

Media Release

Voith Paper

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Voith expands Papermaking 4.0 portfolio with three new apps for higher process stability and efficiency in paper production

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- OnEfficiency.BreakProtect: Detect, understand and prevent paper break causes
- OnView.VirtualSensorBuilder: Quickly and easily calculate and visualize relevant quality parameters in real time
- OnView.MassBalance: Visualize raw material losses in stock preparation and increase yields

HEIDENHEIM. Customers worldwide rely on Voith's modular Papermaking 4.0 portfolio to individually optimize their production with the leading digital industrial applications. Based on extensive expertise, Voith is introducing OnEfficiency.BreakProtect, OnView.VirtualSensorBuilder and OnView.MassBalance, three new apps on the IIoT platform OnCumulus. The new digitalization solutions feature the highest safety standards, are quick to install and easy to use. The technologies are already successfully implemented in several plants worldwide. Due to the process optimizations and lower resource consumption, the applications often pay off in less than a year and pave the way to the digital paper mill.

OnEfficiency.BreakProtect: Detect, understand and prevent paper break causes

The IIoT platform OnCumulus has already established itself as a central hub for data from multiple sources for numerous paper manufacturers. OnEfficiency.BreakProtect uses artificial intelligence to analyze the process data bundled in OnCumulus. Thereby, the innovative solution automatically detects various critical process conditions that can lead to breaks. This allows the development of specific countermeasures and the reliable prevention of tear-offs.

"I am always fascinated by the correlations that artificial intelligence can recognize," says Jürgen Käser, Director Process Applications at Voith. "Among other things, we were able to use OnEfficiency.BreakProtect to

identify increased dirt and starch agglomerate loads – for which there is no measurement data at all – at the SpeedSizer pulper. In the past, these had repeatedly led to break-off series. A small mechanical rebuild, which prevents starch from entering the pulper in larger quantities, has permanently solved the previously undetected problem."

OnView.VirtualSensorBuilder: Calculate and visualize quality parameters quickly and easily using virtual sensors

Virtual sensors, also called soft sensors, have proven themselves in the process industry for many years. With the help of data models, the sensors calculate various quality parameters and thus reliably supplement laboratory tests. Until now, the use of virtual sensors required considerable time and, above all, data analysis skills. With OnView.VirtualSensorBuilder, Voith introduces a user-friendly app that allows paper manufacturers to quickly and easily create the virtual sensors themselves with just a few mouse clicks.

"With OnView.VirtualSensorBuilder, it only takes a few hours for a new soft sensor to be ready for use," says Maria Knauer, Global Product Manager Efficiency Solutions at Voith. "Previously, this required a time-consuming and costly process of several weeks."

Once installed, operators can use OnView.VirtualSensorBuilder to continuously calculate, visualize and control relevant quality values, such as strength values, in real time. Combined with OnCumulus.Suite, the digital application identifies critical values and provides preventive warnings, allowing personnel to make immediate improvement adjustments. The solution thus increases process stability, enables compliance with desired quality standards, reduces raw material costs and minimizes waste.

OnView.MassBalance: Visualize and reduce fiber losses in stock preparation

OnView.MassBalance maps the current stock flows in an intuitive Sankey diagram and provides information on deviations that are no longer within the standard range. If a defined warning threshold is exceeded, the application automatically highlights the relevant area in the diagram and recommends suitable action to avoid fiber losses. OnView.MassBalance thus leads to targeted process optimization in stock preparation and also enables centralized knowledge management.

With the help of OnView.DigitalEye, the accuracy of OnView.MassBalance can be increased even further. The innovation makes it possible for the first time to analyze recovered paper quality even before stock preparation

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with the help of artificial intelligence. The award-winning AI application OnView.DigitalEye is currently undergoing final testing as part of pilot installations at national and international customer sites and is expected to be available starting next year. Another application that will be launched in 2022 is OnView.Energy from Voith. The app visualizes and analyzes energy consumption and CO₂ emissions in production. This enables significant savings potential to be identified, leading to lower energy costs, improved sustainability and competitiveness.

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This release is part of the current "PAPER IS ON" campaign, in which Voith highlights the focus topics of the digital Papermaking 4.0 portfolio: full-line supplier, efficiency, sustainability, cloud solutions, automation and innovation. Learn more at voith.com/PaperIsOn. For more information on the solutions from the OnCumulus, OnView and OnEfficiency family as part of Voith's Papermaking 4.0 portfolio, please visit <https://voith.com/corp-en/products-services/automation-digital-solutions/onefficiency.html>. In addition, read more about OnView.DigitalEye receiving the AI Champions Award: <https://voith.com/corp-en/news-room/press-releases/voith-wins-ai-champions-award-2021.html>.

About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, paper, raw materials and transport & automotive. Founded in 1867, the company today has around 20,000 employees, sales of € 4.3 billion and locations in over 60 countries worldwide and is thus one of the larger family-owned companies in Europe.

The Group Division Voith Paper is part of the Voith Group. As the full-line supplier to the paper industry, it provides the largest range of technologies, services and products on the market and offers paper manufacturers holistic solutions from a single source. The company's continuous stream of innovations facilitates resource-conserving production and helps customers minimize their carbon footprint. With its leading automation products and digitalization solutions from the Papermaking 4.0 portfolio, Voith offers its customers state-of-the-art digital technologies to improve plant availability and efficiency for all sections of the production process.



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Based on the combination of deep process knowledge and modern AI algorithms, Voith introduces OnEfficiency.BreakProtect, OnView.VirtualSensorBuilder and OnView.MassBalance, three new apps on the IIoT platform OnCumulus.

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