THE HYMSON RANGE OF SHEET METAL AND TUBE LASER CUTTING MACHINES

THE COMPANY AND THE STRUCTURE BEHIND THE BRAND

Leading engineering and manufacturing company of fibre laser cutting systems and industrial automation, Hymson also has a long history of multi-industry excellence in the production of components for I-Phone and for electric car batteries. In the context of new technologies, the Hymson group's unparalleled production capacity combined with the vitality of research and innovation becomes an absolute competitive advantage in reducing time to market at all stages of a new product's realisation from design to engineering, from prototyping to market launch.

5	4	40+
PRODUCTION SITES	R&D CENTERS	PARTNERS OVERSEAS

MODULAR DESIGN FOR ENVIRONMENTAL SUSTAINABILITY

The modular design of HYMSON laser machines helps to boost the product development speed and respond quickly to market demand for customisation. This concept design is assuming a strategic importance in the European economic scenario; the focus is not only on cost-effectiveness in the production of goods, but at the same time in the management of maintenance and end-of-life of the industrial plant, allowing savings time and the recycling of a large quantity of material.

The fiber laser market for metal cutting:

- Very strong development worldwide, especially in the more advanced geographical markets
- Many plasma, oxy, punching and shearing operations will be converted to fibre laser
- Shift of production to China
- Fibre laser is the fastest growing technology worldwide

Visit our website

How to get there:

Coming from Milan: Motorway A4, Motorway A31 Valdastico, exit Thiene

Coming from Venice: Motorway A4, Motorway A31 Valdastico, exit Thiene

HYMSON ITALY

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Group Hymson Laser Technology

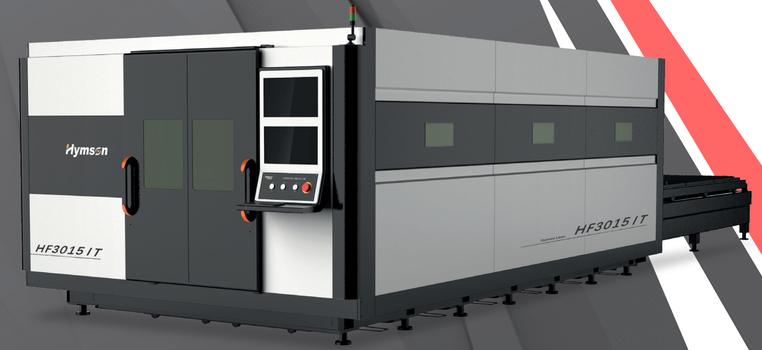
All machines meet the standards CE

EN

HYMSON ITALY

NEW INDUSTRIAL PLANT

HF3015 IT



THE FIBER LASER CUTTING MACHINE
WITH AN EYE TO THE FUTURE

Made in Italy

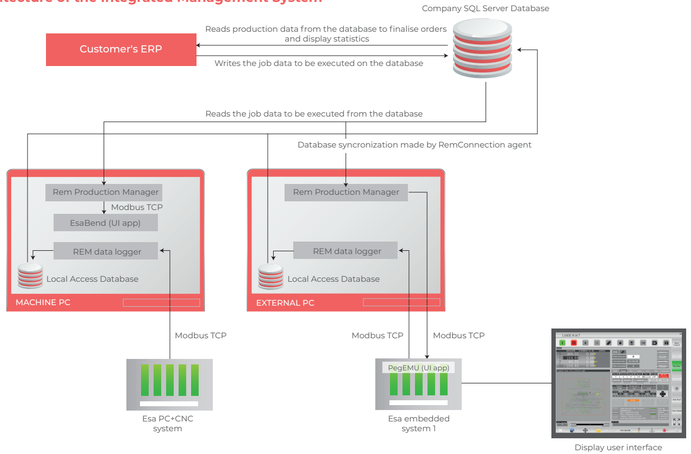
NEW INDUSTRIAL PLANT HF 3015 IT

It is the latest evolution among the machines developed by the company, a product of the highest technology, both hardware and software. With quality performance and unparalleled ease of use, the machine is today one of the most versatile and economically viable proposals to metalworking professionals looking for reliability in technology. **The key components of the system are entirely made in Italy, from Numerical Control to Motors, Servomotors and Drives, from the Software to the Industry 4.0 Interface**. For this project, Hymson collaborates with the best technology and IT partners for state-of-the-art CAD and CAM software solutions dedicated to integrated production management in manufacturing companies.

Numerical Control ESA Automotion Italy

The laser cutting machine is equipped with a Numerical Control developed by the Italian manufacturer ESA, completely designed and manufactured in Italy. The Numerical Control is a system that coordinates the movements of the machine tool so that the tool follows predetermined paths on specific axes, excluding any intervention by the operator. The NC dialogues with software developed by Hymson Italy: it is possible to install any software from any manufacturer according to the Customer's requirements and working habits.

Architecture of the Integrated Management System



CUTTING-EDGE TECHNOLOGY

HYMSON Italy application software dedicated to laser cutting and complete with post-processor for 2D

In the Industry 4.0 framework, in order for the machine system to dialogue and exchange data/designs/schedules with the company's management system and thus result interconnected, the machine is equipped with the software produced by an Italian company specialising in industrial software. The CAM/CAM software dialogues with the ZW3D CAD to speed up the import of 2D geometries, making the entire process simpler and faster. The **automatic calculation of the nesting** of parts optimises the cutting process by reducing programming time and material consumption.

Motors, Servomotors and Supports for Automation

They are CNC integrated mechatronic systems (Software and HW). The high-speed brushless AC synchronous servomotors guarantee maximum precision in axis movement and transform CNC commands into precise machine movements and functions. They use state-of-the-art constructive solutions and magnets, and can incorporate an incremental or absolute encoder. They have a high torque/volume ratio and provide excellent dynamic performance.

Drives

Operated by the NC, they control the speed and torque of the motor, allowing a variety of materials with different hardnesses to be processed.

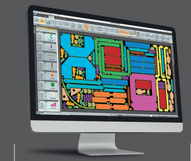
Simple and intuitive human-machine interface

The operator interface of all Esautomotion controls is simple and intuitive: all numerical controls are equipped with a touch screen and a graphic interface that guides the operator in setting programs and executing machining operations in the manufacturing process.

Technical Specification		HF 3015 IT
Optical fibre laser power		1000 ~ 12000 W
Work area dimensions		3000x1500 mm
X-axis	Track length	3000 mm
Y-axis	Track length	1500 mm
X/Y axis	Maximum positioning speed	110 m / min
	Positioning accuracy	0.03 mm / m
	Repetition positioning accuracy	± 0.02 mm
	Maximum acceleration	1.8 g
Z-axis	Track length	280 mm
	Maximum positioning speed	60 m / min
	Maximum acceleration	1.8 g
Maximum workpiece weight		0.6 t
Machine dimensions / Weight		8500x5700x2450 mm / 8.75 t

Motors

Interface



Software

Software

ACCESSORIES AVAILABLE ON DEMAND

Automatic nozzle change

Materials and thicknesses can change frequently during the production cycle: with the automatic nozzle change option the laser machine selects, changes and controls the alignment of the most suitable nozzle for each job with a significant time reduction.

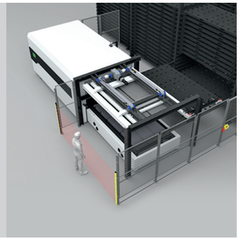
Automatic nozzle centering

Allows the true diameter of the nozzle to be checked with respect to the declared specifications and the centering of the laser beam with respect to the nozzle. This option eliminates possible inaccuracies and significantly reduces faults, scraps and emergency operations.

5-axis bevelling head for flat sheet metal

Automatic CNC loading and unloading systems

The system controls the fully automatic loading and handling of sheet metal on the laser exchange table and the unloading of cut parts, for different types of materials and thicknesses. The system is designed and built to fit the customer's production line, shop floor space and Hymson quick exchange table. Customised designs with different layouts, sizes and capacities can be developed.
A single system acts as an auxiliary system for the laser cutting machine, ensuring greater efficiency over time and labour cost savings throughout the entire processing cycle.



CUTTING THICKNESS MODEL HF 3015 IT

Laser Power	1500 W	2000 W	3000 W	4000 W	6000 W	8000 W	10000 W	12000 W	15000 W	20000 W
Stainless steel	5mm (*6mm)	6mm (*8mm)	8mm (*10mm)	10mm (*12mm)	14mm (*16mm)	16mm (*18mm)	18mm (*20mm)	20mm (*22mm)	22mm (*25mm)	25mm (*30mm)
Aluminium	4mm (*5mm)	5mm (*6mm)	8mm (*10mm)	10mm (*12mm)	14mm (*16mm)	16mm (*18mm)	18mm (*20mm)	20mm (*22mm)	22mm (*25mm)	25mm (*30mm)
Bronze / Brass	2mm (*3mm)	4mm (*5mm)	6mm (*8mm)	6mm (*8mm)	8mm (*10mm)	10mm (*12mm)	12mm (*14mm)	14mm (*16mm)	16mm (*18mm)	18mm (*20mm)
Carbon steel	12mm (*14mm)	14mm (*16mm)	16mm (*20mm)	20mm (*22mm)	20mm (*22mm)	22mm (*25mm)	25mm (*30mm)	30mm (*35mm)	35mm (*40mm)	40mm (*50mm)

* Maximum cutting thicknesses depend on material quality and cutting parameters setting