

## OnControl Process automation for the paper industry



- 1 Intuitive navigation thanks to standardized image format and face plates for detailed information
- 2 Easy maintenance: from visualization to e-documentation with only three clicks
- 3 Machine-oriented control and process control engineering switching cabinets
- 4 OnControl covers all important system components, from stock preparation to the reel
- 5 User-friendly operation and visualization

# Farsighted automation is only possible with an understanding of the processes

**Current paper machines consist of more than a million individual components, weigh thousands of tons and are hundreds of meters long. Voith as an automation partner understands the paper manufacturing process and the needs of system operators and service teams in detail.**

OnControl includes all technical features required for guiding a process: operation and visualization, machine-oriented control and process control engineering, actuators and sensors. Standard hardware is used for which there are replacement parts and service support worldwide. Nonetheless, OnControl is unique because it includes Voith's extraordinary knowledge of paper making from thousands of installations worldwide.

## **User-friendly visualization**

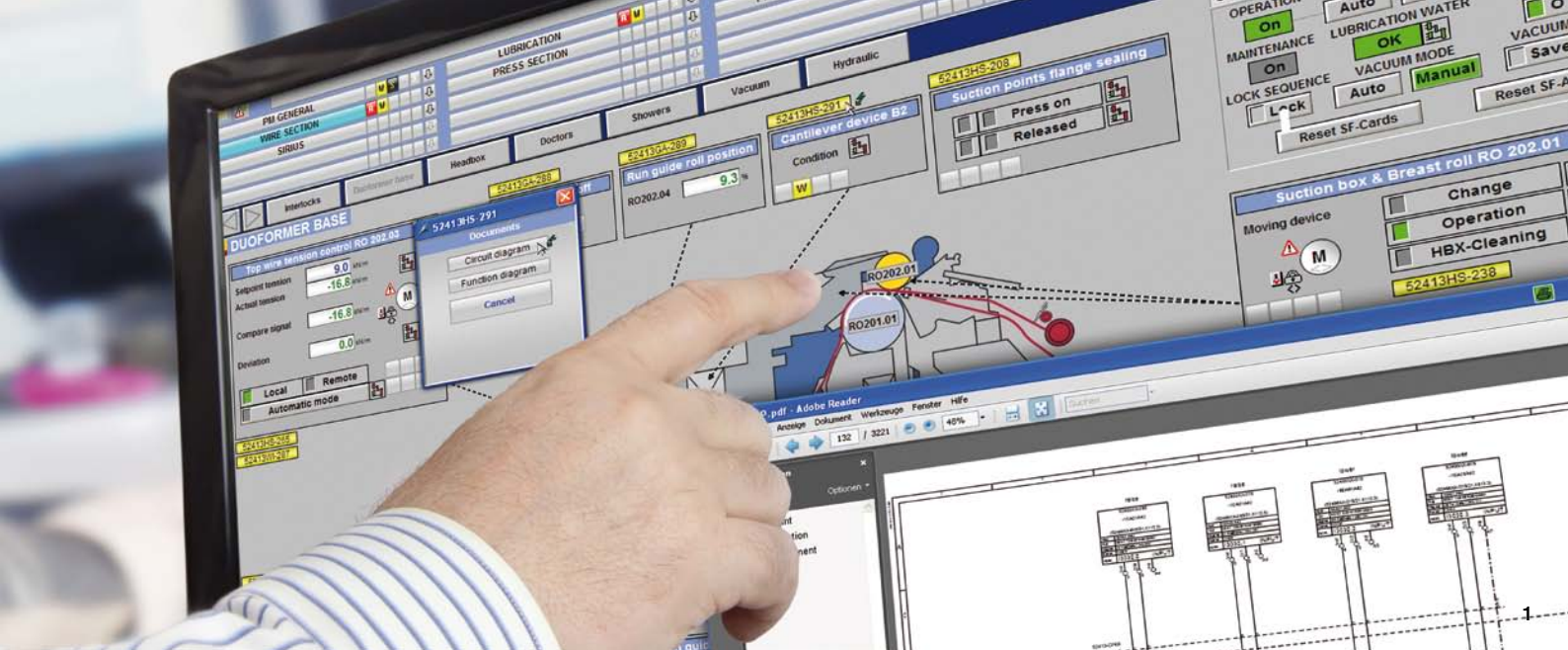
The degree to which paper machines are automated has sharply increased in the past few years. However, one thing has remained the same: the paper maker guides and coordinates the technological paper manufacturing process. OnControl process control engineering is the interface between the technological process and the paper maker who monitors, understands and operates the process. With OnControl, the paper maker takes center stage. The OnControl user interfaces provide optimal information specifically tailored to the needs of the paper industry. OnControl gives the paper maker help for starting the various machine sections as well as for a stable machine run.

## **Complete integration**

Along with machine-oriented control and process control engineering, quality control technology is also integrated into the operating system of OnControl. Thanks to OnC DriveCommand, the drive control is also integrated into the process control system. Where previously two visualization systems had to be monitored and two alarm systems had to be correlated, now everything can be controlled via OnControl. This allows operators and maintenance personnel simplified visualization and maintenance as well as fault diagnostics – Voith thus assumes responsibility for the automation systems along the entire machine, including drive control.

## **Safety ranked first**

All safety functions are integrated in OnControl according to current standards and without other separate hardware. A detailed risk assessment is carried out for each project. The safety analysis is the basis for the definition of protected areas that have to be monitored by means of safety guards or access monitoring, for example. In addition, the positions of local control sections and the necessary safety category of the control are thus determined.



### Everything at a glance

The basic and detailed engineering, for circuit diagrams and hydraulic and pneumatic systems, for example, is done with an integrative, object-oriented CAE system. So that no know-how is lost at this critical point in the implementation, engineers with detailed knowledge of the processes, from stock preparation through the paper machine to packing the roll, take on the programming at Voith.

Via the OnControl operating stations, the maintenance personnel at the paper machine have direct access to the entire documentation. Thus in the case of fault diagnostics, all documentation such as circuit diagrams can be electronically called up. Faults can thus be eliminated quickly and directly.

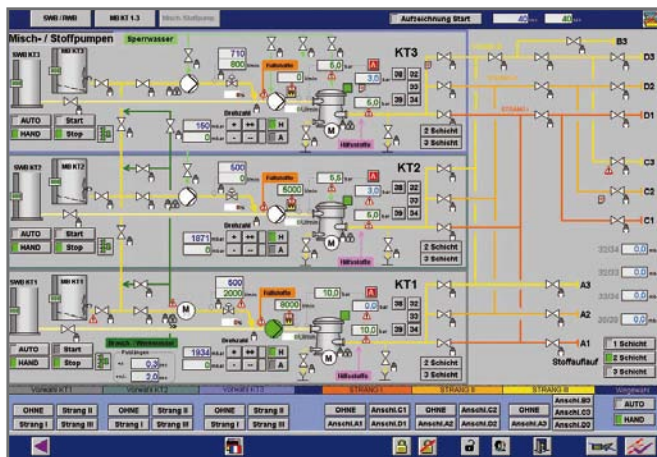
### Shorter shutdown times

All information relevant for the paper manufacturing process, such as locks, can be easily called up at the OnControl operating stations. OnControl highlights the original cause of the fault message with first value identification. This means that with OnControl the operator is led in a targeted fashion to the origin of the fault in the process control system and can then frequently eliminate this fault without assistance.

This type of fault analysis is possible for the operator even without knowledge of the control system technology. Use of additional maintenance personnel is in many cases avoided. Thus the times for fault diagnostics are shortened and corresponding downtimes are minimized.

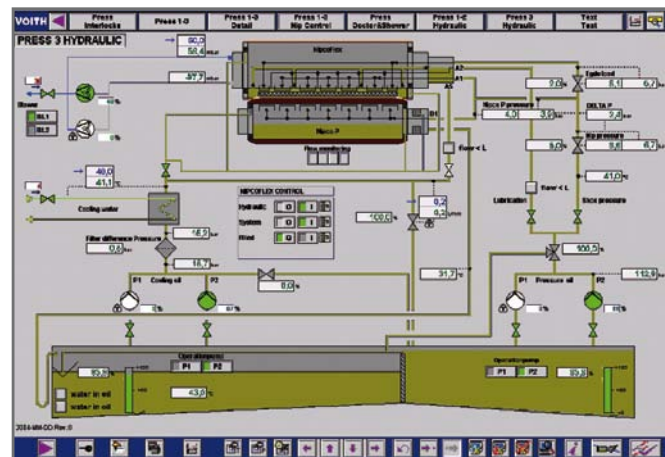
### Auto-mapping

Approach flow system of a paper machine for multilayer paper



### Hydraulic unit

for Nipco rolls in the press





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### Fewer interfaces

The experience of numerous installations has shown that with the start-up of new paper machines the greatest loss of time comes about due to too many interfaces between various suppliers for drives, operation, control and measurement technology.

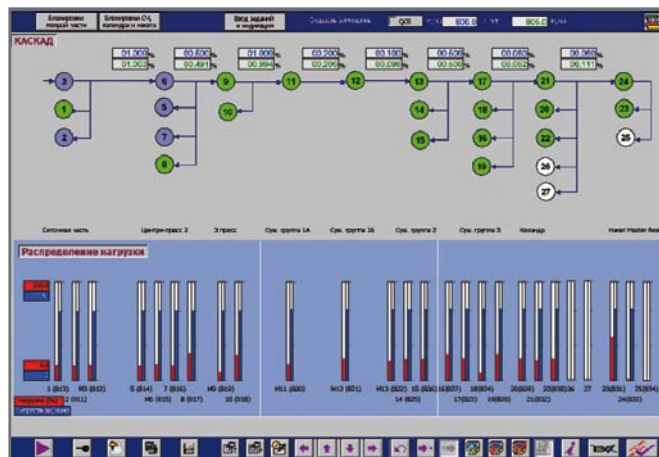
Voith provides everything from a single source. There is thus one contact for all components included in a delivery: the Voith project manager. If this service is made use of, Voith bears sole responsibility for all performance features of the overall package and thus provides the assurance that the entire project is a success.

### The advantages of OnControl

- + Central alarm handling
- + Quick identification of defective system parts
- + Quick access to locks
- + Direct access to electronic documentation
- + Structured and standardized programmin

### OnC DriveCommand

Drive control for paper machines – overview



### OnQ ModuleJet CD profile control

Operation in OnControl





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### Resistant and nonetheless flexible

Voith paper machines are built for eternity. Nonetheless, a paper machine will go through smaller upgrades or larger rebuilds again and again over its entire service life. Process control systems have to be able to flexibly support this change. Thanks to modularization and decentralization,

OnControl is flexible with regard to any change in system technology. Voith offers numerous solutions for cost-effective upgrades. Along with the replacement of components, technological improvement is always also a focus.

### OnControl covers all important system components, from stock preparation to the reel

#### Operation and visualization

- Control panels
- Control boxes
- Operator stations

#### Machine-oriented control and process control engineering

- Hardware
- Software
- Switching cabinets

#### Actuators

- Hydraulic and pneumatic systems
- Motors
- Valves

#### Sensors

- Limit switches
- Pressure measuring transducers
- Position measuring transducers



**Actuators** Hydraulic and pneumatic systems



**Sensors** Pressure measuring transducers

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