

# CASE STUDY: AN EVOLVING MES PROGRAM FOR POWER SOLUTIONS



## About the Customer

The customer is a global manufacturer of products and services used in cooling food, air conditioning, heating buildings, controlling electric motors, compressors, variable frequency drives and powering mobile machinery. The customer is also active in the field of solar and wind power, as well as heating and cooling infrastructure.

## Project Summary

Engineering Industries eXcellence has been working with the customer's power solutions division, which is responsible for the production of hydraulic motors and pumps for heavy equipment, including agricultural machinery and industrial tractors. Our team designed and implemented a highly customized MES solution able to cope with their complex assembly process, including handling a manifold variety of recipes and the traceability of their units along the assembly line.

## Project Activities

- » Designed and implemented a highly customized Manufacturing Execution System (MES) solution with a number of innovative features for high automation
- » Configured and implemented a customized recipe management module and rules
- » Delivered the integration of the new MES solution with the customer's control layer
- » Provided onsite technical training and support during and after rollouts at all sites worldwide

## Business Drivers

- » Control data volume: having hundreds of recipes for each product family leads to huge, unmanageable amounts of data
- » Improve data flexibility: a production environment which can manage all product and process variations, and handle changing customer demands and production needs
- » Ensure data maintenance: changes applied to any part of the process need to be easily propagated
- » Global standardization across all sites and divisions worldwide

## More About The Project

Engineering Industries eXcellence has been the strategic Digital Manufacturing partner of the customer for almost a decade. Our work together began in 2010, when our leading Manufacturing Execution System (MES) team was brought in to help the customer find and implement the best solution to manage their highly variable manufacturing process. In addition, the manufacturer hoped to standardize this process and its management across their plants in North America, South America, Europe and Asia.

The customer's highly variable manufacturing process presented an enormous problem for them and a big challenge for our consultants. The number of variants to be accounted for and managed were astronomical – the product could be manufactured in 500 different “flavors” – almost at the level of a car assembly process. Our team's aim was to build and deliver a flexible digital solution capable of managing the data and workflow of this process. In addition, our solution also aimed to provide traceability as well support to the shop floor operators who executed the complex assembly process.

Our team delivered a successful project with the design and implementation of a highly customized MES solution able to cope with the complex assembly process of the customer's hydraulic pumps, including handling a manifold variety of recipes and the traceability of their units along the assembly line. Leveraging Siemens Opcenter Execution (SIMATIC IT) MES software, the solution was built with a number of innovative customizations for high automation and a set of customer-specific rules for recipe management. Our Industries eXcellence experts also completed the integration of the new MES with the customer's control layer. Finally, our team provided onsite technical training and support during

and after each rollout.

## Engineering's Advantage

Since the first implementation of the new MES system, our team has been leading its deployment across customer sites worldwide, as well as providing full IT support and governance support for the solution. In addition, our team of specialists has continued to develop and augment the MES solution with new versions, taking into account the customer's evolving needs, adding new capabilities and features, and applying advancements in technology to address the same needs in a better, more scalable and more flexible way.

Our team of customer experts continues to help the customer define and execute their Industry 4.0 roadmap and maturity plan in order to ensure consistency in process, product and business management across not only all their power solutions plants, but all the different manufacturing divisions of their enterprise. This is a long-term partnership which showcases Engineering's commitment to collaboration, innovation and continuous improvement. Our team looks forward to supporting the customer's digital transformation journey for many more years to come.

**Would you like to learn more about this customer case study? Contact us at [info@engusa.com](mailto:info@engusa.com).**

## ENGINEERING Industries eXcellence Global

Industries eXcellence is a division of the Engineering Group, a global software maker, system integrator and provider of innovative technology solutions and services. Our division specializes in the digital transformation of the manufacturing and transportation sectors. We design, build and implement solutions that drive process automation, operational efficiency, supply chain optimization and intelligent data analytics for leading industrial enterprises worldwide.

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