



Ver. 1.0

Visual Communication





Company

Since 1982 we are the partner who offers innovative solutions to our customers to satisfy the specific market's requirements. Thanks to our know-how and continued investments, we provide laser systems that guarantee significant performances in terms of cost, operational efficiency and final quality product.

Thanks to the complete range of laser systems developed by **our R&D department**, SEI Laser is able to satisfy the application needs of customers in both vertical and horizontal markets, including: Plastic Converting, Lighting, Visual Communication, Textile, Interior Design, Automotive, Graphic Arts, Converting, Labelling, Flexible Packaging, Folding Carton, Furnishing, Metal processing and Electronics.

VISION

*We work so that our innovative solutions
help find new opportunities
and new business for customers.
"Revolutionary Generation":
this is SEI Laser.*





We produce our laser systems in **Italy** thanks to 5 departments (mechanical, electronic and optoelectronic, software, mechanical design and production) which follow all the stages of the production process. The software and firmware that control **SEI Laser** systems are developed by our Software R&D Department that satisfies the different customers' requests in real time.

A state-of-the-art technology requires commitment; our history is based on loyalty and mutual respect with customers. This alchemy enables us to establish strong connections with our customers which last for decades and constantly renewed.





Visual Communication

The Visual Communication application field expresses its communicative power through different tools: from backlighting to signage, from displays for POP/POS to acrylic cutting, from interior design to fashion, passing through external/internal communication on large scale and soft signage, arriving to the creation of promotional items, labels and paper, wood, metal and corrugated board finishing (brochures, greeting cards, flyers...).

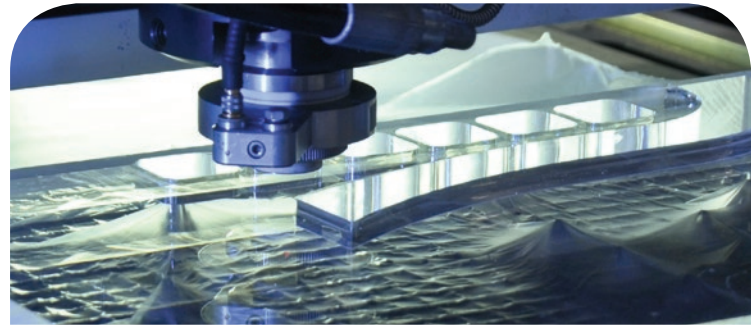




The laser technology flexibility allows you to process several materials thanks to one laser system: the processed product quality remains constant over time both in series production and in small production batches. The originality of the cutting edges contributes to increase the appeal and the quality of the product. SEI Laser, thanks to its laser systems wide range, offers the most suitable technology for an incredible, emotional, useful and personalized communication.

Let your creativity out!





FLATBED PLOTTER CO₂ LASER SYSTEMS | Wide format

Mercury and **NRGL** are the flatbed laser systems developed by SEI Laser for wide format plastic materials sheets processing.

Mercury is the “top of the range” professional laser system for CO₂ cutting. It is characterized by both highly flexibility of use and performances. **Mercury** is available in over 100 configurations equipped with high laser power sources up to 2 kW to process materials on a working area up to 2000x4000 mm and to be suitable for each environment and production site: fixed work table, fixed table extension, dual tables for loading/unloading, with the drawers or with conveyor in order to process roll materials. The strong mechanical structure combined with X-Y axis movement, thanks to high performing linear motors, in addition to the position controlled by high precision linear optic encoders, ensure high and unique performances in 24/7 mass production as well.

The various **Mercury** available configurations, make the system suitable for any environment and production process:

- 3D kit for 3D surface materials cutting and half-cutting (compatibility *.dxf 3D);
- Metal cutting kit with cutting head H.P. (high pressure gas) and capacitive sensor;
- Rotary axis unit for machining cylindrical objects (maximum diameter: 250 mm);
- Mobile worktops / drawers.

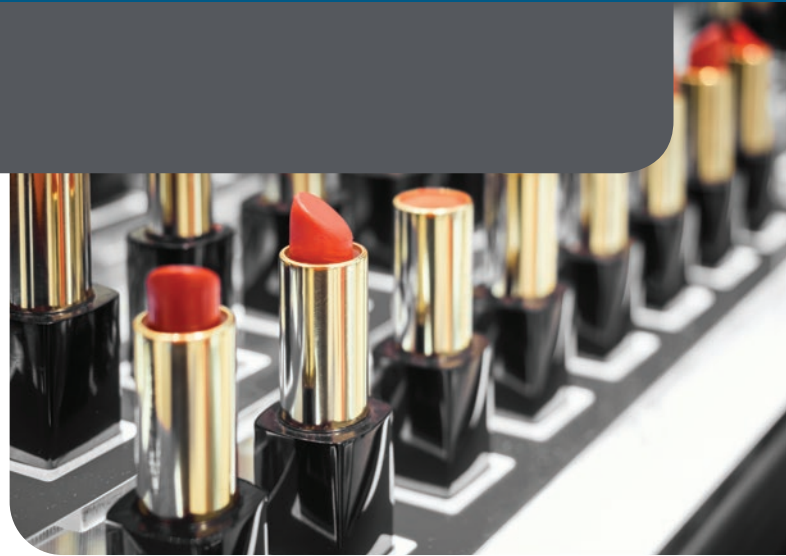


Thanks to Icaro BLU software, **Mercury** is suitable for PMMA sheets CO₂ cutting and marking for the vertical LED Backlight market. Mercury is also able to process several organic and composite materials, plastics, metals, fabrics, wood, paper, cardboard, corrugated, glass cork, rubber and MDF in sheet or roll.



NRGL is the professional CO₂ laser cutting system for materials with a maximum working area of 3200x3200 mm.

NRGL is a X-Y plotter system with fixed working table and motorized Z axis, available with conveyor for roll materials processing. The high dynamic performances are ensured by four brushless motors for X axis and one brushless motor for Y axis with SEI Laser digital control.



Both **Mercury** and **NRGL** are equipped with CCD camera for registry laser processing and for the automatic upload of the files thanks to single/multi printing markers and 2D/3D barcode readers with radial/perpendicular RGB illumination.



CONVEYOR PLOTTER LASER SYSTEMS | Wide format

Mercury Conveyor guarantees high performance in cutting, decoration and perforation of fabric and technical materials in roll, which are exploited in industrial applications, where particular precision, quality and cutting speed are necessary for high volumes. This system can process up to 3200 mm roll width. High precision and repeatability of the cutting edge are combined with industry-leading performances thanks to the linear motors, that guarantees unique production.



NRGL Conveyor is a professional laser system designed for cutting fabric and rolls of technical materials with a maximum width of 3200 mm. This X-Y plotter system is equipped with a conveyor and ensures high dynamic performances thanks to four brushless motors for the X-axis and one brushless motor for the Y-axis with SEI Laser digital control. The main technical features are the cutting head with motorized Z axis and the proportional valve for gas pressure control during cutting.





X-Wave Conveyor is the fastest professional laser system for cutting rolls of natural and technical materials, including colored and printed ones, with a maximum width of 1600 mm. It can reach a speed up to 4000 mm/s. The fabric is handled by a conveyor, which is able to eliminate reflections, guaranteeing an exceptional vacuum effect in the cutting area and precise contours. It is equipped with a movement system based on 4 linear motors and a rigid transmission.



It can reach high acceleration (up to 6 g) thanks to ultralight carbon fiber bars. The extremely high dynamics, together with trajectory precision, achieved thanks to sophisticated algorithms for movement and laser control, allow unmatched productivity and quality. For laser register cutting of printed fabrics, two independent vision systems are available: the linear scanning camera which allows the cutting of printed and textured fabrics with extreme accuracy and the matrix camera.





FLATBED PLOTTER CO₂ LASER SYSTEMS FOR CUTTING

Medium format



X-Wave and **H-Type** are the two flatbed plotter laser systems developed by SEI Laser for medium format plastic materials sheets or rolls processing.

Both **X-Wave** and **H-Type** are equipped with a CCD camera for registry laser processing and for automatic file upload thanks to single or multiple printing markers. They are also available with conveyor for roll materials processing.

X-Wave is the fastest professional laser system for CO₂ laser cutting with a maximum working area of 1600x1000 mm. It exploits a mechanical structure combined with X-Y axis movement and a double carbon fiber truss, equipped with four linear motors (two per axis) and position control by linear optic encoders.

X-Wave is featured by lightness, agility, speed, precision, power, which is guaranteed by the laser sources available up to 500 W, and extreme possibility of exploiting a double material loading/unloading time using sheets that are longer is characterized by high maximum acceleration is

flexibility of use thanks to the worktop that minimizes the as well as the possibility of than the working area. X-Wave performances and accelerations: speed 4000 mm/s, up to 6 g.





H-Type is the professional plotter laser system for CO₂ laser cutting with a maximum working area of 1000x700 mm which exploits an X-Y axis movement system with 4 brushless motors and sophisticated axes interpolation algorithms that guarantee exceptional dynamics of movement. The processing's accuracy is guaranteed by the stability, strength and rigidity of the movement structure, which is fixed to a solid die-cast monobloc base.



H-Type is characterized by high performances and accelerations: maximum speed of 3000 mm/s, the acceleration is up to 4 g.



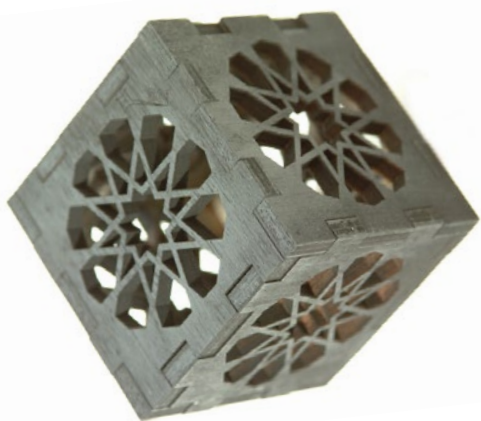



FLATBED PLOTTER CO₂ LASER SYSTEMS FOR CUTTING

Small format

Dragon and **Eureka** are the flatbed laser systems developed by SEI Laser for small format plastic sheet materials processing.

Dragon is the professional laser system for CO₂ laser cutting with a maximum working area of 700x500 mm, **Eureka** is the professional laser system for CO₂ laser cutting of materials with a maximum working area of 610x460 mm.





Dragon and **Eureka** are two compact, innovative and advanced CO₂ laser systems that enable high flexibility and high performances: up to 2000 mm/s speed and 2 g acceleration. They exploit an X-Y axis movement system that uses micro-brushless motors and belt movement.

Dragon and **Eureka** ensure to process sheet materials that are bigger than the working area (Y axis). Both systems are equipped with a CCD camera for registry laser processing and for automatic file upload thanks to single or multiple printing markers.





FLEXI LINE (Flexi xx-Flexi 8xx-12xx BLU)

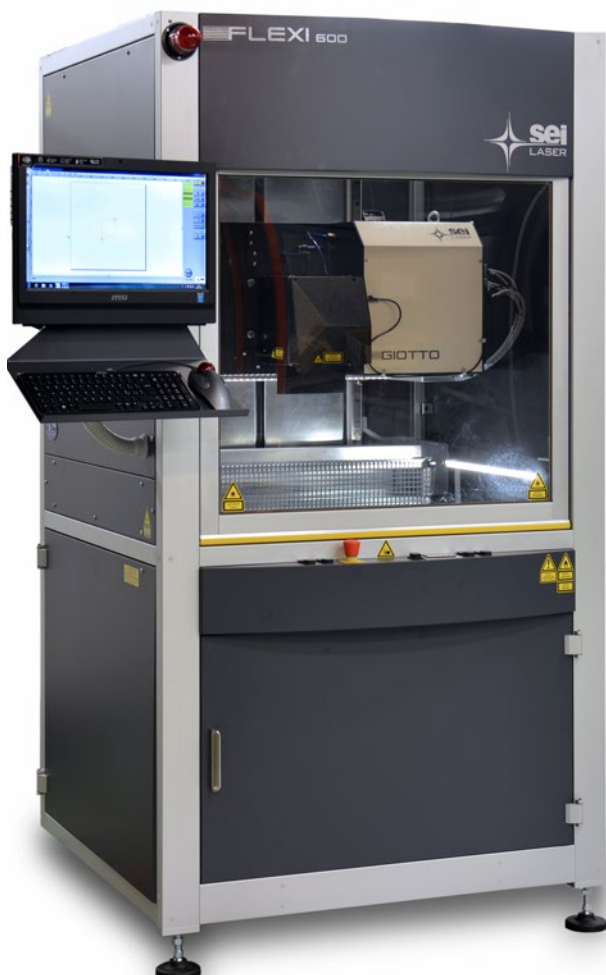
Flexi Line laser systems are the outcomes of SEI Laser's technical expertise and experience in high speed marking and engraving of PMMA, acrylic, acetates, plastic sheets and films, as well as high speed thin materials cutting (maximum thickness: 1 mm). **Flexi Line** is much more productive if compared to other traditional technologies or lasers systems and it always ensures the highest quality. **Flexi Line** laser systems are innovative, flexible and specially designed to meet all customer needs thanks to the different configurations: from the tables that provide continuous cycle processing to the laser powers available up to over 500W. They are equipped with a CCD camera for registry laser processing and for automatic file upload thanks to single or multiple printing markers. The **Flexi BLU Line** is able to produce micro-points by light guide (LGP) on PMMA panels up to 1200x3000 mm regardless the thickness.

Flexi 8xx and **Flexi 12xx BLU** are innovative and flexible laser systems specially designed to meet all customer needs thanks to the different worktops and laser configurations. This system grants amazing performances in marking, engraving, perforation and cutting, depending on the thickness of the material to be processed.





Flexi Basic is the laser system designed for cutting, marking and engraving on a working area of 600x600 mm, 800x800 mm and 1200x1200 mm depending on the configuration. The processable materials are: paper, cardboard, leather, eco-leather, skin, natural fabrics, technical fabrics, denim, rubber, wood, acrylic, acetates and organic materials in general. The Dynamic Beam Expander allows the dynamic management of focal point directly by software and it guarantees high performances. The perforated worktop allows efficient extraction of fumes and production wastes, as well as the material stability. The CCD camera guarantees the registry laser processing. The Z axis optimizes the laser spot size according to the dimensions and thickness of the material.

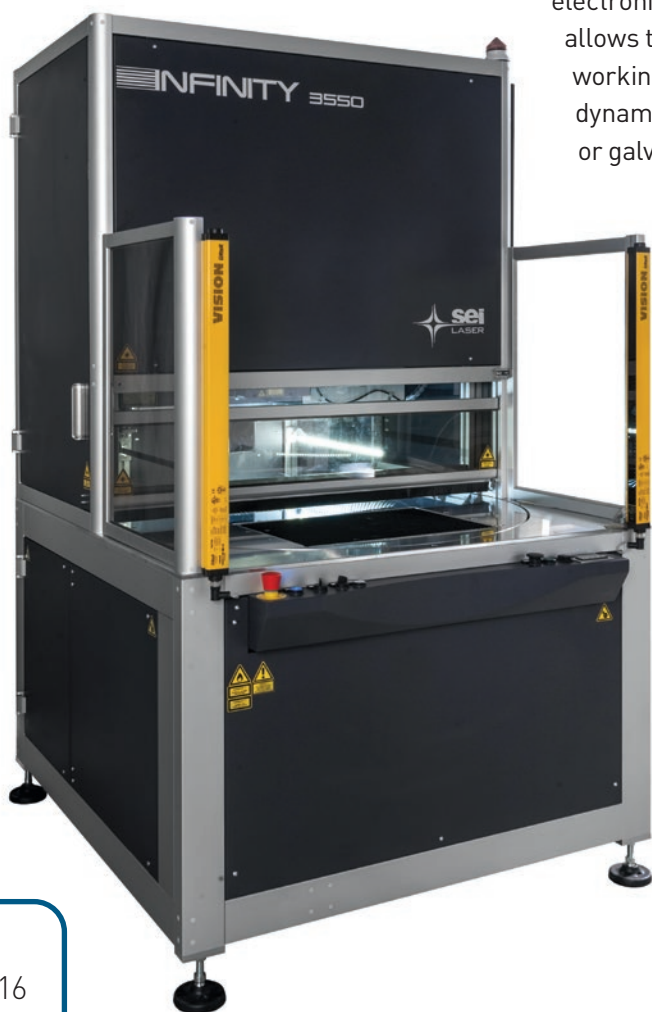




INFINITY LINE

Infinity Line laser systems are the systems developed for high-speed laser marking and engraving of acrylic and acetate sheets, as well as for high-speed plastic sheets and single/ laminated films cutting, on a maximum working area of 700x700 mm.

They are equipped with a two-position rotary table that allows loading and unloading operations in masked time without stopping the working cycle by increasing productivity. The adoption of the exclusive iEye vision system, integrated in the scanning head, allows the automatic centering according to the actual position of the material to be processed. The innovative iScan scanner head with “full digital” electronics, which is designed and produced by SEI Laser, allows the maximum quality of the laser beam on the entire working area, while the adoption of a high performance dynamic beam expander, that is moved by the linear motor or galvanometric motor, allows a high speed marking.





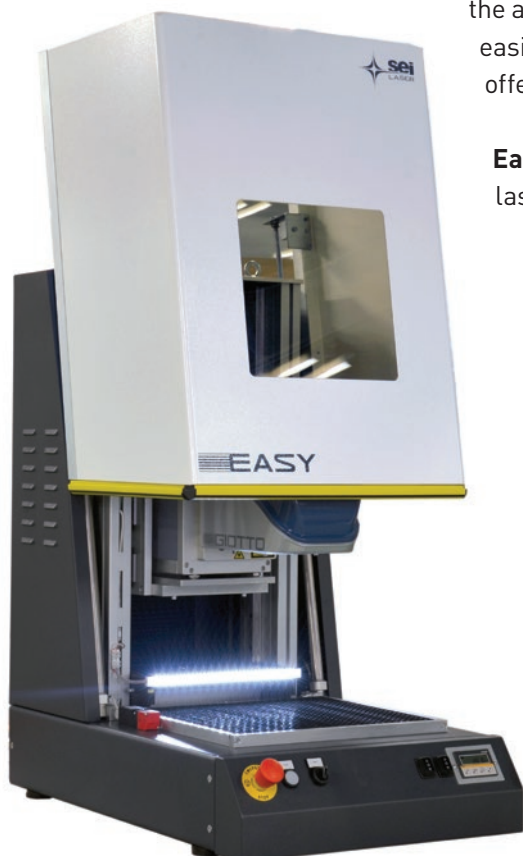


EASY

Easy is the smallest laser system for cutting and marking several materials on a working area of up to 300x300 mm. It is the intelligent and compact desktop solution specially designed to process numerous materials such as paper, cardboard, leather, skin, natural and technical fabrics, rubber, wood, plastic etc.

The incredible quality of the laser beam, which is currently the smallest available on the market, allows precise and define marking, while the door with pneumatic opening and the accessibility on 3 sides make loading and unloading operations easier and faster. The zero maintenance sealed CO₂ laser source offers the highest reliability and quality performances.

Easy is equipped with a motorized Z axis to optimize the spot laser, according to the size and thickness of the material.





PERSONAL BRAVO

Personal Bravo is a flatbed plotter system designed to combine high quality cutting, which is typical of plotter systems, with high speed marking and engraving, that are typical of systems with galvanometric head. The presence of both technologies makes this family unique for its application flexibility.

Personal Bravo is manufactured with high precision movement through recirculating ball screw and brushless motors. It is equipped with a cutting head and a Hi30 galvanometric head which has three interpolated axes and a controlled axis. Personal Bravo is designed for high quality cutting of thick wooden panels, as well as for high-speed marking and engraving. Personal Bravo also guarantees the highest quality cutting or perforation on thin materials with a working area up to 2000x3000 mm and a laser power up to 800 W.

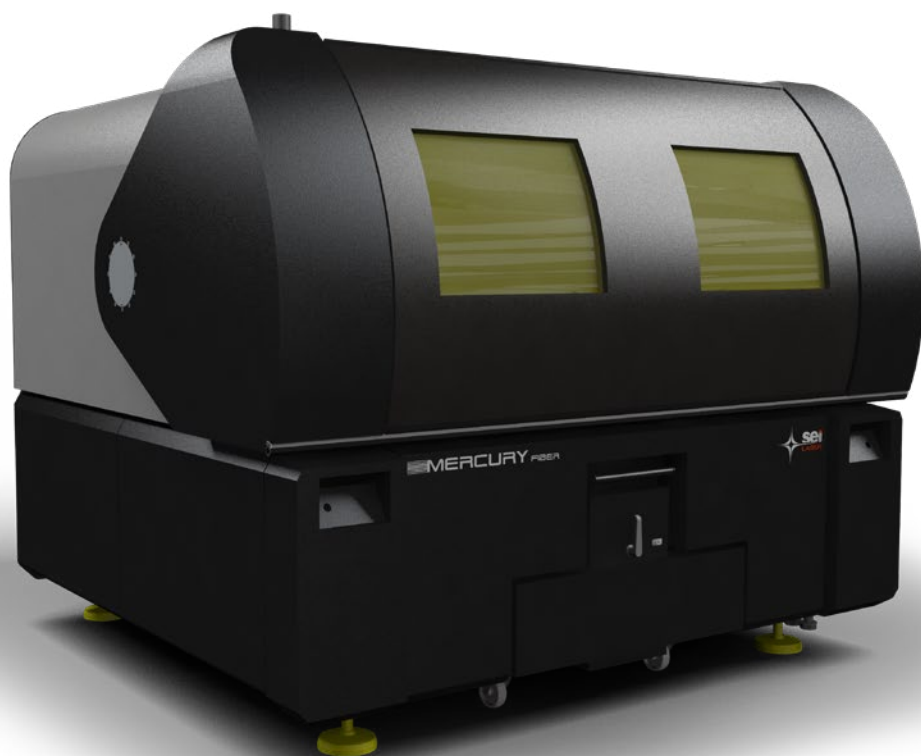




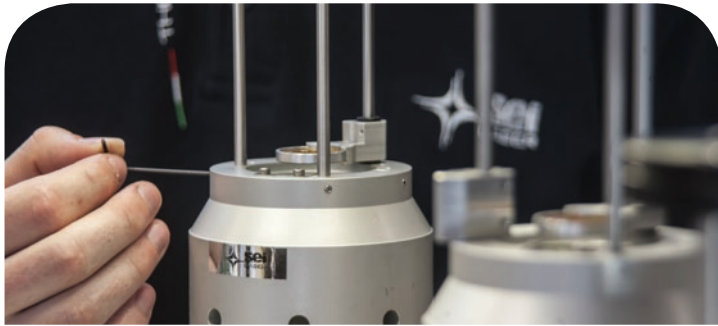
MERCURY FIBER

Mercury Fiber is a fiber laser cutting system manufactured by SEI Laser for metals and metal alloys processing. Mercury Fiber is equipped with high-power (500-5000 W) fiber laser (1060-1070 nm wavelength) with high-quality laser beam and configurable fiber diameter according to the customer's needs.

Mercury Fiber safety is guaranteed by Class 1 certification (EN 60825-1) and is therefore suitable for any industrial working environment making it safe and clean. The system is equipped with automatic telescopic opening and closing cover, inspection windows on the front side of the system with specific safety glass and a worktop predisposed for effective fume and dust suction.







WHY SEI Laser?

WE ARE THE LASER CHAMPIONS

With more than 40 years of experience we are pioneers in the design and manufacture of laser systems. SEI designs and builds our own scanning heads and electronic controls, from hardware to firmware to software.

With proprietary R&D expertise in laser and optics, SEI has full control over our systems and tune every system to meet each applications' needs, including labels...

We are not just laser integrators!

WE ARE DIGITAL

Every SEI Laser system can be integrated into automated digital control production processes, and it's in compliance with the Industry 4.0 certification. All SEI Laser systems are certified to satisfy the following requirements: control by CNC and / or PLC; interconnection with the company IT system thanks to remote loading of instructions and / or part program.

Thanks to the user-friendly human-machine interface, using SEI's lasers will be easy to learn, intuitive, and safe for any operator!

WE BELIEVE IN IMPORTANCE OF SERVICE SUPPORT

SEI Laser, thanks to its wide range of technical support services and its strong presence on all continents of the world, ensures a quick, effective and tailored response to the different customer needs. In addition to technical support on-site, SEI Laser offers a valued remote assistance. In real-time communication between SEI's engineers and the customer, allows the operator to be guided step by step in technical operations like personalization of the processing parameters or problem diagnostics and troubleshooting.



WE GUARANTEE THE BEST QUALITY ON THE MARKET

SEI guarantees the highest accuracy and precision through maximum control of the laser beam (4-axis system). Achieve the highest quality of cutting, kiss-cutting, marking and scoring without any material discoloration or burning and at highest processing speeds for maximum throughput.

WE HAVE THE LARGEST APPLICATIONS KNOWLEDGE

SEI Laser offers a complete range of laser solutions that can be configured with different options, interfaces and automation to meet specific market and application demands. Commercial print & graphic arts, LED backlight, folding carton, labels, metal processing, wood, flexible packaging, leather, plastic, denim & fashion, industrial and technical textile are some of the main markets and applications in which SEI has a wealth of experience and know-how.

WE CARE ABOUT THE ENVIRONMENT

With SEI's eco-friendly laser solutions, there's no longer any need to dispose of traditional dies, and material waste is reduced to the minimum.



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