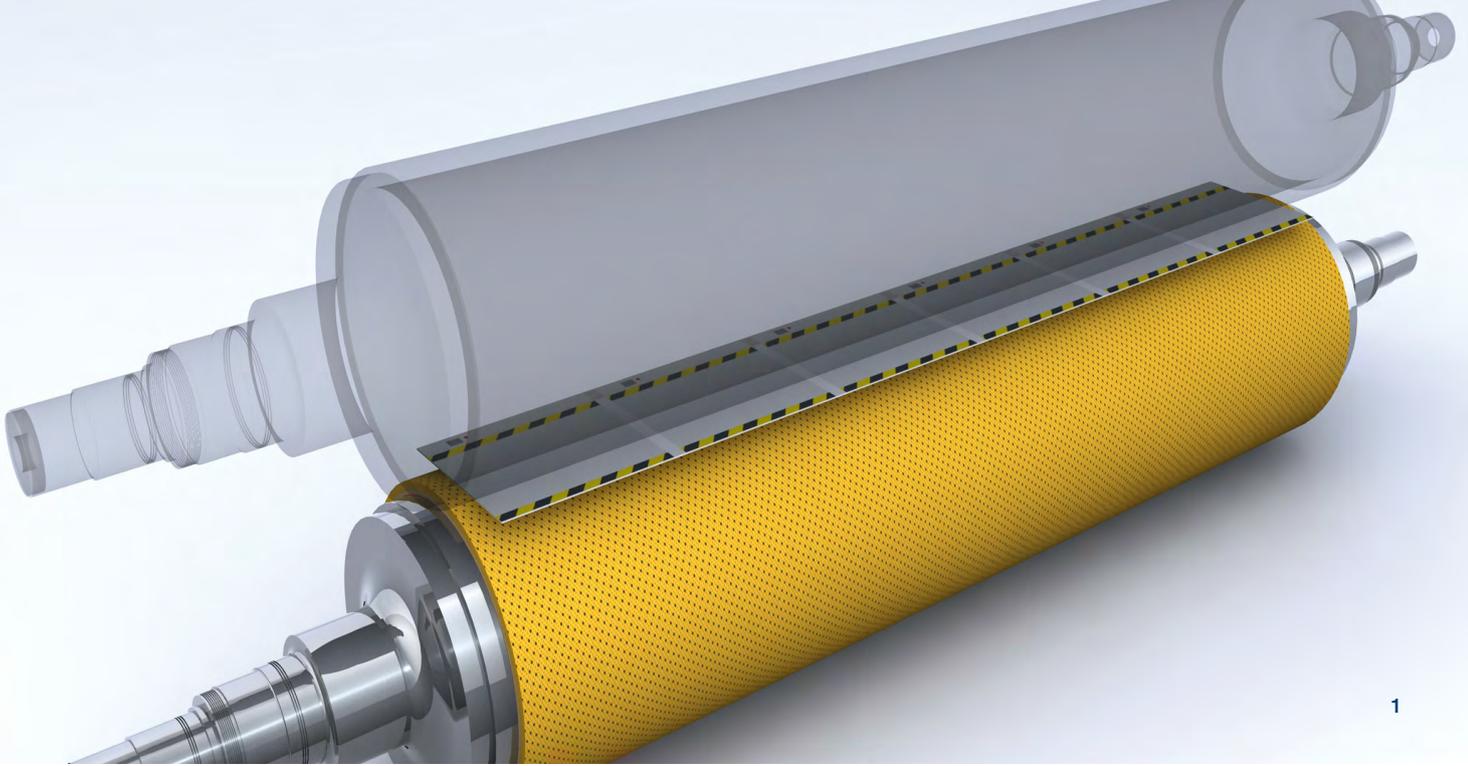


NipSense2

Innovative profile optimization
through real-time measurement





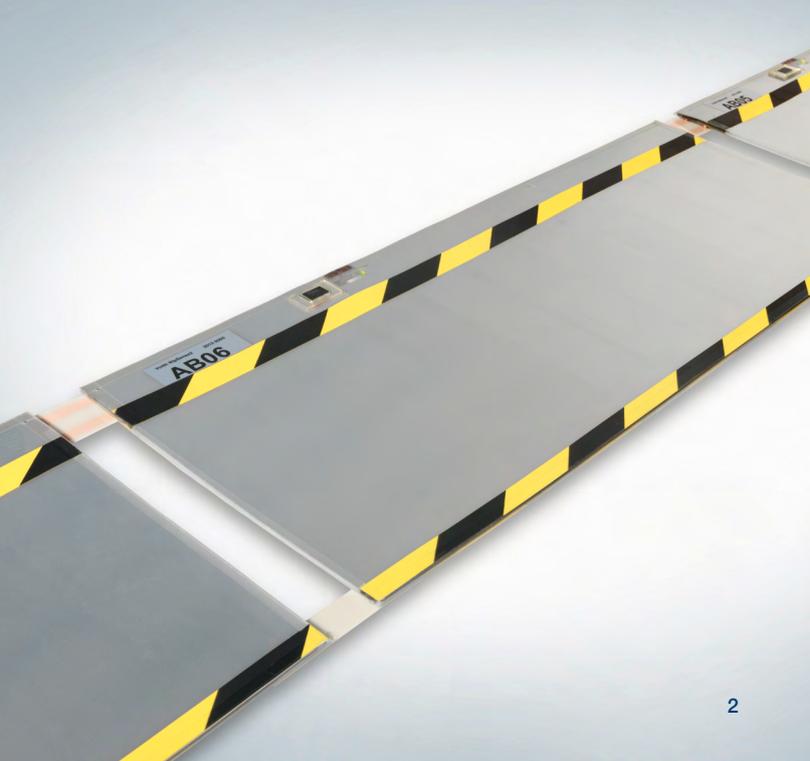
Measurement and visualization in real-time

For a reliable paper manufacturing process and high-quality paper, optimal nip conditions play an essential role. The correct crown, a uniform nip, the correct closing process of the press and perfectly working roll hydraulics are all aspects of peak performance. However, due to multiple factors like wear, deviations can develop that are neither visible nor measurable with standard methods.

With NipSense2, papermakers can conduct a static real-time measurement of the nip. Important factors in the closing process are visualized, and the right steps can be taken immediately.

Profile optimization of the nip over the entire length of the roll

- More uniform moisture profile
- More uniform paper profile
- Longer service life of roll covers and press fabrics
- Diagnosis of malfunctions in hydraulics of roll or cylinder



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3

- 1 Static real-time measurement in the roll nip without press fabrics
- 2 Mats equipped with highly sensitive sensors
- 3 Analytical software for visualization in real time

Unique and innovative system

NipSense2 is a system consisting of mats with highly sensitive sensors that are inserted in the nip. During the closing process, the mats adapt to the shape of the nip. As soon as the process is started, the data of the nip width are transmitted wirelessly to a computer with special analytical software and directly displayed. Possible discrepancies in the crown, the closing process and the hydraulic systems are visualized in real time and correction calculation is carried out. In addition, an expert report with crown recommendations can be issued.

Functionality always planned a step further

The current nip widths are measured in real time and graphically displayed. The measurement data are continuously updated. Changes in the nip width can thus be followed directly on the screen, and the closing process can be analyzed. In addition, the nip width can be compared in the case of a different linear load. Furthermore, the system is able to measure three nips simultaneously. This functionality helps uncover previously unknown effects. Moreover, the entire measurement can be stored on video so it can be replayed when needed.

NipSense2 – clearly visible advantages

- Faster measurement frequency
- Very high level of measurement accuracy with different roll designs
- Quicker installation
- No system calibration necessary
- No limitation on roll length
- No limitation on roll diameter
- Calender nips measurable



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