Busse/SJI Uses Edge Technology to Increase Palletizer Efficiency for Aluminum Container Users

RESULTS

- 40% reduction in troubleshooting time
- Faster, more accurate monitoring with historical data trends
- Enables remote monitoring of machine status and performance

APPLICATION

Palletizer equipment.

CUSTOMER

Busse/SJI a division of Arrowhead Systems, Inc. – Randolph, Wisconsin, USA

A developer of automated palletizer and depalletizer systems, Arrowhead Systems serves manufacturers across a range of industries.

CHALLENGE

The aluminum container industry is under great pressure to increase capacity. Demand for cans for soda, seltzer, water, beer and wine exceeds 350 billion cans annually while the current capacity is only 285 billion cans. A key strategy for increasing container capacity is to reduce waste and inefficiency caused by production slowdowns and unplanned shutdowns. Any increase in efficiency in any step through the production process can impact the final output.

Arrowhead Systems, Inc. currently provides many of the high-speed palletizers used by packaged goods producers. Its Busse line of palletizers align containers at the end of a manufacturing line and stack them on pallets at a rate of 4,000 cans per minute. The company's products have historically come with IO-Link sensors to monitor the health of its equipment, capturing key data such as motor temperatures, component vibrations and air loss. That information helps producers track how cylinders function, as well as monitor whether any problems occur with the motors. Traditionally, however, the collected data had to be viewed onsite. Arrowhead needed a system that could provide essential alarms,

"Because we have container handling equipment running at some of the highest speeds in the industry, reaching 4,000 cans per minute or more, predictive monitoring of machine health is vital to our customers' success."

Scott Chehak
General Manager
Busse-SJI

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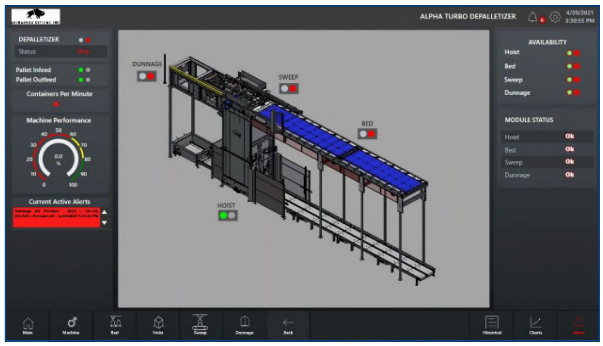
machine health status and trend data to operators remotely in real-time to improve the response time and reduce slowdowns and unplanned shutdowns.

SOLUTION

Arrowhead Systems worked with Emerson to develop a health monitoring solution to improve efficiency and uptime of the assets. The system is intended to give operators, maintenance personnel and management insights into equipment conditions and to provide early warnings before machine failures. The new solution captures key performance indicators (KPIs), and it's based on Emerson Movicon. NExT™ software running on PACSystems™ RXi2-BP edge device. The IIoT solution collects data from machine sensors, stores the data to help production and maintenance teams improve uptime and efficiency. The generated insights and alerts are delivered to authorized parties via text or e-mail. In addition, Emerson software provides trends in order to identify anomalies and improve troubleshooting. This solution also enables the data generated to be used by IT systems. The PACSystems edge solution provides asset health monitoring, enabling visibility of the palletizer/depalletizer and major component faults. It delivers early warnings to preempt failures and gives users analysis capabilities for faster troubleshooting. This system enables remote access to the palletizer/depalletizer, giving operations and maintenance teams access to machine health information in real time from anywhere. Together, these capabilities improve failure identification and response time by 40%, increasing efficiency and significantly lowering waste.



RESOURCES

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