



INCREASING DIGITALIZATION IN PRODUCTION

Breakfast with the family, dinner with friends or a quick snack in between: Chances are good that one of the foods or beverages served contains milk or dairy products refined by Lactoprot. A great number of applications means a multitude of different customers and requirements, which translates in high demands when it comes to transparent and efficient production. PILOT, the Manufacturing Execution System (MES) by the FELTEN Group, supports Lactoprot in its digitalization strategy. Lactoprot has been refining milk and whey for more than 35 years. They not only produce whey protein concentrates, but also skim and whole milk products, as well as yogurt stabilizers.

One of their main activities is the manufacture of caseinates. The company is one of the world's leading manufacturers of these milk proteins that are



further processed in other products. Pastry, meat products, beverages, ice-cream, or chocolate: all these food segments process Lactoprot products.





Recognizing the need

A subdivision of the Lactoprot production has already been using a digital solution: The ERP software in use has been customized according to supply chain processes, and important workflows of procurement, shipping and quality management have mostly been digitalized.

But the ERP software could not control internal warehouse processes or complex production workflows. As a result, these

processes were mainly controlled manually and on paper.

Delays in production and delivery ensued with the processes being costly in terms of time and staff and prone to errors. The company quickly recognized that optimization was needed in these fields if they wanted to stay competitive in the long run.



Efficiency & transparency

This is where PILOT:MES by FELTEN stepped in with the objective to significantly increase automation and introduce a more flexible production control, which would ultimately lead to increased efficiency. To achieve these goals, PILOT was implemented with different modules as lower-level MES. PILOT controls the processes in goods receipt and goods issue, and PDA functions help the employee to quickly complete material transfer and material staging orders. PILOT also controls and monitors weighing, mixing, and filling processes as well as critical control points (CCP).

"We opted for PILOT from FELTEN after extensive market evaluations and a conceptual workshop. FELTEN's broad industry expertise and the simple methods to digitalize production convinced us," Sönke Andresen, Project Manager at Lactoprot, remembers.

PILOT:MES guarantees consistent tracing, and Lactoprot is continuously informed about the performance of machines and processes. They can quickly intervene if action is required.

"We chose FELTEN because of the broad industry expertise and the simple approaches to production digitization."





One of the MES modules in use is the Digital Checklist. It is used at different places in the company: for goods receipt inspections, truck inspections, checks of critical control points and for the generation of transport units. The module ensures that all standard regulations are complied with.

Noticeable benefits

Directly after the first implementation stage, precise stock levels were available by way of synchronously posting goods receipts. Before implementation, manual work steps had caused great delays.

The warehouse staff could particularly benefit from the MES shortly after realization of further project stages: "The existing ERP system only provided a rough warehouse management, which lead to costly searches for material. While finding a specific pallet could take two minutes or even two hours in the past, the changeover to the MES has reduced this time to less than a minute if everything runs smoothly," Michael Schwanke, Production Manager at Lactoprot, reports. The MES provides additional process reliability when it comes to weighing small quantities as the products cannot be mixed up. This helps to ease the strain on employees and reduces the complaint rate. Other safety mechanisms ensure that a wrong raw material will not end up in the mixing tanks. A target-actual comparison quickly identifies whether the scanned goods are actually the ones that must be added, for example. Errors are detected and corrected at an early stage before further processing.

Another benefit has been the digitalization of CCP checks and other inspection plans. Data is now available at any time and can be retrieved retroactively guaranteeing complete traceability.



The changeover to the MES has reduced this time to less than a minute if everything runs smoothly," Michael Schwanke, Production Manager at Lactoprot, reports.





In the past, productivity had to be evaluated manually with data from different sources. Today, the MES provides all data to easily calculate productivity. This time-saving measure is a great relief for the production management. "The best thing is that everybody in production benefits from the new MES," Sönke Andresen sums up.

About the company

Lactoprot Deutschland GmbH, headquatered in Kaltenkirchen, is one of the leading manufacturers of caseinates. The refinement of milk and whey is their core competence and each of the five production sites in Germany is specialized in specific products. With more than 300 employees worldwide, state-of-the-art technology and innovative product developments, the company supplies customers in 87 countries. The products of Lactoprot are used in different food such as milk and dairy products, meat, pastry, or beverages. The Manufacturing Execution System of the FELTEN Group has been implemented at the site in Lübeck.

Germany.



"In the past, productivity had to be evaluated manually with data from different sources. Today, the MES provides all data to easily calculate productivity."