



TKE 954F
Machining centre

Tool magazine 01

Full protection cabin 02



Mobile gantry 4-axis CNC machining centre for drilling, milling and tapping, at any angle from -90° to +90°, on bars or workpieces in aluminium, PVC, lightweight alloys and steel up to a thickness of 2 mm. The mobile part of the machine is composed of a dual drive gantry on a high precision rack.

The local guarding cabin, made of technopolymer, has been designed to offer optimal functionality, accessibility, soundproofing and lighting while fulfilling safety and ergonomics requirements. Large glass windows allow the operator to monitor the machining operations being executed, as well as an easy access during cleaning and maintenance phases. The inside of the cabin ensures the conveying of swarf into the collection system available at the base.

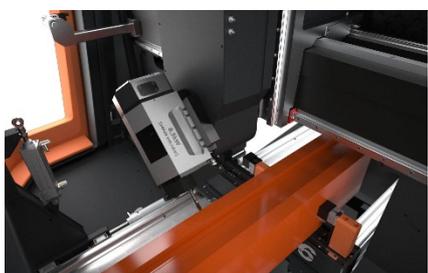
The 10 kW electrospindle allows performing machining operations, even heavy-duty ones, with optimal results in terms of speed and precision. The 12-place tool magazine, integrated into the mobile gantry, features two special positions, one for a blade with a maximum diameter of 250 mm and the other for the angle machining head. It features two different operating modes: the first, in single-area mode, allows machining entire bars having a maximum length of 7 m in a single work area; the second one, in double machining mode, allows machining several workpieces in the two different work areas.

TKE954F is equipped with a laser scanner allowing the most precise and advanced control of the machine front access, raising safety and operator/machine interface standards. In double machining mode, the laser scanner allows programming asymmetrical work areas on X axis so that workpieces having different sizes can be machined by making use of 4 different set-ups, in order to increase the machine operation flexibility.

Electric head 03

Fanuc control 04

Laser scanner 05



The images are only given for illustrative purposes

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01 Tool magazine

The toolholder magazine features 12 places, two of which are sized to house angle machining heads and disc milling cutters with a maximum diameter of 250 mm.

The position of the magazine, installed on board the gantry, allows minimising the tool change times and optimising the work cycles.

A solution has been designed to keep the housing of the toolholder cones separated from the machining area for a better magazine cleaning.

02 Full protection cabin

The local guarding cabin has been designed to offer optimal functionality, accessibility and lighting while fulfilling safety and ergonomics requirements.

The innovative and refined design makes the machine unique and unmistakable. Large glass windows allow the operator to monitor the machining operations being executed and a large access to internal areas is provided for cleaning and maintenance operations. The internal structure optimises the conveying of swarf and scraps to the lower side, simplifying the maintenance and cleaning phases on all delicate parts.

03 Electric head

The 10kW electrospindle in S1 with encoder is suitable for particularly heavy-duty machining and rigid tapping. The HSK-63F toolholder and the water cooling with chiller unit allow performing even heavy-duty machining operations, typical of the industrial sector.

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.

04 Fanuc control

The FANUC control of 32i series is ideal to manage complex machines such as the TKE954F, which features high-speed multiple axes and paths for precision machining. The innovative hardware and software of the product offer optimal performance, precision and surface quality. The large amount of SRAM memory allows a more flexible configuration of optional functions and a larger space for customisation functions.

05 Laser scanner

The protection of the operator is entrusted to a monitoring system of the work area with laser scanner. This intelligent control system, together with the absence of fixed references at the centre of the machine, is specially useful in double machining mode, since it allows managing the two work areas with a variable set-up, even asymmetrical, programming them from time to time.

The machine is safe and flexible at the same time, suited to different work requirements.

AXES TRAVELS

X AXIS (longitudinal) (mm)	7,000
Y AXIS (transversal) (mm)	1,230
Z AXIS (vertical) (mm)	620
A AXIS (head vertical axis rotation)	-90° + +90°
A axis positioning increases	0.01°
RTCP (tool-centred rotation point)	•

ELECTROSPINDLE

Maximum power in S1 (kW)	10
Maximum speed (rpm)	24,000
Maximum torque (Nm)	8
Toolholder cone	HSK - 63F
Water cooling with chiller unit	•
Encoder on electrospindle for rigid tapping	•

AUTOMATIC TOOL MAGAZINE

Maximum number of magazine tools	12
Number of angle machining heads which can be loaded onto the automatic magazine	2
Maximum size of tools which can be loaded onto the magazine with 2 side positions (mm)	Ø250 L=150
Maximum size of tools which can be loaded onto the magazine with 10 central positions (mm)	Ø80 L=130

FUNCTIONALITY

Static double machining operation	•
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WORKABLE SIDES

With direct tool (upper face, side faces)	3
With angle machining head (upper face, side faces, heads)	1 + 2 + 2

PROFILE POSITIONING

Workpiece reference stops with pneumatic movement	2
Additional workpiece reference stops with pneumatic movement (up to 4 stops in total)	○
Pair of pneumatic central stops with separate clamp control system	○

WORKPIECE LOCKING

Standard number of vices	8
Maximum number of vices	12
Maximum number of vices per area	6
Maximum size in Y of the workpiece which can be clamped with 2 standard terminals of 45 mm for three-face machining operations (mm)	460
Automatic vice positioning through X axis	•
Double horizontal presser on pneumatic vices for the machining of two parallel profiles	○

• included ○ available