# Phantomatic X4

CNC machining centres

Machining centre CNC with 4 controlled axes, used for the working of bars of aluminium, PVC, light alloys in general and steel pieces up to 2 mm. Automatically positioned clamp unit. It has a 4 or an 8 place (optional) tools storage, with the possibility of hosting 2 angular units and one milling disc, to perform machining on the 5 sides of the piece. Machines bars up to 4 m in length. 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. All CNC axes are absolute and do not require resetting upon machine restart. It also has a mobile work surface that facilitates the piece loading/ unloading operation and signifi cantly increases the workable section.

**Emmegi S.p.A.**
Via Archimede, 10
41019 - Limidi di Soliera (MO)
ITALY

Tel +39 059 895411
Fax +39 059 566286
P.Iva/C.Fisc 01978870366
info@emmegi.com
www.emmegi.com

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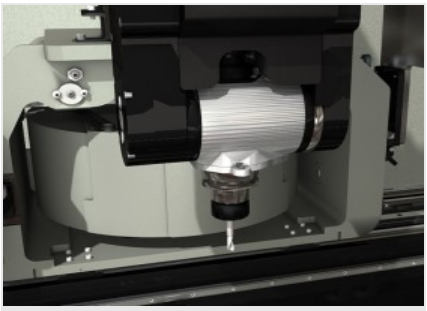
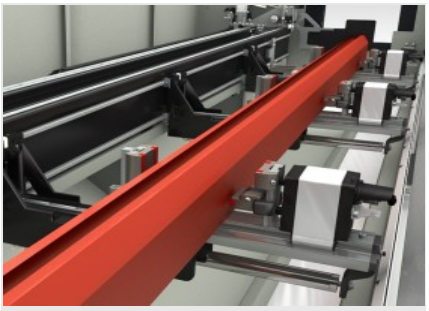


## 4 axes electric head -X-

7 kW S1 high torque electrospindle allows heavy duty machining. The electrospindle movement along A axis performs 0° to 180° rotation, allowing to work on 3 sides of the profile with no need to reposition it.

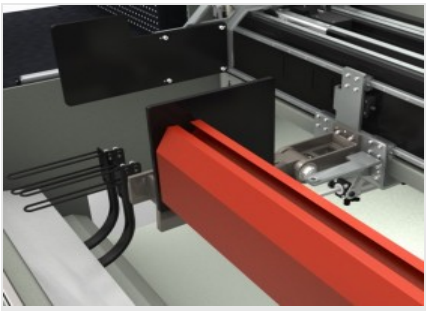
## Operator interface

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 has a 15" touch screen display with all USB connections necessary to interface with a remote PC and NC. It has a push-button panel, mouse and keyboard. It is also set up for the connection of a barcode reader and remote push-button panel. It is equipped with a front USB socket for data transfer.



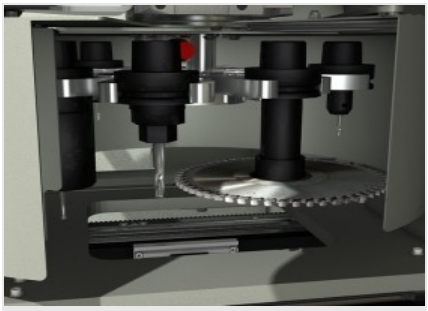
## Vices

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 positioning system 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.


## High-performance industrial human-machine interface PC (Optional)

The high-performance industrial PC significantly improves the computing power of the operating system and the speed of the application software installed. This device allows to achieve a reduction in machine set-up time and manage the most complex cycles without slowdowns.

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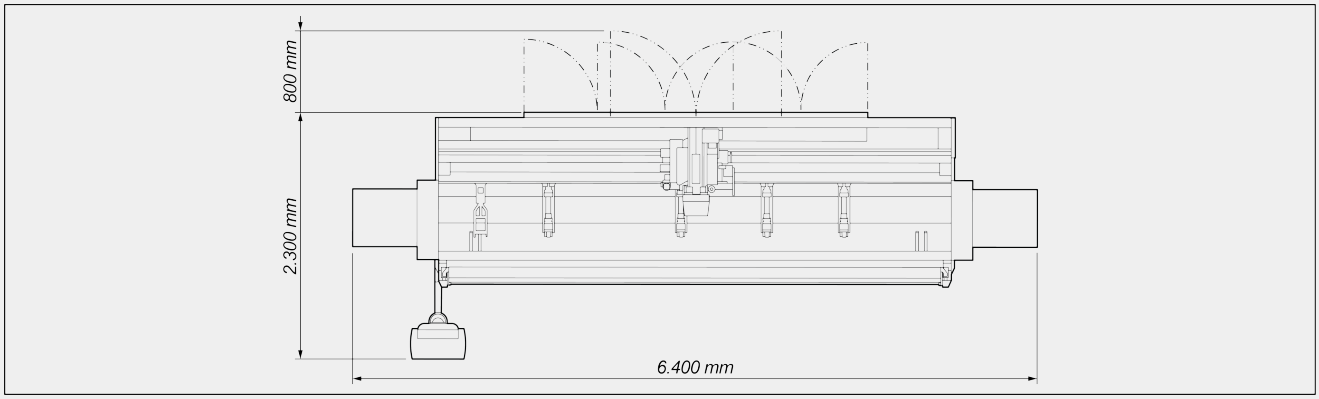
## LAYOUT




The overall dimensions may vary depending on the product configuration.

## AXIS STROKES

| | |
|---|---|
| X AXIS (longitudinal) (mm) | 4.000 |
| Y AXIS (transversal) (mm) | 270 |
| Z AXIS (vertical) (mm) | 420 |
| 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 | ● |

## AUTOMATIC TOOL MAGAZINE ON BOARD THE GANTRY

| | |
|---|---|
| Maximum number of magazine tools | 8 |
| Maximum number angle machining units that can be inserted in the tool magazine | 1 |
| Maximum diameter of the blade that can be inserted in the magazine (mm) | Ø = 180 |

## 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 |

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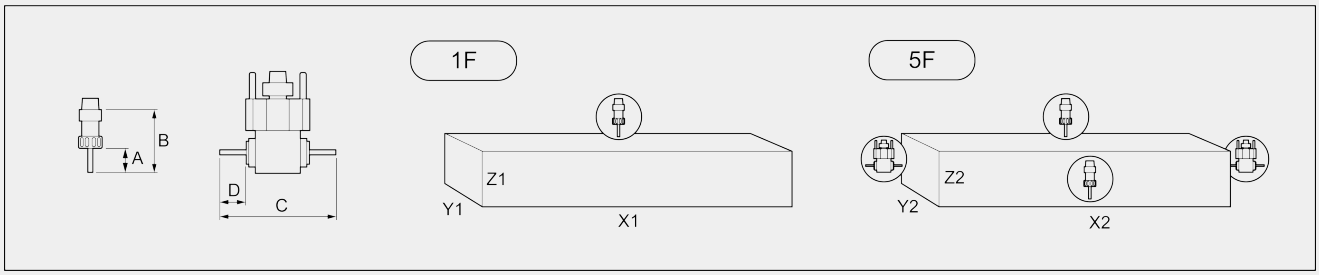
## WORK AREA

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




| | A | B | C | D | X1 | Y1 | Z1 | X2 | Y2 | Z2 |
|---|---|---|---|---|---|---|---|---|---|---|
| **PHANTOMATIC X4** | 45 | 102 | 232 | 45,5 | 4.000 | 210 | 250 | 3.760 | 180 | 250 |

Dimensions in mm

## TAPPING CAPACITY (with Tap On Aluminium And Through Hole)

| | |
|---|---|
| With compensator | M8 |
| Stiff (optional) | M10 |

## PROFILE POSITIONING

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

## WORKPIECE LOCKING

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

## SAFETY DEVICES AND PROTECTIONS

| | |
|---|---|
| Machine integral protection booth | ● |
| Side tunnels | ○ |
| Cabin enclosure, sound proofing and inner lighting | ○ |
| Fume extraction system | ○ |

Included ● Available ○

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