

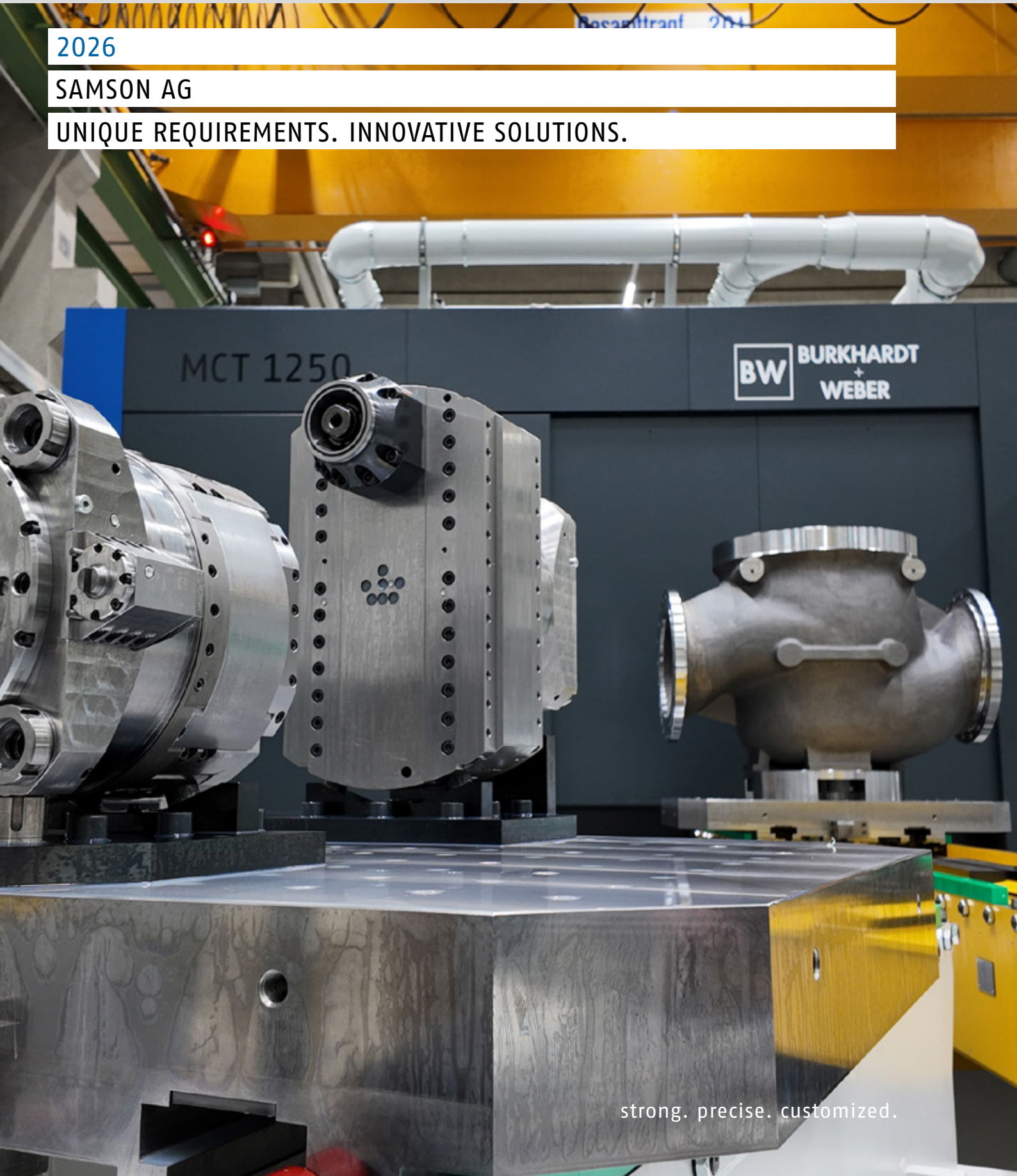
COMPETENCE



2026

SAMSON AG

UNIQUE REQUIREMENTS. INNOVATIVE SOLUTIONS.



strong. precise. customized.

INDIVIDUALLY DEVELOPED. PRECISELY IMPLEMENTED.

Every production process tells its own story. It is characterized by individual requirements, complex manufacturing tasks, and the commitment to improve a little every day. This is where standard solutions often reach their limit. For these purposes, machines are needed that don't simply replicate processes but continuously improve and drive them forward.

Guided by this conviction, we work closely with our customers to develop customized machining centers that are precisely tailored to their specific requirements. Through intensive dialogue and close collaboration, we design solutions that optimize efficiency, simplify processes and address the challenges of tomorrow. This creates the foundation for sustainable success, maximum productivity and lasting competitiveness.

An impressive example of this approach is the customer-specific MCT 1250 developed for SAMSON AG. What initially appeared to be a demanding challenge became an exceptional manufacturing solution, driven by technical expertise, a strong partnership and the courage to explore new paths. The result is far more than just a machine; it is a customer-focused solution that sets new standards in manufacturing excellence.

Prior to this project, SAMSON had purchased two BURKHARDT+WEBER machines, which were successfully delivered and commissioned in China. Building on this shared experience, the next project was launched with the goal of developing a manufacturing solution that would establish new benchmarks.

From the very beginning, close collaboration and the joint development of the optimum solution were the key priorities. This ensured that requirements, operational challenges, and future production objectives were defined at an early stage and consistently integrated into the machine design process. The new machining center was designed to integrate

the functions of two existing machines into a single platform at the new Offenbach production facility. It was intended to replace both a vertical turning-milling center and a horizontal quill-type boring machine featuring a facing slide and automatic tool changer.

Following an extensive analysis and concept development phase, an MCT machine was selected as the most suitable solution. Specifically designed for multi-tasking applications, this machining center combines a powerful torque table for vertical turning with a flexible system for horizontal boring using rotary tools. This enables multiple machining processes to be integrated and completed on a single machine. The BW-designed rotary tables, equipped with high-performance torque motors, provide outstanding metal-cutting performance even in demanding steel and cast-iron machining applications.



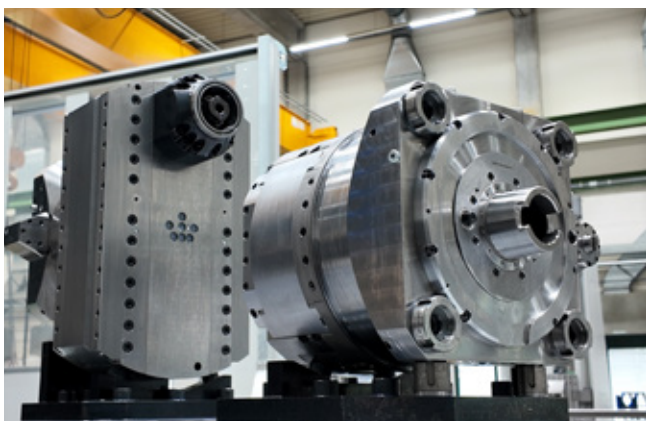
A customized machine concept was developed to meet SAMSON's special requirements. The result is an exceptional special-purpose solution featuring numerous technical innovations.

This project created the development of the first 5-axis machine capable of interpolation turning at a 100% duty cycle. By improving machining efficiency, this

made the need of a separate turning machine unnecessary.

A unique feature of the machine is its 2,800 mm diameter rotary storage system, which includes a rotatable high-precision setup station with a runout accuracy of better than 0.02 mm relative to the machine table. The same applies to the face runout accuracy. Thanks to the high-precision rotary bearing, the indexing pins, and the precise pallet clamping system, consistently high-quality levels are ensured throughout operation. This allows workpieces to be loaded, clamped, and centered outside the machining area, in parallel with production. The standard servo-controlled rotary drive ensures user-friendly alignment of the workpieces at the setup station.

A further innovation is the side-mounted drive integrated into the swivel head for face turning. This technology expands the range of possibilities while significantly reducing the requirement for specialized tools. In combination with facing-slide tools, complex contours can be machined efficiently and precisely on stationary workpieces.



The facing heads developed by BW specifically for this project were designed for automatic tool changing. As interchangeable units, they can be automatically picked up by the swivel head when required,

significantly expanding the machine's application range.

Thanks to the automatic tool interface integrated into the facing heads, a high degree of flexibility is available for a wide variety of applications. Multiple internal and external machining operations can now be performed using a single facing head.

Tool management is handled by a central control computer operated through the Sinumerik ONE system.

BENEFITS



- + Maximum flexibility
- + Reduced non-productive times
- + High repeatability
- + Increased production output
- + Reduced machine requirements

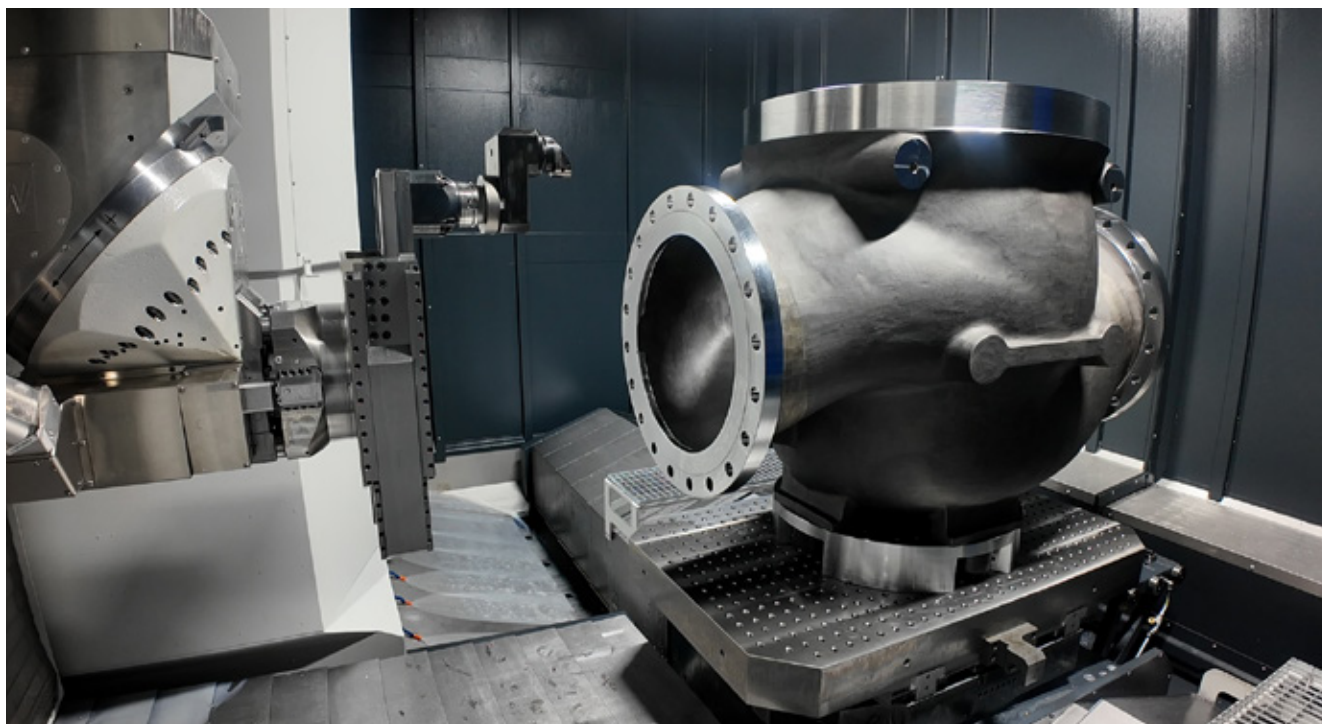


With its impressive dimensions and performance, the MCT 1250 is now the largest and heaviest machine in the new manufacturing facility. To meet the specific structural requirements, SAMSON poured a 120-centimeter-thick concrete foundation.

The machine will be used to machine valve bodies, angle bodies, covers, and frames for the chemical and pharmaceutical industries, where maximum precision and process reliability are essential.

Brief Profile of SAMSON AG

SAMSON, headquartered in Offenbach am Main, is a globally operating industrial company and a specializing in control and automation technology. Since its founding in 1907, the company has been developing and manufacturing high-quality solutions for measurement, control, and automation applications. The company's product portfolio includes, in particular, control valves, regulators, sensors, and digital systems for monitoring and controlling industrial processes. SAMSON products are used across a wide range of industries, including the chemical and pharmaceutical sectors, energy supply, and water and wastewater management. With innovative intelligent systems, the company is transforming process automation, making industrial processes more flexible, safer, and more reliable.



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