

MATRIX TEXTILE



YOUR VISION

Welcome to sparking innovation, welcome to technological efficiency, welcome to SEI Laser, where each application has a possible laser solution.

SEI Laser has been writing the laser marking and cutting history since 1982, satisfying every requirement of market and clients, by customizing our high-tech laser solutions.

Today, we are an international group built on the solid pillars of knowledge, ambition and quality. Our four branches and net of dealers make us present in every corner of the world.

It has been a continuous growth: the small workshop where it all began has developed into a top-class industrial reality in the production of industrial, cutting & marking and OEM laser systems.

We take great pride in designing, developing and manufacturing our laser solutions thanks to our R&D Department. Innovative technology and attention to detail support the quality of our production process, which is entirely carried out in Italy.

Our "Made in Italy" provides the laser technology market with added value and shares higher standards. It opens up a world of knowledge and wisdom, where variety and innovation have always travelled hand-in-hand.

A journey made of passion, creativity and a great desire to improve.

We believe in the laser way!



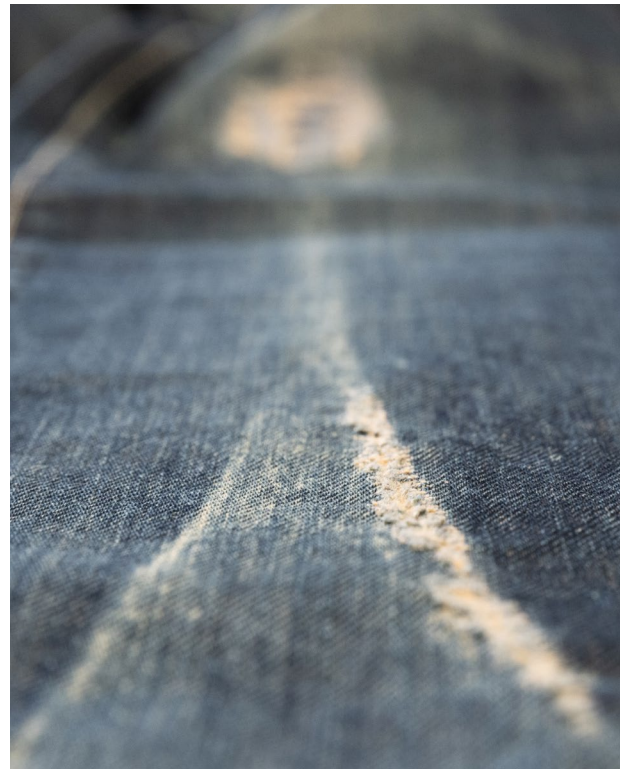
OUR MISSION

The Fashion Industry is looking for new virtuous paths which start from an idea and led to a conscious product, with a clear, traceable, and repeatable footprint.

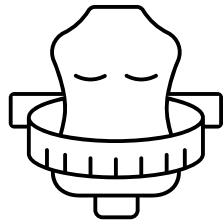
Matrix System helps the designer in concretizing his own vision thanks to the digitalized coding of the process. The EnGenius software imports a two-dimensional model and transforms it into three-dimensions prototype, which faithfully reproduces the desired graphic effects.

Matrix System optimizes both the cutting and marking phases because it transfers directly on the fabric the files generated by EnGenius and, at the same time, it cuts the shapes that make up the garment. Matrix is able to process all types of fabric, as long as laser-compatible.

Both current and future challenges turn around on-demand production. SEI Laser accepts this challenge and provides companies with a system which is able to promptly give a fast and efficient answer to some production needs, that are more and more targeted.



KEEP IT TRUE



One of the main features of Matrix System matches with the ease of transformation of the creative spark into a product of simple realization and high profitability. Matrix System allows to recreate on denim some finishes which are usually impossible to get with traditional solutions.

Some elements are needed to develop the process:

- Two-dimensions pattern with sizing development,
- Graphics and images to realize thanks to laser technology.

The graphics are transposed in the form of finishes applied directly on the 3D model, adapted to the sizes according to the established rules and automatically translated into "laser parameters", which are sent to the machine.



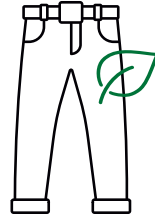
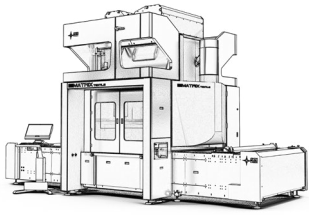
Possibility to realize a project on the computer intuitively, by setting some flexible management-parameters which instantly become machine commands.

The ease of use of EnGenius proprietary software allows to virtually pack the garment and to adapt on the latter the default graphics. The three-dimensions design development is applied to the standard size and it adapts itself automatically to all the other sizes.

This process does not accept mistakes and it optimizes the prototyping of the garment.

While using EnGenius, every characteristics of the garment can be seen: fabric, graphic, washing, and accessories.





The laser of Matrix Textile has an unreachable definition: it goes as far as the meticulous decoration of complex images, since the beam of light is concentrated in an area which measures less than a millimeter.

Many of the current laundry techniques can be anticipated or even replaced thanks to Matrix System work: production is faster, more sustainable and affordable.

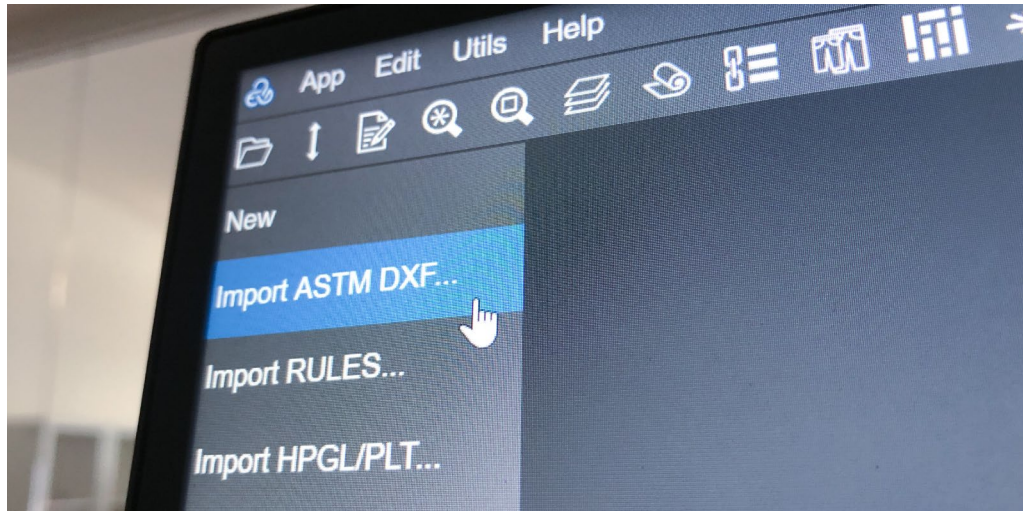
Matrix Textile introduces some revolutionary processing ways: cutting and marking take place simultaneously, through a single laser machine which saves investments for both the cutting room and laundry. As a result, the total processing cycle is reduced and delivery times become extremely competitive.

Thanks to Matrix System, is now possible to reduce the production chain to the lowest terms and, consequently, the need to go back to traditional laundry activities.

Consumers can now buy sustainable garments without sacrificing the creativity of fashion trends.

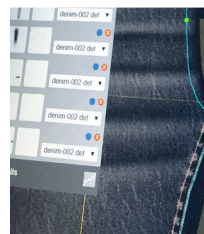
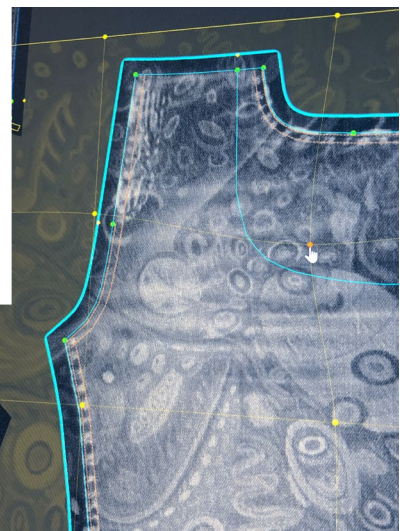
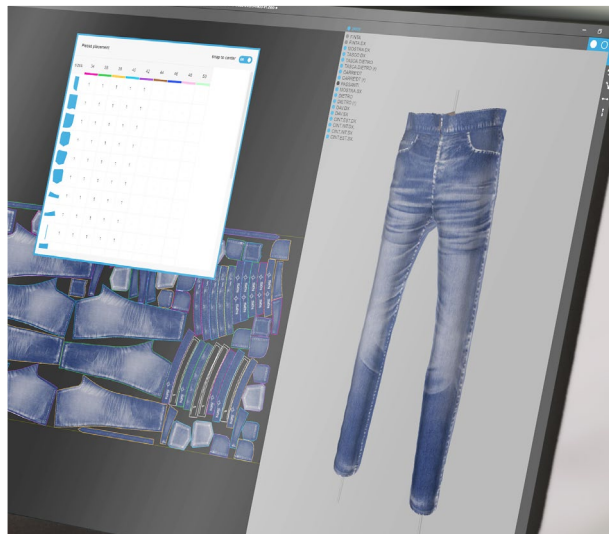
MAKE IT BLUE





The combined use of EnGenius and Matrix ensures the likelihood and naturalness of the final result. In the Digital Era, Matrix System transforms garments like a real “digital enzyme”.

- Compatibility: import DXF-ASTM files;
- Ease of garment assembly: assembly of parts intuitively; modeling skills are not required;
- Synergy with the main editing systems to edit and retouch effects: EnGenius gives the operator the possibility to open directly from the program some additional editing programs;
- Use of pre-established effect database: presence of a pre-established archive of graphic effects, which has been implemented;
- Automatic extension of graphic effects: the editing part is done on one size and then the software adapts it automatically to the other sizes of the model, respecting both proportions and functional positioning.



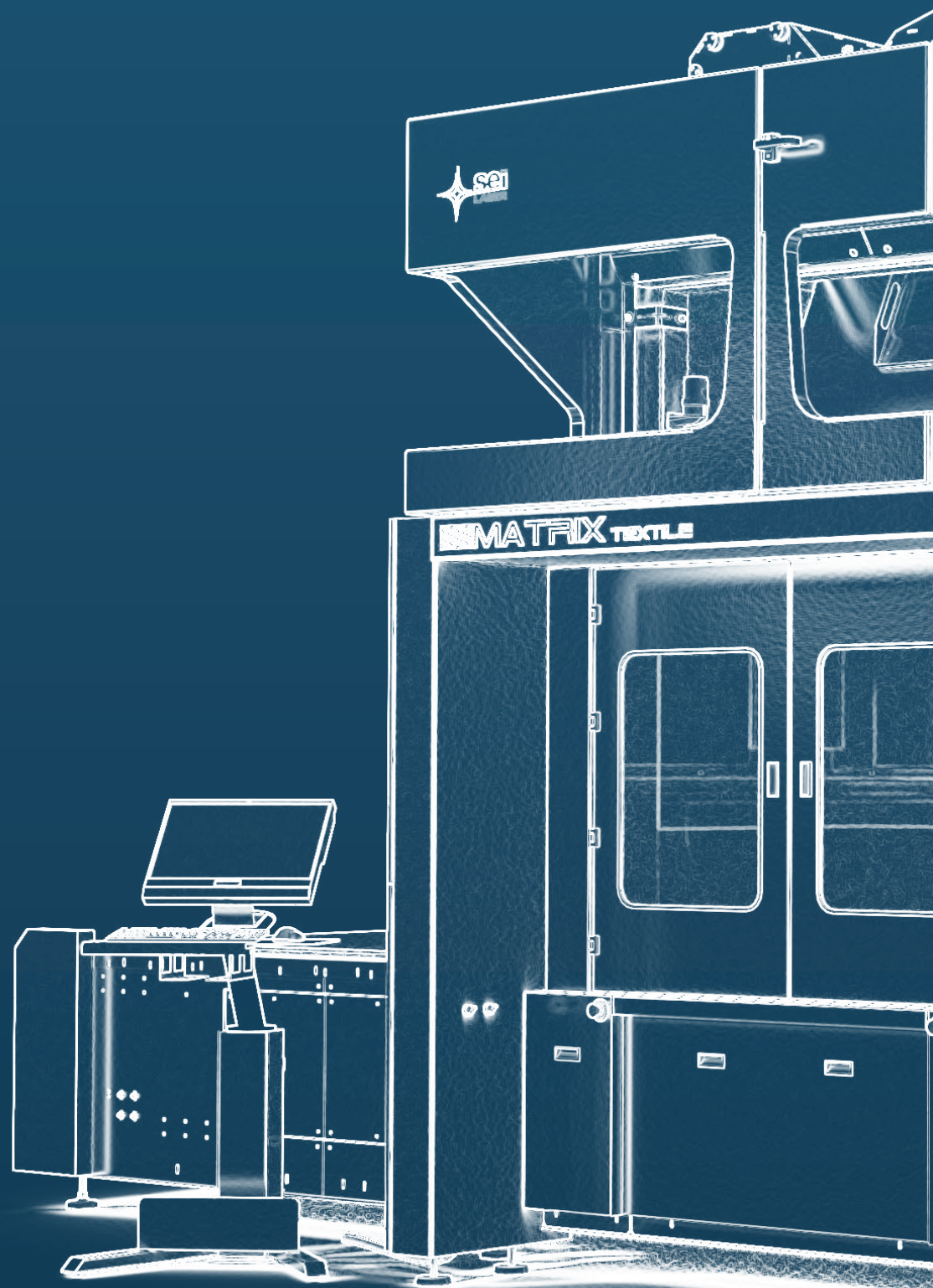


Matrix System is able to faithfully recreate:

- Stone wash: the laser processing reproduces the abrasive and bleaching effect of the pumice stone, without using any chemical whitener, water and crumbly stone. The process takes place in seconds instead of hours;
- Bleaching: the use of sodium hypochlorite is replaced by selective bleaching through laser energy;
- Potassium permanganate (PP): Matrix replaces potassium permanganate spray, improving operator working conditions. Moreover, it avoids rinsing and product neutralizing;
- Machine distressing: the laser allows to place decorative distressing in every area of the garment, even in those which are generally avoided to exclude the risk of breakage or deterioration of the seam thread;
- Superficial abrasion: the effect of laser promotes the three-dimensional rendering of the effects, to the sight and to the touch.

Versions	Matrix Textile 16	Matrix Textile 20
Rated Laser Power (W)	300-500 - single or double laser	
Max. processable roll width (mm)	1650	2200
Max. marking width (mm)	1600	2000





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