20+1
Maximum saw blade diameter in to the storage system	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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CONTROL UNIT

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

OPERATIONAL AREA

Processable steel profile thickness	5 mm
Clamps, standard pcs	8
Clamps, maximum pcs	10
Servo-controlled automatic clamp positioning system	○
Automatic clamp positioning with the X-axis	●
Automatic lubrication in processing area	●
Cabinet providing protection in processing zone	●
Safety barrier (sensor)	●
Automatic lubrication system	○
Automatic sawdust discharge unit (8 m)	○
FESTO pneumatic system	○

● Standard ○ Optional

Özçelik Makina continuously improves its products and offers new and modern solutions for PVC and Aluminum Profile Processing. Accordingly, Özçelik reserves the right to change the information in this document without notice. All dimensions and weights are reference values. Valid from January 2023