

Orbit Magazine

Case Study :: MDS in the Middle East

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CUSTOMER SUCCESS STORY :: MDS in the Middle East

An example of how GE helps customers in the Oil & Gas industry.

GE's Bently Nevada* Machinery Diagnostic Services (MDS) engineers proactively monitor a mixer train, preventing unscheduled downtime.

GE's Bently Nevada has a Supporting Services Agreement (SSA) with a major Oil & Gas customer in the Middle East. The agreement includes monthly visits for multiple plants, focusing on machinery diagnostics, maintenance of the customer's installed base, optimization of System 1*, and on-call emergency support.

PROBLEM

Four mixers consisting of a vertical motor-driven machine and gear reducer unit were recently equipped with GE's Bently Nevada wireless accelerometers. Each mixer was equipped with four accelerometers at both motor bearings and drive-end bearings.

A few days after the installation, during a regular planned SSA visit, a GE's Bently Nevada engineer observed that one of the mixers was experiencing high casing vibration amplitudes. Upon analyzing the archived System 1 data, higher amplitudes were observed in the rotor region, indicating misalignment between the motor and gearbox bearings.

SOLUTION

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Bently Nevada's MDS engineer recommended immediate correction of the alignment between the motor and gearbox. The customer promptly scheduled a shutdown and performed the recommended actions. The mixer motor was replaced and the alignment condition was corrected. Upon startup, significant improvement was observed in casing vibration.

PAYBACK

Bently Nevada engineers responded in a timely manner to resolve a critical alignment issue. As the System 1 and wireless monitoring project was a pilot for the customer, using reliable information from the system to provide actionable results, convinced the customer of the solution's value.

The customer has expressed confidence in both the reliability of the system and the service support from GE's Bently Nevada team in resolving the critical vibration issue. Due to the high level of service, the customer has recommended that similar solutions be implemented at other plants in the region.

BENEFITS

- Improved machinery reliability and availability - by enabling proactive, condition based maintenance practices.
- Reliable and accurate data – System 1 provides detailed data to analyze and resolve vibration issues.
- Rapid diagnosis of problems and ability to isolate root cause – substantially reduces frequency and duration of unplanned downtime.

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