ABB’s new digital sheet break analysis helps maximize operational performance to improve production and profitability in paper mills

Digital sheet break solution provides a root cause analysis within one minute and acts as early warning system in a way not possible with current manual solutions

ABB has released Sheet Break Performance, an ABB Ability™ Performance Service that automatically curates, calculates and contextualizes key data points into an intuitive user interface to reduce the time to identify the root cause of sheet breaks for swift corrective action, while also determining optimal operational parameters to help prevent unplanned downtime.

The digital service quickly pinpoints the underlying issues and recurring trends that prohibit optimum performance in paper mills and specifically addresses pain points such as frequent sheet breaks, long recovery times and increases in paper rejects.

The diagnosis and root cause identification of each sheet break event is traditionally performed manually by operators who often need to access the information from different sources, such as process control systems, drives and quality management systems. This requires the breakdown of data from multiple systems and interactions between process variables, which is time consuming.

ABB’s digital offering, which is built on a powerful combination of a proprietary analytics engine, advanced algorithms and online monitoring, provides a root cause analysis within one minute after the break.

With the ability to monitor the real time variations in the operating parameters as well as the interactions between the various sections of the paper machine, operators are alerted to abnormalities and detrimental changes in the system that could lead to sheet breaks. This serves as an early warning system allowing the operators to take corrective actions and prevent unplanned downtime.

This switch from manual to digital analysis can prove to be a useful stepping stone in a mill’s transformation and can also help to make a mill more sustainable by lowering energy usage, raw material and water footprint while improving fiber recovery. Plus, it reduces safety concerns with operators less frequently having to enter the dryer to extract broken paper.

“Unlike similar offerings, ABB’s deep process and domain expertise - coupled with an integrated data fusion technique that curates and contextualizes data from multiple sources - provides a holistic view
across multiple systems and processes for both customer and ABB experts to better identify root causes of sheet breaks and prevent downtime,” says Ramesh Satini, Global Product Manager, Pulp & Paper Control Systems, ABB.

“This overcomes the issue of mills having limited time or resource to manage manual break analysis, which cannot account for correlation among hundreds of process parameters and their impact on each other. ABB guides operations and fast-tracks improvement initiatives with recommended grade-specific parameters and predictive alerts to maximize operational effectiveness.”

Delivered via the ABB Ability™ Collaborative Operations service delivery model, it is fully integrated with ABB Ability™ Analytics framework, with on-premise or cloud deployment options.

ABB (ABBN: SIX Swiss Ex) is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. With a history of excellence stretching back more than 130 years, ABB’s success is driven by about 105,000 talented employees in over 100 countries. www.abb.com

Process Automation: ABB’s Process Automation business is a leader in automation, electrification and digitalization for the process and hybrid industries. We serve our customers with a broad portfolio of products, systems, and end-to-end solutions, including our #1 distributed control system, software, and lifecycle services, industry-specific products as well as measurement and analytics, marine and turbocharging offerings. As the global #2 in the market, we build on our deep domain expertise, diverse team and global footprint, and are dedicated to helping our customers increase competitiveness, improve their return on investment and run safe, smart, and sustainable operations.

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