# Röchling

SMARTROLL

**INTELLIGENT SUCTION ROLL** 

**SEALING SYSTEM** 

SmartRoll from Röchling Industrial Oepping defines a suction roll which continuously delivers information regarding the sealing strip system status. All components of the sealing strip system communicate with each other during the full period of operation, ensuring efficient suction roll operation.

SMARTROLL consists of:

- \_ SMART Seal
- \_ SMART Lubrication
- \_ SMART Tube
- \_ Control Box





Minimum Longer suction roll lifetime up to Because of the continuous monitoring of the operating data and the SmartRoll less lubrication control system, the roll service life can be significantly extended or even doubled. water needed in suction rolls **50.000** Regulated and controlled lubricating water supply, together with direct sealing strip lubrication leads to a cost saving of at least 30% in terms of lubricating water consumption, as well cost/savings due SmartRoll optimizes the sealing strip conas optimized suction roll performance. tact pressure without affecting the to reduced Cost savings of 30.000 € vacuum level in the suction zone. drive power This reduces the roll driving power requirement.



#### High operational safety

The continuous measurement and monitoring of key components in suction rolls significantly enhances the operational reliability of the complete paper machine.



#### Efficient machine runability

Suction rolls in paper machines have a considerable impact on paper production. With regulated, controlled suction rolls, the paper machine efficiency increases significantly.



#### Forward-looking planning possible

The ability to accept short-notice production orders depends on existing planned machine shutdowns. The continuous monitoring and communication of the suction roll components makes the decision to delay existing planned machine shutdowns much easier. This results in improved production flexibility.









SAVE 88t CO2 PER YEAR

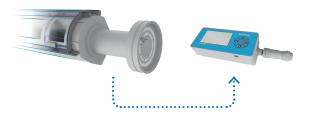
Due to reduced energy consumption.

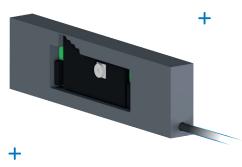
## SMARTROLL COMPONENTS

### **SMART SEAL**

SMART Seal is a sealing strip with integrated programmed sensor technology, which sends information to selected visualization devices or to the operational control system at predefined time intervals.



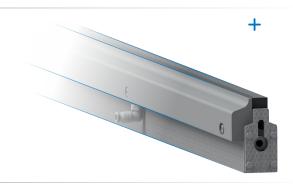






## **SMART LUBRICATION**

Is a sealing strip holder with customspecified lubricating water units.



## **SMART TUBE**

Is a sealing strip loading tube which controls the tube contact pressure as a function of the target vacuum in the suction zone.



## **CONTROL BOX**

#### with integrated PLC

The operating data of the individual smart components are captured using an integrated PLC, recorded via an external visualization device or forwarded directly to the operational control system.

An intelligent control logic regulates the exact lubricating water quantity as a function of the sealing temperature as well as the exact sealing strip contact pressure depending on the vacuum level in the suction zone.



# SMARTROLL

# **SCHEMATIC VISUALIZATION**

