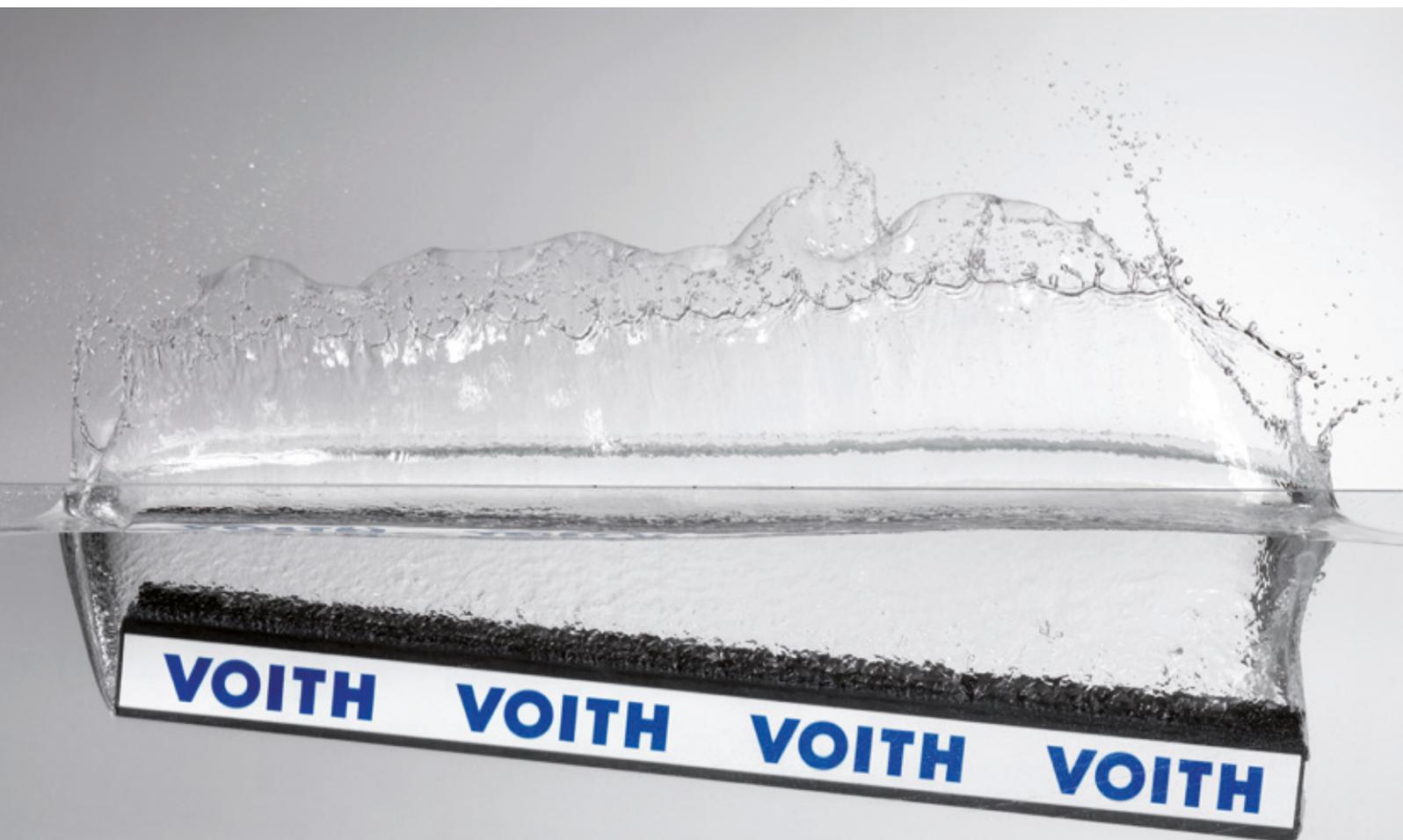


# The seal strip with integrated lubrication for all suction rolls **HydroSeal**



More than 80 % water saving is ecologically and economically beneficial

## Heavy abrasion despite high water usage?

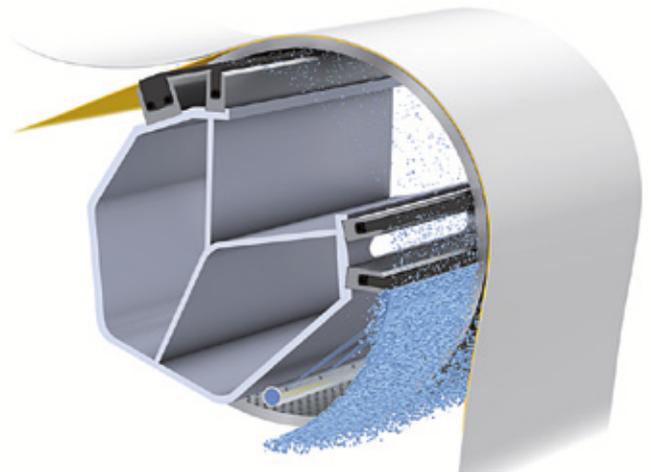
Conventional lubrication spray tubes equipped with a vulnerable nozzle technology deliver uneven lubrication.

Overlapping fan-type nozzles with conventional spray tube is responsible for supplying two to five seal strips. However, due to the doctor blade effect, only about 10 % of the total lubrication water gets through the first seal strip, so insufficient lubrication water is available to the subsequent seal strips.

As a result, downstream seal strips wear out relatively quickly and have a shorter service life. The high amount of water scraped off at the first seal strip can lead to heavy remoistening thus negatively impacting moisture profiles. In addition, the deficient lubrication slows down the rolls and increases energy outlay.

Furthermore, if a nozzle is clogged, entire sections are not lubricated and wear out especially quickly. This results in unplanned downtimes, insufficient paper quality, and protracted, cost-intensive repairs. Alternative seal strip systems have been costly and complex to operate, until now.

Conventional seal strips  
3D-illustration





### Your advantages with HydroSeal

#### Cost saving with a good conscience

With HydroSeal the integrated lubrication of the seal strips requires less water and energy to operate. That leads to a reduction in the consumption of fresh and waste water, as well as energy consumption.

With just one suction roll, this can correspond to savings of up to 96,600 €/a (see graphic).

#### Getting the maximum

The homogeneous lubrication film on each seal strip reduces friction-related heat damage and vacuum breaches and facilitates more stable production without unplanned downtimes and expensive maintenance operations. In addition, the lower friction coefficient reduces wear.

#### Profiting from the result

The homogeneous lubrication film gives more even moisture profiles and actuator control profiles on moisture control equipment.

### Ecologically sensible

based on tests with customers and the VPM 6

#### Water consumption -87%

Previous technology 15.3 l/min

HydroSeal 2.0 l/min

#### Specific energy consumption -9%

Previous technology 42.0 kWh/t

HydroSeal 38.1 kWh/t

### Economically profitable

based on tests with customers and the VPM 6

	Annual savings	
<b>Reduction of energy consumption</b>	1 Mio. kWh	70.000 €
<b>Reduction of water consumption</b>	19.600 m <sup>3</sup>	19.600 m <sup>3</sup>
<b>Total savings</b>		<b>96.600 €</b>



- 1 Comprehensive and professional service from Voith
- 2 With OnV EnergyProfiler, the machine operator has an eye on energy consumption
- 3 Homogeneous lubrication supply across the entire machine with HydroSeal

## HydroSeal benefits at a glance

### Excellent savings in lubrication water consumption

- + Substantially lower water consumption
- + Decreased drive load due to reduced friction coefficient
- + Improvement of moisture profile due to uniform lubrication
- + No unwanted remoistening
- + Constant and even lubricant feed at each seal strip
- + Higher operational safety of roll, fewer downtimes, lower maintenance costs
- + Homogeneous lubrication over the complete width

## Keep an eye on your energy costs

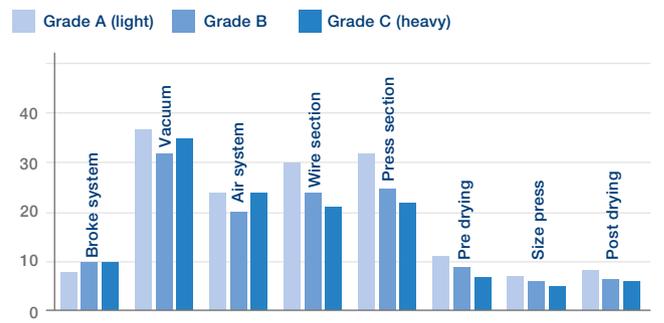
Due to Voith's extensive know-how as a system provider, its products are perfectly coordinated with one another. The OnV EnergyProfiler software ensures an overview of energy consumption throughout the paper production process at all times.

## OnV EnergyProfiler

Successful energy management is a continuing process and requires a number of small optimization steps. Voith energy reports feature speed, transparency and availability. OnV EnergyProfiler locates and visualizes energy consumption and, unlike other available standard products, takes into account the relevant data and setting parameter for paper production.

## OnV EnergyProfiler

Specific energy consumption kWh/t





# Saving money with a good conscience! Thanks to HydroSeal

Unlike previous seal strips for suction rolls, the HydroSeal lubrication system saves water and energy at the same time.

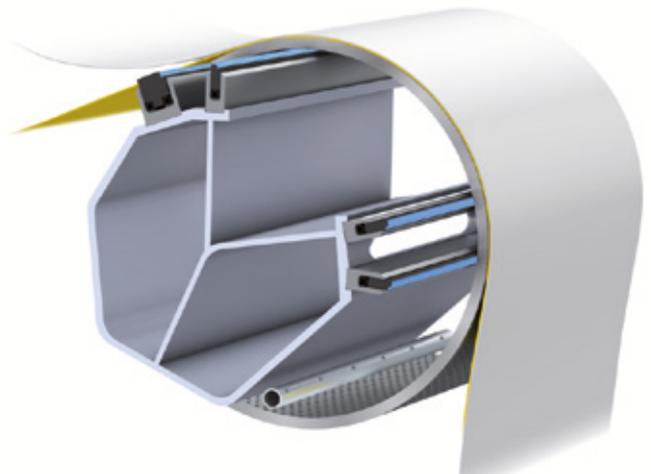
The new patented design from Voith facilitates lubrication of suction rolls in the forming and press section exactly where it is needed: directly on each individual seal strip. The lubricant is supplied by a lubricant film that is evenly distributed over the entire width of the seal strip.

Voith customers who choose HydroSeal for their suction roll benefit from appreciable savings in circulating water and drive power.

In the course of a standard roll service, the delivery of HydroSeal includes the tubing internal to the roll, the water distributor, all required hose feed lines and a filter station as well as comprehensive on-site support at the first startup. If necessary, a new set of seal strip holders is installed during replacement of the HydroSeal seal strips.

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HydroSeal seal strips  
3D-illustration



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**VOITH**  
Inspiring Technology  
for Generations