Success Story

Temperature Monitoring Preserves Sensitive Raw Material

Challenge

An important job for Exotic Automation and Supply requires the storage of a raw material used in a manufacturing process for military missiles. Before the rubber is casted into moldings, the rubber is received and stored in a frozen state until an order is received. Maintaining the temperature of the freezers where the rubber is stored is crucial. The rubber cannot exceed 40 degrees for more than eight hours continuously and is rendered useless. Not only is the rubber expensive ($587.10 per lb.), but it requires a 12-16 week lead time to replenish stock.

The temperature of the freezers storing this material was being managed by two employees who were manually checking a “temperature chart device” and recording readings. This manual solution was sufficient during hours of operation but more complicated when the location was closed, particularly during holidays. The risk of power failure could jeopardize the supply.

Failure would mean a scrap material loss of more than $17K, missed customer deliveries, disrupted production schedules and excessive overtime. Exotic needed a better solution to monitor and protect this important manufacturing material.

Solution

As a Parker Distributor, Exotic became aware of a new, remote condition monitoring system from Parker. They began to investigate and found that SensoNODE™ Gold Sensors could be installed to monitor the freezer temperatures. The sensor monitors the temperature and transmits the data back through the cloud using Voice of the Machine™ software to record temperature readings and allows a designated group of people to receive alert notifications when fluctuation occurs. Data from the freezers can be accessed from any device which has an internet browser and internet connection.

SensoNODE Gold sensors can monitor changes in pressure, temperature, humidity, flow, current and displacement. For Exotic, the ability to monitor the temperature more efficiently and accurately allows them to have confidence that their raw material will not be compromised, and they will be ready to respond to the next order.

Success Factors

- Wireless sensors make diagnostics easier to perform allowing for quicker identification of issues.
- Customized sensor allowed installation inside freezer with antenna mounted externally.
- Voice of the Machine software allows for user defined alarms when temperature fluctuates.

Customer Value

Using the web based application, multiple people can be notified of an increase in temperature. The ability to remotely monitor helped this customer be ready for its important manufacturing work with the US military.

Parker Hannifin Corporation
Quick Coupling Division
8145 Lewis Road,
Minneapolis, MN 55427
parker.com/conditionmonitoring