





## 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 incomparable winning features of laser cutting are speed, precision, excellent cutting finish and low energy consumption. Laser processing is beneficial both in the design phase and in the production cycle: it is possible to work with a wide variety of thicknesses, materials and shapes. Fibre optics is the latest technology in laser cutting: laser beams can achieve extremely high irradiance and concentrate enormous power in a very small area.



### INDUSTRIAL APPLICATION

Sheet metal, tubes and profiles are used in machine manufacturing, precision engineering, electronics, construction, automotive, oil & gas, railways and shipbuilding. All industries benefit from laser cutting innovations. In these fields the laser opens up new design possibilities and the demand significantly increases every year. Discover the wide range of Hymson products for the world of laser cutting of tubes and sheet metal.



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  
Laser Technology

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All machines meet the standards 

**Hymson**  
Italy  
Laser Technology

## Company Profile

THE STRUCTURE BEHIND THE BRAND

**5**  
PRODUCTION  
SITES

**4**  
R&D  
CENTRES

**40+**  
PARTNERS  
WORLDWIDE

A LEADER IN FIBER LASER CUTTING AND AUTOMATION, HYMSON HAS A LONG HISTORY OF CROSS-INDUSTRY EXCELLENCE IN THE PRODUCTION OF IPHONE COMPONENTS AND ELECTRIC CAR BATTERIES.

HYMSON ITALY SRL, a subsidiary of Hymson Laser Technology Co., Ltd, is active in the field of industrial automation for the design, construction and marketing of plants for metal cutting with fibre laser technology.

Hymson Italy was established in 2019 in the Province of Vicenza, in one of Europe's most developed industrial districts, to develop the European market and meet the new challenges of the metalworking industry. The company, a member of Confindustria Vicenza, is consolidating its success by becoming a stable reference point in the sector.

In the context of new technologies, the Hymson Group's unrivalled production capacity combined with the vitality of research and innovation, becomes an absolute competitive advantage in reducing time to market in all phases of the realisation of a new product from design to engineering, from prototyping to market launch.

## What Makes Us Special

-  **RELIABLE PRODUCTS**  
Efficient and affordable fibre laser cutting machines. We firmly believe in technological innovation and we design systems that combine cutting-edge production processes with a qualified service, punctual in time and certain in cost.
-  **TECHNOLOGICAL INTEGRATION FOR INDUSTRY 4.0**  
The integration of ERP systems for Industry 4.0 interconnection, the digital factory, and machine data collection. The ultimate goal is to increase productivity by improving machine management systems, even remotely.
-  **DESIGN, RESEARCH & DEVELOPMENT, PRODUCTION CAPACITY**  
Hymson Italy benefits from R&D centers for the design of innovative applications. The validity of a new solution is evaluated in terms of efficiency, cost, reliability and technical-economic impact on the market.
-  **INTERNATIONAL BACKGROUND**  
Hymson Italy is the reference for Customers in EUROPE, MIDDLE EAST, GULF AND NORTH AFRICA for professional consultancy and technical support. The experience of our design engineers and project managers, together with the international profile of the sales team, work with the Customer to guarantee custom-made plants with high performance and reliability. Our Customers are welcome to visit our showroom in Vicenza where new applications are tested to assess the performance of our systems and the excellence of our technical choices.

## Tube

## 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.

## Tube cutting plants

### Laser tube HYMSON SERIES HP-D

#### High-end fibre optic tube laser cutting system with latest generation technology

The HP-D SERIES is the winning choice for the most demanding industry that requires high cutting performance to achieve surfaces without burrs or flakes, maximum reliability and excellent return on investment. The system, at the top of the range in laser tube cutting, is highly automated, with five-axis linkage, ultra-fast rotation and high-precision positioning. The automation of all operations results in significant time savings and a controlled step-by-step process that does not rely exclusively on the operator's technical skills.



#### PLUS

Automatic loading and unloading system designed for large batches and for picking up individual tubes from a bundle.

High performance smart dedusting system.

CNC control system jointly developed by Hymson and Beckhoff.

Professional MASTER 5000 T laser cutting software, innovative human-machine interface developed in-house by Hymson.

24/7 continuous cycle processing and highest productivity.

Maximum weight of workable bars: Kg/m 25.

Length of bars that can be loaded automatically: from 2500 mm to 6200 mm.

Maximum workpiece length: 6200 mm fully machined; longer lengths on request.

Electrical protection class IP 54.

#### Loading system

The system automatically adjusts the position of the tube on the work table, thus ensuring maximum positioning accuracy. The length detection function shows the length of each tube to be machined.

#### Unloading system

The unloading table is a flexible lifting platform for workpieces longer than 500 mm. It includes the function of separating finished parts from scrap parts.

| Parameter                   | HP 6018 D                          |
|-----------------------------|------------------------------------|
| Optic-fiber laser power     | 1000-4000W                         |
| Machine size (LxWxH)        | 12550x6020x2800 mm                 |
| Cutting capacity            | Round Ø 20-180mm - Square 20-140mm |
| X stroke length             | 0-6800mm                           |
| X axis positioning accuracy | 0.05mm                             |
| X axis positioning speed    | 80-120m/min                        |
| Y stroke length             | -140-150mm                         |
| Y axis positioning accuracy | 0.05mm                             |
| Y axis positioning speed    | 80m/min                            |
| Z stroke length             | -140-170mm - 0-180mm               |
| Z axis positioning accuracy | 60m/min                            |
| A-B axis rotation speed     | 150rpm                             |

## Tube cutting plants

### Laser tube HYMSON SERIES MP-D

#### Highly reliable and efficient fibre optic tube laser cutting machine

Robust, durable and designed for high intensity production, the plant replaces conventional production technologies and offers excellent access to the tube processing industry. The MP series is the preferred cost-effective laser cutting machine for a variety of tube types and thicknesses. Equipped with an automatic loading and unloading system, the MP series can work in a continuous cycle 24 hours a day, 7 days a week, with a high production rate, low operating costs and outstanding general benefits.



#### PLUS

Automatic loading and unloading system designed for large batch sizes and to pick up single tubes from a bundle of material.

NC software MASTER 5000T dedicated to laser tube cutting in-house developed by Hymson with unique applications and cutting functions, intuitive interfaces, advanced features and large screen display.

Smart high performance dedusting system.

Maximum bar weight: Kg/m from 15 to 50 depending on model.

Automatically loadable bar length: from 2000 mm to 6200 mm.

Maximum workpiece length: 6200 mm fully machined; longer tubes can be cut on request.

Electrical protection class IP 54.

#### NESTING SOFTWARE

TubeST is an automatic CAD/CAM programming software that integrates the entire CNC operation process of the plant, including drawing, automatic or interactive handling, CNC program simulation, combined manual and automatic cutting, downloading and loading of machining programs. Graphic files generated by SolidWork can be inserted directly into the software.

| Parameter                   | MP 6012 D                               | MP 6018 D                           | MP 6022 D                           | MP 6032 D                           |
|-----------------------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| Optic-fiber laser power     | 1000 - 4000W                            | 1000 - 4000W                        | 1000 - 4000W                        | 1000 - 4000W                        |
| Machine size (LxWxH)        | 12550x6020x2800 mm                      | 12550x6020x2800 mm                  | 12550x6020x2800 mm                  | 12550x6020x2800 mm                  |
| Cutting capacity            | Round Ø 8-120mm<br>Square 10x10-80x80mm | Round Ø 20-180mm<br>Square 20-140mm | Round Ø 20-220mm<br>Square 20-150mm | Round Ø 20-320mm<br>Square 20-220mm |
| X stroke length             | 0-7000mm                                | 0-7000mm                            | 0-6700mm                            | 0-6700mm                            |
| X axis positioning accuracy | 0.05mm                                  | 0.05mm                              | 0.05mm                              | 0.05mm                              |
| X axis positioning speed    | 100m/min                                | 100m/min                            | 60m/min                             | 60m/min                             |
| Y stroke length             | 0-160mm                                 | 0-160mm                             | 0-280mm                             | 0-280mm                             |
| Y axis positioning accuracy | 0.05mm                                  | 0.05mm                              | 0.05mm                              | 0.05mm                              |
| Y axis positioning speed    | 60m/min                                 | 60m/min                             | 80m/min                             | 80m/min                             |
| Z stroke length             | 0-180mm                                 | 0-180mm                             | 0-250mm                             | 0-250mm                             |
| Z axis positioning accuracy | 60m/min                                 | 60m/min                             | 60m/min                             | 60m/min                             |
| A-B axis rotation speed     | 150rpm                                  | 150rpm                              | 80rpm                               | 80rpm                               |

## Tube cutting Technology

### Why use fiber laser for tube cutting?

An important application of laser cutting is the cutting and processing of tubes that are clamped in a chuck to ensure the axial movement of the oscillator. It is essential to pay attention to the laser power used, which must be suitable for the thickness and diameter of the tube in order not to damage its structure.

#### PLUS

Higher speed and twice the productivity of the CO2 laser. The best performance is achieved with structural steel and stainless steel of medium and fine thickness.

Higher efficiency and lower power consumption, with simpler installation as there is no longer need to overestimate the energy supply.

Zero power source maintenance: the fibre laser is not regenerated, as it does not use gas; the laser quality is constant over time and available immediately upon start-up.

No tools or jigs required: the very high cutting accuracy makes further finishing work unnecessary.

Reduced working cycle times thanks to automatic bundle loading and programmable automatic unloading.

Fibre laser cutting allows all materials to be processed, including copper and brass, aluminium and galvanised steel, without any limitations in the production of pipes and sheets.

The innovative technology of the fibre laser and the flexibility of production create extensive design and customising potential. It is possible to process open profiles (L, C, U, flat) and special sections as well as small, round, square and rectangular tubes.

#### TECHNOLOGY SHAPES CREATIVITY

The plant is designed to process a wide variety of tube shapes in Stainless Steel, Carbon Steel, Aluminium, Copper, Brass, Galvanised. Multiple sections and sizes can be machined.

#### MORE THAN JUST ROUND

Choosing Hymson fibre laser tube plants is all about the best performance combined with great expertise and reliability: perfectly processed tubes in any metal material for all different industrial requirements.

#### WORKABLE SECTIONS AND SIZES

 TUBE  
ø20 ~ 320mm

 SQUARE  
20 ~ 220mm

 RECTANGLE  
20 ~ 220mm

 OVAL AND ELLIPTICAL  
ø20 ~ 320mm

 ANGLES AND L  
20 ~ 220mm

 FLAT  
Da 20x5 a 220x15mm

 U SECTIONS  
Da 20x20 a 220x220mm

 WINDOWS AND SPECIAL SECTIONS  
on request



## Sheet & Tube combined plants

### Fiber laser cutting machine SERIES HF 3015 BP

#### Two different technologies in one single high-performance plant for both SHEET METAL AND TUBE cutting.

In the production of parts including shaping, repetitive internal geometries and specific external profiles that require smooth finishes and edges, the tube and sheet metal cutting process can be effectively integrated into a single laser cutting machine. Hymson Italy has designed an innovative combined and compact sheet & tube laser cutting plant, an outstanding system that combines two different technology and approaches new applications.



#### PLUS

Considerable savings on initial investment, production time and space

Uniquely designed protective cover with all housing for moving parts both in flat sheet and tubing.

The side roll-up door facilitates the loading of a 6-meter-long pipe

The plant is controlled by a single Master 5000 T software.

The plant complies with CE and Industry 4.0 interconnectivity requirements

Electrical protection class IP 54

#### THE ADDED VALUE

The laser head can both process sheet metal materials on the main table and move to cut tubes in the dedicated tube cutting area. The machine is the cost-effective solution for companies with a moderate throughput or limited working space, while productivity on both the tube and sheet sides is equal to that of dedicated systems.

| Parameter                                | HF3015 BP          | Parameter                   | Machine Tube HF3015 BP  |
|--|--------------------|-----------------------------|---|
| Optic fiber laser source power           | 1000 - 6000 W      | Tube cutting capacity mm    | Round Ø 20-219<br>Oval 10*20 to 20*150  |
| Working area dimensions                  | 3000x1500mm        | Profile cutting capacity mm | Square dia 20-150<br>Rectangular 20x10 to 20x150<br>Angle and L shapes 20x20 to 130x130<br>Flat bar 20x5 to 150x15<br>UPN 20x20 to 130x130<br>Special sections and windows on request |
| Maximum positioning speed X/Y axes       | 110m/min           | Processed metals            | Carbon steel<br>Stainless steel<br>Galvanized<br>Brass<br>Copper<br>Aluminium   |
| Positioning accuracy X/Y axes            | 0.03mm/m           |                             |   |
| Repetition positioning accuracy X/Y axes | ±0.02mm            |                             |   |
| Maximum acceleration X/Y axes            | 0.6 g              |                             |   |
| Track length Z axis                      | 385mm              |                             |   |
| Maximum positioning speed Z axis         | 60m/min            |                             |   |
| Maximum acceleration Z axis              | 0.5 g              |                             |   |
| Maximum workpiece weight                 | 0.8 t              |                             |   |
| Size / Weight of the machine             | 9800x6200mm / 9.5t |                             |   |