MERCURY
LINE

sei LASER

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.

LET YOUR CREATIVITY OUT

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

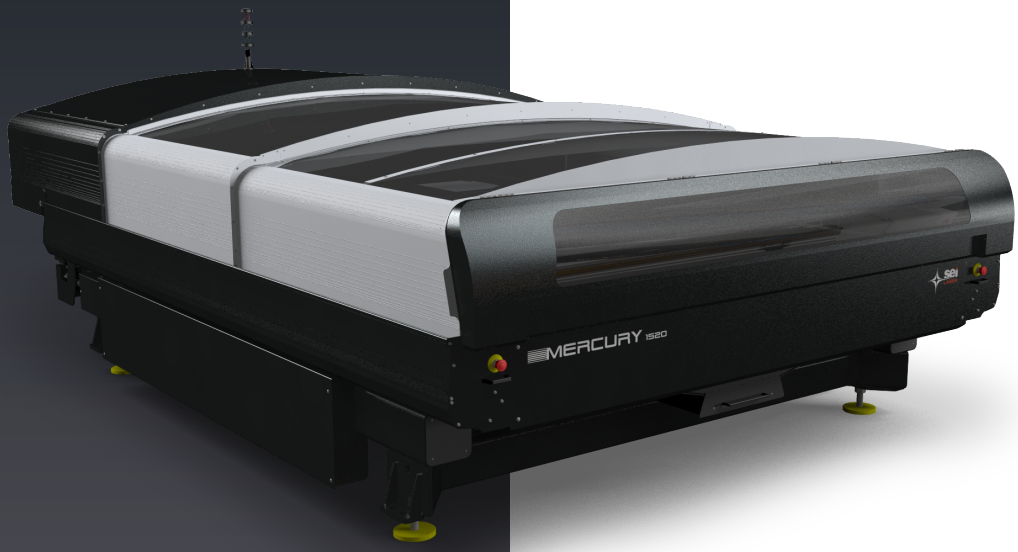
Available in over **100** models and equipped with laser power sources from 150 to 2000 W, it allows the processing of organic and composite materials compatible with the wavelength of CO_2 lasers.

Whether it is to engrave a logo or to cut out a rounded profile, perfect and with precision; the possibilities are **endless!**

Mercury LINE is available in various configurations, from 1500x1000 mm up to 2000x4000 mm and thanks to the specially developed options and accessories it is ideal for any environment and production process.

MERCURY

FIXED WORKTOP



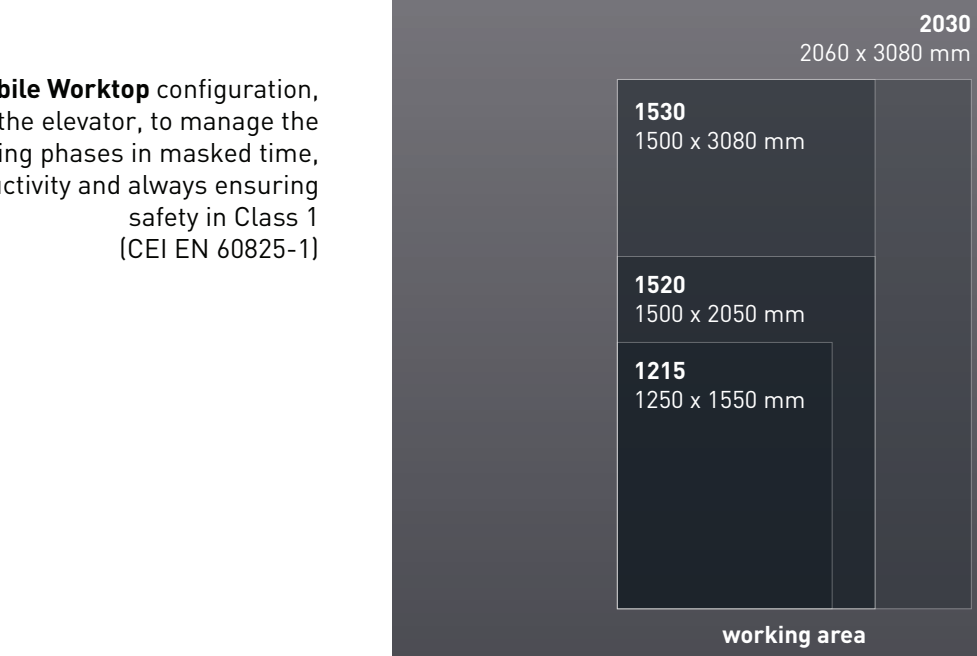
working area

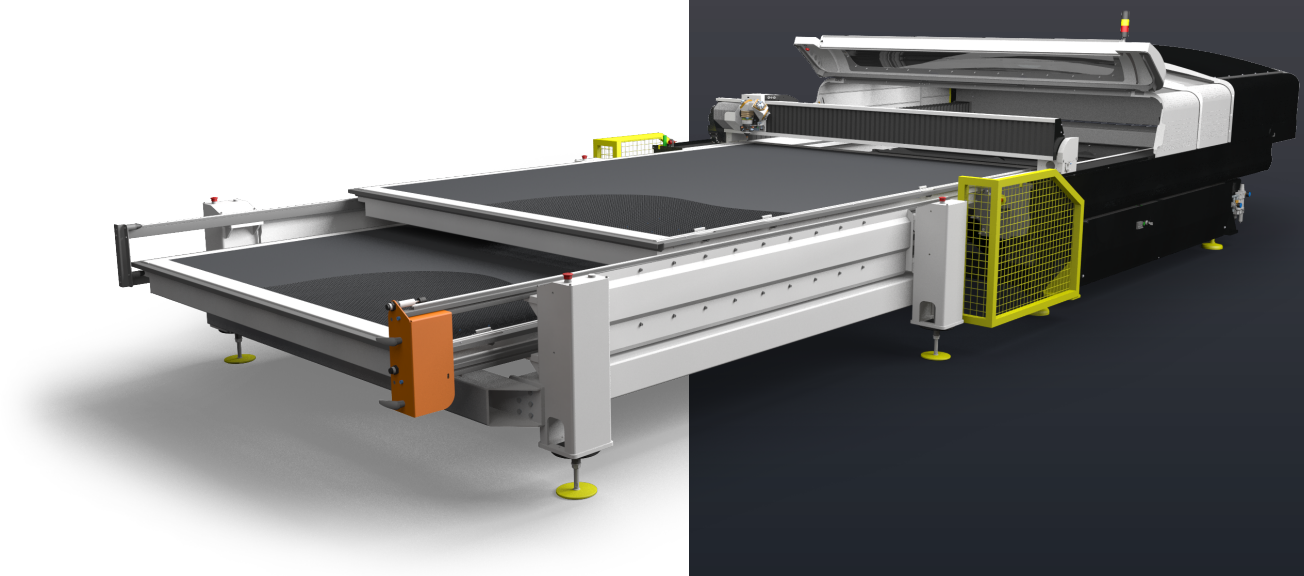
Mercury is the "top of the range" professional laser system for CO_2 laser cutting, characterized by a wide flexibility of use and high performance.

High **accuracy** (± 0.05 mm/m) and **repeatability** of the laser cutting profile (short term: ± 0.01 mm) are combined with top performance in the sector: the maximum speed is 2000 mm/s and acceleration easily reaches 2 g.

The solid structure, combined with the movement of the Cartesian X-Y axes, through high-performance linear motors and the position control, through high-precision optical scales, guarantee **unique** production and quality performances even for intensive use **24/7.**

Mercury LINE, in **Mobile Worktop** configuration, allows, through the elevator, to manage the loading and unloading phases in masked time, ensuring greater productivity and always ensuring safety in Class 1 (CEI EN 60825-1)





MERCURY

MOBILE WORKTOP

MERCURY CONVEYOR

working area

Mercury Conveyor is the professional laser system that guarantees high **performance** in the cutting, decoration and perforation of fabric and technical materials in roll, used for industrial applications and beyond, where particular precision, **quality** and cutting **speed** are required for high volumes.
The transport table, specially developed for laser processing, allows extremely accurate creations and exceptional cutting quality.

Mercury LINE also offers customization with **two drawer shelves**, which allow alternate loading and unloading of the materials to be processed.
A portion of the top is extracted, allowing the operator to recover the processed material while on the other portion the laser machine continues processing.

Loading and extraction in masked time significantly increase total **productivity**: the laser never stops and processes in a continuous cycle.
The production **time** is therefore almost halved.
Operation can be automatic and / or manual and it is possible to interface with **automations** or robot.

The safety level for the operator is always guaranteed thanks to the adoption of the most advanced protection systems: redundant interlocks and safety laser scanners.

MERCURY DRAWERS

UNIQUES PLUS

- Ease of use.

- High **accuracy** and repeatability of the cutting profile.

- Top sector performance thanks to the equipment of linear motors and the control algorithms developed in SEI Laser.

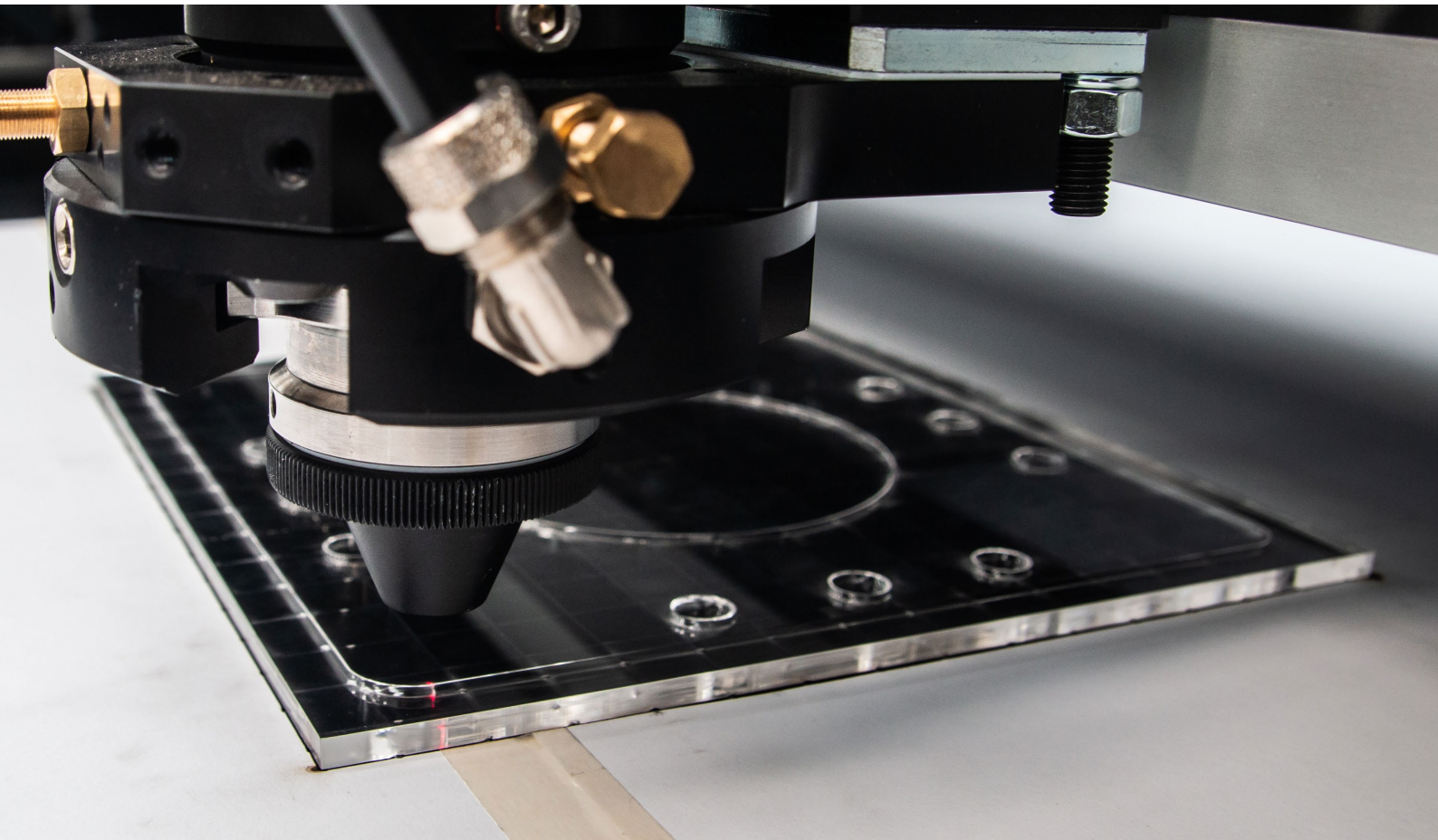
- Very low **maintenance**, **robustness** and long life of the laser source.

- Reduced floor space and access to the work area from three sides.

- Various configurations that make the system suitable for any environment and production process.

- Industry **4.0 ready**: simple insertions into digitized and automatic workflows.

- 100% made in Italy.



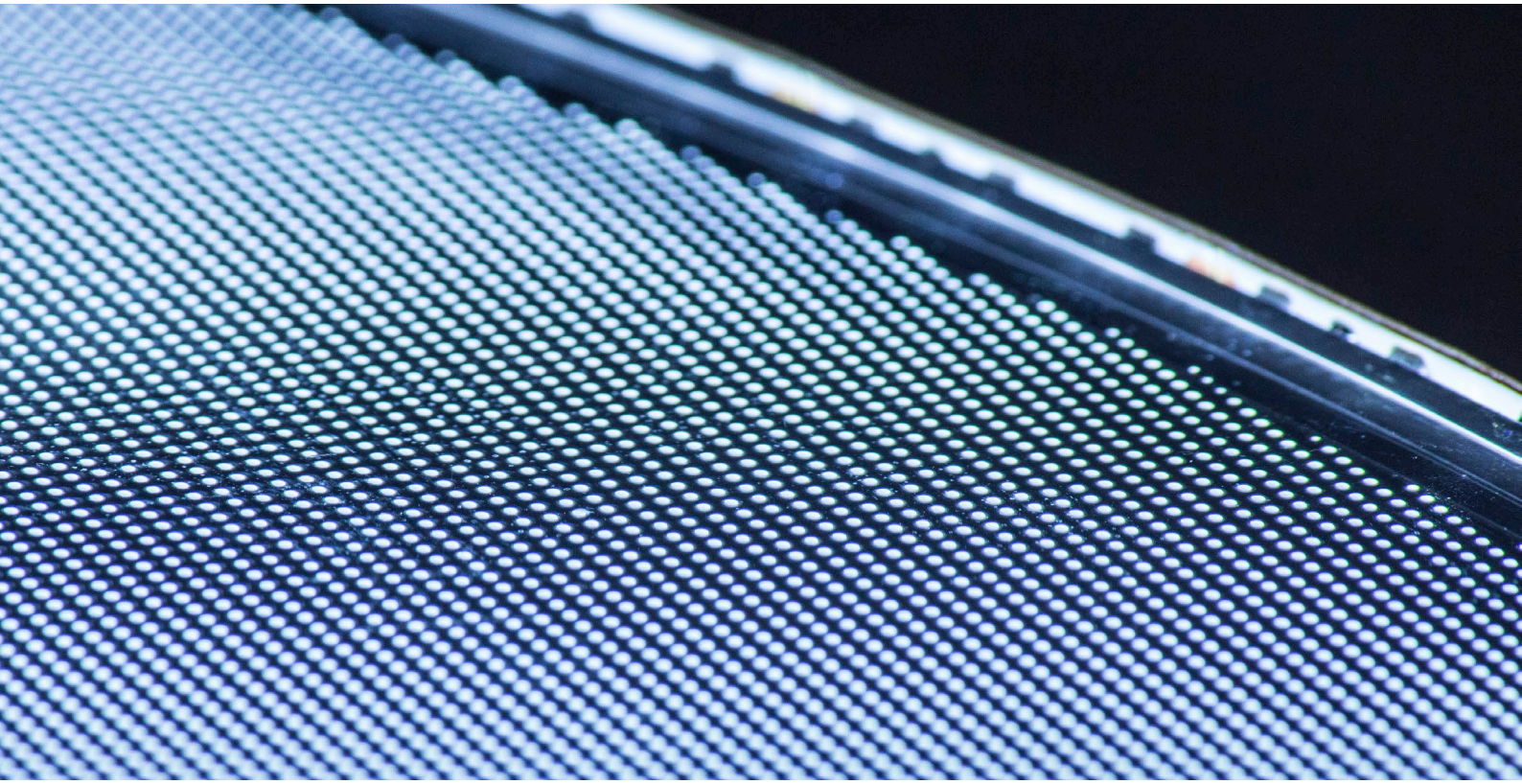
- Protective hood for maximum safety, in compliance with current regulations.

- Movement of the X-Y axes, with highly dynamic magnetic linear motors, controlled by high precision optical scales.

- Extremely robust **electro-welded** steel frame.

- Class 1 or class 4 for operator safety.

- **Icaro software proprietary**, intuitive and user friendly.



100% MADE IN ITALY

EXTREME FLEXIBILITY

The various available configurations of Mercury LINE make the system suitable for any environment and production process.

• 3D kit for cutting and half-cutting of 3D surface materials (compatibility *.dxf 3D).

• Metal cutting kit with cutting head H.P. (high pressure gas) and capacitive sensor.

• Safety laser scanner (for systems in class 4 or with mobile worktops / drawers).

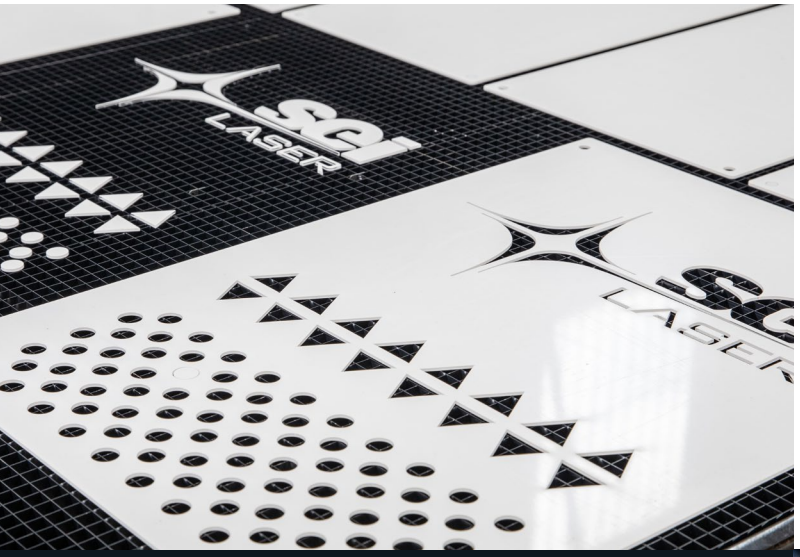
• Rotary axis unit for machining cylindrical objects (maximum diameter: 250 mm).

• CCD camera for laser cutting in register and for the automatic upload of work files, thanks to the reading of 2D and 3D codes.

• Automatic opening and closing hood for operations in total safety and fumes extraction optimization.

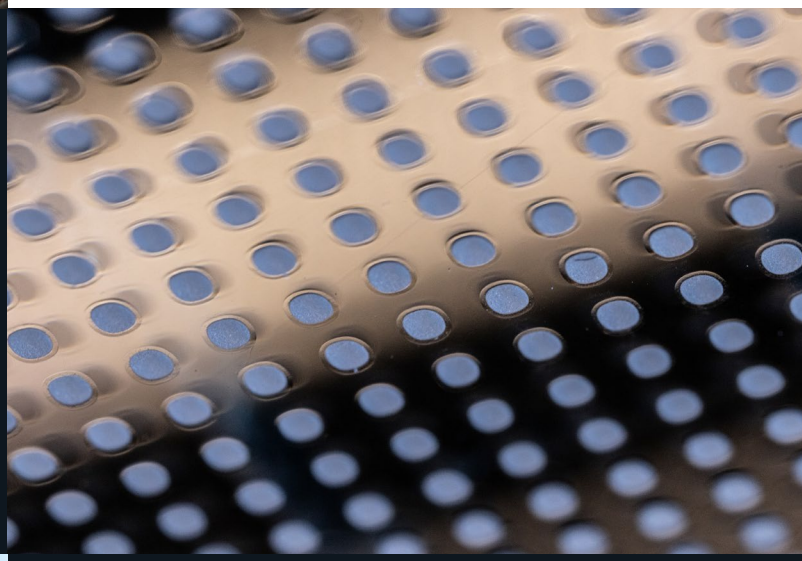
• Customizable worktop to adapt to all kind of workings.

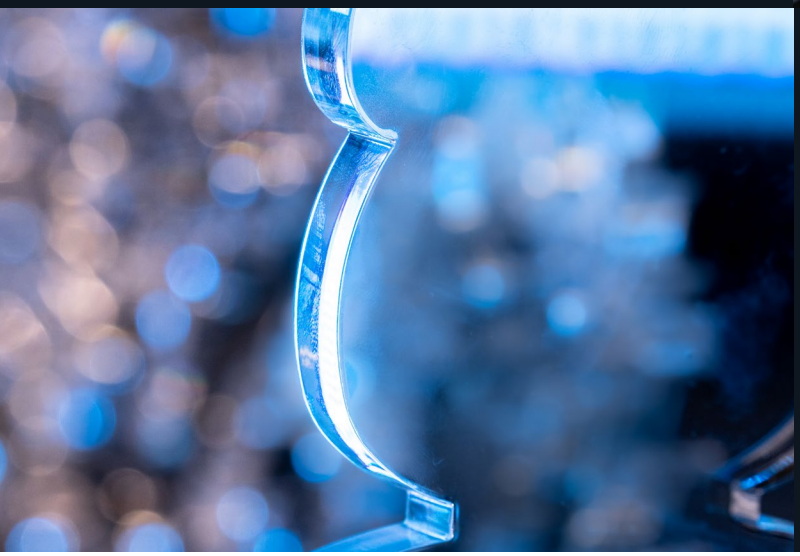
PROCESSABLE MATERIALS



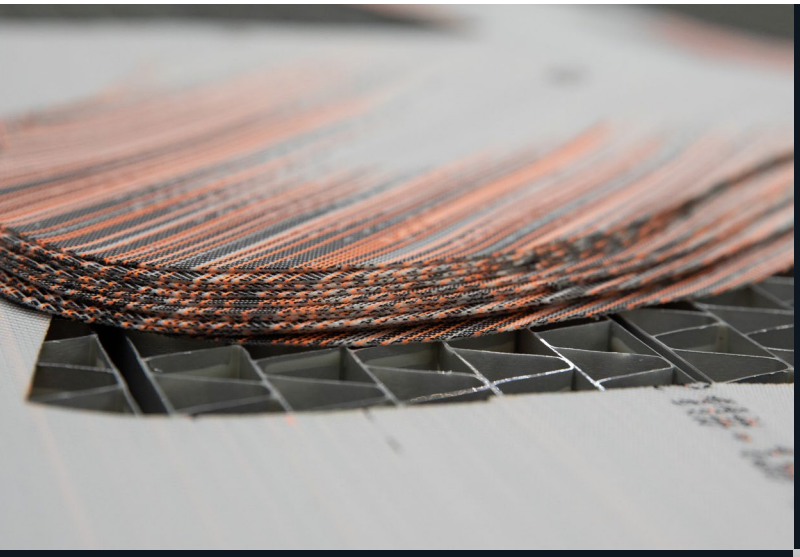
Mercury Line is able to process countless organic and composite **materials** in sheet or roll.

Plastic Materials:
Acrylic (PMMA)
Acrylonitrile Butadiene Styrene (ABS)
Composite materials
Acetates
Plastic laminated films
Adhesive film
Polyamide (PA)
Polybutylene terephthalate (PBT)
Polycarbonate (PC)



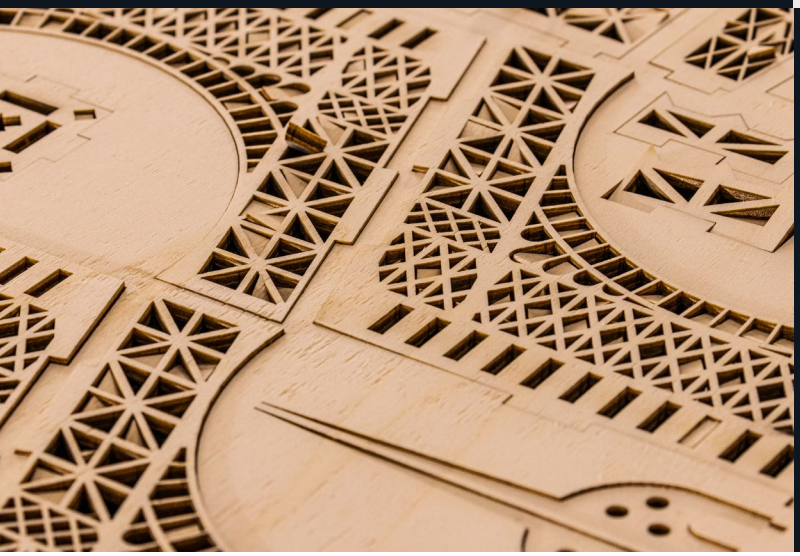


Polyethylene (PE)
Polyester (PES)
Polyethylene terephthalate (PET)
Polyimide (PI)
Polypropylene (PP - BOPP)
Polyphenylene Sulfide (PPS)
Polystyrene (PS)
Polyurethane foam (PUR)
Foam (PVC free)



Fabrics:
Polyester (PES)
Felt
Microfiber
Leather
Skin
Synthetic leather
Natural fibers (e.g. cotton, linen)
Synthetic fabrics
Wool
Silk
Kevlar

Metals:
Steel
Soft iron
Galvanized iron
Aluminum
Titanium

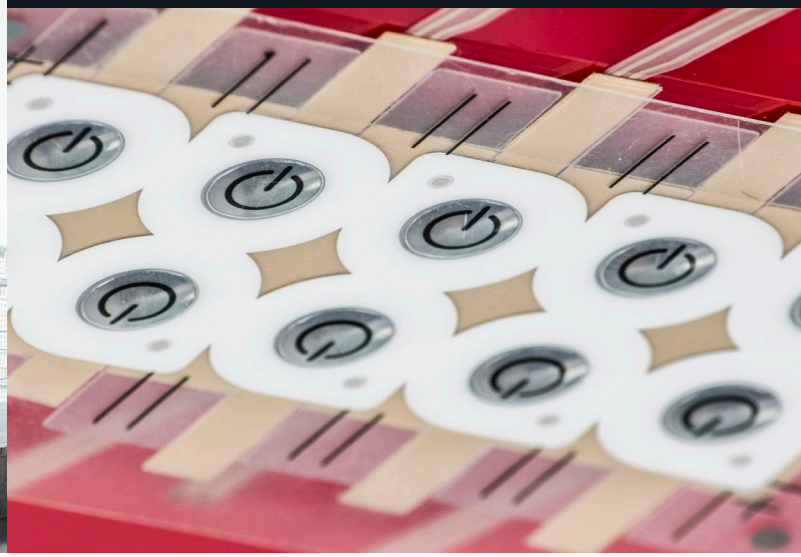


Other materials:
Wood
Paper
Cardboard
Cork
Glass
Rubber

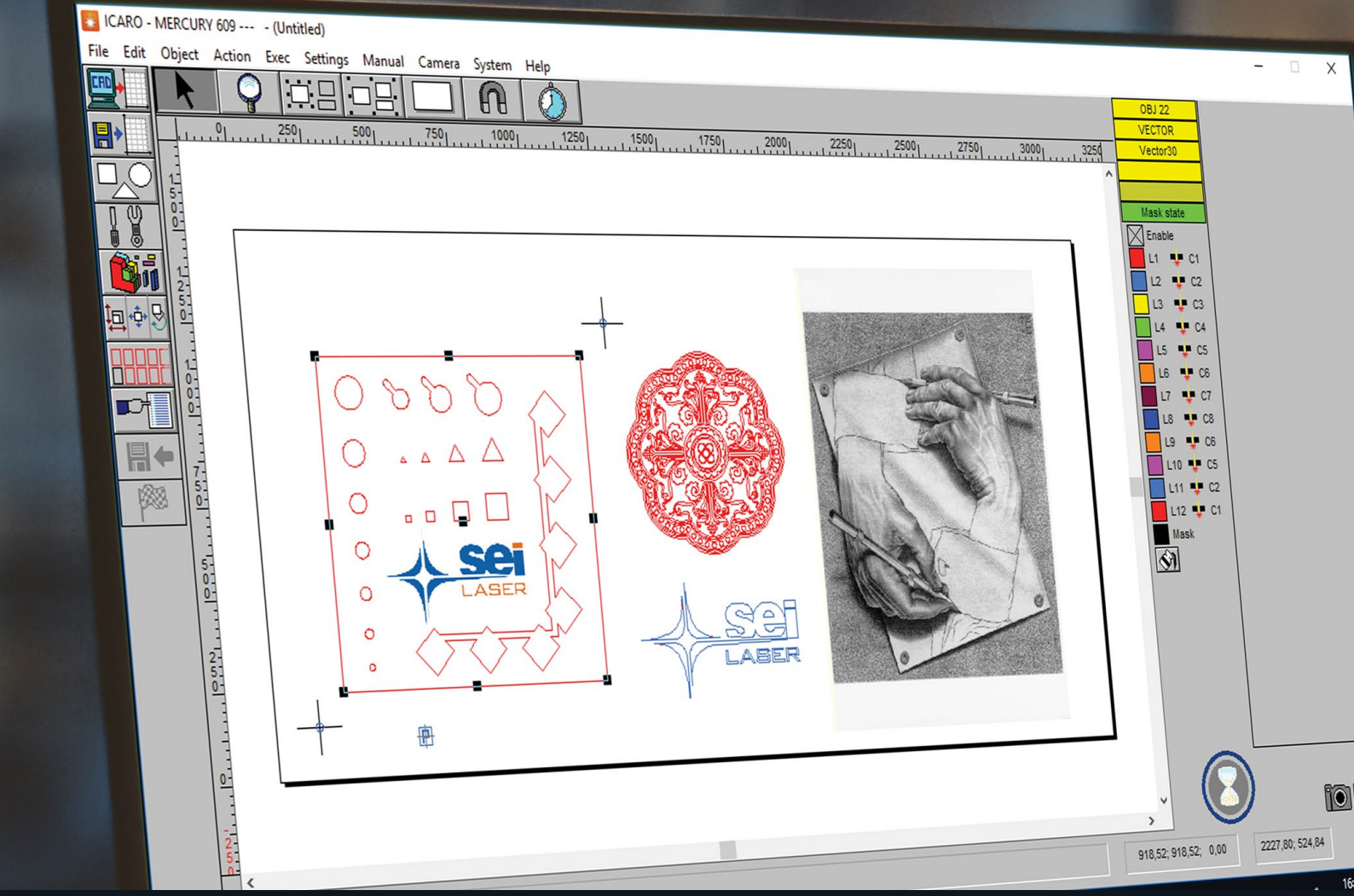
ENDLESS APPLICATIONS

The various configurations available make the Mercury LINE system extremely flexible, perfect to meet any application need.

objects,
furnishing accessories (customization),
decoration,
inlay,
stamps,
exhibitors,
footwear sector,
leather processing,
processing of sheet and / or roll materials.



lighting engineering,
electronics,
backlight,
automotive sector,
eyewear,
flags and banners,
signage,
sportswear,
packaging.



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.

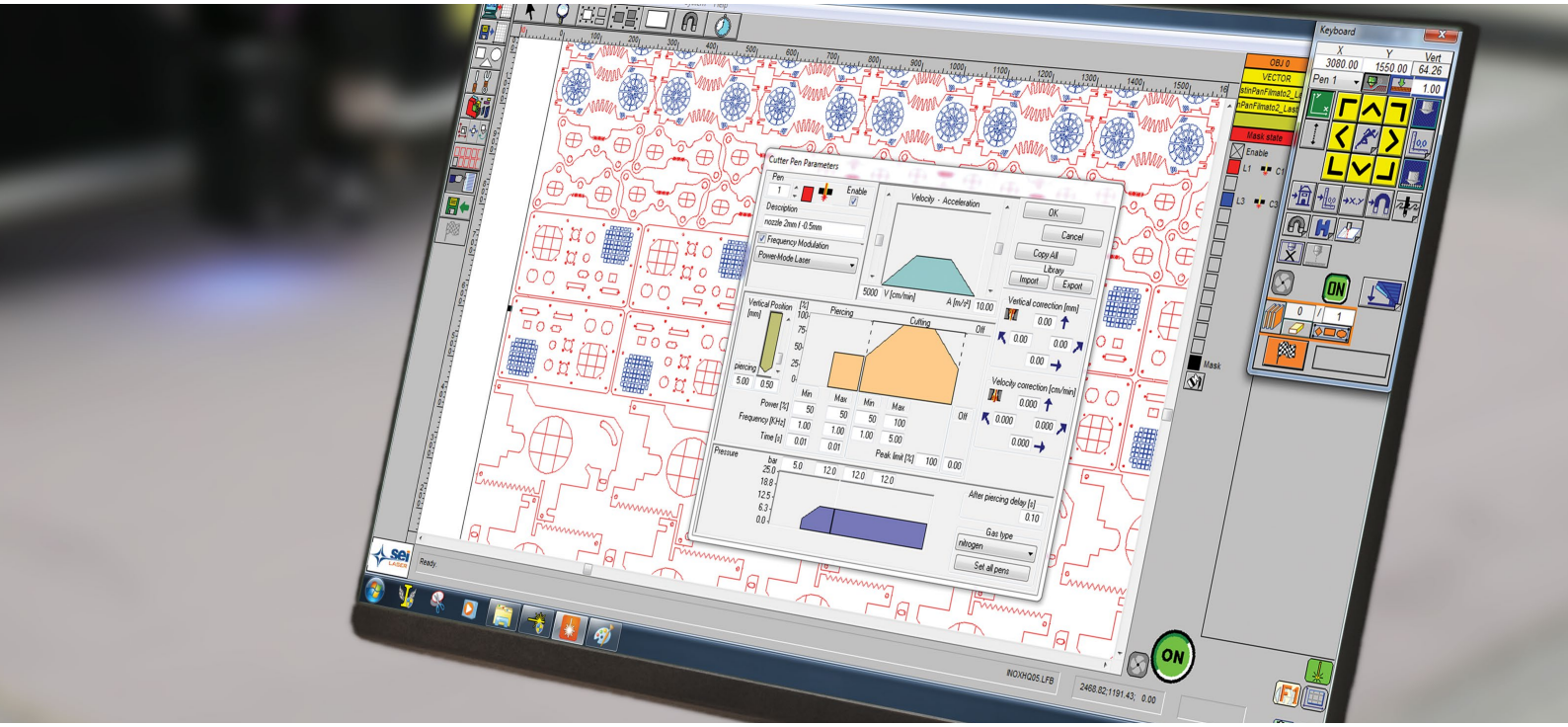
• CCD camera for laser register processing and automatic file upload thanks to single or multiple print markers and 2D / 3D barcode readers with radial / perpendicular RGB lighting.

• BLUE software for LED LGP backlights: developed specifically for cutting and marking PMMA panels.

• 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.

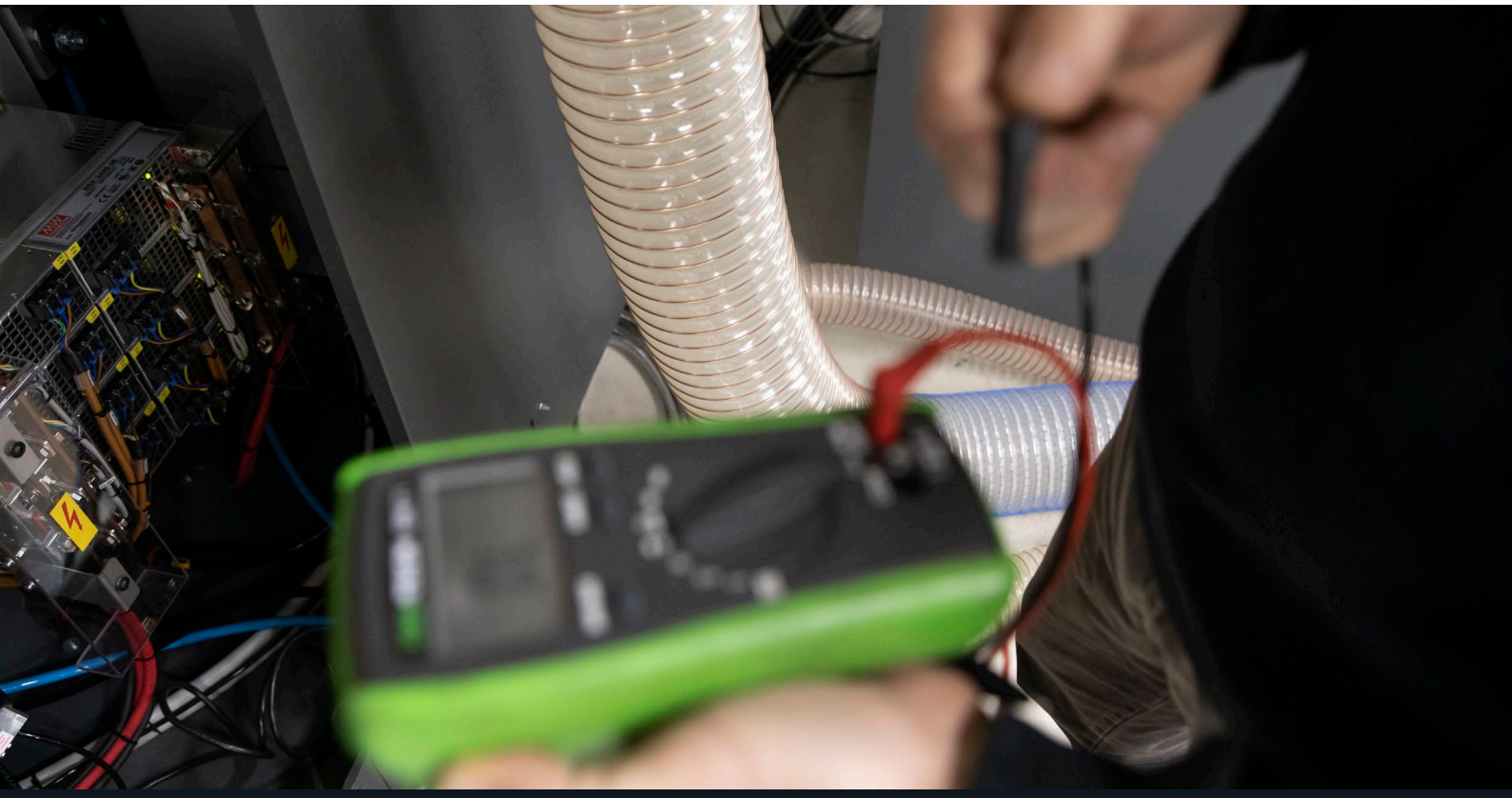
• Effective system and laser source diagnostics: simple remote assistance operations.

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)
Laser power (W)
Maximum material thickness (mm)
Maximum load (kg/m^2)
Z axis travel (mm)
Accuracy (mm/m)
Repeatability (mm)

OPTIONS
Metal cutting kit with cutting head H.P. (high pressure gas) and capacitive sensor
Photoelectric barriers or safety laser scanners for Class 4 systems
Rotary axis unit for machining cylindrical objects (maximum diameter: 250 mm)
3D kit for cutting and half-cutting of 3D surface materials
Protective hood

MERCURY FIXED WORKTOP						MERCURY MOBILE WORKTOPS			
1215	1510	1520	1530	2030	2040	1215	1520	1530	2030
1250x1550	1500x1000	1500x2050	1500x3080	2060x3080	2000x4000	1250 x 1550	1500 x 2050	1500 x 3080	2060 x 3080
from 150 to 500	from 150 to 800	from 150 to 2000				from 150 to 500	from 150 to 2000		
50						50			
40						40			
70						70			
< 0,1						< 0,1			
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)
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MERCURY CONVEYOR					MERCURY DRAWERS				
1520	1530	2030	2530	3215	1215	1510	1520	1530	2030
1500x2050	1500x3080	2060x3080	2500x3000	3200x1500	1250x1550	1500x1000	1500x2050	1500x3080	2000x3080
from 150 to 1200					from 150 to 500	from 150 to 800		from 150 to 1200	
50					50				
40					40				
70					70				
< 0,1					< 0,1				
0,01					0,01				

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

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CLOSE TO THOSE WHO SEE FAR

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