Tekna

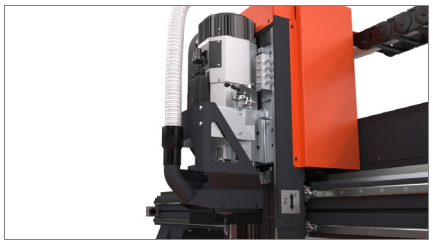
A Aluminium
S Stee
P Pvc

En #1

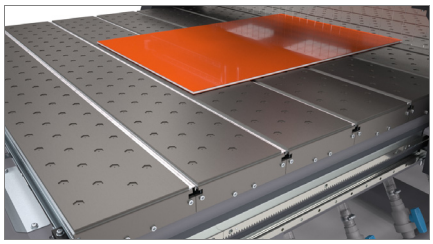
TKE 743

Machining centre

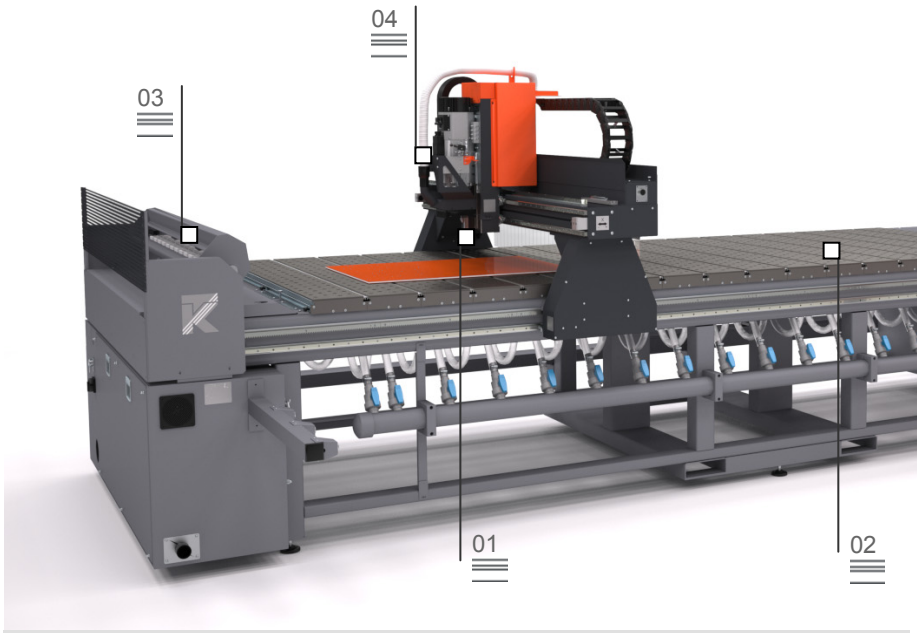
ex TK 419/3



Electrospindle 01



Breather table 02

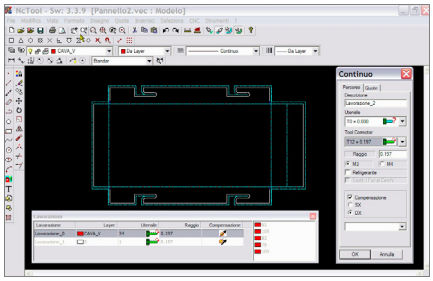


Vertical CNC machining centre with 3 controlled axes, including clamping system consisting of breather tables that anchor the panels and sheets by vacuum; this solution is particularly effective when machining thin components which are difficult to lock into position with conventional clamp systems.
The machining centre is equipped with a set of valves that switch different areas of the table on or off to concentrate the vacuum in a given area, optimising the locking of small sized components.
Possibility to perform interpolated milling and drilling operations on composite boards, aluminium and steel panels and sheets.
To run the generation of machine programmes, Tekna supplies user-friendly software that can be used by both expert CNC programmers using the highest levels of sophistication and by operators with no experience; with just a few hours' training, customers can learn what they need to use the machining centre via graphic programming. The software solutions proposed by Tekna are the result of careful design and the analysis of the actual needs of customers, guaranteeing extremely simple use and the consequent reduction in management times and costs.

Tool magazine 03

Swarf removal system 04

Software 05



The pictures are provided by way of illustration only

TKE 743

Machining centre

01
Electrospindle

The 10 kW electro spindle in S1 with high torque is suited for heavy duty machining. It can be used both with some types of extruded steel and with aluminium profiles, thanks to the lubrication system with oil emulsion spray mist or, as an option, with minimal diffusion oil.

02
Breather table

The panels are clamped to a vacuum breather table: the Forex panels mounted on the cross-beams ensure efficient suction along the whole surface, at the same time ensuring strength, resistance to knocks, absorption of the vibrations produced during machining and impermeability to any lubricant residues. The table is divided into extruded aluminium beams that are switched on/off individually by a valve system, activating the vacuum and locking only the areas where the panels are positioned.

03
Tool magazine

Fixed 12-place tool magazine on board the machine. A mechanically moved mobile cover protects the tools from swarf and dust produced during machining.

04
Swarf removal system

The machining unit has a built-in suction system connected to an industrial extractor. This system effectively removes the machining dust, maintaining the extraction holes free and ensuring high-performance locking. It also makes machine cleaning operations between one load and the next much easier, eliminating much of the swarf that would compromise the correct clamping of the panel to the surface.

05
Software

The CN6 numeric control management software monitors all the machining centre functions from a graphic interface. It includes an ISO language editor, and views the complete pieces of the set machining works in 3D. The functions can be extended with the optional NC Tool software, the CAD/CAM system that generates ISO programmes compatible with CN6, which can be combined with the Nesting software to optimise the figures to machine on the panels.

AXES TRAVEL	
X AXIS (longitudinal) (mm)	4,000 5,000
Y AXIS (transversal) (mm)	1,600
Z AXIS (vertical) (mm)	100
ELECTROSPINDLE	
Maximum power in S1 (kW)	10
Maximum speed (1/min)	24,000
Maximum torque (Nm)	10.2
Tool connector cone	ISO 30
Air cooling with electric fan	●
AUTOMATIC TOOL MAGAZINE	
Automatic 12-place tool magazine on board the machine	●
Maximum dimension of the tools that can be loaded into the magazine (mm)	Ø = 40 L = 120
Tool change time (s)	14
PROFILE POSITIONING	
Manually moved workpiece reference stop (optional)	5
FUNCTIONS	
Extra-length machining, up to twice the nominal maximum length in X	○
Electronic touch probe system	○
Machining of two profiles in parallel (excluding internal machining, on the opposite faces of the profiles)	○
Multi-piece tandem machining	○
WORKPIECE LOCKING UNIT	
Vacuum locking system with breather tables	●
Breather beam size (mm)	230 x 1,600
WORK UNIT	
Gantry structure	●
Electro spindle piloted on 3 axes with possibility of simultaneous interpolation	●
Swarf removal system	●
Micro-mist lubrication system with water and oil emulsion	●
Automatic centralised lubrication of the slides and ball screws	○

● included available