

The “whey” to efficiency Seamless technology switchover to System 800xA at Bregott factory



In dairy processing, time is critical in ensuring the safety, shelflife and quality of milk and its by-products. For Arla Foods, manufacturer of well-known Swedish butter, cheese and margarine brands, production stoppages are nonnegotiable. Thus, a technology switchover at its Bregott factory needs to go smoothly.

Arla Foods in Götene manufactures Bregott and Lätt & Lagom, Sweden's leading butter brands.

The factory has a separate unit responsible for the storage, culture and processing of cheese sourced from other parts of the group. In 2010, Arla Foods decided to expand its Bregott product line to include a lactose-free variety. This was when the production line first ran into problems.

“The system for process control in production was overloaded. Information was not being transmitted to relevant areas of the plant. For example, the washing center operated like it had a mind of its own. Although we were able to resolve the problem, we realized that the solution gave no allowance for increased capacities in the future,” said Arla Foods’ Project Manager Håkan Johansson.

Complicated puzzle

The predicament Arla Foods faced was whether to extend the existing Sattline control system or replace it with a different system that has a larger capacity.

“It was a complicated puzzle. After extensive discussions, we agreed that we needed a solution where the capacity was distributed in a way that it suited all sections of the production chain,” said Johansson, who was also the automation manager for the project.

“Upgrading to System 800xA meant that we can maintain the same distribution as before with three units, thereby preventing long production stoppages.””

Håkan Johansson, Project Manager, Arla Foods

A dialogue then began with ABB, who had previously supplied Sattline.

After weighing in all technical aspects of the current control system, as well as the future requirements and demands on production, it became apparent to Arla Foods that only one solution remains: to upgrade the Sattline system, which was marked to be phased out of the market, with ABB’s newest control system, System 800xA.

“Upgrading to System 800xA meant that we can maintain the same distribution as before with three units, thereby preventing long production stoppages. At the same time, we will have a system with three times more capacity,” says Johansson.

Leif Johansson, also a project manager at Arla Foods, stressed the importance of a quick switchover and how time was a factor in the selection of the control solution.

“A long stoppage was out of the question because essentially all of the country’s supply of Bregott comes from this factory. A stoppage would have created a logistical nightmare. And, as we all know, dairy animals express milk when they are ready, whether or not the factory is ready too,” Leif said.

Painless switchover

To ensure a swift and painless technology switchover, ABB together with the customer carried out a two-week FAT (Factory Acceptance Test) at ABB’s Malmö office.

“The FAT was as close to reality as one could get without going live. Five Arla Foods process engineers as well as operators from the production departments all lent valuable perspectives in testing and crafting the solution that addresses and meets our requirements,” says Johansson.

Magnus Högstedt, Industry manager, Food & Beverage at ABB, agrees that customer involvement from start to finish is a critical success factor.

“People are not always inclined to favor change. However, it is naturally easier to appreciate and get on-board with new technology that they will use if they have been involved in the change process. In this particular case, it has been an excellent exchange of knowledge in both directions,” says Högstedt.

With 800xA, it will be easier for the operators to monitor and manage many aspects of plant production because significantly more information is now available than before.

The project team enjoying Sweden’s favorite butter (from left): Arla Foods’ Project Manager Leif Johansson, ABB’s Magnus Högstedt and Arla Foods’ Project Manager Håkan Johansson.



Credit and praise for ABB's post-installation work

Despite the smooth transition and successful commissioning, a technical switchover of this scale must be revisited to fine-tune the details.

"I must give ABB due praise for their post-installation work. They have been unbelievably receptive to making necessary adjustments. As ABB in Malmö stayed connected via the Internet, we were able to solve everything quickly," says Johansson.

In February 2012, the new, lactose-free Bregott debuted in shops all over Sweden.

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Arla Foods

Arla Foods

Arla Foods Götene manufactures 61,000 tons of butter and blended products (of which half are Bregott varieties) annually.

The facility's other units produce, store, distribute and process cheese. Approximately 600 people are employed by Arla Foods in Götene.

ABB's supply

ABB supplied System 800xA, comprised of six operator workstations and three AC 800M controllers for the facility's margarine production line. The contract scope covered project management, development work, commissioning and services.

The project was completed in over 300 hours, with the participation of two (2) Arla Foods staff from the maintenance department.

Arla Foods in Götene manufactures Bregott and Lätt & Lagom, Sweden's leading butter brands.



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