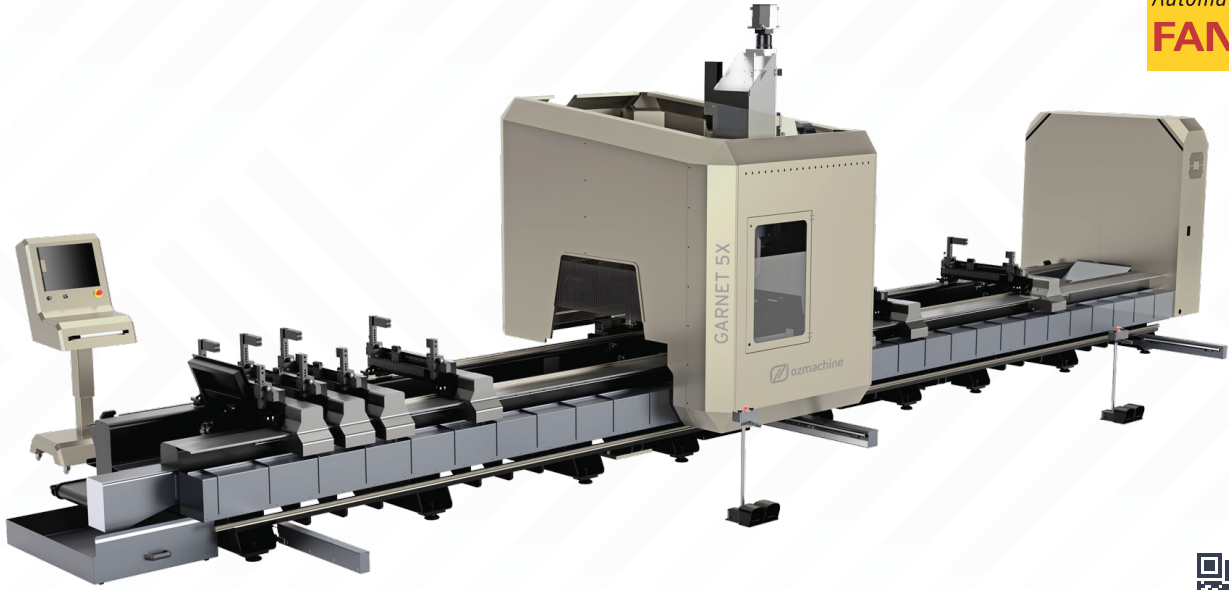


# GARNET 5X

CNC Profile Machining Center (5 Axis)

Automation by  
**FANUC**



YouTube



WEB

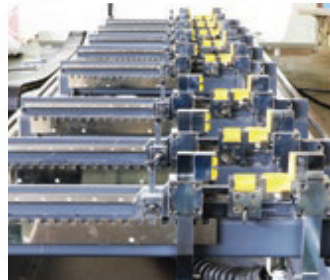
The GARNET 5X, a 5-axis CNC machining center, empowers a wide range of users by efficiently processing aluminum [PVC, light alloy and even steel] profiles of various sizes. Its spindle allows for multi-angle machining between 0° and 360° on the C-axis and 0° to 180° on the A-axis. Designed for versatility, 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 515 mm x 370 mm, boosting user productivity.



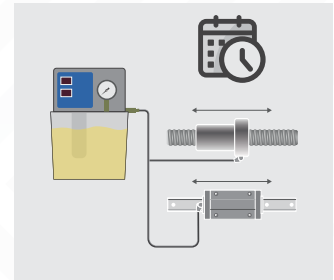
By focusing on providing convenient solutions for customers, and combining power and precision, GARNET 5X lets the processing capacity be only limited by the users imagination, thanks to the 11 kW spindle motor with automatic tool replacement feature.



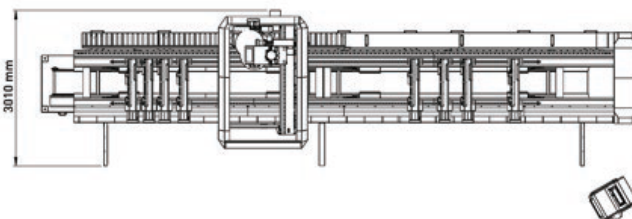
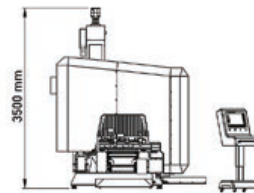
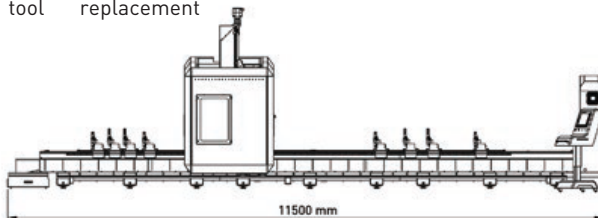
High speed rates on axes and internal automatic tool replacement magazine which moves with gantry for 20+1 tools allow for time savings when running different processes which require tool replacement.



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.



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MACHINING LENGTHS		8 M	12 M	16 M	20 M +
X Axis (Longitudinal)		8000 mm ●	12000 mm ○	16000 mm ○	20000 mm + ○
Y Axis (Lateral)		515 mm (Tool length 50 mm from the collet)			
Z Axis (Vertical)		370 mm (Tool length 50 mm from the collet)			
A Axis (Head processing angles)		-90° / +90°			
C Axis (Head rotation movement)		0° / 360°			
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			
		Positioning speeds are the maximum speed values that the machine can use continuously.			
AIR					
Pressure		6-8 Bar			
ELECTRICAL					
Max. Power		50 kW			
Voltage		400V 3N PE AC			
Frequency		50-60 Hz			
SPINDLE					
Max. Power		11 kW ● / 16 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			
Standard Saw Diameter		400 mm			
Optional Saw Diameter		550 mm			
Automatic Tools Measuring		●			
SCREW-CUTTING CAPACITY					
Tapping with adapter		M8			
PROFİL POZİSYONLAMA					
Right and left one with pneumatic movement, two alignment bar in the middle		4			
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					
Steel profile machining thickness		5 mm			
Clamps, standard pcs		8 ●	12 ○	16 ○	20 + ○
Clamps, maximum pcs		10	14	18	22 +
Servo-controlled automatic clamp positioning system		●			
Automatic lubrication in processing area		●			
Cabinet providing protection in processing zone		●			
Safety barrier (sensor)		●			
Automatic lubrication system for X, Y and Z axes		●	●	●	●
Automatic lubrication system		○	○	○	○
Automatic sawdust discharge unit		●			
FESTO pneumatic system		○	●	●	●

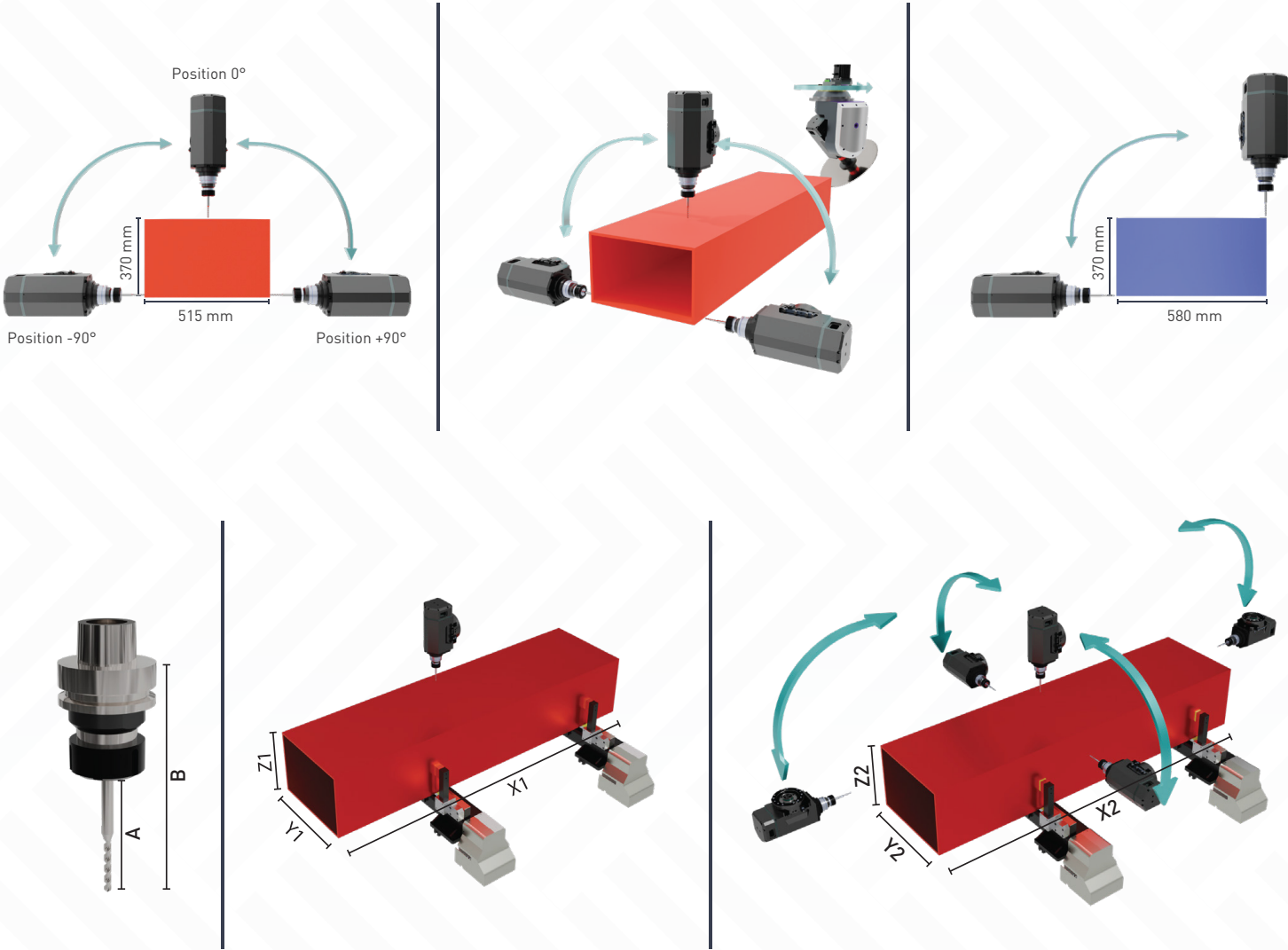
● Standard    ○ Optional

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## MOTOR ANGLES

With a spindle capable of processing at any angle between 0° and 180° on the A axis and 0° and 360° on the C axis, the machine can process aluminum and PVC profiles of various sizes, offering users a wide range of solutions.



	A	B	X1	Y1	Z1	X2	Y2	Z2
GARNET 5X	50	120	8000	580	370	8000	515	370
GARNET8000	50	95	8000	580	450	8000	515	450
GARNET XS 4(3m)	50	110	3000	320	255	3000	320	255
GARNET XS 4(4m)	50	110	4000	320	255	4000	320	255
GARNET XS	50	95	3000	320	255	3000	320	255
GARNET MINI	80	118	350	150	120			