

Protan increases asset uptime by optimizing compressed air system with Enersize data

Protan AS, Drammen has experienced first-hand that preventive maintenance is essential to compressed air system efficiency and productivity and can help avoid the need for major investments in new compressors.

A continuous focus on maintenance

Protan has always aimed to be an environmentally responsible manufacturer, which includes placing great emphasis on a well-maintained compressed air system. To document the effects of their continuous internal maintenance work, Protan AS, Drammen is conducting leakage detection surveys on an annual basis.

In between these surveys, the self-sufficient maintenance team at Protan AS in Drammen is inspecting the compressed air system on a monthly basis. Whenever problem areas are identified, the maintenance team utilizes planned stoppages of the individual production lines to carry out the maintenance work.

Tom Lillemoen, Technical Manager at Protan AS in Drammen, estimates that the facility is seeing considerable year-on-year cost savings due to the continuous focus on maintenance. "In my experience it is not enough to conduct annual leakage detection and repairs, you have to continuously address leaks. Since we began focusing on leakage management, I'd estimate that we have saved in the region of 200-300,000 NOK per year in energy costs," states Lillemoen.

The team is also focused on continuously updating its knowledge and skill set about leakage management.

The facility

Protan is a Norwegian industry group that is a world leader in membrane technology. The firm develops and supplies membranes, roof systems, ventilation systems and technical textiles. Products are manufactured at four different sites in Norway with energy from Norwegian hydro power. Protan is certified to ISO 9001 Quality systems and ISO 14001 Environmental Management systems.

At the 5,000 m² Protan facility in Drammen the compressed air system is divided into low and high pressure nets. Primary compressor capacity is 7 m³/min, with a backup compressor of 6 m³/min.

About Protan AS

- Protan is a Norwegian industry group that is a world leader in membrane technology. The firm develops and supplies membranes, roof systems, ventilation systems and technical textiles.
- At the 5,000 m² Protan facility in Drammen the compressed air system is divided into low and high pressure nets with primary compressor capacity at 7 m³/min.



Protan AS, Drammen has increased machine uptime and availability by 10 to 15 percent with proper maintenance of which 2 to 3 percent can be directly contributed to the effective leakage management in the industrial compressed air system.

Tom Lillemoen,

Technical Manager at Protan AS,
Drammen, Norway

Avoiding a major compressor investment

Before procuring a new and larger compressor Protan AS in Drammen hired an experienced auditor to conduct a comprehensive audit of the entire compressed air system. The objective was to assess the system for optimum efficiency and reliability and match the supply and demand side. The company partnered with Tyge Filseth from TYLEKK who use Enersize software to document the audit and leakage detection survey. The audit showed that the 7m³/min compressor was large enough to meet the requirements on the factory floor.

Lillemoen explains: "The data from the audit documented that our existing compressor was sufficient to meet the requirements of the demand side and so we avoided the purchase of a new and larger compressor altogether."

Increased machine uptime and availability

At Protan AS, Drammen the risk of failure of the machines is kept as low as possible with a continuous focus on preventive maintenance. The objective is to ensure that the availability of the machines is not restricted, which requires addressing both the supply and demand sides of the system and how the two interact in terms of flow and power.

Lillemoen elaborates: "It is my estimate that Protan AS, Drammen has increased machine uptime and availability by 10 to 15 percent with proper maintenance of which 2 to 3 percent can be directly attributed to the effective leakage management in the industrial compressed air system."

For others who are looking to set up a regular schedule for leakage detection, repairs and preventive maintenance, Lillemoen offers a piece of advice: "An audit and leakage detection survey is an inexpensive way to begin to address leakage in your industrial compressed air system. The data from the audit and survey will show you exactly the cost of leakage. This way you can accurately document the savings potential." And he continues: "I recommend partnering with a professional auditor who can analyse the data from the audit and survey, and who can also advise how to best to prioritize repairs and conduct preventive maintenance so that you know exactly which spare parts to retrofit. This way you can optimize machine uptime and availability. After all, without compressed air production stops," concludes Tom Lillemoen.

Facts and figures

2-3%

increase in equipment uptime and availability from leakage management

200-300t NOK

energy savings on an annual basis from optimal maintenance

1 avoided investment

avoided the purchase of a new compressor

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

For more information visit
enersize.com