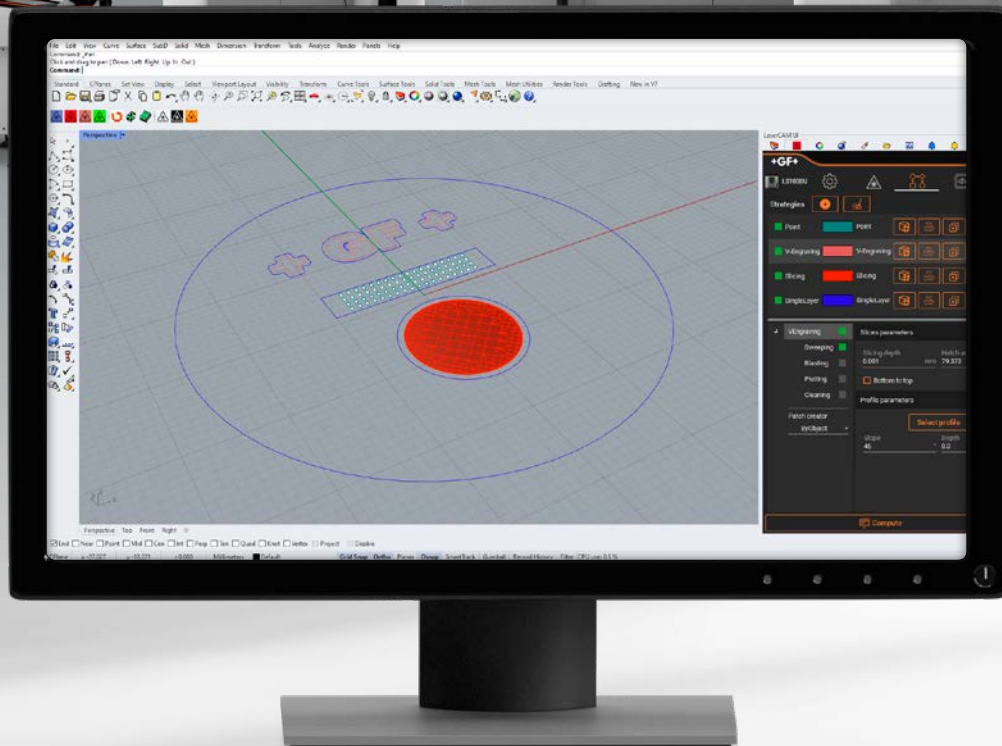
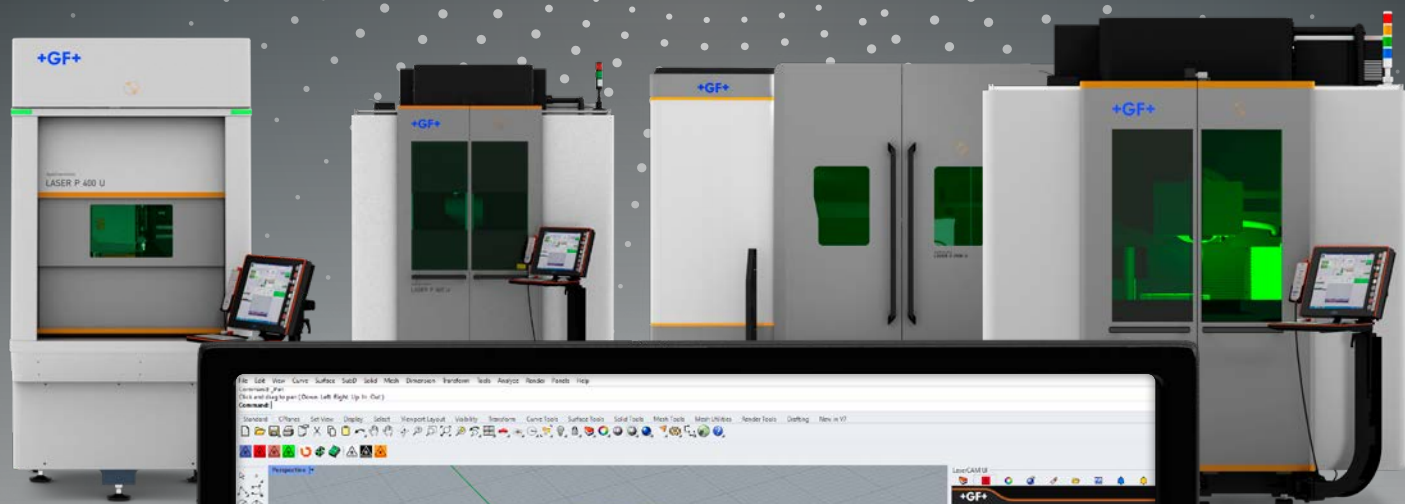


# LaserSUITE360

CAD/CAM software  
for GF Laser machines



# Becoming better every day – since 1802

## GF Machining Solutions

When all you need is everything, it's good to know that there is one company that you can count on to deliver complete solutions and services. From unmatched Electrical Discharge Machining (EDM), Laser texturing, Laser micromachining, Additive Manufacturing and first-class Milling and Spindles to Tooling and Automation, all of our solutions are backed by unrivaled customer service and expert GF Machining Solutions training. Our AgieCharmilles, Microlution, Mikron Mill, Liechti, Step-Tec and System 3R technologies help you raise your game—and our digital business solutions for intelligent manufacturing, offering embedded expertise and optimized production processes across all industries, increase your competitive edge.



+ We are AgieCharmilles.  
We are GF Machining Solutions.

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Discover the possibilities of a new manufacturing approach with Laser

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The most powerful Laser software package, dedicated to enhance the steps of your Laser programming

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Designed for engraving, micromachining and decoration operations

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The perfect tool for 3D Texturing to create your machining programs

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The ideal complementary tools to prepare, visualize and simulate your machining programs

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## Laser

# A new manufacturing era has begun

### **Work digitally**

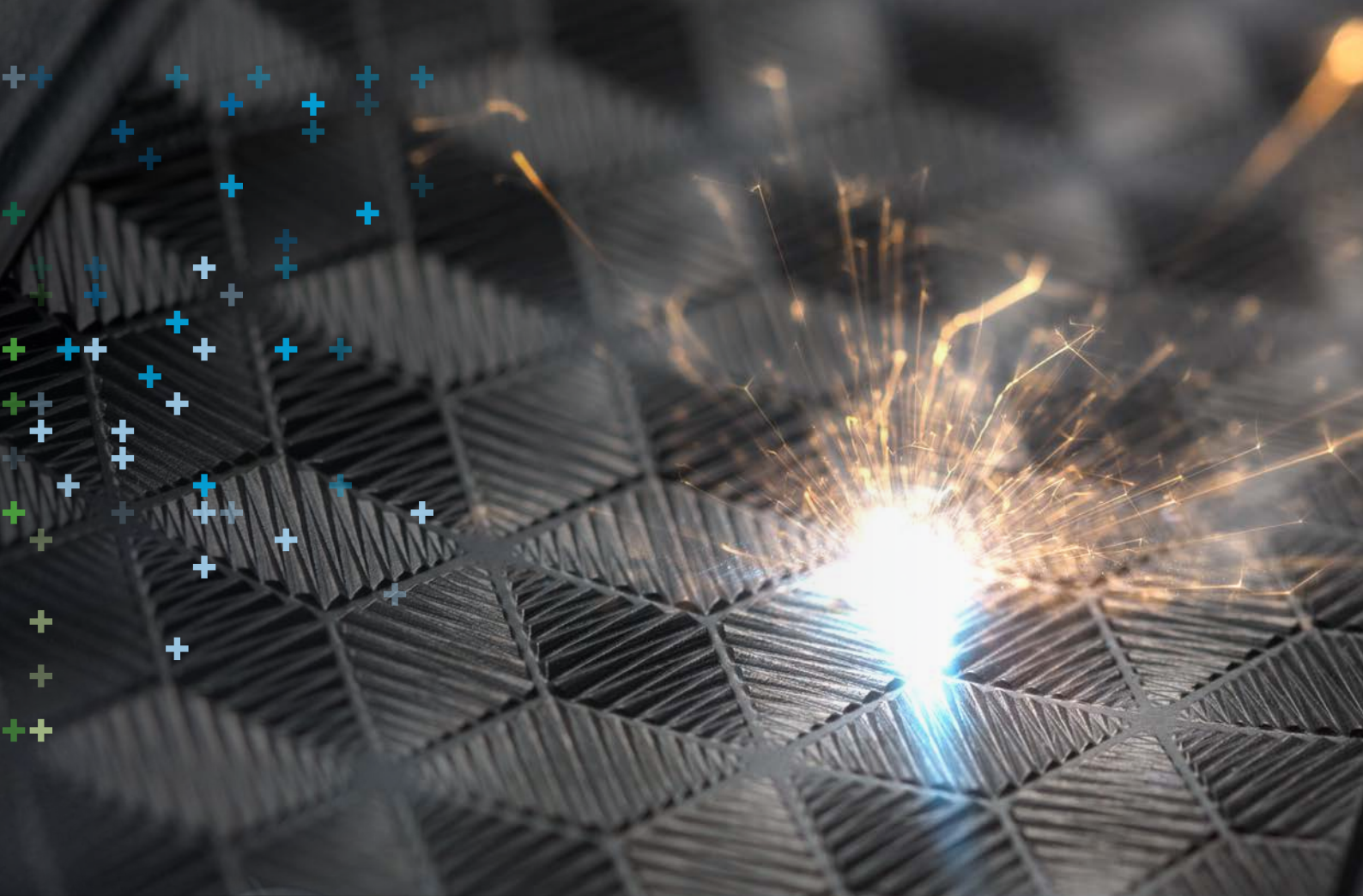
Digital transformation is underway and Laser machining overcomes the limitations of manual and traditional methods to drive your manufacturing transformation. Defeat the daily challenges of difficult-to-realize designs and quality deviations, and tackle existing challenges in order to seize new business opportunities.

### **Innovate without compromise**

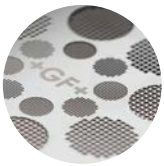
Say goodbye to conventional manufacturing limitations with a solution developed to reduce your technical and economic constraints. Be ready to propose new product designs with fewer limitations, and innovate with confidence as a more efficient technology is now able to reduce the cost-per-part gap between existing technologies while delivering higher quality.

### **Achieve faster time to market**

Time to market is key: shorten your manufacturing chain while speeding it up in order to get your innovations to market faster. Laser texturing technology gives you access to the laser machining operations essential to shortening your lead time by efficiently producing your textures internally.



# A multi-process approach



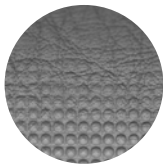
**LASER Micromachining**

The new femtosecond solutions revolutionize the results you can achieve. They allow for sharper geometries, lower Ra levels and higher brightness. These new capabilities bring the Laser into the micromachining world and can be used in combination with conventional technologies such as milling for many applications.



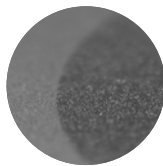
**Laser 3D engraving and marking**

Engrave text in three or five axes and the machine shapes all in a single setup.



**Laser 3D texturing**

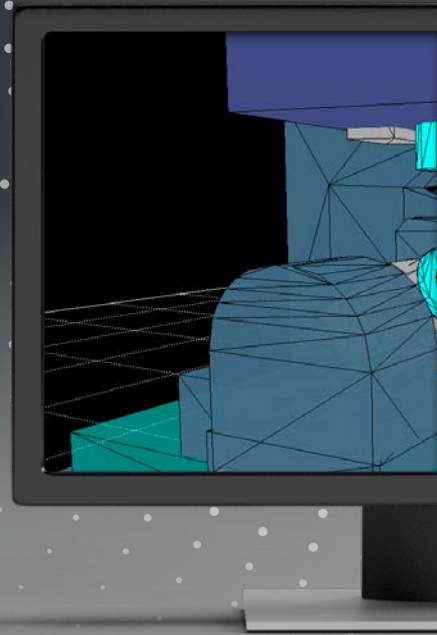
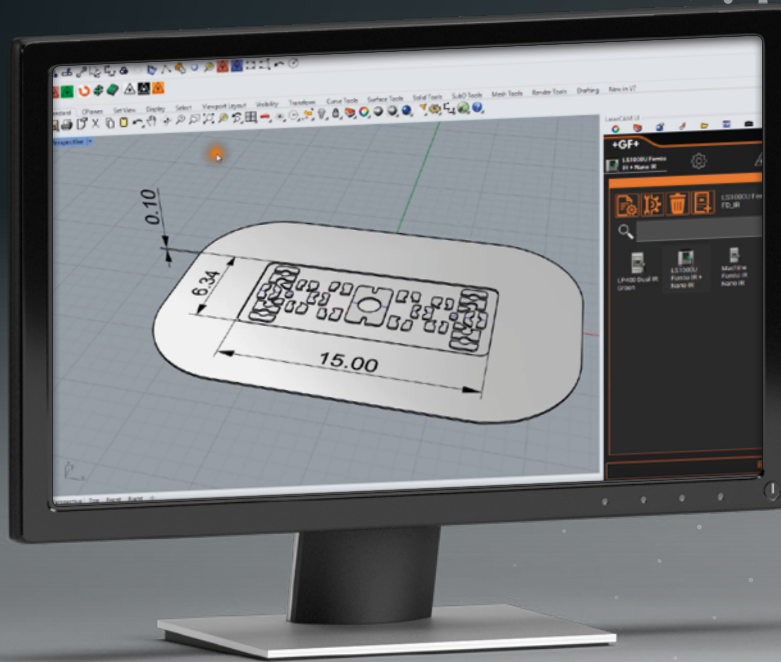
Master natural or geometrical textures, grains and faidings on 3D surfaces. Everything is possible thanks to our unmatched CAM software.



**Laser blasting**

Our signature Laser machining technique is best used as a finishing cycle on any surface topology, with no visible patching boundaries.

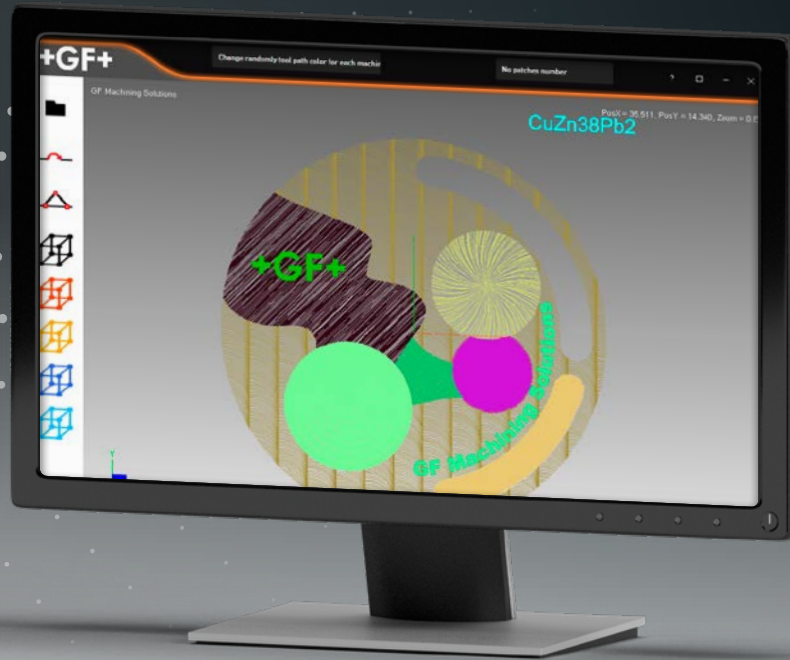
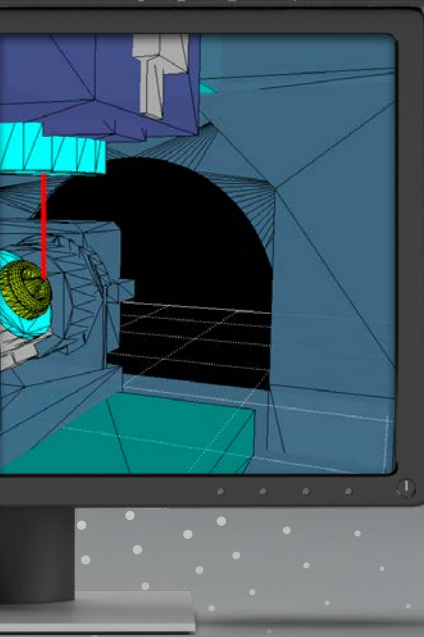




LaserSUITE360

# The most powerful Laser software package

Developed by GF Machining Solutions, the all-in-one dedicated CAD/CAM software package LaserSUITE360 allows you to master your job with the right laser parameters from the preparation phase to the toolpath generation and visualization as well as anti-collision simulation. LaserSUITE360 delivers machining results aligned with your expectations whether it is for the finest textures or for your accuracy-driven applications.



# LaserSUITE360



## LaserCAM

- Engraving
- Cleaning
- Micromachining
- Surface decoration



## LaserDESIGN

- Texturing
- Structuring
- Laser Blasting



## LaserTOOLBOX

LaserSIMULATOR  
Anticollision simulation



LaserCONTROL  
Laser and scanner parameter setting



LaserVIEWER  
Tool path visualisation



LaserPMT  
The right laser parameters  
for any application



3D Map  
Bitmap generation from a CAD volume

CarvExpert  
Unlock your mint applications



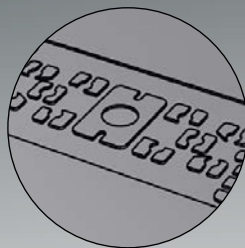
LaserCAM™

# A game-changer for laser programming

LaserCAM™ is specifically designed for high accuracy laser engraving, micromachining, and decoration operations. It builds on over a decade of experience in the field, and promises to revolutionize the way manufacturers operate their laser machines.

## LaserCAM™ work flow

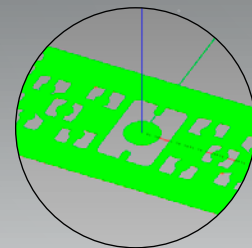
1. Import and check your 3D model  
From any native 3D model format
2. Set the machining strategy  
Fine tune patching, anti-collision and machining strategies
3. Calculate and visualize the tool path  
before export to the machine



1

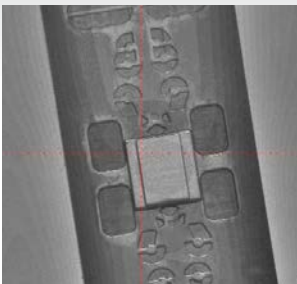


2

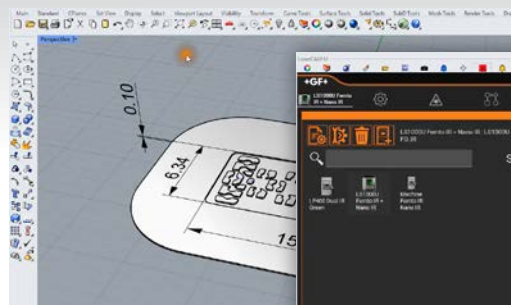
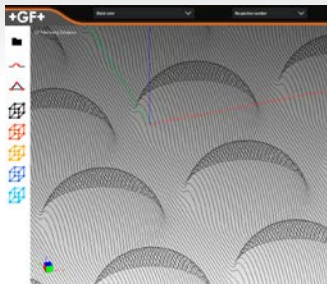


3

Tooling programmed with LaserCAM™



Visualizing the toolpath of a sweeping finish cycle on a 3D surface



LaserCAM™ interface

### Micromachining

The historic LaserCAM™ features for V-engraving, contouring, slicing, finishing have never been as efficient. Thanks to an ergonomic layout and workflow, edit and combine these strategies into a single Laser program.

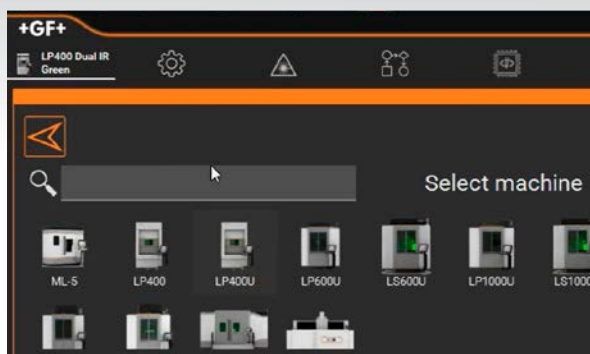
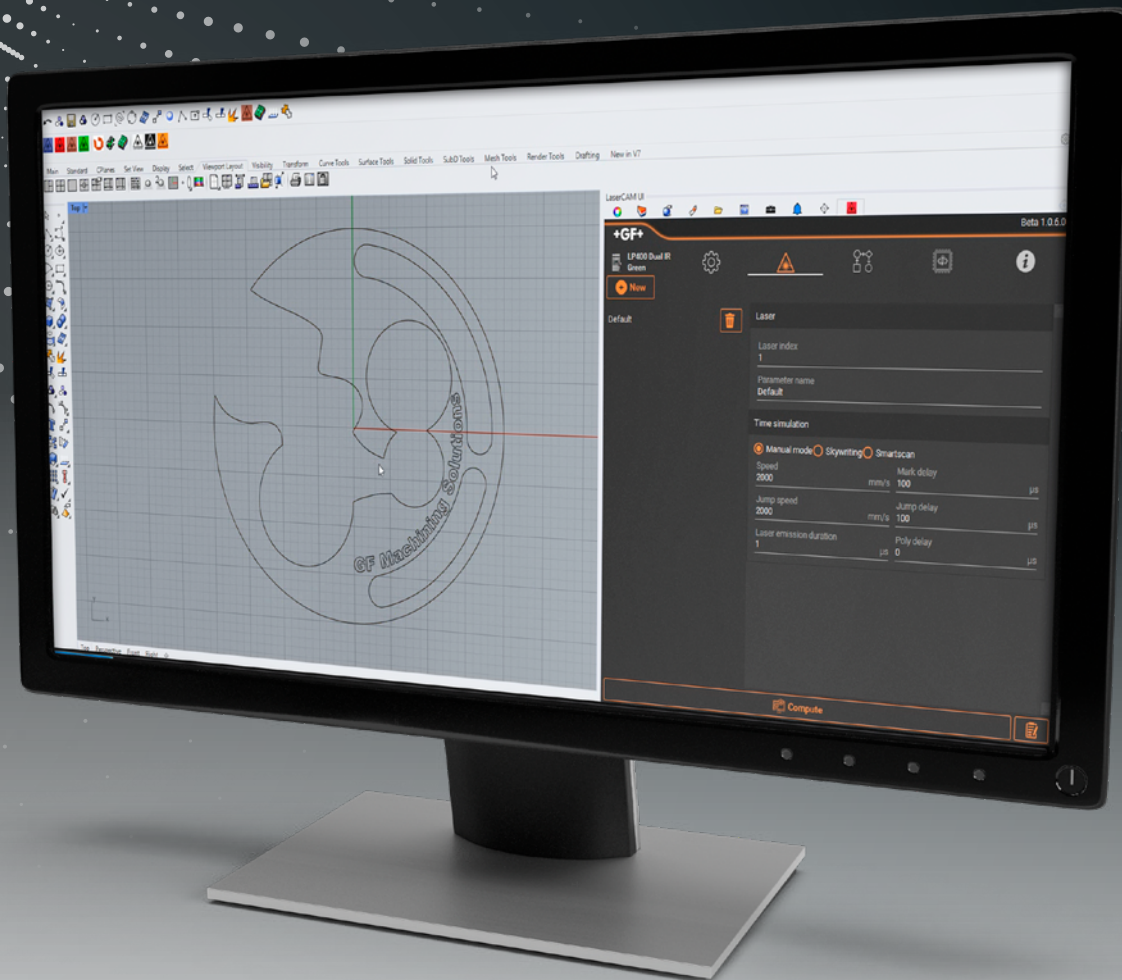
### 3D machining strategies

Capitalize on the LASER S series capabilities with LaserCAM's 3D machining strategies, such as 3D finishing and 3D blasting. Easily create Laser toolpaths that seamlessly follow the contours of your 3D shape to achieve best-in-class quality.

### Unmatched performance and ergonomics

Experience a user-friendly and intuitive interface that allows you to effortlessly select the required features for your application. Multi-strategy Laser programs are computed with a simple click of a button, and in the shortest time, thanks to our optimized computing algorithms.





Machine workshop

### Machine workshop

Customize your machine setup within the workshop to seamlessly apply and fine-tune your process parameters ensuring compatibility with your hardware.

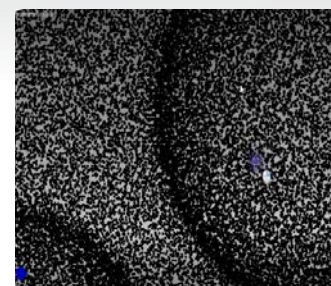
Perlage decoration toolpath, created with LaserCAM™



### Decoration toolbox

The Decoration Toolbox includes machining strategies specifically created for the watchmaking world. With a few clicks, easily program the emblematic decorations to your customer's specific aesthetic requirements and combine any number of them on a single program and a single machining setup.

Homogeneous Laser Blasting on a 3D surface



### Laser blasting

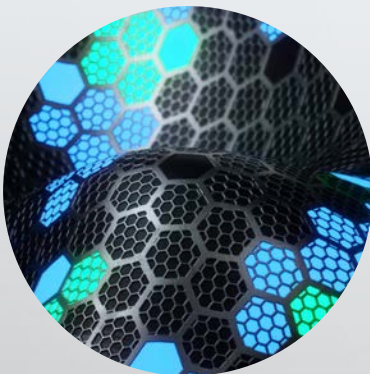
One of LaserDESIGN's signature features, Laser blasting, is now also available in LaserCAM™, offering precise control over surface roughness and homogeneity in both 2D and 3D. Achieve the desired results by adjusting the blasting parameters, whether randomly or in an organized manner.



LaserDESIGN™

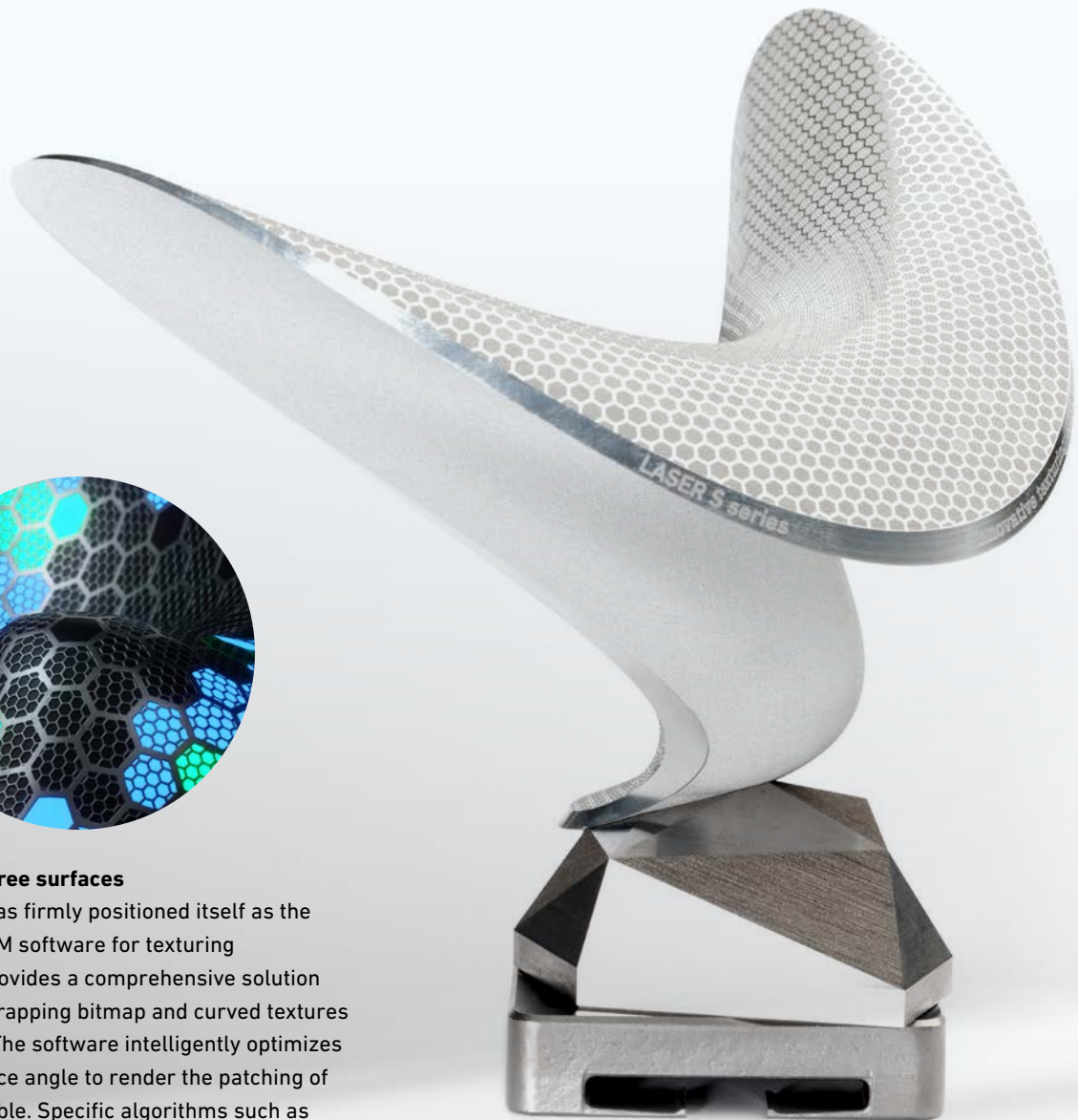
# The perfect tool for 3D Texturing

LaserDESIGN™ is a CAM software specially dedicated to GF Machining Solutions' Laser machines to create texturing machining programs starting from a grey scale image applied to virtually any complex 3D shape. LaserDESIGN™ can be coupled with 3D Map to realize engraving/marking in five-axis operation. From consumer goods, packaging or large automotive molds, LaserDESIGN™ is the ultimate 3D texturing CAM solution.



## Laser texturing free surfaces

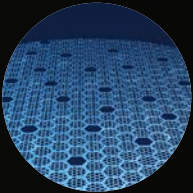
LaserDESIGN™ has firmly positioned itself as the leading 5 axis CAM software for texturing applications. It provides a comprehensive solution for seamlessly wrapping bitmap and curved textures onto 3D shapes. The software intelligently optimizes the beam incidence angle to render the patching of the surface invisible. Specific algorithms such as Smartpatch™ greatly enhance texturing productivity.



## LaserDESIGN™ work flow



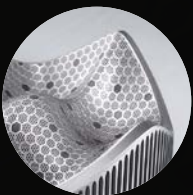
1. Import the 3D model from any type of CAD native format



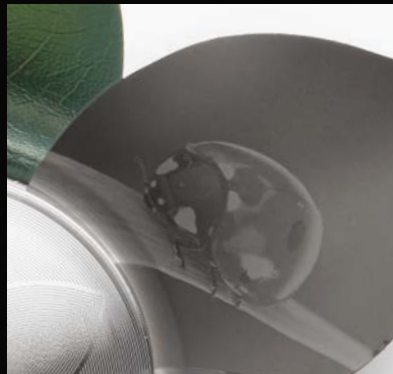
2. Import the texture file as a high-resolution greyscale bitmap



3. Map the texture onto the 3D free surface of your choice



4. LaserDESIGN™ computes the Laser toolpath program



### FlexiBlast™

FlexiBlast™ takes GF Machining Solutions' signature Laser blasting capabilities to the next level. By using grayscale images as input, the user has unlimited control over the surface gloss. For each individual pixel, 65,536 shades of gray can be applied, each corresponding to a specific blasting intensity. This functionality unlocks the potential to create high.-contras flat textures that can be machined in a minimal time.



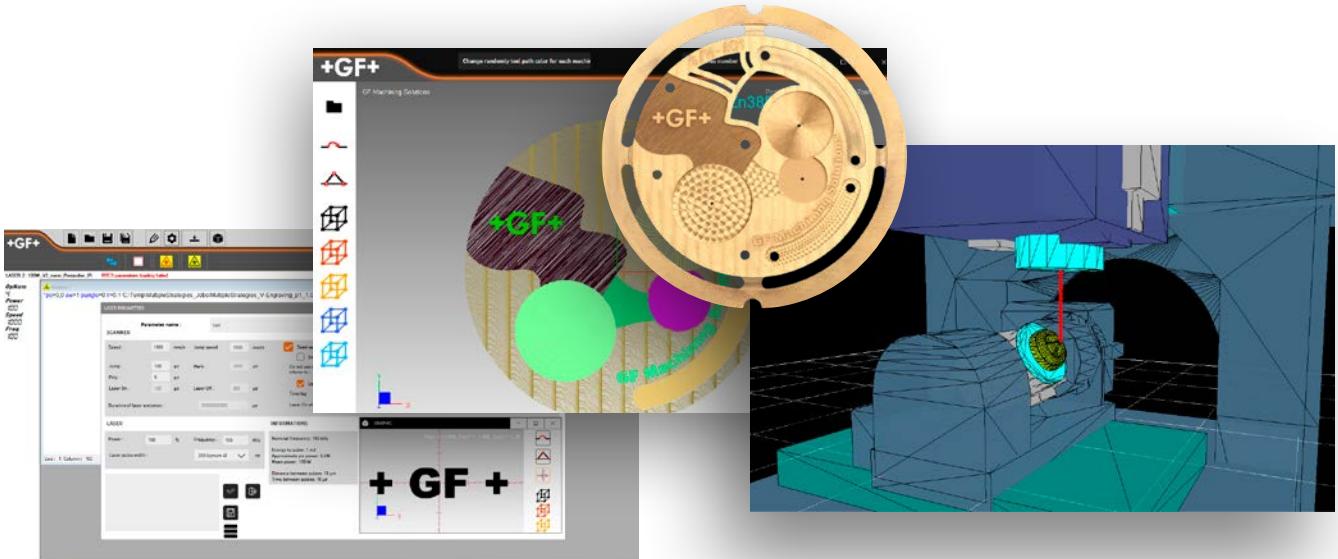
### 3DCurves™

Achieve the finest curve-like textures, with no undesirable optical effects on the final parts. 3DCurves™ enables a novel approach when creating fine line patterns and textures. Users no longer need to go through a classical hatching process based on a grayscale bitmap, but thanks to 3DCurves™ can engrave directly with a single continuous laser path following individual, vectorial polylines.



LaserTOOLBOX

# Complete your ecosystem of laser software tools



### LaserCONTROL

Safely prepare your laser and scanner parameters on and off the machine.



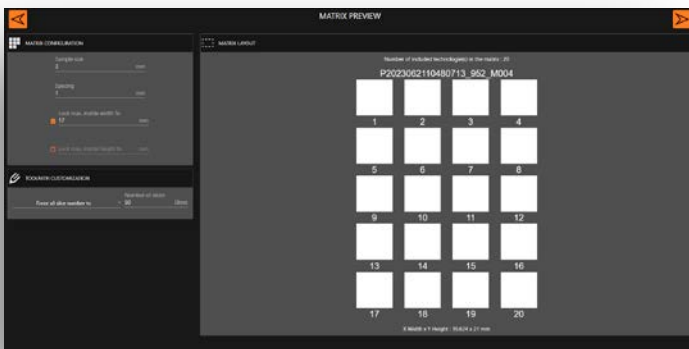
### LaserVIEWER

Visualize your toolpath and patching strategy down to the most intricate details.



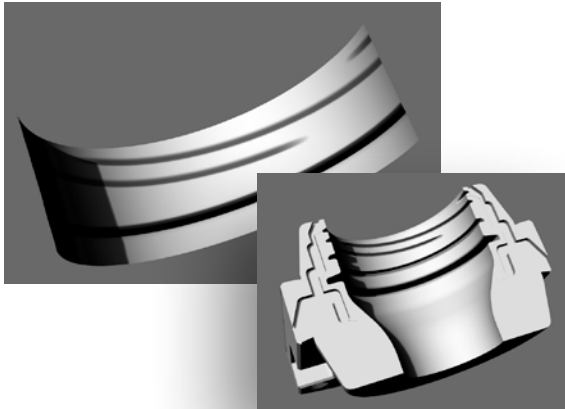
### LaserSIMULATOR

Simulate your machining program and make all the necessary anti-collision checks to ensure sure you will never crash a part again.



### LaserPMT (optional)

The LaserPMT (Parameter Matrix Tool) allows to find your ideal Laser parameters in the most efficient way and create your own Laser parameter catalog. Tap into GF's expertise by accessing validated Laser parameters from a catalog validated and maintained by GF.



**3D Map (optional)**

Generate your greyscale bitmap for LaserDESIGN™ from a 3D CAD model.



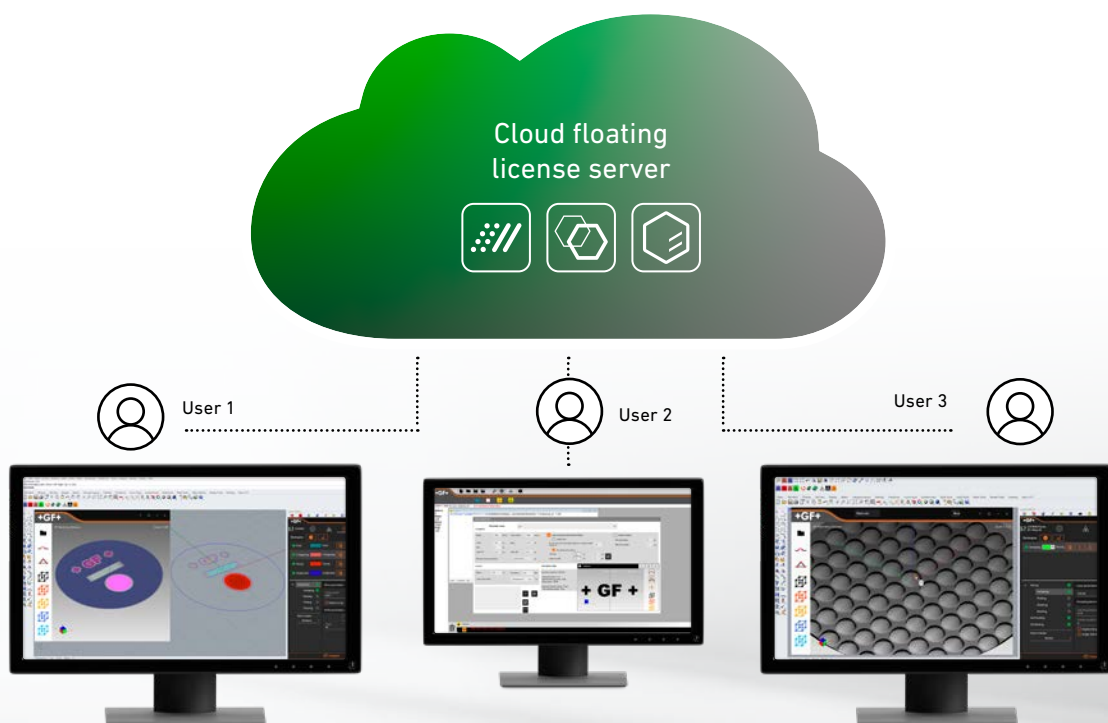
**CarvExpert (optional)**

Unlock your mint applications by seamlessly converting Carveco toolpath (.mcl) into GF Laser toolpath.



# Cloud Floating Licensing

Say goodbye to physical licenses and USB dongles. Cloud floating licences allow users to connect remotely to their license pool enabling the software features. In addition, a single license is valid for a limited number of simultaneous users, from different workstations, anywhere, anytime.



## About GF Machining Solutions

# Multi-technology solutions provider

Our commitment to you and your specific applications is proven by the value-adding intelligence, productivity and quality delivered by our multi-technology solutions. Your success is our chief motivator. That's why we are continuously advancing our legendary technical expertise. Wherever you are, whatever your market segment and whatever the size of your operation, we have the complete solutions and the customer-centric commitment to accelerate your success—today.

### EDM (Electrical Discharge Machining)



#### Wire-cutting EDM

GF Machining Solutions' wire-cutting EDM is fast, precise and increasingly energy efficient. From ultraprecise machining of miniaturized components down to 0.02 mm to powerful solutions for demanding high-speed machining with respect to surface accuracy, our wire EDM solutions position you for success.

#### Die-sinking EDM

GF Machining Solutions is revolutionizing die-sinking EDM with features like iGAP technology to dramatically boost machining speed and reduce electrode wear. All of our die-sinking systems offer fast removal and deliver mirror finishes of Ra 0.1 µm (4 µin).

#### Hole-drilling EDM

GF Machining Solutions' robust hole-drilling EDM solutions enable you to drill holes in electrically conductive materials at a very high speed—and, with a five-axis configuration, at any angle on a workpiece with an inclined surface.

### Tooling and Automation



#### Tooling

Our customers experience complete autonomy while maintaining extreme accuracy, thanks to our highly accurate System 3R reference systems for holding and positioning electrodes and work pieces. All types of machines can easily be linked, which reduces set-up times and enables a seamless transfer of workpieces between different operations.

#### Automation

Together with System 3R, we also provide scalable and cost-effective Automation solutions for simple, single machine cells or complex, multi-process cells, tailored to your needs.

### Milling



#### Milling

Precision tool and mold manufacturers enjoy a competitive edge with our Mikron MILL S solutions' fast and precise machining. The Mikron MILL P machines achieve above-average productivity thanks to their high performance and Automation. Customers seeking fastest return on investment benefit from the affordable efficiency of our MILL E solutions.

#### High Performance Airfoil Machining

Our Liechti turnkey solutions enable the highly dynamic manufacturing of precision airfoils. Thanks to the unique performance and our expertise in airfoil machining, you increase productivity by producing at the lowest cost per part.

#### Spindles

As part of GF Machining Solutions, Step-Tec is engaged in the very first stage of each machining center development project. Compact design combined with excellent thermal and geometric repeatability ensure the perfect integration of this core component into the machine tool.

### Software



#### Digitalization solutions

To drive its digital transformation, GF Machining Solutions acquired symmedia GmbH, a company specialized in software for machine connectivity. Together, we offer a complete range of Industry 4.0 solutions across all industries. The future requires the ability to adapt quickly to continual digital processes. Our intelligent manufacturing offers embedded expertise, optimized production processes, and workshop Automation: solutions for smart and connected machines.

### Advanced manufacturing



#### Laser texturing

Aesthetic and functional texturing is easy and infinitely repeatable with our digitized Laser technology. Even complex 3D geometries, including precision parts, are textured, engraved, microstructured, marked and labeled.

#### Laser micromachining

GF Machining Solutions offers the industry's most complete line of Laser micromachining platforms optimized for small, high-precision features to meet the increasing need for smaller, smarter parts to support today's leading-edge products.

#### Laser Additive Manufacturing (AM)

GF Machining Solutions and 3D Systems, a leading global provider of additive manufacturing solutions and the pioneer of 3D printing, have partnered to introduce new metal 3D printing solutions that enable manufacturers to produce complex metal parts more efficiently.

### Service + Success



#### We take you to new heights

Our Success Packs are designed to maximise your return on investment and empower you in your quest for success across all industrial segments. Our subscription packs feature a comprehensive range of services that guarantee the access and support you need to get the most out of your assets today, while preparing for the challenges of tomorrow. Our trusted experts backed by our latest cutting-edge, intelligent Digital Solutions, provide a full range of services.

#### eCatalog

Keep your equipment operating at peak precision and performance with our wide range of certified consumables and original wear parts. Our online catalog has it all ([ecatalog.gfms.com](http://ecatalog.gfms.com)).



## Our locations

### Switzerland

Headquarters  
Biel/Bienne +++

Losone +++  
Geneva ++  
Langnau ++

### Europe

Schorndorf, Germany ++  
Coventry, United Kingdom ++  
Agrate Brianza (MI), Italy ++  
Barcelona, Spain ++  
Marinha Grande, Portugal +  
Massy, France +  
La Roche Blanche, France +  
Lomm, Netherlands ++  
Altenmarkt, Austria ++  
Warsaw, Poland ++  
Brno, Czech Republic ++  
Budapest, Hungary ++  
Vällingby, Sweden +

### America

USA  
Lincolnshire (IL) ++  
Chicago (IL) ++  
Huntersville (NC) ++  
Irvine (CA) ++  
Toronto (Vaughan), Canada ++  
Monterrey, Mexico ++  
São Paulo, Brazil +  
Caxias do Sul, Brazil +

### Asia

China  
Beijing +++  
Changzhou ++  
Shanghai ++  
Chengdu ++  
Dongguan ++  
Hong Kong +  
Yokohama, Japan ++  
Taipei, Taiwan +  
Taichung, Taiwan ++  
Seoul, Korea ++  
Singapore, Singapore ++  
Petaling Jaya, Malaysia ++  
Bangalore, India ++  
Pune, India +  
Hanoi, Vietnam ++

+ Plant    + Center of Demonstration    + Sales company

## At a glance

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM, Laser, Additive Manufacturing, Spindle, Tooling and Automation solutions. A comprehensive package of services completes our proposition.

[www.gfms.com](http://www.gfms.com)



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They are not warranted characteristics and are  
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