

Industrial

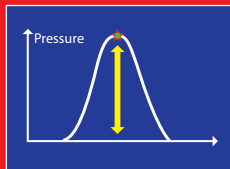
2nd
Generation!

Pressure Indicator™

- High Pressure version
- Low Pressure version

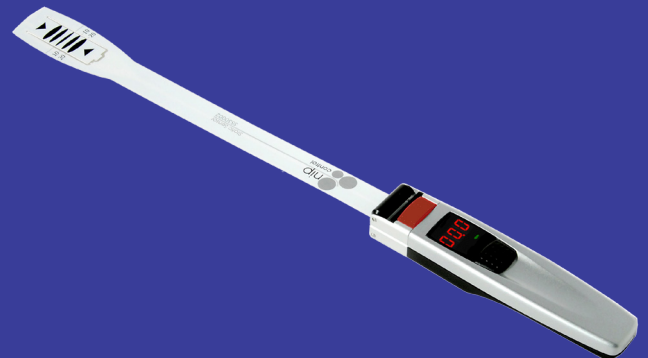


Nip pressure in Newton/cm²

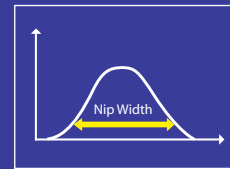


Nip Width Indicator™

Formerly Roller Nip Indicator



Nip width in millimeters or inches



Pressure Indicator™

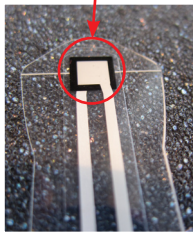


The Pressure Indicator – nip pressure in Newton/cm²

Featuring the latest nanotechnology, the Pressure Indicator makes rapid measurement of nip pressure between rollers possible for the very first time.

As the 5 x 5 mm pressure-sensitive area moves through the nip under pressure, the instrument registers the absolute pressure level thousands of times. And the highest value – peak pressure – remains displayed.

New nano-
technology



Calibration

Calibration is easy, just press the control button once.



Calibration of Pressure Indicator
High Pressure version
at 400 N/cm²



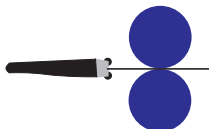
Calibration of Pressure Indicator
Low Pressure version
at 25 N/cm²

Substrate labels

In lamination, for example, you may want to measure with a sensor blade having the same thickness as your substrate. If so, use Nip Control's substrate labels.

Simple handling

1. Let the rollers draw the tip of the sensor blade through the nip
Then stop. Nip pressure is displayed instantly
2. Reverse the rollers or lift them apart
3. Adjust the rollers if necessary and repeat measurement



Nip Width Indicator™



The Nip Width Indicator – nip width in millimeters/inches

Two choices

- 1 Choose between a 300 mm long sensor blade measuring nip widths up to 20 mm and a 500 mm long sensor blade for nips up to 50 mm wide.



- 2 Determine if your company requires traceable measurements

Traceable Calibration™

– the ultimate quality control feature

The standard **Nip Width Indicator** instrument self-checks the sensor blade during start-up. If the sensing element has become worn from usage and no longer meets specified performance parameters, a message will be displayed, warning that the blade cannot be used.

Many companies, however, follow quality standards which include measurement traceability.

Nip Control's new calibration system for the Nip Width Indicator fulfils these demands.

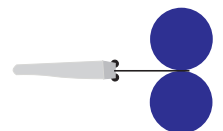


Every calibration unit is checked

against a reference which is controlled by a "National Competent Body" at pre-defined intervals, ensuring that measurements are verifiable and traceable according to quality standards.

Simple handling

1. Position the tip of the sensor blade between the rollers
Roll it in or clamp down. The display shows readings in millimeters or inches
2. Adjust nip width to the desired level while keeping the sensor blade in the nip
3. Reverse the rollers or lift them apart



Important to control nip characteristics of process critical nips

Using Digital Nip Measurement is quick and easy. You can set your roller nips accurately and check their status frequently.

The process is repeatable and operator-independent. The measurement data facilitates statistical trend analysis and continuous process improvement, ultimately leading to improved product quality and process control, lower product cost (less scrap) and more production time. Increased job satisfaction is an additional bonus: no more trial and error!

A roller nip

The nip generates a PRESSURE CURVE while determining nip characteristics. The pressure curve is defined in terms of Nip Pressure and Nip Width.

- **The Pressure Indicator** measures peak pressure in Newton/cm².
- **The Nip Width Indicator** measures nip width in millimeters or inches.

The life of a roller pair

Rubber is a "living" material and ages from constant expansion and contraction during its service life. It can harden, soften, shrink or swell when affected by temperature changes, chemicals, the extraction of plasticizers, number of revolutions, production speed and change in bulk elasticity (E-module).

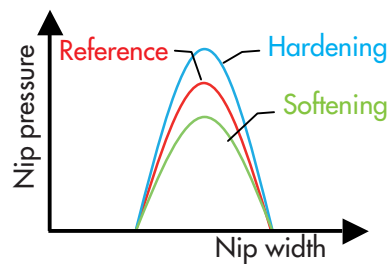
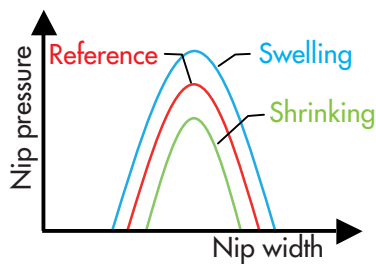
Inevitably, the nip pressure curve changes too. What was originally the correct nip setting becomes progressively inaccurate and may lead to process deterioration and instability.

The consequences of a change in the characteristics of the rubber vary, according to whether the roller pairs are fixed or whether one of the rollers is floating, as well as the nature of the change.

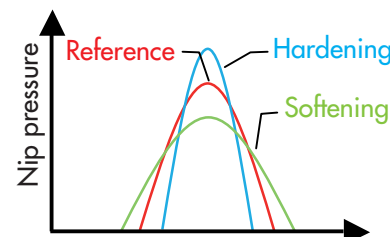
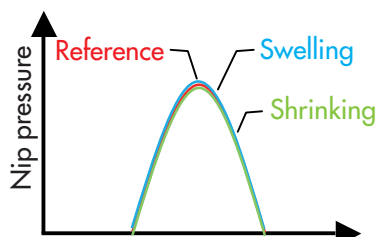
See the generic pressure curve examples below.



Fixed rollers



Floating rollers (force controlled)



Pressure Indicator measuring system consists of a hand device, sensor blade and calibration unit

Pressure Indicator: High Pressure and Low Pressure versions (nip measurement in Newton/cm²)

Part No.	Type of product	Note	Length	Nip width	Sensor blade thickness	Roller surface	Roller surface	Rubber hardness	Measuring range *)	Nip temperature
P102HP	High Pressure instrument	1 N/cm ² display resolution							40–999 N/cm ²	
C101	Calibration unit for P102HP	Calibrates at 400 N/cm ²								
P102LP	Low Pressure instrument	0.5 N/cm ² display resolution							3–50 N/cm ²	
CAL25PS	Calibration unit for P102LP	Calibrates at 25 N/cm ²								
PS35001	Sensor blade	For both High Pressure & Low Pressure versions	350 mm/ 13.8"	≥5 mm/ 0.2"	0.2 mm/ 0.008"	Rubber/rubber Rubber/plastic Rubber/metal	Smooth	<95° ShA°	3–999 N/cm ²	10–70°C/ 50–158°F
LP101	Substrate labels	Thickness 0.1 mm/0.004"					Smooth			10–70°C/ 50–158°F
T150	Telescopic extension arm	180° joint	1–1.5 m/ 3.3–5.0 ft							
HN201	<i>hansson</i> nips	Trend analysis software								

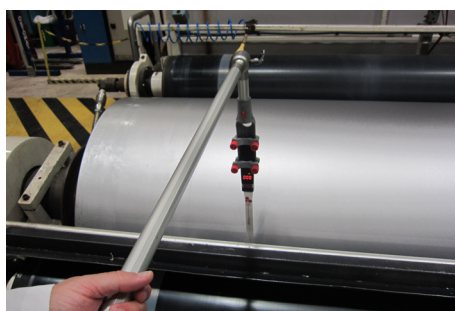
*) Peak pressure onto sensor blade

Nip Width Indicator measuring system consists of a hand device and sensor blade. If traceability required, add calibration option

Nip Width Indicator: Nip measurements in mm or inches – formerly Roller Nip Indicator

Part No.	Type of product	Note	Length	Nip width	Sensor blade thickness	Roller surface	Roller surface	Rubber hardness	Sensor blade working range *)	Nip temperature
W102	Standard instrument	0.5 mm display resolution								
W102CAL	Instrument with calibration software	0.5 mm display resolution								
CAL10SS	Calibration unit	Calibration of SS30002 at 10 mm								
CAL30SS	Calibration unit	Calibration of SS50002 at 30 mm								
SS30002	Sensor blade		300 mm/ 11.8"	2–20 mm/ 0.08–0.8"	0.4 mm/ 0.016"	Rubber/rubber Rubber/plastic	Smooth	20–80° ShA°	1–200 N/cm ²	20–50°C/ 68–122°F
SS50002	Sensor blade	Diameter of harder roller ≥ 100 mm / 3 15/16"	500 mm/ 19.7"	5–50 mm/ 0.2–2"	0.4 mm/ 0.016"	Rubber/metal	Smooth	20–80° ShA°	1–200 N/cm ²	20–50°C/ 68–122°F
T150	Telescopic extension arm	180° joint	1–1.5 m/ 3.3–5.0 ft							
HN201	<i>hansson</i> nips	Trend analysis software								

*) Peak pressure onto sensor blade



Telescopic extension arm

- Reach nips – left, center and right sides of larger rollers and into human safety areas
- Reach from the front or the sides of the rollers
- A 180° joint facilitates full flexibility
- Full reach including sensor blade 2.0 meters (6.5 ft)

Functional

- One-button control
- Bright LED display for easy readings
- Standard AAA batteries and power-save function
- Delivered in a robust instrument case



Designed to protect the operator

- A safety distance between instrument and rollers
- A safety front with mini-rollers which rotate against the machine rollers on contact
- Sensor blade automatically detaches from the instrument if withdrawn from the nip

Applications

- Lamination
 - Coating
 - Sealing
 - General web handling
 - Large format printers
 - Other nips within specification
- Contact Nip Control for application questionnaire

hansson nips

- trend analysis software -

Get a visual picture of trends for ultimate process control

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