VOITH

Value-driven intelligence with Voith OnCumulus IIoT cloud platform

Voith's promise
for the digital future

Voith is your reliable partner for the digital future

Voith's substantial domain knowledge supports industrial companies in capitalizing on digitalization and mastering digital advancement. Voith's unique expertise enables customers to optimize their processes and resources to achieve greater flexibility as well as data privacy and security. That's exactly what Voith's IIoT OnCumulus offering provides to customers – value-driven intelligence.

OnCumulus – getting started

Thanks to the huge developments in information and communication technologies, customers can now benefit from new advancements such as faster data exchange, Big Data analytics, and cloud solutions.

With OnCumulus, customers can leverage data across the organization from all devices within all facilities, thereby optimizing reliability, achieving targeted performance, and increasing savings that really impact net cash flow improvements. Voith is offering industry-proven applications for the cloud by leveraging a modular IIoT platform with easy-to-use visualization and analytics applications.

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The Industrial Internet of Things platform: OnCumulus.Platform

One centralized, reliable data hub for your industrial data

Voith's IIoT platform serves as a hub for data from various sources, including enterprise data systems, plant operating systems, production lines, machines and devices.

Voith's OnCumulus IIoT platform combines the latest cloud architectures and more than 150 years of industrial domain expertise to provide industrial customers with best-in-class software technologies. Enabling their digitization efforts with the efficient performance of our highly-available cloud platform, Voith's customers are free to focus on running their businesses. OnCumulus has already gained broad acceptance in numerous industry sectors with our IIoT and Asset Management applications. With OnCumulus, industries can leverage the security and scalability of the cloud to centralize their diverse dynamic and static data, and tap into a wealth of analytics insights.

By partnering with experienced suppliers, open source and standards communities, Voith blends maximum privacy, enhanced cybersecurity and best-in-class infrastructure with deep industrial specialization to accelerate our customers into their digital future.

OnCumulus customers decide how to access and control their data for each specific application. Voith ensures data sovereignty by providing data centers in every region.
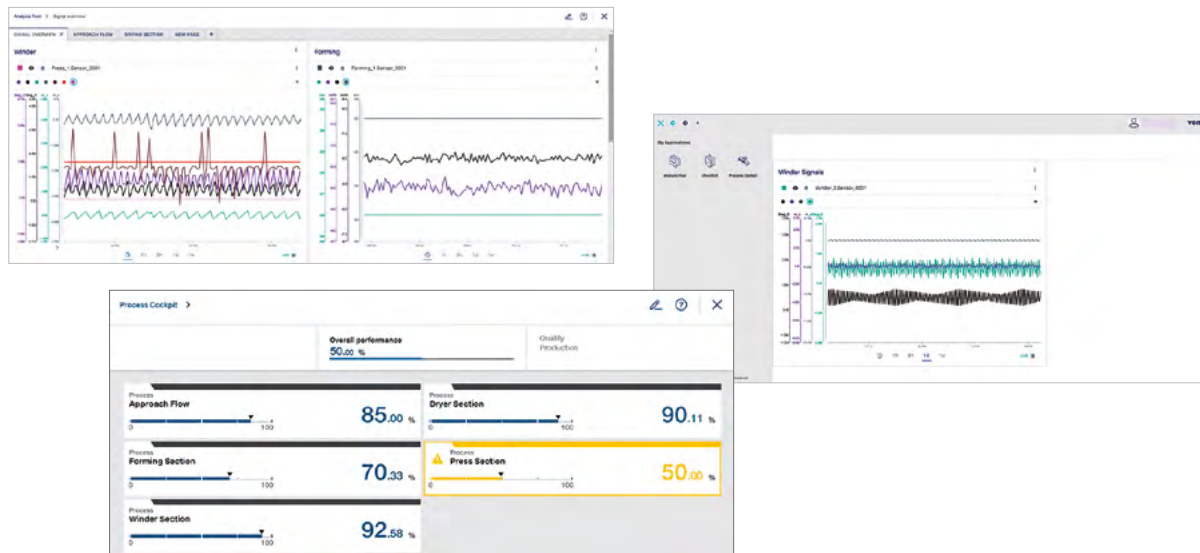
The first step toward visualization and analytics: OnCumulus.Suite

In addition to OnCumulus.Platform, OnCumulus.Suite provides the core capabilities necessary to benefit from data analytics. Data that has been harmonized from the various and disparate data sources ensures that maximum benefit can be extracted by users utilizing the provided Coordinator, Cockpit, and Analyzer core applications. Customers can access their data in near real-time and take the first step toward optimizing their operating process with personalized dashboards.

Functionalities at a glance

- **Coordinator** is a dynamic tool that supports machine operators and plant managers in monitoring and evaluating operations and daily tasks. It ensures standardized procedures, automatic documentation, and compliance reporting capabilities – as well as offering access to historical data and data logs for reporting purposes.
- **Cockpit** enables the user to define and visualize technological limits for any parameter. By combining parameters and processes, a complete process hierarchy can be created. All parameter limits can be defined and assembled for the various processes and product quality targets – making it possible to simplify the information provided to operators and other users to focus on the most important things in the most timely manner. When issues are detected, users can drill into the data to identify the specific problem in the greatest detail.
- **Analyzer** structures and visualizes various data types, thereby enabling the user to analyze any data source. Using solution-based views with predefined collection of graphs types, the user can analyze specific issues in an intuitive and transparent tool and perform subsequent process troubleshooting.

OnCumulus.Suite

Customers can incrementally personalize their own dashboards to meet their unique needs.

The industry-specific applications: OnEfficiency and OnCare

In addition to OnCumulus.Suite, Voith is bringing further value to its customers by providing industry specific OnEfficiency and OnCare advanced application families running on the OnCumulus cloud platform.

By combining OnCumulus.Suite with advanced cloud-based applications, customers profit not only from the increase in efficiency, productivity and quality of the entire supply chain, but also gain additional possibilities as well. As the applications are on the same cloud-based technical platform, customers benefit from bridging information and data views cross-site and cross-app, allowing for correlation possibilities for more advanced insights and transparency. External information sources, such as raw material prices, weather data, or connections to online shops or warehouses, can be easily integrated and correlated with existing operational data.

From the Voith OnEfficiency product family

- **OnEfficiency.Strength**
- **OnEfficiency.DIP**
- **OnEfficiency.Dewatering**

From the Voith OnCare product family

- **OnCare.Asset**
- **OnCare.Acoustic**

OnEfficiency.Strength

Optimized fiber utilization and reduced deviations in the production output
OnEfficiency.Strength helps to stabilize strength fluctuations in the machine direction using statistical models and virtual sensors. This results in optimized fiber utilization and strength agents. Additional benefits include reduced deviations in the production output and guaranteed paper quality during grade changes due to reduced fluctuations and peaks.

OnEfficiency.DIP

Increased yield and reduced operating costs
OnEfficiency.DIP helps to restore the flotation cell in combination with Papermaking 4.0, advanced process controls and modern sensors. This increases yield and reduces operating costs.

OnEfficiency.Dewatering

Improved and stabilized dewatering performance
Using vacuum in the forming section as an actuator to stabilize dry line and water may help with ply bond strength, operability of the forming section and save energy.

An important step toward the virtual machine

By linking different applications on OnCumulus.Platform, customers are moving closer to the overall vision of the virtual machine, the ultimate platform where all components and systems of the machine communicate and interact with each other virtually in the cloud. There, customers will be able to virtually simulate test series and reflect the real-life operation of the physical machine.

OnCare.Asset

Increased maintenance efficiency
Implementing tools for maintenance management increases the efficiency of maintenance activities, while at the same time reducing costs and saving resources. The next step is to anticipate and optimize the overall process.

OnCare.Acoustic

Improved availability by intelligent sound analysis
OnCare.Acoustic supervises large spaces with many machines and systems simultaneously. As a result, customers gain new and valuable information to optimize the operations of their power plants.

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Inspiring Technology
for Generations