



# TKE 943

## Machining Centres

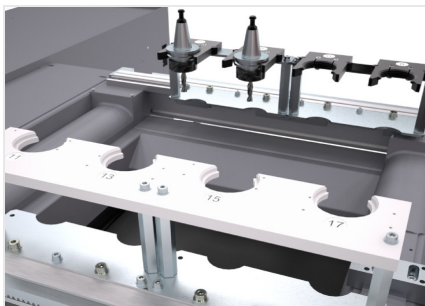


3-axis CNC machining centre with moving gantry structure, designed for drilling, milling and threading on bars or workpieces of aluminium, PVC, light alloys in general and steel. The moving part of the machine consists of a gantry with precision rack and pinion drive. The 8,5 kW electrically-driven spindle with ISO 30 tool holder allows machining operations, including heavy-duty work, with optimum results in terms of speed and accuracy. The machine can be used in double mode (7000 model) so as to minimize machine downtime, as it is possible to change the workpiece (load/ unload) and the automatic setting of the vices in "concealed" time. It is also possible to load and consequently machine different workpieces between the two work areas. The automatic tool magazine for 4.000 mm version is available in a fixed solution on board the machine with 4/8 places, recommended for single place machining. Otherwise a 12-place automatic magazine on board the carriage, ideal to allow a faster tool change and useful for the double mode machining, is available. The 7.000 version is supplied with the 12-place automatic magazine on board the carriage. The gantry is provided with a guard which, besides protecting the operator, also reduces the noise impact on the environment.

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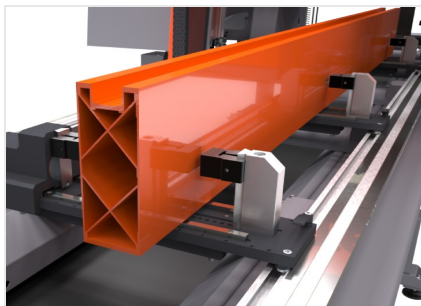
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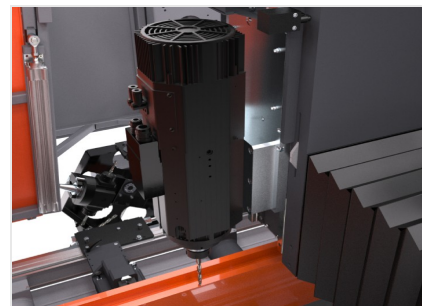
### Tool magazine

The automatic tool magazine comes in two different configurations. The first has one or two fixed 4/8-place magazines installed on the left-hand side of the machine and is specific for operation on a single work area in single or multi-piece mode. The second configuration excludes or integrates the fixed magazines, with an automatic 12-place magazine installed on the carriage moving on the X axis.



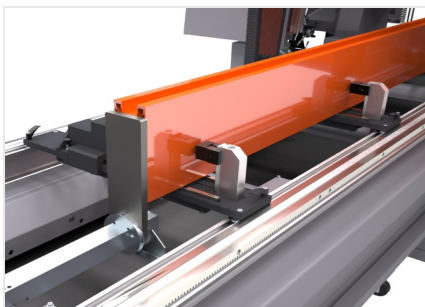
### Vices

The vice unit can ensure the correct and safe clamping of large aluminium, steel and light alloy profiles. The vice size and the long Y stroke of the electrospindle allow machining large profiles for all kinds of civil and industrial applications. Each unit slides on the machine table, positioning is manual. Counterblocks can be mounted quickly and accurately making the machine extremely versatile.



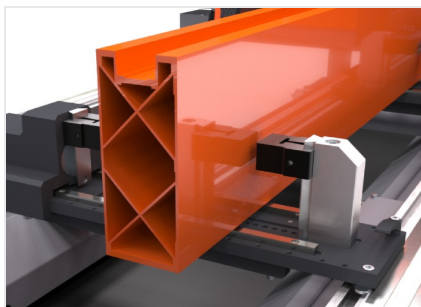
### Electrospindle

The 8.5 kW electrospindle in S1 is equipped with automatic tool change and air cooling with electric fan. With its high torque value, it can also perform heavy-duty machining that is typical of the industrial sector.



### Profile positioning

The machine is equipped with two sturdy and precise fixed or manual retractable reference stops, used to machine one or two profiles in multi-piece or double operation mode (model 7,000 only). A laser system is available for accurately positioning the workpieces on the work surface; it reads each profile and sets the reference without the need for mechanical stops.



### Additional vices (Optional)

If necessary, it is possible to install additional vices beyond the standard machine equipment. In this way, it is possible to ensure perfect clamping of bars or bar sections even in complex cases in terms of number, size or types of profiles to be machined. Moreover, the additional vices allow greater versatility in vice position depending on the length of the workpieces and the machining to be performed.



### Dimensional profile measurer (Optional)

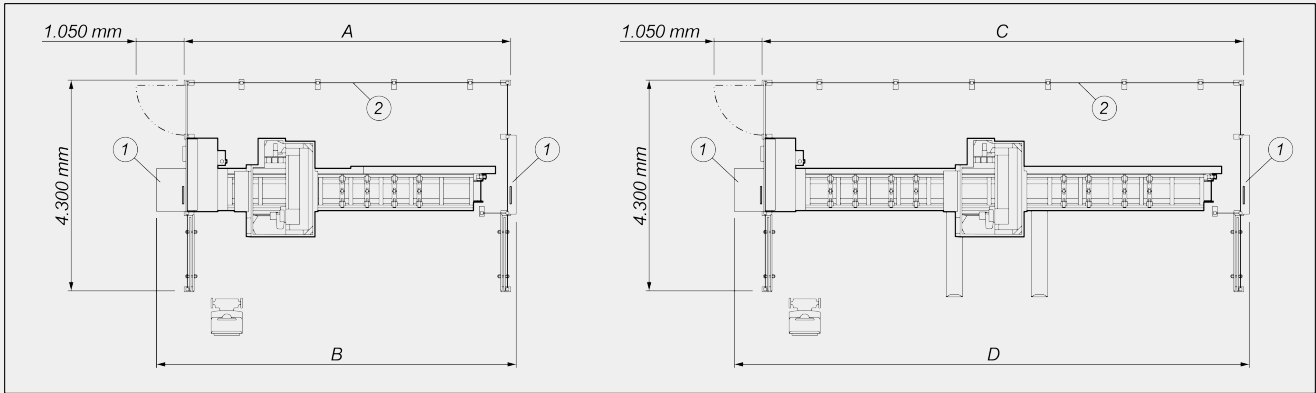
The machine can be optionally equipped with an electronic device that automatically corrects workpiece dimensional errors in length, width and height. In this way, the accuracy of the machine is not influenced by the differences between theoretic and actual workpiece dimensions during machining.





**TKE 943 / MACHINING CENTRES**

**LAYOUT**



	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>TKE 943 - 4m (mm)</b>	6.700	7.400	-	-
<b>TKE 943 - 7m (mm)</b>	-	-	9.800	10.500

- 1. Provision of the machine for extended machining management (optional)
- 2. Enclosure guard of the 4th side (optional)

The overall dimensions may vary depending on the product configuration.

**AXIS STROKES**

X AXIS (longitudinal) (mm)	4.000 ; 7.000
Y AXIS (transversal) (mm)	1.070
Z AXIS (vertical) (mm)	550

**ELECTROSPINDLE**

Maximum torque (Nm)	13,5
Maximum speed (rpm)	24.000
Maximum power in S1 (kW)	8,5



**AUTOMATIC TOOL MAGAZINES (4,000 Version)**

Number of angle machining heads which can be loaded onto the automatic magazine	2
Automatic 12-place tool magazine on board the gantry (**)	<input type="radio"/>
Fixed left 4-place tool magazine	<input type="radio"/>
Maximum size of tools which can be loaded onto the revolver magazine (mm)	Ø = 180 - L = 200
Fixed left 8-place tool magazine	<input type="radio"/>
Maximum size of tools which can be loaded onto the 4/8-place magazine (mm)	Ø = 120 - L = 180
Fixed left 7-place tool magazine	<input type="radio"/>
Number of angle machining heads which can be loaded onto the 7-place magazine	2
Maximum size of tools which can be loaded onto the 7-place magazine (mm)	Ø = 180 - L = 200

(\*\*) if the provision for angle head is configured, the places in the magazine are reduced to 10

**AUTOMATIC TOOL MAGAZINE (7,000 Version)**

Automatic 12-place tool magazine on board the gantry (**)	<input checked="" type="radio"/>
Number of angle machining heads which can be loaded onto the automatic magazine	2
Maximum size of tools which can be loaded onto the revolver magazine (mm)	Ø = 180 - L = 200

(\*\*) if the provision for angle head is configured, the places in the magazine are reduced to 10



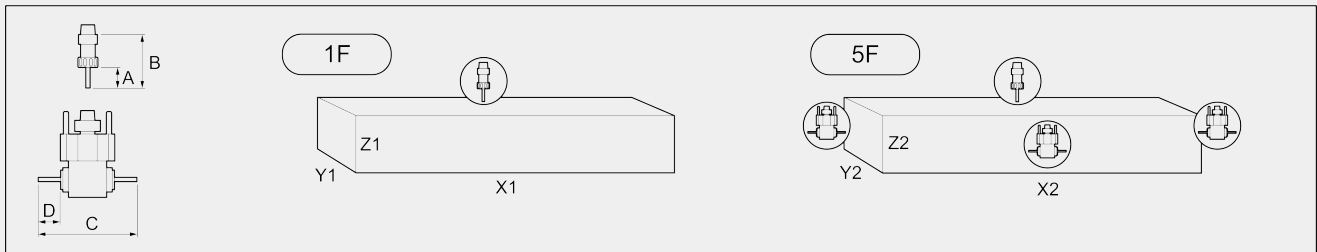
**WORKABLE SIDES**

With direct tool (upper side)	1
With angular head (lateral sides, heads)	2 + 2

**WORK AREA**

1F = 1 face machining

5F = 5 faces machining



**Configurations with 12-place automatic tool magazine on board the carriage**

		A	B	C	D	X1	Y1 (a)	Z1	X2	Y2 (b)	Z2
<b>TKE 943-4</b>	single mode	60	107	255	55	4.050	450	300	3.800	410	300
<b>TKE 943-7</b>	single mode	60	107	255	55	7.000	450	300	6.850	410	300
	double mode	60	107	255	55	2.800	450	300	2.650	410	300

**Configuration with one 4-place fixed tool magazine**

		A	B	C	D	X1	Y1 (a)	Z1	X2	Y2	Z2
<b>TKE 943-4</b>	single mode	60	107	255	55	3.850	450	-	-	-	-

**Configuration with one 8-place fixed tool magazine**

		A	B	C	D	X1	Y1 (a)	Z1	X2	Y2	Z2
<b>TKE 943-4</b>	single mode	60	107	255	55	3.460	450	300	-	-	-

**Configuration with 7-place fixed tool magazine**

		A	B	C	D	X1	Y1 (a)	Z1	X2	Y2 (b)	Z2
<b>TKE 943-4</b>	single mode	60	107	255	55	3.460	450	300	3.300	410	300

Dimensions in mm

(a) size clampable with vice without standard end pieces

(b) size clampable with vice with one 40 mm standard end piece at operator side

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



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

With compensator

M8





**PROFILE POSITIONING**

Workpiece reference fixed side stops	2
Workpiece reference retractable manual side stops	<input type="radio"/>

**WORKPIECE LOCKING**

Standard number of pneumatic vices (4,000 - 7,000)	4 - 8
Maximum number of pneumatic vices (4,000 - 7,000)	12 - 16
Manual vice positioning	<input checked="" type="radio"/>
Double horizontal hold-down devices on pneumatic vices for the machining of two parallel profiles	<input type="radio"/>

Included ● Available ○