



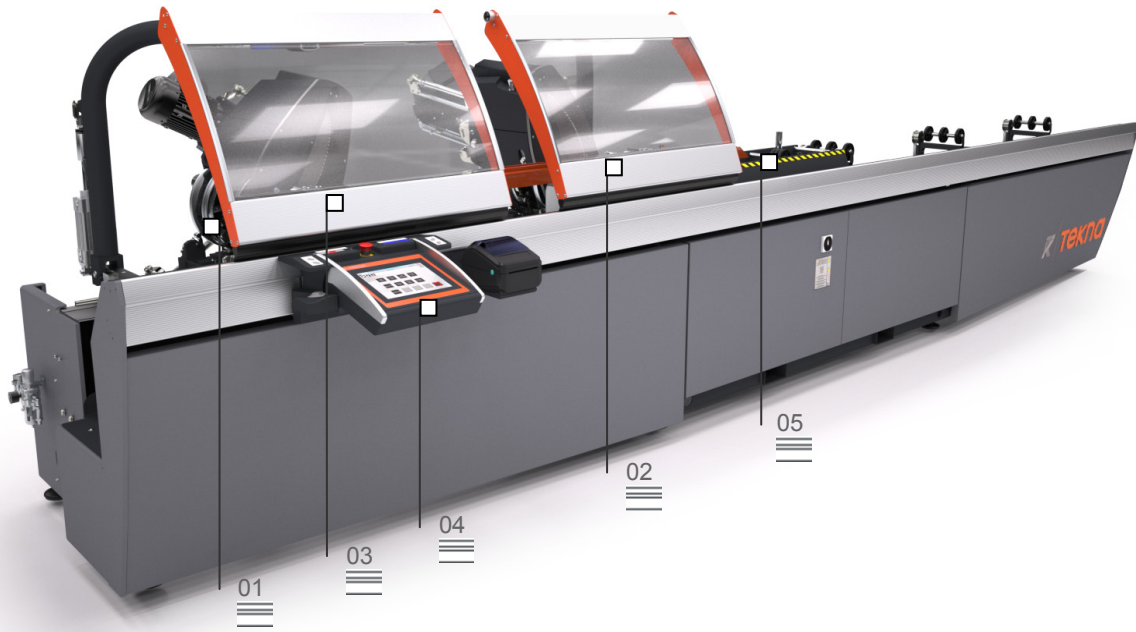
**TKE 553**  
 electronic twin-head cutting-off  
 machine with front blade



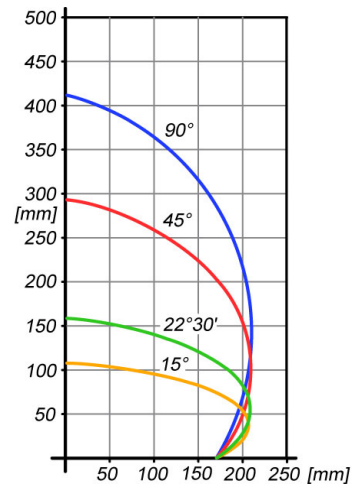
**Virtual axis of the  
 inclination of the cutting  
 units** 01



**Profile Blocking** 02



Twin-head cutting-off machine with 3 axes controlled by automatic movement of the mobile head and electronic management of all 45° (internal) to 15° (external) angles, with a precision, within each degree, of 280 positions. Advancement is driven by a pair of hydro-pneumatic cylinders. The innovative virtual rotation axis of the cutting units, subject of one of the patents that accompany this machine, as well as conferring absolute rigidity to the system, allows to manage positioning and profile blocking with great accuracy. These features allow to obtain a greater cutting precision than any other machine in its category. All axes movements take place on guides and slides on ball bearings. The automatic protections of the heads, the design of the push button control panels, front access to the electric and pneumatic panel, make it an advanced model also from a safety and ergonomics point of view.



**Head Protections** 03



**Control** 04



**Load and unload** 05



# TKE 553

## Electronic twin-head cutting-off machine with front blade

### 01

#### Virtual axis of inclination of the cutting units

The inclination of each head, up to 15° outwards and 45° inwards for both the aluminium and PVC versions, is implemented by means of two circular guides positioned on four pairs of steel wheels. This solution, subject to patent, allows to eliminate any cutting area obstruction, with the advantage of positioning and blocking the profile and offers greater rigidity to traditional systems. Positioning via absolute magnetic band eliminates the necessity of the axes reference and connected cycle times.

### 02

#### Profile blocking

With the large availability of space allowed by the virtual axis, the profile is blocked for cutting extremely precisely and safely by two horizontal hold-down devices. For the necessity of vertical blocking, particularly for special cuts, a patented horizontal hold-down device is available, which allows vertical blocking of the profile.

### 03

#### Head Protections

The automatic head protections, made of scratchproof polycarbonate, are driven by a pneumatic cylinder with an anti-crushing device which resets the pneumatic load during closing. They are mounted on a side sliding system to safeguard the operator during every cutting operation.

### 04

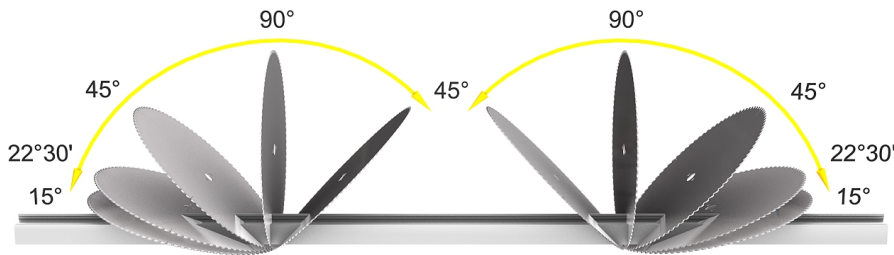
#### Control

The ergonomic and extremely advanced control panel uses a 10.4" touch screen display and completely customised software and is full of functionalities developed specifically for this machine, in Microsoft Windows® environment. The machining cycle is optimised by the creation of the cutting lists, thus allowing the reduction of waste and the decrease in times for the piece load-unload.

### 05

#### Load and unload

Precision can be equipped with roller conveyor on mobile head, for standard load and unload or on fixed head for load from left side. A pneumatic stop device on the mobile head is available to facilitate positioning of the profile in this loading mode.



#### MACHINE FEATURES

X axis electronic control	●
X axis positioning speed	25 m/min
Mobile head position detection via direct measuring system with absolute magnetic band	●
Mobile head inclination detection via direct measuring system with absolute magnetic band	●
Intermediate angles electronic control	●
Max. external inclination	15°
Max. internal inclination	45°
Hydropneumatic blade advancement	●
Useful cut, according to model (m)	5 / 6
Widia blades	2
Blade diameter	550
Blade motor power (kW)	2,2
Electronic measurer of profile depth	○

#### SAFETY DEVICES AND PROTECTIONS

Pneumatically-operated front local protection	●
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#### POSITIONING AND BLOCKING OF PROFILE

Pair of horizontal pneumatic clamps with "low pressure" device	●
Pair of vertical fastening horizontal clamps	○
Pair of additional horizontal clamps	○
Mechanical intermediate profile support	●
Roller conveyor on mobile head with mechanical interlocking profile supports	○
Profile support roller conveyor on fixed head for profile input from left	○
Pneumatic reference stop on mobile head for profile input from left	○

- included
- available