



*OnQ ModulePro water-air moisturizer –
the all-rounder for existing systems*

OnQ ModulePro compact is the ideal re-moisturizer for systems with a maximum speed of 1,500 m/min.

Water-air moisturizers for every case

OnQ ModulePro – the measure of all things

A high investment budget is not always needed in order to obtain outstanding optimization results. An improved moisture profile, increases in speed or energy savings can already be obtained with installation of re-moisturizers in the dryer section.

A distinction is made between moisturizers with single-substance and dual-substance nozzles. Moisturizers with single-substance nozzles are simply water moisturizers with which the water is hydraulically atomized and applied. So-called “water-air moisturizers” with dual-substance nozzles, in which the spray water is fed into the nozzle air and pneumati-

cally atomized, attain a noticeably better atomizing effect.

All-rounders for existing systems

For years, OnQ ModulePro nozzle moisturizers have been providing for high quality and increased cost-efficiency with modern systems. Optimal moisturizing results presup-

pose outstanding spray quality and exact spray quantity monitoring. The OnQ ModulePro product line meets these high requirements with its innovative dual-substance nozzle and valve technology. Along with OnQ ModulePro for systems that have the highest quality requirements (thermo paper, SC paper before the calender), with OnQ ModulePro

compact there is now a solution for paper machines with somewhat lower requirements. However, there are no trade-offs in the result.

OnQ ModulePro compact was newly designed with two rows of nozzles and a 50 or 75 mm zone width especially for older, existing systems with a maximum speed of 1,500 m/min and a paper web width of up to 8,500 mm. Moisture problems often appear with these machines, although they are already equipped with a water moisturizer or profiler. However, for some applications the simple water moisturizers are technologically at their limit.

This shows in the paper quality:

- Poor moisture profile before the reel, the calender or the coater
- Generally unsatisfactory moisture level (overdrying)
- Curling problem (curling tendency)

Due to these quality defects, in the printing plants there are problems with runnability of rolls and therefore complaints because of web tension.

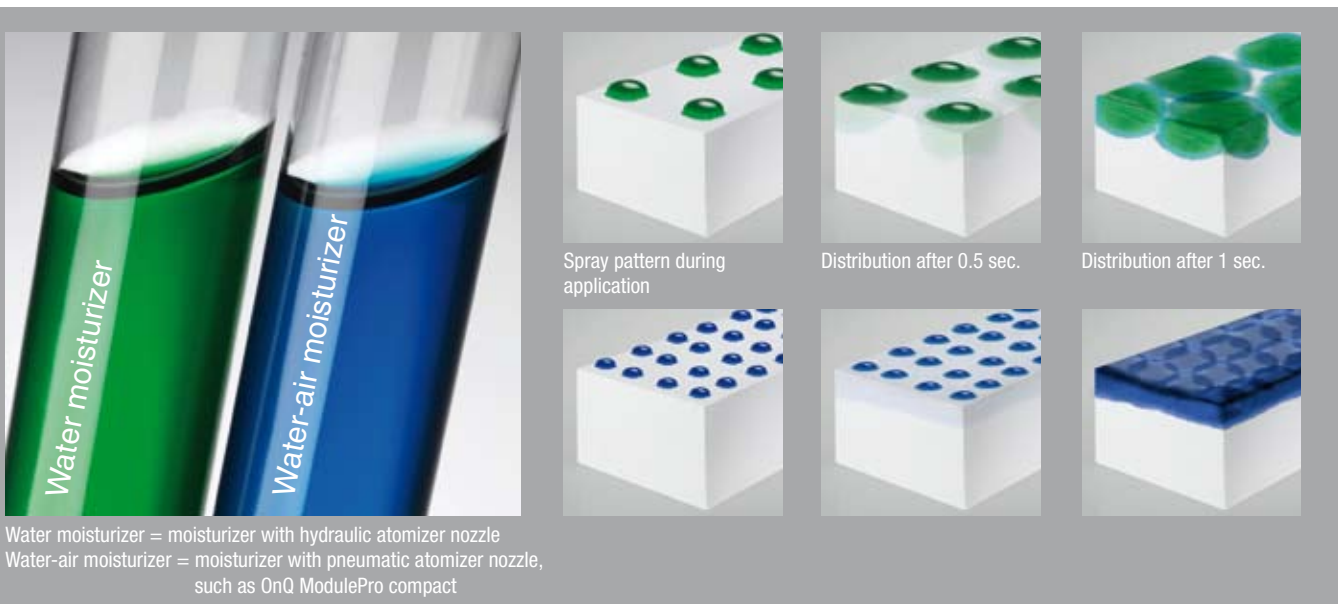
Thanks to “Perfect Fit” the cost-benefit ratio is right

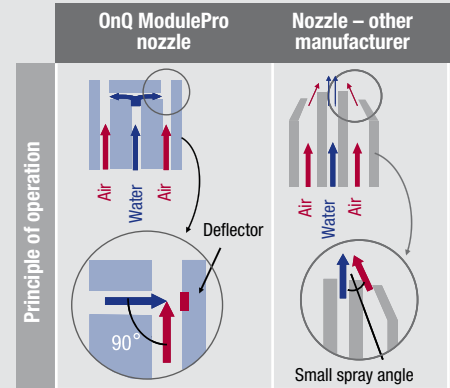
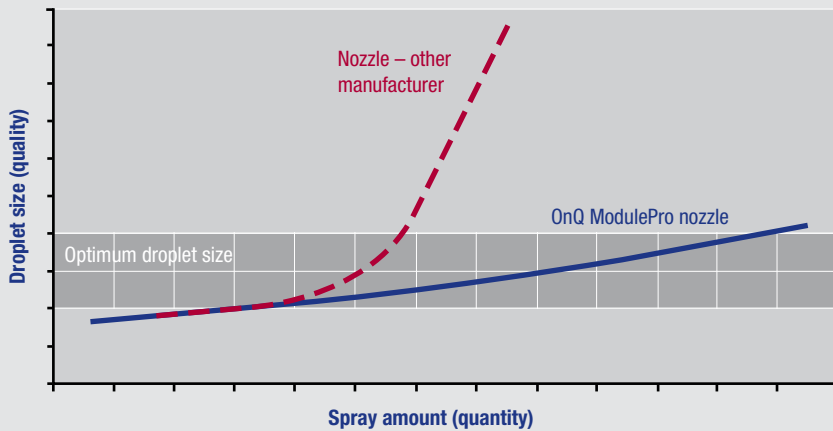
With the OnQ ModulePro compact, Voith Paper has created a “Perfect Fit” solution as an alternative to the simple water moisturizers. Usually, the investment costs for a water-air moisturizer are higher than for a water moisturizer with a single-substance nozzle. But OnQ ModulePro compact pays off thanks to its innovative nozzle and valve technology, in contrast to simple water moisturizers. With the latter, large droplets come about when atomizing that take substantially longer to penetrate the paper. Thus, these simple water moisturizers are limited in use roughly up to the middle part of the dryer group.

Whereas a water-air moisturizer also shows its full effect at the last dryer cylinders where the paper still has a residual moisture of 7-9%. Due to the especially fine atomization of the water application, it is possible to install OnQ ModulePro compact at this position in the paper machine because the homogeneous spray pattern with the smallest droplets allows an altogether smaller quantity of water to be applied at the end of the dryer group. Thus, in contrast to simple water moisturizers, less drying in the dryer section is required. This advantage can be used by the production manager, depending on the requirement. Either the paper machine is run faster and thus produces more, or with unchanging speed less drying is required to save energy.

By means of the nozzle and valve technology used, OnQ ModulePro

A simulation test shows: smaller droplets penetrate the paper substantially more quickly and achieve a homogeneous moisture distribution.





The high-performance nozzle from Voith is attractive due to its spray quality over the large spray quantity range (1-25 l/h; 0-70 µm droplet size). The finer marking-free spray application leads to better paper quality, since the water penetrates the paper surface more quickly.

compact ensures a uniformly remoistened paper and an optimum moisture profile over the entire paper web. A homogeneous moisture distribution in the paper and reduced curling tendency are the result.

Upgrade solution for existing re-moisturizers

An inexpensive alternative to a complete replacement of an installed moisturizer is optimization with new dual-substance nozzles. For this, Voith Paper has developed a nozzle that can be mounted on existing external systems.

In contrast to competitors' nozzles, the OnQ ModulePro V30 upgrade nozzle has a finer spray pattern over a larger volume area. Nozzle replacement is done trouble-free by screwing out the old nozzle mouthpiece and screwing in the Voith V30 upgrade nozzle. The spray beam and the control remain untouched. Replaceability of the nozzle requires a detailed

technical examination in advance that is carried out by experts from Voith Paper. The OnQ ModulePro product line contains the suitable solution, according to the customer's requirement. Several examples show that not only can problems in the moisture profile be solved with the products described, but also increases in productivity can be obtained:

- In the case of a newsprint machine, OnQ ModulePro was used with a water application of more than 3.5 g/m² at speeds of over 1,900 m/min for moisture cross profile control and curl control. A moisture cross profile improvement (2-sigma profile) of over 65% was achieved. OnQ ModulePro allowed a stable moisture profile even with machine speeds of more than 2,000 m/min.
- With the installation of OnQ ModulePro compact with a zone width of 75 mm for corrugated cardboard, by means of one-sided remoistening the curling tendency

of the paper was considerably reduced by dissolving frozen tension. The result: a decline in customer complaints.

- After the upgrade of 200 zones of an existing external system at a European SC-A facility, it turned out that by means of a changeover to the V30 nozzle a substantially better moisture cross profile can be achieved.

On Focus: OnQ ModulePro Product Line

ProRunnability	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ProQuality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ProSpeed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section: drying
Width: all
Paper grade: all

Contact



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