



TKE 551
twin-head front blade cutting-off machine



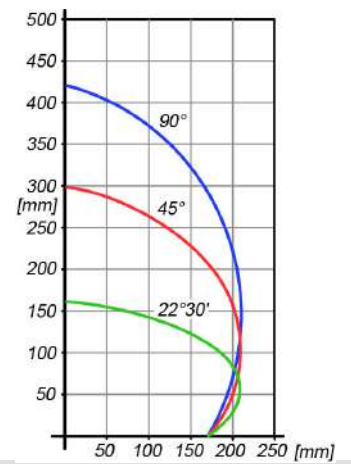
Cutting units inclination virtual axis 01



Profile Clamping 02



Twin-head electronic cutting-off machine with automatic mobile head movement driven by an NC-controlled brushless motor. Pneumatic inclination of cutting units from 90° to 22°30' (outward) with mechanical control system for intermediate angles. Hydropneumatic blade feed.



Head Guards 03



Control 04



Load and unload 05



The images are provided for purely illustrative purposes

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Twin-head front blade cutting-off machine

01

Cutting units inclination virtual axis

Inclination of each head, up to 22°30' outwards for both the aluminium and PVC machine versions, is achieved on two circular guides mounted on four pairs of steel rollers. This patented solution makes it possible to eliminate all obstructions in the cutting area, all to the benefit of profile positioning and clamping, while also offering greater rigidity than traditional systems. X axis absolute magnetic band positioning eliminates the need for the axes reference and connected cycle times.

02

Profile clamping

Making use of the ample space allowed by the virtual axes, profile clamping prior to cutting is performed with extreme precision and safely by two horizontal hold-down pressers. For vertical clamping, particularly for special cuts, the machine can be equipped with a patented system of horizontal pressers. Three mechanically operated intermediate supports deploy automatically to support the profile for very long cutting lengths.

03

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.

04

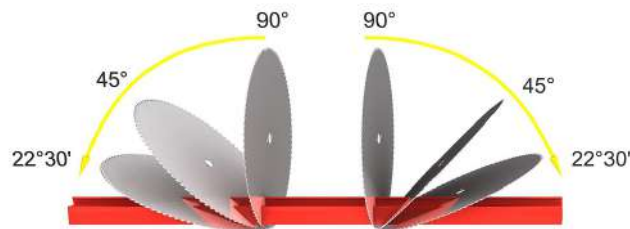
Control

The intuitively designed control panel allows correct mobile heads positioning in accordance with the required cutting schedule. The interface uses a 5.7" touch-screen and fully personalised software and is packed with bespoke functions that are unique to this machine. The control panel can be optionally installed on bearings sliding on a rail that spans the entire front of the machine. The machining cycle is optimised by creating cutting lists, thereby reducing scrap and cycle times for parts loading-unloading.

05

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 clamp to immobilise the residual profile and an electronic machined profile thickness gauge for automatic cutting positions correction in accordance with the real profile dimensions with the associated surface treatments tolerance.



MACHINE CHARACTERISTICS

X axis electronic control	●
X axis positioning speed	25 m/min
Mobile head position reading via direct measuring system with absolute magnetic band	●
Mechanical adjustment of intermediate angles	●
Max. external inclination	22°30'
Hydropneumatic blade feed	●
Useful cut, according to model (m)	4 / 5
Cemented carbide blade	2
Blade diameter	550
Blade motor power (kW)	2.2
Electronic profile thickness gauge	○
Frontally sliding control panel on guides	○

SAFETY DEVICES AND PROTECTIONS

Pneumatically-operated front local protection	●
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PROFILE POSITIONING AND CLAMPING

Pair of horizontal pneumatic clamps with "low pressure" device	●
Pair of vertical hold-down horizontal clamps	○
Pair of additional interconnected horizontal clamps	○
Intermediate mechanical profile supports	3
Roller conveyor on mobile head	●

LUBRICATION AND SUCTION

Micro-mist lubrication system with water and oil emulsion	●
Minimal oil diffusion lubrication system	○
Preparation for automatic start-up of external exhauster	●

- included
- available