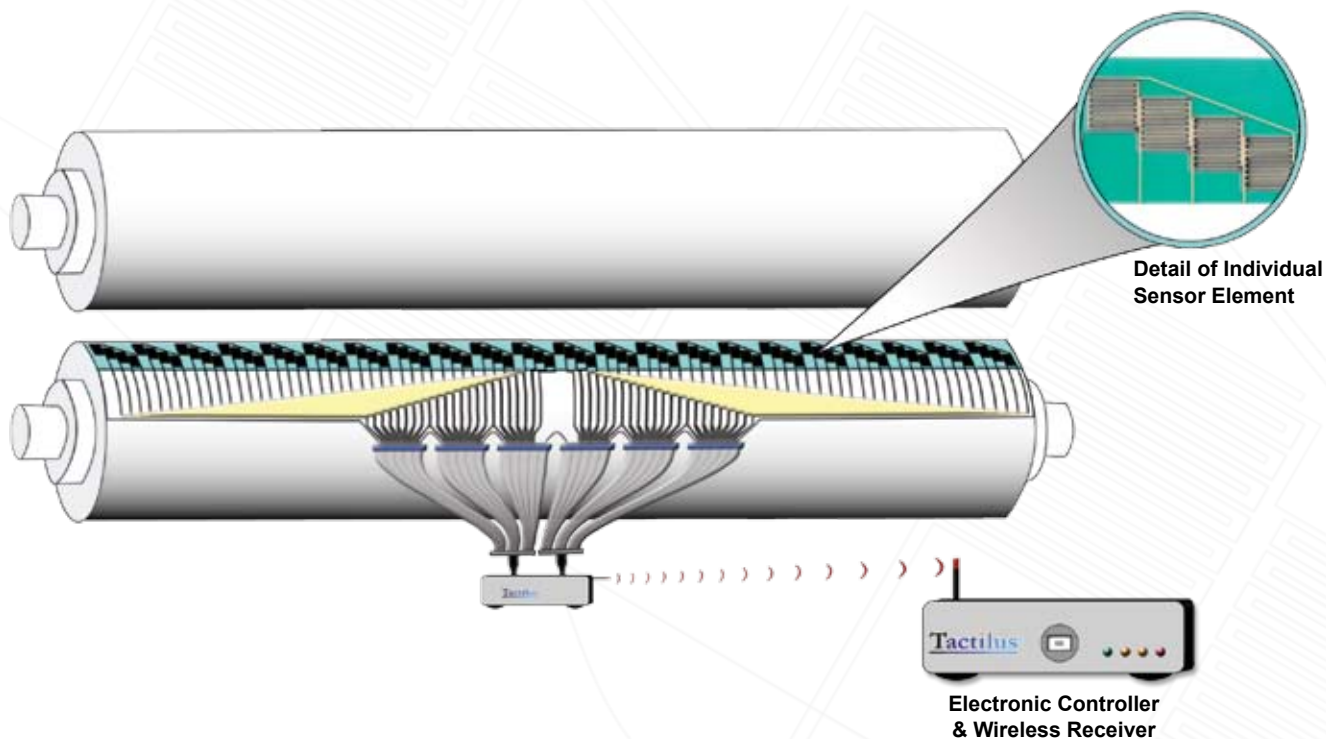


ROLL CONDITION MONITORING LIKE NEVER BEFORE

Tactilus Cascade® - an electronic nip analysis system, calculates and records nip width at multiple points across your rollers face length in real-time with unprecedented speed, accuracy and repeatability. This New system is not only more accurate, but can record higher pressures than ever previously attainable.

Tactilus Cascade® presents a revolution in quality control. Tactilus Cascade® consists of a series of thin-film resistive ink pressure transducers on a carrier sheet. As this carrier sheet is loaded in between your rollers, Windows based software assimilates the readings into easily interpretable graphical images – all in real-time.

Tactilus Cascade® Sensor Positioned Within Two Rolls



WHAT PEOPLE ARE SAYING ABOUT TACTILUS CASCADE®...

"Tactilus Cascade® has come a long way from concept to a reliable, easy to use nip profile measuring tool. It has successfully bridged the gap between conventional carbon paper impressions and the first generation of electronic nip devices. Being able to save and review the entire real-time data from nip closing to nip opening is extremely useful, however, the ability to correlate accurate nip width data to roll deflection is an exceptional benefit."

Metso Paper USA, Mike Stoltz

"Tactilus Cascade® is an extremely helpful tool for troubleshooting in printing presses and has saved my colleagues and I significant amounts of time. It allows us to assess what is happening where the actual printing takes place and quickly get to the source of the problem. This is a new tool for us and the industry, but I foresee more and more printers starting to use this system as people begin to see its advantages."

ABITIBI CONSOLIDATED Don Jordan

A REVOLUTION IN QUALITY CONTROL

WHAT IS TACTILUS CASCADE®

The Tactilus Cascade® nip sensor system is the first of its kind. Tiny sensing points dispersed across the sensor surface collect data in the machine direction and cross direction of your roller set. The Cascade® sensor transmits the collected data via RF to your laptop and allows for continuous monitoring and evaluation of any two mating rolls. The defining element of the Tactilus Cascade® that makes it so unique is its ability to clearly indicate actual pressure values across the roller interface – conventional systems capture data via a grid of sensor points that necessitate the user determining whether problems are caused by sensor alignment or roller misalignment.

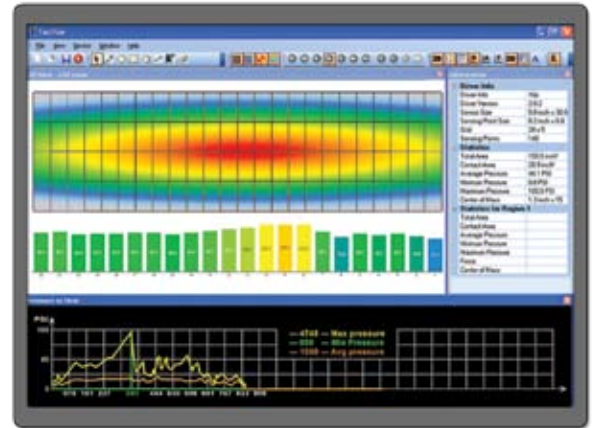
DESIGNED FOR PRODUCTIVITY

The Tactilus Cascade® comes complete with everything you need to quickly and accurately take nip impressions. Cascade's software is so intuitive and user friendly that within minutes even an inexperienced user will benefit from its powerful reports.

The Tactilus Cascade® is designed with the intention of being used during routine maintenance or setup and is quickly applied across the roller surface by just one person. The system is modular and portable and quickly connects to the USB port on any standard Windows laptop.

CASCADE® TECHNOLOGY

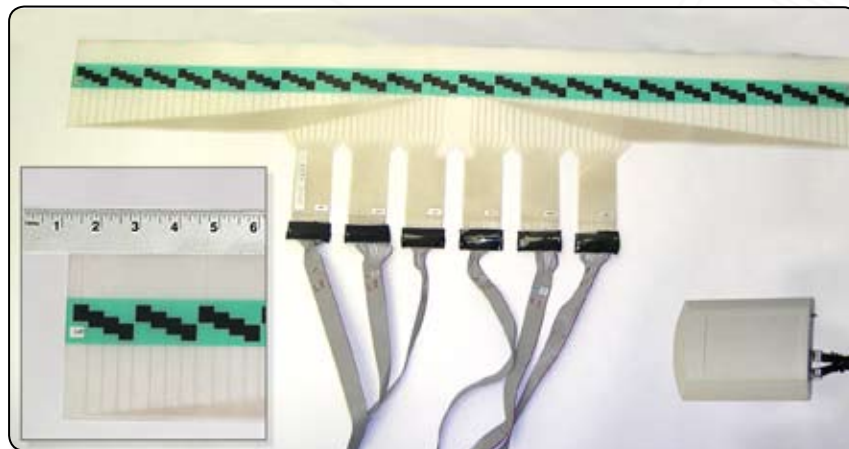
Through the application of sophisticated mathematical algorithms, Tactilus® is able to discern the pressure distribution between nip rolls with a high degree of accuracy never before attainable. Each sensor is individually calibrated, serialized and carefully assembled to exacting tolerances.



Cascade software assimilates your nip data into easy to interpret graphics

SENSOR SPECIFICATIONS	
Technology	Resistive
Pressure Range	0 - 150 PSI (0 - 10.5 kg/cm ²)
Grid Size	Up to 22 x 4
Sensing Points	88
Maximum Length	35.5" in (90.17cm)
Minimum Length	4.75 in (12.07 cm)
Scan Speed	25 hz
Spatial Resolution	Custom from 0.5 in (1.3 cm)
Thickness	12 mils (0.3 mm)
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%
Expected Sensor Life	350 uses

System includes: sensor element, wireless electronic controllers, software and cables



Sensor Element and Electronics