

# TKE 938

CABINET MACHINING CENTERS

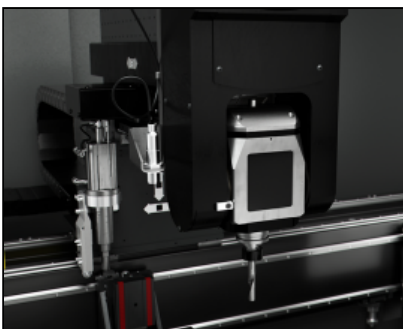


CNC machining centre with 4 controlled axes and automatic tool rotation enabling machining on 3 sides of the workpiece. Designed for machining bars or workpieces made of aluminium, PVC, light wood in general and steel up to 2 mm thick. It is provided with a manual tool storage magazine with 9 places to which one or two additional automatic storage magazines with 4 places can be added at the sides of the machine. The profile is positioned by a pneumatic stop on the left side. It is blocked by 4 sturdy clamps which are positioned automatically with axis X. The installation of a second pneumatic stop (optional) on the right side allows oversize machining of bars whose length is double compared to the work field. 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 significantly increases the workable section.



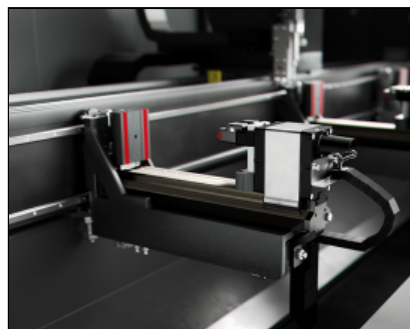
### Operator interface

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.



### Electrospindle - M -

The 4 kW electrospindle in S1 can reach 20,000 rpm. The electrospindle movement along A axis performs -90° to +90° rotation, allowing to work on 3 sides of the profile with no need to reposition it. It can be used on profiles made of aluminium, PVC and light wood and can process extruded steel that is 2 mm thick.



### 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.



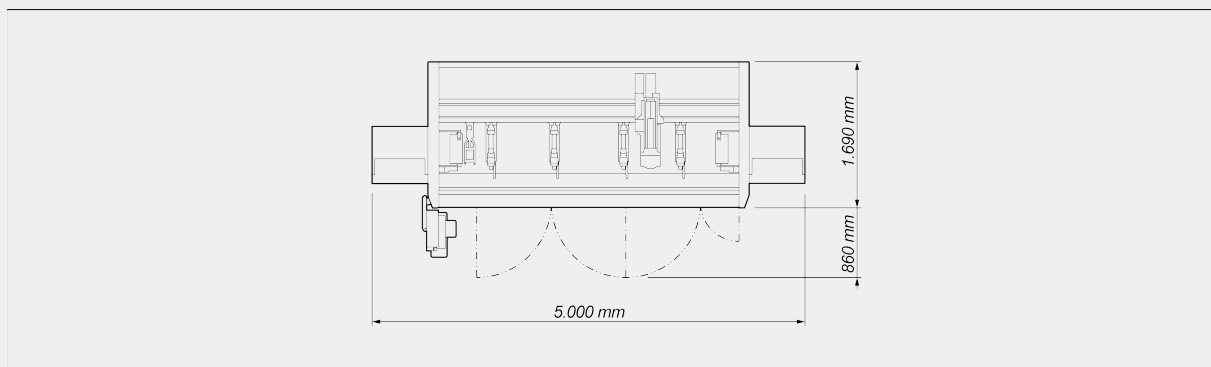
### Manual tool changer

The standard, retractable toolholder magazine can house 9 toolholder cones that can be manually taken and installed on the spindle. the position numbering allows identifying the requested tool from the hmi for each machining. the magazine is located on board the machine, in a position suitable for easy access by the operator.



### Left pneumatic stop

The machine features a robust stop device for bar reference, located on the left side. The stop is activated by a pneumatic cylinder, it is of retractable type and is automatically selected by the machine software according to the machining to be performed.

**TKE 938 / CABINET MACHINING CENTERS**
**LAYOUT**


The overall dimensions may vary depending on the product configuration.

**AXIS STROKES**

|                            |       |
|----------------------------|-------|
| X AXIS (longitudinal) (mm) | 3.000 |
| Y AXIS (transversal) (mm)  | 274   |

**POSITIONING SPEED**

|                                          |       |
|------------------------------------------|-------|
| X AXIS (longitudinal) (m/mm)             | 56    |
| Y AXIS (transversal) (m/mm)              | 22    |
| Z AXIS (vertical) (m/mm)                 | 22    |
| A AXIS (electrospindle rotation) (°/min) | 6.600 |

## ELECTROSPINDLE

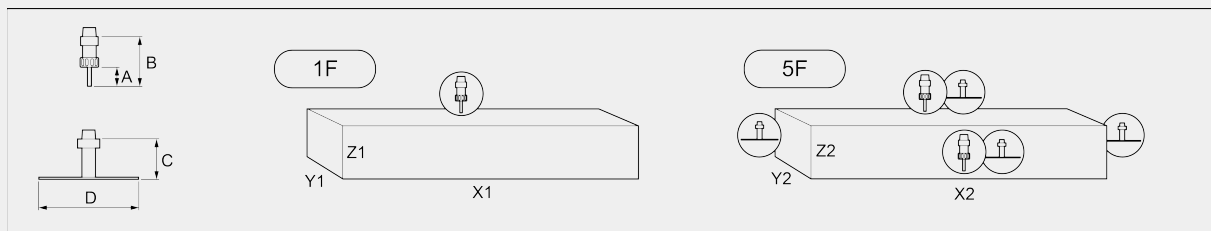
|                                |             |
|--------------------------------|-------------|
| Maximum power in S1 (kW)       | 4,0         |
| Maximum speed (rpm)            | 20.000      |
| Toolholder cone                | HSK - 50F   |
| Automatic tool holder coupling | ●           |
| Liquid cooling                 | ●           |
| Automatic tool rotation        | -90° ÷ +90° |

## TOOL MAGAZINE

|                                                                          |          |
|--------------------------------------------------------------------------|----------|
| Maximum number of tools in manual magazine                               | 9        |
| Automatic tool magazine with 4 places (left)                             | ○        |
| Secondary automatic tool magazine with 4 places (right)                  | ○        |
| Max. tool length loadable in the tool magazines (mm)                     | 150 (*)  |
| Max. tool diameter in standard version (mm)                              | 80       |
| Max. tool diameter in special version (mm)                               | 120 (**) |
| (**) tools over 80 mm diameter limit the work capacity                   |          |
| (*) utensili di lunghezza superiore a 100 mm limitano il campo di lavoro |          |

## WORKABLE SIDES

|                                           |   |
|-------------------------------------------|---|
| With direct tool (upper face, side faces) | 3 |
|-------------------------------------------|---|

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


|                                    | Automatic tool magazines | A  | B   | C   | D   | X1    | Y1  | Z1      | X2    | Y2  | Z2      |
|------------------------------------|--------------------------|----|-----|-----|-----|-------|-----|---------|-------|-----|---------|
| <b>Max. tool diameter: 80 mm</b>   |                          |    |     |     |     |       |     |         |       |     |         |
| Machining within the work capacity | -                        | 45 | 102 | 113 | 80  | 3.000 | 230 | 210     | 2.815 | 160 | 210     |
| Machining within the work capacity | left                     | 45 | 102 | 113 | 80  | 2.815 | 230 | 210     | 2.815 | 160 | 210     |
| Machining within the work capacity | left + right             | 45 | 102 | 113 | 80  | 2.630 | 230 | 210     | 2.630 | 160 | 210     |
| Extended machining                 | -                        | 45 | 102 | 113 | 80  | 6.000 | 230 | 210     | 5.630 | 160 | 210     |
| Extended machining                 | left                     | 45 | 102 | 113 | 80  | 5.630 | 230 | 165(*)  | 5.630 | 160 | 165(*)  |
| Extended machining                 | left + right             | 45 | 102 | 113 | 80  | 5.260 | 230 | 165(*)  | 5.260 | 160 | 165(*)  |
| <b>Max. tool diameter: 120 mm</b>  |                          |    |     |     |     |       |     |         |       |     |         |
| Machining within the work capacity | -                        | 45 | 102 | 105 | 120 | 3.000 | 230 | 180     | 2.815 | 160 | 180     |
| Machining within the work capacity | left                     | 45 | 102 | 105 | 120 | 2.815 | 230 | 180     | 2.815 | 160 | 180     |
| Machining within the work capacity | left + right             | 45 | 102 | 105 | 120 | 2.630 | 230 | 180     | 2.630 | 160 | 180     |
| Extended machining                 | -                        | 45 | 102 | 105 | 120 | 6.000 | 230 | 180     | 5.630 | 160 | 180     |
| Extended machining                 | left                     | 45 | 102 | 105 | 120 | 5.630 | 230 | 135(**) | 5.630 | 160 | 135(**) |
| Extended machining                 | left + right             | 45 | 102 | 105 | 120 | 5.260 | 230 | 135(**) | 5.260 | 160 | 135(**) |

Dimensions in mm

(\*) with max. admissible length tools (B = 150 mm) charged into the automatic magazine the Z value decreases to 130 mm

(\*\*) with max. admissible length tools (B = 150 mm) charged into the automatic magazine the Z value decreases to 100 mm

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

|                            |    |
|----------------------------|----|
| With compensator           | M5 |
| With helical interpolation | ●  |

**PROFILE POSITIONING**

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

**WORKPIECE LOCKING**

|                                           |   |
|-------------------------------------------|---|
| Automatic vice positioning through X axis | ● |
|-------------------------------------------|---|

**SAFETY DEVICES AND PROTECTIONS**

|                                   |   |
|-----------------------------------|---|
| Machine integral protection booth | ● |
|-----------------------------------|---|

**MACHINING UNIT**

|                    |   |
|--------------------|---|
| Carriage structure | ● |
|--------------------|---|

Included ●    Available ○