

OUTSIDE

News from the world of Göltzenbodt technology



INNOVATIVE PARTNERSHIPS TRANSFORM MANUFACTURING:

FLEXIBILITY, EFFICIENCY AND PRODUCTIVITY REDEFINED

The manufacturing world never stands still and companies that have the courage to continuously develop are among the winners. For Sauter, the decision to switch certain product lines from multi-spindle to flexible swiss-type technology was much more than just technical adjustment. It was the dawn of a new era in manufacturing, characterized by innovation, efficiency, and flexibility.

Company Sauter, whose roots lie in the watch industry, and was founded by Willi Sauter in 1942, has developed over the decades into an important supplier to the automotive industry.

The former second mainstay and the production of construction fittings, was discontinued over the years due to increasing competition from Asia. Sauter increasingly concentrated on industrial series production. Therefore, from the 1970s onwards, Sauter focused on multi-spindle automatic lathes to meet the increasing demand and maximize production capacity.



From left to right: Thomas Flache and Nora Göltenbodt (Göltenbodt), Matthias and Hubert Hafen (Sauter)

Multi-spindle lathes are known for their high productivity, but come with challenges, such as high complexity, the need for skilled workers, high energy costs, and intensive maintenance requirements. Over time, however, these decisive factors led Sauter to rethink its machinery facilities.

After an in-depth analysis of possible options, the management agreed that the best way to deal with the prevailing situation was to switch to swiss-type automatic lathes.

What at first sounds like a technological step backwards turns out to be an ingenious move in the successful evolution of Sauter's manufacturing strategy. Although swiss-type lathes offer lower productivity compared to multi-spindle lathes, they are much easier to operate, have lower energy costs, and require less maintenance.



"The switch to swiss-type lathes has not only taken us to a new level in terms of user-friendliness and efficiency, but has also given us enormous cost advantages that have enabled us to successfully develop our business under the given conditions,"

says Matthias Hafen, Managing Director of Sauter.

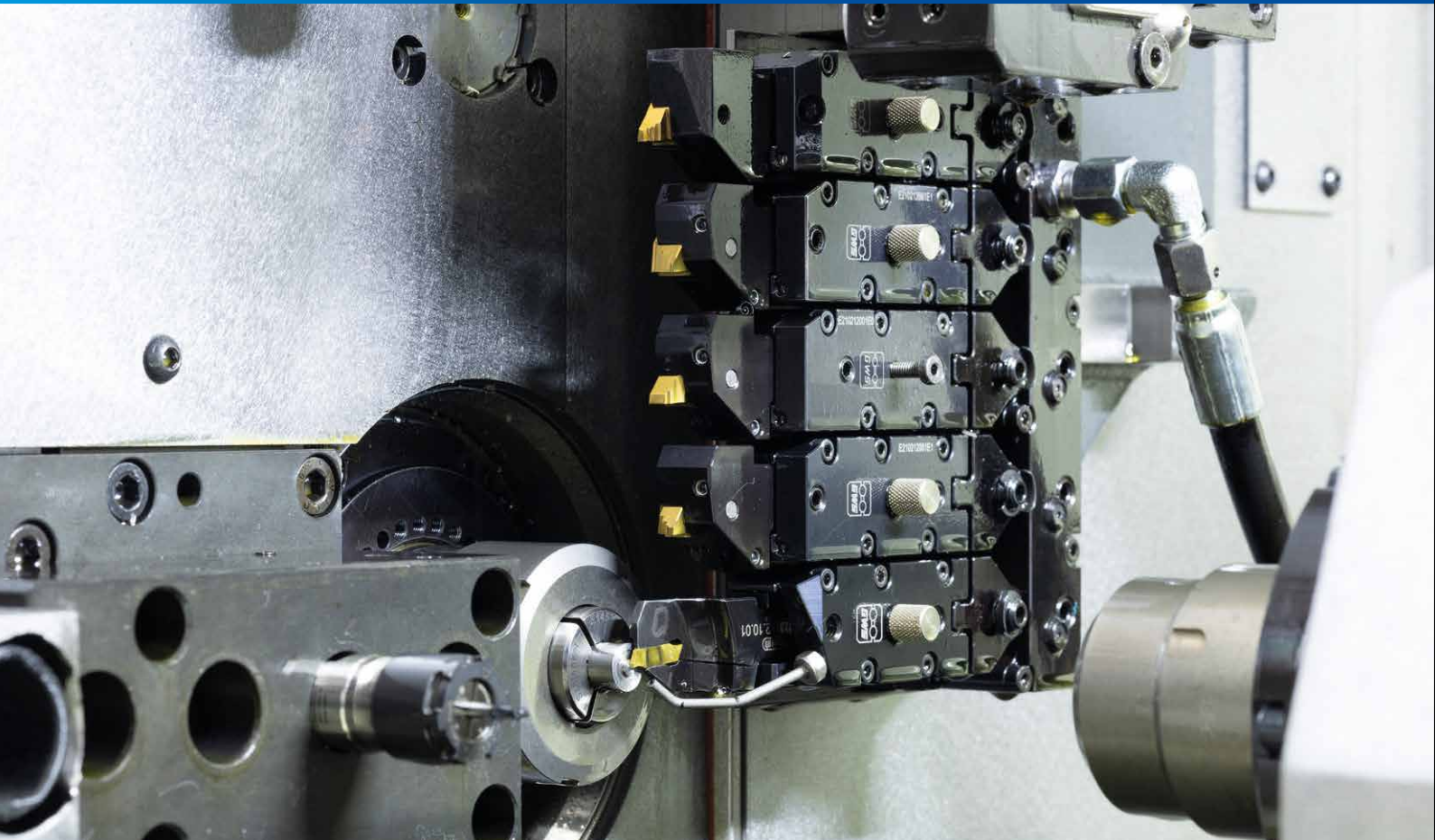
Initially, Sauter relied on parallel production to ensure that the production process remained stable. Subsequently, production was largely switched to swiss-type technology, although multi-spindle lathes are still an integral part of production.

Tests were carried out on the existing DMG Sprint 20 machines with the aim of optimizing the entire production process. Not only the machines played a decisive role here, but also associated components such as bar feeder, coolant supply, cutting tool, and finally, the tool holder system.

Göltenbodt was and has been associated with Sauter for many years as a successful supplier of Göltenbodt tooling systems in the multi-spindle sector.

Therefore, it made sense for Göltenbodt to be involved in this ambitious project. With the integration of its unique pre-settable and quick changeable tooling system for swiss-type automatic lathes into the new production concept, Göltenbodt made a significant contribution to the realization of this vision.

One of the major advantages of the Göltenbodt tooling system is its high level of functionality and comparatively simple handling. The risk of injury during set-up or



The patented Göltzenbott tooling system for swiss-type automatic lathes in use

tool changeovers is considerably lower compared to the previously used systems. These factors are particularly important at the newly established production site in Romania, due to a shortage of skilled labor.

Göltzenbott tooling system: **Flexibility and Productivity**



Convenient tool presetting outside the machine

The Göltzenbott tooling system is a key component in the switch to swiss-type technology at Sauter. The advantages of the GWS-system ensure significantly increased efficiency and flexibility in production:

1. Independence of cutting tool manufacturers

The Göltzenbott tooling system enables the use of standard shank tools from a wide range of manufacturers. This flexibility not only ensures enormous cost efficiency at Sauter, but also offers unparalleled adaptability in tool selection, which optimizes procurement.

2. Set-up time savings

The Göltzenbott quick changeable tooling system enables tools to be preset outside the machine, e.g. on a Zoller presetter, as is the case at Sauter. This significantly reduces machine downtimes and increases productivity throughout the entire production process. "We were able to save two hours when setting up the machine," says Mr. Muschke enthusiastically.

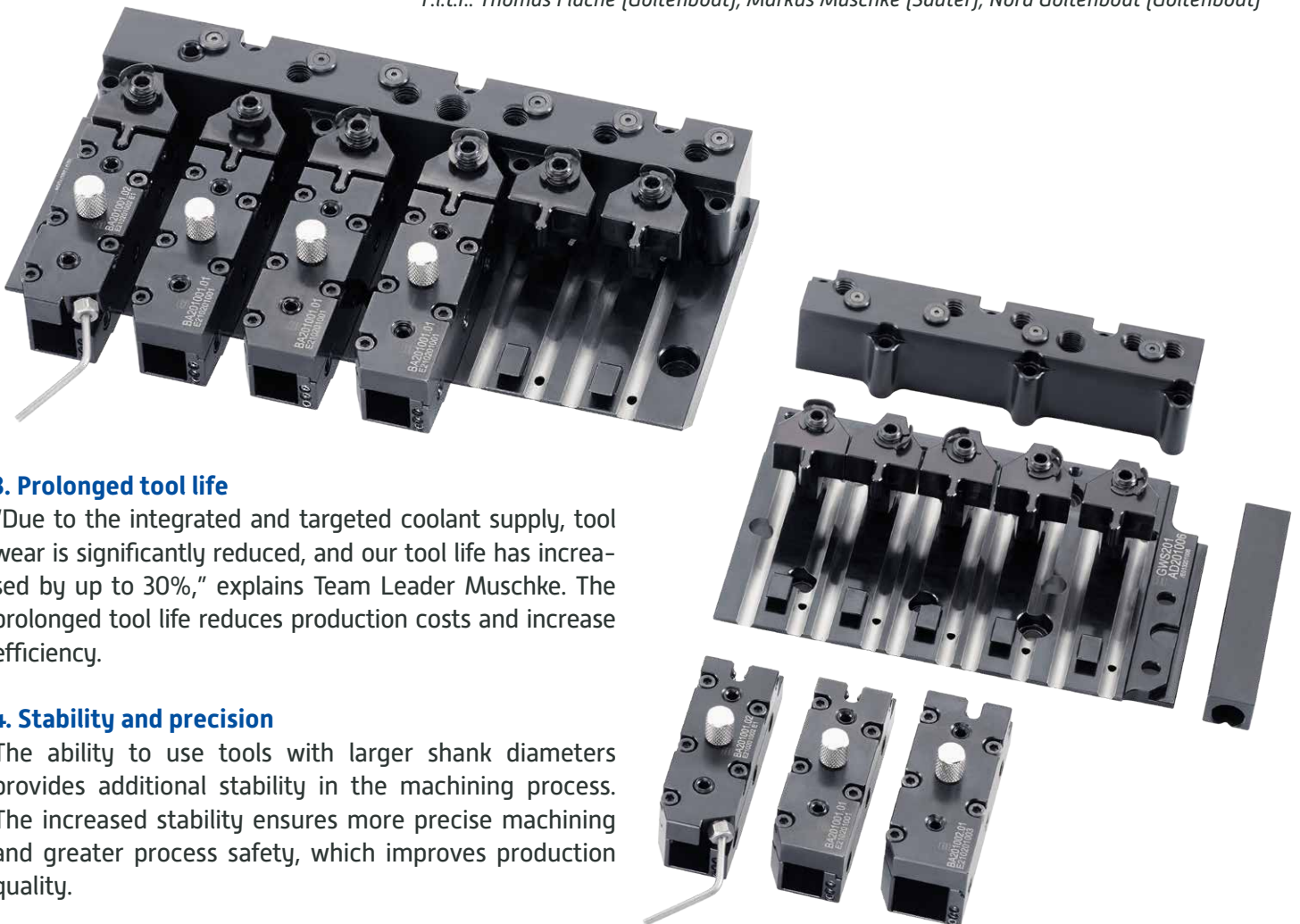


“With the Göltenbodt system, we can work much faster, more flexible, and more efficiently. The simple handling and the enormous reduction in set-up times have revolutionized our production.”

Markus Muschke,
Production Team Leader
CNC swiss-type department



F.l.t.r.: Thomas Flache (Göltenbodt), Markus Muschke (Sauter), Nora Göltenbodt (Göltenbodt)



3. Prolonged tool life

“Due to the integrated and targeted coolant supply, tool wear is significantly reduced, and our tool life has increased by up to 30%,” explains Team Leader Muschke. The prolonged tool life reduces production costs and increase efficiency.

4. Stability and precision

The ability to use tools with larger shank diameters provides additional stability in the machining process. The increased stability ensures more precise machining and greater process safety, which improves production quality.



In addition to the Göltzenbott tooling system, which makes a significant contribution to increasing productivity and flexibility in production at Sauter, other state-of-the-art technologies are used to optimize the manufacturing process and significantly increase efficiency.

The speedy IEMCA Elite 220 bar feeder plays a key role in production at Sauter. It ensures precise material feed and smooth processing. Especially at high spindle speeds, it is important that the bar stock is guided stably to minimize vibrations. This has several advantages: The stability of the material feed not only reduces

tool wear but also leads to higher part quality and a longer tool life. Thanks to the precise guidance provided by the IEMCA bar feeder, production can run smoothly and without disruptions, which is directly reflected in greater process safety and efficiency.

The SFB-300eco "small" high-pressure system from Büchele is another key technology that optimizes production at Sauter. The high-pressure system enables a frequency-controlled pressure of up to 100 bar and therefore delivers a much higher performance than conventional integrated systems. This leads to a significant increase in tool life and part quality.

The continuous and demand-based pressure control ensures that the unit always works in the optimum range, resulting in high energy efficiency. A particular advantage of the Büchele system is its compact design. With a height of just 800 mm, it can be installed between the loading magazine and the machine to save space.

A key success factor for the high productivity and flexibility at Sauter is the seamless integration of the various technologies. Thanks to their precise coordination, short cycle times can be achieved without compromising the quality of the manufactured parts. Sauter makes full use of

these technical synergies to produce consistently high-quality parts, even in large quantities, while minimizing energy consumption and tool wear.

These innovative partnerships and the continuous optimization of Sauter's manufacturing processes are proof that technological advances and strategic collaboration can lead to sustainable success. ■



"The close cooperation with Sauter has shown how important it is to react flexible to changes and offer innovative solutions. Our Göltenbodt tooling system has been instrumental in helping Sauter successfully make the switch to swiss-type technology.

We are proud to be part of this success and look forward to further joint projects in which we can make manufacturing processes even more efficient and future-proof."

Nora Göltenbodt, CEO of Göltenbodt technology GmbH

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