

Success Story

Avoiding High Decibels to Monitor Motor Performance

The Problem

A customer manufactures high-pressure hydraulic power units (HPUs) for testing ram airplane turbines (RAT) to verify performance. Motors are mounted to an adapter and mating shaft, connected through a torque/speed sensor, and loaded using a water brake dynamometer. The RAT must reach 5,000 rpm for a successful simulation. A pyrometer monitors the water temperature in the RAT.

This creates a potentially unsafe situation for manual monitoring:

- High-velocity shrapnel and hot liquids in the event of a failure
- Noise as loud as 90-95 dbA

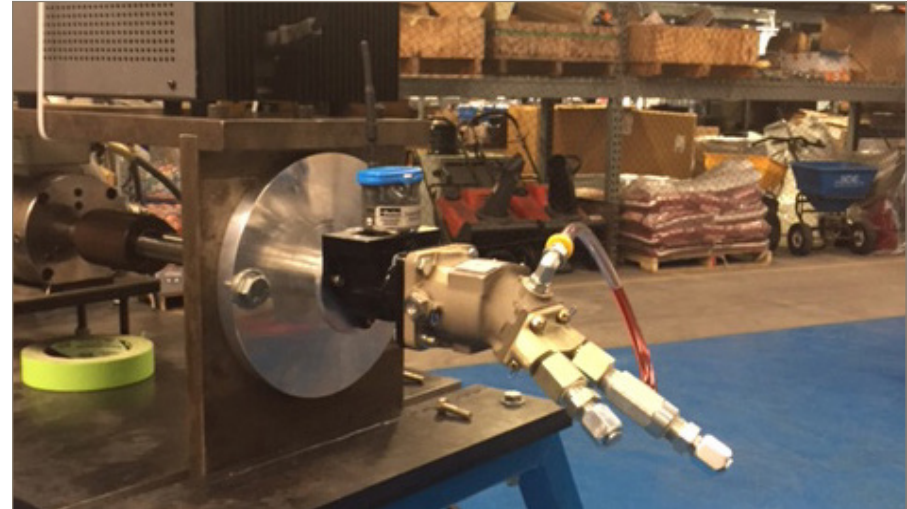
Technicians monitor the gauges from a distance in a remote test lab using a video camera pointed at the measuring devices. However, vibrations from the motor made the analog gauge difficult to read accurately.

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 Blue Sensors monitor assets to help predict problems and prevent downtime, and delivers the information to your mobile device.

Voice of the Machine™ 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

Installing a SensoNODE™ Blue Pressure Sensor and temperature sensor gives technicians a wireless solution that eliminates the need for the video setup. Technicians can run tests while viewing the readings from the lab using their mobile devices with the Voice of the Machine™ Mobile App. The digital readout ensures an accurate reading.



Success Factors	Customer Value
Condition monitoring is done easily and at a safer distance.	SensoNODE Blue Sensors and the Voice of the Machine Mobile App improved the efficiency of the diagnostic process, allowing for reduced process time. Operators can run the needed tests without exposure to the high-decibel noise or flying parts/liquids in the event of a product failure.
Technicians get immediate and accurate readings while varying the flow and load on the motor being tested.	
Readings can be recorded and stored for documentation.	



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

parker.com/conditionmonitoring