

OnQ ModuleSteam

The innovative steam box





1

Convincing effect and innovative design

The OnQ ModuleSteam steam box improves the quality, runnability and efficiency of the machine. It impresses with its compact design, giving the best possible access to all maintenance-related components.

Your problem

Despite an outstanding press section, some machines still produce paper with a poor moisture cross profile or with insufficient dry content before the dryer section.

Our solution

The OnQ ModuleSteam steam box and the OnQ Profilmatic software deliver an optimal moisture cross profile in the press. By moistening the web with OnQ ModuleSteam, the viscosity of the water is reduced. The performance of the press is thereby improved, leading to a higher dry content. With a small investment, the steam box provides an extraordinary potential for profiling and to increase dry content.

Due to its small space requirements, OnQ ModuleSteam can be easily retrofitted in existing press sections. The design principle allows the smallest profiling zone widths.

Efficiency

With OnQ ModuleSteam, the dry content after the press increases. This improves the web strength and reduces the number of web breaks. Steam consumption in the dryer section is also reduced and thus energy costs are lowered. The patented, optionally available quick change system allows access for maintenance even with short downtimes.

Quality

Precisely controlled steaming of the paper web brings about a uniform moisture cross profile already when entering the dryer section.

Runnability

Thanks to the improved web strength and greater utilization of the press and dryer section, higher machine speeds and corresponding production increases are possible with OnQ ModuleSteam.



- 1 The OnQ ModuleSteam steam box for high dry content and optimally regulated moisture cross profiles
- 2 Pneumatic actuator with especially rugged stainless steel bellows seal

OnQ Profilmatic software

This moisture cross profile control allows exact interventions for quality improvement. It quickly records all significant profile changes and calculates the optimal set point positions. The auto-mapping function continuously adapts the correlation between the scanner and the local reaction in the paper web.

Pneumatic actuator

A pneumatic actuator is available for precise control of the steam valves. It was developed specifically for the OnQ ModuleSteam steam box and features innovative stainless steel bellows seals. The actuator is non-wearing and has a long service life.

Zone cleaning

Depending on the installation position, steam boxes in the paper machine are exposed to heavy contamination. For this reason, OnQ ModuleSteam has practical inspection openings. They allow quick cleaning of each zone chamber and its outlets. In addition, the optionally available electro-polished surface helps in preventing dirt deposits.

Maintenance

Large cover hoods on OnQ ModuleSteam allow comfortable inspection of the valves installed. In addition, the practical quick couplings for the pneumatic control lines on the steam box are another advantage. They allow extremely quick and safe disconnection from OnQ ModuleSteam.

Advantages OnQ Profilmatic

- + open interface with the quality control system
- + own user interface for start-up and service
- + controls, visualization and service can be implemented in one PC
- + no multiplex control

Advantages Pneumatic actuator

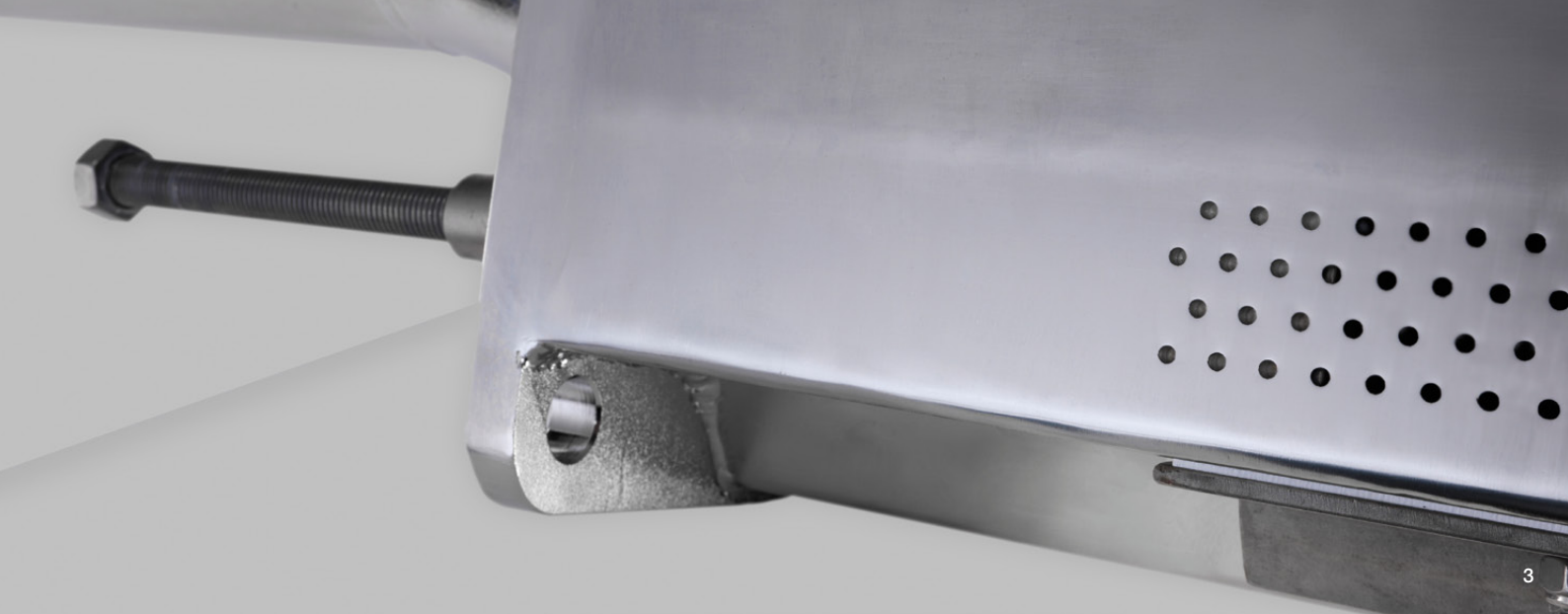
- + very good control resolution, nearly hysteresis-free
- + double bellows seals and no diaphragms
- + optical position indicator and pneumatic position feedback
- + valve closes with depressurized activation

Advantages Zone cleaning

- + quick maintenance through inspection cover
- + cleaning of zone chambers and outlets easily possible
- + optional: electro-polished surface for prevention of dirt deposits (EasyClean system)

Advantages Maintenance

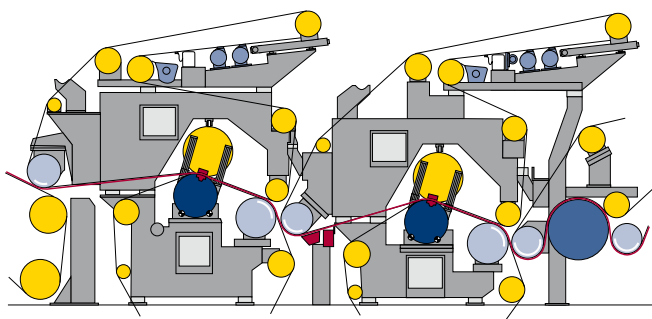
- + optimal accessibility to the valves
- + quick and safe disassembly and assembly due to quick couplings



Application-specific installation solutions

DuoCentri NipcoFlex press

Presses of the DuoCentri type allow installation of OnQ ModuleSteam very close to the press nip. An outstanding increase in dry content is the result. But the tight installation conditions are demanding. They require individual adaptation of the enclosure to the press geometry. However, in most cases the installation position allows no direct access to the steam box. For this reason, Voith optionally provides an innovative quick access system for OnQ ModuleSteam. An inspection is thus possible without elaborate disassembly measures.

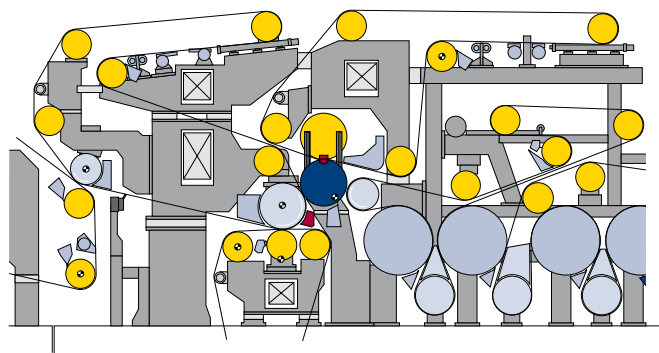


Installation position Tandem NipcoFlex press

Tandem NipcoFlex press

Presses of the Tandem type geometrically determine installation of OnQ ModuleSteam at a larger distance from the press nip. Good dry content increases can be achieved here.

The installation conditions with a Tandem NipcoFlex press are favorable so that direct access to the OnQ ModuleSteam is possible. OnQ ModuleSteam is configured so that all required cleaning and maintenance work can be carried out comfortably from the walkway under the housing.



Installation position DuoCentri NipcoFlex press



4



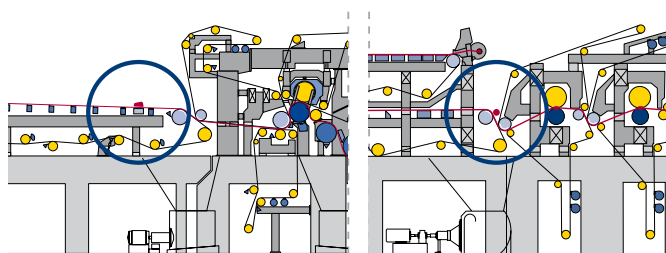
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- 3 Outlets on the steam box
- 4 Actuator with valve block
- 5 Cleaning opening to the diffuser chamber

Other applications

Other installation options are possible on Fourdynier machines couch roll or pick-up suction roll. With special paper machines, these installation positions allow equivalent outputs such as in the press with the moisture cross profile and dry content increase.

By using OnQ ModuleSteam in the wire section of pulp dryers, a higher dry content of the end product can be achieved as well.



Installation position Fourdrinier machine and couch roll

Characteristics OnQ ModuleSteam

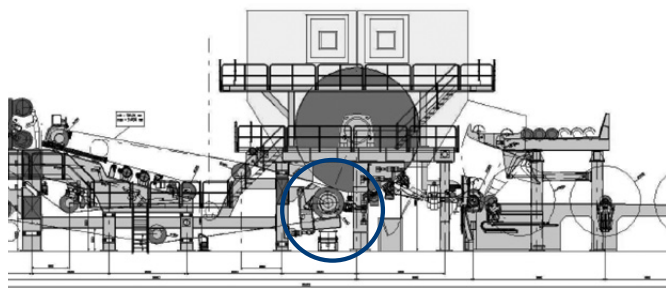
- standard zone width of 75 mm, 100 mm or 200 mm; other widths upon request
- rigid, deformation-resistant design, thermally balanced
- heated surfaces for preventing condensate drops
- flow-optimized outlets
- easy cleaning of zone chambers and outlets through inspection openings
- good accessibility to the control valves
- pneumatic valve actuator
- control by means of proven Voith OnQ Profilmatic or external software
- edge zone adjustment of the steaming width for protection of the press felt
- optional quick rail-out system
- no sensitivity to dirt due to optional EasyClean system



OnQ ModuleSteam T Specifically for tissue paper

The best quality at increased speed

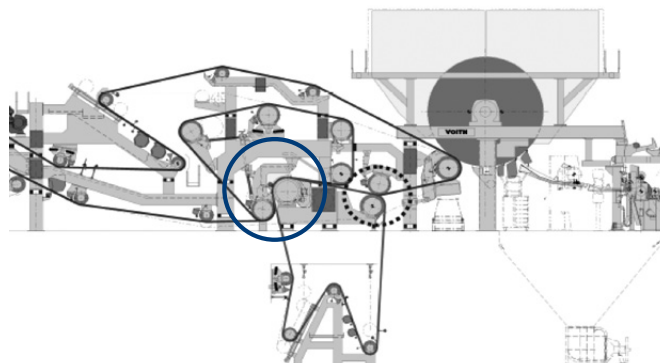
Steaming the paper web improves dewatering performance at the press nip and increases the dry content after the press section. OnQ ModuleSteam T for tissue paper allows extensive savings in the dryer section. In addition, higher operating speeds require more output from the dryer section. For this reason, OnQ ModuleSteam T with the OnQ Profilmatic cross profile control ensures optimal dewatering and the best moisture cross profiles already in the press section.



OnQ ModuleSteam T at the press roll

Precise steam application

Pneumatic actuators with stainless steel double bellows seals guarantee the highest reliability and precision in controls. In addition, the steam application takes place through large outlets in the rugged diffuser plate. OnQ ModuleSteam T impresses with its inspection openings and flushing option for easy cleaning and maintenance. That ensures a consistently high level of performance over the entire operating time.



OnQ ModuleSteam T for ATMOS at the suction roll



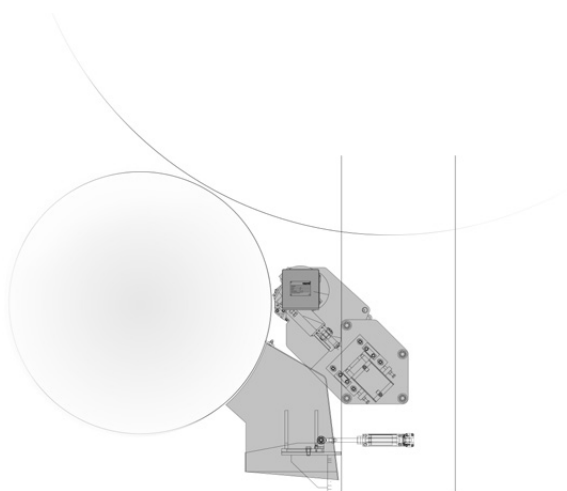
- 6 A special Teflon coating and other dirt-repellent components facilitate cleaning and maintenance.
- 7 OnQ ModuleSteam T is exactly coordinated with the needs of tissue manufacturing.

7

Low cleaning outlay

The Teflon-coated diffuser plate effectively prevents dirt from sticking to the steam box. To reduce contamination during operation and machine-shut cleaning, a protective wall for OnQ ModuleSteam T is available on request. This wall is retractable for cleaning and maintenance.

Likewise, the optional electro-polished surface facilitates cleaning and prevents fibers from sticking.



Advantages of OnQ ModuleSteam T

- + standard zone widths of 75 mm, 100 mm or 200 mm; other widths upon request
- + rigid deformation-resistant design, thermally balanced
- + heated surfaces for preventing condensate drops
- + flow-optimized outlets
- + easy cleaning of zone chambers and outlets through inspection chambers
- + good accessibility to the control valves
- + pneumatic valve actuator
- + control by means of proven Voith OnQ Profilmatic or external software
- + integrated edge zone adjustment for adjusting the steam application and protecting the press felt
- + Teflon coating and additional protective wall for preventing accumulations of dirt
- + optional electro-polished surface to prevent fibers from sticking

Headquarters

Voith Paper Holding GmbH & Co. KG
St. Poeltener Str. 43
89522 Heidenheim, Germany

paper@voith.com
www.voith.com/paper

Regional Contacts

Asia
Voith Paper in Kunshan, China
Tel: +86 512 5799 3600

Europe
Voith Paper in Heidenheim, Germany
Tel: +49 7321 37 2487

North America
Voith Paper in Wilson (NC), USA
Tel: +1 252 265 4405

South America
Voith Paper in São Paulo, Brazil
Tel: +55 11 3944 4966

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