INFINITE UPTIME

How Reliability-Based Maintenance Strategy helped a global steel maker in saving **433 hours of unplanned downtime**

About The Client

A $20 Bn globally diversified manufacturing group with a strong presence in India, America, and Africa

Objectives

- Accelerate Industry 4.0 transformation
- Reduce unplanned downtime for critical equipment
- Enhance plant reliability by leveraging data & digital interventions

Business Case

The plant management teams were frequently experiencing unplanned shutdowns and equipment failure in motors, pulleys, and gearboxes in the boom conveyor as well as lower tension drive motors. The faults were caused due to structural and alignment issues which went undetected by the human eyes and on-field observation confirmed low oil levels on the gearbox. The production team was losing critical production hours while maintenance costs kept rising.

Edge-based installation on the boom conveyor

Triaxial Vibration Trends
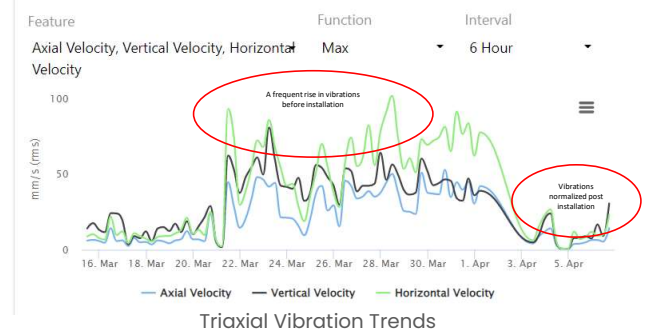
Cloud-Enabled Predictive Monitoring Solution

The condition-based maintenance and asset reliability teams started monitoring the key performance parameters including a- **acceleration**, b- **triaxial vibrations**, c- **surface temperature**, and d- **noise output** of these critical applications. This was enabled by edge diagnostics and real-time data analytics powered by industrial IoT. Observations, Diagnostics, and Recommendations post the installation revealed structural deformation as well as alignment issues which could have proven catastrophic during the production process. Bearing replacements in gearboxes and alignments were carried out by maintenance experts to ensure maximum availability of machines and avoid further unplanned downtime.

Business Impact

433 hrs of unplanned downtime saved across applications

USA | MENA | India | APAC

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