Comet X4

CNC machining centres

CNC machining centre, with 4 controlled axes, and 7 kW spindle designed for machining bars or parts of aluminium, PVC, light alloys in general or steel up to 2 mm. It is equipped with a 10-place tool magazine, with provision for accepting one angle machining head and a blade in order to be able to machine on the 5 faces of the workpiece. The 4th NC axis allows the electrospindle to rotate from 0° to 180° and position itself at any intermediate angle. The machine can therefore perform machining operations on the top and side faces of the profile at any angle within the range. It also has a mobile work table which makes workpiece loading/unloading easier and increases the working section considerably.

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Power and flexibility of the electrospindle

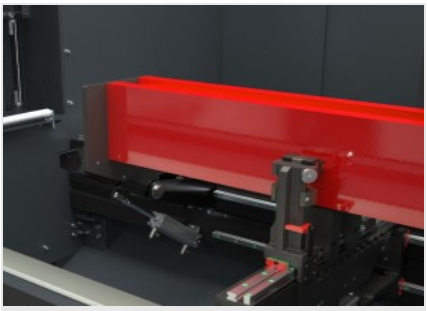
7 kW S1 high torque electrospindle allows heavy duty machining. It moves along the A-axis allowing rotations from 0° to 180°, so the profile can be machined on 3 faces without being repositioned.

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.

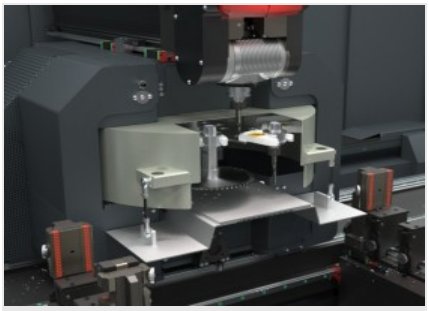
Vices

The machine software can calculate the correct positioning measure for each vice unit, according to the length of the workpiece and to the type of machining to be performed. The automatic positioner allows picking all vice units and moving them by means of the gantry. This operation is performed at the highest speed and with great precision and spares longer time and collision risks, so that the machine can also be easily used by less experienced operators.



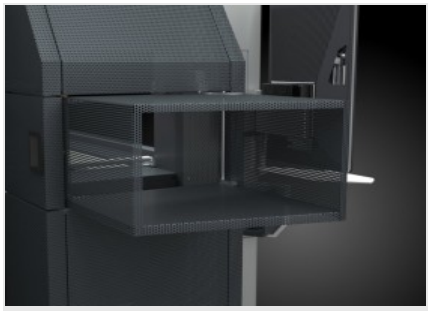
Pneumatic stops

The machine is equipped with strong stops allowing bar reference. One is positioned on the left side (standard) and the other on the right side (optional). Each stop is activated by a pneumatic cylinder, it is retractable type and is automatically selected by the machine software according to the machining to be performed.



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.



Foldaway tunnel

Integrated with the machine’s aesthetics and design, thanks to the perforated sheet metal for transparency and lightness, the tunnel opens and closes as needed. As its length can be reduced when not in use, it helps save space at the workshop. The outlet for the chip conveyor belt and its engine are built into the lower section, in view of an aesthetic and functional design.

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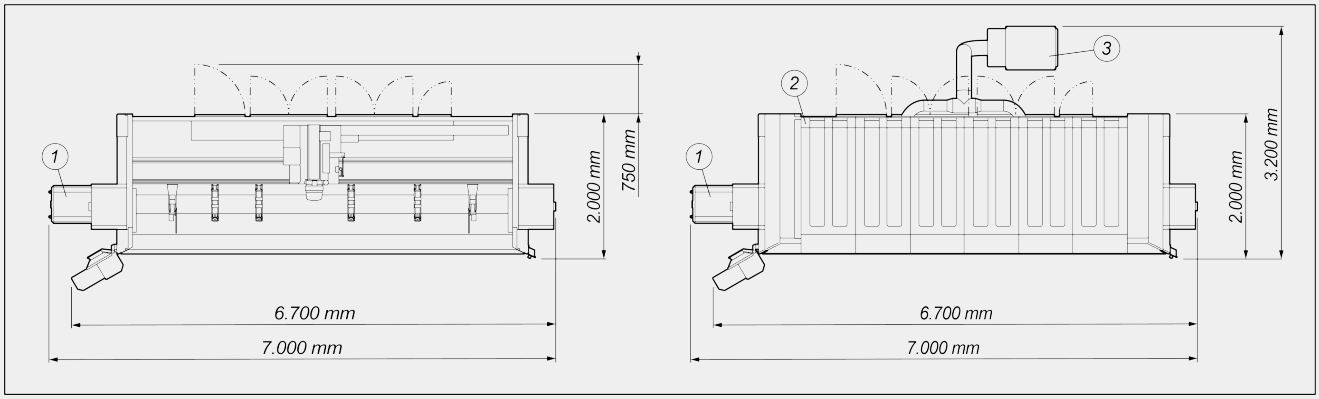
COMET X4 / CNC MACHINING CENTRES

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)	4.250
Y AXIS (transversal) (mm)	420
Z AXIS (vertical) (mm)	430
A AXIS (electrospindle rotation)	0° ÷ 180°

ELECTROSPINDLE

Maximum power in S1 (kW)	7
Maximum speed (rpm)	16.500
Toolholder cone	HSK - 50F
Automatic tool holder coupling	●
Cooling with heat exchanger	●
Electrospindle with encoder for rigid tapping	○

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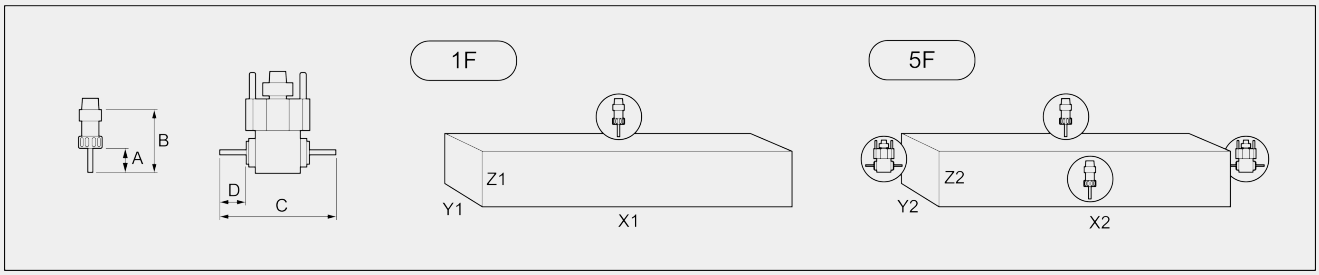
FUNCTIONS

Extended machining, up to twice the maximum nominal length in X	●
Multi-piece mode machining in Y	○
Multi-piece operation	○
Workpiece rotation for machining on 4 sides	○

WORK AREA

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



	A	B	C	D	X1	Y1	Z1	X2	Y2	Z2
COMET X4	45	102	232	45,5	4.000	300	250	4.000	240	250

Dimensions in mm

TAPPING CAPACITY (with Tap On Aluminium And Through Hole)

Stiff (optional)	M10
With compensator	M8

PROFILE POSITIONING

Workpiece reference RIGHT stop with pneumatic movement	○
Workpiece reference LEFT stop with pneumatic movement	●

WORKPIECE LOCKING

Maximum number of pneumatic vices	6
Standard number of pneumatic vices	4
Automatic vice positioning through X axis	●

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AUTOMATIC TOOL MAGAZINE ON BOARD THE GANTRY

Maximum number of magazine tools	10

SAFETY DEVICES AND PROTECTIONS

Machine integral protection booth	●
Laminated protection glass	●
Retractable side protection tunnels	●

Included ● Available ○

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