

Media Release

Biel/Bienne, Switzerland
December 2020

Laser solution with two different wavelengths

The AgieCharmilles LASER P 400 U Femto Flexipulse, specifically designed for aesthetic and functional Laser texturing, integrates a laser source that allows using two different wavelengths. It achieves repeatable results in a single solution for texturing parts for watches, jewelry, small inserts, cutting tools and micro machined workpieces.

The laser source inside the solution LASER P 400 U allows using two different wavelengths, making it possible to machine complex parts with three- or five-axis movements efficiently and at the highest quality. The LASER P 400 U is the first machine combining the use of a femtosecond Laser with five-axis texturing. The texturing operation is completely burr free and makes post-treatment steps obsolete. The green wavelength with its reduced spot size is ideal for reflective materials such as copper, gold and nickel.

The modular conception includes an all-in-one bi-laser solution that combines two laser beams for texturing and engraving the same surface in only one piece. This laser head provides a greater versatility allowing the users to switch from one beam to the other quickly and automatically. This way, they can reduce their production time combining two texturing operations on the same machine and it enables them to address a multitude of materials like steel, aluminum, graphite, copper, ceramic, glass, sapphire and polymers.

The latest version of GF Machining Solutions' GF Laser machine software brings additional intelligence to the Laser texturing process. Thanks to the Smartpatch innovation, the texturing quality and machine productivity are improved. The one-of-a-kind 3D Map software allows the import of any 3D computer-aided design (CAD) into a Laser texturing machine and the reproduction of textures, forms and shapes.

The LASER P 400 U is a laser machine for production and for Research & Development. With its more than four million parameter combinations, it is the instrument for pushing the limits of laser machining of metals, ceramic, polymer, glasses, etc. Thanks to its user-friendly interface, the modification of the parameters: power, pulse sequences, wavelengths, frequencies is very comfortable. For advanced industrial production, its strong impulse power allows to reach the most sustained rates. Its high ablation rate, linked to a superior machining quality, make this

equipment a perfect production instrument. Moreover, an automation offer (robots, clamping and communication between machines) allows the easy integration of this equipment into a factory. Three lenses are available in three axes or five axes, regardless of the type of application. Specially conceived for the aesthetic and functional texturing of precision pieces, including parts for watches and jewelry, small inserts, cutting tools and micro machined workpieces, the LASER P 400 delivers reproducible, high-precision results.

More information:

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The LASER P 400 U excels at machining operations for small parts in one of the most compact footprints in the industry



Thanks to the laser source which integrates two different wavelengths, the AgieCharmilles LASER P 400 U Femto Flexipulse allows texturing and engraving the same surface in only one piece

Profile of GF Machining Solutions

GF Machining Solutions is the world's leading provider of machine tools, diverse technical solutions and services to manufacturers of precision molds and tooling and of tight-tolerance, precision-machined components. The key segments we serve include the aerospace, automotive, medical, energy, information and communications technology (ICT) and electronics industries. Our extensive portfolio ranges from Electrical Discharge Machining (EDM) solutions, three- and five-axis Milling machines and Spindles, 3D Laser texturing machines, Additive Manufacturing and machines for Laser micromachining to solutions for Tooling, Automation, Software and Digitalization—all backed by unrivaled Customer Services and support. GF Machining Solutions is a globally acting Division of the Georg Fischer Group (Switzerland) and maintains a presence at 50 locations worldwide. Its 3,358 employees generated sales of CHF 972 million in 2019. More information can be found at www.gfms.com

