

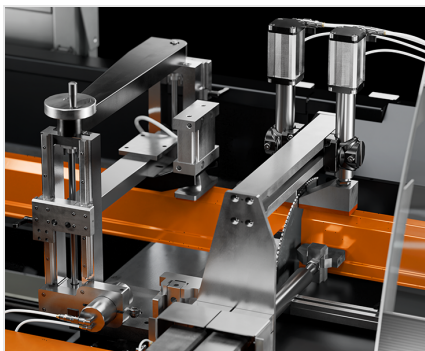


## **TKE 305 EA**

### Single Head Cutting-Off Machines



Automatic single-head cutting-off machine with upstroke movement for 90° cuts, fitted with N/C electric bar feeding system. Can be configured with four different diameter blades, N/C electric blade feed. The machine can be configured to use blades with two different diameters. The setup requires a very simple operation, after which the software automatically prepares for the correct setting appropriate to the installed blade. For cutting needs requiring a perfect finish, it features, as an optional, a pneumatic system for the automatic separation of the cut piece, which avoids the presence of traces -commonly left by the blade when it moves back - in machines that use this cutting mode. It can also be configured with an inverter to change the blade rotation speed, adapting it to the profile to be cut. It can be equipped with a large automatic bar loading magazine; an unloading magazine with conveyor belt for extraction of cut workpieces and accumulation bench; customisable drilling and milling units for specific needs. Thanks to its wide range of accessories, this machine can be configured as a real fully automatic cutting-off centre capable, in addition, of performing drilling and milling machining thanks to specific customised units.



**Feeder with bridge vices**

Bar feed system obtained through the use of a controlled axis ensuring, through the use of a recirculating ball screw, high positioning accuracy. It can be set from the PC on board the machine.



**Cutting zone with bridge vices**

To enable maximum utilization of the large cutting capacity, which ensures the machinability of large profiles, the cutting zone features a sturdy structure designed to ensure maximum precision. This is with regard to both the horizontal plane and the vertical square.



**Orientable vices (Optional)**

Optionally, both bridge vices can be equipped with adjustable hold-down devices, with adjustable pressure angle. This is an accessory that enables the proper clamping and cutting of profiles with irregular geometry, ensuring maximum rigidity and the maintenance of precision, a distinctive feature of the machine itself. The use of this system is also characterised by simplicity and quick set-up.



**Sliding protections**

Integral work area protection ensures maximum safety during cutting cycles. It consists of two separate protective covers, one for the workpiece clamping and transport area and one for the clamping, cutting and separation area. The two covers have a large scratch-resistant polycarbonate window to follow the machining in full brightness and visibility.



**Control**

The control area features a control console equipped with a PLC with an integrated 7" colour TFT graphical display and fully customised, feature-rich software designed specifically for this machine. Single cuts or cuts from list can be programmed locally through the PLC. Using connection via USB port or LAN connection, programmed lists can be used remotely.



**Automatic bar loading magazine (Optional)**

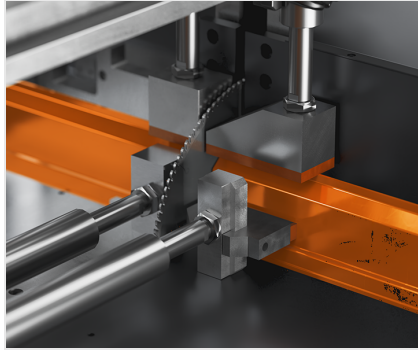
The loading magazine is equipped with an automatic belt-driven translation system with sensor-regulated step-by-step accumulation operation. It allows loading profiles with length up to 6 m and continuous machining, reducing the cycle time eliminating the loading phase that occurs in concurrent operation time.





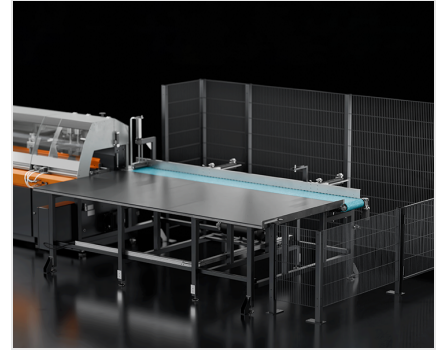
**Work area lighting (Optional)**

The machine can be optionally equipped with lamps integrated in the protection cab for proper lighting of the cutting area. this allows achieving perfect work area visibility during all machine usage phases, even in environments with poor lighting.



**Second blade management (Optional)**

The machine can be configured to use interchangeable blades with two different diameters. the tooling simply requires quick assembly of the second blade; the software detects blade changeover and automatically prepares for the correct setting of the different feeding stroke and possible different blade thickness.



**Automatic unloading unit (Optional)**

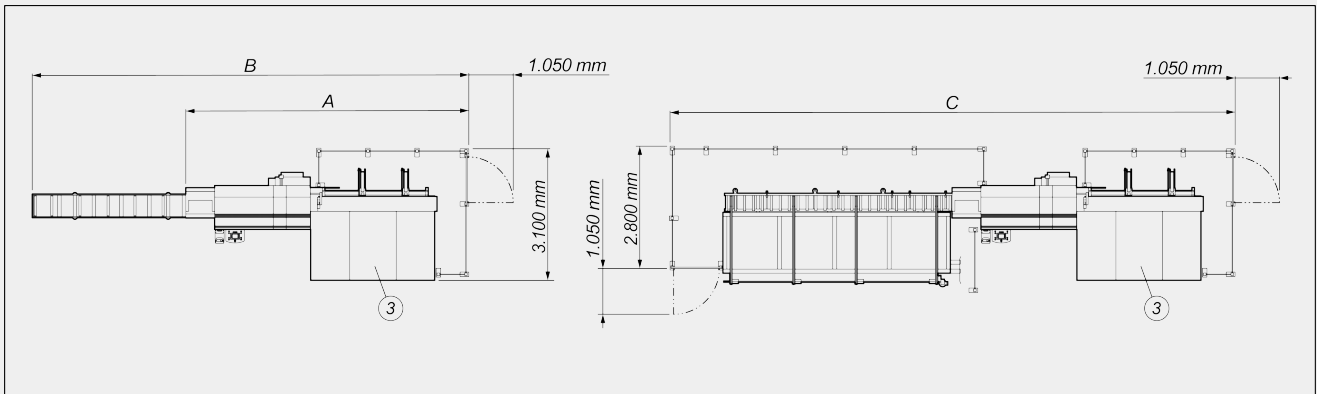
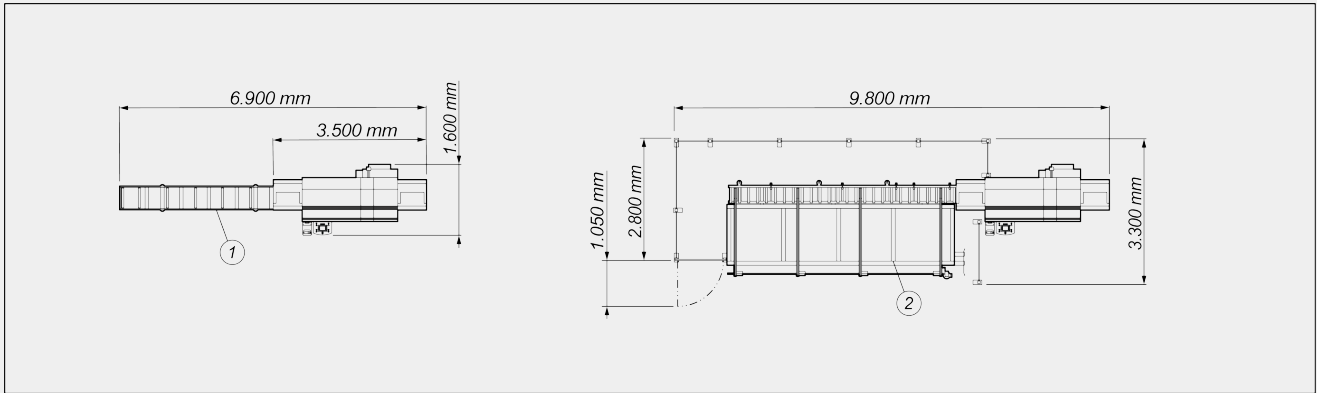
The unloading unit is equipped with a conveyor belt for extraction of the cut workpiece and a translation system to automatically move it from the conveyor belt to the accumulation surface. the unit allows unloading workpieces with length up to 2.5 m or 3.2 m (depending on the version) on a surface with a depth of 1.5 m.





**TKE 305 EA / SINGLE HEAD CUTTING-OFF MACHINES**

**LAYOUT**



- 1. Infeed roller conveyor (optional)
- 2. Automatic bar loading magazine (optional)
- 3. Automatic unloading unit (optional)

The overall dimensions may vary depending on the product configuration.

	<b>A</b>	<b>B</b>	<b>C</b>
<b>TKE 305 EA - Unloading unit 2,5 m (mm)</b>	6.400	9.800	12.700
<b>TKE 305 EA - Unloading unit 3,2 m (mm)</b>	7.000	10.500	13.300

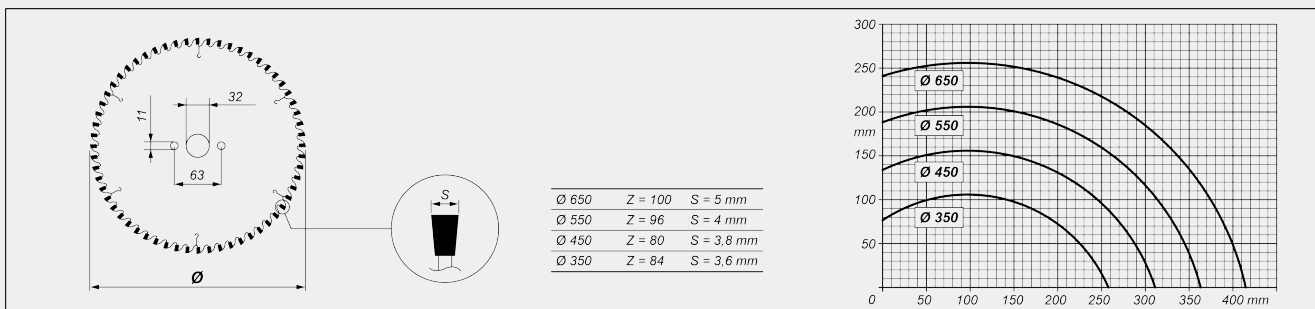


**MACHINE CHARACTERISTICS**

Electronic control of the X axis	●
X axis stroke (mm)	1.000
Widia blade	●
Second blade management (**)	○
Blade diameter (mm)	650 ; 550 ; 450 ; 350
Electronic control of blade feed axis Y	●
Bar minimum length (remaining bar) (mm)	110
Absolute encoder positioning	●
X axis positioning speed (m/min)	20
Separating system for cut workpiece	○
Automatic bar loading magazine	○
Drilling unit	○
Work area lighting	○

(\*\*) Available for models with Ø 650 and Ø 550 mm blade. It is possible to configure only a second blade with a diameter smaller than the main one

**CUTTING DIAGRAM**



**BLADE MOTOR**

Three-phase brakemotor	●
Power rating (kW), three-phase drive motor	5,5
Peripheral speed of 50Hz (m/s)	Ø650 - 77 ; Ø550 - 83 ; Ø450 - 68 ; Ø350 - 53
Brake intervention time (s)	10
Motor with inverter (optional) (kW)	9,6



**SAFETY DEVICES AND PROTECTIONS**

Manually controlled complete sliding guard

**LUBRICATION AND SUCTION**

Minimal oil diffusion lubrication system

Preparation for automatic start-up of external exhauster

Group of 4 positionable blowers with magnetic support for work surface cleaning

**PROFILE POSITIONING AND CLAMPING**

Bridge structure in cutting area with two pairs of vertical and horizontal vices with pressure reducer equipped with a pressure gauge

Bridge structure in feeder area with two pairs of vertical and horizontal vices with pressure reducer equipped with a pressure gauge

Feeder and cutting area adjustable bridge vices

**AUTOMATIC BAR LOADING MAGAZINE (OPTIONAL) (\*)**

Motorised roller infeed roller conveyor

Belt loading magazine with 4 arms with adjustable distance

**UNLOADING UNIT (OPTIONAL)**

Conveyor belt for extraction of cut pieces

Pneumatic lateral pusher for shifting on the storage table

Max length automatically downloadable on the storage table - according to version (mm) 2.500 ; 3.000

Table depth (mm) 1.500

Full guard with vertical opening pneumatically operated

Included ● Available ○