

TKE 554

**Twin Head Cutting-Off
Machines**



Twin-head cutting-off machine with 3 controlled axes with automatic movement of the mobile head and electronic control of every angular setting within the range 45° (internal) to 22°30' (external). The feeding of the two 550 mm blades is driven by hydro-pneumatic cylinders.



Profile clamping

The profile to be cut is clamped by two horizontal hold-down devices with extreme precision and in absolute safety. For vertical clamping, particularly for special cuts, the machine can be equipped with a patented system of horizontal hold-down devices. When two considerable lengths are cut, the profile is supported by a manually positioned intermediate support.



Head guards

The machining zone is protected by two automatically positioned local guards installed on the cutting units. The guards are made of scratch-proof polycarbonate and they are opened/closed automatically by a pneumatic cylinder at the appropriate points of the cutting cycle.



Load and unload

The cutting-off machine is equipped with a roller conveyor on a mobile head for standard loading and unloading procedures. The roller conveyor can be optionally fitted with an extra vice to immobilise the residual profile and an electronic machined profile thickness meter for automatic cutting positions correction in accordance with the real profile dimensions, with the associated surface treatments tolerance.



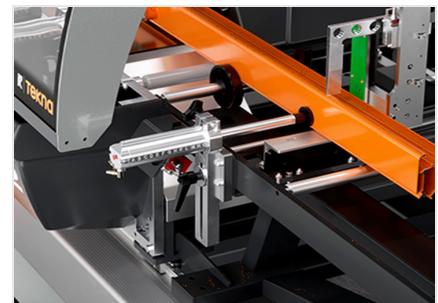
Control

The control panel, installed on a support sliding on bearings along the front side of the machine, allows correct mobile heads positioning in accordance with the required cutting schedule. The interface uses a 7" touch-screen and fully personalised software and is packed with bespoke functions that are unique to this machine. The machining cycle can be optimised by creating cutting lists, thereby reducing scrap and cycle times for parts loading-unloading.



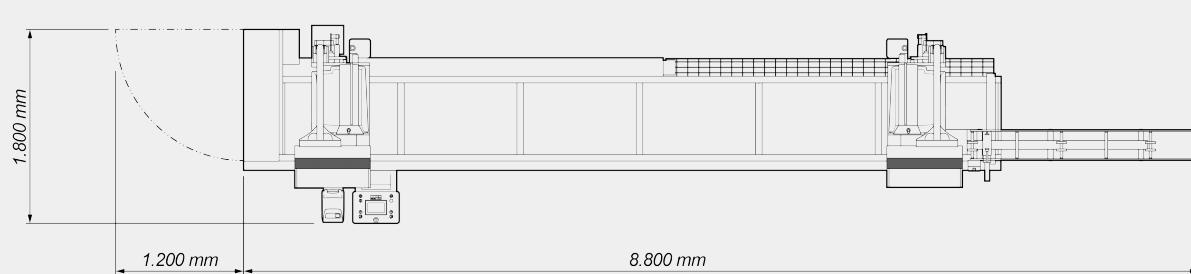
Heads tilting

Servomotors with encoders provide the tilting of the mobile units, and the relevant positioning is electronically managed and parameterised by the control, which features a simple and intuitive operator interface.



Additional vice for profile support on mobile head roller conveyor (Optional)

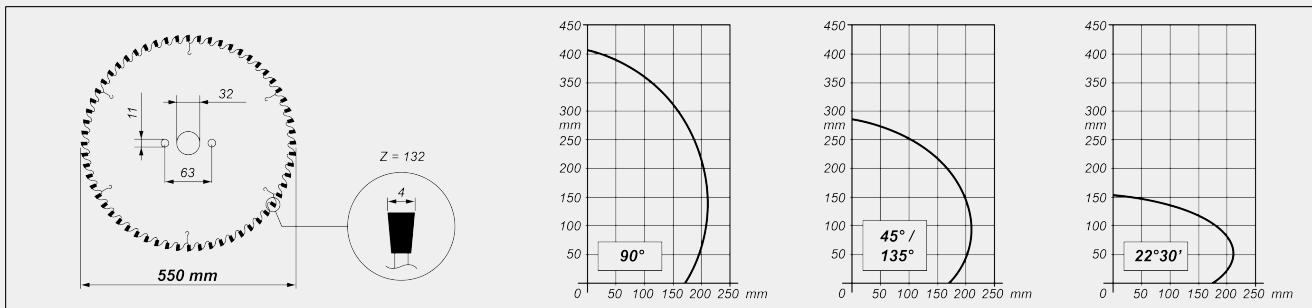
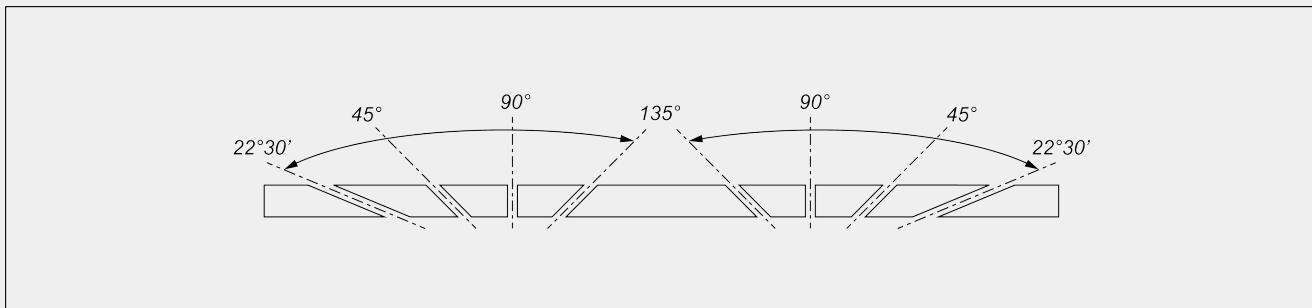
After each cut, the remaining profile short cut tends to fall on the roller conveyor, with the risk of hitting against the blade when the cut-off phase is still in progress. This movement may damage both the workpiece itself and the one just cut. The additional vice installed on the roller conveyor prevents this problem by keeping the profile locked for the entire duration of the cut-off cycle.

TKE 554 / TWIN HEAD CUTTING-OFF MACHINES
LAYOUT


The overall dimensions may vary depending on the product configuration.

MACHINE CHARACTERISTICS

Electronic control of the X axis	●
X axis positioning speed (m/min)	25
Mobile head position reading with absolute magnetic strip direct measuring system	●
Electronic head tilting	●
Electronic control of intermediate angles	●
Detection of cutting unit tilting through direct measurement system with absolute magnetic strip	●
Maximum internal inclination	45°
Maximum external inclination	22°30'
Hydropneumatic blade feed	●
Adjustable blade feed rate	●
Cemented carbide blade	2
Blade diameter (mm)	550
Blade motor power (kW)	2,2
Electronic profile thickness gauge	○

CUTTING DIAGRAM

CUTTING UNIT TILTING


Electronic adjustment of intermediate angles

SAFETY DEVICES AND PROTECTIONS

Pneumatically-operated front local protection

PROFILE POSITIONING AND CLAMPING

Pair of horizontal pneumatic vices with "low pressure" device

Vertical gripping system for push cutting with horizontal clamp

Pair of horizontal vertical vices

Pair of additional horizontal vices

Manually positioned profile intermediate supports

Roller conveyor on mobile head (mm) 2.000

Additional vice for profile support on roller conveyor

LUBRICATION AND SUCTION

Micro-mist lubrication system with water and oil emulsion	<input checked="" type="radio"/>
Preparation for automatic start-up of external exhauster	<input checked="" type="radio"/>
Swarf and short cuts extractable drawers without scraper system for swarf removal	6
Dredging system for swarf discharge	<input type="radio"/>
Swarf and short cuts extractable drawers with scraper system for swarf removal	2

FUNCTIONS

Perform single cuts	<input checked="" type="radio"/>
Execution of intermediate angles cuts	<input type="radio"/>
Execution of cyclical cuts from cutting lists	<input type="radio"/>
Special cut function PRO (longer, shorter and chamfered)	<input type="radio"/>
Semi-automatic cut function SLICE (thrust cut)	<input type="radio"/>
Cutting lists import	<input type="radio"/>

Included ● Available ○