

Excellent return on investment with suction roll upgrades

Valmet Suction Roll Upgrade Lock Seal

Valmet Suction Roll Upgrade Lock Seal relieves seal strips from the suction roll shell during running, improving the energy efficiency of the roll and extending the lifetime of suction roll axial seals and shell.

Benefits

- Reduced energy consumption
- Longer axial seal lifetime
- Longer shell lifetime
- Lower axial seal noise
- Improved moisture profile and less rewetting



Energy savings and extended machine times

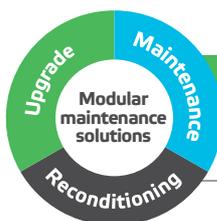
Valmet Seal Strip Lock automated axial seal was originally developed for longer suction roll operation in paper machines. As the axial seals have no or very little contact with the rotating shell, wear is minimal. The average running time is two years, but some mills have been able to run it for three to four years.

As seal friction is minimized, the roll can operate on less energy. The benefits of the reduced energy consumption of the suction roll can be seen in all the driven rolls connected via nips or fabrics to a suction roll running with Lock Seal upgrade. Depending on the layout, size and speed of the machine, the annual energy saving potential can be as much as 4 GWh from a single machine.

The use of water for axial seal lubrication can be minimized, or even eliminated totally. This can mean savings potential of more than 100,000 m³ (130,800

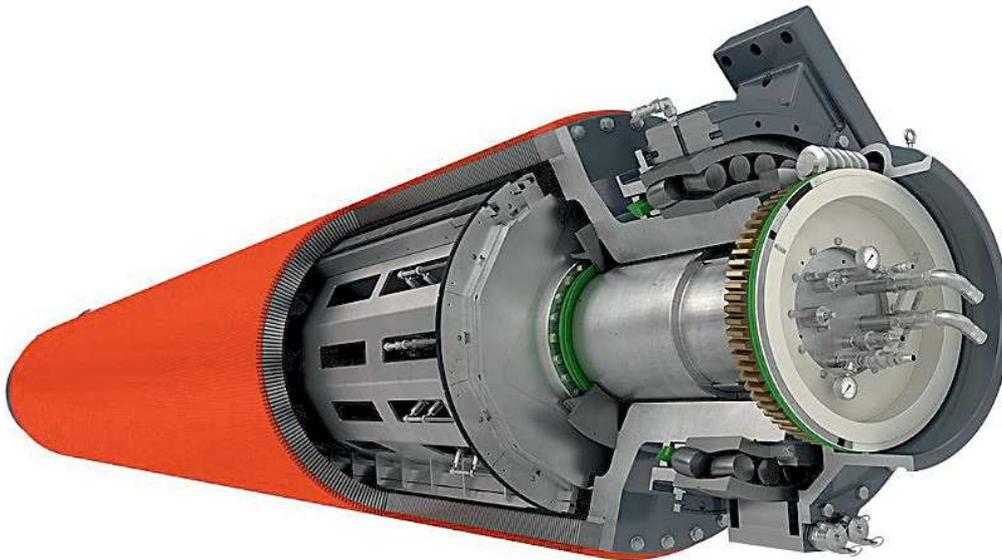
yd³) of fresh water per year as well as improved moisture profiles due to reduced risk of rewetting or wet streaks.

The life expectancy of suction roll shells will be longer because of the reduced thermal load from the axial seals, and the noise level from the suction roll will be significantly lower.



Upgrade Improved performance

Offering upgrades on existing components with modern features based on customer needs to enhance performance and productivity.



Control unit

The control unit ensures the optimum operation of Lock Seal upgrade. The cabinet includes all the control valves and connections required and typically comes equipped with an integrated PLC. If needed, control logic can be built into existing machine controls.

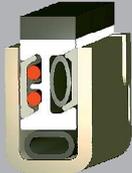
Starting up a roll is fast and easy. Only pressurized air (6 bar / 87 psi) and power (220VAC / 110VAC) is needed.

Proven design – suitable for most suction rolls

Valmet Suction Roll Upgrade Lock Seal technology has been supplied for more than 700 suction rolls worldwide since 1994, and it is a standard feature in our fast and wide paper machines.

Most suction rolls can be upgraded with Valmet Suction Roll Upgrade Lock Seal technology.

Potential value added with Valmet Suction Roll Upgrade Lock Seal

| | | |
|-------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------|
|  | Annual energy saving potential | Up to 4 Gwh |
| | Annual water saving potential | > 100,000 m ³ (130,800 yd ³) |
| | Expected axial seal lifetime | 2–4 years |
| | Expected noise reduction | 30–50% |
| | Expected shell lifetime | 25–50% longer |

Subject to machine layout, speed and width