

# GARNET

CNC Profile Machining Center (4 Axis)

Automation by  
**FANUC**



The GARNET, a 4-axis CNC profile machining center, tackles a wide range of aluminum [PVC, light alloy and even steel] profile sizes with its versatile spindle, enabling machining at any angle between  $-90^{\circ}$  and  $+90^{\circ}$ . This all-in-one solution streamlines milling, drainage channel opening, punching, marking, and end milling operations on diverse profiles. Furthermore, it excels at non-standard tasks, maximizing its user appeal. The generous working area of 580 mm x 290 mm further enhances user experience by facilitating efficient processing.



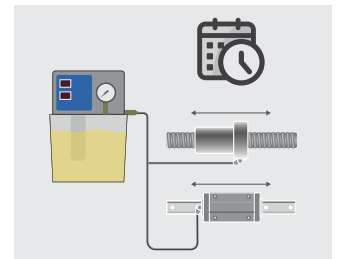
By focusing on providing convenient solutions for customers and combining power and precision, the processing capacity is only limited by the users imagination, thanks to the 9 kW spindle motor with automatic tool replacement feature.



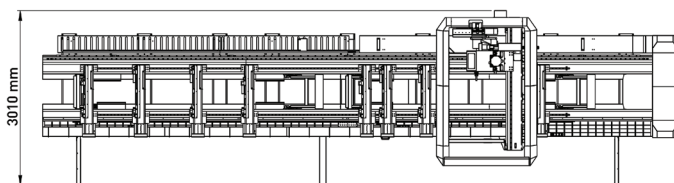
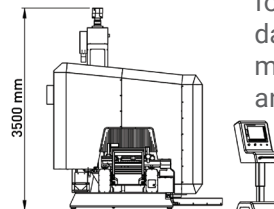
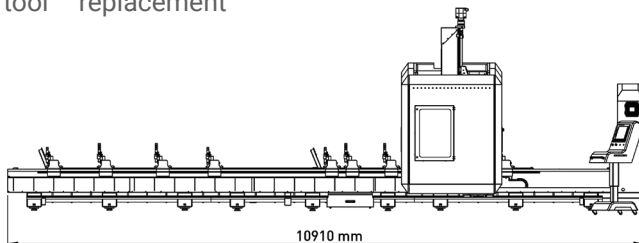
High speed rates on axes and internal automatic tool replacement magazine which moves with gantry for 20 tools allow for time savings when running different processes which require tool replacement.



With full automatic clamp positioning, GARNET 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.



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## MACHINING LENGTHS

X Axis (Longitudinal)	8000 mm
Y Axis (Lateral)	580 mm
Z Axis (Vertical)	290 mm
A Axis (Head processing angles)	-90° / +90°
Optional length on X axis	o

## 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

## AIR

Pressure	6-8 Bar
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## ELECTRICAL

Maximum power	18.3 kW
Voltage	400V 3N PE AC
Frequency	50-60 Hz

## SPINDLE

Maximum power	9 kW
Maximum rotation speed	24.000 rpm
Tool holder	ISO 30
Cooling type	Elektric Fan

## TOOL STORAGE

Tool storage system with umbrella ATC	•
Maximum tool storage system number with umbrella ATC	20
Maximum saw blade diameter in to the storage system	180 mm
Automatic Tools Measuring	•

## TAPPING CAPACITY

Compressed tapping head	M8
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## PROFILE POSITIONING

Right and left pneumatic profile reference alignment (with 4 station processing capability)	•
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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	o

## OPERATIONAL AREA

Steel Profile Machining Thickness	5 mm
Clamps, standard quantity	8
Clamps, maximum quantity	10
Servo-controlled automatic clamp positioning system	o
Automatic clamp positioning with the X-axis	•
Automatic lubrication in processing area	•
Guard cabin for machining area	•
Safety barrier	•
Automatic lubrication system for X, Y and Z axes	o
Automatic sawdust discharge unit (8 m)	o
FESTO pneumatic system	o

• Standard    o 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