

Wireless Technology Monitors Bearing Temperatures in a Tandem Cold Rolling Steel Mill



“Since we installed the wireless transmitters, we have eliminated bearing failures caused by sensor or wire failure.”

Honeywell XYR™ 5000 wireless transmitters remove the barriers to monitoring variables where traditional transmitters are too costly to implement. They're designed for applications with no access to power, hazardous or remote locations, where instrumentation changes are frequent or where manual readings are taken today.

XYR 5000 wireless transmitters reliably and securely transmit up to 2000 feet on a 3-5 year battery life with an accuracy of $\pm 0.1\%$. You'll quickly and safely monitor process areas and experience the following benefits:

- Reduce installation, maintenance and operating costs
- Improve product quality
- Meet regulatory requirements
- Ensure high uptime
- Enhance flexibility

Challenges

Strategically placed thermocouples are typically used to measure bearing temperature. However, water and moisture in the conduit runs to the thermocouples and collects in the thermocouple heads, creating inaccurate temperature readings. Due to these

inaccurate readings, the alarms used to detect bearing temperature at a steel production site were not reliable. Low readings meant that a bearing could heat up without the alarm unit detecting the problem.

Instrument technicians tried to seal the thermocouple heads and conduit with Duxseal or silicone, but moisture still got in. If the high bearing temperature is not detected, bearing failure will certainly result, causing thousands of dollars in downtime and repair in a hazardous area.

Solution

The customer installed Honeywell XYR 5000 wireless temperature transmitters with integrated thermocouples to monitor the bearings. Because the thermocouple is sealed within the transmitter and wireless technology doesn't require wire or conduit, there's no conduit entry point for water or oil - and no more failures from moisture in the instrumentation.

With the new equipment, instrument technicians can predict possible failures and take preventative measures to avoid bearing failure. This information helps keep employees out of hazardous locations, preventing possible injury, and reduces process downtime that occurred with bearing failure.

More Information

For more information on Honeywell's OneWireless solutions, visit our website www.honeywell.com/ps/wireless, or contact your Honeywell account manager.

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