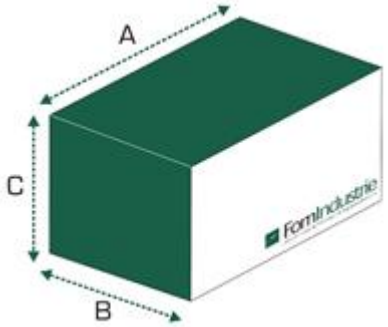
KEOPE E5

Double head sawing machine for compound angles with motorized movement of the mobile head

CE



Taglio Utile	A (mm)	B (mm)	C (mm)	Kg
m. 5	7350*	2100	1700	3150
m. 6,6	8950*	2100	1700	3370
*con evacuatore trucioli meccanico: A+1670				
*con rulliera testa mobile: A+2020				

Power supply	Total power installed	Air consumption for work cycle	Working pressure
3F - 380÷415 V - 50 Hz	8,4 kW	590 NL/min	7 bar

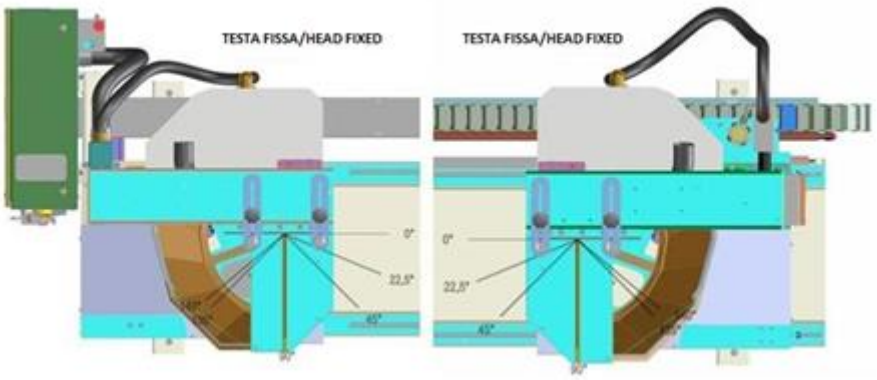
Technical specifications:

- Blade motors, three phase 5 HP (3.7 kW) - Eurovoltage 230/400V- 50Hz; 275/480V - 60 Hz
- Blade rotation speed 2400 RPM
- Head rotation between 90° and 140° (Y and Z axes) outside controlled axis managed by C.N. (vertical axis)
- Internal head rotation between 90° and 22.5° (Y and Z axes) with controlled axis managed by C.N. (vertical axis)
- Internal blade inclination between 90° and 45° (W and U axes) with controlled axis managed by C.N. (horizontal axis)

*Blade inclination is limited in degrees when head rotation is below 45° (see Pic. A)

- Handling of mobile head (X axis) with controlled axis managed by N.C.
- Mobile head max. speed 25 m/min
- Hydraulic tungsten carbide saw blade feed (adjustable blade exit speed – quick return)
- Minimum cutting capacity with heads at 90°: 470 mm
- Maximum cutting capacity: 5000mm o 6600mm according to the version (can be increased with specific software)
- Customised devices to clamp special profiles (on request)
- Working pressure: 7 bar
- Max. air consumption per minute: 590 NL/min

PIC. A



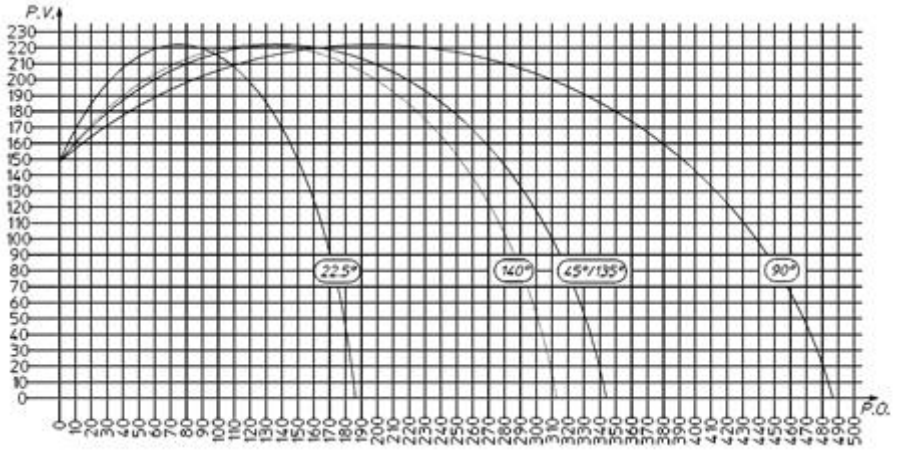
Standard accessories:

- No. 2 carbide tungsten saw blades Ø 600 mm
- Cutting area earmuffs
- No. 4 vertical vices
- Minimum quantity lubrication (MQL) with pure oil
- Greasing gun
- Set up for the extraction of chips and fumes
- 15' touch screen control panel (IP65) on linear guides
- PC operator interface
- Operating system Windows ®
- Real time numerical control
- FSTCUT4 software licence
- Teleservice for the first 12 months

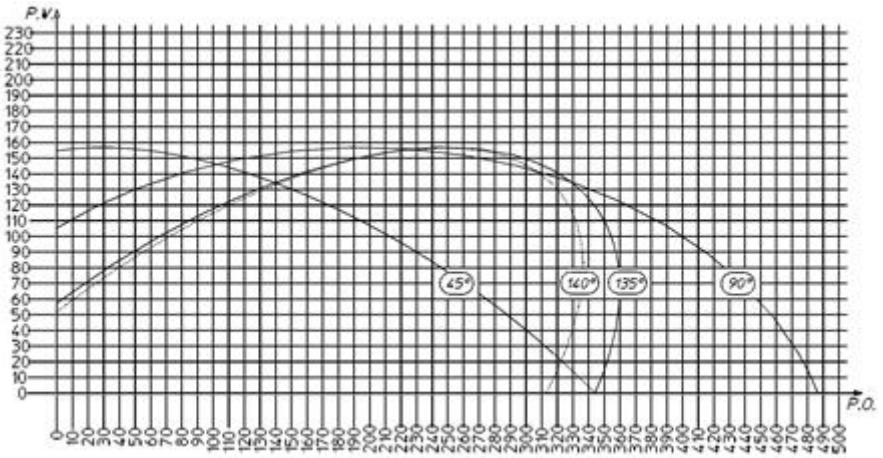
CUTTING DIAGRAM

See attachments

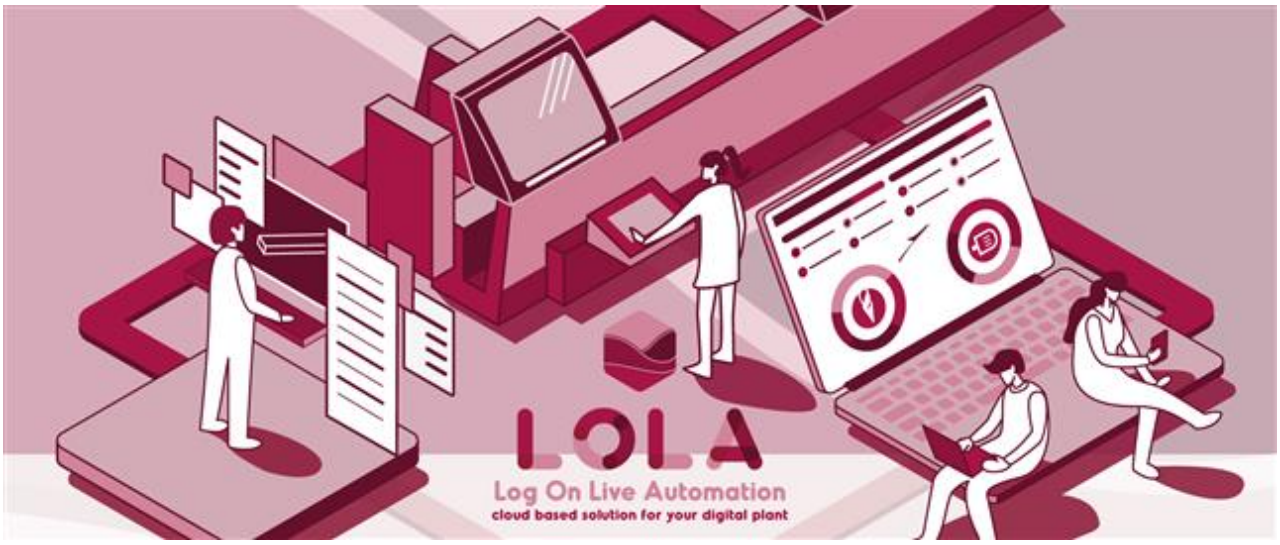
Blade pivoting from 22,5° to 140° (vertical axis). Blade tilting at 90° (horizontal axis)



Blade pivoting from 45° to 140° (vertical axis). Blade tilting at 45° (horizontal axis)



LOLA



LOLA is the cloud based IoT platform created by Fom Industrie for Industry 4.0, with the aim of monitoring and increasing productivity and efficiency.
The LOLA web application can be accessed via browser (Safari, Chrome), on a PC or mobile device.

LOLA receives data from the FOM Industrie machine tool, via internet connection, and generates statistics that can be consulted by the end user, regarding:

- productivity
- efficiency
- diagnostics
- scheduled, periodic and predictive maintenance
- alarms, push notifications and predictive warning

Characteristics

- Developed in responsive technology, which adapts the graphic layout to the device being used.
- Plant Manager for grouped display of your machines and alarms, based on factory or manufacturing department
- Timezone/DayTimeSavingLight Management
- LOLA application users (unlimited, until expiry of the license) with two privilege levels, to define criteria for hierarchical content visibility.
- Various machines can be associated with a single operator, or several operators can be associated with various machines.
- LOLA is now available in 5 languages: Italian, English, French, Spanish, German

LOLA allows control of the following with a single glance:

- machine status and efficiency
- machining statistics
- diagnostics for key machine components (e.g. electrospindles, tools, sensors..)
- alarms and warnings log for the individual machine or the factory (*for FOM LOLA compliant machines)
- push notifications for periodic and predictive maintenance events. Log of operations confirmed in LOLA.

The data indicate every time a key component is coming to the end of its lifecycle, so that it is possible to plan the replacement operation with the FOM service department or independently, thus minimising machine stoppages.

Export of data for integration with MES systems

With the additional Lola Exporter license it is possible to export the data collected by LOLA in CSV format locally, allowing subsequent integration with the most common MES systems

Control unit TEX COMPUTER

DIVA

Electronic equipment description:

- Personal computer
- Touch monitor 15'' LED backlighting
- Real time numerical control
- Internal USB ports plus one IP65 on front panel and internal USB ports
- RS232 serial port
- SSD solid state hard drive
- PC with Operating System Windows 10
- 3-year international ''on site'' warranty for PC
- FSTCUT4 software
- Direct connection to FOM technical support via the remote assistance service

Description of functions and characteristic FSTCUT4 program:

FSTCUT4 is the new and advanced management program for double-head sawing machines. In fact, it manages all the operations that can be carried out on these machines. It allows a cut to be made in managed mode and can receive a cutting list directly from the office, while it uses the Industria 4.0 environment to transmit the production data back to the office itself. It reduces the use of materials to a minimum by optimising the cut.

- Semiautomatic cutting function with automatic profile height compensation and piece counter with cutting disabling
- Direct import of the profile section from file in DXF/DWG ® format
- Classified profile archive graphic management by brand and series with working parameters associated to each profile and image display
- Management of list filing folders with paths that can also be configured online
- Cutting lists imported via network or USB memory stick
- Coating thickness and extrusion tolerance automatic corrector function
- Displaying 3D of profile
- Import of cutting lists in FOM format (protocol P2K2)
- Managing of users
- Display of profile sections while executing cutting lists with indications of piece positioning on the machine
- Display and print of frame image with the part being machined highlighted (only with cutting lists from the design software ProF2)
- Direct connection to FOM technical support via the remote assistance service
- 3D cutting simulation
- Automatic import of cutting list from network folder
- Integration with LOLA
- Industry 4.0 ready

On request:

- Formulas and Types module, to create parametric articles and generate the resulting cutting lists
- Wireless optical barcode reader and relative management software for work lists
- Printout of the profile section with the option to personalise the label layout
- Label printer
- User licence for step-by-step cutting (no optimisation necessary for fixed distance parallel cuts)
- Cutting lists optimization module
- Software user licence for special length cutting (extra-length and super-minimum) and bevel cuttings at variable angles.
- Management of cutting statistics and blade wear (FST STATISTICS C4)
- Licence for FSTCUT4 program for office
- Data conversion driver. For supported formats, see list in attachment.

Optionals:

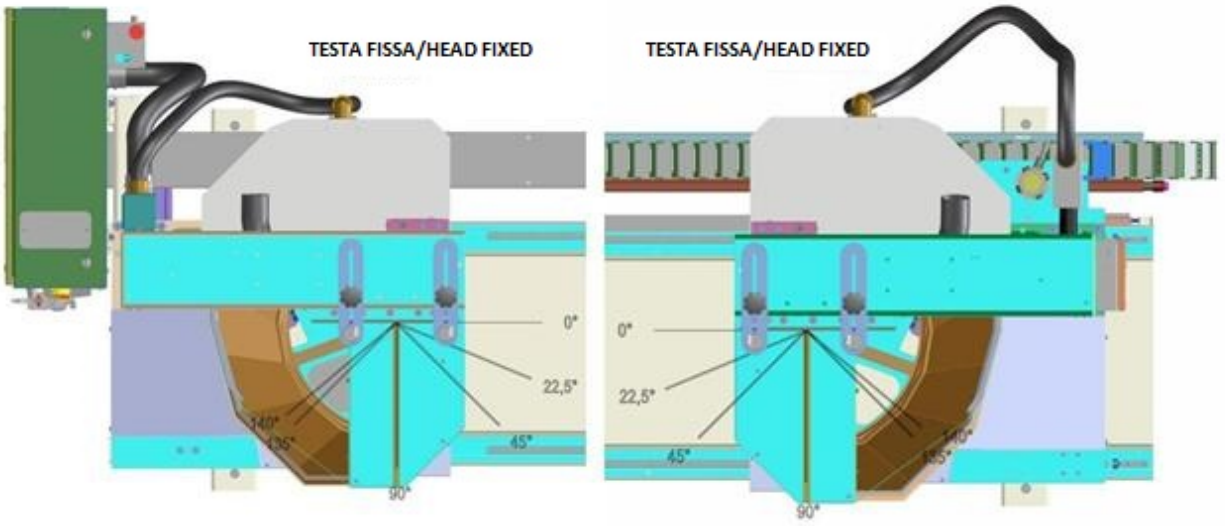
- Special power supply (Standard power supply: 380 to 460V three phase 50/60Hz)
- External transformer kit for machines with non-standard power supply (for machines already produced) For machines to be constructed as alternative to ZG-79250 (Standard power supply: 380 to 460V three phase 50/60Hz)
- Additional charge for electrical version UL-CSA
- Additional charge for EAC (Eurasian Conformity) certification
- Electrical cabinet air conditioning system
- Blade exit position transducer
- Profile lifting kit (No. 2 total)
- Loading/unloading roller conveyor 400 2.8 m.
- 400 Roller table loading/unloading side 4,7 m
- Loading roller conveyor 400 (Useful length 2,2 m) (mobile head)
- Swarf conveyor belt with tilted end (for 5 m version) (Unloading height 700 mm)
- Swarf conveyor belt with tilted end (for 6,6 m version) (Unloading height 700 mm)
- Centre machine chip conveying system
- Additional horizontal clamps (max clamping capacity 290 mm) on fixed and mobile head (90° cuts) No. 2
- Intermediate pneumatic retractable support (max 3 supports or 4 supports for the 6,6 m version)

Note: if one chooses 1 or 2 supports indicate whether to position them as 1st, 2nd or 3rd (or 4th)

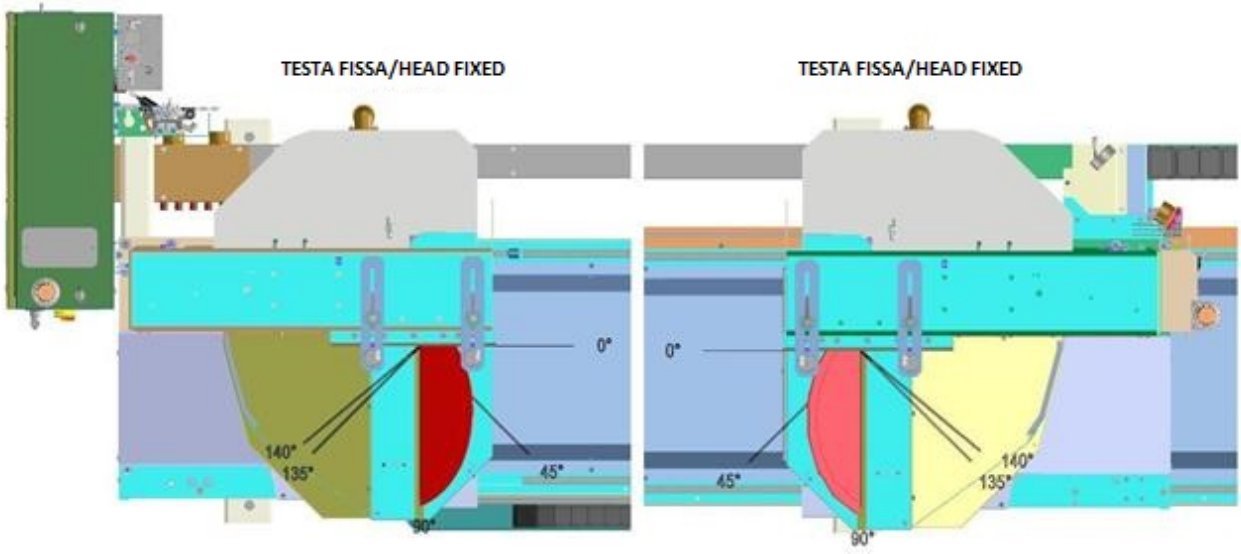
- Manual stop for recovery of short extruded pieces
- Equipment for machine handling with bridge crane (for non-faired versions only)
- Software user licence for special length cutting (extra-length and super-minimum) and bevel cuttings at variable angles.
- Data conversion driver. For supported formats, see list in attachment.
- Licence for step-by-step cutting software, complete with 1 extra surface on fixed head, horizontal clamps on fixed and mobile head (no. 2), 90° cuts, two-hand control
- Licence for FST STATISTICS C4 program
- SOLID PLUS CUT software licence
- Label printer
- Paper roll for printer; min. n. 10 pcs (100x36 mm)
- Paper roll for printer; min. n. 10 pcs (58x35 mm)
- Teleservice contract for one user

15'' touch screen control panel (IP65 protection)

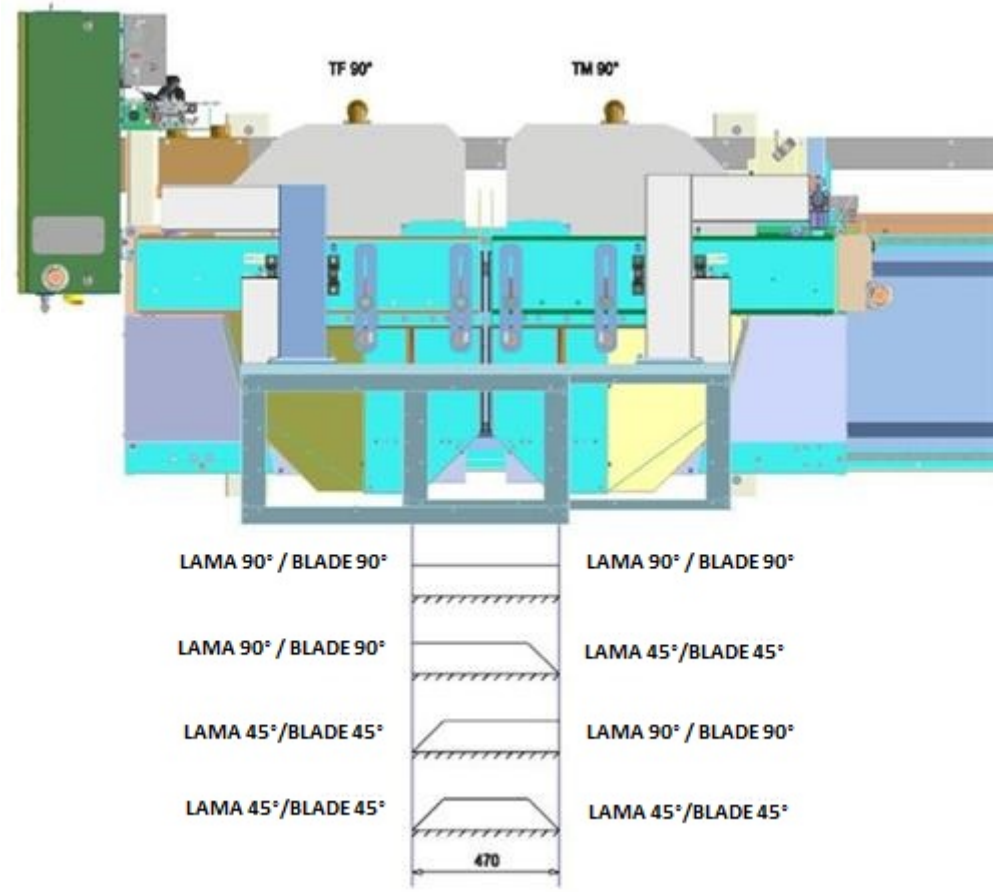
Head rotation angles with blade tilted at 90°



Head rotation angles with blade tilted at 45°



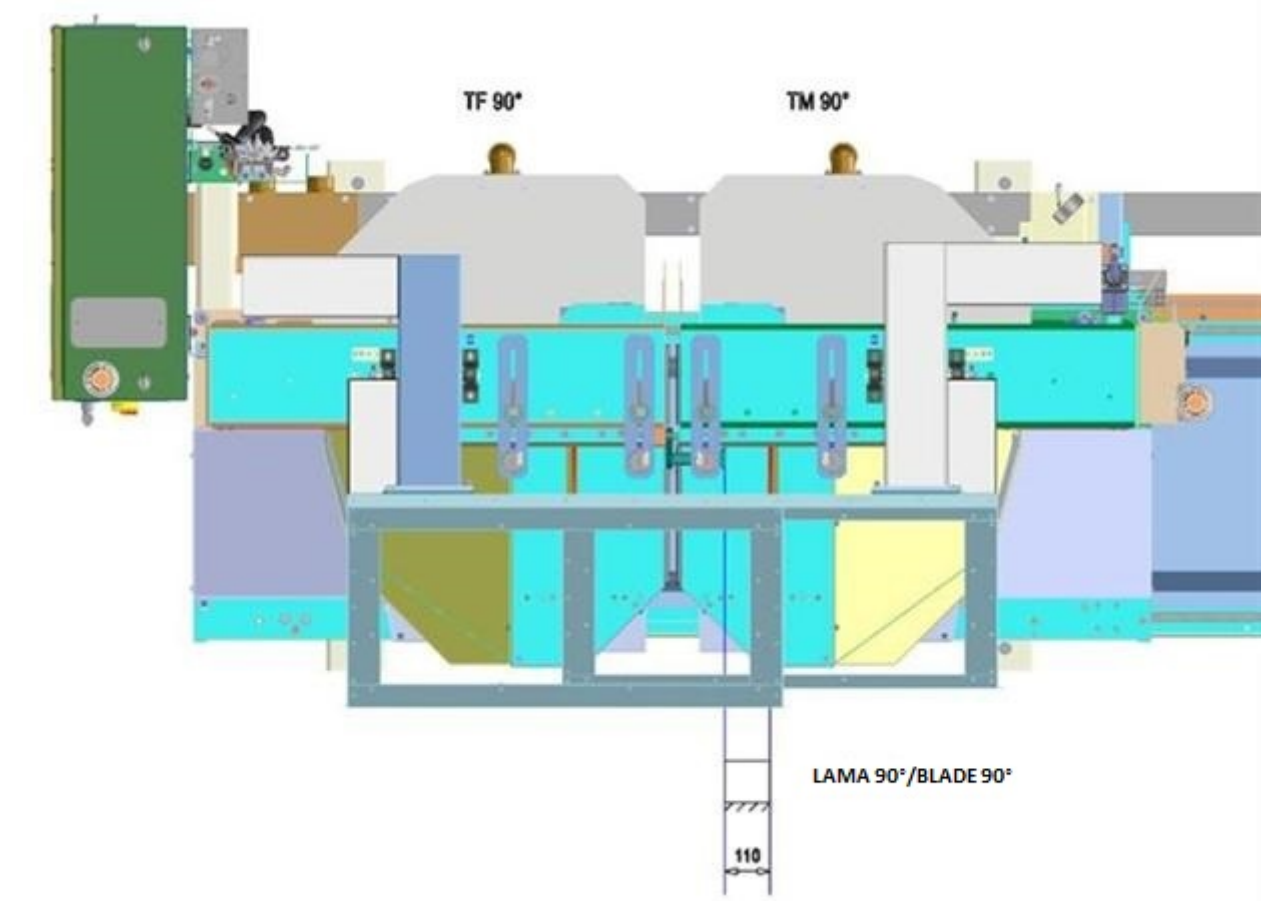
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
90°	90°	470 mm

Minimum cuts

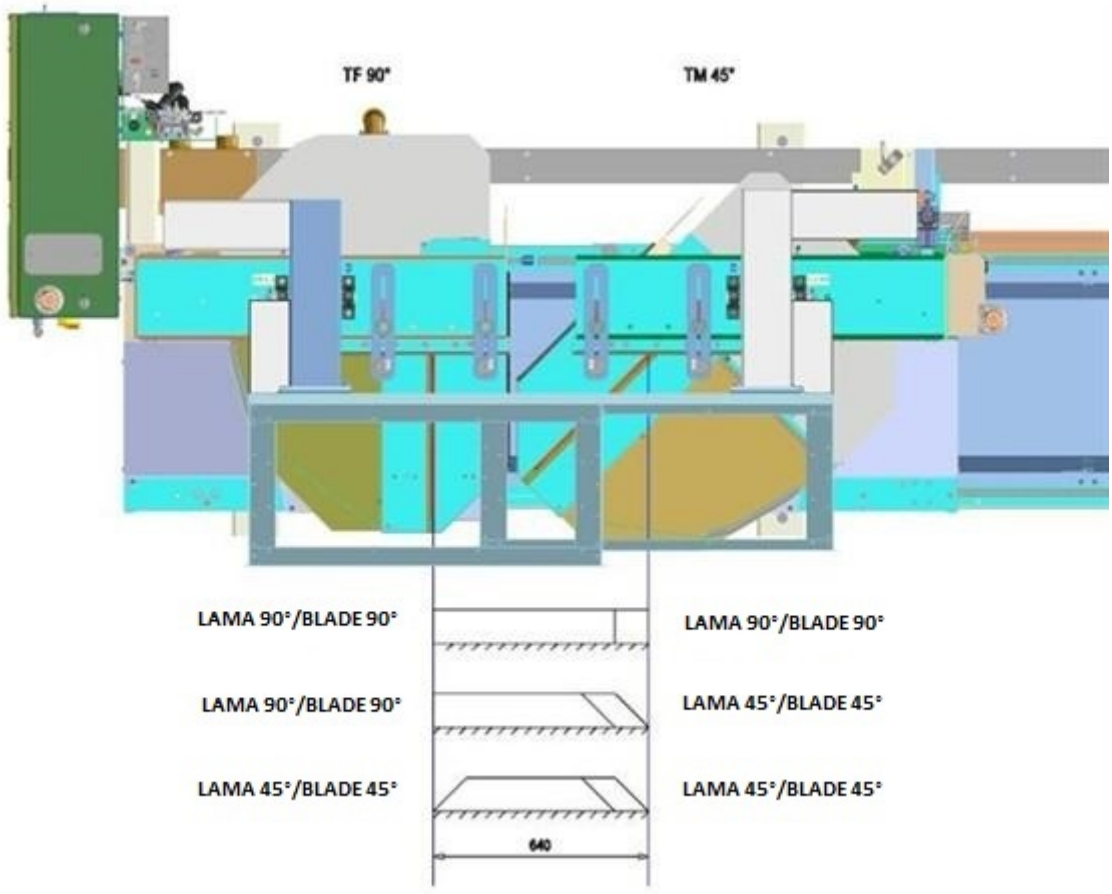


Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	RECOVERY OF SHORT EXTRUDED PIECES
90° *	90° *	110* mm

*with manual stop kit

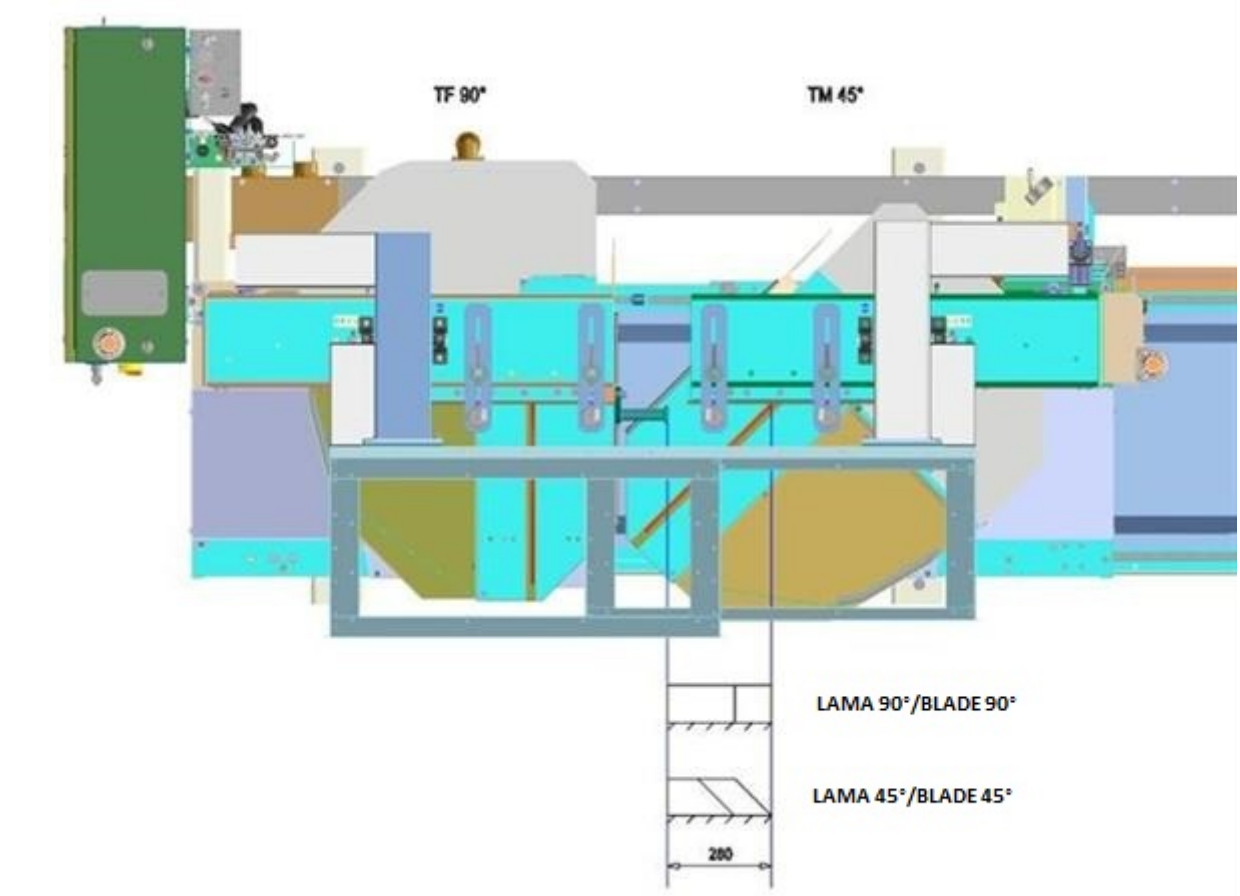
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
90°	45°	640 mm

Minimum cuts

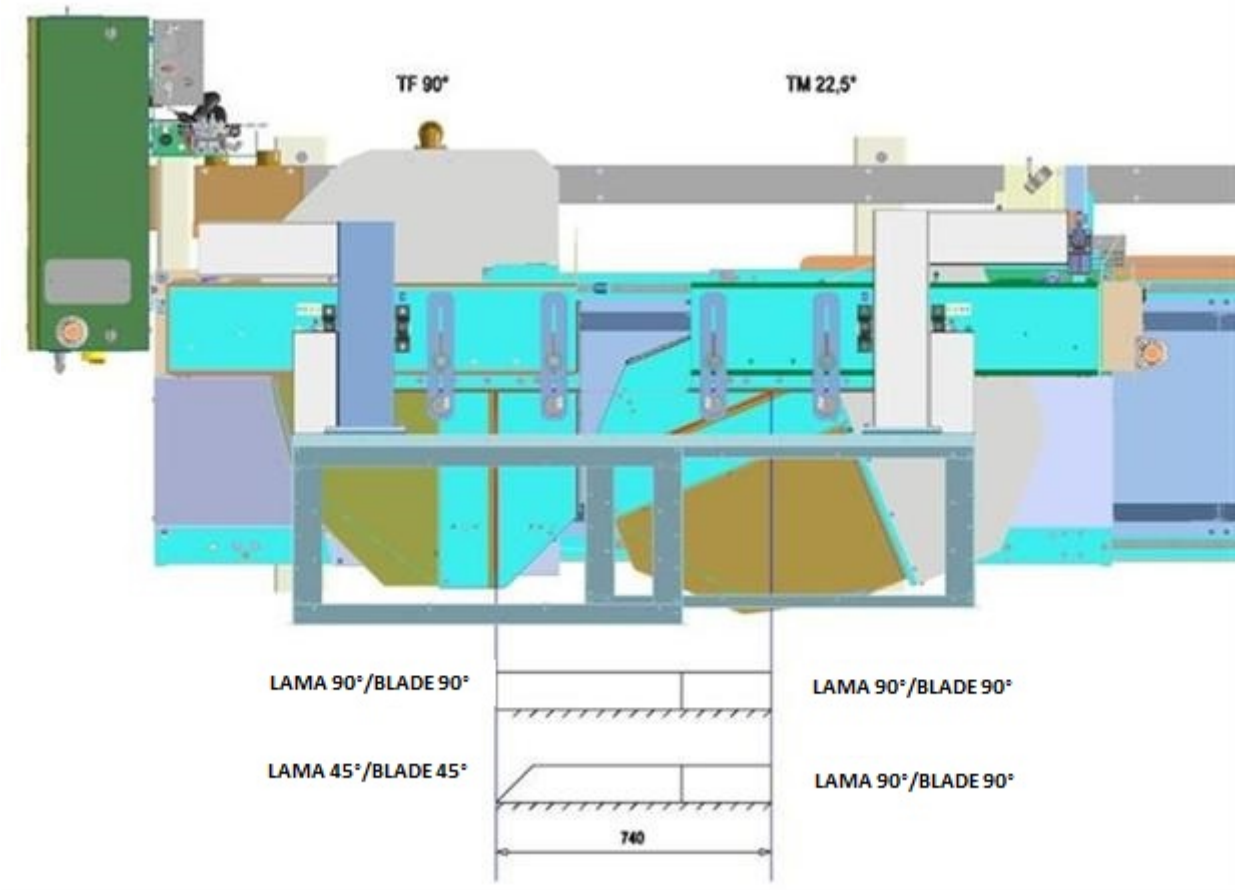


Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	RECOVERY OF SHORT EXTRUDED PIECES
90° *	45° *	280* mm

*with manual stop kit

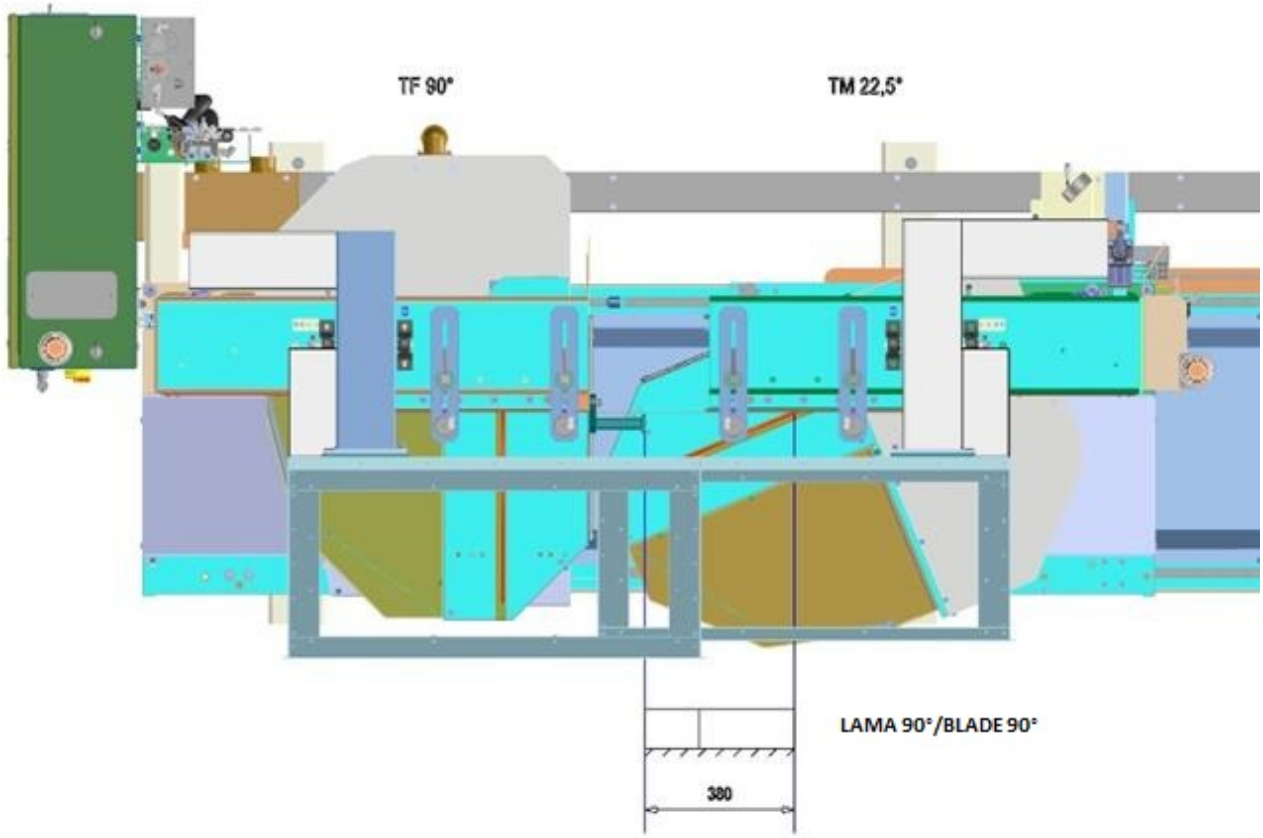
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
90°	22,5°	740 mm

Minimum cuts

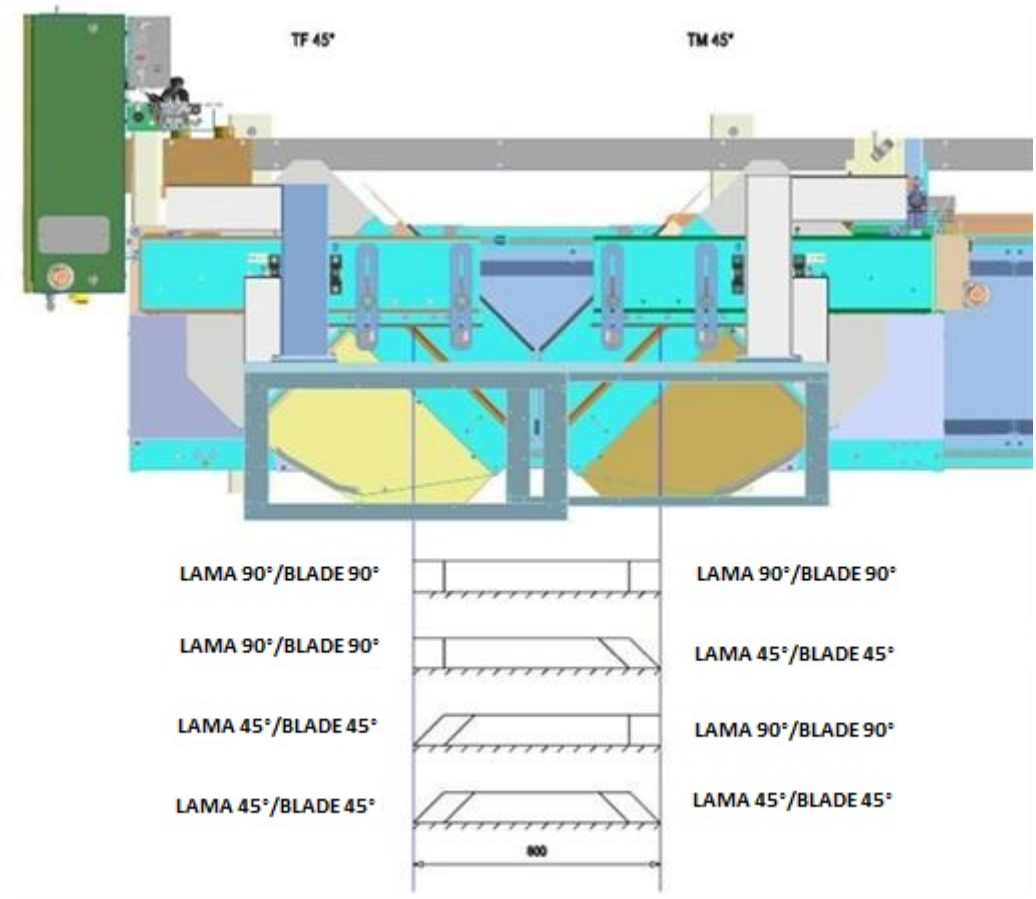


Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	RECOVERY OF SHORT EXTRUDED PIECES
90° *	22,5° *	380* mm

*with manual stop kit

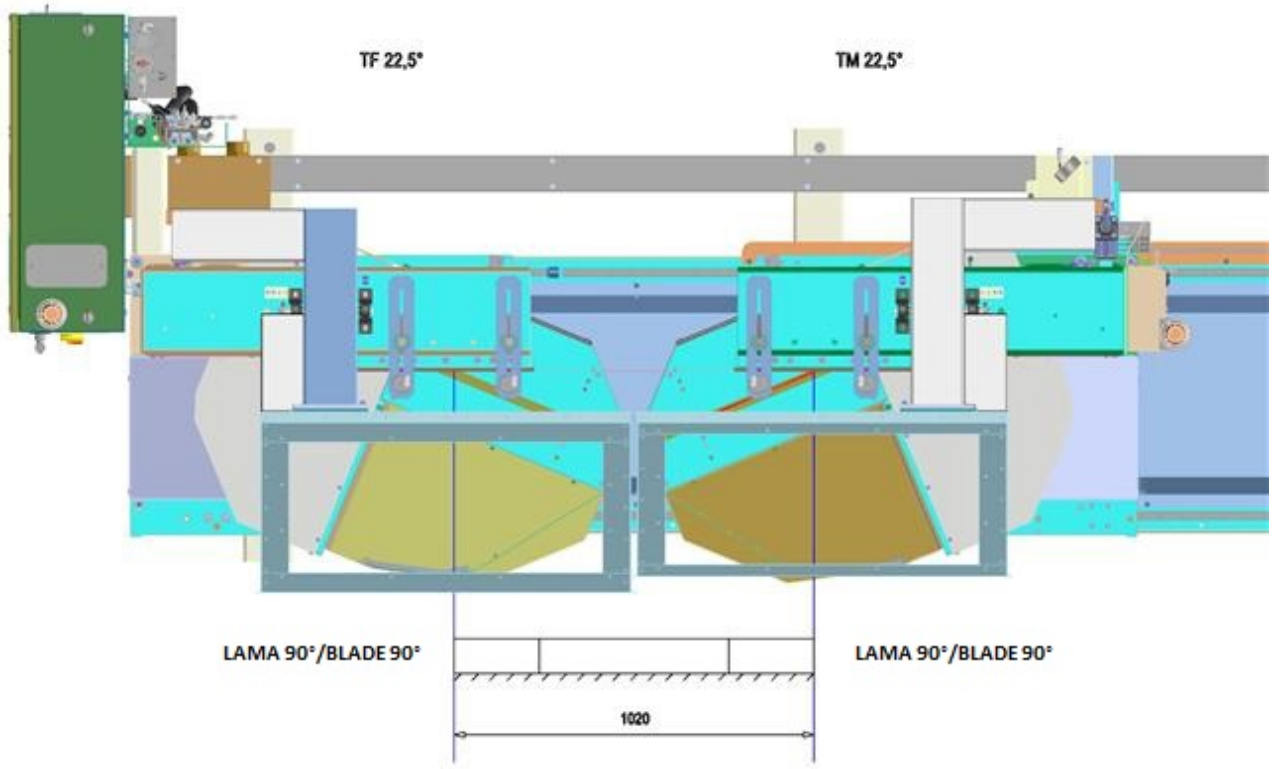
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
45°	45°	800 mm

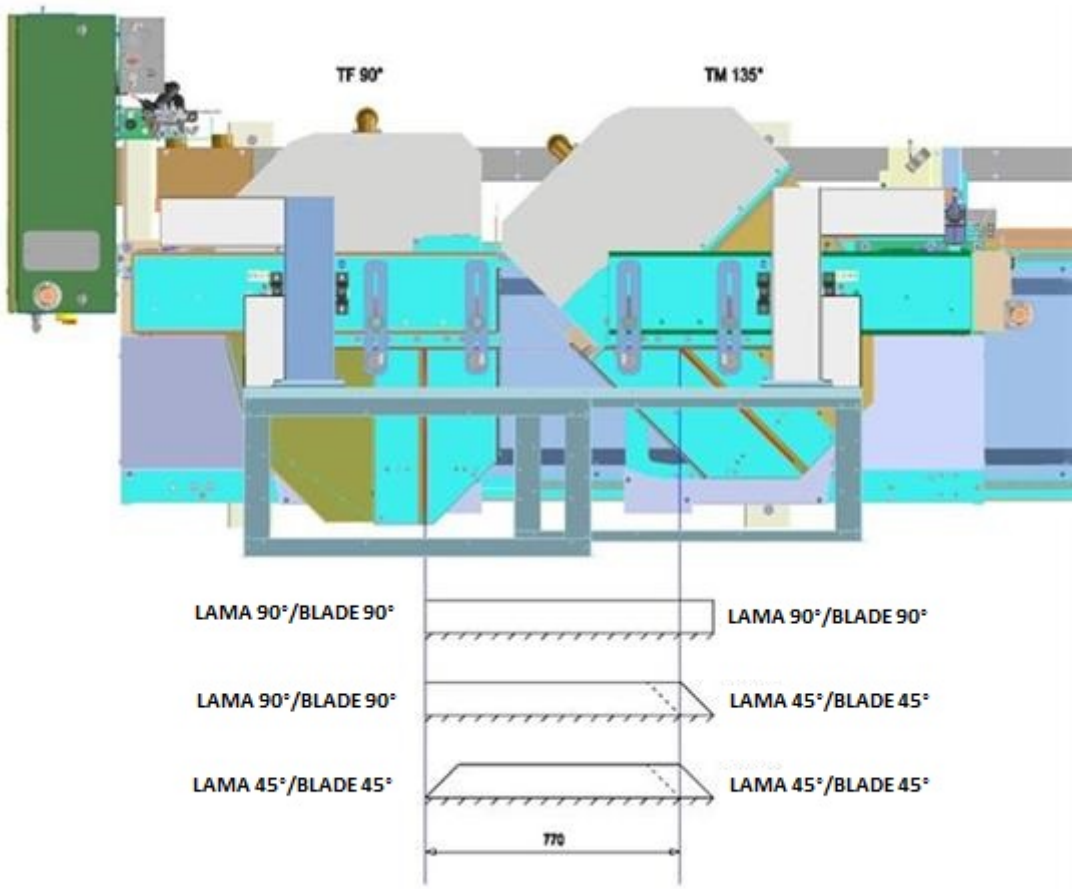
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
22,5°	22,5°	1020 mm

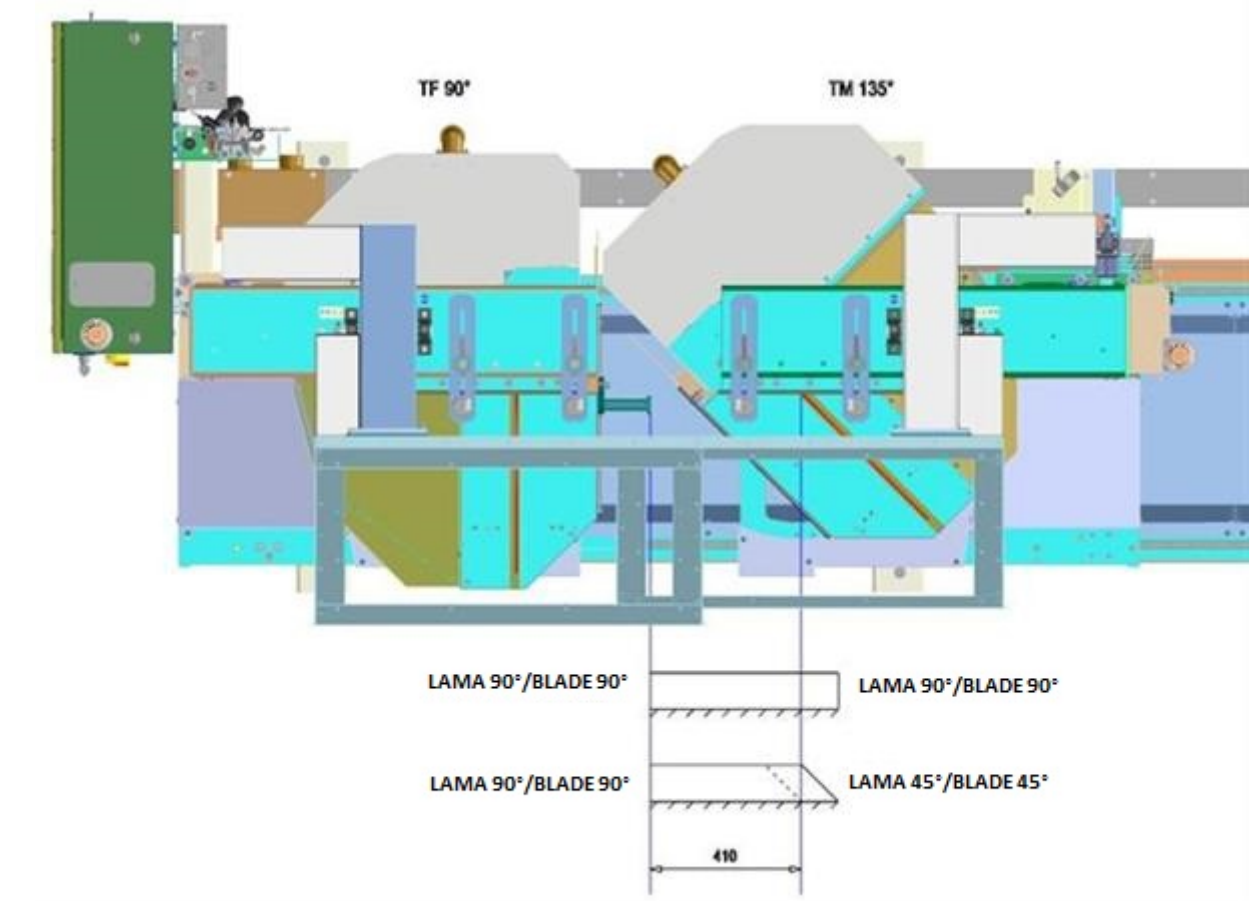
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
90°	135°	770 mm

Minimum cuts

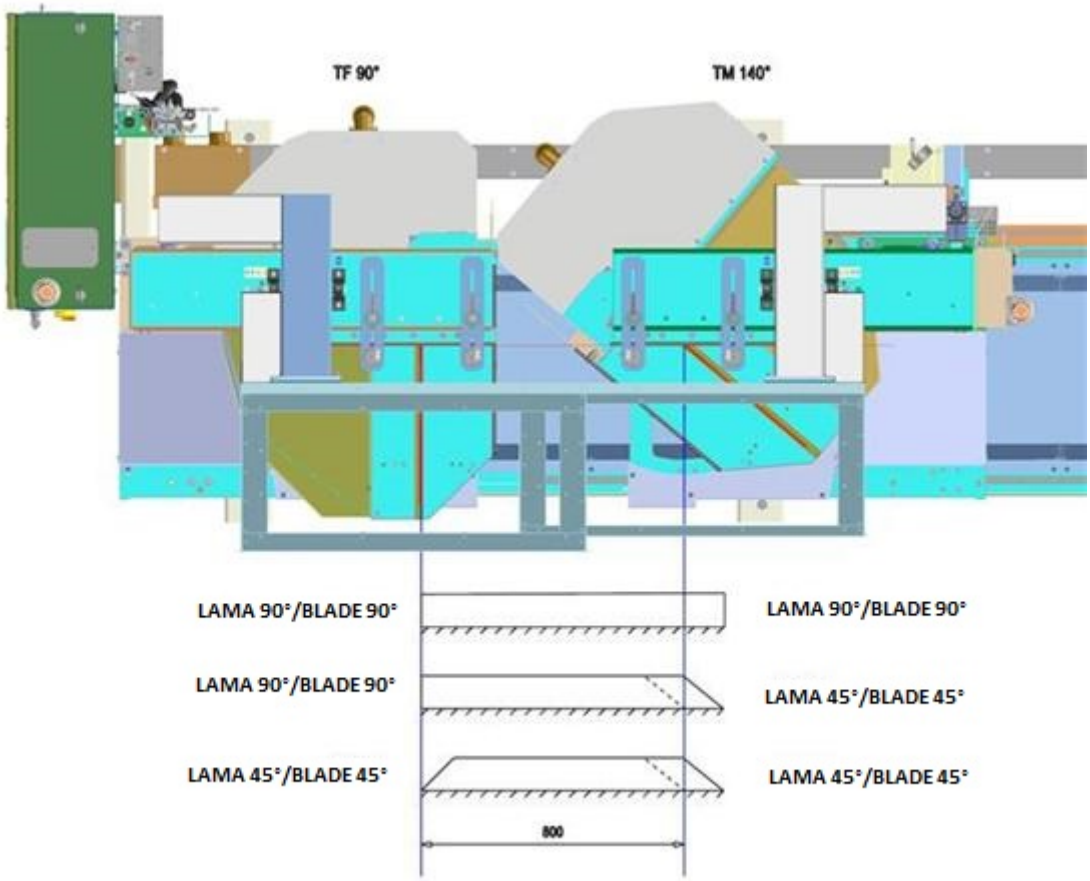


Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	RECOVERY OF SHORT EXTRUDED PIECES
90° *	135° *	410* mm

*with manual stop kit

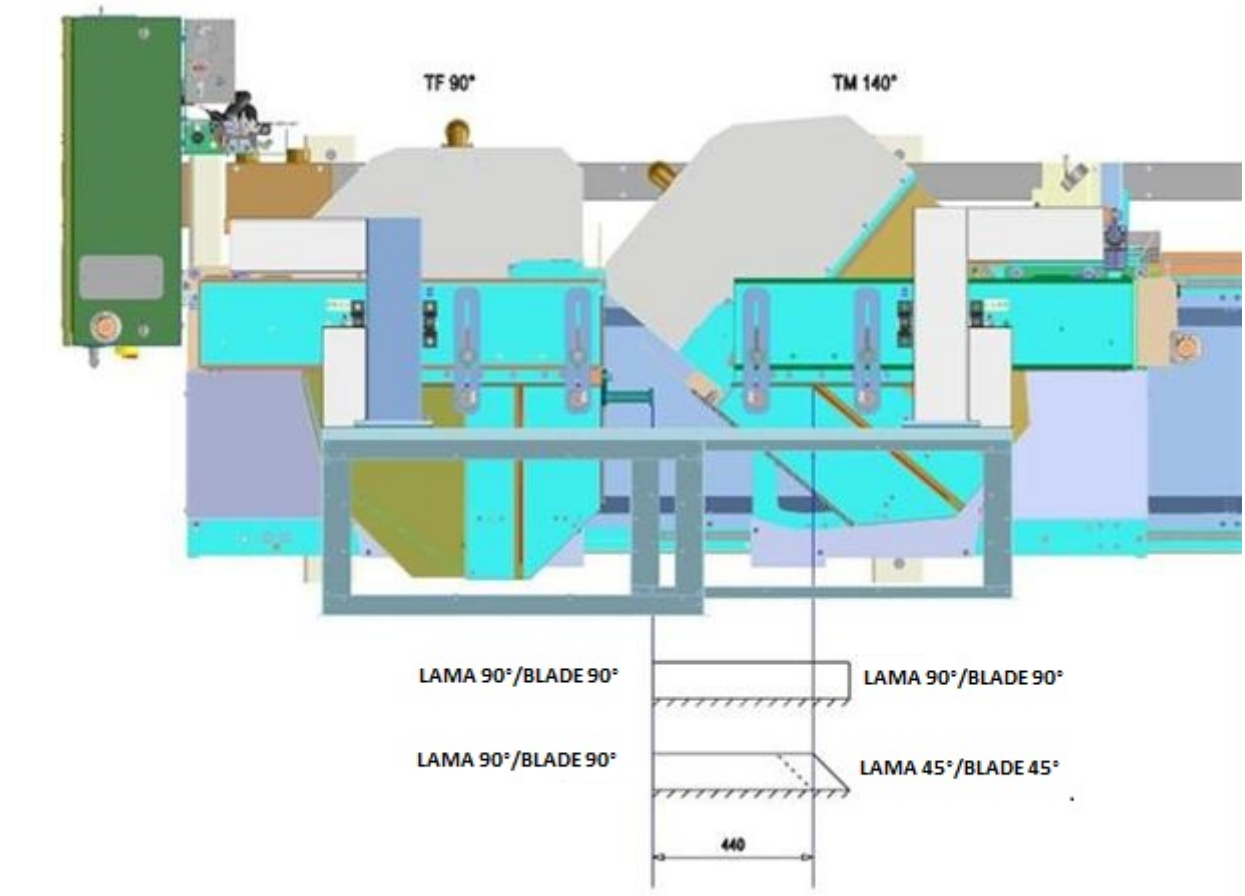
Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	MINIMUM CUT
90°	140°	800 mm

Minimum cuts



Profiles on view from operator side

FIXED HEAD	MOBILE HEAD	RECOVERY OF SHORT EXTRUDED PIECES
90° *	140° *	440* mm

*with manual stop kit

Optional: Packing

Working Cut	A (mm)	B (mm)	C (mm)	Kg
5 m	7350	1820	1700	3150
6,6 m	8950	1820	1700	3370