Embossing rolls and plates

Clean, detailed Laser texturing

Laser solutions for embossing tools
Expert solutions for embossing
Clean, detailed Laser texturing
From GF AgieCharmilles, a global leader in Milling and EDM, comes an affordable, clean and highly accurate Laser solution for adding distinct and detailed textures to embossing rolls. Our versatile LASER 600 and LASER 1000 5Ax expertly texture both master and principal embossing rolls and plates. Our fully digitized process helps you make your distinct mark and achieve more success in your daily business.

+ Outstanding and versatile Laser texturing solution
+ Highly rigid, five-axis machine concept
+ Unlimited array of textures, finest detail
+ Pack software eliminates guesswork
+ A sustainable solution, a tool for life
+ A continuum of Customer Services

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Outstanding and versatile Laser texturing solution

GF AgieCharmilles brings its reputation for precision machining and its deep application expertise to texturing, with a Laser solution for texturing both master and principal embossing rolls (< 500 mm) and plates, by direct texturing or, for larger workpieces, a combination of Laser texturing and etching.

From tough-to-machine metals like hardened steel and carbide to aluminum and copper, the perfection is in the details precisely produced with GF AgieCharmilles’ Laser technology.

Highly rigid, five-axis machine concept

Both the LASER 600 and LASER 1000 5Ax feature a highly rigid mechanical concept, and each has an integrated rotary axis. The LASER 1000 5Ax can texture embossing rolls up to 500 mm in length by Ø 180 with the rotary axis in horizontal or vertical position, and embossing plates up to 990 mm by 500 mm can be engraved and expertly textured.

Positioning as accurate as 0.97 arc second has been verified, making our Laser process the optimal choice for applying textures to embossing rolls and plates. In addition, workpieces can be loaded easily by crane.
Unlimited array of textures, finest detail

GF AgieCharmilles masters the tiniest details and continuous 3D textures, freeing you to incorporate up to 256 layers of nuance into your embossing roll and plate designs.

Heidenhain linear scales with a resolution of 0.5 μm on all axes guarantee incomparable accuracy and repeatability, whatever your choice of complex or detailed design.

And because our process begins with an eight-bit grayscale image of your design with minimum resolution of 1270 dpi, the design is infinitely repeatable over countless iterations. Textures can be derived from natural surfaces by reverse engineering via 3D scanner or digitally created in-house.
Pack software eliminates guesswork

A sustainable solution, a tool for life

Our included software package makes it easy for you to apply any texture to a cylinder or flat surface. Features allow you to merge a virtual workpiece with a virtual texture and preview the final design – so guesswork is eliminated and what you see onscreen is what you get.

Further, our smart mapping software includes random overlapping of texture to yield continuity of your design when it is applied to the end product.

A sustainable solution, a tool for life

GF AgieCharmilles’ Laser technology requires no special maintenance or replacement of small, fragile, expensive tools. Because the texturing tool is a fiber laser, no sharpening is ever needed and there is no threat of tool breakage. The lifetime of our fiber laser source is more than 30,000 hours – that’s more than five years – giving you the confidence that your texturing processes will continue smoothly across countless iterations without interruption.

Plus, GF AgieCharmilles’ Laser technology is an environmentally friendly alternative to conventional etching and engraving techniques. Our process produces no polluting fluids, slurry or chips, and all metal dust is vacuumed away.

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Renowned and trusted Swiss Milling, EDM and Laser expertise

We have a 150-year history of delivering unmatched value to customers. Our hallmarks are reliability, precision, speed, quality and service across a broad range of machining technologies: Milling, EDM, Laser, tooling and Automation systems, and a continuum of support services to ensure your continued success.

We position you to achieve more than your competitors. That’s why GF AgieCharmilles is the preferred partner to customers in the tool and mold-making industry and to manufacturers of precision and high-value parts. We are steadfast in our promise to help you achieve more and agile in our response to your emerging needs.

Professional and dedicated application support

Our solutions don’t end with machine installation. Our thorough knowledge of production processes enables us to provide you with continued and peerless application support. In turn, your business reaps the rewards: greater creativity, extended productivity, higher efficiency and increased profits.

Problem solving is one of our core competences and, as your preferred partner, we are fully engaged in your pursuit of excellence. That means working with you to achieve superior results with your GF AgieCharmilles products.

A continuum of Customer Services

Productivity, availability of equipment and continuous improvement are essential drivers for your business. Our Customer Services package offers a life cycle of support customizable to your particular needs, which are at the heart of everything we do.

Our Customer Services constitute the industry’s most comprehensive service package: preventive maintenance, training, a dedicated customer service hotline, original wear parts and certified consumables, and 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.

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Clean, detailed Laser texturing

Embossing rolls and plates
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.

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.

At a glance

www.gfac.com

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