



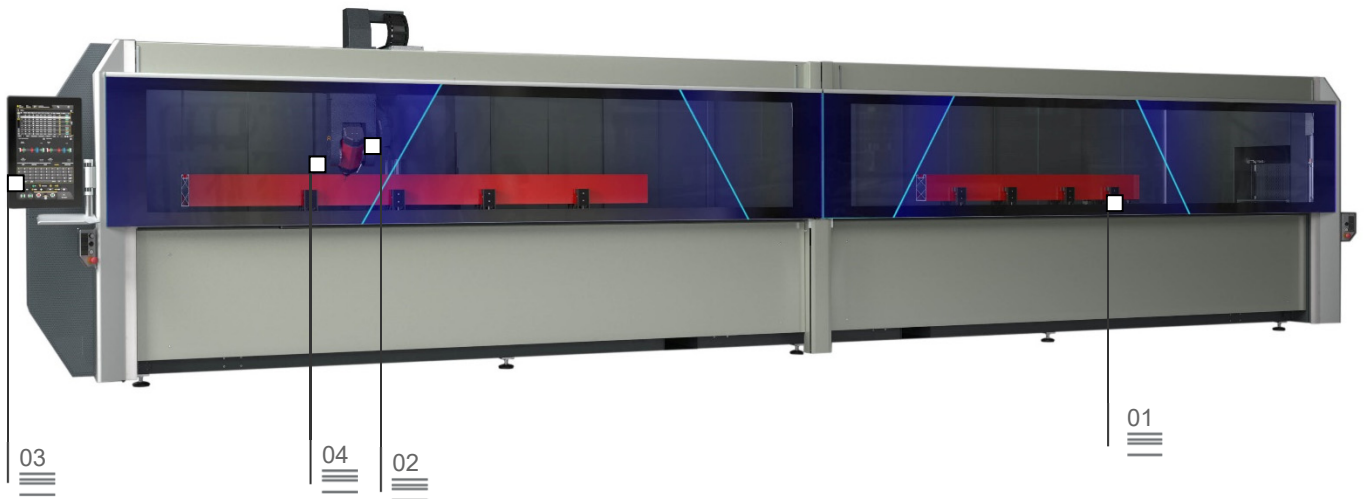
Motorized vices 01



Electrospindle 02

Comet S6 I

4-axis machining centre



4-axis CNC machining centre used for the machining of bars of aluminium, PVC, light alloys in general and steel pieces. It is equipped with two operating modes: a single work area for bars up to 7 m length or two independent work areas in double mode.

The machine is equipped with independent motorized vices that allow positioning the vices in concurrent operation time during the operation in dynamic pendular mode.

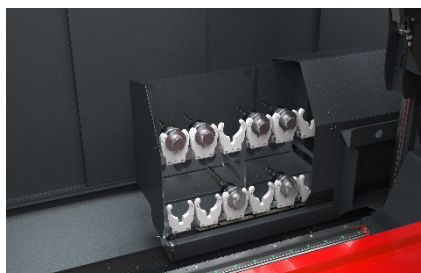
The 4th axis allows the electrospindle to continuously rotate to NC from -120° to $+120^{\circ}$ on horizontal axis, to perform the work on the upper side and on all the lateral sides of the profile. It is equipped with a 10-place tool magazine, on the X axis gantry, able to host also one milling disc.

It also has a mobile work table that facilitates the workpiece loading/unloading operation and significantly increases the workable section.

Operator interface 03



Tool magazine 04



Pendular mode 05



The images are only given for illustrative purposes

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4-axis machining centre

<h3>01</h3> <h4>Vice positioner</h4> <p>The motorized vices, each equipped with its own motor, can be positioned independently in the work area. The CNC manages the movement of vices and that of electrospindle head simultaneously, in the two different work areas in pendular mode. This allows for significant productivity increases. Using absolute reference axes allows reducing the initialisation time required every time the machine is restarted.</p>	<h3>02</h3> <h4>Electrospindle</h4> <p>8.5 kW S1 high torque electrospindle also allows heavy duty machining, which is typical in industrial processing. As an option and for higher performances a 10.5 kW encoder equipped electrospindle is available for rigid tapping. Electrospindle rotation along A axis allows working on 3 sides of the profile, with no need of repositioning. It can be used for some types of steel extrusions as well as for aluminium profiles, thanks to the software-adjusted lubricating system. With its double tank it allows either minimum oil circulation or oil emulsion spray-mist.</p>	<h3>03</h3> <h4>Operator interface</h4> <p>The new control version with suspended interface allows the operator to look at the monitor from any position, as it can be rotated around the vertical axis. The operator interface is provided with a 24", 16:9 sized, portrait mode touchscreen, equipped with all necessary USB connections for PC and NC remote interfaces. It is also provided with keyboard and mouse and with barcode and remote keyboard connections. IT IS equipped with a front USB port for exchanging data.</p>	<h3>04</h3> <h4>Tool magazine</h4> <p>The tool magazine is integrated on the X axis, in the lower part and behind the electrospindle. It allows great reduction of tool change times. This function is particularly useful in the extrusion head and tail machining, avoiding the travel to get to the magazine, as it moves simultaneously with the electrospindle and its positions. The magazine can contain up to 10 tool holders with relevant tools, which can be set at the operator's discretion. Each position of the tool holder is provided with a sensor detecting the correct cone position.</p>	<h3>05</h3> <h4>Pendular mode</h4> <p>The innovative machining system allows to minimise downtimes when loading and unloading the workpieces to be machined. The system allows loading and consequent machining of workpieces, with different lengths, codes and types of machining for the two working areas. This is a very advantageous solution for the field of window/door frames and for small work orders, where machining is required for small lots of different workpieces.</p>
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AXES TRAVELS	
X AXIS (longitudinal) (mm)	7,340
Y AXIS (transversal) (mm)	1,000
Z AXIS (vertical) (mm)	450
A AXIS (rotation on electrospindle horizontal axis)	-120° ÷ +120°
ELECTROSPINDLE	
Maximum power in S1 (kW)	8.5
Maximum power in S6 (60%) (kW)	10
Maximum speed (rpm)	24,000
Tool holder cone	HSK - 63F
Automatic tool holder hook	•
Cooling with heat exchanger	•
Electrospindle controlled on 5 axes with the possibility of simultaneous interpolation	•
Electrospindle with encoder for rigid tapping	○
AUTOMATIC TOOL MAGAZINE ON BOARD THE GANTRY	
Maximum number of magazine tools	10
Maximum diameter of the blade that can be inserted in the magazine (mm)	Ø = 250
FUNCTIONALITY	
Multi-piece operation	•
Dynamic pendular operation	•
Extended machining, up to twice the maximum nominal length in X	○
Multi-step mode machining up to 5 steps	•
Automatic management of multi-step mode machining	○
Multi-piece mode machining in Y	○
Workpiece rotation for machining on 4 sides	○
TAPPING CAPACITY	
With compensator	M8
Stiff (optional)	M10
WORKPIECE LOCKING	
Standard number of vices	8
Maximum number of vices	12
Independent motorized vices	•
Maximum number of vices per area	6

- included
- available