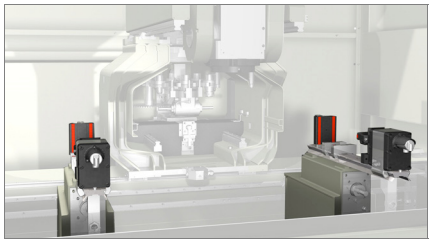
emmegi

Aluminium
Steel
Pvc

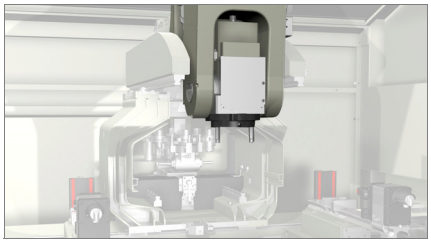
en #2

# Comet T4 I

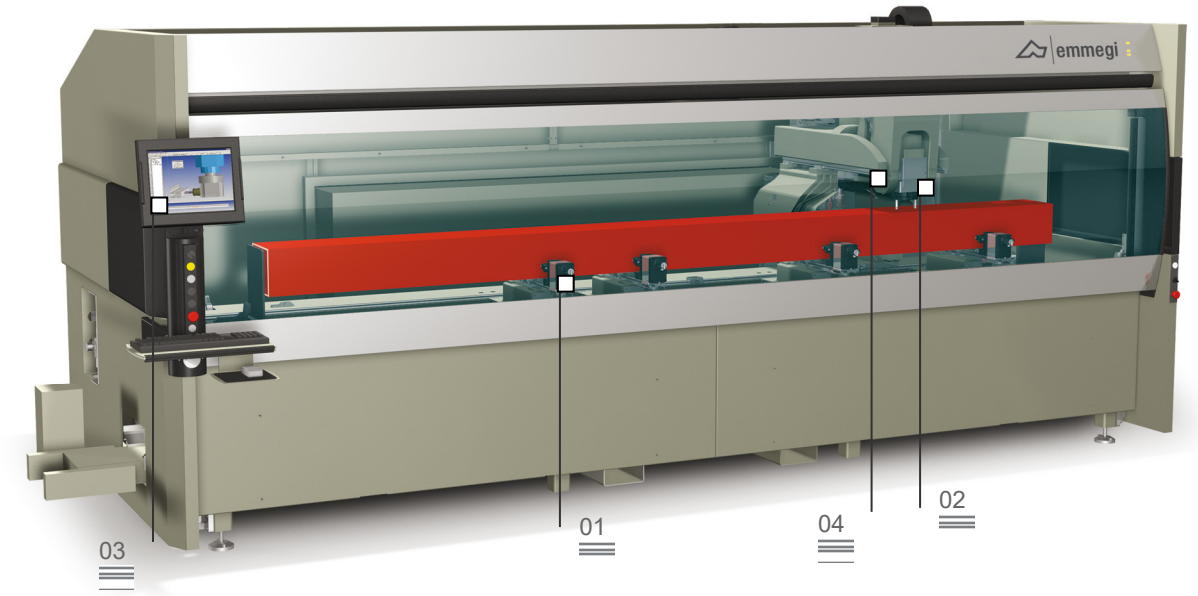
## Machining centre



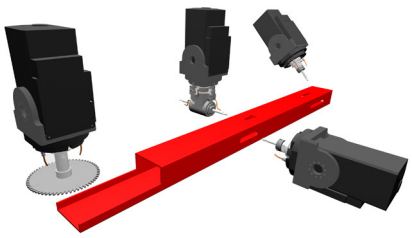
Motorised vices 01



Electro spindle 02

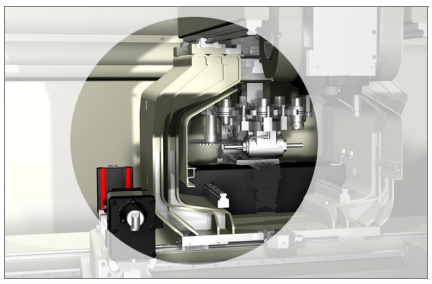



Machining centre CNC with 4 controlled axes, used for the working of bars of aluminium, PVC, light alloys in general and steel pieces. Works bars up to 4 m long and the profile locking happens by means motorised and independent vice units that allow a rapid positioning while machine is working. The 4th axis allows the electro spindle to continuously rotate to CN from 0° to 180° to perform the work on the profile edge. It has an 8 place tools storage on board the X axis slide, able to host 2 angular units and one milling disc, to perform work on the 5 sides of the piece. It also has a mobile work surface that facilitates the piece loading/unloading operation and significantly increases the workable section.

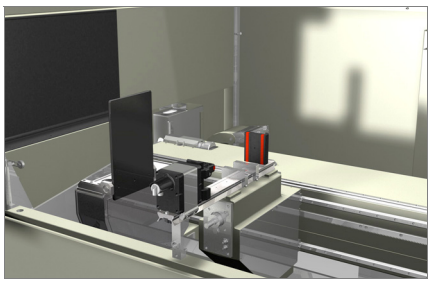


Operator interface 03

Tools storage 04



Reference stops 05



The images are only given for illustrative purposes

# Comet T4 I

## Machining centre

### 01
**Motorised vices**

The new motorised vices system allows, by means of an electric motor for every vice unit, to automatically position itself inside the work field. The determining of the position is fully and autonomously handled by CN compared to the x axis slide and the electro spindle. This allows to drastically reduce positioning times.

### 02
**Electro spindle**

The 8 kW electro spindle in S1 with high torque allows to perform heavy work also, typical of the industrial sector. The rotation of the electro spindle along axis A allows to perform rotations from 0° ÷ 180°, in order to perform work on 3 sides of the profile, without having to move it. It can be used on certain types of extruded steel and on aluminium profiles, thanks to the availability of a lubrication plant, settable by software, which twin tank allows the use of both minimal diffusion oil and of oil mist emulsion.

### 03
**Operator interface**

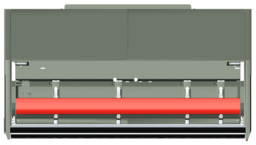
The new control version, with suspended interface, allows the operator to see the screen from any position, thanks to the possibility to rotate the monitor on the vertical axis. The operator interface has a 15" touch screen display with all USB connections necessary to remotely interface with PC and CN. It has a push button control unit, mouse and keyboard. It is also arranged for the connection of a barcode reader and remote push button control unit. A front USB socket, easy to access, replaced the floppy reader and the CD-Rom reader.

### 04
**Tools storage**

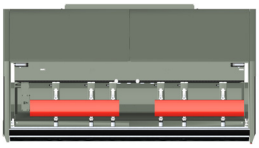
The tool holding storage is integrated on the X axis, placed lower and in backward position compared to the electro spindle, allows a drastic time reduction for the tools change operation. This function is particularly useful when working head and tail of the extruded material, allowing to avoid the run to reach the storage, in that the same moves together with the electro spindle, in the relative positionings. The storage is able to contain up to 8 tool holders with respective tools that can be configured at the discretion of the operator. Every position of the tool holder is supplied with a sensor that detects the correct positioning of the cone.

### 05
**Reference stops**

Robust and stiff stops are present in the machine that enslave to bar reference, located one on the right side and one on the left side. Every stop, started by means of a pneumatic cylinder, is of removable type and is automatically selected, from machine software, in function of the work to be carried out. The advantages of the double reference stop can be summarised in the possibility to load more profile pieces for work in multipiece mode, as well as the possibility to carry out the repositioning of the bar or of the piece and carry out work on particularly long profiles.



**Single piece** method



**Multipiece** method

| | |
|---|---|
| **AXES RUNS** | |
| AXIS X (longitudinal) (mm) | **4.000** |
| AXIS Y (transversal) (mm) | **470** |
| AXIS Z (vertical) (mm) | **420** |
| AXIS A (spindle rotation) | **0° ÷ 180°** |
| **ELECTRO SPINDLE** | |
| Maximum power in S1 (kW) | **8** |
| Maximum speed (revs/min) | **24.000** |
| Tool attachment cone | **HSK - 63F** |
| Automatic tools holder hook | ● |
| Cooling with heat exchanger | ● |
| **AUTOMATIC TOOLS STORAGE ON BOARD THE X AXIS SLIDE** | |
| Storage tools maximum number | **8** |
| Maximum number angular heads that can be inserted in tools storage | **2** |
| Maximum diameter blade that can be inserted in storage (mm) | **Ø = 180** |
| **FUNCTIONALITY** | |
| Multipiece functioning | ○ |
| **WORKABLE SIDES** | |
| With direct tool (upper side, lateral sides) | **3** |
| With angular unit (lateral sides, heads) | **2 + 2** |
| With blade tool (upper side, lateral sides and heads) | **1 + 2 + 2** |
| **TAPPING CAPACITY** | |
| With compensator | **M8** |
| Stiff (optional) | **M10** |
| **PIECE LOCKING** | |
| Vices standard number | **4** |
| Vices maximum number | **6** |
| Independent motorised vices | ● |