

Leakage data supports essential repairs and maintenance at TINE

Being certified to ISO 9001 quality standards requires Norwegian dairy business, TINE, to have a strong focus on continual industrial operations including its compressed air system.

Towards zero emissions in 2025

Compressed air system analysis and leakage detection surveys are just some of the environmental measures which TINE has in place to significantly reduce greenhouse gas emissions from its production process. The increasing global focus on sustainability has had a major impact on all aspects of the dairy industry and has also influenced the direction for TINE when it comes to energy savings and the spotlight on greenhouse gasses. "The emphasis placed on efficient industrial operations and CO₂ emissions has changed the mindset around industrial compressed air and requires us to operate in a way that is both sustainable and financially sound," explains Helge Skarbø, Maintenance Manager at TINE SA in Ålesund in Norway.

The facility

The facility at TINE consists of two divisions one of which produces milk for the consumer market and the other, products like desserts, puddings and iced coffee. There are five production lines which are connected to four air compressors in a single net.

The facility operates up to a three shift pattern with the compressors set up so that they automatically align the supply and demand sides whilst sensors display real-time usage. Total compressed air consumption is between 10 to 15m³/min.

System analysis and leakage detection results

TINE partnered with Tyge Filseth from TYLEKK who used Enersize software to document the leakage detection surveys and subsequent repair projects.

Helge Skarbø, Maintenance Manager at TINE, explains: "My advice is to start with a system analysis to get the best data foundation for making the right decision about next steps. After our initial system analysis of the facility in 2006, we decided to conduct annual leakage

About TINE

- The TINE Group is one of Norway's largest food companies and is a full-scale supplier of dairy products with well-known brands. TINE is owned by 10,120 dairy farmers and is organised as a cooperative association.
- Being certified to ISO 9001 quality standards requires TINE to have a strong focus on continual improvement.



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Helge Skarbø,
Maintenance Manager at TINE SA
in Ålesund, Norway





detection surveys and repair projects to maintain our compressed air system in optimal condition for the production lines."

The information about leakage grades, documentation and tags as well as cost calculations is available in real-time on the Enersize platform. Skarbø elaborates: "The data and documentation in Enersize is extremely valuable because it shows us precisely where and how big the leaks are, which helps us prioritize repairs and maintenance work." And he continues: "It is important we can see the cost-benefit of repairs up-front."

In connection with planned stoppages of the individual production lines the self-sufficient maintenance team is able to carry out the repairs, achieving annual energy cost savings of NOK 70-100,000 from the leakage detection and repair project.

Avoid losing money on leakage

According to Tyge Filseth, the company is a best-in-class example of how facilities should approach leakage management. "We are seeing consistently low leakage levels at TINE which is down to two things – regular surveys and 100% repair rates. TINE is a good example of how the mindset around compressed air has changed, and how energy can consistently be saved and greenhouse gas emissions reduced when leakage repair is part of the maintenance schedule," says Filseth.

To consistently meet customer expectations for documentation towards sustainable industrial operations, TINE conforms not only to the quality management standard ISO 9001 but also to the trusted brand assurance platform FSSC 22000 for the control of food safety risks.

"With customers at the core of our focus and a management philosophy of continual improvement to our compressed air system and leakage management, data and documentation from Enersize play a vital role in our certifications process," concludes Helge Skarbø.

Facts and figures

1 year Annual leakage detection and repair cycle keeps the compressed air system in optimal condition

70-100t NOK Annual energy cost savings from leakage detection and repair project

100% High repair rate saves energy and reduces greenhouse gas emissions

About Enersize

Enersize delivers smart software, tools and services for energy optimization of industrial compressed air. Resulting from the merger of three Nordic companies, Enersize customers benefit from the heritage and experience of over 7000 projects. Our expertise and the commitment of our people has made us a recognized global leader in compressed air efficiency software. The company is listed on Nasdaq Stockholm First North Growth Market under the ticker: ENERS

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