Electronic Nip Analysis System Mini Sigma-Nip

Roll alignment for converting and printing is now fast, cost-effective, and precise technological development yields extremely high resolution for measuring smaller nips

Mini Sigma-Nip® is an electronic nip analysis system introduced by Sensor Products Inc., for converting and printing. It measures roller profiles and diagnoses roll alignment with unprecedented speed, cost-effectiveness, and accuracy. The technology for Mini Sigma-Nip derives from Sigma-Nip®, which characterises roller profiles for larger rolls. Mini Sigma-Nip, which measures nip widths of rolls with circumferences smaller than 20" (51cm), can also diagnose and measure larger hard rolls that have narrow contact upon closing.

In Mini Sigma-Nip, the 168 microscopic sensor points that comprise each finger are densely packed within a 3.3 in. (8.4 cm) active sensing area. The sensors capture data and record nip width readings while being viewed on a laptop or computer that has been connected through wireless or USB. Adjustments to load are



made in real time while the sensors are in the closed, (non-rotating) nip. Problems with alignment, skewing, and crown deficiencies are quickly exposed.

Mini Sigma-Nip is designed for maximum versatility. The system is portable and, depending on the number of sensors ordered, the same sensor chain can be used to measure different sized rolls. It is extremely useful for continuous maintenance, as well as during equipment setup and shutdown. Data that has been stored can be easily reviewed. Web control is improved as evenly loaded roller sets are much less likely to cause web breaks and costly down time. Uneven material pulling, sheet walking, wrinkles, jams and print misregistration are greatly reduced.

Among other features, the software includes a Comparison Mode, where up to three nip width readings can be viewed simultaneously, and an Alignment Tool, which instantly draws a line to indicate nip width variations. Minimal computer knowledge or training is needed since the system prompts the user through the few steps needed for installation and set up. The various nip product solutions from Sensor Products Inc., can be viewed online at www.sensorprod.com/ minisigmanip

Established in 1990, Sensor Products Inc., is a world leader in the manufacture and distribution of tactile pressure indicating solutions. Their customised and offthe-shelf products are installed within all of the Fortune 500 industrial companies as well as thousands of smaller manufacturing firms. Their sensors are used in applications as diverse as tyre testing to semiconductor manufacturing and from R&D labs to space missions.

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