



Dairy expansion increases production capacity and ensures hygiene, uptime and savings

TINE SA, Norway

Case story



Alfa Laval equipment and preventive maintenance provided the TINE Byrkjelo dairy with increased production capacity and significant savings while ensuring safety, hygiene and economy.

To boost productivity, TINE SA, Norway's largest producer, distributor and exporter of dairy products, decided to expand milk production and transfer cheese production for two of its popular brands to its Byrkjelo dairy plant. Based on a solid 20-year business relationship, TINE chose Skala AS, an Alfa Laval Master Distributor and Authorized Service Partner, to rebuild its production lines. To meet TINE's demanding requirements, Skala selected dairy equipment from Alfa Laval based on proven safety, hygiene and economy.

A long-term business relationship between TINE and Skala, a leading supplier of technical services, processing equipment and consumables for the food and dairy industries, led to

recent collaboration to expand the Byrkjelo dairy's production capacity and adapt its production lines for cheese production. To safeguard the reputation of TINE as Norway's premier dairy, Skala selected Alfa Laval hygienic dairy solutions – from high-efficiency, easy-to-clean centrifugal pumps to the most advanced mix-proof valves. Expanding milk production capacity and upgrading existing process lines for cheese production increased productivity and uptime while ensuring substantial savings.

Increased production capacity

Dairy Manager Thorkild Heieren and the team at TINE Byrkjelo worked closely with Skala to plan an expansion of its milk production facilities and a conversion of its milk production lines to cheese production lines. Before the

expansion, the Byrkjelo plant produced 10 million litres of milk each year; after the expansion, the plant now produces 126 million litres, which significantly increased annual production of popular cheeses, including Norvegja® cheese and 2 Brunost® cheese.

Preventive maintenance for significant savings


As dairy farmers working as a co-operative association, TINE dairies strive to 'create good food moments for people' in close partnership with nature, agriculture, consumers and trade. For the Byrkjelo dairy, this means focusing on pure, natural ingredients as well as focusing on maximum uptime and operational efficiencies to be able to produce the highest quality dairy products possible.

To maximize uptime and keep all equipment in top operating condition, Skala recommended an Alfa Laval Preventive Maintenance Agreement, one of the services available through the Alfa Laval 360° Service Portfolio. Each year, all Alfa Laval Unique mixproof valves and LKH centrifugal pumps undergo scheduled maintenance to ensure high production standards and minimize the risk of unscheduled shutdowns, which affect plant productivity and profitability.

Maintenance is scheduled each year. For the Alfa Laval LKH centrifugal pumps, for instance, this means replacement of shaft seals and rubber seals with genuine Alfa Laval spare parts as well as ensuring that the pumps are properly lubricated. For Alfa Laval Unique mixproof valves, this means replacement of the rubber seals that come into contact with the product and CIP media. These parts are likewise replaced using genuine Alfa Laval service kits. Furthermore, the valves are tested to ensure proper operation and, if necessary, lubricated to further ensure proper function.

By following the preventive maintenance guidelines, TINE can plan their operating budget, schedule downtime, increase equipment lifetime, enhance product quality and plant productivity. Moreover, this virtually

“ Our Alfa Laval dairy production lines always work at full capacity. We know that Alfa Laval Master Distributor Skala will conduct preventive maintenance each year and that we can focus on our core business, knowing that our production lines will keep working – safely, reliably and hygienically.”



– Thorkild Heieren, Dairy Manager, TINE Byrkjelo

eliminates the risk of breakdown due to component failure and reduces total cost of ownership.

Reliable, hygienic dairy equipment
 “We recommend Alfa Laval equipment, such as LKH pumps and Unique mixproof valves, because we know that they are reliable, hygienic and easy to maintain,” says Owe Barsten, Sales Manager, Components & Service, Skala AS. “When our reputation is on the line, we make sure to recommend the very best.”

Barsten goes on to say that Alfa Laval LKH centrifugal pumps increase process productivity while providing high efficiency and gentle product handling, making them an excellent choice to meet the hygienic requirements of the dairy industry. Alfa Laval Unique mixproof valves, he says, were also a natural choice

for TINE production lines because they are reliable, hygienic and easy to clean.

Furthermore, Alfa Laval Unique mixproof valves do not need re-validation of seat lifts after maintenance because the stroke length of the seat lifts is fixed at the factory and cannot be adjusted. If used correctly, this provides the possibility of excellent cleaning using very little water, which provides savings on energy, water and cleaning agents as well as reduces the load on the effluent plant.

Innovation ahead
 What lies ahead for the TINE Byrkjelo dairy? According to Heieren, the company is committed to creating good food for moments for people. Continuous innovation and process improvement will ensure a sustainable future both for TINE customers as well as the TINE dairies.



The Alfa Laval LKH centrifugal pump.



The Alfa Laval Service Kits.



The Alfa Laval Unique mixproof valve with Alfa Laval ThinkTop sensing and control unit.

How to contact Alfa Laval

Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com to access the information direct.