K.Support AI Smart Maintenance

Singulator 360

SmartService – higher asset availability with data analytics

The challenge

Efficient, automatic singulation of bulk streams is essential for maximizing overall performance. The singulator is a critical asset in this regard. The Visicon singulator uses multiple intelligently controlled belts to reliably create a non-sequential 2D bulk stream into a sequential 2D bulk stream of separated parcels.

Due to the criticality of the device in the processing chain, it is important to detect developing mechanical problems of the installed motors as early as possible.

Our solution

Singulator 360 provides transparency on the condition of drive units. During operation AI-based algorithms detect anomalies that indicate which belt units are not working as they should or may be about to fail. With this information, it becomes possible to identify the component that requires maintenance and/or repair. Predictive analytics with Singulator 360 let operators plan maintenance according to the actual system condition.

Customer benefits

- Increased system reliability and availability feasible due to predictive analytics and transparency of asset condition

- Reduction of time-consuming preventive maintenance work

- Efficient workload coordination based on 24/7 monitoring and analysis

- Proactive maintenance through detailed and early localization of mechanical problems

- Fast, full diagnostics at a glance using modern dashboard visualization

KÖRBER
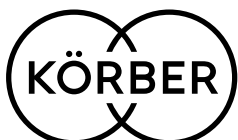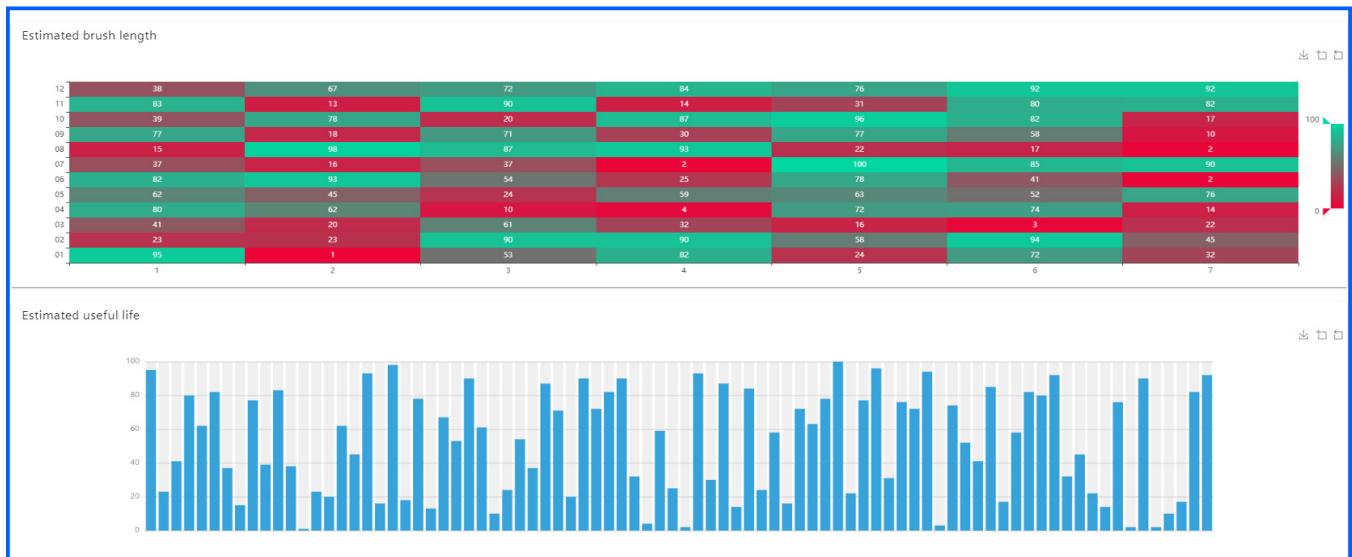
Just-in-time maintenance

Predictive analytics as described here forms the basis for condition monitoring maintenance strategies. When predictive maintenance information is embedded in a maintenance plan, benefits include just-in-time equipment servicing, a balanced workload for the service team, as well as optimized spare parts utilization and stock management.

Above and beyond that, by streamlining maintenance higher levels of operational availability can be achieved while increasing efficiency and productivity - both in operations and in maintenance teams.

Analytics and visualization concept

The captured condition data – and additional statistics such as operating hours and asset start and stop times – is transferred via a secure protocol to intelligent data hubs for advanced analytics.

This has two targets: to analyze the collected information and to visualize insights for the maintenance teams. The dashboard employs detailed charts, graphs and tables to visualize system status.