



TKE 553

Twin Head Cutting-Off Machines



Twin-head cutting-off machine with 3 controlled axes, automatic traverse of the moving cutting head and electronic control of every angular setting from 45° (internal) to 15° (external) with accuracy of 280 places on each degree. The blade feed is controlled by two hydro-pneumatic cylinders.



Head protections

Automatic local head protections, made of scratch-resistant polycarbonate, are operated by a pneumatic cylinder with an anti-crushing device that resets the pneumatic load to zero when closing. They are mounted on a laterally sliding system to better shelter the operator in any cutting operation.



Control

The ergonomic state-of-the-art control panel features a 10.4" touchscreen display and fully customised software and is packed with functions developed in the Microsoft Windows® environment specifically for this machine. The machining cycle can be optimised by creating cutting lists, thereby reducing scrap and cycle times for parts loading-unloading.



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.



Cutting units inclination virtual axis

Tilting of each head, up to 15° outward and 45° inward for both aluminium and PVC versions, is done by means of two circular guides placed on four pairs of steel casters. This patented solution makes it possible to eliminate obstructions in the cutting area, all to the benefit of profile positioning and clamping, while also offering greater rigidity than traditional systems.



Profile clamping

Making use of the ample space provided by the use of the virtual axis, clamping of the profile to be cut is performed 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.



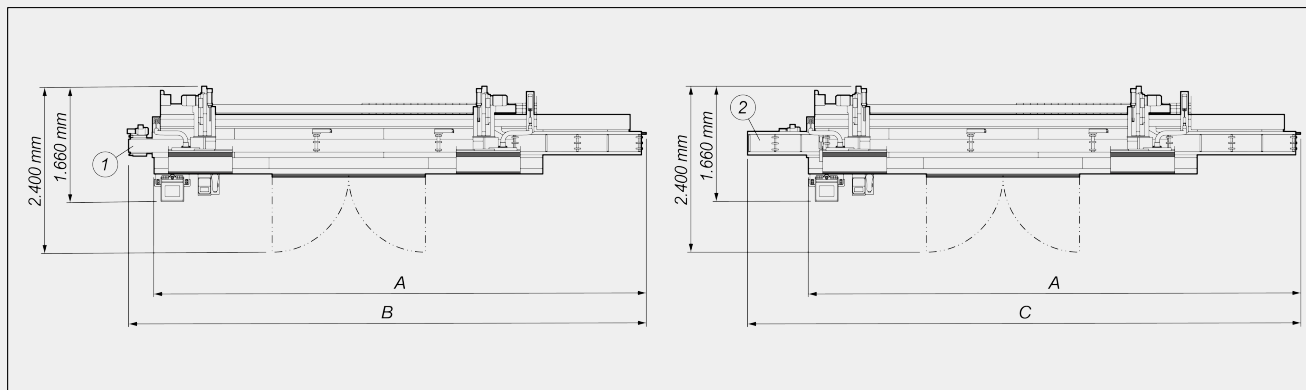
Printer preparation (Optional)

The machine is prepared for the installation of a printer that can be selected from compatible models. The set-up includes software enabling for the label printing function, mechanical support elements for positioning on the machine, wiring and preparation for electrical connection, and a folding cover to protect the printer from shocks and possible entry of swarfs.



TKE 553 / TWIN HEAD CUTTING-OFF MACHINES

LAYOUT



| | A | B | C |
|---------------------------|-------|-------|-------|
| TKE 553 - 4 m (mm) | 7.060 | 7.480 | 7.940 |
| TKE 553 - 5 m (mm) | 8.060 | 8.480 | 8.940 |
| TKE 553 - 6 m (mm) | 9.060 | 9.480 | 9.940 |

1. Chip conveyor with rubber belt (optional)
2. Profile support roller conveyor on fixed head for profile infeed from left (optional)

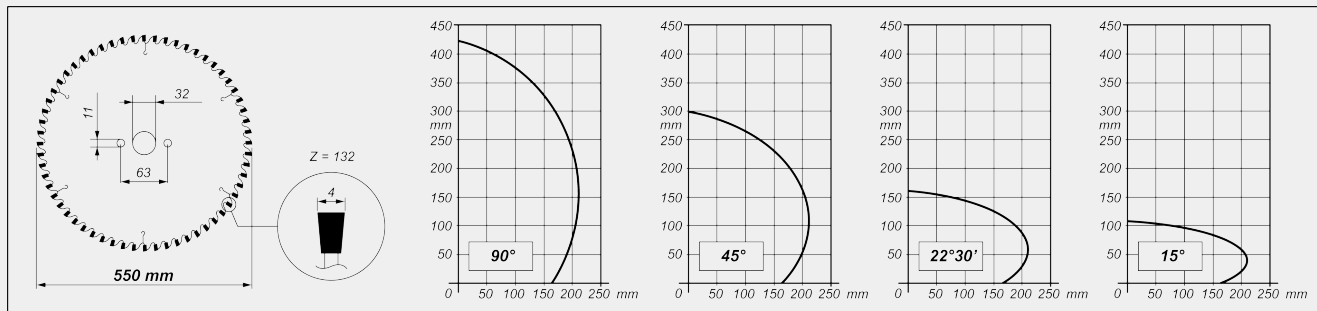
The overall dimensions may vary depending on the product configuration.

MACHINE CHARACTERISTICS

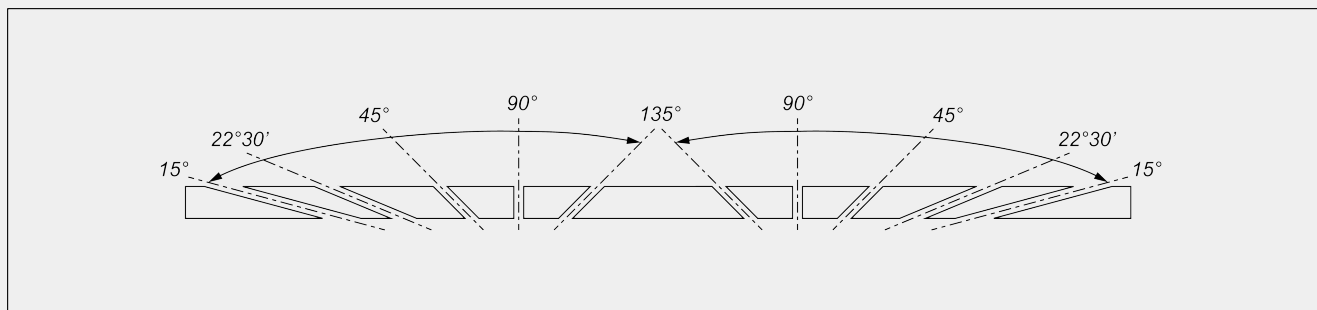
| | |
|--|-----------------------|
| Electronic control of the X axis | ● |
| X axis positioning speed (m/min) | 25 |
| Mobile head position reading with absolute magnetic strip direct measuring system | ● |
| Detection of cutting unit tilting through direct measurement system with absolute magnetic strip | ● |
| Electronic control of intermediate angles | ● |
| Maximum internal inclination | 45° |
| Maximum external inclination | 15° |
| Hydropneumatic blade feed | ● |
| Effective cut, according to model (mm) | 4.000 / 5.000 / 6.000 |
| Cemented carbide blade | 2 |
| Blade diameter (mm) | 550 |
| Blade motor power (kW) | 2,64 |
| Electronic profile thickness gauge | ○ |



CUTTING DIAGRAM



CUTTING UNIT TILTING



Electronic adjustment of intermediate angles

SAFETY DEVICES AND PROTECTIONS

Pneumatically-operated front local protection

LUBRICATION AND SUCTION

Minimal oil diffusion lubrication system

Preparation for automatic start-up of external exhauster

Chip conveyor with rubber belt

**PROFILE POSITIONING AND CLAMPING**

| | |
|---|---|
| Pair of horizontal pneumatic vices with "low pressure" device | ● |
| Pair of horizontal vertical vices | ○ |
| Pair of additional horizontal vices | ○ |
| Intermediate mechanical profile support | ● |
| Roller conveyor on the mobile head with servo-controlled mechanically operated profile supports | ● |
| Profile support roller conveyor on fixed head for profile infeed from left | ○ |
| Pneumatic reference stop on the mobile head for profile infeed from left | ○ |

FUNCTIONS

| | |
|---|---|
| Perform single cuts | ● |
| Execution of intermediate angles cuts | ● |
| Execution of cyclical cuts from cutting lists | ● |
| Special cut function PRO (longer, shorter, chamfered and wedge cut) | ○ |
| Semi-automatic cut function SLICE (thrust cut) | ○ |
| Bar optimisation | ● |

Included ● Available ○