

# MATRIX SYSTEM





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 department (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.



# FOR DENIM LOVERS





**Matrix System** represents the one and only answer to the needs of **sustainability** and **digitalization**.

Thanks to the combination of Hardware, Software, mechanics, design and decades of experience of SEI Laser, this innovative system is able to meet any need of denim processing.

- **The Software part** processes the files (graphics and paper models) and digitalizes them.

- **The Hardware part** processes, cuts and ennobles the fabric.

Through the processing of a fabric roll, the system is able to provide decorated and ready to be packaged cut packs.





# UNIQUE PLUS



- **SEIVero**: replicates natural wear faithfully.
- **SEIDenim**: revolutionizes the concept of laser energy management.
- **SEITuning**: simplifies the use of “laser washing”.
- **SEIFilter**: customize filters and effects for unique results.
- **SEILibraries**: manages the making parameters intuitively and quickly.

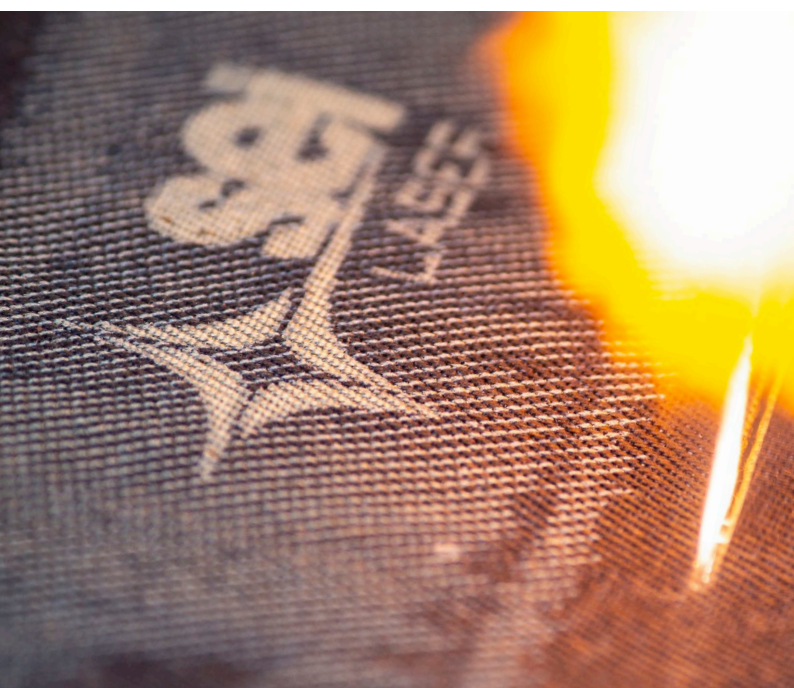






- **Full Digital:** entirely digital process viewable in 3D and immediately shareable.
- Creation of “**on demand**” garments.
- Amazing processing **speed**.
- Complete reliability of the laser source.
- **Water Saving:** extreme reduce of water use.
- **Ecofriendly:** elimination of pollutants.
- 100% made in Italy.





**100%  
MADE  
IN ITALY**



# EXTREME FLEXIBILITY

The multiple set ups and the extreme versatility of the Matrix System, allow endless processing and make the system suitable for any production process.

- **Ecofriendly:** the system is environmentally friendly and can be installed everywhere.
- **Versatility:** the system creates and customizes any type of product, from jeans to outerwear, passing from accessories and bags. The garments produced with Matrix System meet the needs of many markets: from low budget to fashion luxury.
- **Reshoring:** combining design with production.
- **Time to market** drastically reduced.
- **Process automation and speed:** the garments are immediately ready to be sewn.
- **All in one:** one machine for both marking and cutting.
- Can be used as a **cutting table**.





# ENDLESS APPLICATIONS

Thanks to the **Matrix System** you can quickly reproduce any mechanical and chemical effect with a unique and revolutionary **laser solution**.



“Used”, or “worn out” effect

Broken needle

Holes

Texture







Bleach  
Stone  
Photographic  
Grinding  
Distressing  
Topstitching  
Breaks





For Denim  
Lovers





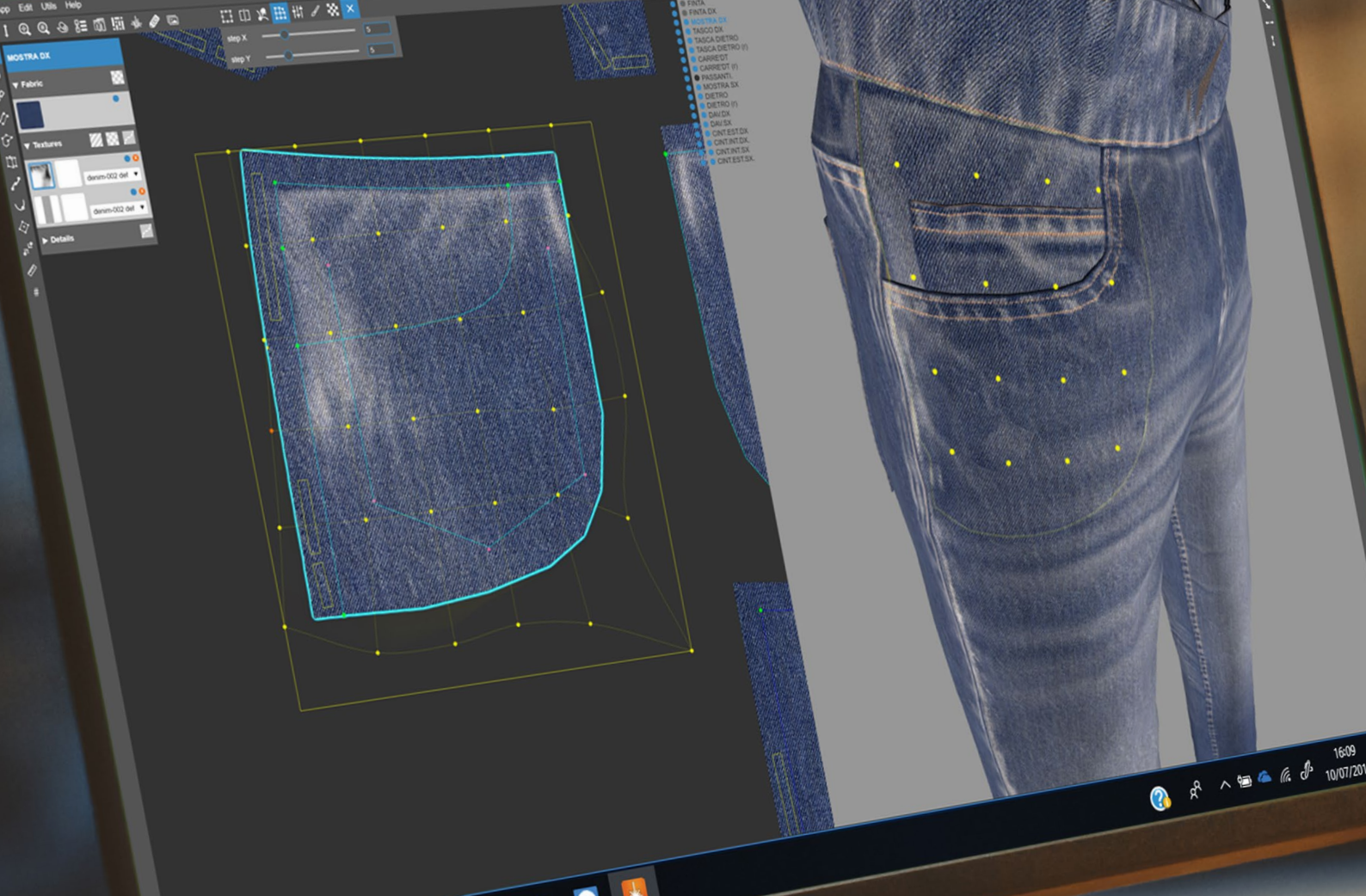


Garment number,  
size and plenty of other information  
up to the traceability of the garment



Bundle stacker





**Matrix System** consists of Hardware and Software. The brain of the system is **EnGenius**, the proprietary software specially designed to decorate quickly and intuitively every part of the garment.

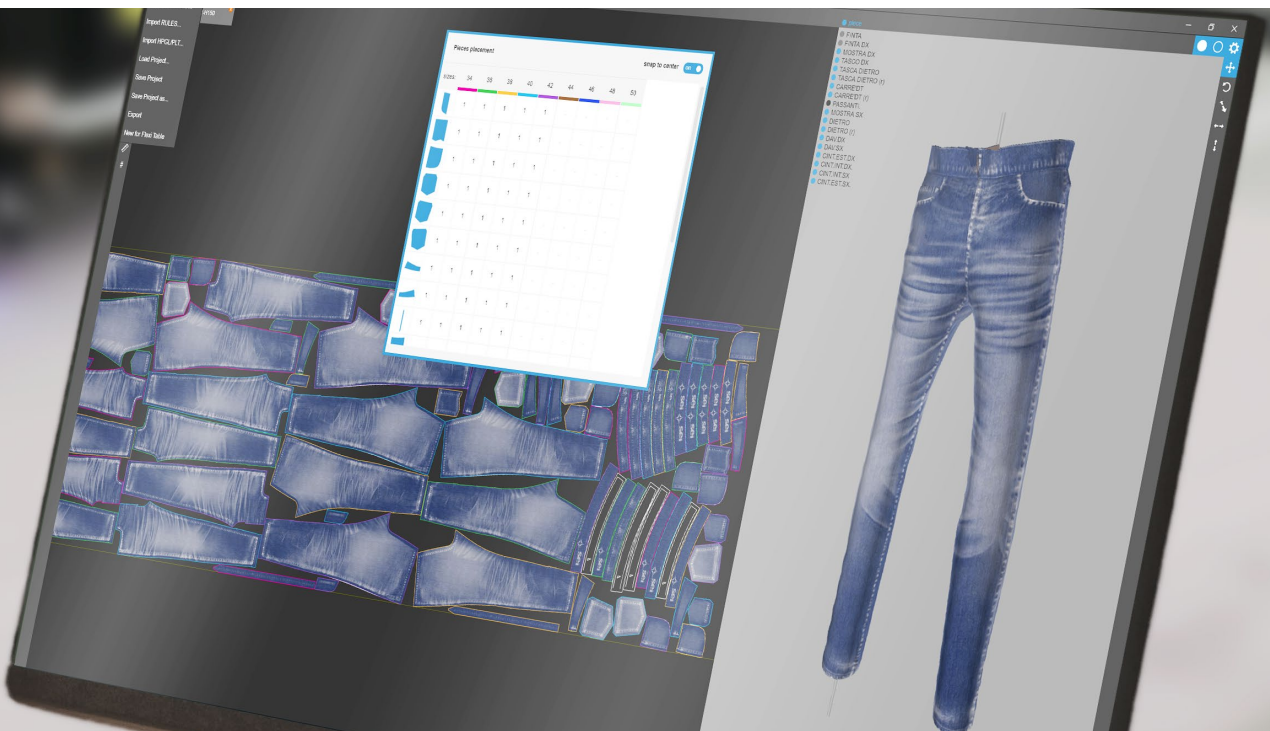
With **EnGenius** you can create effects such as rivets, stone, bleach, pattern.... Thanks to a particular 3D modelling system it is possible to see and customize the garment directly on the model, in three dimensions.

The automatic development in sizes of graphics and tools specially designed for the denim world, make this software a real booster for prototyping and production.



- Optimization of patterns positioning that allows you to get fits that have never been possible before.
- Greyscale plug-in: significantly reduced prototyping time. "What you see is what you get".
- Direct interface between operator and machine which allows quick, simple and intuitive processing.
- Compliant with all CAD modeling.

# ENGENIUS SOFTWARE

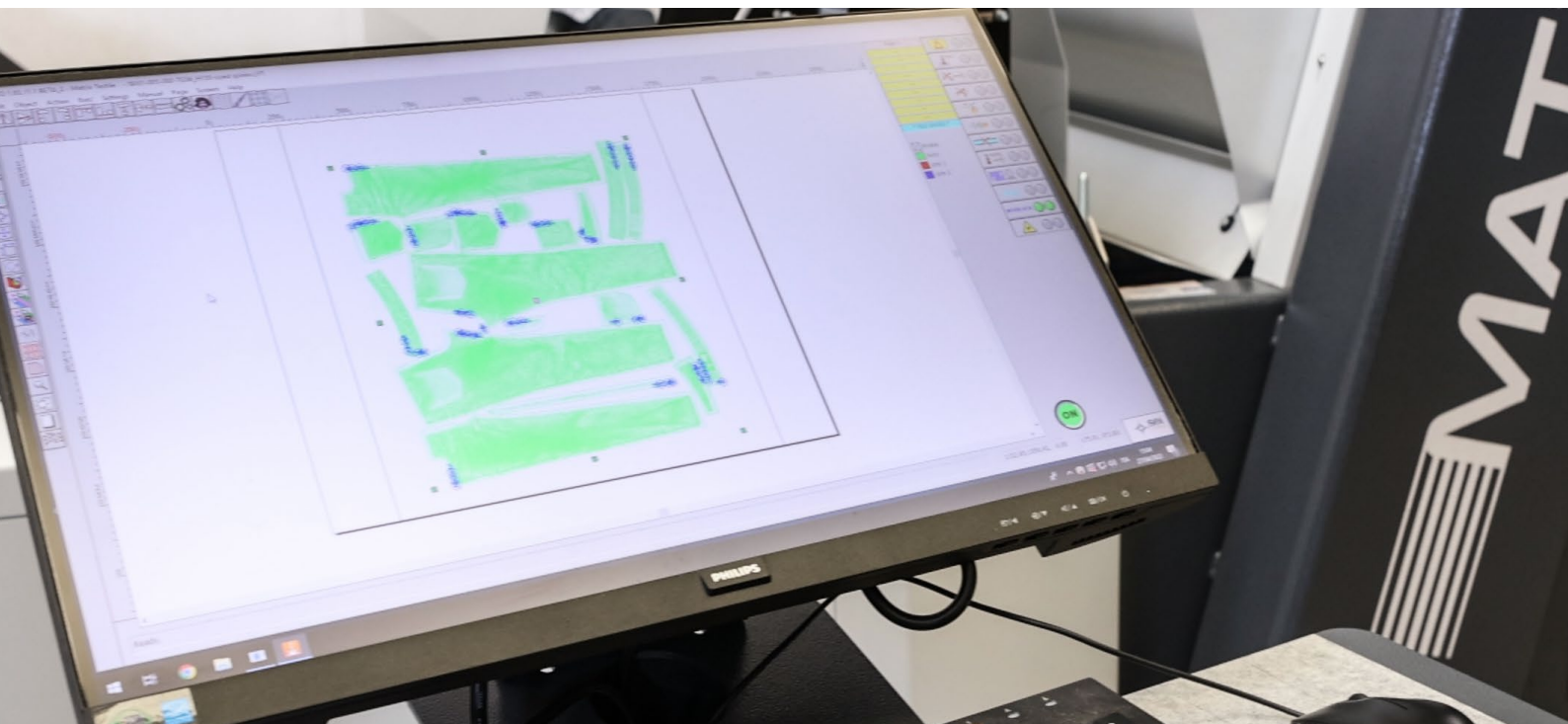




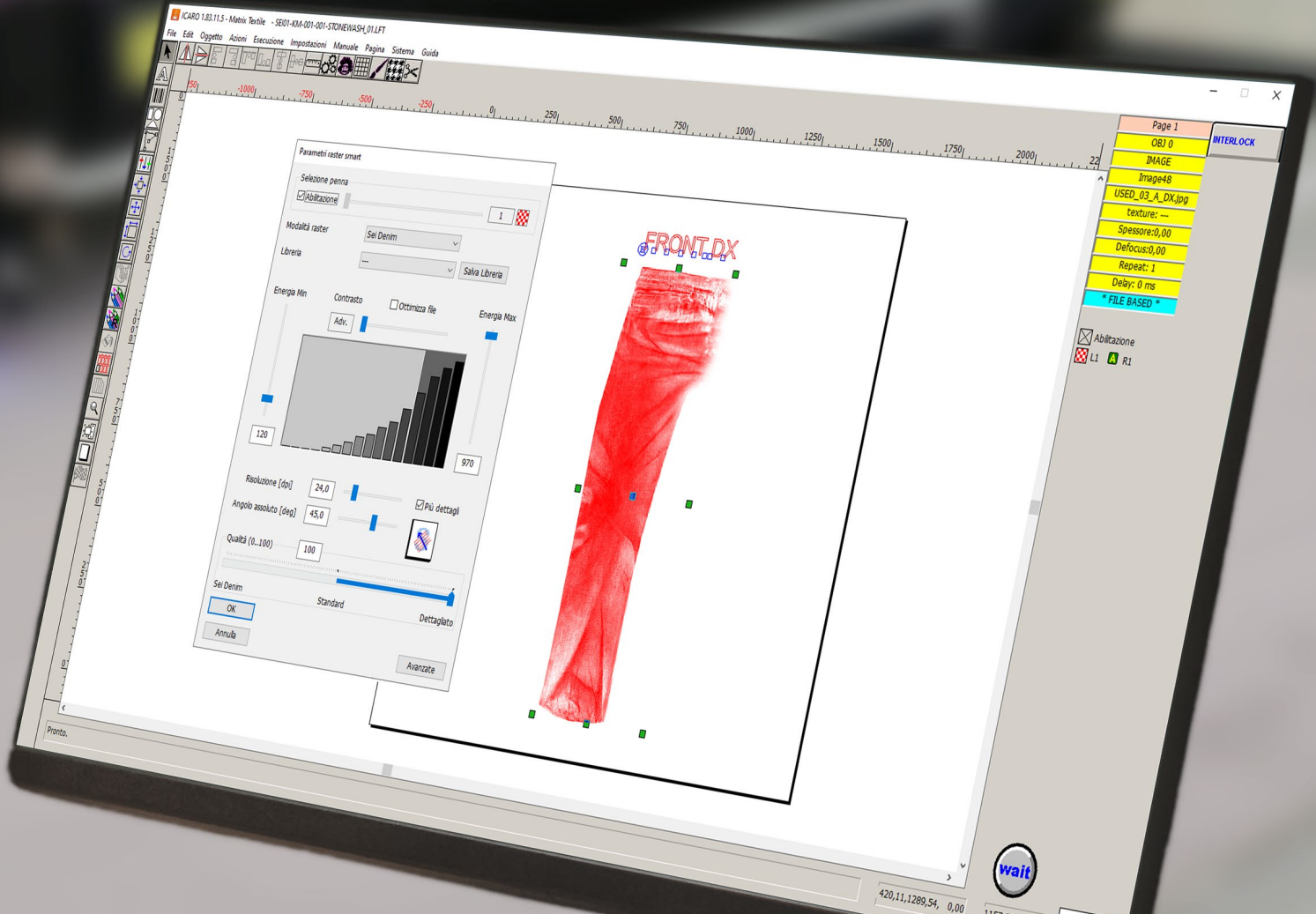
Our proprietary software **Icaro** it is extremely intuitive and user-friendly.

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.

# ICARO SOFTWARE







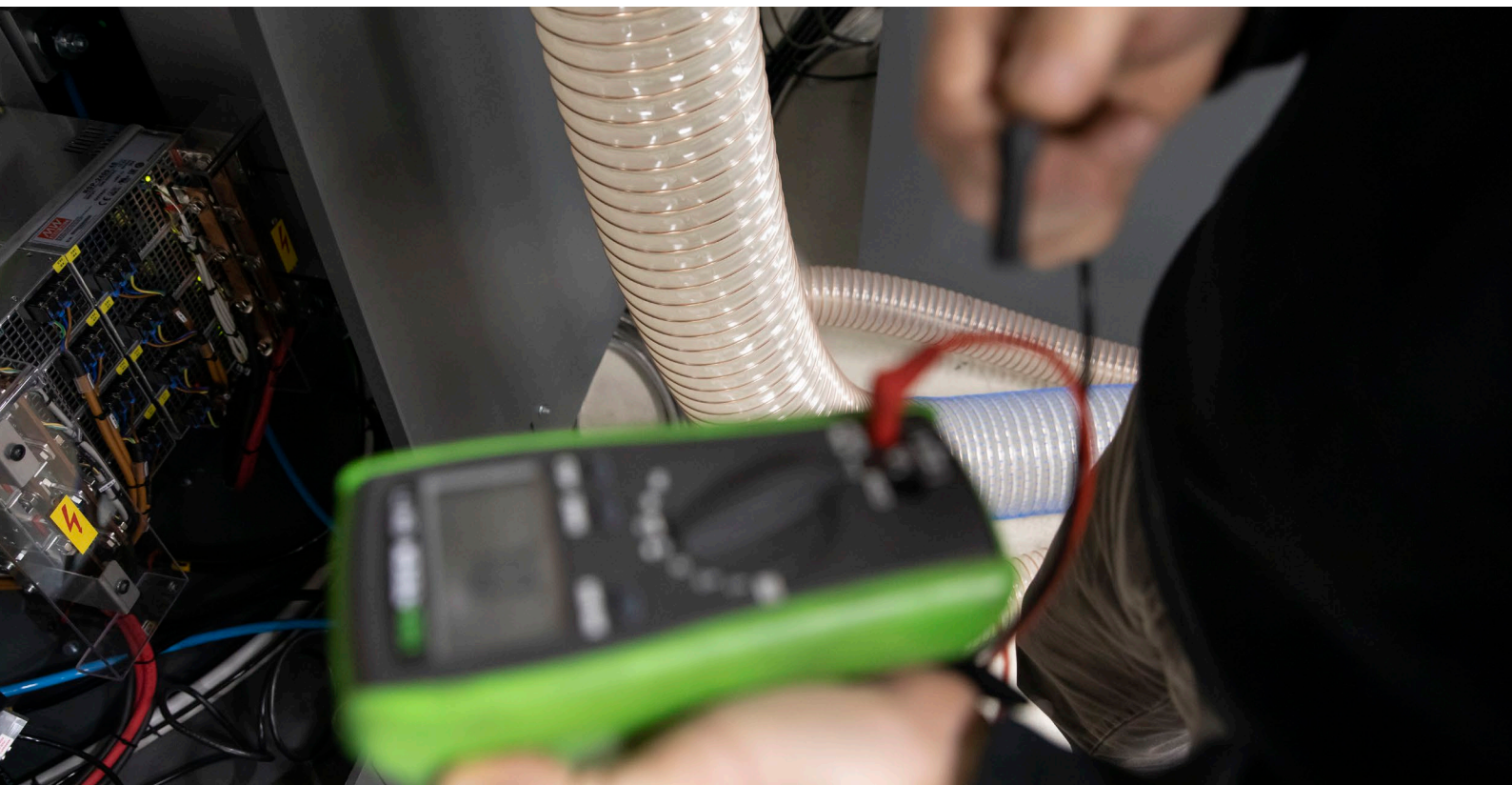
- Thanks to the integration with customized Post Processors, Icaro allows a simple, fast and intuitive job design and automatic programming of the laser system for cutting ferrous and nonferrous metals with low thickness.
- Effective system and laser source diagnostics: simple remote assistance operations.

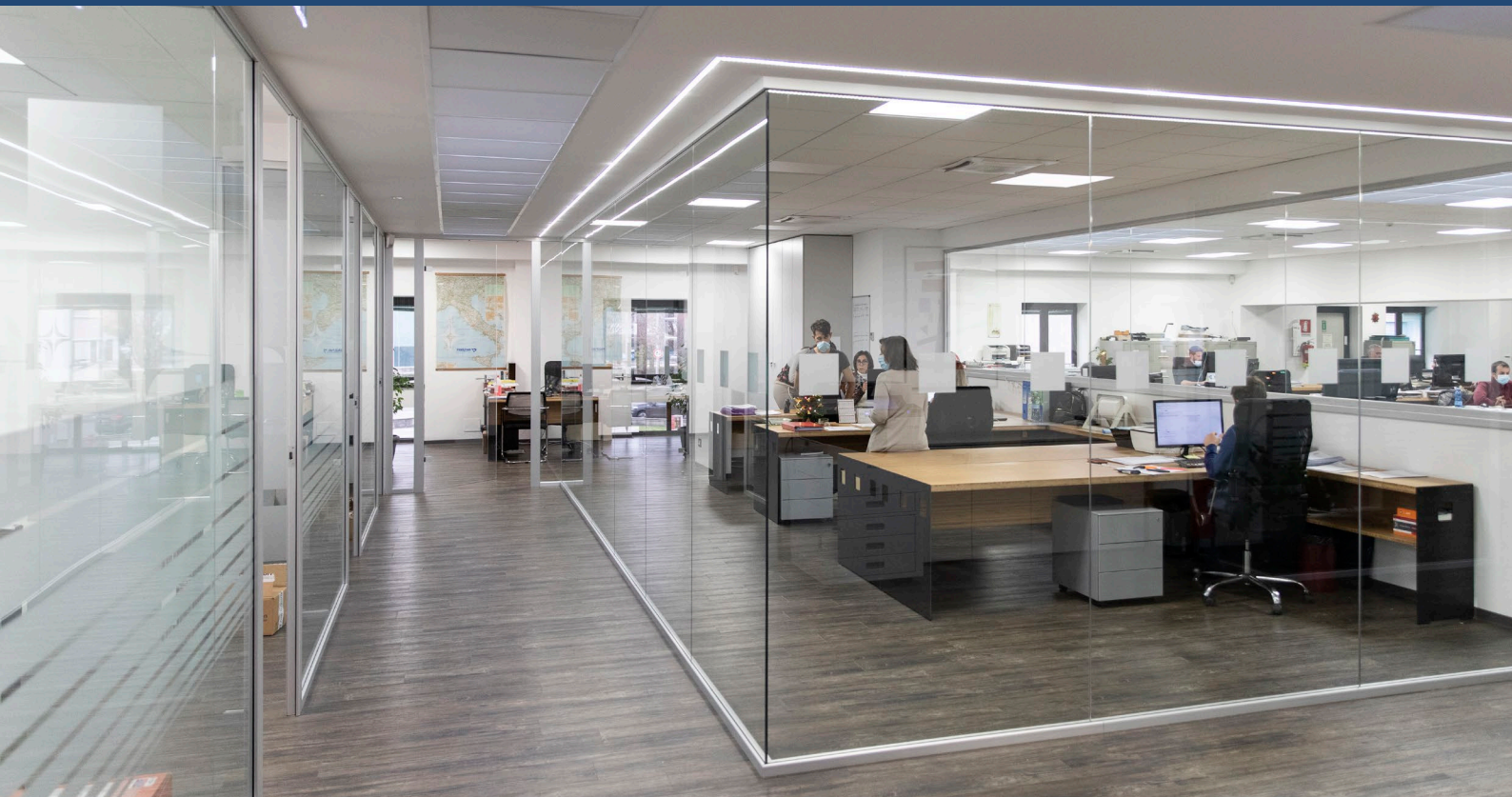


# INSTALLATION

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 Laserff oers 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)

Altezza rotolo (cm)

## OPTIONS

Bundle Stacker



| MATRIX SYSTEM |              |
|---------------|--------------|
| Single Laser  | Double Laser |
| 160 → ∞       | 160 → ∞      |
| up to 500     | up to 1000   |
| 160           | 160          |
|               |              |
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|   |   |

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



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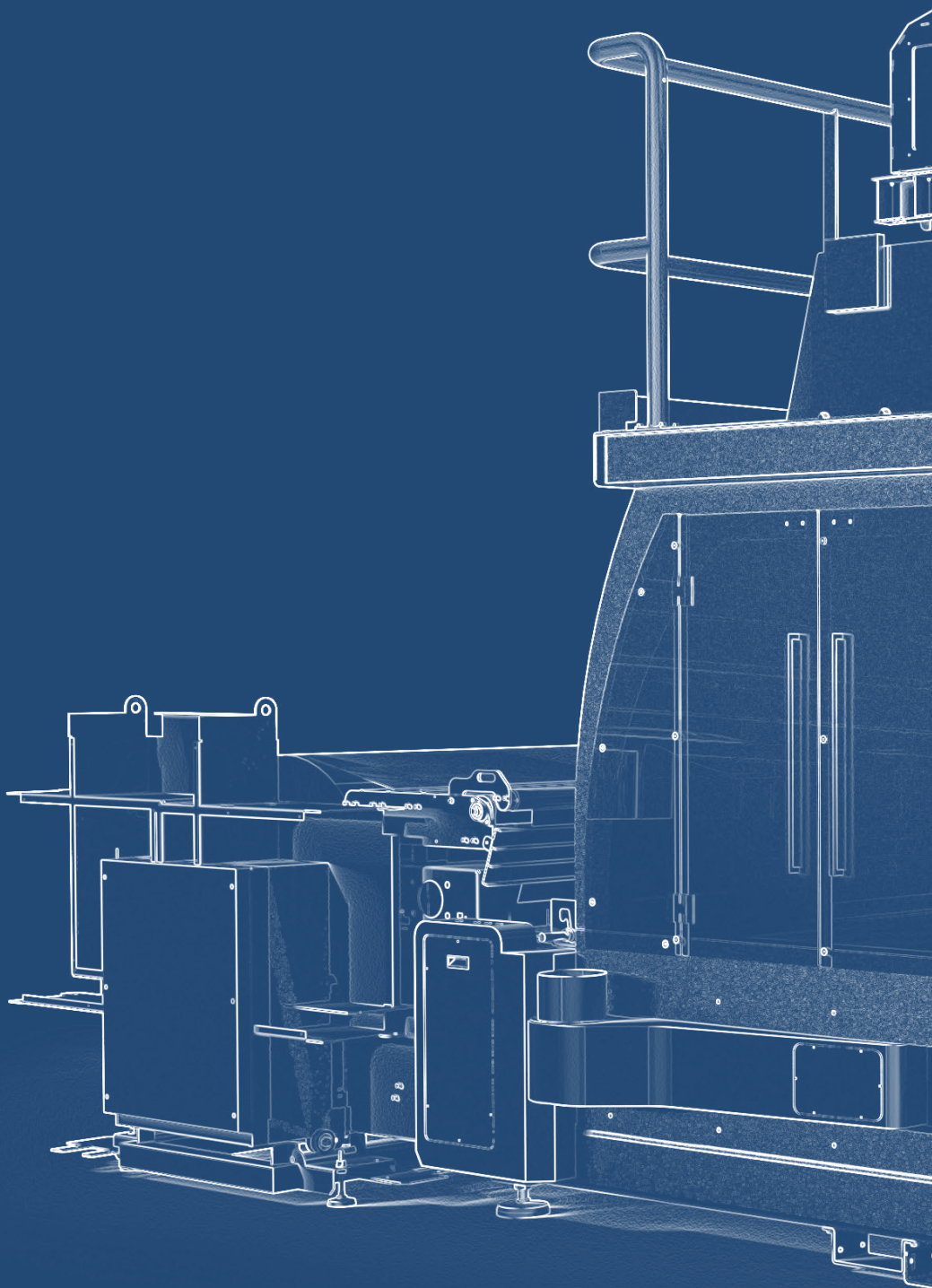
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