VOITH

Value-driven Intelligence with Voith OnCumulus

Voith's promise for the digital future

Why 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 new IIoT OnCumulus offering provides to customers – Value-driven Intelligence.

OnCumulus – The starter package

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 the OnCumulus offering, customers can leverage data across the organization from any device within the facilities, thereby optimizing reliability, achieving targeted performance, and increasing savings that really impact the bottom line. Voith is offering value-adding, industry-proven applications for the cloud, in the form of a unique, modular IIoT platform with an easy-to-use visualization and analytics app.

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The Industrial Internet of Things platform: OnCumulus.Platform

One centralized, reliable data hub for your industrial data
The IIoT platform OnCumulus.Platform serves as a hub for data from various sources, including plants, production lines, machines and devices.

Customers benefit from one centralized, reliable access point for their data, from which they can launch their digitalization initiatives. OnCumulus.Platform provides fast, reliable and secure access to data from local machines and systems in the cloud, making your data readily available for efficient usage.

The IIoT platform is based on open-source, highly standardized technologies. It is scalable, flexible and can be expanded at any time. It also meets the highest industry standards and best practices in terms of privacy, security and compliance, including CSA, NIST and OWASP. Voith cybersecurity experts ensure end-to-end security and make sure that the data is secure throughout its lifecycle.

OnCumulus customers decide how to access and control their data for each specific application. Voith offers local control of the data by providing data centers in every region.
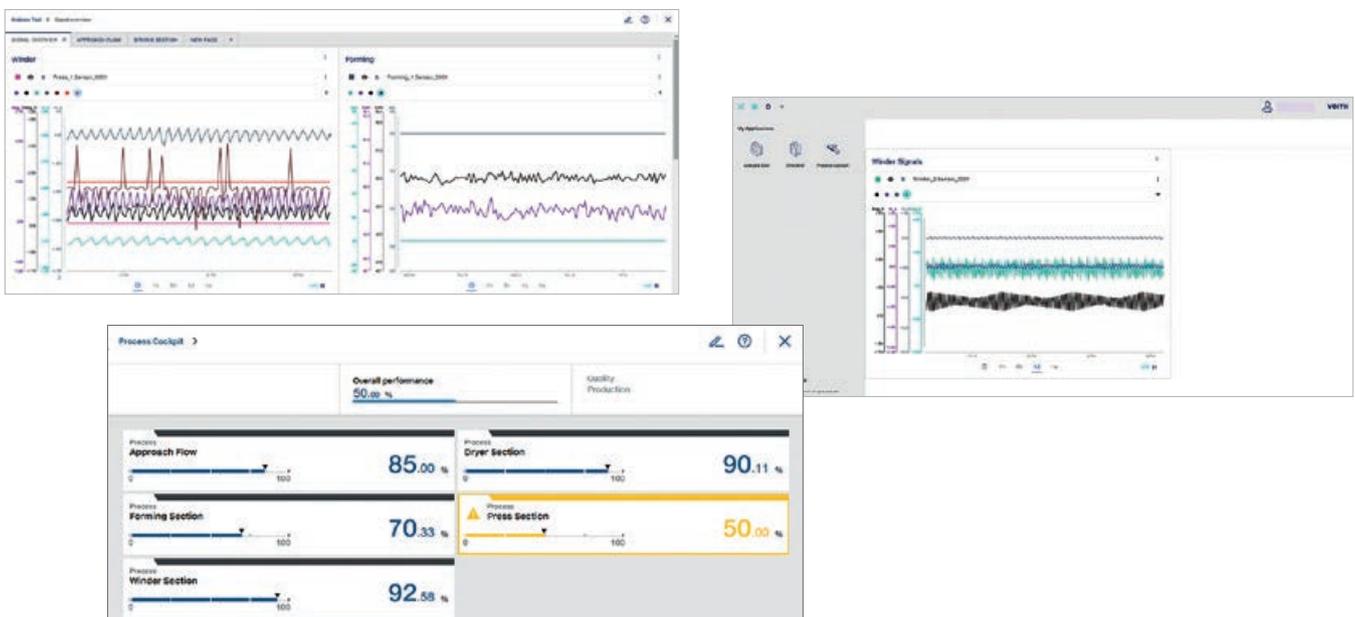
The first step towards visualization and analytics: OnCumulus.Suite

In addition to the IIoT platform, OnCumulus.Suite already provides the first possibilities to benefit of data intelligence: By pre-structuring the available data using visualization and analytical functionalities, customers benefit from the basic, easy-to-use tools Coordinator, Cockpit and Analyzer. Customers can access their data in near real-time and take the first step towards optimizing their operating process with personalized dashboards.

Functionalities at a glance

- **Coordinator** is a dynamic tool that supports plant operators or an operative plant managers in their iterative tasks. It ensures a standardized procedure by providing automatic documentation and reporting functions, as well as offering access to the historical data.
- **Cockpit** enables the user to define and visualize technological limits for any process parameter. By combining parameters and processes, a complete process hierarchy can be created. All technological limits can be defined for the different process and product quality targets.
- **Analyzer** structures and visualizes various data types, thereby enabling the user to analyse this data. Using solution-based views with a 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 take their individual steps towards optimizing their operating process with personalized dashboards.

The first industry-specific applications: OnEfficiency and OnCare

In addition to OnCumulus.Suite, Voith is now bringing further value to its customers by launching the first solutions from the existing product families OnEfficiency and OnCare as cloud-based OnCumulus applications.

By combining OnCumulus.Suite with the new cloud-based applications of the proven solutions, customers profit not only from the increase in efficiency, productivity and quality of the entire paper production supply chain, but also gain new 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 new 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.Pulp**
- **OnEfficiency.Strength**
- **OnEfficiency.DIP**
- **OnEfficiency.Dewatering**

From the Voith OnCare product family

- **OnCare.Asset**

OnEfficiency.Pulp

Improved quality, reduced raw material costs
OnEfficiency.Pulp enables integrated real-time insights and continuous monitoring of production processes. The OnCumulus App offers a smart way to achieve the required product quality while simultaneously helping to reduce the cost of raw materials.

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, 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.

An important step towards the virtual machine

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

OnEfficiency.Dewatering

Improve and stabilize 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.

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.

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Inspiring Technology
for Generations