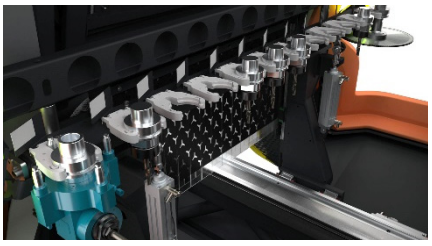
Tekna

Aluminium
Steel
Pvc

en #1



Tool magazine 01



Vices 02

TKE 954

Machining centre



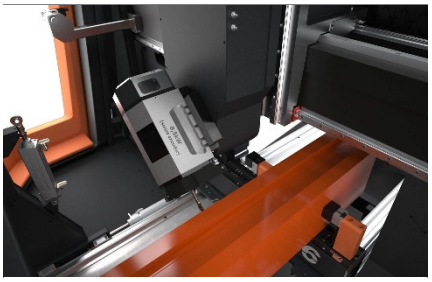
Mobile gantry 4-axis CNC machining centre for drilling, milling and tapping, at any angle from -90° to +90°, on bars or workpieces in aluminium, PVC, lightweight alloys and steel up to a thickness of 2 mm. The mobile part of the machine is composed of a dual drive gantry on a high precision rack.
The 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 8.5 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 tandem machining mode, allows machining several workpieces in the two different work areas. In the version with system for moving vices on H and P axes, it is possible to use the machine in dynamic tandem machining mode; this operating mode allows reducing machine downtimes to a minimum, since it allows the vices to be automatically set, in concurrent operation time, to the operation processes of the spindle in the opposite work area.
TKE954 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 operation, the laser scanner, unlike the light curtains, allows, from time to time, the appropriate programming of the two separate working areas on the X axis, increasing the flexibility of use of the machine.

Full protection cabin 03

Electric head 04

Laser scanner 05







The images are only given for illustrative purposes

TKE 954

Machining centre

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
Vices and dynamic tandem

The vice unit can ensure the correct and safe clamping of large aluminium, steel and light alloy profiles. The vice structure, in particular the wide Y stroke, allows the machining of large profiles, thus meeting the typical requirements of industrial and door applications.
Each vice unit can be configured with double presser for the machining of two parallel profiles.
In the HP version, vice positioning is managed by additional CNC axes.
In dynamic double operation mode, the CNC simultaneously manages the movement of the vices and of the mobile gantry in the two separate work areas, thus allows significant increases in productivity.

03
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 unmistakeable.
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.

04
Electric head

The 8.5 kW electrospindle in S1, with HSK-63F toolholder and water cooling with chiller unit, also allows for heavy-duty machining operations typical of the industrial sector.
The electrospindle movement along B axis allows rotations from -90° to +90°, so the profile can be machined on 3 sides with no need to reposition it.
A 10 kW electrospindle with encoder for heavy-duty machining and rigid tapping is available as optional.

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 operation 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.

AXIS TRAVELS	
X AXIS (longitudinal) (mm)	**7,530**
Y AXIS (transversal) (mm)	**1,230**
Z AXIS (vertical) (mm)	**620**
A AXIS (head vertical axis rotation)	**-90° ÷ +90°**
H AXIS (vice positioning) (TKE 954 HP) (mm)	**6,600**
P AXIS (vice positioning) (TKE 954 HP) (mm)	**6,600**
A axis positioning increases	**0.01°**
ELECTROSPINDLE	
Maximum power in S1 (kW)	**8.5**
Maximum speed (rpm)	**24,000**
Maximum torque (Nm)	**8**
Toolholder cone	**HSK - 63F**
Water cooling with chiller unit	●
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 – 2 side positions (mm)	**Ø250 – L=200**
Maximum size of tools that can be loaded onto the magazine – 10 central positions (mm)	**Ø80 – L=130**
Presetting tool device: automatic on-machine tool length measurement	●
FUNCTIONALITY	
Static double operation (according to model)	●
Dynamic double operation (according to model)	●
Multi-piece and multi-piece swing mode machining	○
Parallel machining of two profiles	○
Extended machining, up to twice the maximum nominal length in X	○
Multiple probe dimensioning module	○
Multi-piece double operation machining	○
Automatic management of multi-step mode machining	○
WORKABLE SIDES	
With direct tool (upper face, side faces)	**3**
With angle machining head (top face, side faces, heads)	**1 + 2 + 2**
PROFILE POSITIONING	
Workpiece reference stops with pneumatic movement	**2**
Maximum number of reference pneumatic stops	**4**
Pair of pneumatic central stops with separate clamp control system	○
Counterblock kit for machining aluminium profiles for curtain walls	○
WORKPIECE LOCKING	
Standard number of vices	**8**
Maximum number of vices	**12**
Maximum workpiece Y-axis clamping dimension with standard 45 mm terminals for three-face machining (mm)	**460**
Automatic vice positioning through X axis	●
Vice automatic positioning through independent H and P axes (according to model)	●
Double horizontal presser on pneumatic vices for the machining of two parallel profiles	○
Clamp opening/closing with pedal control	○

● **included** ○ **available**

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