

MERCURY

FIBER





Since 1982 we have been a solid industrial reality,
leader in **laser** technology.

We are the ideal partner at the service of customers,
to offer them innovative solutions and capable to
respond to specific market requests
of reference.

Thanks to our know-how and continuous investments,
we supply laser systems that ensure significant
performances in terms of costs, operational efficiency
and quality of the final product.

The complete range of laser systems, developed
from our R&D department, creates **value**
and meets the application needs of all our customers.

THE LASER WAY

For **40 years** we have been producing our laser systems in Italy thanks to the five departments (mechanical, electronic, optoelectronic, IT and production) that follow all the stages of the development process.

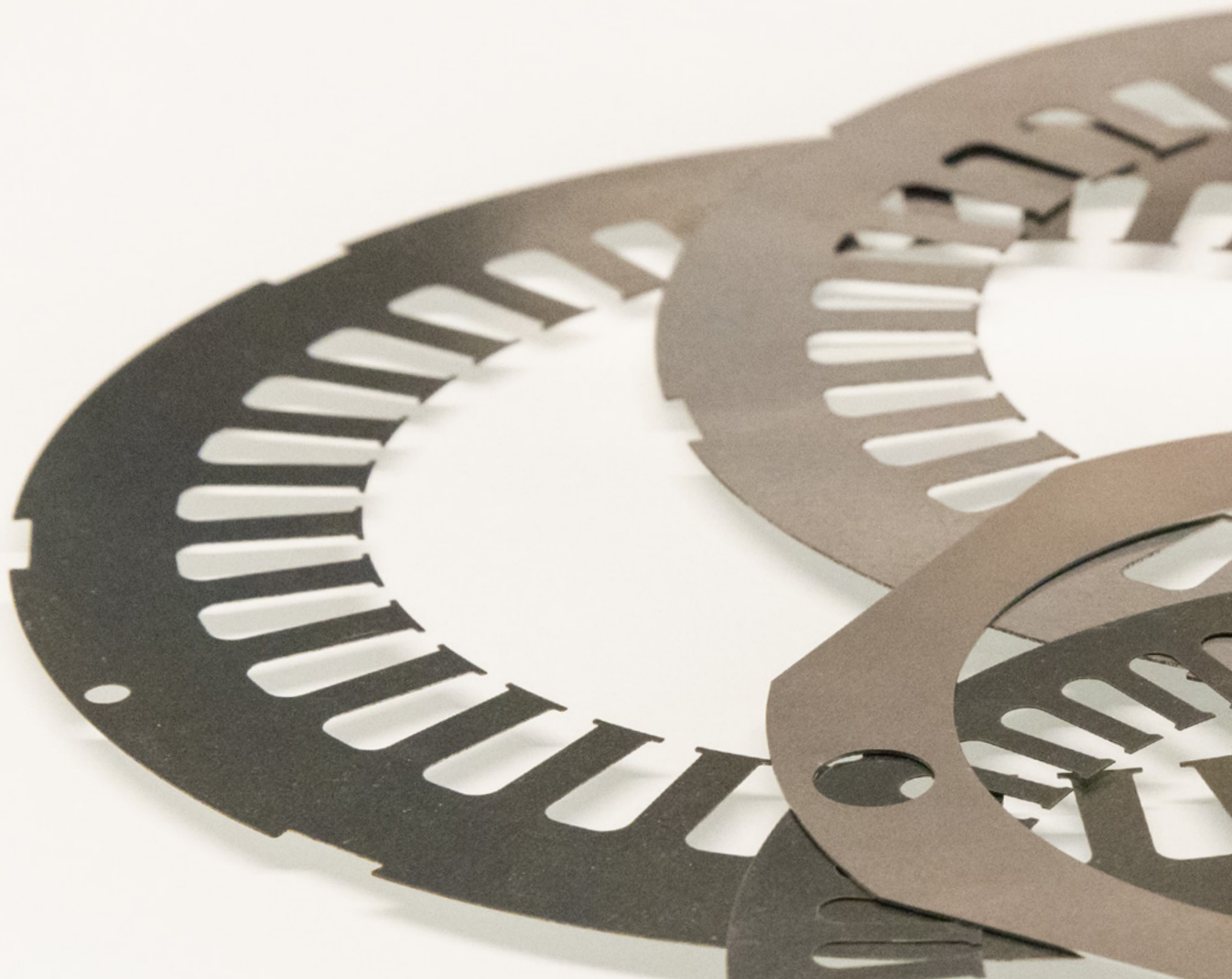
SEI Laser systems are controlled by software and firmware developed internally, by a team of expert programmers able to respond promptly to the various application needs.

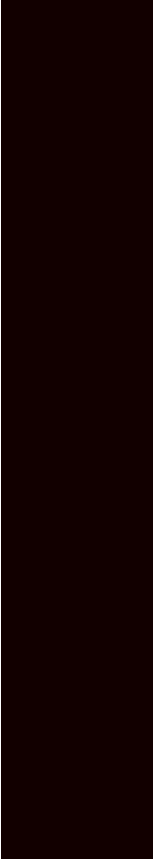
Cutting-edge technologies require commitment and constant research; our history has its cornerstones in loyalty and mutual esteem with customers.

This alchemy has allowed us to establish professional and **solid** relationships, which have lasted for decades and are constantly renewed.



THE METAL CUTTING INDUSTRY PRODIGY





SEI Laser, the Italian leading manufacturer for industrial laser systems, presents **Mercury Fiber**, the innovative and flexible range of laser systems, specifically designed to meet **all** customer needs.

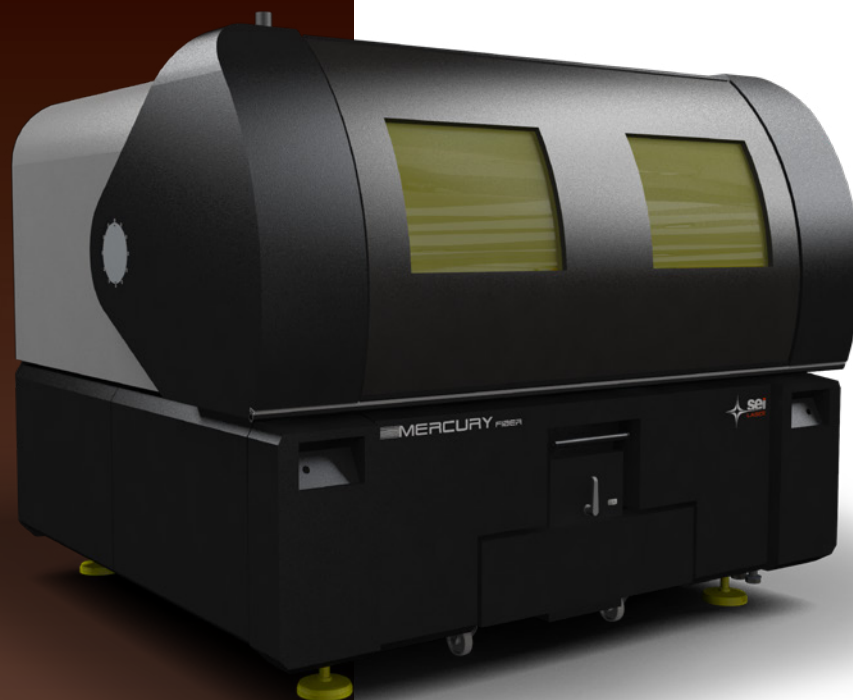
Available in over **30** models and equipped with laser power sources from 500 to 5000 W, it allows metal materials and particular types of plastics processing.

Mercury Fiber is available in many configurations, from 1200x800 mm up to 2000x4000 mm and, thanks to specially developed options and accessories, it is ideal for any environment and production process.



MERCURY

FIXED WORKTOP



2040
2000 x 4000 mm

1530
1500 x 3000 mm

1520
1500 x 2000 mm

1215
1200 x 1500 mm

1208
1200 x 800 mm

working area

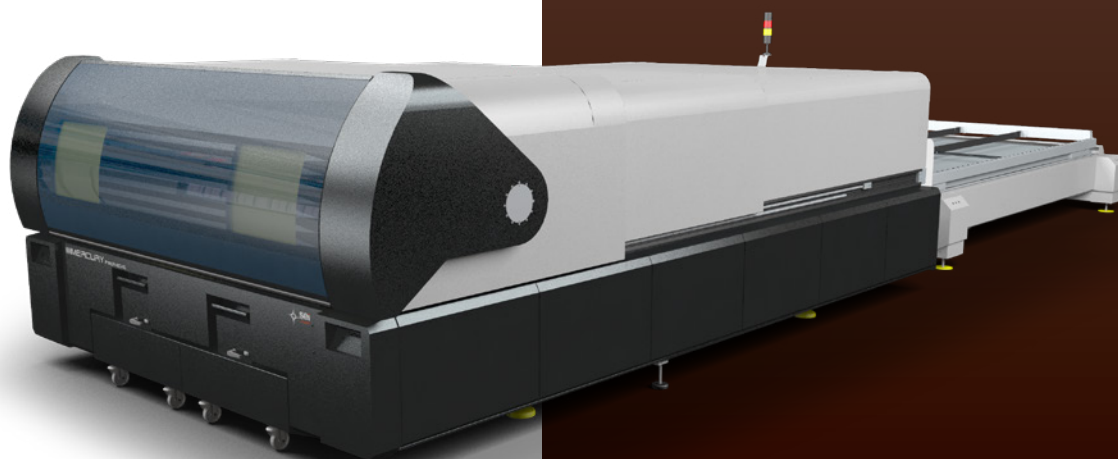
Mercury Fiber is equipped with high-power fiber lasers (wavelength 1060-1070 nm) with a **high-quality** laser beam and a diameter that can be configured according to the customer's application needs.

Mercury Fiber safety is guaranteed by Class 1 certification and is suitable for any industrial working environment, making it safe and clean. The system is, in fact, equipped with automatic telescopic opening and closing over the entire operating area, inspection windows on the machine front with specific protective glass and worktop predisposition for effective evacuation of fumes and dust.

Mercury Fiber mobile worktop configuration, allows through the elevator, to manage loading and unloading masked time phases, ensuring greater productivity and always ensuring Class1 safety.



working area



MERCURY

MOBILE WORKTOP

MERCURY

COIL

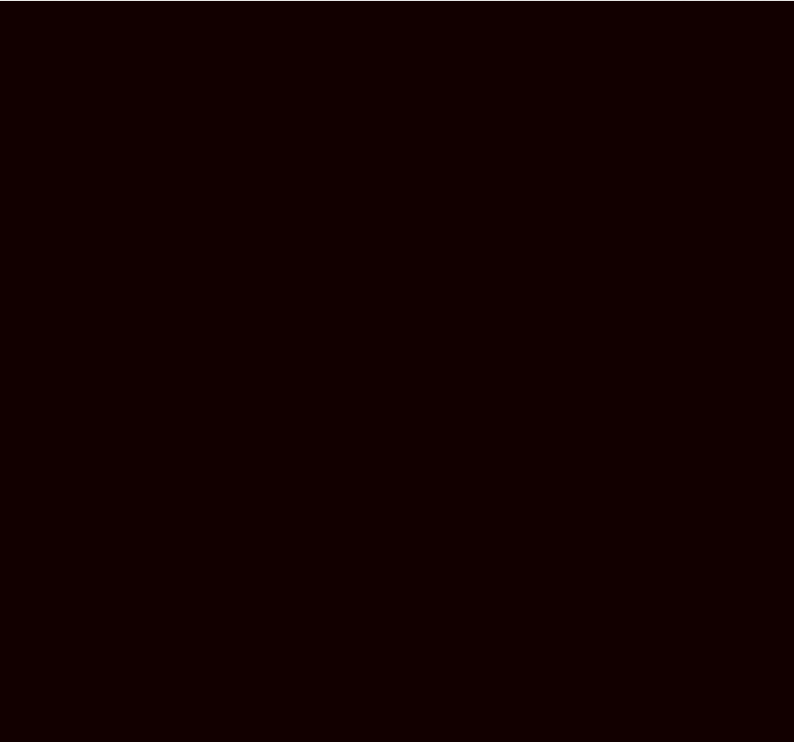
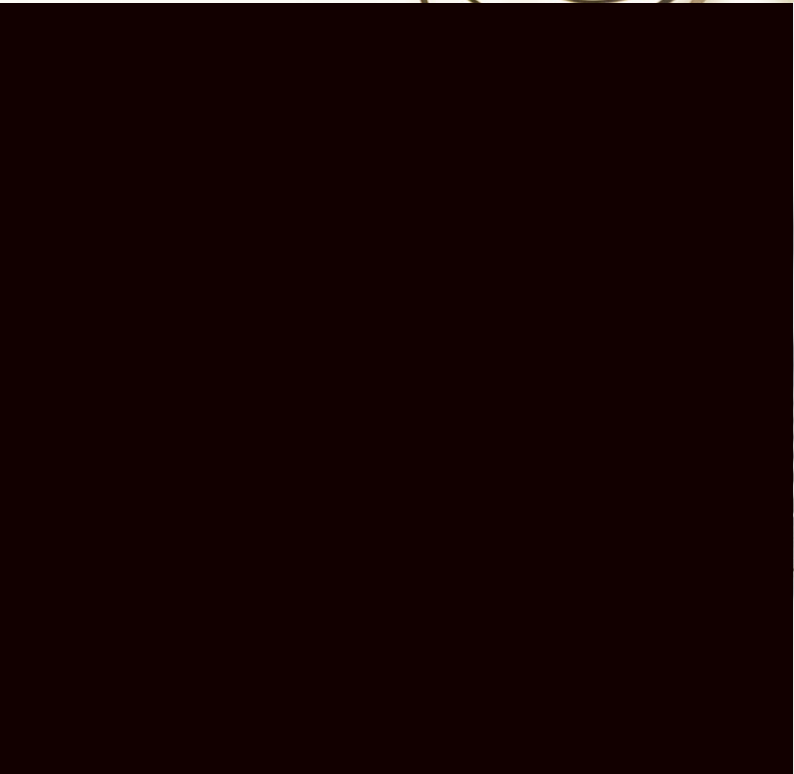


1215
1250 x 1500 mm

1208
1200 x 800 mm

working area

Mercury Coil is the professional coil metal cutting designed laser system. Thanks to the roll materials loading systems easy interaction, it is possible to obtain high production yields combined with high quality work. High **performances** for production of pieces used in wide industrial applications, are guaranteed by continuous process.



UNIQUES PLUS

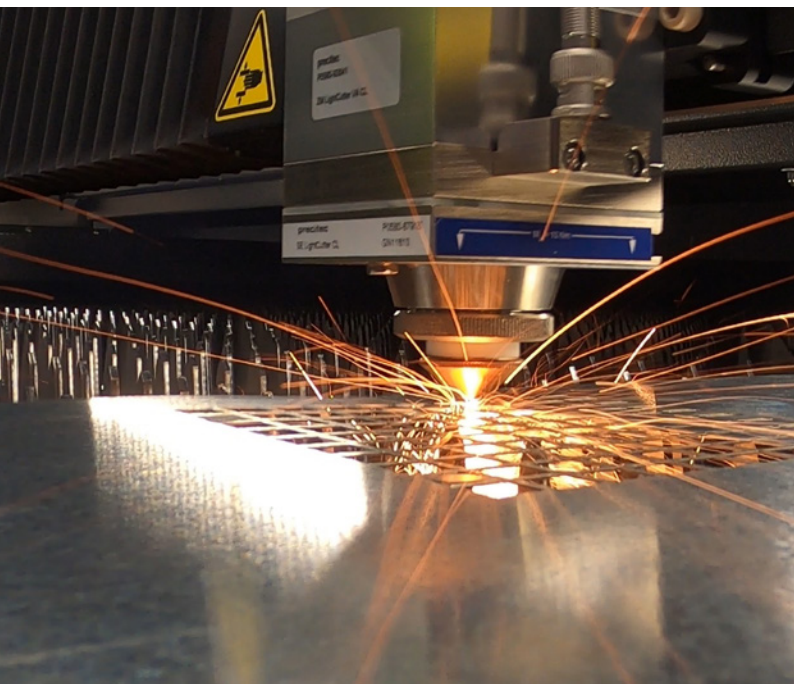


- Easy to use.
- Cutting profile: high **accuracy** and repeatability.
- Top sector performances thanks to equipped linear motors and to control algorithms developed by SEI Laser.
- Laser source: very low **maintenance, robustness** and long life span.
- Reduced ground footprint and access to the working area from three sides.
- Many configurations make the system suitable for any environment and production process.
- Industry **4.0 ready**: simple insertions within digitized and automatic workflows.
- 100% made in Italy.





- Protective hood for maximum safety, aligned with current regulations.
- Highly dynamic magnetic linear motors for X-Y axes movement, controlled by high precision optical scales.
- Extremely **robust electro-welded steel** frame.
- Class 1 for operator safety.
- **Software Icaro** proprietary, intuitive and user friendly.
- Control system designed for easy integration with the most common CAD / CAM on the market.

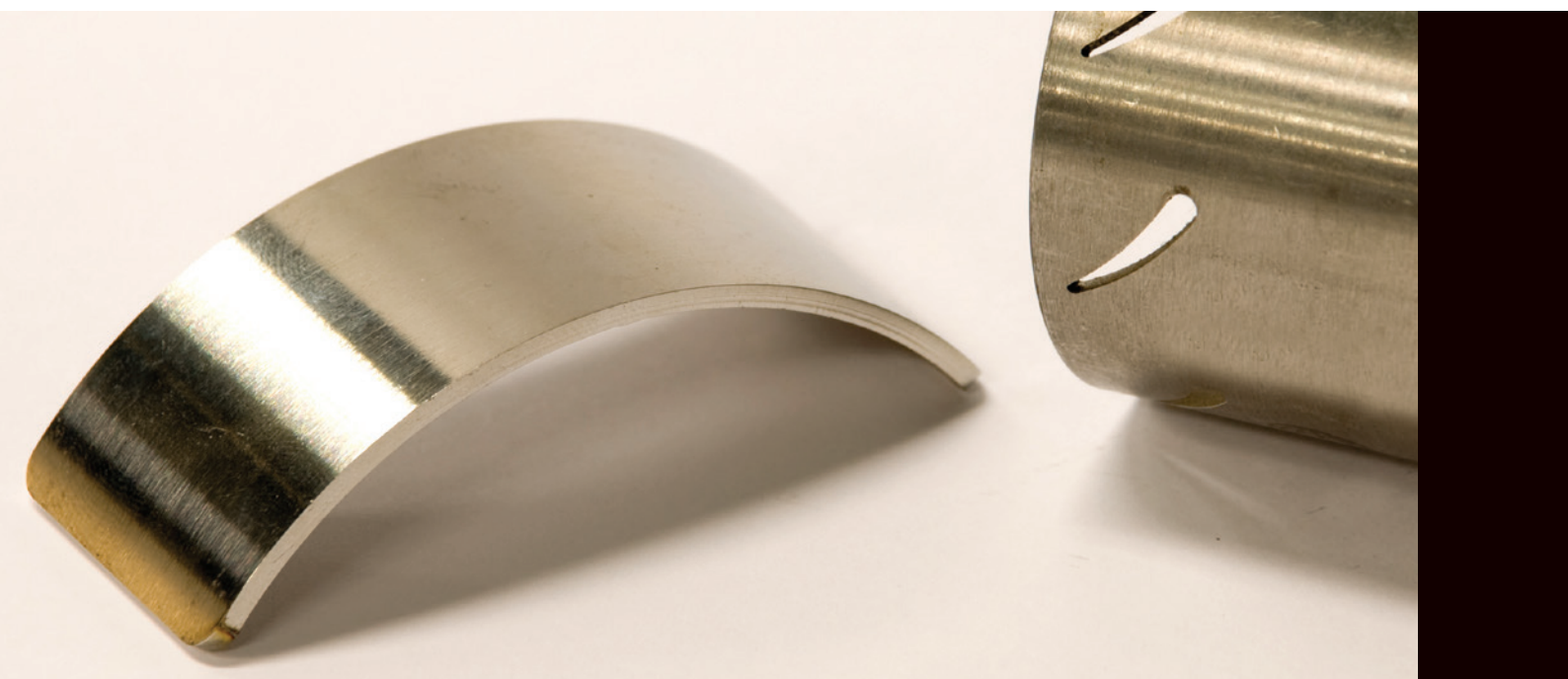


**100%
MADE
IN ITALY**

EXTREME FLEXIBILITY

The many Mercury Fiber configurations make the system suitable for any environment and application need.

- Cutting materials 3D kit for three-dimensional surfaces (compatibility *.dxf 3D).
- Rotary axis unit for cylindrical objects processing (maximum diameter: 250 mm).
- CCD camera for camera registration laser cutting and working files automatic upload, thanks to 2D and 3D codes reading.
- Customizable worktop to adapt to the most different application needs.

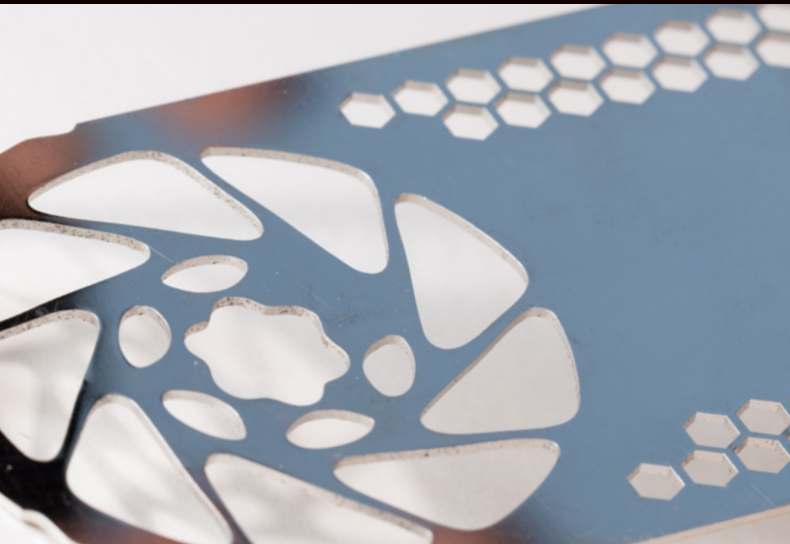


PROCESSABLE MATERIALS



Mercury Fiber is capable to process countless metallic **materials** and particular types of plastics.

Steel
Stainless steel
Carbon steel
Tools steel
Soft iron
Galvanized iron
Aluminium
Titanium

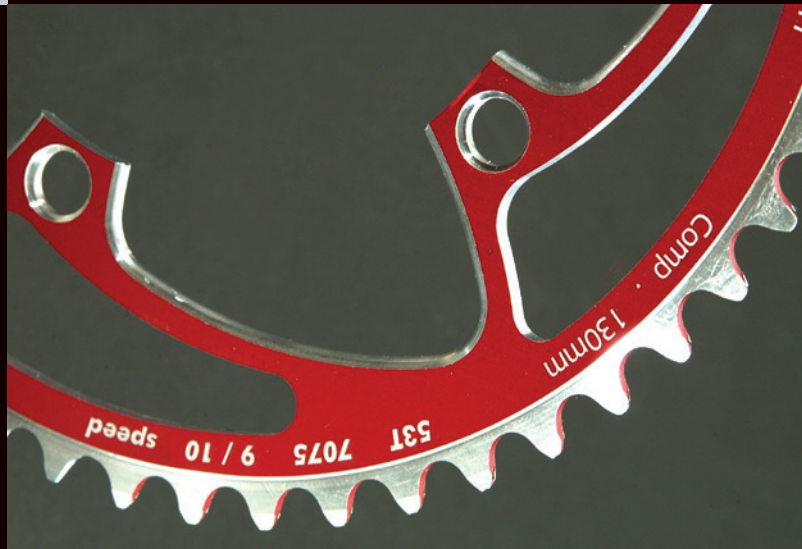




Other materials:

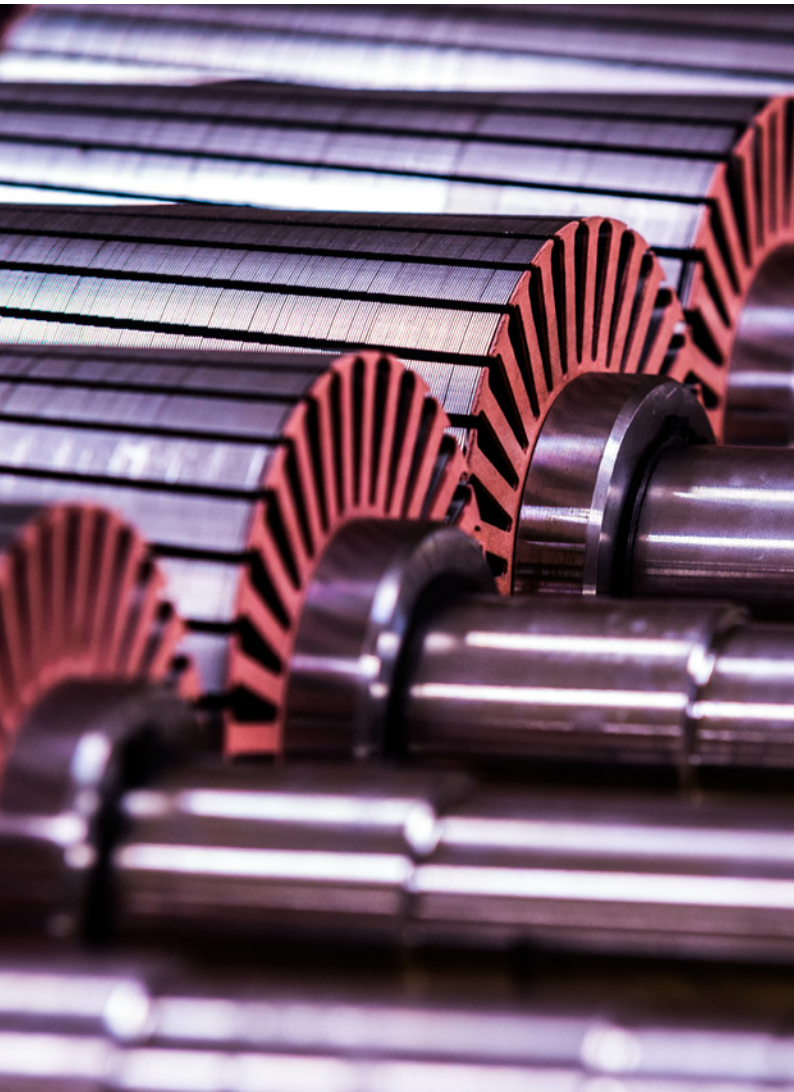
Reinforced carbon fibers
Thermosetting plastics

Gold
Silver
Nichel alloys
Brass
Copper



ENDLESS APPLICATIONS

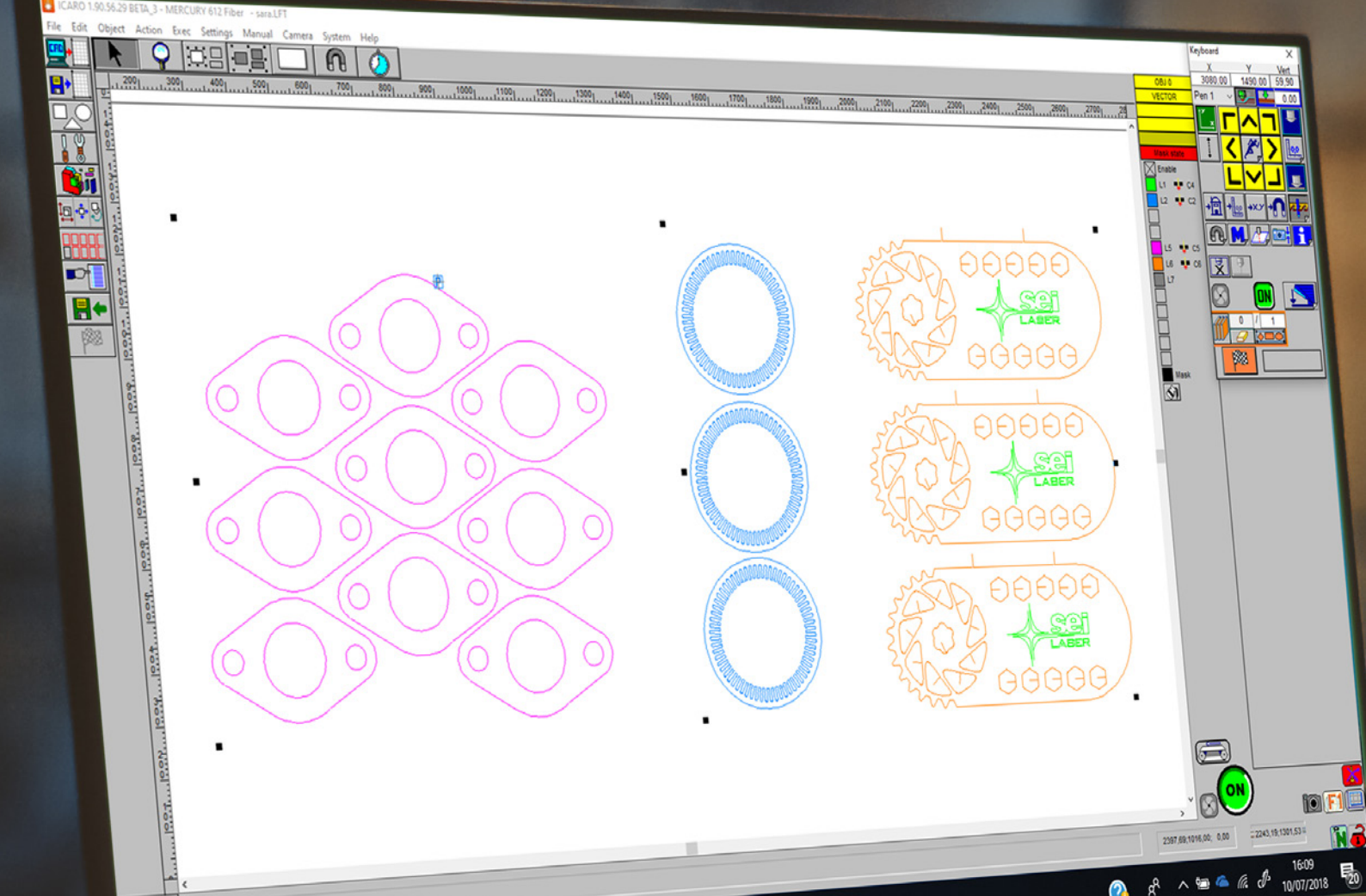
The many Mercury Fiber configurations available make the system extremely flexible, perfect to meet any application sector need.



Automotive sector
Electric engines
Solar panels
Electric battery
Flexible dies
Metal furniture





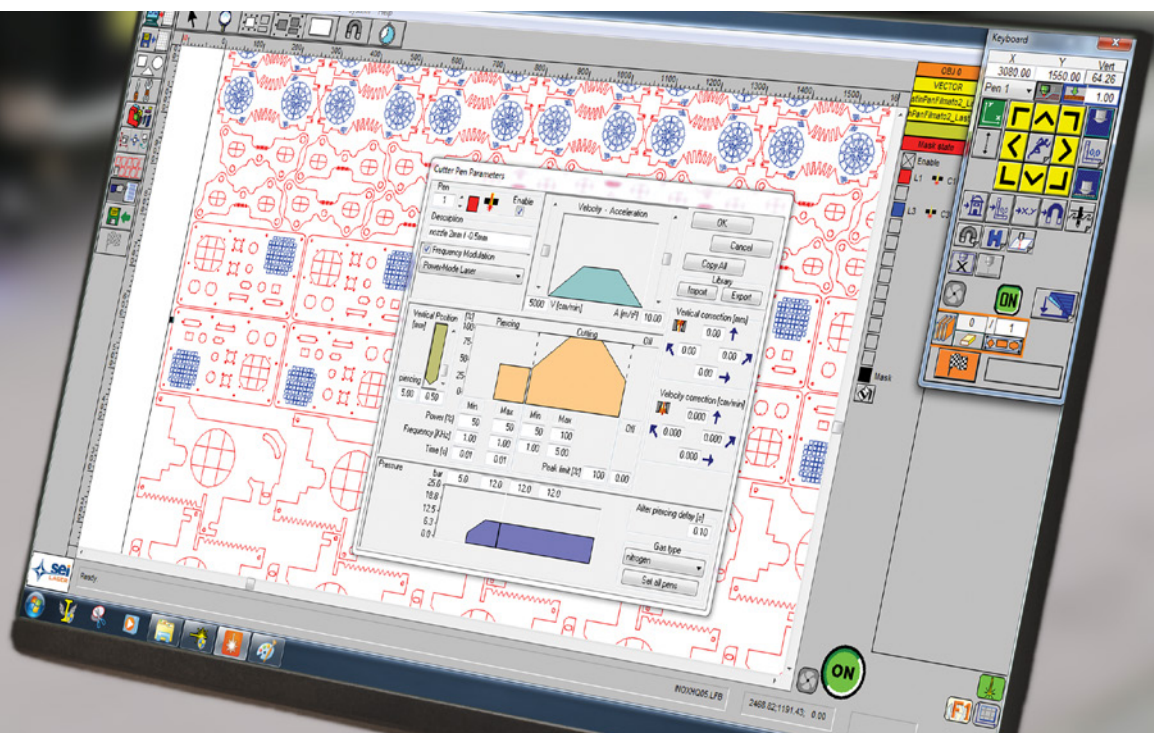


Our proprietary software **Icaro**
it is extremely intuitive and user-friendly.

The easy import of both CAD and graphic files and the
simple setting of laser parameters make Icaro the
innovative multifunctional software interface,
“**made in Italy**” 100% SEI Laser.

- CCD camera for laser register processing and automatic file upload thanks to single or multiple print markers and 2D / 3D barcode readers with radial / perpendicular RGB lighting.
- Thanks to the integration with customized Post Processors, Icaro allows a simple, fast and intuitive job design and automatic programming of the laser system for cutting ferrous and non-ferrous metals with low thickness.
- Effective system and laser source diagnostics: simple remote assistance operations.

ICARO SOFTWARE

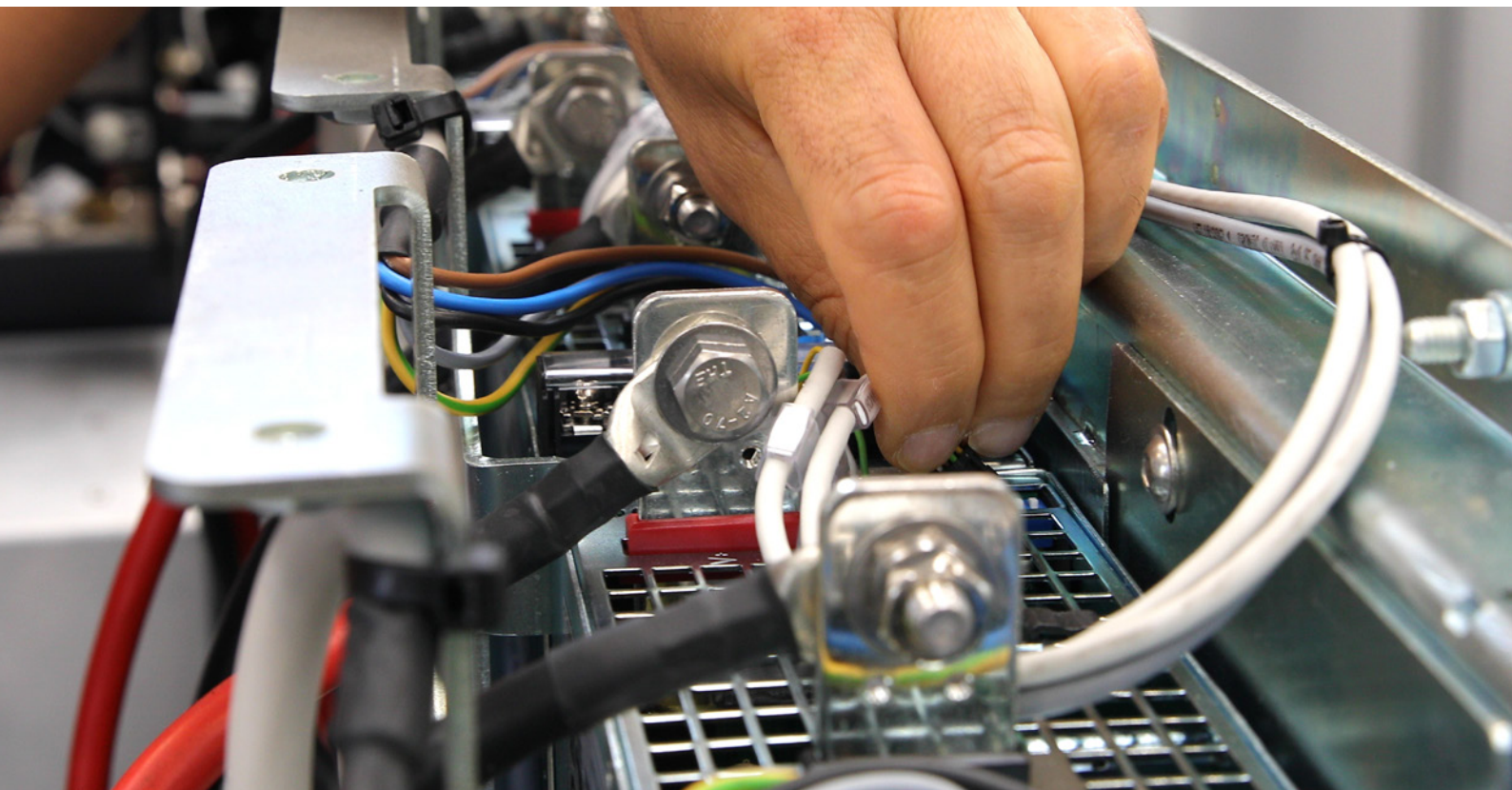


INSTALLATION

All **SEI Laser** systems are designed for integration into automated digital control production processes and are **certified** for compliance with Industry 4.0 legislation.

All SEI Laser systems are certified to meet the following requirements:

- control by means of CNC (Computer Numerical Control) and / or PLC (Programmable Logic Controller);
- interconnection to factory IT systems with remote loading of instructions and / or part programs;
- automated integration with the logistic system of the factory or with the supply network and / or with other machines of the production cycle;
- simple and intuitive interface between man and machine;
- compliance with the most recent parameters of safety, health and hygiene in the workplace.





SEI Laser, thanks to its wide range of technical assistance services offered and its widespread presence, guarantees a punctual, effective and personalized response to the different needs of customers.

In addition to technical interventions in the field, SEI Laser offers a valid **remote control** service.

The communication between the company and the customer, managed in real time via chat, allows the operator to be guided **step-by-step** in the following technical operations:

- visualization and modification of the configuration **parameters** of the laser system;
- visualization and modification of the working parameters;
- **diagnostics** of the laser source and control parts;
- LOG relating to the operation history;
- file transfer;
- update of the machine management software.

AFTER SALES

CONFIGURATIONS

Versions

Working area (mm)

Dimensions (mm) WxLxH

Elevator dimensions (mm) WxLxH

Maximum material thickness (mm)

Laser power (W)

Maximum load (kg/m²)

Z axis travel (mm)

Accuracy (mm/m)

Repeatability (mm)

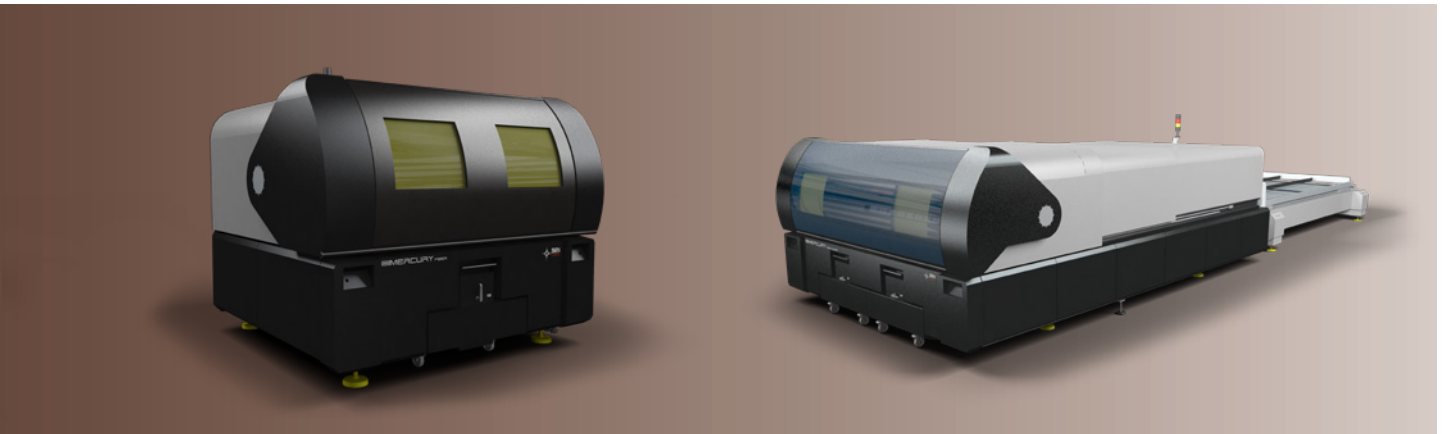
OPTIONS

Rotary axis unit for machining cylindrical objects (maximum diameter: 250 mm)

Tensioning gripper for thin metal sheets

Camera

Unwinder and straightener system



MERCURY FIXED WORKTOP					MERCURY MOBILE WORKTOP			
1208	1215	1520	1530	2040	1215	1520	1530	2040
1200 x 800	1200 x 1500	1500 x 2000	1500 x 3000	2000 x 4000	1250 x 1500	1500 x 2000	1500 x 3000	2000 x 4000
2360x2110x2226	2428x3766x2100	2748x4100x2100	2748x5010x2100	3368x5600x2100	2428x3766x2100	2748x4100x2100	2748x5010x2100	3368x5600x2100
					1910x2135x865	2160x2616x865	2160x3614x865	2780x4569x865
10					8			
da 1000 a 5000					da 1000 a 5000			
120					120			
60					60			
+/-0,05					+/-0,05			
0,01					0,01			

•	
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•	

The technical specifications indicated, for illustrative purposes, may vary during the commercial offer phase

CONFIGURATIONS

Versions

Working area (mm)

Dimensions (mm) WxLxH

Laser power (W)

Maximum material thickness (mm)

Maximum and minimum coil height (mm)

Z axis travel (mm)

Accuracy (mm/m)

Repeatability (mm)

OPTIONS

Rotary axis unit for machining cylindrical objects (maximum diameter: 250 mm)

Tensioning gripper for thin metal sheets

Camera

Unwinder and straightener system



MERCURY COIL

1208	1215
1200 x 800	1250 x 1500
2360x2110x2226	2428 x 3766 x 2100
da 1000 a 3000	
3	
60-1000	
60	
< 0,1	
0,01	

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**CLOSE TO
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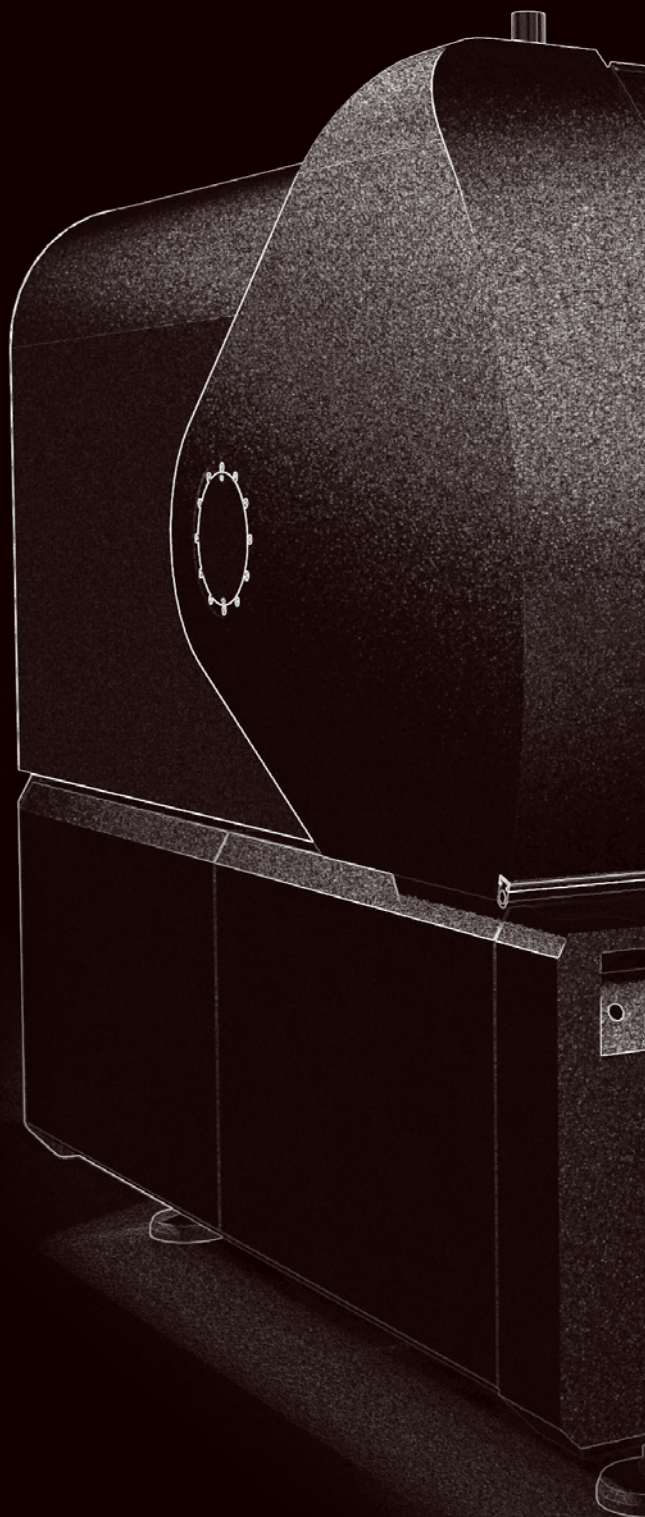
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