

INDUSTRIAL AUTOMATION – PROCESS INDUSTRY

Conveyor Fingerprint Services

Maintenance and field assessment



The Conveyor Fingerprint Services is a specialized conveyor diagnostic assessment, it provides an evaluation with associated benchmarks and the best practices in the mining industry asset maintenance strategy.

Overland Conveyor

01 ABB Fingerprint gives decision makers a current picture of the health of their Conveyor transport system.

Overview

Still a common practice in the mining industry, the reactive intervention through the corrective maintenance is still quite often adopted as an asset management approach by maintenance team to belt conveyors assets. There are some factors related to this behavior that deserves to be highlighted:

- Transportation systems are normally the most critical equipment on mining facilities and unplanned shutdowns or maintenance interventions represents a large amount of money and time losses.
- Customer's periodic field inspections take too much time and resources, depending on number of assets.
- Like any other rotary machine, the conveyor belts may work continuously 24/7. Wearing the moving parts leading to unplanned failures and shutdowns.

Conveyors are particularly well suited to predictive and preventative maintenance programs. Consequently, automated monitoring systems can warn against potential failures before it occurs, using sensors in the system, and allowing maintenance personnel to make immediate corrections thus avoiding potential downtime.

Solution

Conveyor Fingerprint is a service that offers a specialized diagnostic assessment and analysis which provides an evaluation with associated best practices in the maintenance for the mining industry assets.

A technical report with detailed analysis will be generated based on information collected through on site interviews and field inspections, covering the equipment condition and maintenance strategy. Improvement suggestions and an action plan to correct and/or avoid future problems and unplanned shutdown are provided.

Features

- Based on widely used standards and best practices
- Detailed findings report with recommendations
- Inventory gap analysis/control check
- Maintenance strategy and management evaluation
- Standardized way to assess installations, equipment and components related to conveyors, as well as maintenance practices
- Reliability data calculation included.



Benefits

Scope

The assessment is conducted in two main parts, field inspection and maintenance strategy evaluation (including reliability calculation)

It covers the main conveyor belt components which includes belt sensors, and the conveyor components, as gearboxes, electric motors, drums, rollers, brake systems, lubrication and hydraulic units.

Besides these components, the related equipment and installation such as electrical rooms, low and medium voltage panels, MCC's, variable speed drives, circuit breakers and contactors, protection relays, controller's, automation panels and power transformers.

- Recommend actions to improve the maintenance management approach.
- Standardized and repeatable process to ensure consistent analysis across systems, plants and historical reports
- Sustaining services are available to regularly and proactively analyze Key Performance Indicators (KPIs)
- Analytical work became easier and more productive.
- Improves system availability through reduced unplanned interventions
- Supplies comprehensive view of conveyor system management status
- Enhances risk mitigation for unplanned shutdown
- Provides an action plan which builds a conveyor system sustainable operational strategy
- The report includes assessment results summary

