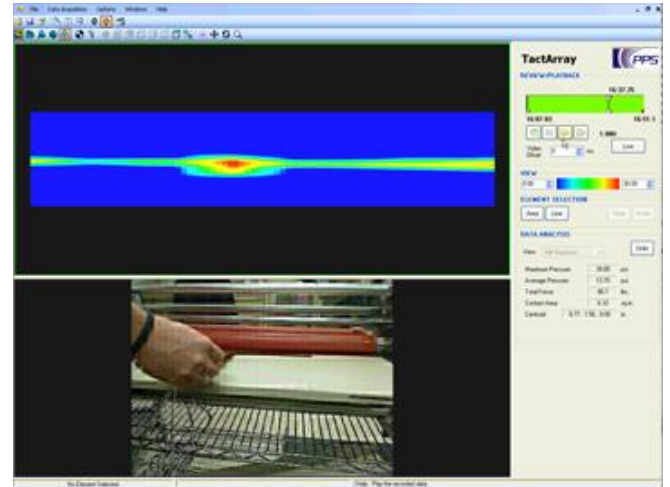




Nip Roller Pressure Measurement System



Sample Data Display

PRODUCT OVERVIEW

PPS's **Nip Pressure Measurement System** accurately and quickly measures roller pressure profiles in industrial machinery to correct misalignment issues and uneven pressure distribution.

The **Nip Roller Pressure Measurement System** was designed for manufacturers that use nip rollers, nip roller machine companies, and roller covering companies. These users want to reliably image and quantify the nip interface between two rollers to check alignment, identify defects, and/or detect wear at room or operating temperatures.

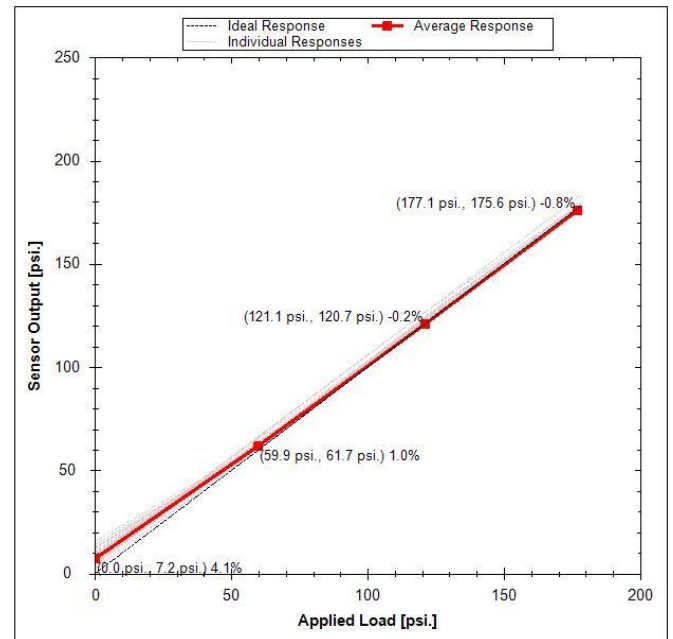
The **Nip Roller Pressure Measurement System** reduces machine set up and maintenance time and product scrap by having more accurate information on roll alignment. Unlike other systems on the market, PPS's ability to operate in high temperature and pressures coupled with thermal compensation allows testing at any temperature in non-static conditions. And it provides a reusable system with real-time feedback.

KEY SYSTEM FEATURES AND BENEFITS

- **Displays roll nip pressure data in real-time**, allowing users to make immediate adjustments to correct alignment or other defects.
- **Capture and save data for further analysis**, providing objective documentation for comparison between different machines.
- **Stable and sensitive output** results in better quality data to reduce product scrap and wear.
- **High performance capacitive sensing technology** saves time and improves results by significantly reducing recalibration and repeated tests allowing developers to resolve problems and answer questions faster.
- **Optional Thermal compensation for accurate data collection without waiting for cool down** time allows users to test rollers without waiting for temperature to stabilize, saving time and increasing productivity.
- **Chameleon Visualization Software provides** intuitive, easy to use, high-quality visualization and easy access to data for analysis and export to other applications.

SENSOR MODELS				
Model Number	5414	5415	5628	6390
Total Sensor Area	25mm x 324mm	102mm x 305mm	20mm x 84mm	84mm x 17mm
Active Sensing Area	10mm x 304mm	89mm x 292mm	12mm x 80mm	8mm x 80mm
Element Count	160 (10x16)	256 (16x16)	192 (6x32)	128 (8x16)
Spatial Resolution	1mm x 19mm	5.6mm x 18.3mm	2mm x 2.5mm	1.0mm x 5.0mm

SENSOR CHARACTERISTICS AND PERFORMANCE ¹	
Pressure Range	20, 200 or 700 PSI
Pressure Sensitivity	0.2%
Signal to Noise Ratio (SNR)	667:1
Repeatability Error	0.4%
Linearity	99.8%
Accuracy Error ²	<=5%
Contact Surface Material	Polyimide
Sensor Thickness	0.012 in (0.3 mm)
Cable Length	59 in (1.5m)
Operating Temperature	-40°C to 200°C



ELECTRONICS SPECIFICATIONS	
Sample Rate	32-50Hz
Computer Interface	USB 2.0
ADC Resolution	12 bit
Input Voltage	5V
Input Power	2W
Enclosure Size	6.5x6.2x1 in. (16.5x15.8x2.5 cm)
Weight	1.43 lbs. (650 g)

SYSTEM COMPONENTS

- One Nip Roller Pressure Sensor of chosen design with 1.5m cable
- T4500 interface electronics with USB 2.0
- Chameleon Visualization and Data Acquisition Software
- Remote Installation and Training

¹ Performance numbers are for typical system response. Actual performance may vary.

² Measured using PPS standard calibration and test equipment – includes repeatability errors, noise and linearity