‘Connected to your needs’: GF Machining Solutions’ AgieCharmilles CUT 2000 X links accuracy and productivity to drive users’ application success

Excellent results, flexibility and efficiency, and process Automation are at the heart of GF Machining Solutions’ AgieCharmilles CUT 2000 X wire-cutting Electrical Discharge Machining (EDM) machine. Featuring the GF Division’s new, game-changing Spark Track technology and a vast range of additional technologies, this solution links accuracy and productivity to drive users’ application success in the most demanding industries.

The CUT 2000 X with Automatic Wire Changer (AWC), Spark Track technology and Integrated Vision Unit (IVU Advance) in-process optical measurement takes to the world stage in Hall 27, Stand B26, at EMO Hannover 2019, September 16–21, in Hannover, Germany. Clearly demonstrating GF Machining Solutions’ EMO theme, “Connected to your needs,” this solution and its onboard technologies push the limits of wire-cutting EDM to deliver:

- **Excellence in results:** Users achieve uncompromising quality of results in accuracy and surface finish for highest part quality and optimal productivity.

- **Flexibility and efficiency:** This ultra-flexible machine and human-machine interface (HMI) concept simplify and allow process flexibility to reduce delivery time and increase reactivity.

- **Process Automation:** Automation of the wire EDM process and integration of quality control bring complete and integrated solutions to users’ manufacturing challenges.

**Easy job, easy management**
With the capabilities delivered by the CUT 2000 X’s Vision 5 interface, it’s easy for manufacturers to optimize their production, achieve flexible job management at guaranteed quality, and benefit from special functions to improve quality and productivity.

The Vision 5 interface takes the effort out of making last-minute machining sequence modifications—and special actions can be introduced directly inside the job to ramp up quality and productivity.

**AWC: high productivity, lower costs**
Users can gain up to 32% greater productivity with the acclaimed AWC. That’s because open guides allow them to use a combination of different wire diameters between roughing and finishing, so machining time for small and complex geometries is reduced.
Users’ flexibility is significantly increased by the availability of two wire spools on one machine, too. Two 25 kg wire spools are available to eliminate the need to modify the wire circuit when switching wires.

Additionally, the AWC system allows users to machine small details, even on tall parts, by using a large wire diameter for roughing and a small diameter wire during finishing cuts.

**Spark Track: a wire EDM technology breakthrough**
GF Machining Solutions’ new Spark Track technology represents a breakthrough in wire EDM. With its state-of-the-art Intelligent Spark Protection System (ISPS), Spark Track technology puts wire EDM intelligence at manufacturers’ fingertips. The more spark distribution information available on the wire, the more users can push the limits of the EDM machining process.

The smartest system on the market, Spark Track’s ISPS module allows users to completely avoid wire breakage—regardless of machining conditions. Manufacturers benefit from a secure EDM process due to complete wire breakage protection; simplification of the machine operator’s life thanks to a user-friendly solution; optimized efficiency in any conditions; and a revolution in wire EDM results, thanks to the use of spark distribution data from Spark Track technology.

Spark Track solves problems—like wire oscillation, different heights and tapered surfaces—which can lead to wire breakage and machining defects in the workpiece. To achieve superior results, discharge distribution along the wire must be as uniform as possible. That’s where Spark Track and ISPS prove their value: Users profit from improved efficiency, a 100% automatic solution and experience absolutely zero wire breakage.

**IVU Advance: Get the best quality**
Users save setup time, take references without a measuring machine and correct machining errors to achieve best quality and increased productivity with IVU Advance. Perfect results are easy to achieve and the need for an operator’s presence is reduced, thanks to a charge-coupled-device (CCD) camera mounted on the machine.

The analysis of light intensity variation allows detection of edges, and users save costs with this onboard measurement system allowing closed-loop manufacturing.

At the same time, multiple measurement systems are available for part control and setup, and automatic shutter and part cleaning solutions are also available. Users gain greater autonomy over their results with the integration of Automation-compatible, total measurement control.

Additionally, EMO Hannover 2019 visitors will discover the CUT 2000 X with updated colors enhancing its visual appearance under the brand of GF Machining Solutions, a Division of GF. With this vast range of success-triggering capabilities and technologies, the CUT 2000 X
proves GF Machining Solutions’ customer-centric orientation and its EMO theme: “Connected to your needs.”

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Picture caption:
Hall 27, Stand B26 at EMO Hannover 2019 is the place to discover how GF Machining Solutions’ renowned CUT 2000 X—equipped with breakthroughs like Spark Track technology and the Integrated Vision Unit (IVU Advance), as well as an Automatic Wire Changer—link accuracy and productivity in wire Electrical Discharge Machining (EDM).

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 unrivalled 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