**January 2024**

**Industrie 4.0 Award**

**For the second time in a row, Paul Horn GmbH has received the Allianz Industrie 4.0 Award Baden-Württemberg for an outstanding Industry 4.0 solution. The award underlines Horn's continuous pursuit of innovation and its pioneering role in the digitalisation of production.**

**Problem definition**Horn tools must meet the highest standards of precision and quality. These are crucial in areas such as optics and highly efficient gear manufacturing. The purchase of these tools involves considerable investment. To extend the service life of the tools, Horn offers reconditioning services worldwide.

Until now, tool servicing was only economical for large quantities. "We process the tools in fixed steps – regardless of their actual wear – as it is not feasible to efficiently document individual measurements and decisions," says André Hoettgen, Group Manager Enterprise at Horn.

**Solution approach**To digitally map the life cycle of precision tools and ensure the recording of quality-critical data, Horn has implemented a web-based solution customised for specific product groups. The "HORN Service Platform (HSP)" digitally supports the relevant production processes and accelerates administrative tasks. Based on the I4.0 infrastructure that received an award last year, more than 15 internal stations were connected: from creation to the end of the life cycle (tool) and from goods receipt to shipping (service). The most important processes include laser marking, grinding, various tests and measurements, cleaning, blasting and coating, packaging and shipping.

The HSP assigns a unique identification number to each precision tool. This transcends the system boundaries of a classic ERP system. Data can be seamlessly recorded throughout the entire service process, digitally assigned to the tools and displayed in the web interface in a structured and transparent manner. This includes all quality-critical data, such as directly measured values (height, diameter, concentricity, etc.), test reports, images and comments, and improves traceability. Customers and production share one system, but with individual views and clear demarcation of the data (multi-client capability). The administrative processes, for example when assessing the initial condition after receipt of the tools or when maintaining order data in the ERP, are supported digitally. André Hoettgen: "Where possible, Horn has fully automated administrative tasks. This has prevented errors and reduced lead times."

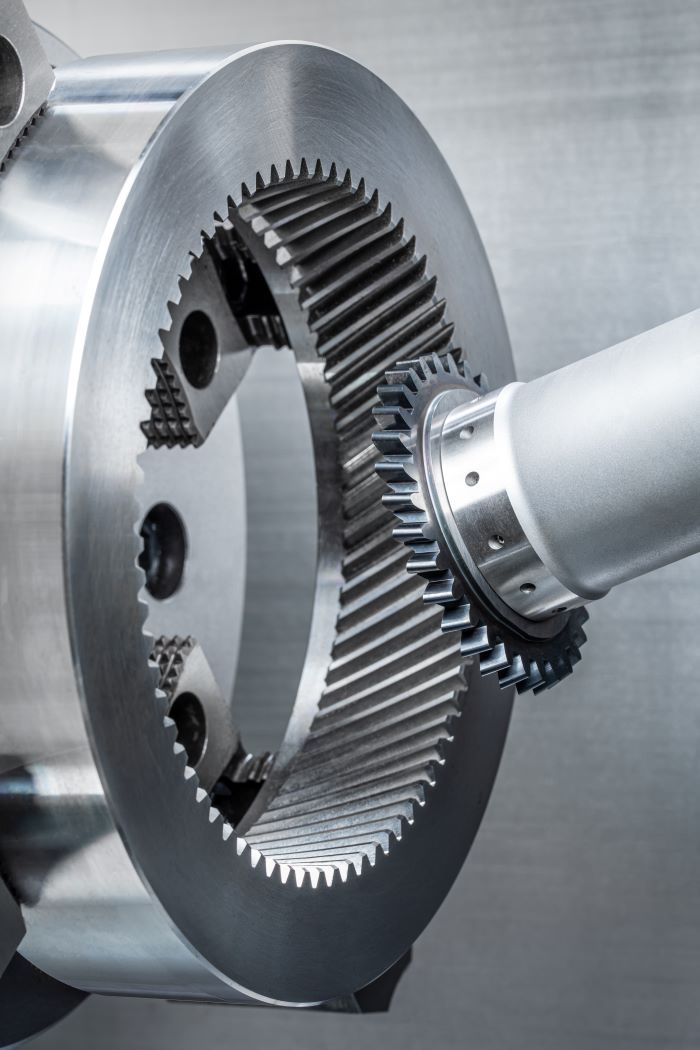
**Impacts/added value**  
The introduction of the HSP significantly improved delivery performance and created full transparency across the entire tool life cycle. The data collected provides the basis for future analyses and optimisation of the manufacturing processes. Customers can access this data via interfaces. The reduction in machining steps has a positive effect on the service life of the tools and thus on costs and the environment. HORN is gradually rolling out the solution and will use it for other product areas in the future.

"With the HSP, we are focusing on customer needs and are continuously working on digital offerings and the efficiency of the service business model," summarises André Hoettgen.

*3.193 characters incl. spaces*



**photo caption:** Re-grinding service: MCD inserts can be re-polished several times.  
Source: Horn/Sauermann



**photo caption:** Even cost-intensive tool systems for skiving wheels can be reground several times.  
Source: Horn/Sauermann

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