TKE 954
TKE 954F

Tekna

GB

POWER
TO WORK

FUTURE DESIGN

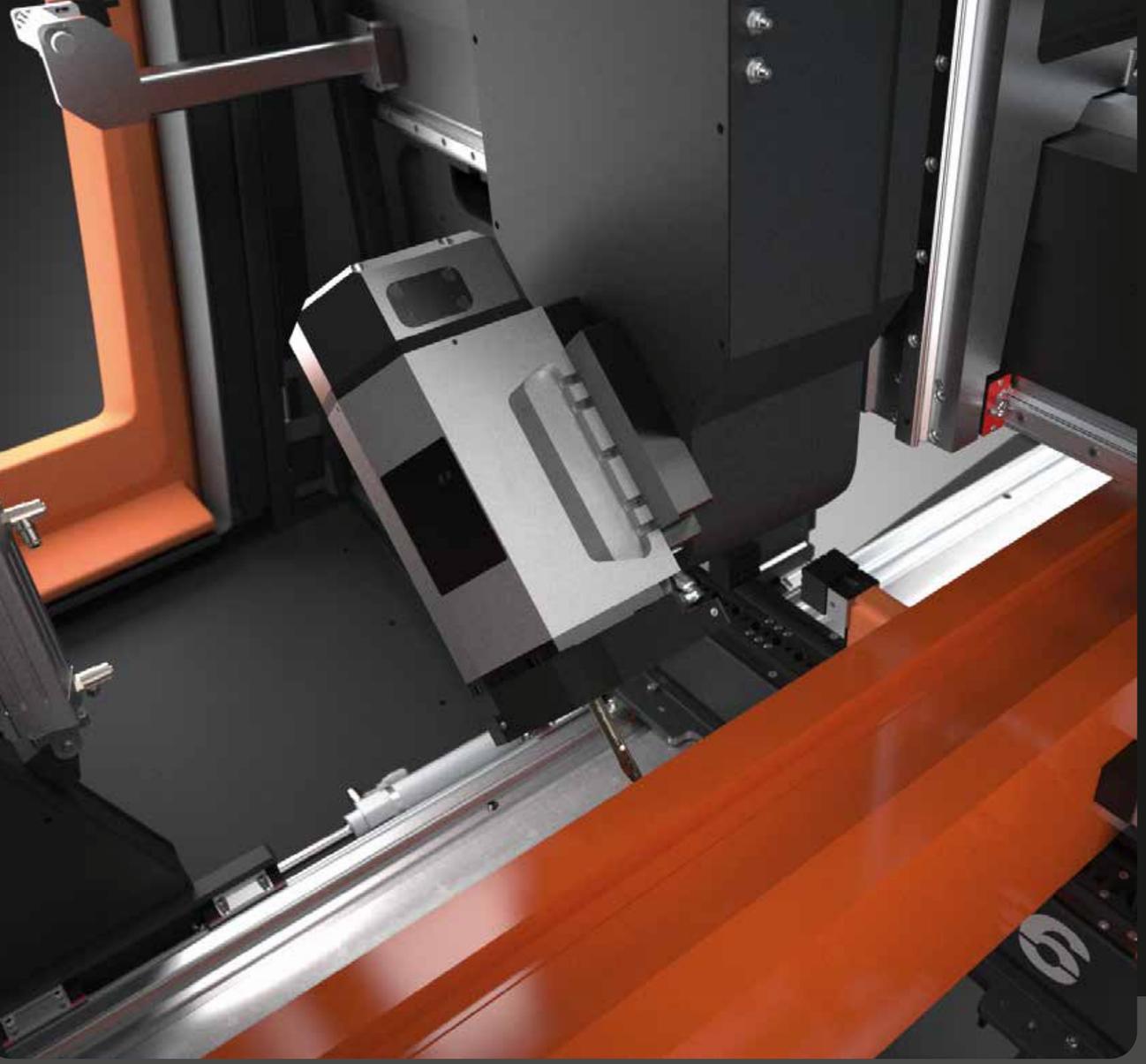
- 4-axis CNC mobile gantry machining centre, designed for drilling, milling and threading at any angle from -90° to +90° on bars or pieces in aluminium, PVC, light alloys and steel up to 2 mm thickness. The sophisticated and innovative design makes TKE 954 a unique and unmistakable machine: lines, details and materials were studied and designed to offer top performance with a focus on functionality, safety and ergonomics.
- The mobile part of the machine is composed of a gantry with double gantry motorisation on a high precision rack. Thanks to the broad working field in Y, TKE 954 allows working very large profiles or several profiles of different sections in parallel, a feature much appreciated in industrial applications. The machine has two operation modes: the first, in single area mode, for machining whole bars with a maximum length of 7 m in a single work area; the second, in double operation, for working multiple workpieces in the two distinct work areas. In the version with clamps handling system on H and P axes, it is possible to use the machine in dynamic double operation. TKE 954 features a laser scanner for more precise and advanced access control to the machine front, raising safety and operator/machine interface standards.
- TKE 954 F version, equipped with FANUC CNC Numerical Control, Motors and Encoders.

TKE 954F Powered by FANUC

STRENGTH AND SPEED

- Full safety enclosure

- The local safety cab, made in technopolymer and with a sophisticated and innovative design, was made to combine top functionality, accessibility, soundproofing and visibility with safety and ergonomic requirements. The operator has broad glazed surfaces to check machining execution and wide access to the internal parts for cleaning and maintenance. The internal structure optimises chip and swarf conveying to the lower part, simplifying maintenance and cleaning of all sensitive parts.



WORKING HARD

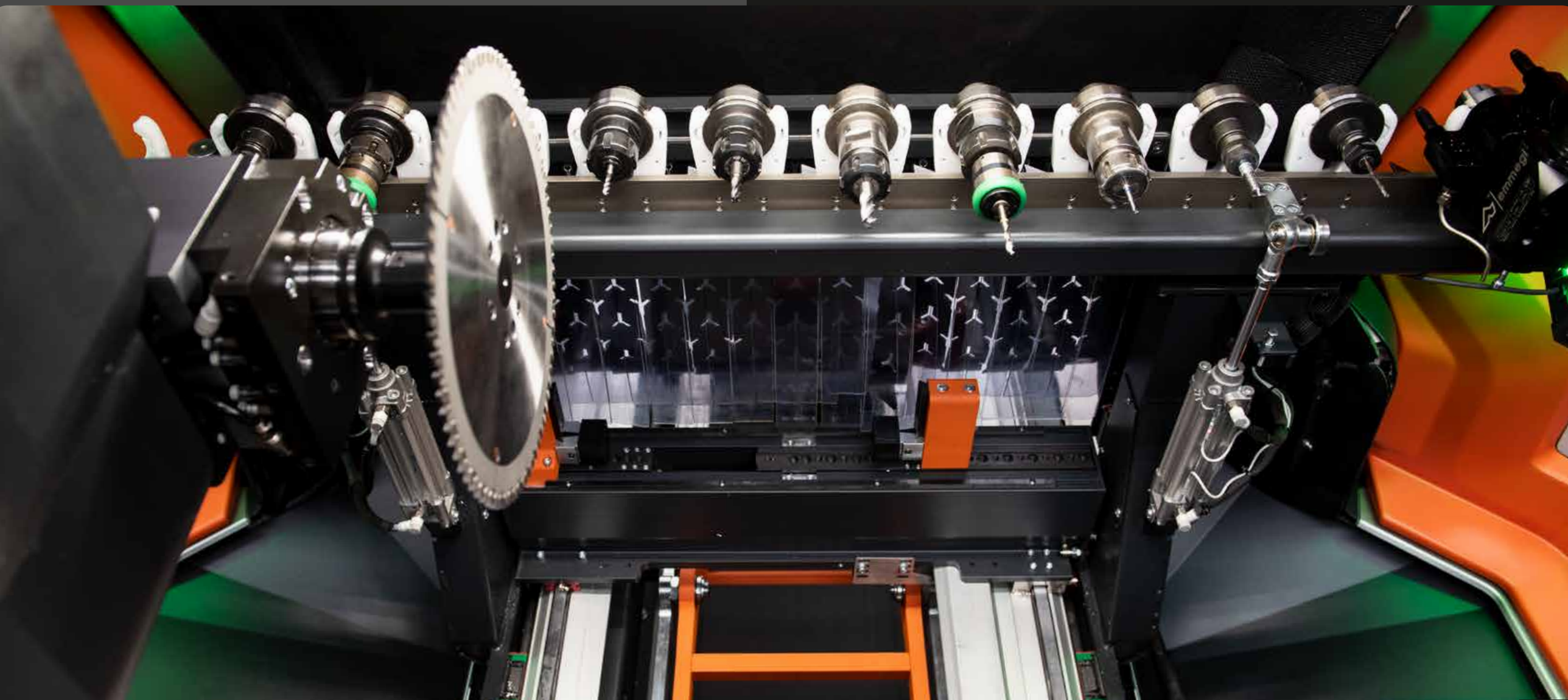
- Electric head

The electrospindle - 8.5 kW in S1 - with HSK-63F tool connection and water cooling with chilling unit, can also perform the heavy-duty machining typical of the industrial sector.
The electrospindle moves along the A axis allowing rotations from -90° to +90°, so the profile can be machined on 3 faces without having to be repositioned. A 10 kW electrospindle with encoder for heavy-duty machining and rigid tapping is available as optional for TKE 954 and standard for TKE 954 F.

ALL INSIDE

- Tool magazine

The tool magazine features 12 places, two of which are sized to hold angular units and side milling cutters with a maximum diameter of 250 mm.
The position of the magazine, installed on the gantry, enables reducing tool change times to a minimum and optimise working cycles. A solution was designed to keep the tool holder cone housing separate from the working area for improved cleaning of the magazine.



SAFETY LIGHTS

Laser scanner

Operator protection is entrusted to a monitoring system in the working area through laser scanner. This smart control system, along with the absence of fixed references at the centre of the machine, is particularly useful in double operation, as it enables managing the two working areas in variable structure, even asymmetric, and can be programmed from time to time. The machine is safe, yet flexible and suited to the variety of working needs.

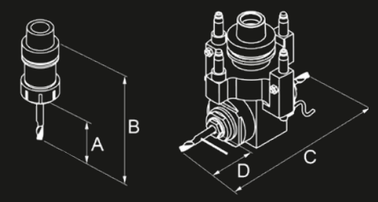
UNIVERSAL CLAMPS

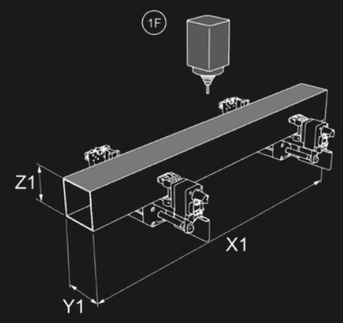
- Clamps and dynamic double operation

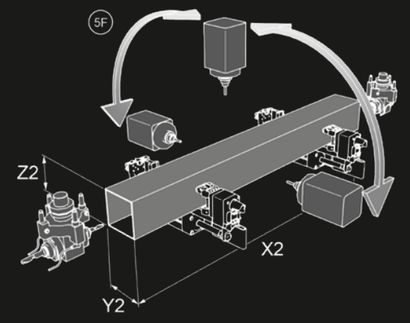
The clamp unit ensures the correct and safe locking of aluminium, PVC, steel and light alloy profiles. The structure of the clamps, particularly the wide travel in Y, allows for machining large profiles for all kinds of industrial and window/door applications. Each clamp unit can be configured with a double presser, to machine two profiles in parallel.
In the HP version, the positioning of the clamps is handled by the additional CNC axes.
In dynamic double operation, the CNC manages the handling of the clamps and mobile gantry in the two distinct working fields at the same time; this allows significant increases in productivity.

	measurement	*TKE* ***954***	*TKE* ***954F***
WORKING AREA			
X AXIS (longitudinal) 1 side/5 sides- 1 side/5 sides (Symmetrical Double mode)	mm	7330 / 7140 (3195 / 3045)	7330 / 7140 (3195 / 3045)
Y AXIS (Transversal) 1 side/5 sides	mm	550	550
Z-AXIS (vertical) 1 side/5 sides	mm	300	300
B AXIS (vertical axis rotation of the head)		-90° ÷ +90°	-90° ÷ +90°
B axis positioning increments		0,01°	0,01°
POSITIONING SPEED			
X AXIS (longitudinal)	m/min	125	125
C AXIS (rotation)	°/min	7800	7800
Y AXIS (transversal)	m/min	60	60
Z AXIS (vertical)	m/min	60	60
ELECTROSPINDLE			
Maximum power in S1	kW	8,5	-
Maximum speed	rpm	24.000	-
Maximum torque	Nm	8	-
Tool connector cone		HSK - 63F	-
Water cooled with chiller unit		•	-
HIGH PERFORMANCES ELECTROSPINDLE			
Max. power rating in S1	kW	10 (optional)	10
Max. speed	g/min	24000	24000
Max.torque	Nm	9,5	9,5
Tool taper		HSK - 63F	HSK - 63F
Encoder on electrospindle for rigid tapping		•	•
Water cooled with chiller unit		•	•
TAPPING CAPACITY			
With compensator		M8	-
Rigid tapping with High Performance Electrospindle 10 kW		M10	M10
AUTOMATIC TOOL MAGAZINE			
Maximum number of tools in tool magazine		12	12
Angular machining heads that can be loaded in the automatic magazine		2	2
Maximum length of tools that can be loaded into the magazine	mm	200	200
Maximum size blade that can be inserted in magazine (mm)	mm	Ø = 250	Ø = 250
OPERATION			
Multi-piece operation		•	•
Double operation (Symmetrical and Asymmentrical)		•	•
Electronic touch probe system		o	o
Machining of two profiles in parallel		o	o
Multi-piece double operation machining		o	o
PROFILE POSITIONING			
Pneumatic workpiece reference stop		2	2
Additional pneumatic reference stops (up to max. 4 stops)		o	o
WORKPIECE CLAMPING			
Clamps, standard number		8	8
Clamps, maximum number		12	12
Automatic clamp positioning through X axis (Static Version)		•	•
Automatic clamp positioning through independent H and P axes (Dynamic Version)		•	-
Double horizontal presser on pneumatic clamps for machining two profiles in parallel		o	o
Maximum workpiece Y-axis clamping dimension with standard 45 mm terminals for three-face machining	mm	460	460
WORK UNIT			
Gantry structure		•	•
Electrospindle driven on 4 axes with possibility of simultaneous interpolation		•	•
Minimal oil diffusion lubrication system		•	•
CONTROL UNIT			
Electrical cabin and pneumatic panel		•	•
CNC with RTCP (Rotation Tool Center Point)		•	•
Graphic colour display LCD-TFT, 24" touch screen		•	-
Graphic colour display LCD 19"		-	•
Fanuc CNC		-	•
Remote Control		o	•
SOFTWARE			
Microsoft® Windows® Embedded		•	•
Bidicam		•	-
Drill		•	-
Camplus		o	-
Fanuc and ISO editor		-	•
TK Cam		o	o
Alphacam		-	o

• included o optional - not available







TKE ***954*** - *TKE* ***954F***	A	B	C	D	X1	Y1	Z1	X2	Y2	Z2
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Single mode	60	130	255	55	7330	550	300	7140	550	300
Symmetrical double mode	60	130	255	55	3195	550	300	3045	550	300
Asymmetrical double mode LH	60	130	255	55	1500 ÷ 5200	550	300	1500 ÷ 5200	550	300
Asymmetrical double mode RH	60	130	255	55	5200 ÷ 1500	550	300	5200 ÷ 1500	550	300

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