



## **Technical Service**

### A SOLID INVESTMENT IS MEASURED OVER THE FUTURE

Service means responding quickly to questions from machine users. With an advice to shorten the work cycle, a specific instruction for the production of a part, assistance to solve a technical fault, a quick supply of spare parts to minimize downtime, a training session with operational tips, a guide to use the system to its maximum capacity.

Whatever Hymson technology is chosen, our Customers always benefit from our professional skills and competence.

- Support to the Hymson laser cutting system is guaranteed both during the warranty period and beyond with long-term service contracts. Contact the Hymson Italy qualified technicians, you will receive free telephone advice also through Wechat/Whatsapp support.
- Request the technical assistance on site: the dedicated external service team will be able to solve any problems on the system.
- Reliability is the keyword of a successful industrial system: the innovative management of the capital goods maintenance starts from the monitoring of performance in order to anticipate possible faults, plan routine maintenance, manage unforeseen breakdowns, schedule the supply chain of spare parts and materials.
- Participate in Hymson Italy's technical-commercial training courses to increase technical and commercial expertise, build confidence in products, acquire problem-solving skills and help optimize machine performance, thereby increasing efficiency and productivity.

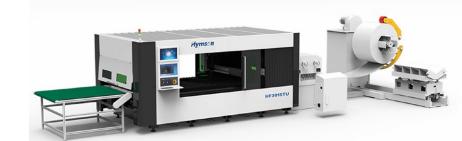
## **Hymson** Laser Technology

### Opportunities and advantages of laser cutting

The advantages of laser cutting come mainly from the speed and accuracy, the excellent finish of the cut and the low energy consumption. Laser processing is beneficial both to the design and the production cycle: different types of thicknesses, materials and shapes can be processed while design advantages derive from the possibility of cutting geometries on flat sheets, bent sheets or embedded sheets.

### COIL-FED FIBRE LASER CUTTING LINE HYMSON HF 3015 TU

Hymson TU laser coil cutting lines can be designed according to the customer's functional and operational requirements in terms of layout, laser power, workflow and automation level.



### 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.

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Hymson Italy srl

Sheet Metal

# Fiber Laser Cutting Machines

Modular systems with a wide range of configurations for processing flat sheets and tube profiles with optical fibre laser technology. International brand, European quality and cutting edge production facilities for the increasing demand for process and product innovation.

Company Profile

### HIGH-END MACHINES FOR THE FIBER OPTIC LASER CUTTING

Hymson Italy is an innovative player operating in the field of industrial automation for the design, construction and marketing of systems and services for metal cutting with fiber optic laser. Hymson Italy is the European subsidiary of the Guangzhou Hymson Laser Technology Co., Ltd., established in 2018 in the Province of Vicenza, in one of the most developed European industrial districts, with the purpose of supporting international growth and facing the new challenges of the metal working industry.

In the context of new technologies, the enormous manufacturing potential of the Hymson group combined with the dynamism of the research, becomes an absolute competitive advantage because it allows to reduce the time to market in all phases of the realization of a new product: from the conception to engineering, from prototyping to the effective launch on the market.

We firmly believe in technological innovation and offer solutions that combine a state-of-the-art production process with a qualified service, punctual in time and certain in costs: from the product design to the testing, the driving principle is the pursuit of quality and efficiency.



Aymson Italy
Laser Technology

Cooperation and knowledge sharing beyond the standard supply of components. Over the years Hymson has selected a group of international vendors able to offer technological solutions also with a focus on Industry 4.0, with methods, timing and assistance in every phase of Customers' operations. The cooperation has evolved into a partnership that goes beyond the mere supply chain and puts reliability and information sharing at the heart of any choice.

Our suppliers are partners at home in our large showroom in Vicenza where new applications are tested and where our Customers are also invited to evaluate the validity of our technical choices and the flawless performance of our systems.



### Engineering, Design and R & D

Hymson Italy, through its parent company and in collaboration with the University of Shenzen and the Hong Kong Polytechnic, can benefit of a Research & Development business unit for an innovative approach to mechanical and electronic applications where the validity of a particular new solution is overall assessed in terms of efficiency, cost, reliability and technical-economic competitive advantages. The activity is performed within a certified Project Management System which incorporates the technological developments and the economic impact on the market.



### International outlook

Hymson technology is constantly evolving to provide efficient systems for the most demanding requirements in the metal cutting process, for both small-volume manufacturers and large companies from all over the world in collaboration with international divisions Hymson USA and Hymson INDIA. Hymson ITALY is the trusted reference for companies operating in Europe, Middle East, Gulf Countries and North Africa.

With the physical presence on the territory we believe that we better understand our Customers to improve mutual relationships and to make them more successful, to provide expert and fast support, to develop long-term business relations. The experience of our design engineers and project managers together with the international outline of the sales team, work as an extension of the Customer's personnel to ensure that, whatever the system selected, its operation is optimized for high performance and reliable production.





## **Sheet Metal Laser Cutting Machines**

## HYMSON Fiber Laser HF - A SERIES

### Fiber optic laser cutting machine with single table, compact and technologically advanced

The Hymson A series fiber optic laser cutting machine is fast return on investment, super economical and functional even when not working at full load. Its reliability and user-friendly feature make it perfect for operators looking for efficiency and flexibility even for small productions or as a complementary machine to their production cycle. Designed with a sturdy structure, it can be easily equipped with tools offering a good degree of automation and high quality and accurate cuts.



The low operating and maintenance costs and the high quality of laser cutting are among the main features, combined with the variety of materials of different thicknesses that can be handled in semi-automatic mode.

Built in high strength industrial grade honeycomb structure, it guarantees stable operation and

The new design of the protection cover with sliding side panels is specially designed for single table machine. Unloading and loading of the material is effortless as the sliding side panels, equipped with an interlocking system, are split into three sections to allow a total opening of the loading area.

Protection class IP 54

Machines with larger table sizes and higher laser power can be supplied on request.

Parameter	HF3015A	HF4015A	HF6020A
Optic-fiber laser power	1000 ~ 2000 W	1000 ~ 2000 W	1000 ~ 2000 W
Working area dimensions	3000x1500mm	4000x1500mm	6000x2000mm
Z-axis rail	110mm	110mm	110mm
X/Y axis positioning accuracy	±0.03mm/m	±0.03mm/m	±0.03mm/m
X/Y axis repetition positioning accuracy	±0.02mm	±0.02mm	±0.02mm
Maximum X/Y axis positioning speed	84m/min	84m/min	84m/min
Maximum X/Y axis acceleration	1 g	1 g	1 g
Maximum Z-axis positioning speed	30m/min	30m/min	30m/min
Maximum Z axis acceleration	0.6 g	0.6 g	0.6 g
Maximum workpiece weight	0.4 t	0.6 t	1.2 t
Machine size (mm) / Weight (t)	4700mmx4700mm / 4.5t	6200mmx4700mm / 6.5t	8600mmx5000mm/10t

## **Sheet Metal Laser Cutting Machines**

## **HYMSON Fiber Laser HF - B SERIES**

### Fiber optic laser cutting machine for high quality performance

The Hymson B series fiber optic laser cutting machine is the first choice for those who invest in the future of their business looking for high performance, complete and versatile technology. The fiber laser source installed, stable at high temperatures and vibrations, ensures long life and maintenance-free turnkey operation.



The high output fiber laser resonator can be active several kilometers away for impressive optical

The regulator of the cutting head allows the perforation of the section, the progressive perforation, anglefinding cutting, jumping lifting, height adjustment and the optical flight path compensation.

The integrated smart exhaust system provides high laser protection.

The design of the machine base is a Hymson patent. The structure, with its high reliability and rigidity, complies the standards of industrial machine tools. Mechanical stresses have been eliminated during the welding and machining process, ensuring stable performance of the system over time.

The sheet metal casing that encloses the cutting area helps to improve dust collection and protects against diffuse radiation. The cutting area is always accessible through the interlocked doors and the cutting process can be seen through the portholes.

Protection class IP 54.

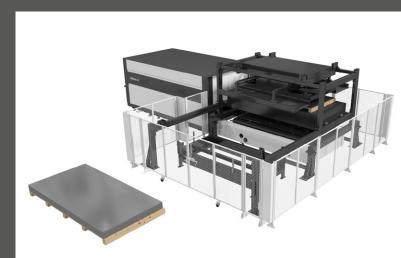
Parameter	HF3015B	HF4015B	HF6020B
Optic-fiber laser power	1000 ~ 3000 W	1000 ~ 3000 W	1000 ~ 3000 W
Working area dimensions	3000x1500mm	4000x2000mm	6000x2000mm
Z-axis rail	280mm	280mm	280mm
X/Y axis positioning accuracy	±0.03mm/m	±0.03mm/m	±0.03mm/m
X/Y axis repetition positioning accuracy	±0.02mm	±0.02mm	±0.02mm
Maximum X/Y axis positioning speed	110m/min	140m/min	140m/min
Maximum X/Y axis acceleration	1.2 g	1.2 g	1.2 g
Maximum Z-axis positioning speed	60m/min	60m/min	60m/min
Maximum Z axis acceleration	1.2 g	1.2 g	1.2 g
Maximum workpiece weight	0.6 t	0.8 t	1.2 t
Machine size (mm) / Weight (t)	8300mmx4700mm / 8.75t	10300mmx6200mm / 10.5t	12300mmx6200mm / 12.5t

## **Invest** in automation

## Automatic Loading & Unloading systems

Fully automatic CNC controlled

The system controls fully automatic loading of the sheets to the laser exchange table and unloading of the cut pieces, for different types of materials and thicknesses. The operator has to move the batch of sheets to the storage area and pick up the cut pieces. A single system acts as an auxiliary system for the laser cutting machine, ensuring greater efficiency over time and saving on labour costs throughout the entire processing cycle. The system is designed and built to fit the customer's production line, shop floor space and Hymson quick change table. Custom designs with different layouts, sizes and capacities can be developed..



and is for plants that can talk to each other, that produce the finished part faster, at lower cost, with a lefined quality and with greater flexibility.



single metal sheets onto the table of the machine by picking them from a stack of sheets. The gripper and an air-blow separation device. The machine is equipped with sheet separator magnets. The sheet separator raises the metal sheet on the short side to separate it from the pack.

**UNLOADING** different piece dimensions and shapes. The unload system is equipped with a safety device which prevents the unload when an obstacle is in its path. Special attention must be given to small pieces, which, if not cut with micro junctions, might get stuck between the arms of the unloading system.

## storage system

Complete tower with an extended storage unit to accommodate cassette loaded with a bundle of sheets without a wooden pallet. The minimus spacing between cassettes is 200 mm. Other sizes are also available. The lifting unit moves the lift up and down in the tower.

## r storage system

Designed to handle warehousing of raw material and cut parts. The belayout of the plant at the Customer site and the configuration of modula elements will be defined after a preliminary inspection of Hymson Engine

- Multiple towers, max height 5000mm suitable for 3000x1500mm and

· Elevator to move the cassettes from each tower to the position for loading

- Shuttle

1			
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Parameter	LU 3015 Light	LU 3015	LU 4020
Max size of workpiece for storage	3000 x 1500 mm	3000 x 1500 mm	4000 x 2000 mm
Max thickness of single sheet	6 mm	20 mm	20 mm
Min nominal thickness of single sheet	0,6 mm	0,6 mm	0,6 mm
Max height between each cassette	280 mm (pallet incluso)	280 mm (pallet incluso)	280 mm (pallet incluso)
Raw material cassette weight	3000 kg	3000 kg	3000 kg

## **Sheet Metal Laser Cutting Machines**

## HYMSON Fiber Laser HF - H SERIES and HF - G SERIES

Top of the range laser cutting machine with fiber optic technology, automatic loading and unloading system, parallel kinematic technology, tooling with retractable grippers and superior performance in cutting thin materials The HF H and G series is a fully automatic cutting solution with high power laser source up to 15 kW. With exceptional performance in terms of reliability, precision and rigidity, the system is equipped with an innovative "up & down" exchange table and can be integrated with automatic loading/unloading and multi-storage tower systems. The more intensive the use, the greater the return on investment: high speed cutting with low operating costs and low maintenance requirements thanks also to a simple, intuitive and quick learning control system.

> Innovative "up & down" exchange table

> > HYMSON-BECKHOFF **ETHERCAT BUS** control system



Wide range of metal cutting thicknesses <60mm with excellent finishing quality.

The HyLaser 2.0 system allows special cuts of 3 to 30mm thickness Mild Steel, Stainless Steel, Aluminium, Copper, Brass and Galvanized.

The BECKHOFF ETHERCAT BUS is a control automation technology with outstanding performance, flexible and self-explanatory in configuration.

The bridge with newly engineered structure is designed for 15Kw+ fiber laser power for maximum strength and stability, with finished deformation < 0.04mm.

The smart dust exhaust system helps to extract dust and metal particles while the machine is running to protect the laser equipment and keep the working area clean.

Protection class IP 54.

The G model is equipped with a rapid change table, suitable for large dimensions. The H model is equipped with an "up&down" table suitable for automatic loading-unloading systems.

Optic-fiber laser power 3000 ~ 15000 W 3000 ~ 15000 W 3000 ~ 15000 W 3000 ~ 15000 W/ Working area dimensions 6000x2500mm 280mm X/Y axis positioning accuracy ±0.02mm X/Y axis repetition positioning accuracy Maximum X/Y axis positioning speed Maximum X/Y axis acceleration 1.5 g 1.5 g 1.5 g 1.5 g 30m/min Maximum Z-axis positioning speed 1.5 g Maximum Z axis acceleration 1.5 a Maximum workpiece weight 8500x5700x2450 / 8.75t 10500x6200x2450 / 12t Machine size (mm) / Weight (t)