

Case

Mälarenergi takes vibration measurement to a new level

Mälarenergi, which has been in operation for 160 years, is Sweden's largest combined heat and power plant. The facility provides electricity, district heating, water, and fiber to several cities in the Mälardalen region. Over the years, the facility in Västerås has grown larger to meet increasing demands, and it now consists of seven different units.

After the installation of the pureSignal wireless vibration system the daily maintenance work has been made easier and the facility more reliable as measurements are continuous, wireless, and automatic.

Keep track of the machinery

In such a large and essential facility as the power plant in Västerås, it's important to keep track of the machinery. Vibrations occur in many different places, and by measuring them accurately, it's possible to assess the condition of pumps, motors, or fans. Detecting damage early can prevent operational disruptions and unplanned shutdowns. Most measurements have, until today, been carried out manually by roaming personnel. While these measurements are precise, they only provide a snapshot of the machine's condition at that moment and are also extremely time-consuming. As the facility has expanded, the need for development has become evident.



“We are interested in new technology”

says Robert Hjorth, group leader for mechanical at Mälarenergi.



pureSignal is proud to have been entrusted with the installation of 300 pureMEMS wireless vibration sensors at the Västerås powerplant.

The company pureSignal has emerged from extensive experience in measuring factory conditions and is wholly owned by the family owned Erinova Group. With the Swedish made sensor - pureMEMS, pureSignal combine the next-generation wireless radio technology with

uncompressed, high-quality data. Monitoring machine conditions is part of the company's DNA.

By continuously monitoring vibrations on the same machine, continuity can be achieved. Mälarenergi chose pureMEMS because it is a wireless sensor with a long range and high measurement quality.

“You can monitor perhaps 100 objects at the same time it took to walk around one. It has made our job easier,” says Tommy Persson, a experienced maintenance engineer at Mälarenergi.

He also explains that they learn a lot about the condition of the machines by monitoring them all the time rather than just taking samples.



Easy installation

The Swedish distributor MLT Maskin och Laserteknik AB had project manager Fredrik Lönnberg and colleague Peter Vörös on-site for a week to install the first 170 sensors.

-“Fredrik, whom I had the most contact with, was very easy to work with,” says Tommy Persson.

In the near future, the remaining 130 pureMEMS sensors will be placed and installed at strategic locations within Mälarenergi.



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