

Thanks to its long *experience* in developing lasers
for *embroidery machines*, GMI has perfected new technology
to completely satisfy the *embroiderers' needs*
and is now glad to introduce the new

GMI Laser III



● *Fast*

● *Easy*

● *Safe*

● *Accurate*



GMI Laser III



THE GREATEST ADAPTABILITY:

- ◆ It can be installed without any physical contact with machines.
- ◆ The same laser can work over several machines in one line.
- ◆ It is possible to achieve highly precise and made to measure systems, to better organize space.

POWERFUL AND GUARANTEED:

- ◆ Co₂ sealed LASER SOURCE with nominal power from 40 to 400 W.

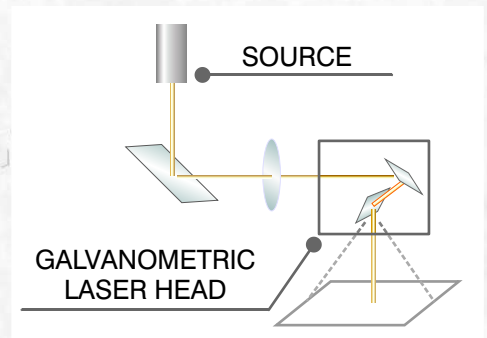
Available in the following versions:

- with water cooling (low-cost)
- with thermostated cooling liquid

- ◆ BRUSHLESS MOTORS move the laser column along the bar with high acceleration, speed and stops accurately and efficiently.

GALVANOMETRIC LASER HEAD :

- ◆ Directing the laser beam extremely fast and precisely thanks to special mirrors moved by electromagnetic motors (making it possible to obtain better results in comparison to traditional cutting devices that use laser heads moved by belts and x - y motors).



SECURITY:

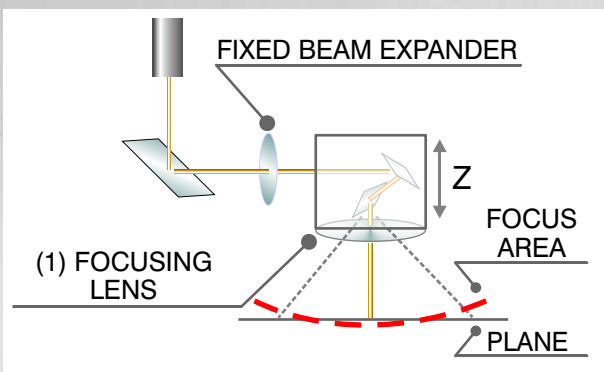
- ◆ Laser scanner to detect intrusions and/or individuals during operation.
- ◆ Emergency cable along the bar.
- ◆ Anti-shock lateral cushions provided with immediate stop sensors.
- ◆ Laser beams protective bell and smoke suction.



And more ...

- ◆ Self lubricating bar.
- ◆ Smoke filtration.
- ◆ On line connection to remote assistance.
- ◆ Personalized protection barriers in the passages between machines.
- ◆ Extra-fast brakes for immediate stops.

GMI Laser III is available in a **CLASSIC VERSION WITH 2 AXIS GALVANOMETRIC LASER HEAD** and 300x300 mm field and in a **3 AXIS HEAD VERSION**

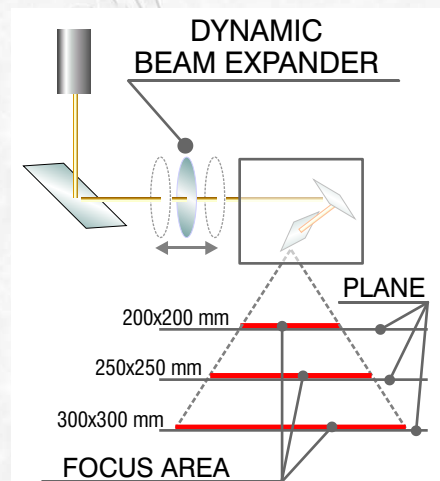


CLASSIC VERSION 2 AXIS LASER (X and Y) HEAD

- ◆ The 3rd axis (Z) is mechanical: the head lightly raises and lowers, to regulate the fabric's thickness (guided via software).
- ◆ To focus the cutting surface a focusing lens is used (l).
- ◆ The maximum working field has been fixed at 300 x 300.

SUPERIOR VERSION 3 AXIS (X, Y, and Z) HEAD

- ◆ With Dynamic Beam Expander (lens moves at the mirrors' speed), both the fabric's thickness and the beam's focalization are perfectly regulated on the complete surface and at the same time .
- ◆ Thanks to this device and the different optics and the mirrors' characteristics, we can obtain the following advantages:
 - More control to calibrate the half cut which gives the ability to cut the fabric above without cutting the one below.
 - More cutting linearity.
 - The possibility to have different maximum working fields changing the head's distance from the cutting surface.

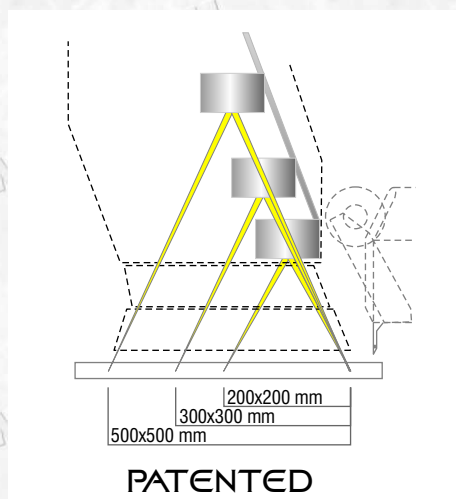
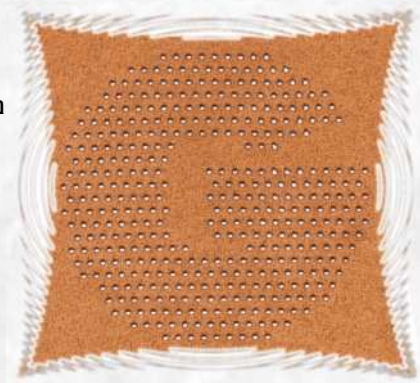


VERY LARGE WORKING FIELD 500 X 500 mm (optional higher working field dimensions available upon request)

- ◆ Less displacements of the laser column (X) and of the machine frame (Y).
- ◆ Less junctions among the protective bells.
- ◆ With go+return cut, it is possible to cover a depth more than 1000 mm.

VERY SMALL SPOT 136 micrometers: 0,136 mm, value obtained with a working field set at 200 x 200 mm (in the PLUS version).

- ◆ Higher speed under the same power source.
- ◆ Less burning under the same fabric cut.
- ◆ Higher definition in corners and in very small details.



VARIABLE FIELD and VARIABLE SPOT

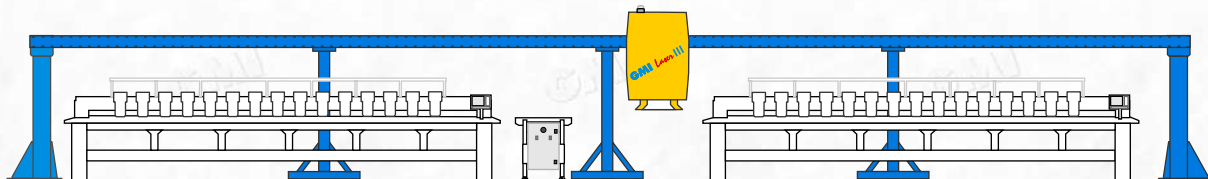
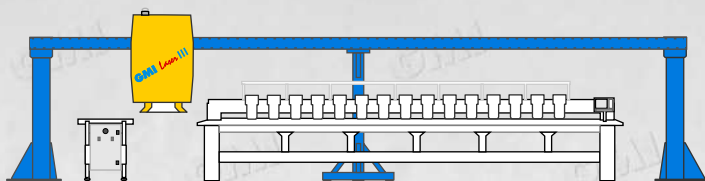
- ◆ It allows to work with the best field according to the dimension and the type of fabric to be cut (a smaller area corresponds to a smaller SPOT).
- ◆ It allows to change the laser beam inclination under the same applique dimensions, because the more the laser head raises, the more vertical the beams will be.
- ◆ Without this option, it is necessary to select the best field required before installation .

REVOLUTIONARY DESIGN of column and protective bell, allowing the use of as much of the working field on the embroidery machine as possible: this permits more working field on machines with **SEQUINS** system.

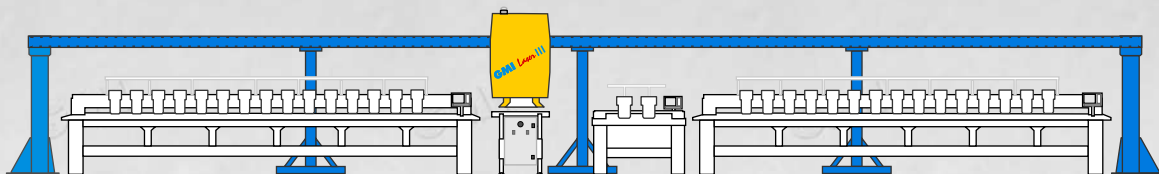
INSTALLATIONS



Single installation with testing table mass-produced



Double installation with two multi-head embroidery machines and punching table with movable grid and smoke vacuum and optional hook-up for machine looms with laser pointer (optional)



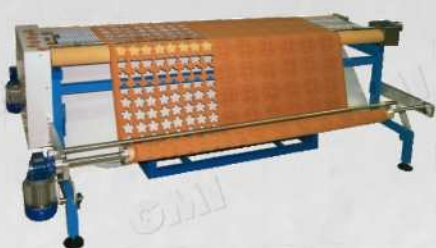
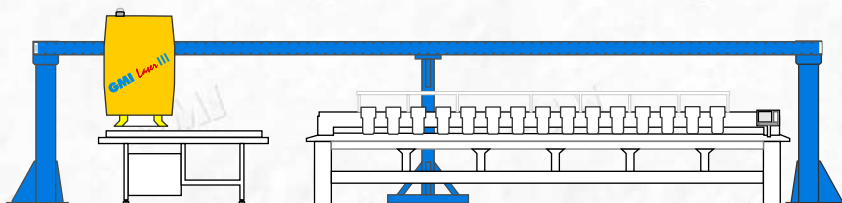
Triple installation with two multi-head embroidery machines, sampler and testing table.



Grid surface with automatic movement and smoke vacuum
(Ideal for large cuts: 1800x900 mm)

GMI *Plotter*®

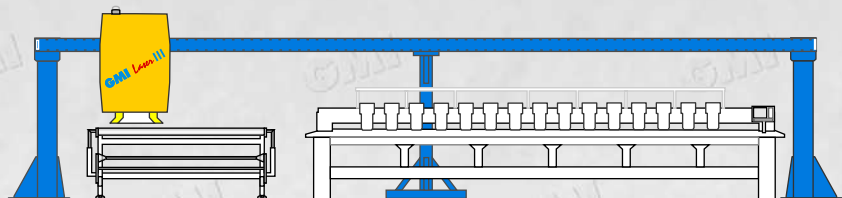
Option



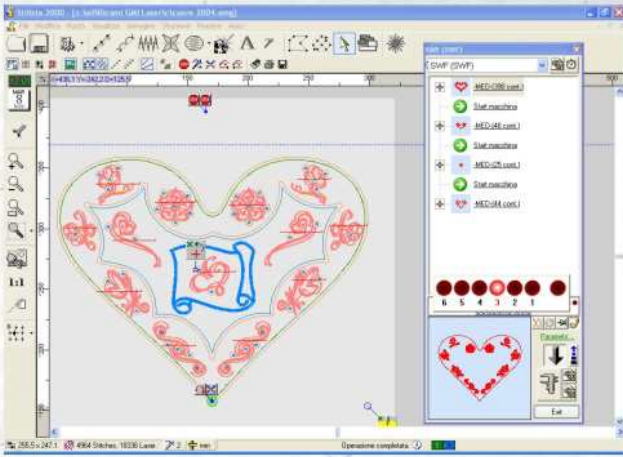
Roller & unroller with grid surface, automatic movement to discharge socket punch
(For engraving and punching of fabrics up to 1800 mm of height)

GMI *Roller*®

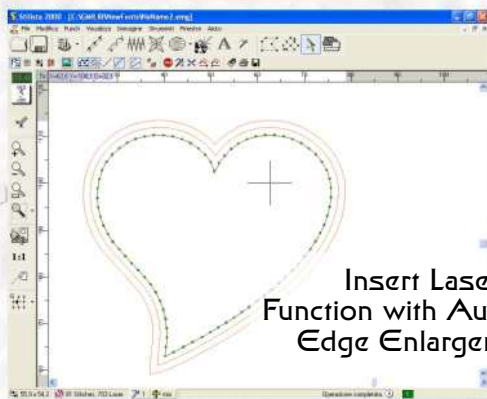
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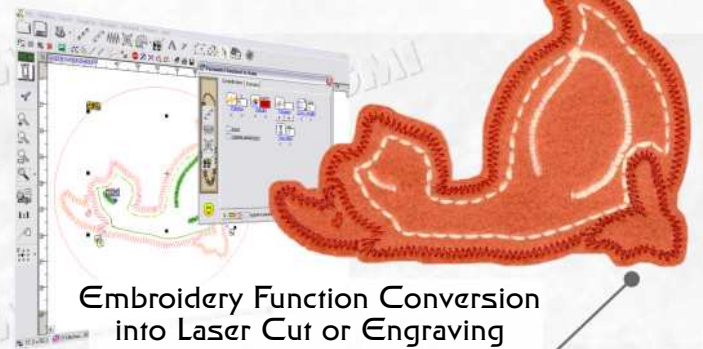
STILISTA 2000 LASER DRIVER SOFTWARE



- ◆ Easy and complete interface to keep power and frequency under control (depending on the source's type).
- ◆ Velocity of cut, number of passages, thickness of fabric, alternating multiple cuts to get fabric cold.
- ◆ Cut fabric's refrigeration.
- ◆ Automatic or manual bell subdivision.

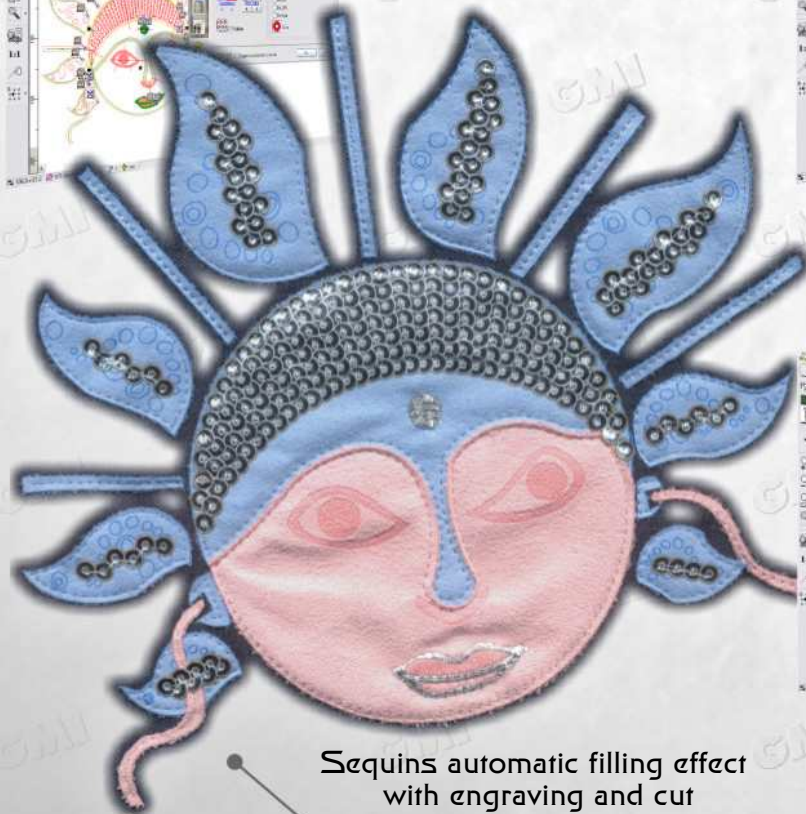


Insert Laser Function with Automatic Edge Enlargement

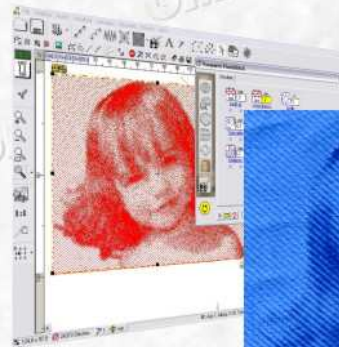


Embroidery Function Conversion into Laser Cut or Engraving

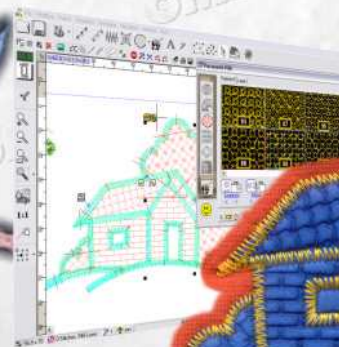
Here are some Functions of the Extended Program Version



Sequins automatic filling effect with engraving and cut



Photostitch



Special stitches engraving

GMI is the company that invented the laser bridge system for embroidery machines and the only that has the greatest number of installations in Italy and worldwide.

This experience along with the continuous software development, makes GMI the ideal partner to work with.



LASER EMBROIDERY COLLECTION CD ROM

It is an exhaustive embroidery collection with the parameters necessary for their completion.

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