

platinO



THE LASER FOR EVERYONE

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PRIMA INDUSTRIE S.p.A.



ISO 9001 - Cert.n°0758/3



MAXIMUM FLEXIBILITY

Flexibility is definitely the distinctive feature of PLATINO, a machine designed and developed for the needs of sheet metal processing industry.

PLATINO cuts a broad range of materials and thicknesses with speed and precision without the need for manual adjustment. Change over to tube processing can be achieved with zero set-up time.

Available in two sizes (1530 and 2040) and with laser powers ranging from 2500 W to 5000 W, PLATINO is suitable for every application.

Thanks to PRIMA INDUSTRIE's experience and know-how, PLATINO is a highly reliable machine, ideal for both small batches and large-scale production.

The great accessibility of PLATINO allows the system to be expanded according to the production needs: from simple pallet changer to the most complete system with automatic handling and storage of the material.



PLATINO with TowerServer



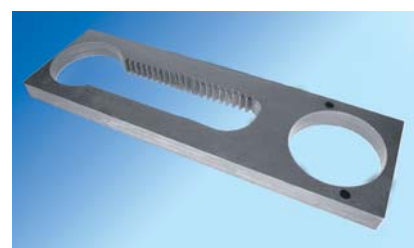
Aluminium, 8 mm



Galvanised steel, 1 mm



Stainless steel, 12 mm



Structural steel, 20 mm



Alloyed steel, 6 mm



Stainless steel, 5 mm

FOR ALL PRODUCTION

A VERSATILE AND INTELLIGENT TOOL

The PLATINO head allows enormous production flexibility and excellent cutting quality.

The F-Axis is a CNC axis which controls lens movement independently of the Z-axis, allowing automatic and programmed regulation of the focal point.

This allows:

- continuous processing of different materials and thicknesses,
- optimization and maintaining of cutting quality everywhere in the work volume.

Thanks to the very quick lens change drawers system (5" and 7.5"), the head adapts in a few seconds to every process.

Optional 10" lens for very thick material.

OUR KNOW-HOW AT YOUR SERVICE

The excellent performances in terms of cutting speed and quality of PLATINO are the result of PRIMA INDUSTRIE's technological solutions gained over 30 years of experience in the field of laser machines.

- Fast piercing and Laser Piercing Monitor
- Advanced restart functions
- Plasma Monitoring and Automatic Restart
- High-speed cutting with plasma formation
- Technological tables on the CNC
- Microjoints



Mild steel, 0.3 mm



Mild steel, 2 mm



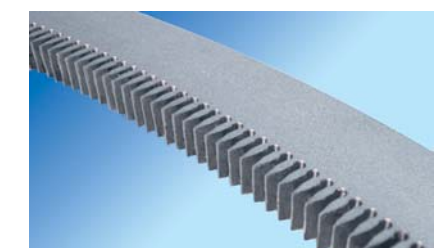
Structural steel, 4 mm



Structural steel, 12 mm



Structural steel, 4 mm



Stainless steel, 8 mm

HIGH PERFORMANCE



Many good reasons for choosing PLATINO

- > Excellent performances: high dynamics, excellent cutting quality and the highest accuracy on the market
- > High application flexibility: thin and thick cutting of a variety of materials and processing of tubes
- > High reliability, as confirmed by the many customers using PRIMA INDUSTRIE machines for continuous and unmanned production processes
- > Extremely compact: reduced overall footprint and simplified installation (foundations not required)
- > Flying optics: precision and speed unaffected by the weight of the sheet being processed
- > Total accessibility for loading and unloading and for maintenance
- > Cantilevered structure with unlimited guarantee of the mechanical characteristics, even at maximum performance levels and for high volume production
- > Modularity: choice of many configurations and possible future adaptation of the system according to your production needs
- > Competent, efficient and quick-response Customer Support Service
- > Limited initial outlay and low running costs

HIGH RELIABILITY

The elements of a winning solution

MACHINE

- Monolithic: structure, laser, CNC and electromechanics integrated in a single compact block, easy to transport and install with no foundations required.
- Cantilever: fully accessible work volume for loading/unloading, maintenance and set-up.
- Synthetic granite base: excellent vibration absorption and great thermal stability.
- X, Y and Z carriages in cast aluminium: high mechanical rigidity and stability with low weight.
- Sin/cos transducers and digital drives: high accuracy and quality of movements.

CNC

- Simple and intuitive interface with Web technology.
- Axes control board with high-performance DSP processor.
- Fibre optic digital drives.
- Touch screen LCD 15" monitor and integrated trackball.

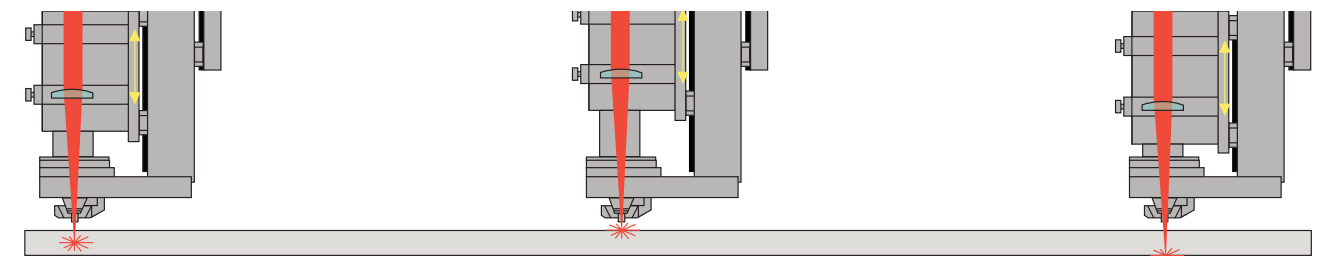


FOCUSING HEAD

- F-axis for controlling the focal position independently of the Z-axis.
- Capacitive sensor for automatically maintaining the preset stand-off from the sheet metal.
- Automatic referencing system for adapting the program to the real position of the sheet in the machine.
- SIPS (Safe Impact Protection System) for protection against collisions with fixtures or workpieces.
- Rapid lens change with drawers system.

WORKTABLE AND PROTECTION CABIN

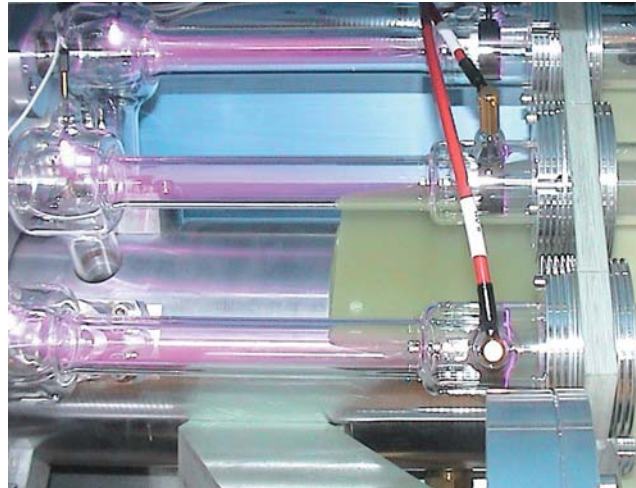
- Worktable with pallet to support 2D workpieces, divided into sectors to optimise fumes extraction.
- Scrap collection drawers, with wheels for easy movement.
- Cabin with large polycarbonate windows for maximum safety and optimal visibility of the work volume.
- Total opening of the cabin for full accessibility from three sides of the machine.



NUMEROUS OPTIONS

VERSATILE HIGH-QUALITY LASERS

PLATINO is equipped with the lasers developed and produced at PRIMA INDUSTRIE: the fully tried-and-tested fast axial flow CP series laser (from 2500 to 4000 W) or the new CV 5000. The new generation of CV lasers allows high powers to be obtained with maximum efficiency thanks to the new components: magnetic support turbine, solid state high voltage power unit and servo-controlled gas mixing.



PROCESSING TIMES REDUCED TO A MINIMUM

The Laser Piercing Monitor (LPM) enables a considerable reduction in the cycle time.

By analysing the reflected radiation, the LPM option:

- automatically works out the best parameters to be used for fast and reliable piercing;
- starts cutting as soon as the material has been pierced.



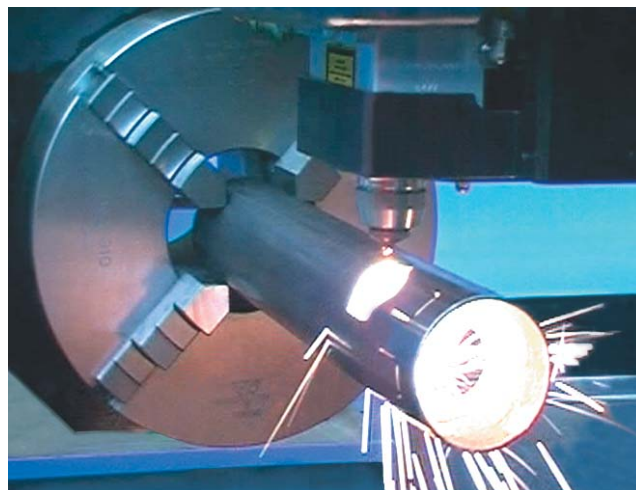
PRODUCTION UNDER CONTROL

Plasma Monitoring detects the presence of plasma which may be formed during the cutting process.

In applications where plasma formation is undesired, the automatic restart function will, thanks to this feedback:

- interrupt cutting;
- automatically correct the parameters and restarts cutting.

The automatic shut-down system and failure notification, via automatic text messaging or e-mail, are useful options in the case of unmanned production.



FROM FLAT CUTTING TO TUBES PROCESSING

With zero set-up time, PLATINO can change from cutting sheet metal to processing of round, square and rectangular tubes.

The rotary axis is available with three or four jaws according to the type of tube to be cut.

FOR EVERY APPLICATION

SOLUTIONS FOR HIGH PRODUCTIVITY

The open and accessible structure of PLATINO allows easy integration with automatic handling systems.

- Automatic pallet changer for loading/unloading sheets as quickly as possible.
- Sheet loading arm.
- Server range of automated material handling and storage systems.



SIMPLE AND INTELLIGENT PROGRAMMING

MAESTRO-Libellula® is the new offline programming software for PRIMA INDUSTRIE machines.

Thanks to the intuitive and modern man-machine interface, programming is simple and fast.

MAESTRO-Libellula® provides all the features required for better programming laser machines: CAD, CAM, PostProcessor, Database Utilities, Cycle Time and Cost Calculation, Reports, Order Management.

The most beneficial features are: ease of use, utilities for importing geometries of various formats, speed and effectiveness of the Nesting module.

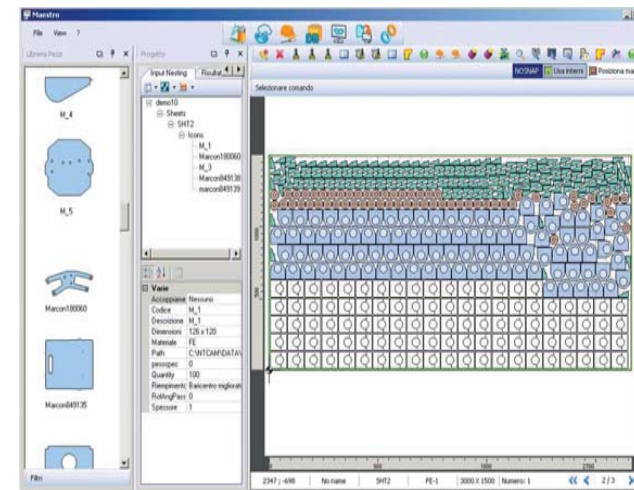
The PRIMA INDUSTRIE technology tables integrated in the system, fruit of the widest range of applications, allow to automatically use the optimum parameters for each job.



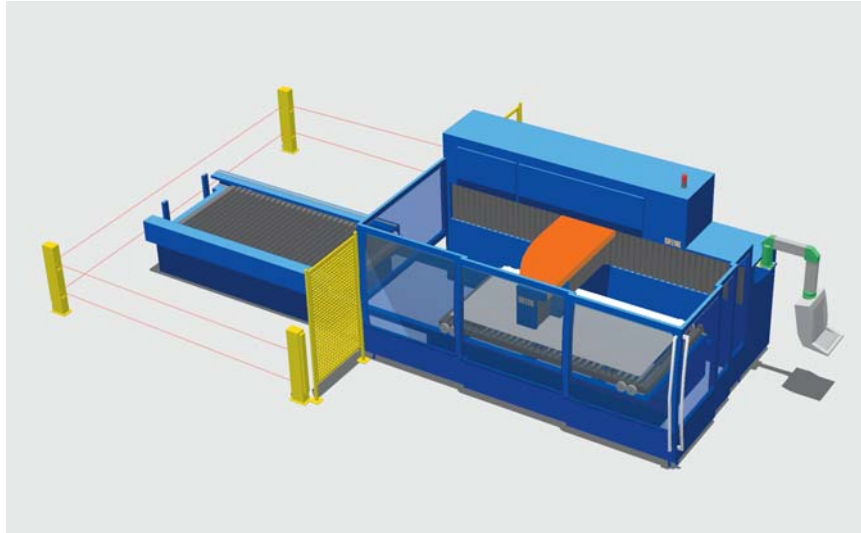
ONLINE CUSTOMER SUPPORT

The TELEPRIMACH remote diagnostics and Customer Support Service operates via an Internet connection and reduces the machine down times and the number of interventions.

The customer's machine is connected via the Internet to the computers at the PRIMA INDUSTRIE Call Centre, where our expert technicians are on hand to remotely intervene directly on the customer's CNC.

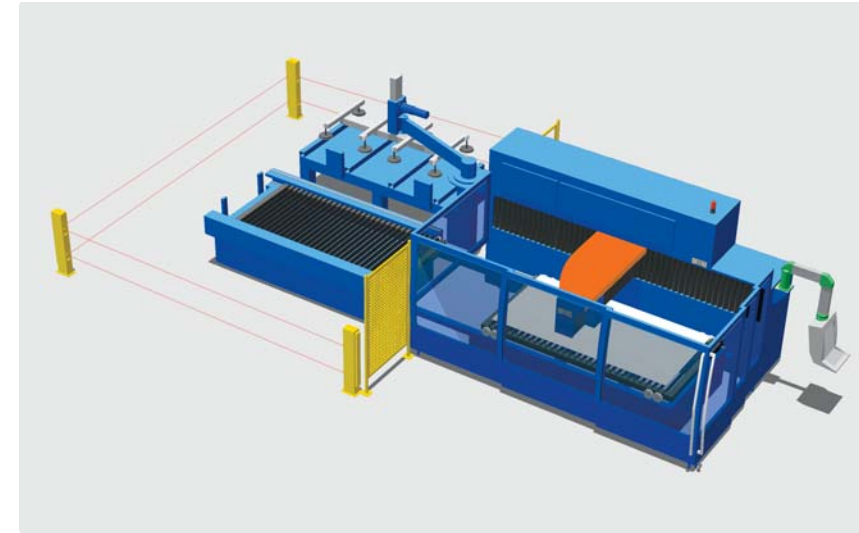


Masked-time loading/unloading



Automatic pallet changer

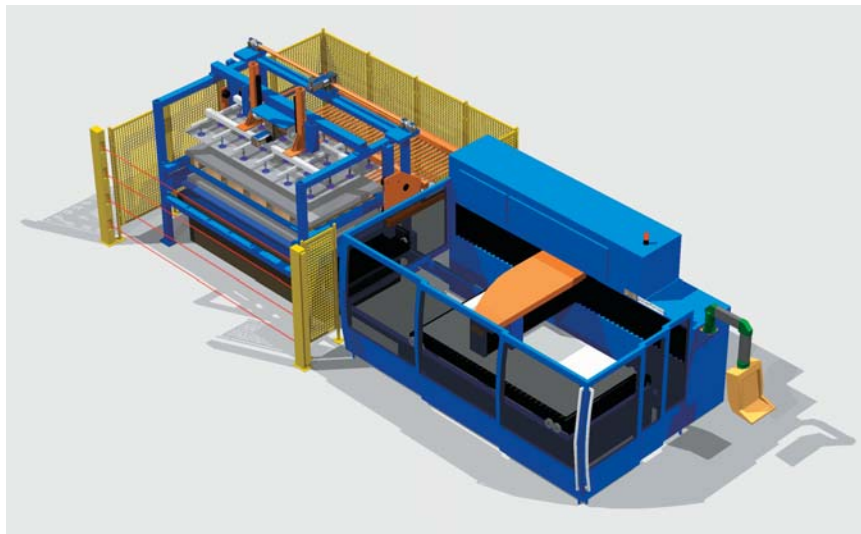
External loading/unloading station with second pallet
Manual loading and unloading of sheets in masked time
Automatic sheet change



Pallet changer and automatic loader

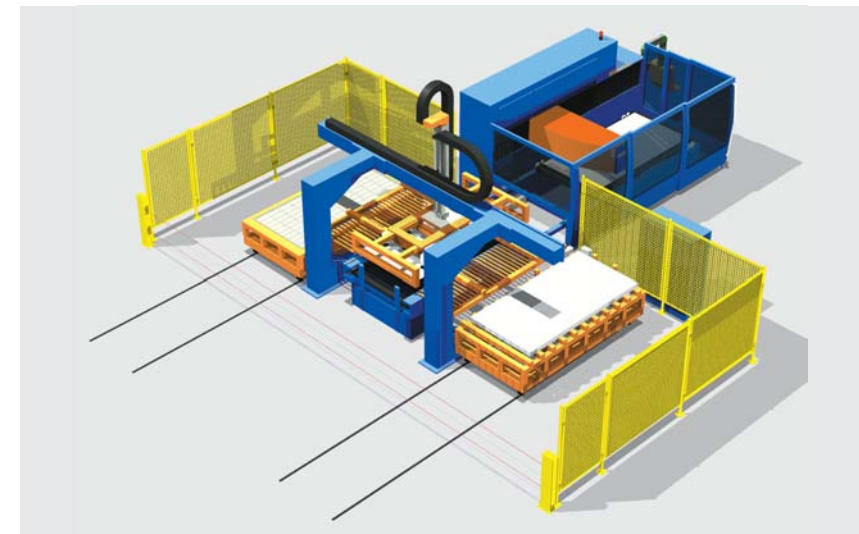
External loading/unloading station with second pallet
Loading arm for automatically feeding the sheets onto the external pallet, which can be positioned on either side of the pallet changer
Automatic loading of sheets in masked time
Automatic sheet change

Unmanned production



CompactServer

Loading/unloading device for handling blanks and processed sheets
Two-storey unit (one for the blanks and one for the processed sheets)
Single sheet separating and control systems and sheet reference
Directly controlled by PLATINO CNC
Smallest footprint



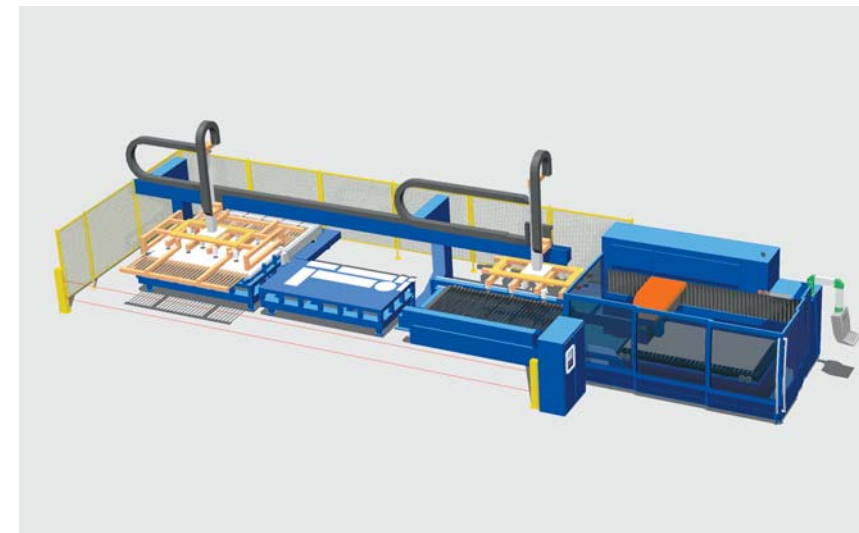
LaserServer

Loading/unloading device for handling blanks and processed sheets
Station for loading blanks and unloading processed sheets (tables or shuttles)
Single sheet separating and control systems and sheet reference
Control unit
Longitudinal or transversal version
Customisable with one or more tower store units



TowerServer (one or more towers)

Loading/unloading device for handling blank and processed sheets
Tower store unit with up to 15 storeys (standard)
Elevator for loading and unloading the pallets on and off the tower
Single sheet separating and control systems and sheet reference
Control unit
Customisable with additional towers

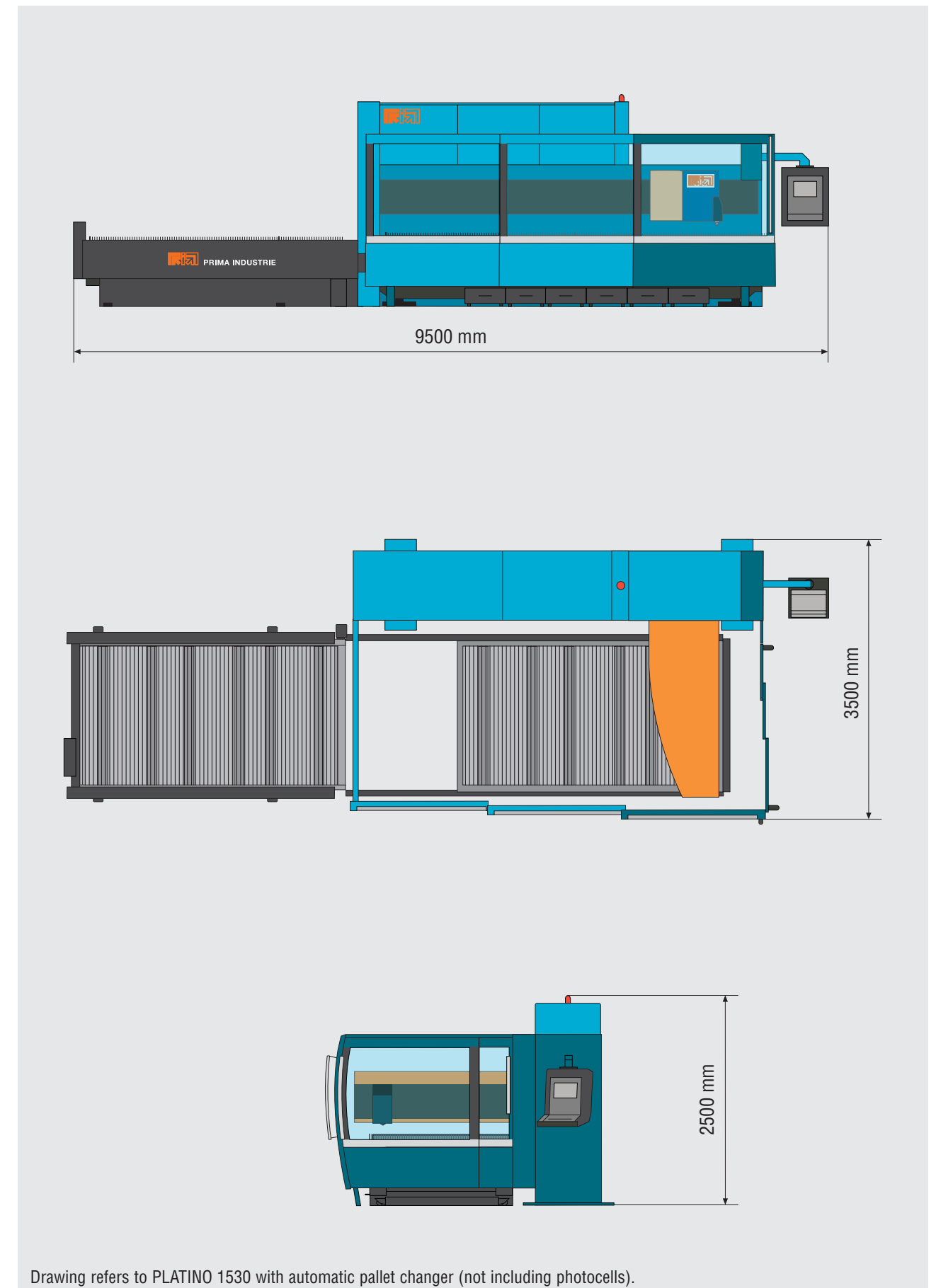


LaserServer with PrimaSorting

Longitudinal or transversal LaserServer for automatic loading/unloading of sheets
Sorting gripper for picking up and stacking finished parts
Three stations: loading sheets, unloading the skeletons and unloading finished parts
Customisable with one or more tower store units
Automatic programming of sorting cycles

SPECIFICATIONS

Work volume	X mm	Y mm	Z mm
PLATINO 1530	3000	1500	150
PLATINO 2040	4000	2000	150
Maximum speed	100 m/min (maximum combined speed of axes 140 m/min)		
PLATINO 1530	100 m/min (maximum combined speed of axes 140 m/min)		
PLATINO 2040	80 m/min (maximum combined speed of axes 110 m/min)		
Maximum acceleration	1,2 g (single axis)		
Linear axis resolution	0,001 mm		
Accuracy (*): • according to VDI/DGQ 3441 standards • length of measuring: complete stroke X, Y, Z	Positioning accuracy (Pa): 0,03 mm	Repeatability (Ps): 0,03 mm	
(*) accuracy of the workpiece depends on its type, size and pre-treatment, and the conditions of application.			
Optional rotary axis: - for round tubes, with 3 jaws in manual version - for round, square and rectangular tubes, with 4 jaws only in automatic version	diameter from 25 to 300 mm passing hole 108 mm diameter from 38 to 300 mm passing hole 130 mm		
Maximum overall dimensions (automatic pallet changer and protection cabin included, not including water chiller, fume extractor and photocells)	Length mm	Width mm	Height mm
PLATINO 1530	9500	3500	2500
PLATINO 2040	12300	4000	2500
Weight (basic machine)	~10.000 kg		
PLATINO 1530	~10.000 kg		
PLATINO 2040	~11.500 kg		
CO ₂ laser standard power ratings	2500 W - 5000 W		
Colours	Fixed parts: RAL 5012 - RAL 5001 blue Moving parts: RAL 2008 orange		



Drawing refers to PLATINO 1530 with automatic pallet changer (not including photocells).