

Comet X6

CNC machining centres



4-axis CNC machining centre designed for working bars or parts in aluminium, PVC, light alloys in general and steel up to 2 mm. The machine can operate in single-piece and multi-piece mode, with a single work area for bars up to 7,7 m in length. The COMET X6 model allows machining in pendular mode, with two independent work areas. The machine has a 10-place tool magazine, on the X axis gantry, with the possibility of hosting an angle machining head and a milling disc, to perform machining on the 5 sides 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 that facilitates the workpiece loading/unloading operation and significantly increases the workable section.



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.



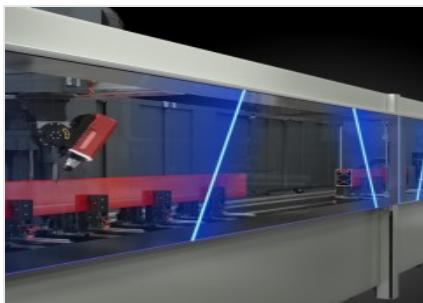
Operator interface

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.



Double operation mode

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.



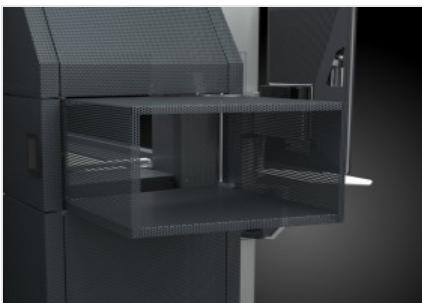
Glass protection

Safe, perfect, resistant, long-lasting. These are the advantages of choosing glass for protecting the new Comet machining centres. Glass is also easy to clean and less susceptible to scratches and wear. Machine cuts operate to flag machine statuses, thanks to a light colour interface. The whole visor slides downwards, thus making it easier to load the workpieces; additionally, the ends feature aluminium guards that act as a support plane if needed.



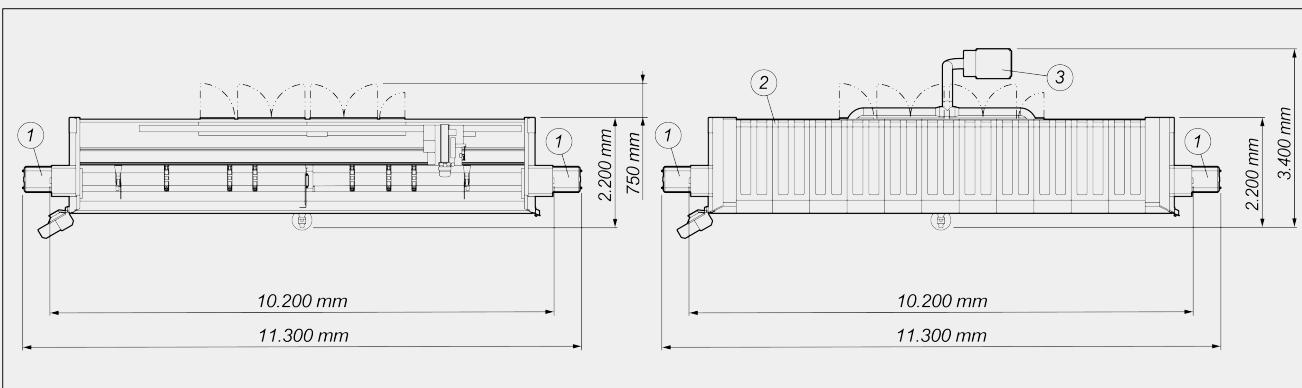
Tool magazine

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 (Optional)

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.

COMET X6 / CNC MACHINING CENTRES
LAYOUT


Machine height (maximum Z-axis extension) (mm) 2.590

Machine height with top cover (mm) 2.710

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

The overall dimensions may vary depending on the product configuration.

AXIS STROKES

X AXIS (longitudinal) (mm)	7.970
X AXIS (longitudinal) (dynamic double operation) (mm)	7.600
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
Cooling with heat exchanger	●
Automatic tool holder coupling	●
Electrospindle with encoder for rigid tapping	○

FUNCTIONS

Static double operation (according to model)

Multi-piece operation

Extended machining, up to twice the maximum nominal length in X

Basic multi-step machining - up to 5 steps

Multi-piece mode machining in Y

Workpiece rotation for machining on 4 sides

WORKABLE SIDES

With direct tool (upper face and side faces)

3

With angle machining head (heads)

2

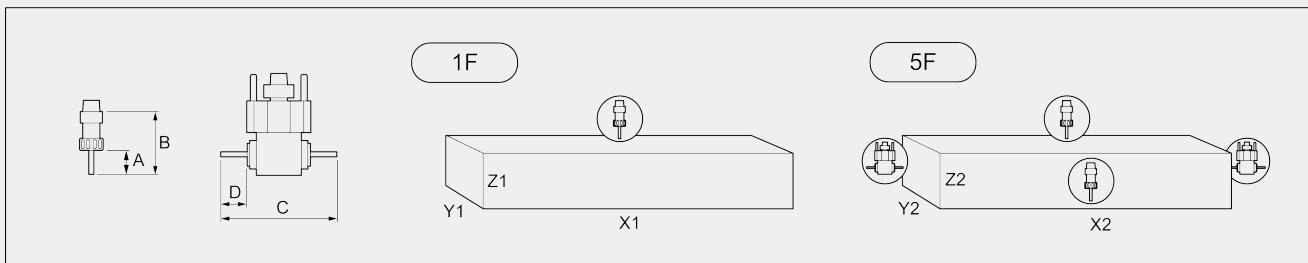
With blade tool (upper face, side faces and heads)

1 + 2 + 2

WORK AREA

1F = 1 face machining

5F = 5 faces machining



COMET X6

	A	B	C	D	X1	Y1	Z1	X2	Y2	Z2
--	----------	----------	----------	----------	-----------	-----------	-----------	-----------	-----------	-----------

single mode

single mode	45	102	232	45,5	7.700	300	250	7.700	240	250
-------------	----	-----	-----	------	-------	-----	-----	-------	-----	-----

double mode

double mode	45	102	232	45,5	3.440	300	250	3.440	240	250
-------------	----	-----	-----	------	-------	-----	-----	-------	-----	-----

Dimensions in mm

TAPPING CAPACITY (with Tap On Aluminium And Through Hole)

With compensator

M8

Stiff (optional)

M10

WORKPIECE LOCKING

Maximum number of pneumatic vices

12

Standard number of pneumatic vices

6

Automatic vice positioning through X axis

AUTOMATIC TOOL MAGAZINE ON BOARD THE GANTRY

Maximum number of magazine tools	10
Maximum number angle machining units that can be inserted in the tool magazine	1

SAFETY DEVICES AND PROTECTIONS

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

Included ● Available ○