

# Product & Equipment News

## Roll nip uniformity for steel mills is fast, cost-effective and accurate

Sensor Products Inc. introduces Sigma-Nip® for steel mills, an electronic nip analysis system that measures roller profiles and diagnoses



roll alignment with speed, cost-effectiveness and accuracy. Capabilities include instantaneously measuring loading

uniformity to reveal misalignment and related problems. Operators can then make adjustments “live” for contacting rollers of virtually all dimensions and surfaces. Strip runoff can be caused by a number of circumstances not necessarily roll-related. End-to-end PSI non-uniform loading, misalignment of the roll set, and premature loss of crown or roll surface deformation can be the problem. Sigma-Nip can identify these problems, diagnose the specific circumstances, and offer corrective actions. Each active sensor within the unit is capable of handling 10,000 PSI in nip intensity. The system has been modified from the pulp and paper and converting industries to provide a solution for diagnosing problems in the steel industry within cold and finishing mills where nipped rolls are engaged and applied. Sigma-Nip, which is easy to use, portable and cost-efficient, makes carbon paper methods of analysis outmoded. With Sigma-Nip, sensors capture data and record nip width readings while being viewed on a laptop containing its Windows-based software. This allows technicians to see “live” precisely what the strip sees in operation. Adjustments needed for uniformity are made by the operator while the nip is closed (static mode). Operators can then adjust the

loading to secure within 0.001-inch end-to-end loading uniformity. The ultimate benefit of this analysis is to determine if there are problems in alignment, potential strip runoff, roll surface deformation, need for crown corrections and/or adjustments for loading mech-

anism integrity. Sigma-Nip allows for improved strip control, resulting in less downtime.

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