

Contact Zone Measuring System

NIP CON SMART

compact

Smart measuring system for fast adjustment of the compression between hard and soft rollers. Intuitive operation via smartphone with data export and protocoling function. Intelligent measured value correction for exact absolute values.



Polygraphische innovative
Technik Leipzig



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product video.





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Working Principle

Both sensors are positioned between hard/soft paired rollers near the adjustable roller bearings. The contact zone width measured values are digitally displayed in real-time. A full-colour visualization and the measured value computation to absolute NIP widths simplify the adjustment. The extremely lightweight sensors allow a single person to conduct the measurement. The measurement sequence, the set-point values and the tolerances can be defined with the PC software according to the customer's requirements.



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PITSID develops, produces and sells measuring systems, supported by the Sächsisches Institut für die Druckindustrie. The measuring systems are used for quality control and to increase efficiency during adjustment and maintenance operations.

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Measurement System for NIP Width Adjustments

When two rollers (hard-soft) are pressed against each other, a contact zone is created. This contact zone is derived from the roll width and the "NIP width". The NIP width can be used as a quality benchmark for the exact adjustment of the contact roller. This adjustment procedure can be carried out considerably faster and more efficiently with the NIP CON SMART compact than with conventional methods. In the case of printing presses, this is possible without the use of inks and the associated time and effort required for cleaning.

According to the working principle, the NIP width is measured, the actual NIP width excluding the inserted sensors is calculated and then displayed. This speeds up the exact adjustment of the roller positions. The operator is guided through the customer-specific procedure with a graphical visualization on the touch panel. Set-point values, tolerances and measured values are processed, displayed and saved in both table and graphical form. The data can be output as a PDF or stored digitally.

The Contact Zone Measuring System is also available under the name "NIP CON SMART" together with a tablet. The larger display allows a simultaneous depiction of the table and roller diagram.

Technical Data

Measurement range

0 ... 35 mm

Resolution

0.1 mm

Application range

Roller diameter (hard): Any size

Roller diameter (soft): ≤ 300 mm

Rubber hardness: Approx. 20 ... 60 Shore A

Rubber layer thickness: Approx. 5 ... 20 mm

Dimensions

Hand-held device: 150 mm x 80 mm x 60 mm

Sensor: 140 mm x 22 mm x 3 mm

Operating temperature

15 ... 30 °C

Total weight

Approx. 1175 g

Hand-held device power supply

Lithium ion / polymer 1-cell battery 3.7 V / 1260 mAh

Scope of delivery

Hand-held device with integrated smartphone (6.6") with protective case, two sensors, USB cable, carrying case, operation manual, installation software