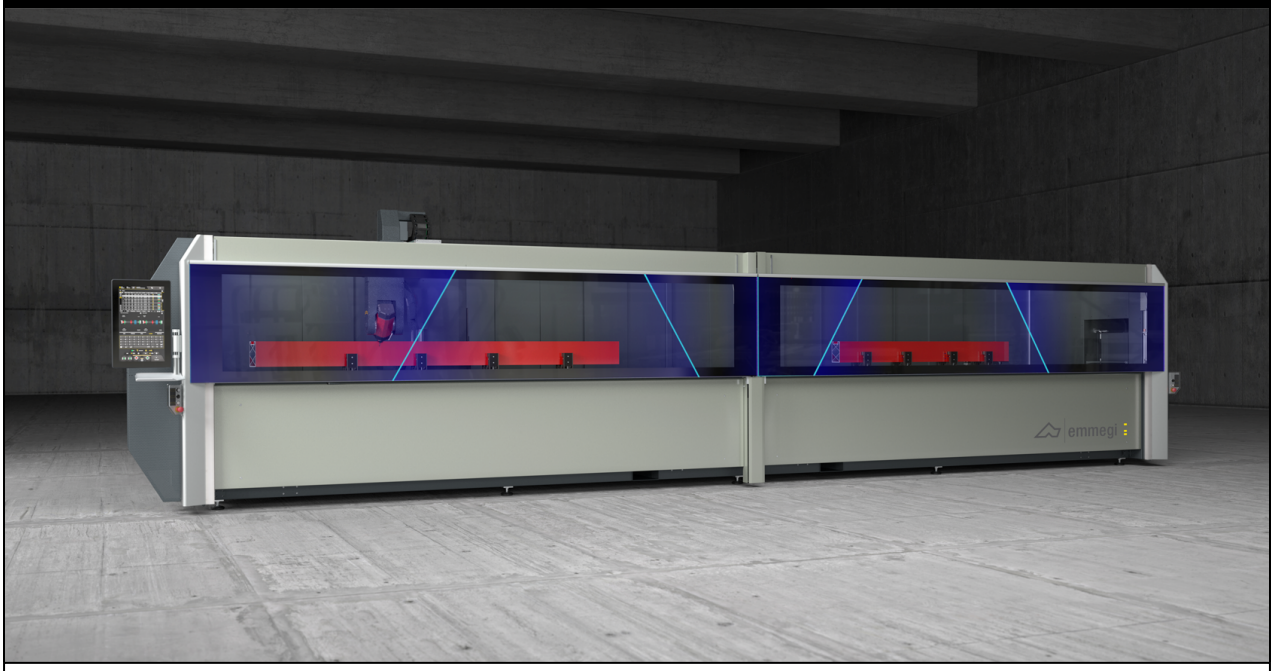
COMET **S6 HP**

CABINET MACHINING CENTERS



4-axis CNC machining centre designed for working bars or parts in aluminium, PVC, light alloys in general and steel. It includes two different operating modes: the first one, in single-zone mode, for machining whole bars in a single working area, up to 7 m long; the second one, in double operation, for machining multiple workpieces in the two separate working areas. All CNC axes are absolute and do not require resetting upon restarting the machine. The machine in HP version features 2 additional axes that, in double operation, allow positioning in the clamps and reference stops in concurrent operation time with respect to the spindle machining processes in the opposite working field. The 4th axis allows the electrospindle to rotate to CNC from –120° to +120° on horizontal axis, to machine the top and the side faces of the profile. It is equipped with a 12-place tool magazine on board the X axis slide, with provision for accepting one angle machining head and a side milling cutter in order to be able to machine on the 5 faces of the workpiece. The mobile worktable facilitates the workpiece loading/unloading operation fully ergonomically, and significantly increases the machinable section on the Y-axis.

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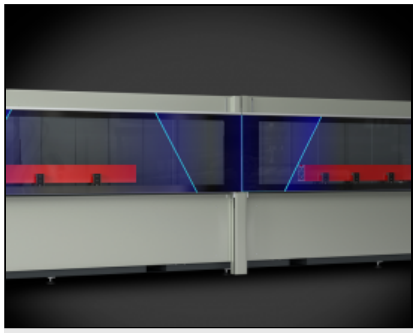
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4 axes electric head -S-

The 8.5 kW electrospindle in S1 with high torque also enables performing the heavy machining typical of the industrial sector. A 10.5 kW electrospindle with encoder for rigid tapping is available as optional. Electrospindle rotation along A axis allows working on 3 sides of the profile, with no need of repositioning.



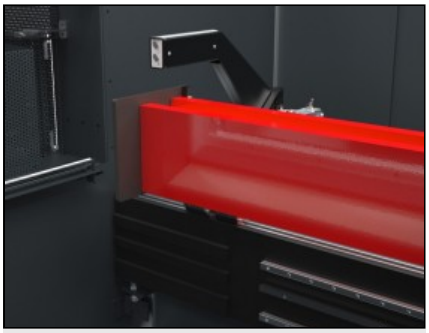
Dynamic double operation

The innovative machining mode allows minimising downtimes when loading and unloading the workpieces to be machined. The system allows, in the two distinct and independent work areas, to simultaneously carry out the loading/unloading of extruded profiles on one side, and machining of workpieces on the other, with different lengths and/or codes.



HP version

Comet has two operation modes: a single work area for bars up to 7 m long, or two independent work areas in double operation mode. The machine in HP version is equipped with 2 additional axes for positioning of vices and reference stops, that allow positioning the vices while the machine is working in double mode.



Vice positioner

Vice unit positioning is performed by two numerically controlled axes, H and P, parallel to the X-axis, with on-board reference stop. This solution allows positioning stops all along the machine to work in multi-workpiece mode with one profile for every pair of vices. Furthermore, the positioning of the vices takes place independently of the operational condition of the spindle (X-axis).



Operator interface

The possibility of rotating the monitor on its vertical axis allows the operator to view the screen from any position. The user interface has a 24” touchscreen display in 16:9 format, portrait mode, equipped with the necessary USB connections for PC and CNC remote interfaces. It also features an operator panel, mouse, and it is set up for connecting barcode reader and remote operator panel.



Tool magazine

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 stroke to get to the magazine, as it moves simultaneously with the electrospindle and its positions.

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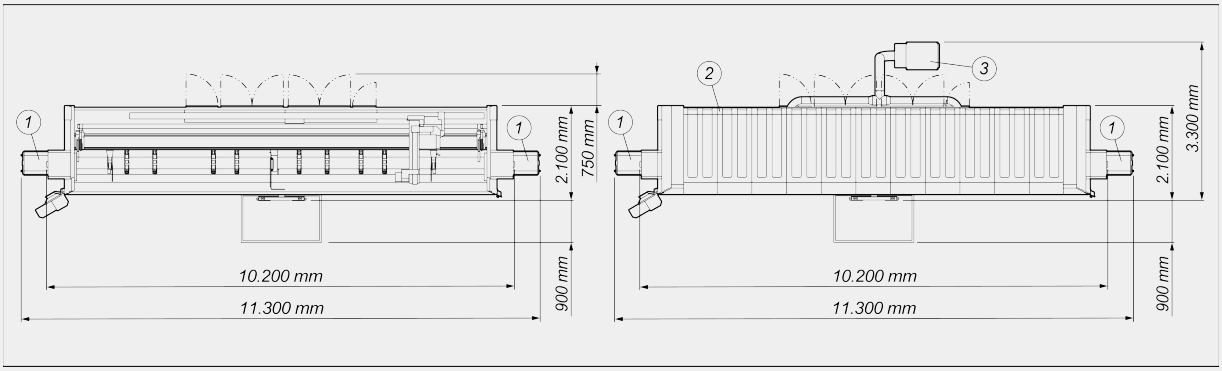
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COMET S6 HP / CABINET MACHINING CENTERS

LAYOUT

The overall dimensions may vary depending on the product configuration.

1. Chip conveyor and swarf drawer (optional)
2. Cabin enclosure (optional)
3. Fume extraction system (optional)



Machine height (maximum Z-axis extension) (mm)	2.590
Machine height with top cover (mm)	2.710

AXIS STROKES

X AXIS (longitudinal) (mm)	7.660
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
Toolholder cone	HSK - 63F
Automatic tool holder coupling	●
Cooling with heat exchanger	●
Electrospindle controlled on 4 axes with the possibility of simultaneous interpolation	●

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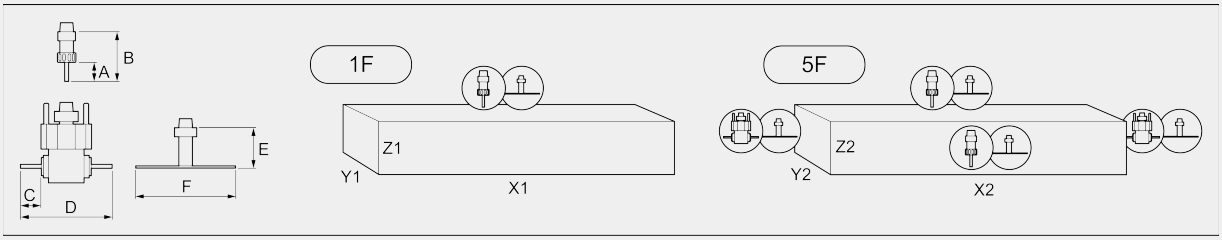
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WORKABLE SIDES

With angle machining head (side faces and heads)	2 + 2
With blade tool (upper face, side faces and heads)	1 + 2 + 2
With direct tool (upper face and side faces)	3

WORK AREA

1F = 1 face machining **5F = 5 faces machining**



COMET S6 HP		A	B	C	D	E	F	X1	Y1	Z1	X2	Y2	Z2
single mode		60	130	50	245	100	250	6.880	300	215	6.880	250	215
asymmetrical double mode	lh	60	130	50	245	100	250	3.250	300	215	3.120	250	215
asymmetrical double mode	rh	60	130	50	245	100	250	2.785	300	215	2.645	250	215
symmetrical double mode	lh	60	130	50	245	100	250	2.970	300	215	2.840	250	215
symmetrical double mode	rh	60	130	50	245	100	250	3.065	300	215	2.925	250	215

Dimensions in mm

The application of an angular unit reduces the working capacity in Z to 190 mm

TAPPING CAPACITY (with Tap On Aluminium And Through Hole)

Stiff (optional)	M10
With compensator	M8

WORKPIECE LOCKING

Maximum number of pneumatic vices	12
Standard number of pneumatic vices	8
Maximum number of vices per area	6
Automatic vice positioning and workpiece reference stops through independent H and P axes	●

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AUTOMATIC TOOL MAGAZINE ON BOARD THE GANTRY

Maximum number of magazine tools	12
Maximum length of the tool that can be loaded into the magazine (mm)	190

FUNCTIONS

Dynamic double operation	●
Multi-piece operation	●
Basic multi-step machining - up to 5 steps	●
Automatic management of multi-step mode machining	○
Extended machining, up to twice the maximum nominal length in X	○
Multi-piece mode machining in Y	○
Workpiece rotation for machining on 4 sides	○

Included ● Available ○

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