



Alfamacchine

Innovation for Framing



TA 350 CFP FULLY AUTOMATIC – 3 JOINING STATIONS

TA 350 CFP CUTTING SYSTEM DESCRIPTION



System is well suited for production double mitre cutting for picture and photo frames as well as any other moulding or trim board assembled by way of 45 degree mitre cutting.

Made of three major components : **Vertical or Horizontal Material Feeder, Cutting Station, and Unloading Belt**

The **Vertical Feeder** is best suited for cutting operations where the moulding is easily stackable as requires minimal amount of floor space.

The **Horizontal Feeder** option is best suited for cutting operations having multiple moulding sizes and profiles.

A Material Gripper System (**Primary**) is used to provide moulding part movement into the Saw Cutting Station, an optional Material Gripper System (**Advanced**) is also available, and is used in conjunction with the primary gripper for minimizing moulding scrap and to increase overall material yield rate.

The advanced clamps it's also designed for eject the short pcs during the production up to 90 mm.

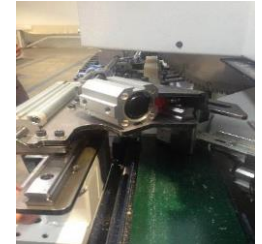
The cutting system is equipped with a **Speed Feed Servo System** for production rates up to 1,900 cut pieces per hour.

Vertical and Horizontal **Auto Adjustable Clamping System** within the cutting station firmly holes the moulding during the cutting process giving higher accuracy and a superior cut edge quality.

**Material Gripper
Feeding Cutting Station**



Advanced Clamps System



**AUTO ADJUSTABLE VERTICAL
CLAMPS**



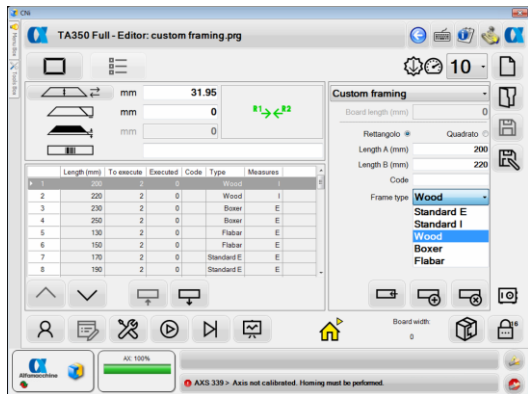
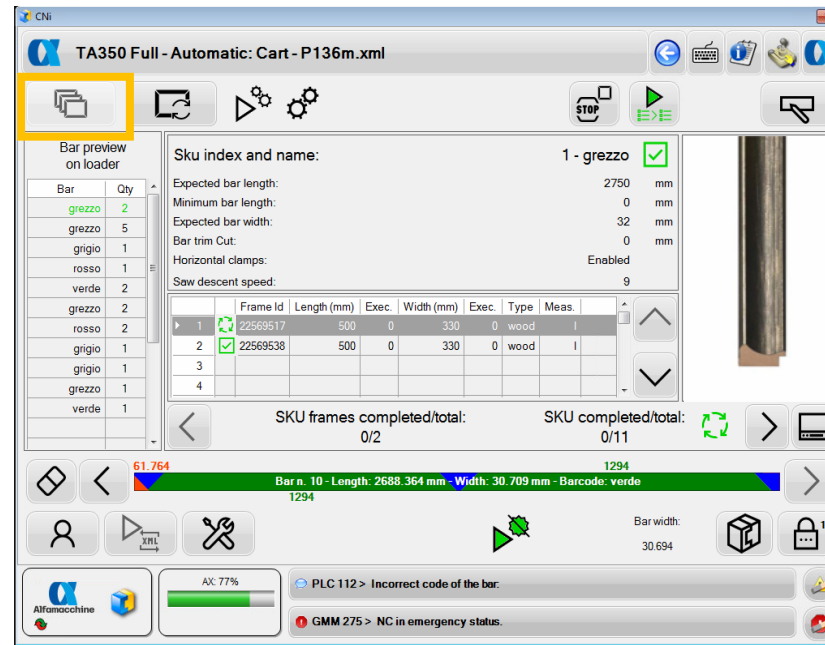
AC Eject System



TA350 CFP CONTROLLER



- PC Integrated in the TA350 Custom Framing with 17" Touch screen
- Lan port available for Ethernet Connection
- Direct Internet Connection for remoted Service access

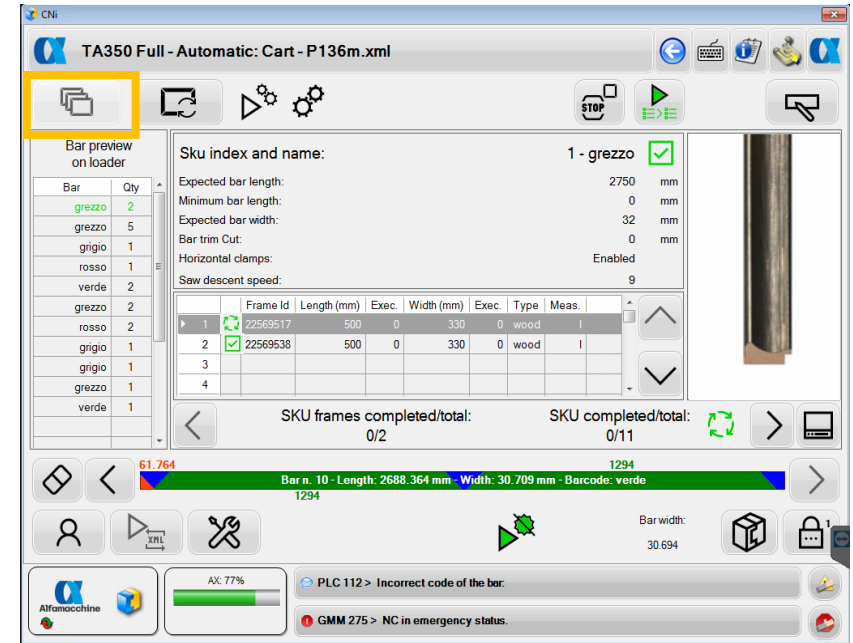


A password protected software platform with a user friendly navigational graphic menu that guides the operator through the various steps needed for programming, executing the job, and overall operation of the auto saw.

The software can be used as a touch screen, screen with mouse, or mouse with external keyboard.

Key Functionality Features

- Manually Control all Machines Commands
- Creating and Executing a Program by Frame or List Method
- Simulation and Visualization of Programmed Frame Cutting (onscreen view of entered job for cut and material optimization)
- Data Production Reporting
- Barcode Recall Program System
- Possibility to connect the machine directly whit the Factory MES Management
- Remote Control and Diagnostic Prg

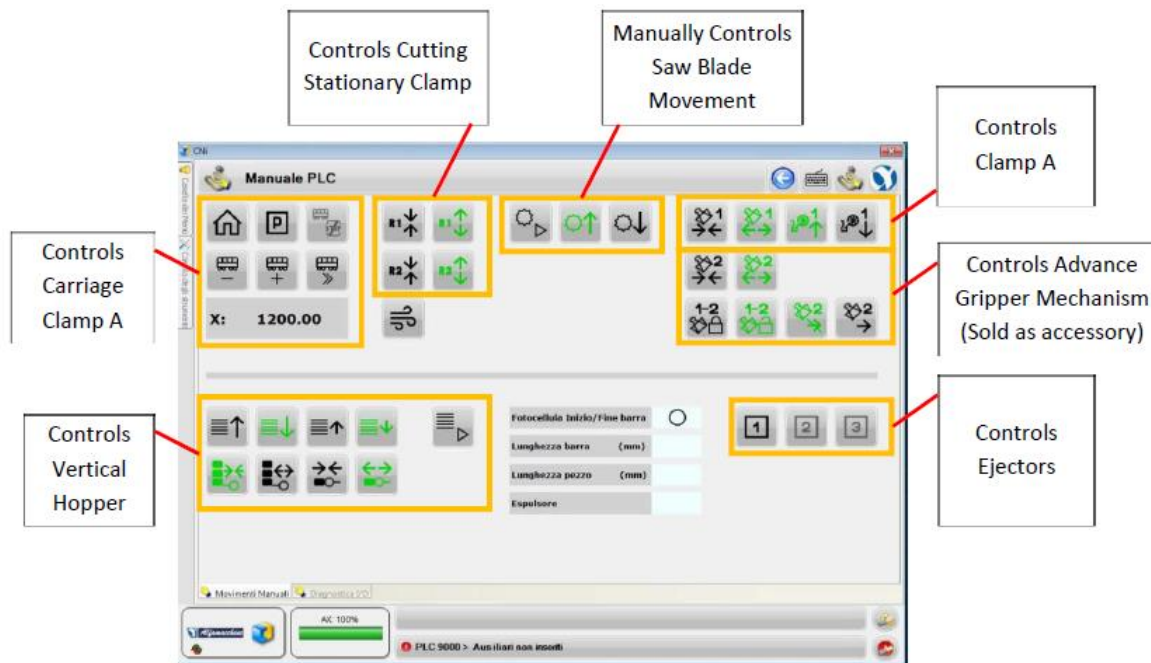


SOFTWARE KEY FUNCTIONALITY



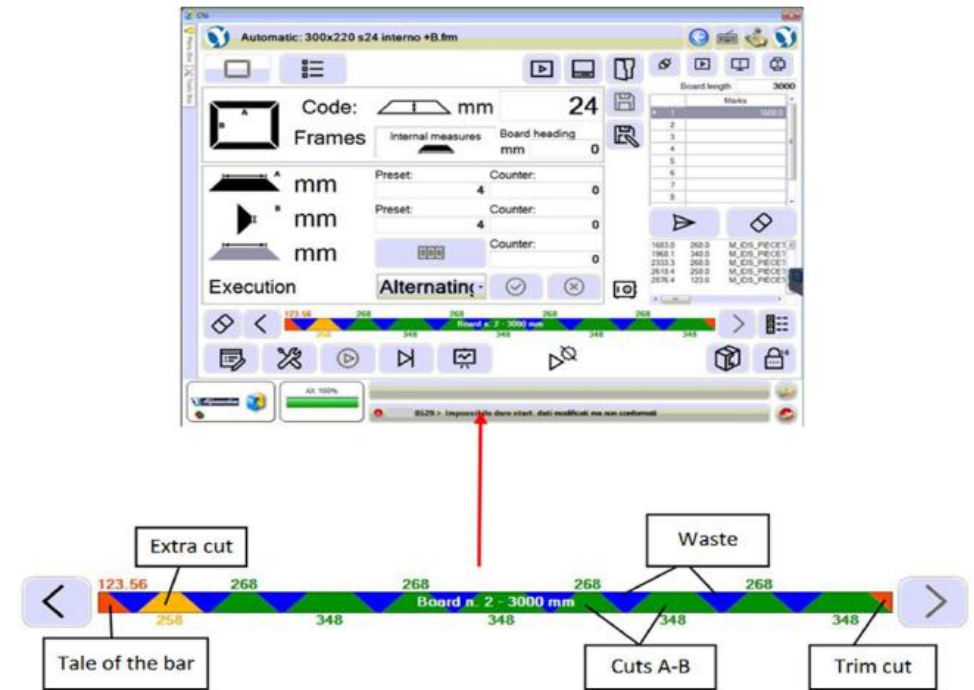
MANUAL CONTROL SCREEN

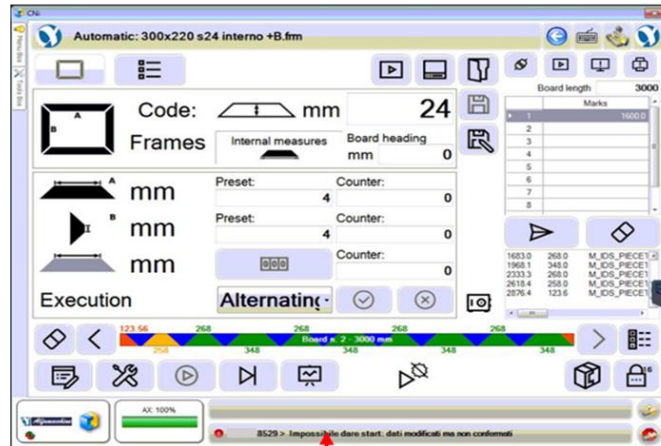
Manual control of all
Auto-saw operations



PROGRAM SIMULATION AND VISUALIZATION

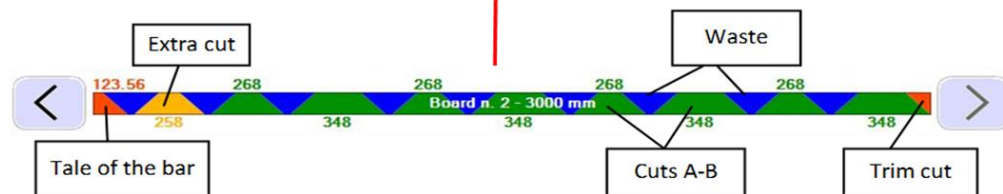
onscreen view of entered job requirements for cuts
and material optimization prior to releasing the job





Simulation and Visualization of Programmed Frame Cutting

Software provides onscreen view of entered job requirements for cuts and material optimization prior to releasing the job



SELF – ADJUSTABLE CLAMPING SYSTEM

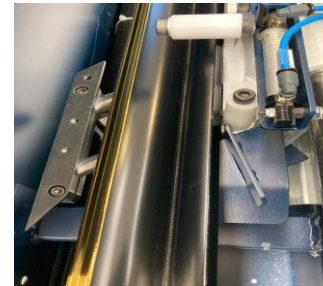


VERTICAL HORIZONTAL CLAMPING SYSTEM

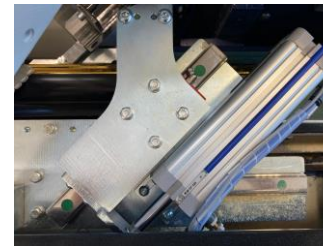
- *Auto Adjustable Clamps System*
- *No setup is required*
- *Strong stability during the cutting cycle*
- *No pressure regulation required*



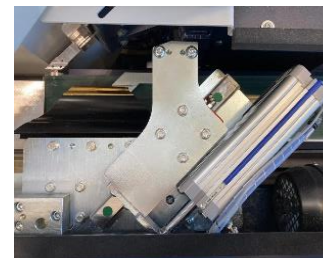
LOADING / ADVANCED CLAMPS AND HORIZONTAL CLAMPING SYSTEM AUTOMATIC SET UP



- *Auto Adjustable Clamps System*



- *Advanced Clamp System*

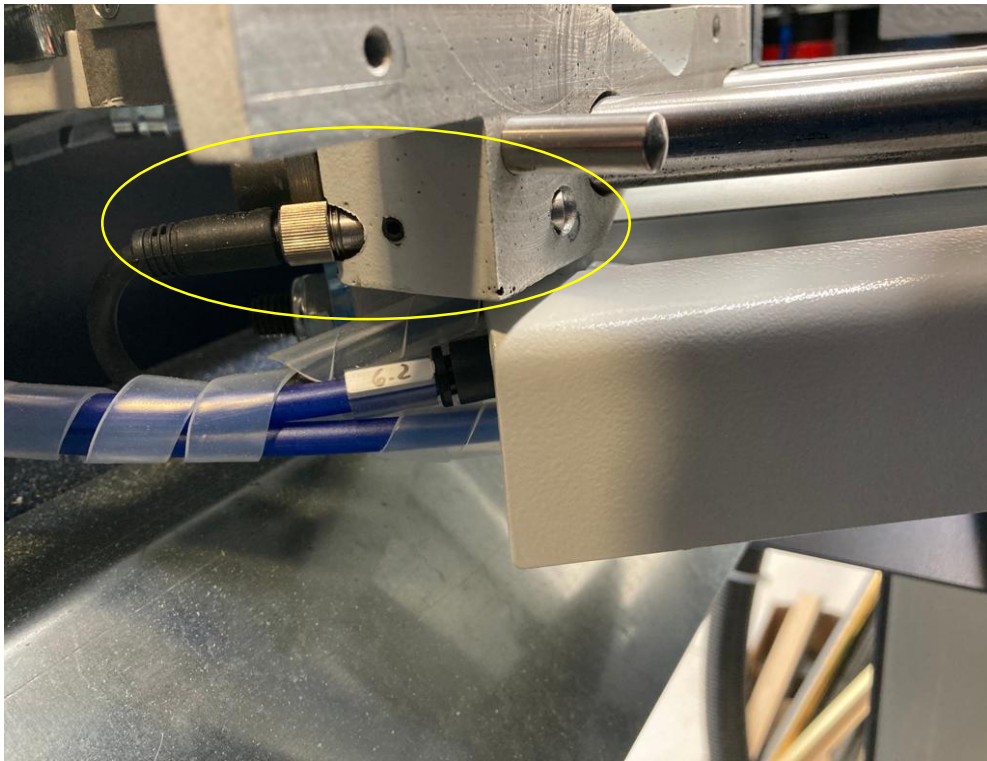


- *Automatic Short Pcs (<90 mm) Eject System*

AUTOMATIC MOULDING WIDTH MEASURER CAPACITY SENSOR (OPTIONAL)



Automatic moulding width measurer and auto adjustment length system (internal mode)



Bar	Num.
rosso	7
verde	1
grezzo	1
grigio	1
grigio	1

Sku index and name: 1 - rosso

Expected bar length: 3000 mm

Minimum bar length: 0 mm

Expected bar width: 30.677 mm

Bar trim Cut:

Horizontal clamping:

Saw descent speed:

Bar width: 13.747

Bar n. 1 - Length: 2989.627 mm - Width: 30.677 mm - Barcode: rosso

MS12 > Simulated execution

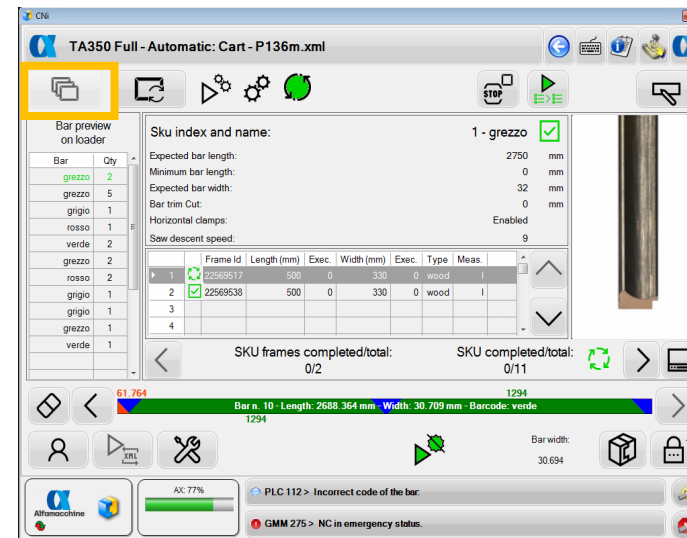
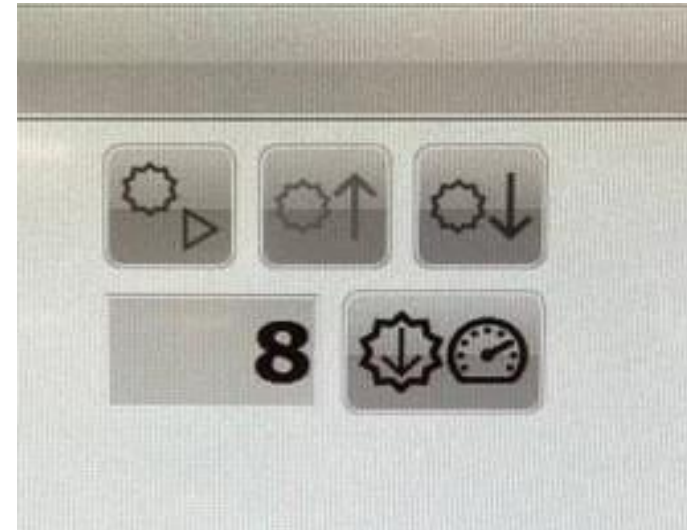
PLC: 9115 > Difference between measured width and nominal width greater than the maximum tolerance

CUTTING BLADES SPEED CONTROL (OPTIONAL)



CUTTING BLADES SPEED CONTROL SYSTEM

- *Pneumatic System Control*
- *Stored in the memory of the programs*
- *10 steps speed control*



BAR CODE PROGRAM RECALL SYSTEM



Barcode Frame Recall System Qr/BarCode

The system recall the program associated to the Qr/BarCode directly to the sfw production area



020005001500500000000000-SHm96oSy/G13Vqm0wA



The screenshot shows the TA350 Full - Automatic: Cart - P136m.xml software interface. It features a 'Bar preview on loader' table, a 'Sku index and name' section, and a table of frame data. The interface also displays 'SKU frames completed/total: 0/2' and 'SKU completed/total: 0/11'. A status bar at the bottom shows 'Bar n. 10 - Length: 2688.364 mm - Width: 30.709 mm - Barcode: verde' and a 'PLC.112 > Incorrect code of the bar' error message.

Bar	Qty
grezzo	2
grezzo	5
grigio	1
rosso	1
verde	2
grezzo	2
rosso	2
grigio	1
grigio	1
grezzo	1
verde	1

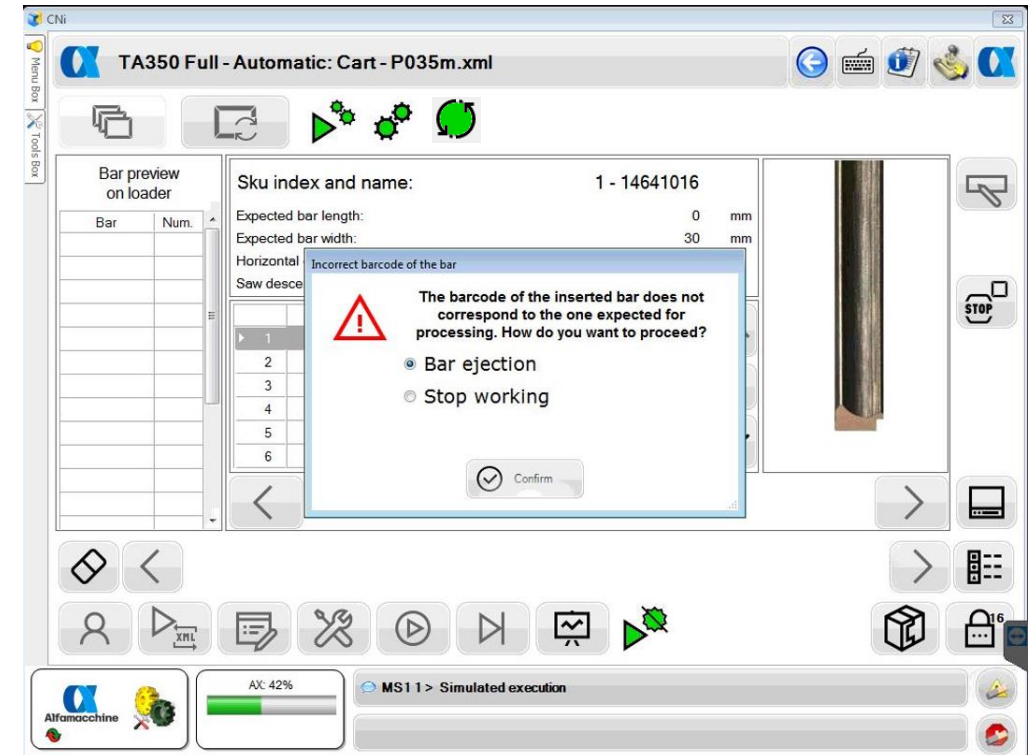
Frame Id	Length (mm)	Exec.	Width (mm)	Exec.	Type	Meas.
1	22569517	500	0	330	0 wood	1
2	22569538	500	0	330	0 wood	1
3						
4						

BAR CODE SCANNING AND BAR IDENTIFICATION (OPTIONAL)



The barcode reader is optionally installed in the saw to recognize if the bar taken from the gripper A corresponds to the bar code entered in the program.

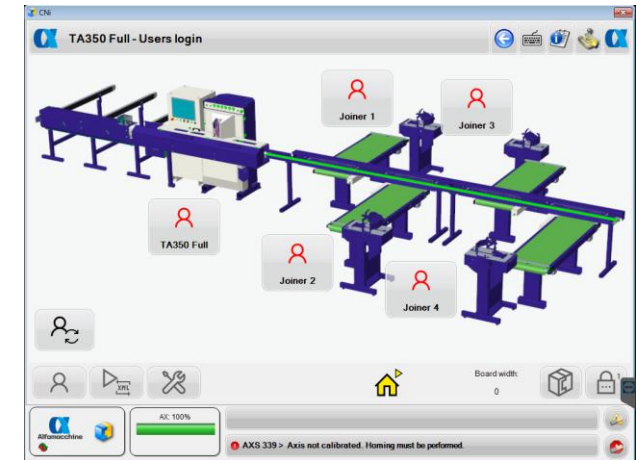
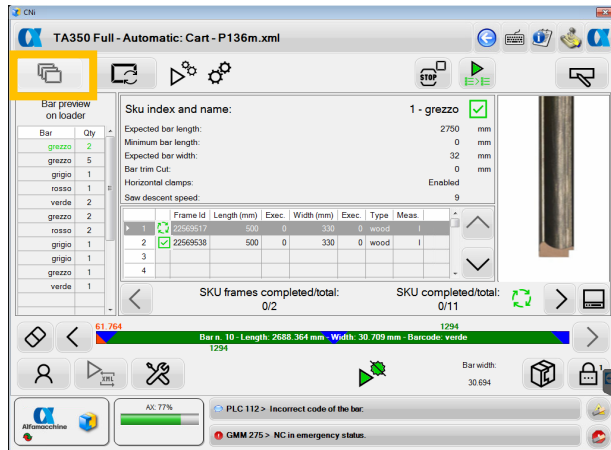
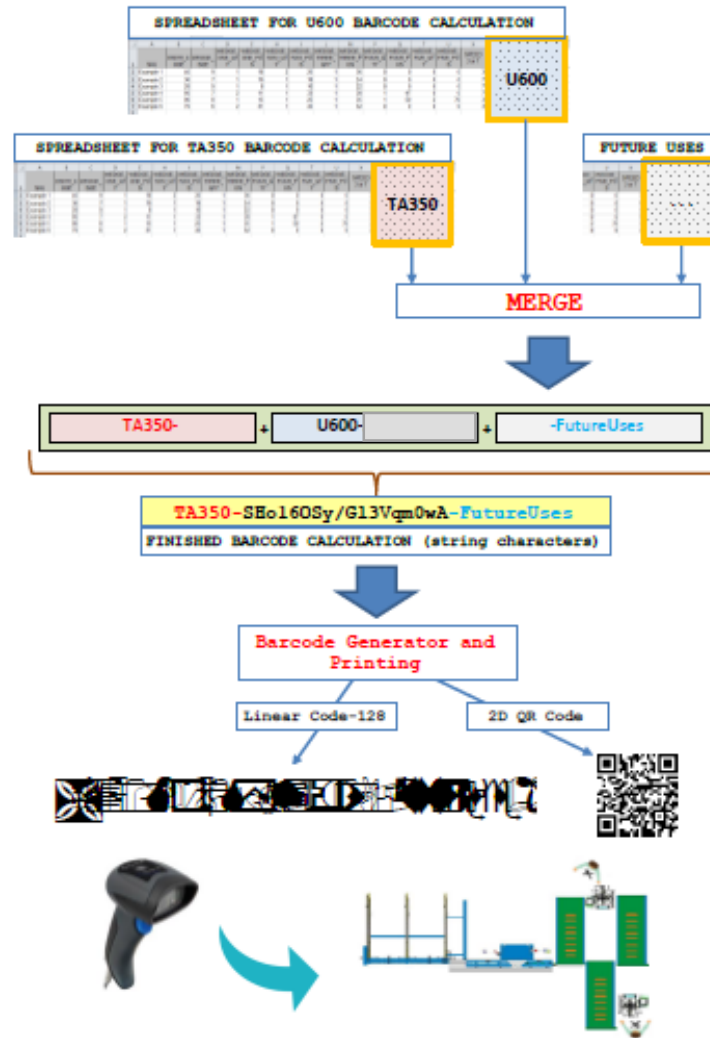
(all bars must be equipped with a label/printed with their own identification bar code.)



INDUSTRY 4.0 READY – MES CONNECTION/DATA INTERCHANGE (Optional)



MES – TA 350 – U 600 Structure (es.)



UNLOADING SYSTEM CONFIGURATIONS (up to 4 joining/exit system)

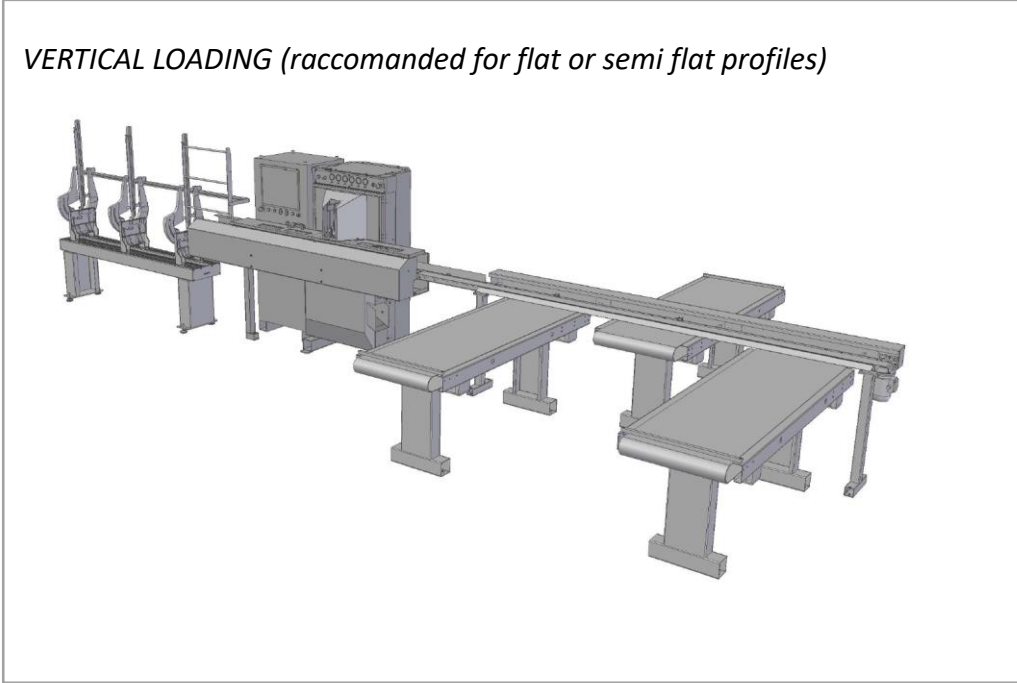


Electronic Exit Belts Sensor Control/Detect pcs overflow/status

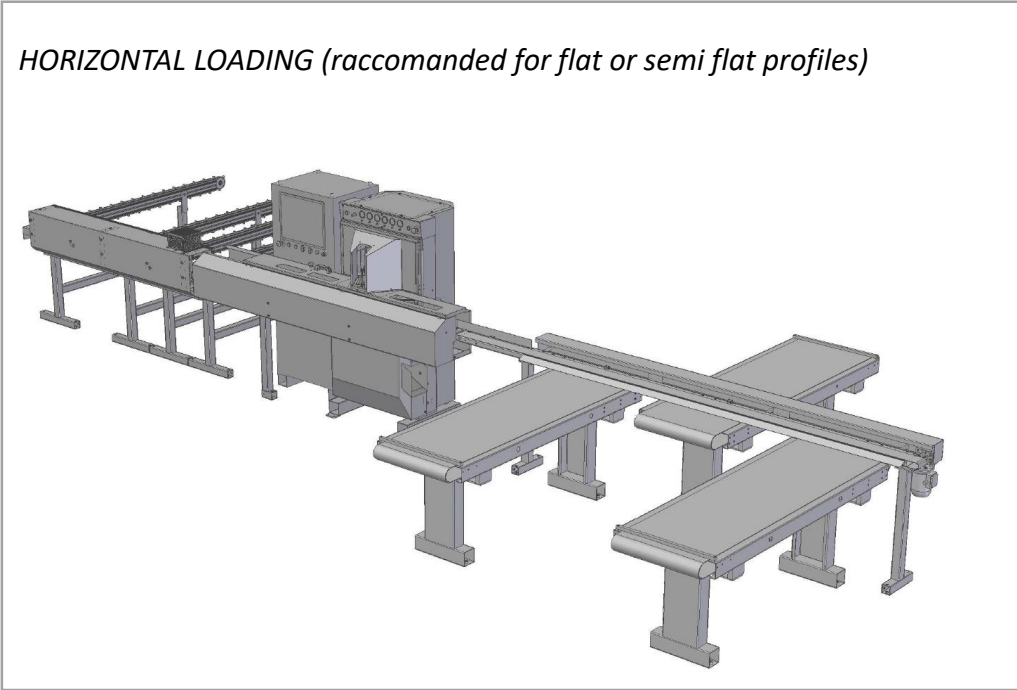




VERTICAL LOADING (raccomanded for flat or semi flat profiles)



HORIZONTAL LOADING (raccomanded for flat or semi flat profiles)



VERTICAL LOADING SYSTEM



LOADING CAPACITY UP TO 50 PCS (20 mm width)
EXTENSION ARM 1MT MODULE (Optional)



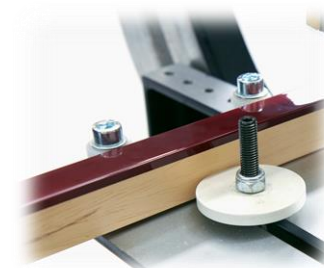
ELECTRONIC LENGTH MEASUREMENT/DETEC. SYSTEM



**AUTOMATIC WIDTH MEASUREMENT/AUTOMATIC CUTTING
LENGTH CORRECTOR SYSTEM**



HORIZONTAL PRESSURE CYLINDER



HORIZONTAL LOADING SYSTEM



LOADING CAPACITY UP TO 15 PCS
STANDARD 3 ARMS (min. length 1500 mm)
OPTIONAL 4 ARMS FOR SHORT PCS (1000 mm)



ELECTRONIC PHOTOCELL Long and Short Pcs Reading System



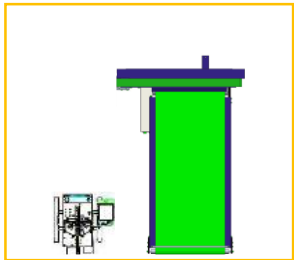
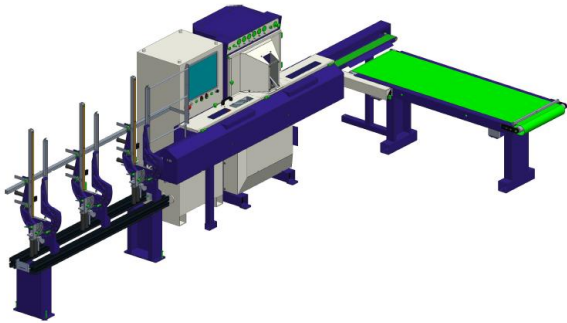
Auto Adjustable Clamps System



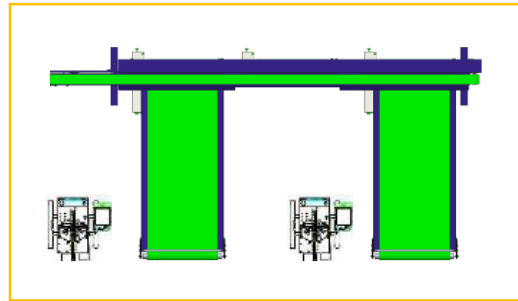
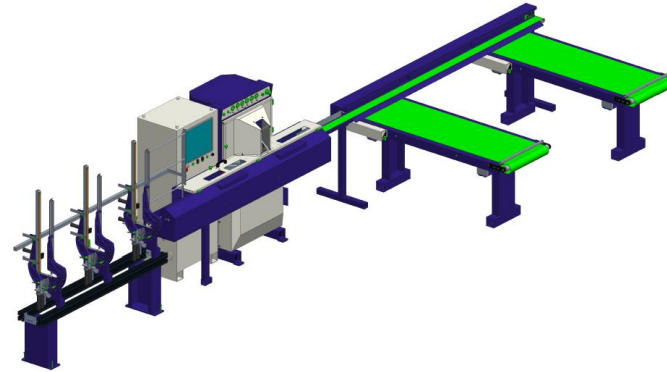
UNLOADING SYSTEM CONFIGURATIONS



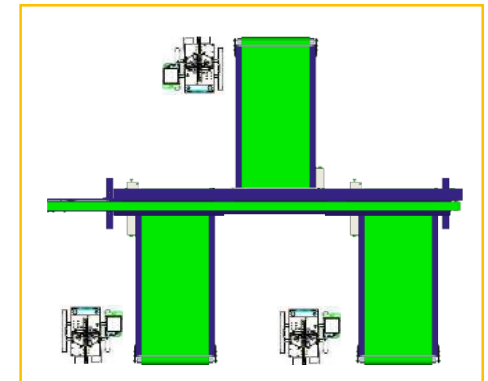
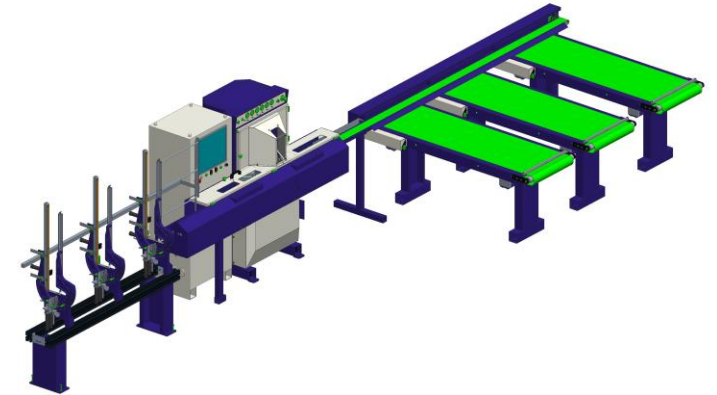
1 EXIT JOINING STATION



2 EXIT JOINING STATION



3 EXIT JOINING STATION





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