

**Expert solutions
for 3D laser engraving**

Laser ablation

New
dimensions
of competitive
advantage

New dimensions of competitive advantage

Possibilities as limitless as your imagination



Engrave in mould for rubber industry (Automotive) material: steel



Engrave in mould for rubber industry (Automotive) material: steel



Engrave in alluminium mould for a plastic part (Lighting)

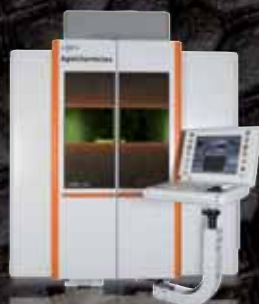


Texturing on alluminium with 5 axis machine for beverage (plastic bottle)



Engrave number in difficult position with 5 axis positioning mould for rubber bellows

Realized from LAP-STAMP with a LASER 1000 5Ax, <http://www.lapstamp.it>



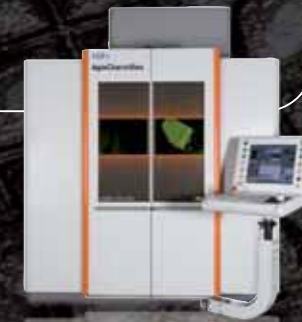
LASER 500



LASER 600



LASER 1000



LASER 1200

When it comes to making your mark on the world, expertise makes all the difference. GF AgieCharmilles' new laser ablation technology offers not only a continuum of laser expertise, products and services, but new ways for its customers to differentiate themselves from their competition. Our high-precision LASER products enable texturizing, engraving, microstructuring and labeling of not just simple two-dimensional geometries but also complex 3D geometries with ease-positioning you to successfully make your mark on a highly competitive industry.

- + High precision laser machines with a workpiece size up to 3 Axes: 900x900x1200 mm
5 Axes: 700x700x700 mm
- + From 3 axes entry to 5 axes high-end
- + Compact and smart laser head concept
- + Built-in camera and red pointer for fast adjustment as standard
- + Built-in touch probe for high precision positioning as standard
- + Fully digital processes with software standards
- + Adjustable exhaust system
- + Latest YAG Ytterbium fibre laser technology
- + Ready-for-automation concept

New dimensions of competitive advantage

Possibilities as limitless as your imagination

4

5

Our laser head - a class of it's own

Integrated features of first class quality

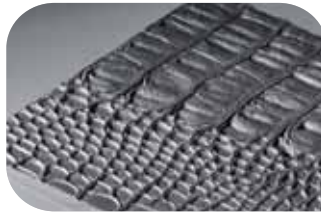
Precision laser machines from 3 axes entry to 5 axes high-end

Based on the experience of GF AgieCharmilles of many years, to build high quality and precise machines mainly for the die and mould business, we now enter the market of 3 axes and 5 axes laser machines. Our LASER products are the expert solutions to your product design needs.

GF AgieCharmilles precision laser ablation technology enables differentiation of products across a wide

range of applications in a vast number of market segments. We offer a full range of laser machines from 3 axes entry to 5 axes high-end.

- Product range with 4 machines
- Easy workspace accessibility
- Crane loading possible
- Large laser protective glass for easy process monitoring
- Entry
 - LASER 500 (3 Axes only)
- Mid / High End
 - LASER 600 3Ax/5Ax (Automatable)
 - LASER 1000 3Ax/5Ax (Automatable)
- High End
 - LASER 1200 5Ax
 - Max part dimension 900x900x1200 mm for 3 Axes applications
 - Max part dimension is 700x700x700 mm for 5 Axes



Fully digital processes with software standards

- Rhinoceros is the first platform to use: Standard in the market
- Create your 3D file from a bitmap in 256 greyscale
- Control of the all parameters in the one program
- Import 2D (.dxf, .bmp, .ai, etc.) and 3D files (.stl, .step, etc.) directly in our LASER software
- Create 2.5D program files directly without any external software

+ High precision laser machines

+ Fully digital processes with software standards

State-of-the-art Yb fibre laser technology from 20W to 50W

- Over 30.000 operational hours without any maintenance
- No water/water cooler or air/water cooler for 20W and 50W
- Low electrical power consumption with a high efficiency factor
- No calibration or control of power
- Fine laser beam 25 microns

Head for LASER 5Ax

Laser red pointer for laser positioning

Exhaust nozzle

- Adjustable down angle
- Retractable
- Dust and smoke removal

Camera for fine positioning

- With digital cross generator
- Light illumination
- Real time display with zoom possibility
- High resolution camera

Fibre laser optical output

Two high-speed scanners

- Light
- On / Off

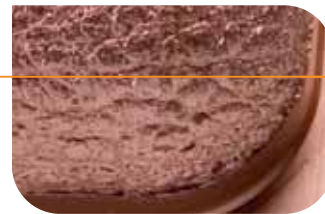
3D touch probe

- 3 directions measurement (3D)
- 70 mm pneumatically retractable to avoid collisions
- Resolution 0.001 mm of probe
- Automatic calculation of the laser focus position
- Manual part location
- Automatic part location

- Dry air blowing
- On/Off

Focal lens

- Fast exchange
- Focal Lens 100 mm (Spot size 25 µm)
- Focal Lens 160 mm (Spot size 40 µm)
- Focal Lens 254 mm (Spot size 70 µm)



Realized from Piazza Rosa with a LASER 1200 5Ax, <http://www.piazzarosa.it>

Speed up your daily business with our compact and clever laser head concept

Our patented multifunctional LASER head concept offers various possibilities to improve your daily efficiency e.g. use the build-in

- high res. camera and the red pointer for a fast adjustment

- touch probe for high precision positioning
- adjustable dry air blow and exhaust nozzle to guarantee optimal process

+ Multifunctional LASER head

+ Ready for automation

Ready for automation

Our LASER products can be integrated into an existing automated system or with an optional pallet changer. This feature is available for LASER 600 and 1000 (Retrofittable) from 8 to 48 pallets. You control the whole process chain, which means more independence with the LASER product line from GF AgieCharmilles

A continuum of Customer Services

Productivity, availability of equipment and continuous improvements are essential drivers for your laser engraving business. GF AgieCharmilles Customer Services package offers a continuum of support customizable to your particular needs, which are at the center of everything we do.

Our Customer Services constitute our industry's most comprehensive service package: preventive maintenance, training, automation, a dedicated customer service Helpline, original wear parts and certified consumables, a privilege Club with special advantages available only to GF AgieCharmilles customers. Our three tiers of support-operations, machine and business-offer maximum flexibility as your business grows and thrives.

Backed by GF AgieCharmilles' expertise

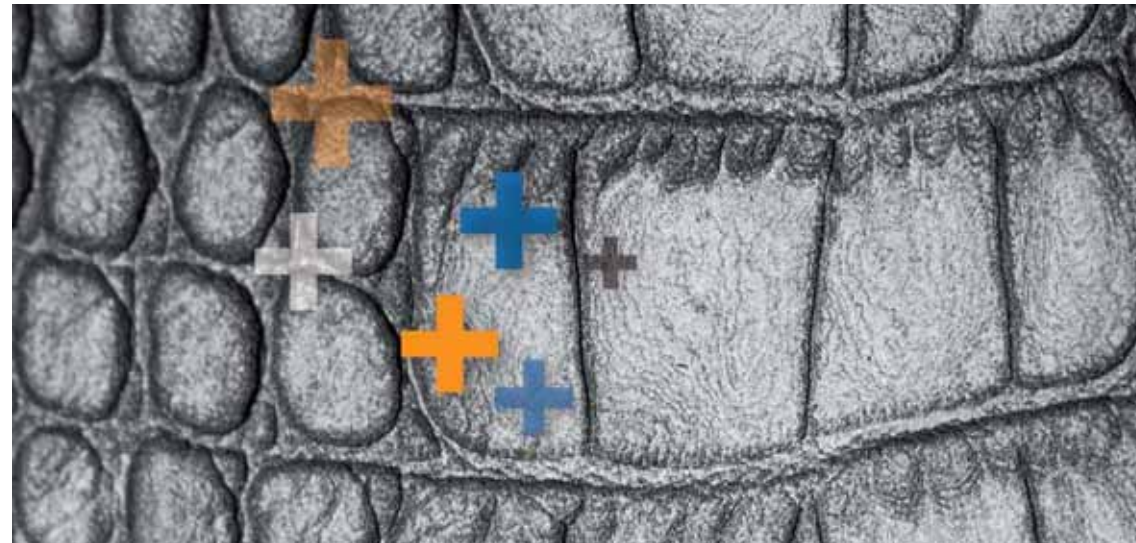
GF AgieCharmilles' 150-year history of delivering unmatched value to customers is why we are the world's leading provider of machines, automation solutions and services to the tool- and mold-making industry and to manufacturers of precision components. Our hallmarks are reliability, precision, speed, quality and customer services across a broad range of machining technologies and services: Milling, EDM, Laser, tooling and a life cycle of support to ensure your continued success.

As a globally active group, GF AgieCharmilles, a consortium belonging to Georg Fischer Group (Switzerland), maintains a presence on 50 sites worldwide within its own organization.

With our LASER products, we add a new dimension - and one that is complementary to our other core technologies-to our commitment to helping our customers achieve more.



+ Backed by GF AgieCharmilles' expertise



At a glance

GF AgieCharmilles

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM, Laser and Automation solutions. A comprehensive package of Customer Services completes our proposition.

Achieve more

We commit to a promise.
That promise is "Achieve more."
It's a commitment to create the right conditions for our customers to obtain competitive results.
When our customers win, we win.

www.gfac.com

+GF+

AgieCharmilles

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Achieve more...