AgieCharmilles

LASER P 400
LASER P 400 U

Femto Flexipulse
LASER P 400 / LASER P 400 U GF Femto Flexipulse

Unlimited combination of powerful, versatile and smart solutions

One machine, one laser source, switchable between two wavelengths (IR and green) will stimulate the field of Ultrashort Pulse Laser material processing. The LASER P 400 / LASER P 400 U GF Femto Flexipulse will provide a tailor-made solution for players operating in the most demanding fields such as medical industry, electronic components, watchmaking or Research and Development laboratories. With a potential of more than 4 million combinations of parameters, it is the perfect tool to push the limits of laser machining of metals, ceramics, glasses and, last but not least, other exotic materials.

Increasingly fine reproduction of details

The new laser source from GF Machining Solutions allows you to exploit a wide range of parameters enabling you to sculpt the finest details in 5 axis. It combines sophisticated functions allowing the drilling, cutting and texturing of a wide range of materials like sapphire, gold, stainless steel, ceramics and many other fragile materials. This makes it possible to realize traditional decoration like "côte de Genève", satin finishing not only on a flat surface but also on free form or inside a pocket.

Tenfold performance with various laser sources on the same machine

With this new versatile laser source, you can define Bursts placed at intervals of a few Nano seconds, themselves subdivided into Bursts also placed at a few hundred of Pico seconds. These 2 types of Burst mode (Nano and Pico seconds) are also adjustable in intensity, either in a progressive or a decreasing slope. Last but not least, you can further your research to find the optimal settings for nearly all types of materials with a machine that has the highest level of safety against X-Ray radiation, microparticle exposure and other safety relevant protection. This tool opens up new possibilities in other fields of research.
On-board versatility

In the field of laser micromachining applications, the versatility opens up many opportunities that increase your payback. With the LASER P 400 / LASER P 400 U and its new laser source, GF Machining Solutions is able to provide an ablation tool that allows manufacturers to process many types of materials like stainless steel or titanium with one machine by using a very high removal rate combined with a fine controlled surface finish. This will allow you to create osseointegration surfaces, anti-bacterial surfaces and many other functional surfaces.

Increase your development potential

GF Machining Solutions, a pioneer in the field of Laser ablation, is once again able to offer an innovative and clean technical solution that allows applicators, manufacturers and researchers in laboratories around the world to master a wide variety of challenges and texture the most state-of-the-art materials.

Accelerate your productivity

Thanks to this unique machine with its highly efficient femto-second laser source and two easily switchable wavelengths, your production rate is significantly improved. For example, in the domain of electrical components part production where it is now possible to ablate both nickel-based and stainless steel moulds for inserts and core in the same machine, GF Machining Solutions provides you a complete and versatile production tool that integrates one laser source in a unique solution: the LASER P 400 / LASER P 400 U GF Femto Flexipulse.

Technical specifications

| Dimension of complete equipment * | mm     | 1230 x 2330 x 2490 |
| Machine weight (machine only)    | kg     | 2600               |
| Floor space (machine only)       | m²     | 2.04               |
| Maximum workpiece dimensions 3Ax/5Ax | mm | 600 x 400 x 250 / Ø 120 x h 120 |
| Maximum workpiece weight 3Ax/5Ax | kg     | 50/4               |
| Table size                       | mm     | 680 x 400          |
| Travel X/Y/Z                     | mm     | 400 x 600 x 300    |
| Rotary 4/5 axis **               | mm     | A 115°-105°/B 360° |
| Laser sources                    | W/μJ   | 40/200 (Infrared), 22/100 (Green) |

* Width x depth x height ** Option

Univ. Of Birmingham, GF MS.  
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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 Customer Services completes our proposition.