

Sigma-Nip's sensors and software provide detailed analysis of nip condition

Sensor Products Inc., Madison, NJ /USA , introduces Sigma-Nip, a technologically advanced electronic nip analysis system which measures roller profiles and diagnoses roll alignment with unprecedented speed and cost-effectiveness.

Sigma-Nip consists of a chain of sensor elements and Windows-based software. The new sensors have been improved to withstand repeated high pressures and temperatures as well as routine exposure to grease and solvents. When placed between two contacting rollers, the sensors capture data and ultimately record and assimilate nip width readings on a laptop while it is being viewed. Adjustments to rollers are made in real time while the sensors are in the closed, (non-rotating) nip. Easy-to-interpret statistical data and graphical displays, which are being transmitted via wireless or through a USB port, update continuously as technicians perform their tests and adjustments.

As a quality control tool, Sigma-Nip facilitates evenly loaded roller sets that are much less likely to cause web breaks and costly down time.

Depending on the number of sensors ordered, the same sensor chain can be used to measure different sized rolls. Nip widths from 0.15 in. (0.38 cm) to 9 in. (22.9 cm) can be measured, and pressures from 40 PSI (2.8 kg/cm²) to 3,000 PSI (211 kg/cm²) can be withstood, making Sigma-Nip potentially usable throughout the machine. Large pulp and paper rolls, small converting rolls as well as calendar stacks are all potentially measurable by Sigma-Nip. ■