NOVOZYMES SAFEGUARDS PRODUCTION WITH NEW IOT CONDITION MONITORING SOLUTION FROM PCH ENGINEERING

Fewer breakdowns and a more stable production are the results of Novozymes's new condition monitoring solution, which has been developed in collaboration with Danish PCH Engineering A/S.

Press release, PCH Engineering, Spring 2020

In collaboration with PCH Engineering, Danish biotech company Novozymes has developed a condition monitoring solution which is the first of its kind to provide both real-time data and online access to data in the cloud.

"Condition monitoring with vibration data in the cloud and SIL2 safety monitoring with vibration data processed in real time are both known technologies. But here, we have combined the two technologies to form one, integrated solution," says Sune Lilbaek, CEO at PCH Engineering A/S.

The safety monitoring solution from PCH Engineering is part of Novozymes's condition monitoring program aimed at ensuring the stability of the production of enzymes and preventing breakdowns of gears and motors in the company's production equipment.

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PCH ENGINEERING
A PART OF KK WIND SOLUTIONS

PCH CLOUD

Local safety

Local alarms, safety relays and shutdown functions protect machinery and your staff on site.

Remote access

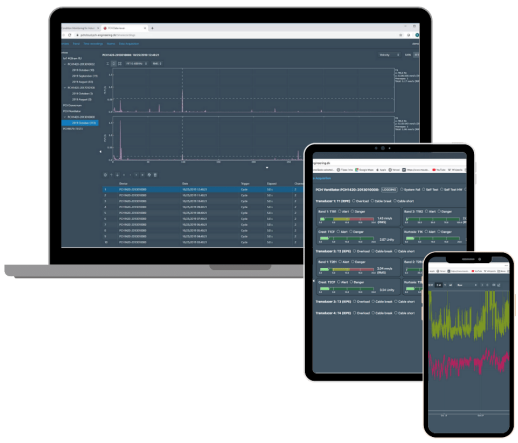
Access your condition monitoring data anywhere from any device.

Safe cloud storage

Data is stored safely in a cloud database of your choice.

Real time data

The only IoT monitoring solution with vibration data in real time.



PCH ENGINEERING'S SOLUTION PREVENTS BREAKDOWNS AT NOVOZYMES

The vibration monitoring solution for Novozymes's fermentation tanks was created in collaboration with Novozymes's Data Aquisition team. The first tanks were equipped with the monitoring system in the fall of 2019, and the solution has already proven its worth.

Vice President, EMA Operations at Novozymes Jesper Haugaard told Danish magazine Automatik & Proces that the solution recently alerted them to emerging damage to the motor of one of the fermentation tanks. Thanks to vibration monitoring, Novozymes were able to take the tank out of service in time, thus avoiding a breakdown so that production could proceed as planned.

UNPLANNED PRODUCTION STOPPAGES ARE COSTLY

For Novozymes, breakdowns in critical production equipment are not just costly in terms of lost production time. If a breakdown occurs during the production of enzymes in a fermentation tank, the processed raw materials must often be discarded.

"Once we experience a machine failure, it very quickly becomes really expensive for us," Jesper Haugaard explains.

Therefore, Novozymes asked the vibration specialists at PCH Engineering to develop a solution with safety monitoring as well as Industry 4.0 technology with data in the cloud for process optimisation, troubleshooting and planning of maintenance.

PCH Engineering took their modular PCH 1420 concept – a 4-channel solution for local SIL2 security monitoring with real-time data, alarm functionality and local SCADA integration – and expanded it with a new Internet of Things (IoT) module.

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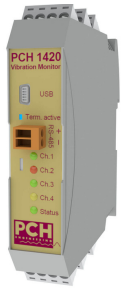
MOST POPULAR IOT-MONITORS

PCH 1420



This advanced, 4-channel vibration monitor provides a wide range of real-time vibration data, remote data access, and local alarms.

PCH 1420 with buffered outputs

With this version, you get all the benefits of the PCH 1420 vibration monitor while seamlessly collecting raw, buffered time waveform data from the sensors connected to the buffered outputs.

PCH 1277 ATEX

This compact, ATEX-certified vibration monitor with SIL 2 relays provides early warning of misalignment or bearing faults in machines in hazardous areas.

See iot.pch-engineering.dk for the full list of compatible monitors

With the new IoT solution, Novozymes' Data Aquisition team receives structured scalar values showing the current and historical vibration levels, and FFT data for frequency analysis, enabling them to identify wear on motors and gears.

The data is stored in the cloud where it is coupled with other process data. The goal is to optimise production processes and the planning of machine maintenance.

PROTECT YOUR MACHINERY AND PRODUCTION

PCH Engineering's vibration monitoring solution with real-time data and IoT functionality is now available to anyone who wishes to use condition monitoring and predictive maintenance to prevent unwanted production stoppages and breakdowns of rotating machinery.

Read more about the new IoT-based condition monitoring solution from PCH Engineering at

iot.pch-engineering.dk