Focus on sustainable food production

New boiler house and energy center at DMK in Zeven

Sustainability is the focus of all corporate decisions at the DMK Group. DMK sees great potential for increasing efficiency in the optimization of energy-intensive spray drying. The commissioning of the new boiler house is a key step towards achieving energy efficiency goals. In the new boiler house, process measurement technology from Endress+Hauser provides reliable process data and thus helps DMK to improve sustainability.

Customer challenges The efficient use of resources, especially in the area of energy, is a huge challenges for many food manufacturers. Considered action and implementation have become essential in order to ensure the profitability of the company. For the energy transition to be a success at DMK too, processes must be optimized and energy used more efficiently.

To achieve the climate targets, DMK has focused on strategically important transformation projects, and spray drying is one of these projects.

In the spray drying towers in Zeven, approx. 8,000 kg of dry milk powder per hour can be produced from approx. 80,000 kg of milk in an energy-intensive process. To further increase energy efficiency, both the waste heat and the condensation water (vapor water, also known as COW water) from the drying process are reused in the new boiler house.

Results

- Smooth processes and precise data ensure product quality, process reliability and energy efficiency
- Partnership-based collaboration guarantees process optimizations that can further improve sustainability

dmk Group

Dairy cooperative DMK Group is one of Europe's leading dairy producers and as one of the largest suppliers to the retail food industry in Germany, makes a significant contribution to feeding the population. With around 6,800 employees at more than 20 sites in Germany, The Netherlands and other international locations, DMK processes 5.6 billion kilograms of milk annually. The product palette ranges from milk, mixed milk beverages, yogurt and cheese, to ice cream, baby food, food ingredients, vegan products and animal feed.

"In order to take reasonable, effective measures it's essential that we have reliable and precise figures, data and facts. To do that we need strong partners such as Endress+Hauser who provide us a degree of security with their measurement instrumentation. Without data though, we are flying blind."

Klaus Landwehr
Head of Energy Management
DMK Deutsches Milchkontor GmbH

Endress+Hauser
People for Process Automation

Realization DMK has already implemented more than 50 sustainability projects and achieved significant savings in many respects. At the location in Zeven a central energy system with two highly-efficient boiler installations, a cogeneration plant and a new waste heat recovery concept for the spray drying towers are created. Endress+Hauser has proven itself as a partner for process improvements over many years. With the right choice of measuring devices in the new boiler house, insights into the process can be gained, process reliability increased and sustainability improved.

"Sustainability is part of our identity and at the core of everything we do. This is why our goal is to make this visible across the entire value chain. In order to manage this issue successfully, we approach it as a joint responsibility and involve various specialist areas such as purchasing, agriculture, occupational safety, environmental protection, quality management and energy management."

Klaus Landwehr, Head of Energy Management at DMK

New spray drying facility at the DMK Group location in Zeven.

In the new boiler house, where vapor water from the spray drying tower is converted back into steam, numerous instruments from Endress+Hauser monitor the processes.

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