

Glanbia Improves Production with Advanced Process Control Solution



“Working within a mature dairy market with soaring competition and steadily dropping margins is a big challenge. Our facility was already working at 100 percent capacity but we needed to find some way to improve performance. Honeywell helped us achieve just that.”

Maurice Murphy, Engineering Manager, Glanbia Ingredients

Benefits

A Glanbia production facility in Ireland turned to Honeywell to overcome the challenge of increasing production performance with process operations already at their limits. With Honeywell's consulting expertise, Glanbia was able to perform an in-depth analysis of the options available to optimise its evaporation and drying process. Honeywell implemented its Profit[®] Controller Advanced Process Control solution, and integrated it with the Experion[®] Process Knowledge System (PKS) to achieve positive results.

With Honeywell technology and services, Glanbia was able to:

- Achieve payback on investment in six months
- Increase production throughput by approximately 5 percent
- Run the plant at maximum capacity
- Stabilise the use of energy and reduce energy costs
- Avoid investment in new equipment
- Increase management visibility to production results

Other benefits included:

- Minimum production disruption for the improvement
- A short project implementation lifecycle
- Project completed on budget and on schedule
- Energy usage savings



The Glanbia Ingredients facility installed Profit Controller and realised improved production results.

Background

Glanbia, which means “pure food” in Gaelic, is an international cheese and nutritional ingredients company, formed by the merger of Avonmore Foods and Waterford Foods in 1997. The company operates in Ireland, Europe, U.S., Canada and China with joint ventures in the U.K., U.S. and Nigeria.

Glanbia plc in Ireland is the leading supplier of branded and value-added liquid milk, fresh dairy products, natural cheeses and fresh soups in the retail market. Glanbia employs over 4,500 people worldwide and has an annual turnover of 2.2 billion euros.

Challenge

The Glanbia Ingredients facility in Virginia, County Cavan, Ireland is in operation for 364 days of the year, producing powders and cream products with the plant operating at maximum capacity.

Operations staff faced the challenge of maximising efficiency and throughput without having to install new and costly equipment. Glanbia was looking for a solution that would result in improved performance while continuing to ensure superior product quality.

With the experience of a relationship lasting more than 25 years, Glanbia and Honeywell developed a strategy to come up with the right solution to maximise plant capability.

Solution

Honeywell began the Glanbia project with a detailed process control study that uncovered various opportunities for improvement in the production process.

With prior site experience and knowledge of the dairy process, Honeywell was able to develop and propose an advanced process control solution (Profit Controller) in conjunction with the installed Experion control system. Honeywell's confidence in the solution was so strong that a 12-month minimum payback on investment was guaranteed as part of the proposal.

"I was extremely comfortable working with Honeywell because of their expertise in our production," said Maurice Murphy, Engineering Manager at the Glanbia Ingredients facility.

"Honeywell helped us explore what control changes we could make to optimise our evaporation and drying process."

Glanbia's energy-intensive evaporation and drying process produces a final powder product with specific characteristics including moisture content. Optimal evaporation and drying stabilises the process, improving the final product quality. With the application of Profit Controller, Glanbia was able to optimize drier control to enable the process to run closer to limits than is manually possible. Profit Controller also provides the ability to update information for real-time controller maintenance, making running production reporting easier than ever before. The implementation of a Honeywell data visualisation application enables information to be made available throughout the plant, improving operational efficiency and decision making.

"We now have fast access to real-time production data," stated Donal Reilly, Production Manager at the Glanbia facility. "We know how well we are doing on an hourly/daily basis in terms of production."

As a result of the project, the process has stabilised resulting in a significant improvement in production throughput. Return on investment was realised in just six months, half the time in the Honeywell performance guarantee.

"With the support of Honeywell, we came up with a unique solution to optimise moisture content of our final product, increasing production throughput by 5 percent and lowering overall production costs," said Reilly. "And we now have a much better view into production data".

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More Information

For more information on Honeywell's advanced process control solutions, visit www.honeywell.com/ps or contact your Honeywell account manager.

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SS-06-26-ENG
October 2008
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