



Smart Quality Management With a Continuous Data Flow

Discover how REICH GmbH, a German series manufacturer, is undergoing a digital transformation while maintaining the highest quality standards.





“We have access to accurate real-time performance data from production at any time and anywhere. This enables us to control production efficiently and flexibly.

Stefan Helm
Production Control / MES Administrator
REICH GmbH



COMPANY

Highest quality for the automotive industry

Quality is a tradition at REICH: From bicycle bells to the factory of the future – automotive supplier REICH GmbH, headquartered in Mellrichstadt (Bavaria), has a history of more than 100 years of the highest quality standards. Customers such as Bosch, Continental, Mercedes-Benz, and ZF trust in REICH's proven quality and delivery reliability.



INITIAL SITUATION

High in-house production of 100 million parts

REICH produces high-precision gear components in large quantities. More than 300 of its machines are in use in Mellrichstadt. Its vertical range of manufacture is extensive.

Production every second: Thousands of components are manufactured every minute, around 100 million parts and products per year. To achieve this, the company processes around 80 tons of steel and 30,000 forged parts every day.

To ensure efficiency, traceability, and transparency for large quantities, REICH has relied on the Manufacturing Execution System (MES) from FORCAM ENISCO for years.

The company planned to convert its enterprise planning system (ERP – Enterprise Resource Planning) at the turn of the year 2025/26. The data flow from production to the ERP system is to be further automated.

EXECUTIVE SUMMARY

Added Value with MES FLEX

- Thanks to seamless data flow from the machine to the management system level, the long-standing promise of quality continues to be fulfilled in the 21st century.
- The high quality level of 99% (i.e., only 1% scrap) remains stable even after replacing the ERP solution and upgrading to MES FLEX.
- Machine performance data is available worldwide on an OEE basis in the Microsoft Azure Cloud with partner Continuum.
- The teams for planning and controlling can draw conclusions about running costs at any time.

REICH GmbH - Overview

- **Founded:** 1919
- **Industry:** Automotive
- **Locations:** Mellrichstadt (Bavaria) and Schwarzenberg (Saxony)
- **Employees:** 1,000



REICH production hall in Mellrichstadt



CHALLENGES

Ensuring quality with high degree of vertical integration

Vertical Integration: Greater product diversity, shorter production cycles, and smaller batch sizes - REICH's goal is to meet increasing market and performance requirements while ensuring the highest quality.

Costs: Quotation calculations must be continuously verified and adjusted according to timing, quantity, and scrap rates.

ERP conversion: REICH will switch from INFOR to IFS at the beginning of 2026. In the future, bookings for produced parts will automatically import into the ERP system.

MES upgrade: Conversion to the modern, flexible MES FLEX platform solution.



GOAL AND SOLUTION APPROACH

Consistent high quality and greater efficiency

REICH's goal is to fulfill the quality promises made to customers at its Mellrichstadt location for over 100 years, even in the 21st century, with at least the same level of added value.

Lean organization through lean technology

At the same time, REICH is further advancing its development toward a lean organization through lean technology to increase productivity sustainably.

REICH relies on globally available production data. This data is stored in the Microsoft Azure Cloud, which is hosted by the German provider Continuum.

Alongside the conversion of the ERP system, an upgrade to the MES FLEX solution is underway. The goal is to automate processes further by ensuring a smooth flow of data between the shop floor and the top floor.

The product philosophy of REICH GmbH

Highest quality in highest quantities

In the high precision world of REICH, a human hair appears as thick as a tree trunk. The dimensions of the threads, gears, and gear parts manufactured here are tiny in comparison.

Tolerances, i.e. deviations, are not permitted; each part must withstand the highest pressure loads.

However, this expertise alone does not make REICH products unique.

What sets them apart is the ability to reproduce this precision millions of times over with 100% quality, without errors or complaints.



Seriensieger

Schon zum achten Mal erhält Reich 2023 den „Bosch Supplier Award“.



Best of

Auszeichnung für Topleistungen als einer von 35.000 Bosch Lieferanten.



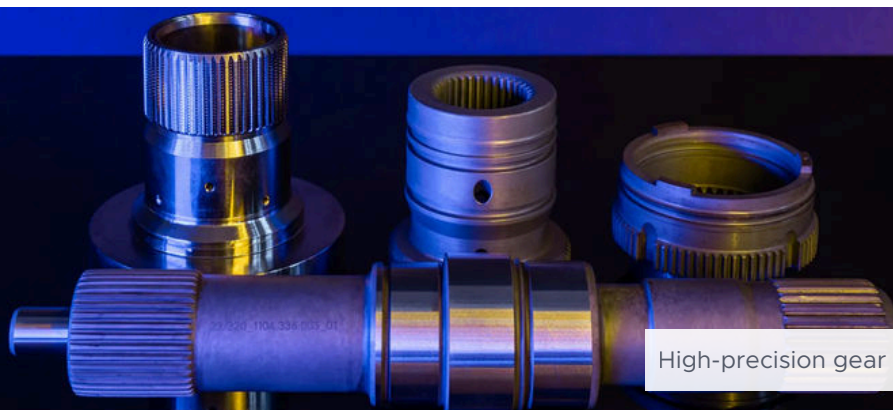
Überdurchschnittlich anspruchsvoll

Höchste Qualität und Zuverlässigkeit für unsere Kundenzufriedenheit.



Consider steering, for example:

REICH manufactures over 100 variants of steering pinions, totaling seven million parts, on a single production line involving turning, milling, hardening, and grinding. For decades, customers have valued the quality, honoring it with prizes and awards.



High-precision gear components from REICH



SOLUTION & RESULTS (1/2)

Quality assured and data flow automated

Solution

REICH consistently delivers on its promise of quality to customers, even during an ERP system changeover. Series production can continue uninterrupted.

With MES FLEX, REICH has a solution that ensures data is always buffered and forwarded to the ERP system without interruption. Therefore, even during the system changeover, the machines continued to produce, and delivery notes and invoices were reliably generated.

All key performance indicators remain at peak levels:

- **Performance:** Delivery reliability for key customers at the main plant remains close to 100%.
- **Quality Level:** The high quality level of 99% remains stable, meaning there is only a one percent rejection rate.
- **Overall Equipment Effectiveness (OEE),** which is based on utilization, performance, and quality, is continuously monitored and optimized.

Results

By upgrading to the modern MES FLEX solution, REICH has created a consistent and stable data bridge from the machines to the management system.

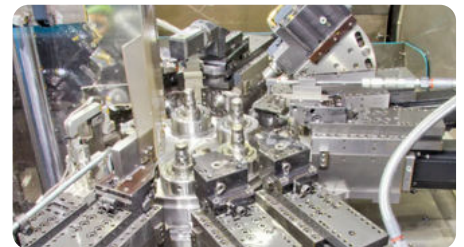
- **Step-by-step implementation** with test operation: Several weeks before the ERP conversion deadline, MES FLEX was running stably on four machines in test operation.
- **Early training:** At the same time, employees received training and gained experience with the new systems.
- **Automatic data collection:** Following the successful ERP conversion, MES FLEX collects data from piece counters on over 300 machines and assets, ranging from complex production facilities to individual workstations.
- **Uniform operation concept:** Manual workstations are digitally integrated so production teams can work with the same operating concept everywhere.
- **Transparency and analysis:** Operating key figures, such as OEE and performance levels, are available for comprehensive analysis on the shop floor at any time.

Value creation comes from the process

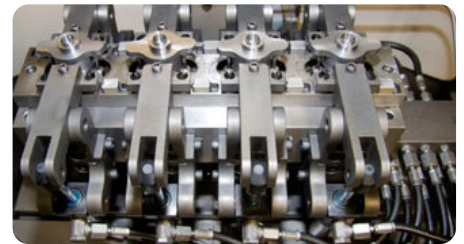
REICH GmbH continuously develops and adapts its manufacturing processes through the use of state-of-the-art production technologies.

Our areas of expertise range from metallurgy and mechanics to the thermal treatment of products.

Examples:



Turning (Multi-spindle, CNC, Rotary Transfer)



Milling (CNC Machining Centers)



Gear Cutting (Milling, Shaping, Broaching)



Heat Treatment (Quenching & Tempering, Induction Hardening)



SOLUTION & RESULTS (2/2)

Automated data flow into the ERP

- **Seamless Booking into ERP:** Delivered quantities are automatically transferred to the new ERP system. To this end, the IFS team developed its own interface with MES FLEX, and the connection was seamless.
- **Planning and controlling** can draw important conclusions about running costs at any time. Order throughput times, circulating stocks, tool service lives, and rejects are recorded, analyzed, and improved.
- **Clean post-calculation:** Valid real-time production data flows directly into the ERP system for precise post-calculations.
- **With all this information,** REICH can create a central knowledge database for sustainable optimization.



CONCLUSION & OUTLOOK

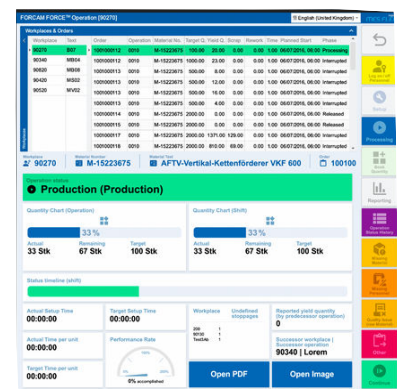
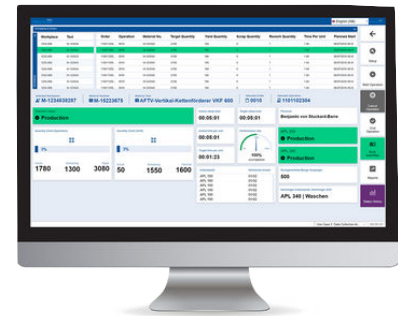
Consistent efficiency from shop to top floor

With MES FLEX, REICH has created a robust and future-proof IT platform for smooth data flow from series production to corporate management.

Production remains stable even during system changes, process data is transparent at all times, and automatic integration into the ERP ensures consistent efficiency—from individual machines to the management system level.

For the future, REICH plans to integrate additional processes such as the hardening facility into MES FLEX and ERP. This will consistently extend data consistency to the entire production process.

Flexible And Efficient Manufacturing With MES FLEX



Feel free to contact us
for more information!



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