The system produces parts cut to size using a bar loading system and cutting machine with upward blade exit. 11 versions are available which can be configured in terms of depth and length of material loading/unloading magazines, right/left feed direction and cutting unit type.

**Available versions**

- **LT600** – Cutting line with saw blade 600mm dia. consisting of: Roller table 4700 – Cutting unit – Unloading table 1600 x 1200
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: Roller table 4700 – Cutting unit – Unloading table 2000 x 1200
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: Roller table 4700 – Cutting unit – Unloading table 2000 x 2000
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN S – Cutting unit – Unloading table with exit tunnel
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN S – Cutting unit – Unloading table 1600 x 1200
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN S – Cutting unit – Unloading table 2000 x 2000
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN S – Cutting unit – Unloading table 2000 x 2000
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN L – Cutting unit – Unloading table with exit tunnel
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN L – Cutting unit – Unloading table 1600 x 1200
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN L – Cutting unit – Unloading table 2000 x 1200
- **LT600** – Cutting line with saw blade 600mm dia. consisting of: STEP IN L – Cutting unit – Unloading table 2000 x 2000
Standard Configuration

- Loading area (Loading magazine or roller table)
- Cutting machine for fixed 90° cut with controlled axis bar loader
- Unloading area (Unloading table or tunnel)
- Dust extractor (optional)
- FST Line installed on the control console
- Guards and safety devices

Description of the Individual Components

LOADING AREA
The proposed systems can be of two types:

1) Bar loading magazine

STEP IN S + Bar feeder – 2 m. / STEP IN L + Bar feeder - 3 m.

The system allows the profiles to be stored and then fed horizontally. It is made up of 5 supports over which belts with mobile inserts run. The simultaneous forward feed and belt phasing are guaranteed by a splined shaft that transmits the movement to all the supports. A reference stop mounted on the support nearest the machining area allows an initial alignment of profiles as they are being loaded. An automatic pusher device pushes the profile to the end of the roller table. A pneumatic feeder, mounted on the loading roller table detects its presence and transfers it inside the cutting unit.

Technical Specifications

- Maximum bar length 6500mm
- Minimum bar length 1000mm
- Number of loaded bars: 9 (STEP IN S)/13 (STEP IN L)
- Maximum capacity of the loading machine in standard configuration: 250kg (which can be increased using additional load supports)
- Pushers kit (No.4)
2) Loading roller table - ROLLER TABLE 400
Enclosed roller table for manually feeding the cutting unit

Technical Specifications
- Work table height: from 850mm – 1010mm
- Loading capacity: max 140kg
- Vertical support with anti-friction material

NB. Selecting this loading method requires the addition of the unloading table for removing the cut pieces

Cutting machine for fixed 90° cut with controlled axis bar loader
The cutting unit is encased and soundproofed with an anti-intrusion tunnel. The bar feeder detects the presence of the profile and moves it forward in jog mode or using the sequence specified in the cutting list.
Technical Specifications

- Widia blades of Ø 400/500/600mm can be mounted (Ø 600mm supplied unless otherwise requested)
- Motor 7.5kW
- Oleo-pneumatic saw blade advance
- Adjustable blade feeding speed, rapid retraction
- Blade exit control linear transducer
- 2 no. vertical vices and 2 no. horizontal vices
- Device for distancing blade from profile during return phase for improved cutting finish *
- Motorization with belt transmission
- Horizontal table with anti-scratch steel covering
- Starting with Soft-Start or inverter (optional)
- Fumes exhuster connection on right and back side of machine
- Cutting lists entered via network and/or USB memory stick
- Soundproofing integral guard system
- Safety guard with vertical manual opening/closing
- Pressure regulators for vices on work table and bar feeder (with pressure gauge)
- Drawer for swarf collection

* Allows blade movement during its re-entry to the rest position. This device improves the cut finish. Option to bypass the system using the software

Bar feeder

- Bar feeder stroke: 500mm
- Feeder movement by Brushless motor, with recirculating ball screw action
- Linear guides with high precision
- Movement on double linear guide
- Horizontal cylinder with height adjustable
- Vice unit equipped with appendages to keep down bar waste
- Integrated piece present detection system by photocells

Cutting Diagram
UNLOADING AREA
The proposed systems can be of two types:
1) **Unloading storage table**
2) **Unloading table with exit tunnel for unloading pieces into a bin** (not configurable for the version with roller loading table)

Technical Specifications
- Anti scratch table
- Lateral end-of-table microswitch
- Work table full microswitch
- Reset button
- Sliding profile stroke 300mm
- Available dimensions 1600 x 1200mm, 2000 x 2000mm, 2000 x 1200mm
- Adjustable table height from 995 to 1105mm
Unloading table with exit tunnel

TURBO PLUS CHIP EXTRACTOR (optional)
Vacuum exhausts
Technical Specifications
• Power 5.5kW
• Max capacity 550m³/h
• Max vacuum rate 0.23 bar (3,000mm H²O)
• Capacity 100lt (chip bin)

CONTROL CONSOLE
Compact control console mounted on wheels for executing programs.

Technical specifications:
• Mobile control console
• 21.5” display
• Touch screen monitor
• Standard mouse & keyboard
• CN box Power-Family

PC comprising of:
• Solid state hard disk
• 2 Net interfaces
• USB ports
• 3-year international "on site" warranty for commercial PC

With the following applications installed:
FST LINE

FST Line Technical Features
Graphic user interface
Machining list management
Import, using a USB flash drive or LAN network, of a cutting list in XML format (FOM protocol)
Cutting list optimisation introduced onboard the machine manually or loaded from a file
Optimisation management of reversible and/or symmetrical profiles
Management of cut pieces
Management of profiles archive
Profile cross-section display in DXF format
Control of labelling device with customised print layout
ELECTRIC CABINET
Equipped with filters for protection against emission and reception (EMQ) disturbances and with air conditioning system for the cooling of the electrical/electronic components. It has an IP 54 protection grade against dust and liquids.

PROTECTION AND SAFETY DEVICES
The plant is provided with CE marking in accordance with the requirements of Directive 2006/42/CE (Machinery Directive). Design and construction comply with the safety standards currently in force in the European Union and in the main industrialised countries (USA, Canada, etc.). In particular, for the European Union, the plant complies with the following legal requirements: Directive 2006/42/CE (Machinery Directive), Directive 2006/95/CE (LVD) and Directive 2004/108/CE (EMC). The plant is also equipped with safety devices in accordance with product standards and those governing health and safety at work:

- Barrier with interlocking gates protecting the rear and sides

The electrical system has been engineered in compliance with the provisions contained in European Union directives 2006/95/CE (LVD), 2004/108/CE (EMC) and conforming to the applicable standards governing the safety of electrical systems (EN 60204-1, EN 61000-6-2 and EN 61000-6-4). Special care has been given to the provision of emergency cables and to the system for activating and resetting them. If any faults occur, the operator is alerted by light signals and messages on the monitor. In the event of faults or breakdown, The protection devices inside the panel are designed to prevent injury to persons and/or damage to the machining centre itself.

In the case where the interaction between the plant and the environment in which it is installed adversely affects the above conditions, a global solution must be agreed with the buyer in order to render the location suitable and safe for the installation of the plant.

Electrical connection
Power supply voltage: 400 V three-phase + earth with neutral (50 Hz) in a TT type system for connecting to the electrical cabinet.
The three-phase power supply must have the star centre connected to earth (TT, TN-C, TN-S diagram). Otherwise, the customer must install a star/star isolation transformer with the star centre connected to earth upstream of the electric cabinet.
When installing the machine, make sure that the power supply line is of good quality and reliable, protected by an automatic line switch and connected to a good earthing system.
The 400 V power supply cable must be protected against overload and short circuit using a suitable thermomagnetic switch. Protection against indirect contacts must be by means of a differential switch with a differential current rating $I_d \geq 0.5 \text{ A}$.
The 230 V single-phase voltage for the connection to the PC is inside the electric cabinet, protected by a differential switch with differential current rating $I_d = 0.03 \text{ A}$. An external UPS can be connected to the main cabinet switch for use by the PC.
Electrical connection 400 – 460 V
Power installed 12 kW
Full load current 23 A

Operating conditions
Lighting: min. 300 lux. Also check that the location in which the plant is to be installed does not have any zones in shadow and that there are no excessively bright lights or stroboscopic effects (reflections-reverb).

Standard accessories
- Plant installation layout
- Pack containing service keys, floor anchors and a spiral hose for compressed air connection
- Use-maintenance manual for the plant, including list of recommended spare parts
- Use-maintenance manual for the main machines of the line (sawing machine, multi-spindle, extractor)
- Software instruction manual
- Software installation CD
- Compact flash (memory card) containing a backup of the numerical control, software and main electronic components
- User manual for the principal electronic devices (drives, inverters, printer)

Remote Assistance
The plant is fully set-up for the remote assistance service. The customer must possess Internet access from the PC on the control console.

Optionals

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZG-79158</td>
<td>UL-CSA version plant</td>
</tr>
<tr>
<td>ZG711355</td>
<td>Additional charge for electric cabinet cooling</td>
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<tr>
<td>ZG714640</td>
<td>Additional charge for EAC (Eurasian Conformity) certification</td>
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<tr>
<td>PR201877</td>
<td>Voltage transformer 16 kVA</td>
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<tr>
<td>PR203373</td>
<td>Additional charge for frequency variation from 50Hz to 60Hz</td>
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<tr>
<td>PR200855</td>
<td>Inverter kit for varying blade rotation speed</td>
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<tr>
<td>PR200351</td>
<td>Additional charge for blade 500dia 4mm transformation</td>
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<tr>
<td>PR200352</td>
<td>Additional charge for blade 400dia 4mm transformation</td>
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<td>PR200353</td>
<td>Additional charge for blade 500dia 3.2mm transformation</td>
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<tr>
<td>PR027653</td>
<td>Additional loading module for version 7020</td>
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<td>PR-28117</td>
<td>Intermediate profile support Step In S (No. 4)</td>
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<tr>
<td>PR-27883</td>
<td>Additional intermediate support for version 7020</td>
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<tr>
<td>PR-26376</td>
<td>Additional loading module for version 7030</td>
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<td>PR-28816</td>
<td>Intermediate profile support Step In L (No. 4)</td>
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<tr>
<td>PR-27660</td>
<td>Additional intermediate support for version 7030</td>
</tr>
<tr>
<td>XK100186</td>
<td>TURBO PLUS Chip extractor set up to take oil mist filter. Note: Only for standard voltage (from 345 to 415 V 50Hz; from 380 to 480 V 60Hz)</td>
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<tr>
<td>BI712342</td>
<td>“Y” connector 80/80/80</td>
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<tr>
<td>BI712312</td>
<td>80/80mm dia fitting for connection to exhauster</td>
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<tr>
<td>BI313372</td>
<td>80/100mm dia adapter for 45-connection to machine</td>
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<tr>
<td>BI714529</td>
<td>120/80mm dia iron adapter</td>
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<td>BI714528</td>
<td>Tipper bin 600 lt 500mm dia</td>
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<tr>
<td>BI712311</td>
<td>Polyester filter for Turbo</td>
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<tr>
<td>Code</td>
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<tr>
<td>PR201817</td>
<td>Workshop cleaning kit</td>
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<tr>
<td>PR200266</td>
<td>Oil mist unit</td>
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<tr>
<td>BI714013</td>
<td>Micro-fibre pocket filter Note: Spare accessory for PR200266</td>
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<tr>
<td>AV-76243</td>
<td>Flex hose 80mm dia (per metre)</td>
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<tr>
<td>BI712298</td>
<td>Adapter for 200 litre drums (for 200 ltr drums diameter 560 ÷ 600mm)</td>
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<td>ET713901</td>
<td>FOM Green oil 5l</td>
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<tr>
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<td>FOM Green oil 25l</td>
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<tr>
<td>ET713640</td>
<td>FOM Green oil 210l</td>
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Note: 2 no. 80/80 BI712312 fittings, 2 no. clips & the necessary metres of pipe 80mm dia AV-76243 must be supplied.