

Success Story

Preventing Shutdowns and Equipment Damage with SensoNODE

The Problem

A customer that operates an aluminum forming business in the automotive industry runs 16 lines daily, three or four of which would consistently overheat and shutdown, costing thousands per minute in downtime. Access to equipment and Hydraulic Power Units (HPUs) depends on whether they are located inside the security barrier, making maintenance a challenge.

If the hydraulic fluid gets too hot (up to 130°F), the internal heat exchanger shuts down the machine. The company used fans to keep the equipment cool, but sometimes would have to risk disabling the exchanger's sensors. If lines moved too slowly, workers would increase the pressure of the hydraulic fluid to speed them up, creating additional heat.

SensoNODE™ Blue is Parker's series of Bluetooth-powered sensors. Compact, energy-efficient, and wireless, they are designed to provide simple and useful solutions for diagnostic and condition monitoring applications. SensoNODE monitors assets to help predict problems and prevent downtime, and delivers the information to your mobile device.

Voice of the Machine™ Industrial Mobile App gives access to machine and process measurements right on your mobile device. The user-friendly interface makes connecting to sensors uncomplicated and measurements easy-to-read. With customizable dashboards and alarms, you can focus on the data that's most important to you and be alerted when your measurement thresholds are exceeded. Exporting of data is done with a click of one button, which sends a .csv file right to your email.

The Solution

To eliminate shutdowns, the customer needed a solution to accurately monitor the internal temperature and pressure of hydraulic equipment to:

- Better optimize the heat exchanger temperature
- Quickly identify and diagnose pressure issues

Using wireless SensoNODE™ Blue sensors (10 Temperature and 10 Pressure) with the Voice of the Machine™ Industrial Mobile App technology, workers instantly viewed the data they needed without having to manually check asset conditions, including those that require a shutdown.

Two Humidity sensors in the Coordinate Measuring Machine (CMM) room allow workers to keep the air dry and clean.



Success Factors

Eliminated emergency shutdowns and improved equipment performance.

Security barrier doesn't limit technician's ability to analyze equipment performance, minimizing planned shutdowns.

Optimized heat exchangers to keep machines running.

Stopped "workarounds" that caused performance issues.

Reduced planned downtime and increased productivity.

Customer Value

SensoNODE sensors and Voice of the Machine™ Industrial software give workers the ability to monitor asset conditions, efficiently perform diagnostics, and trend asset history for preventive maintenance efforts. The customer plans to add more SensoNODE sensors to its network, eventually working up to 100-150 sensors.



Parker Hannifin Corporation | **Quick Coupling Division**
8145 Lewis Road, Minneapolis, MN 55427

parker.com/conditionmonitoring