

## Media release

Biel, Switzerland  
August 2023

### Precision parts in the mechanical engineering sector

**Werkzeugtechnik Niederstetten GmbH & Co. KG (WTN), a full-service supplier working in the field of forming technology and precision parts, relies on GF Machining Solutions' technology in the field of EDM, measuring and automation.**

WTN, a toolmaking company for cold forming, was founded in Niederstetten (Germany) in 1996. As a company of the internationally active Würth Group, Werkzeugtechnik Niederstetten GmbH & Co. KG is a partner for industrial companies, in Germany and abroad, from a wide range of industries.

As a full-service supplier, WTN offers its customers everything from consulting to simulation and design to production-ready tools (e.g. dies, punches, basic tools), all from a single source. In addition, its precision parts are manufactured through single and small series production according to 3D data sets and individual customer requirements, primarily for the packaging and mechanical engineering industries, as well as for tool and mold making.

In addition to the already known production processes like CNC turning and grinding and 5-axis simultaneous and HSC milling, as well as die-sinking and wire-cutting EDM, WTN relies on new technologies such as 3D metal printing or PECM technology. The components manufactured by WTN are often very complex and must have precise surfaces to meet the highest standards.

To meet its manufacturing requirements, WTN owns various GF Machining Solutions wire-cutting EDM machines, as well as a die-sinking cell with two GF Machining Solutions die-sinking EDM machines (AgieCharmilles FORM X 400), a Zeiss Contura measuring machine and a FANUC robot. Their reasons for purchasing the two FORM X machines were accuracy and precision, with the measuring machine automating the calibration of electrodes and components.

The AgieCharmilles FORM X series guarantees very high precision as its sophisticated and unique thermal control system compensates for temperature fluctuations by using a temperature-stable dielectric to cool the X, Y and Z glass scales and the ball screw of the Z-axis. During assembly, the housing of the die-sinking EDM machine is thermally isolated from the high-speed Z-axis, which is cooled with dielectric fluid. In addition, the structure of the FORM X series has been specially designed with a frame made of polymer material that ensures constant accuracy in positioning; the robustness of the machine absorbs all mechanical forces so that an exact gap is maintained between the part and the electrode. This makes the FORM X suitable for machining complex applications.

Eduard Weber, Head of Production, who has been at WTN for many years, says the new machines from GF Machining Solutions have brought improvements in both accuracy of positioning and processes, as electrodes can now also be calibrated at night. The company uses many different electrodes made of copper, which first have to be manufactured, calibrated, and to a considerable extent tested for their quality – all

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facilitated by automation. The workpiece material mix is approx. 95% carbide and 5% hardened steel.

Another reason why WTN opted for GF machines, apart from the precision, is the service that GF Machining Solutions offers. "This is incredibly important because the cell is very complex," says Weber. "Service is the be-all and end-all for us. The best machines and the best operators are of no use to us if we encounter a problem and we can't get someone on the line within an hour." One part of their excellent service is quick and easy accessibility and assistance in case of problems, be it via remote maintenance or through prompt problem handling on site. For a company like WTN, which faces tough international competition and possesses the most demanding customers, the solutions from GF Machining Solutions are therefore an excellent choice. "GF Machining Solutions helps us meet the demands placed on us," Weber explains.



One of the two FORM X 400 machines with automation in WTN's machine park.

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Eduard Weber, Head of Production at WTN, is impressed by the service and solutions offered by GF Machining Solutions.



One product manufactured by WTN is a die such as this one.

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**Profile of GF Machining Solutions**

GF Machining Solutions is one of the world's leading suppliers of complete solutions for manufacturers of precision parts and tools as well as for mold making. Their portfolio includes machines for milling, EDM, laser texturing, laser micromachining and additive manufacturing. In addition, the division offers spindles and solutions for tooling, automation and digitization, backed by unrivalled customer service and support. With its solutions, the division contributes to energy-efficient and clean manufacturing processes. GF Machining Solutions is a global company which is part of the Georg Fischer Group (Switzerland) and has 50 branches across the world. The company's 3,398 employees generated a turnover of CHF 948 million in 2022. More information can be found at [www.gfms.com](http://www.gfms.com).

