

Media Release

Geneva
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Dedicated Solutions: GF Machining Solutions' EMO Hannover 2019 guests will discover optimized manufacturing processes firsthand and across a wide range of industries

Optimized manufacturing processes are at the heart of a special, industry-specific section of GF Machining Solutions' booth (Hall 27, Stand B26) at EMO Hannover 2019, September 16–21 in Hannover, Germany. In three highly dynamic zones on the booth, the GF Division will bring its process expertise to life with dedicated solutions for aerospace, medical and dental, and automotive parts manufacturers, clearly confirming GF Machining Solutions' EMO Hannover 2019 theme, "Connected to your needs."

Backed by a vast multi-technology portfolio and more than 60 years of legendary process expertise, GF Machining Solutions is uniquely positioned to offer manufacturers the advanced and intelligent solutions that address their industry-specific needs. In the dedicated solutions zones, guests will discover why GF Machining Solutions is manufacturers' go-to partner for process optimization and substitution. The GF Division will provide its EMO Hannover 2019 visitors with opportunities to compare various processes; moreover, visitors will also be able to experience firsthand how these optimized processes and dedicated solutions can advance quality, reduce cycle time and open new application horizons.

The process challenges of five fast-growing industrial segments will be answered in three zones:

Aerospace

A historic ramp-up in aerospace production is underway—and expected to continue through the year 2035—and blade and blisk manufacturers are under pressure to keep pace while maintaining absolutely flawless quality. At EMO Hannover 2019, visitors will discover dedicated solutions and optimized manufacturing processes for engine compressor and low-pressure turbine applications including blades, blisks, fir-tree disks and vanes, as well as aerostructure and equipment systems.

Adaptive blade Milling is just one of the many areas where GF Machining Solutions adds value for manufacturers of high-value aerospace components: While adaptive Milling is nothing new, the autonomy that GF Machining Solutions brings to the table is a true game changer. With

GF Machining Solutions' automated adaptive blade Milling, the workpiece is measured in the machine and the TURBOSOFT computer-aided manufacturing (CAM) software generates and optimizes the tool path. As a result, the Milling machine automatically begins to machine the blade—no human interaction required—at highest productivity and quality and fully integrable with flexible manufacturing systems (FMS).

Medical manufacturing

Reduced manufacturing risk and improved efficiency are among the key benefits GF Machining Solutions delivers to manufacturers of medical and dental implants and devices. At EMO Hannover 2019, guests will discover the GF Division's solutions for manufacturing series of hip cups and cervical spine implants at lower risk and machining flawless multicavity molds while maintaining the highest precision.

For example, for texturing surgical implants, GF Machining Solutions' fully digital Laser texturing process is the ideal replacement for the imprecise manual sandblasting process. While sandblasting requires a number of mostly manual steps—making, grit blasting, demasking, washing, unique device identification (UDI) marking and inspection—that must be repeated in order to achieve the required surface roughness, Laser texturing (including Laser blasting) offers higher flexibility, precision and ease of use to boost quality and optimize lead time.

Connected mobility

In a zone dedicated to connected mobility, visitors will experience how GF Machining Solutions' expertise in mold and die manufacturing can help customers active in the automotive, information and communications technology (ICT) and electronic components (EC) industries be ready for future of mobility today. Visitors will discover the value the GF Division brings to customer applications as diverse as sensors for autonomous cars to lighting modules, reflectors, electronic components and power modules for new energy vehicles that are significantly shaping the future of the global automotive industry. The zone will highlight innovative solutions that ensure the highest accuracy on stamping tools for micro fuel cells and smart texturing solutions for lens molds, radar housings and prism inserts for lighting.

Guests will discover futuristic digital texturing of car lighting molds designed to optimize the light path and intensity for improved safety, which is a topic of great concern among global mobility leaders. The car light demonstrator exhibited during EMO Hannover 2019 demonstrates the synergies of GF Machining Solutions' Laser texturing technology combined with the quick mold heating by induction technology of RocTool's injection and compression molding solutions and Reichle Technologiezentrum's automotive laser texturing. GF Machining Solutions collaborates with RocTool based in Le Bourget du Lac, France and in Shanghai,

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China, and Reichle Technologiezentrum from Bissingen an der Teck, Germany to demonstrate the customer benefits and possibilities with such a smart texturing solution which meets the immediate needs of customers globally.

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Picture caption:

Patient-specific metal 3D-printed dental bridge applications with post-processing solutions.



Game-changing autonomy, highest productivity and quality are among the key advantages enabled by GF Machining Solutions' automated adaptive blade Milling, enabled by TURBOSOFT plus CAM software.



Laser texturing on plastic lens molds for compact camera modules imparts essential light trapping properties.



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 3,394 employees generated sales of CHF 1,066 million in 2018. More information can be found at www.gfms.com

