



EXOTIC

AUTOMATION & SUPPLY

Implementing IoT-based Condition Monitoring Solution for Compressed Air Operations Leads to Significant Manufacturing Savings

Problem

A leading manufacturer of hydraulic hoses wanted to evaluate performance and effectiveness of plant operations, specifically their compressed air system.

Like many manufacturing facilities, this manufacturer depends heavily on its compressed air system for many processes. The goal was to monitor overall air demand of the facility and pressure drops/loss from compressor discharge to the selected point-of-use equipment within the facility for six weeks.



Solution

SensoNODE™ Gold Sensors were installed throughout the compressed air system to measure the compressor discharge pressure, the differential pressure of the system filter, the dryer output humidity and pressure, the receiver tank pressure, flow, and the main pipe distribution pressure as well as select point-of-use equipment.

The maintenance team then monitored measurements throughout the web-based Voice of the Machine™ Cloud Software. The system allowed monitoring with no machine shutdowns and without interrupting productions.

After monitoring and analyzing the system, the data revealed that 63% of their air demand was the result of inappropriate air usage and leaks. Based on the results, the maintenance team eliminated improper air usage, reduced the plant operating pressure and shut off the compressors when the facility is closed. They are estimating a potential annual savings of \$60,000.

Success Factors	Customer Value
<ul style="list-style-type: none"> Wireless sensors are compact & versatile for placement in most difficult to reach areas of equipment & machinery View the most accurate measurements of different pressure points Analyze machine data to discover underlining issues before they escalate into serious problems, maximizing uptime & minimizing maintenance costs. 	<p>Voice of the Machine Cloud Software and SensoNODE™ Gold Sensors brought to light insufficiencies of the compressed air system that may have not been discovered until an actual problem developed. By implementing a condition monitoring solution, technicians can be proactive to monitoring assets and analyzing data to ensure production is not lost due to an issue and money-saving strategies can be implemented.</p>

Featured Products

SensoNODE™ Gold Sensors monitor assets for changes in pressure, temperature, humidity, flow, current, displacement, analog signal and vibration to help predict problems and prevent downtime.

Voice of the Machine™ Cloud Software is Parker's cloud-based uninterrupted condition monitoring software that provides machine alerts, status and analytics in real time.