

New generation sensors Voith OnQuality





Voith's Quality Control System (QCS) OnQuality

Voith's Quality Control System (QCS) OnQuality is a smart and integrated concept to enable producers to gain control over production processes and product quality. It offers the opportunity to stabilize and optimize the product quality and the production process while increasing productivity and decreasing operation and maintenance costs.

Our QCS is the latest in quality control systems for online analysis of paper properties.

It is a system for paper makers with a passion for high paper quality who want to meet their customers' expectations and increase their operation efficiency. Our system is smart and modular, and compact to fit in almost any paper machine. Its attractive lifecycle costs improve the competitiveness of the production through improved reliability and decreased

maintenance need. Production value is increased as quality requirements can be met reliably and consistently. Detailed insight into production and steps to improve processes and maintenance activities are provided to give the paper maker a high amount of control over machine and production. In-use times of plants are increased, and target KPIs can be met fast and consistent.

Decor paper specialist Ahlstrom - Munksjö modernizes its quality control system with ComCore

Partner for premium demand

In the production of decorative paper, the Swedish company Munksjö Decor is one of the world market leaders. The PM 3 in the Aalen-Unterkochen mill with a capacity of ca. 40 000 tons per year produces decorative paper in the basis weight range between 50 and 160 g/m² with a maximum paper width of 2 800 mm.

Due to the technical performance spectrum, the Unterkochen team decided to modernize the quality control technology with the ComCore QCS system by Voith. ComCore is an automation platform developed specifically for the paper industry. It comprises digital assistance, measurement and control systems that can also be expanded with the OnEfficiency and OnCare product families.

This investment put Munksjö Decor in the position of meeting the high demands in future in the quality of their decorative paper and doing so with improved efficiency. The basis weight cross profiles and the consistently good formation provide for optimal roll quality. In addition, with a speed increase from 550 m/min to 630 m/min, the production quantity was increased by ca. 15 percent and thus the second goal was also achieved: after the rebuild, the PM 3 is among the most productive paper machines for decorative paper.

“The start-up processes have accelerated considerably, and the changeover times have been shortened.”

Guido Feuchter is responsible for the rapid adaptation of the parameters on the ComCore platform



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Products & Solutions

The measurement frames are built to be integrated into all paper machines even with small available space and in high temperature environments.

Measurement plates and heads are highly standardized components that ensure a plug and play configuration of sensors. Sensors have a small format that is easy to handle. The QCS is based on the modular automation platform ComCore. ComCore allows an easy integration of the QCS into a customer automation system and provides clear information and access to the paper maker.

OnQuality.Scanner

- Standard O-frame for most applications
- Paper width up to 35' (10 650 mm)
- Smaller standardized form factor versions available up to 12' 6" (3 800 mm)
- Single side frame for narrow installation
- Flexible width up to 24' 7" (7 500 mm)
- Highest reliability in the industry
- Flexible application for all size paper machines
- SEB mounted directly to frame to reduce wiring
- Garage function to keep sensors clean (option)

ComCore

The Voith quality control system is based on the modular automation platform ComCore. The modularity allows easy integration of your quality control system into existing automation systems and provides clear information flows. The easy-to-use user interfaces allow direct access and optimization of the quality parameter profiles.

OnQuality.Sensors

OnQuality.Sensors are compact, robust and include state of the art technology. They include a smart sensor and comprehensive diagnostic functions and insure easy access for maintenance and system extension. Interfaces are easy to use. All sensors include the new processor board with powerful signal processing capacity and standardized communications.



Our Service –
Part of Your
Business.



4 Service

5 Accessibility

Sensor short descriptions

- **Ash Sensor Fe 55**
Contactless measurement of mineral content in a paper web using gamma ray absorption.
- **Ash Sensor Fe 55 XRF**
Contactless measurement of mineral content in a paper web using gamma ray absorption and additional XRF.
- **Basis Weight Sensor Krypton 85**
Contactless measurement of basis weight, designed for basis weight range up to 600 g/m².
- **Basis Weight Sensor Promethium 147**
Contactless measurement of basis weight, designed for basis weight range up to 180 g/m².
- **Caliper Sensor Dual Air Bearing**
Contactless measurement for accurate measurement of paper thickness.
- **Caliper Sensor Light Touch**
Contacting sensor for accurate, on line measurement of paper thickness based on magnetic reluctance through the sheet.
- **Coat Weight Sensor IR Reflection**
Contactless measurement of coat weight by the absorption of the reflected infrared light of a defined wavelength spectrum.
- **Color Sensor 45°c:0°**
Measures color, whiteness, brightness and opacity.
- **Fiber Orientation Sensor**
Contactless optical measurement of surface fiber angle distribution for high quality multi-layer board applications.
- **Gloss Sensor 75°**
Contactless measurement of gloss for machine-finished and calendered board and paper.
- **Moisture Sensor IR Reflection**
Measures moisture content single sided and contactless.
- **Moisture Sensor IR Transmission**
Contactless measurement of moisture content by the absorption of infrared light at four wavelengths.
- **Moisture Sensor Microwave DS20**
Measures moisture content via microwave technology.
- **Tissue Sensor TecoSens**
Measures moisture and fibre weight of tissue paper grades.

Voith systems RAISE industry standards

Voith systems RAISE industry standards through Reliability, Accessibility, Innovation, Service and Efficiency & Excellence.



Reliability

Voith is committed to delivering high-end, reliable solutions and, as the product quality leader in the industry, has earned the trust of many customers. Sensors are built from robust, durable materials that endure even the harshest environments. Accurate measurements and analysis allow for a precise control architecture. Additionally, visibility over production processes and machine parts enable accurate maintenance and monitoring. With increasing amounts of data, control functions improve steadily. Voith offers a reliable, effective and highly available support service.

Accessibility

Sensors can be individually installed to provide different profiles. Precise sensors provide accurate data. Visibility from powerful analysis tools grants easy access to various process touch-points and insights. This visibility allow for the system actuators to be used accurately. The system recommends procedures and automatically takes action to optimize processes and maintenance plans. Sensors also allow for precise root-cause visualization and improved maintenance activities. Voith QCS has a high connectivity and compatibility so that it can be implemented and accessed most conveniently. The systems allow for direct remote support through safe networks.

Innovation

Voith is committed to provide the latest technology created by innovation experts. Knowing our customers and their needs, we can provide innovative solutions targeted at known issues and improvement possibilities. New sensor and measurement technologies provide highly accurate data through non-invasive and accessible online data gathering. The latest data analysis technology, Voith's papermaking expertise and highly precise actuator enable a fast stabilization and optimization of processes. Maintenance activities can be predicted and planned through an innovative control system.

Service

Manufacturer and maintenance staff expertise are combined and support staff is specifically and extensively trained to provide the best service possible. A remote, global service structure enables Voith support members direct and fast live access through safe networks. Additionally, Voith provides support for both machine parts and on-site personnel through an efficient locally available support infrastructure. Access to predefined maintenance processes and organization as well as spare part management increase maintenance speed and efficiency and decrease plant down-times. Voith also offers individualized implementation and innovation support.

Efficiency & Excellence

Through increased visibility and expanded control, processes and production can be monitored, stabilized and optimized. This eliminates the need for excess resource use, off-spec production and high production costs to compensate for product variability. Increasing availability of data allow more detailed production analysis to optimize production and maintenance. Maintenance is made more time- and effort-efficient and less costly. Additionally, QCS lower the need for administrative efforts. These possibilities allow for paper makers to produce the best paper possible and meet individually set KPIs, subsequently increasing productivity all while decreasing overall costs.

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for Generations