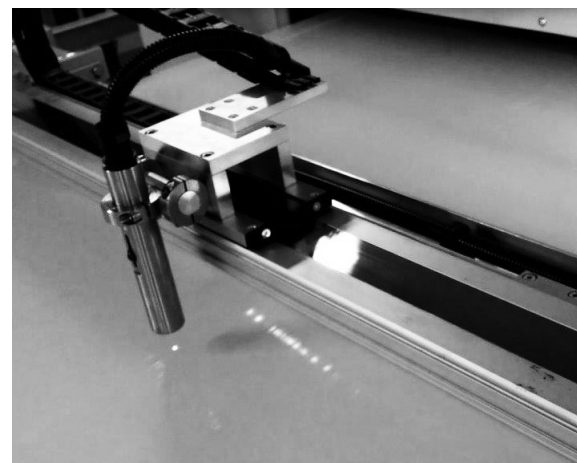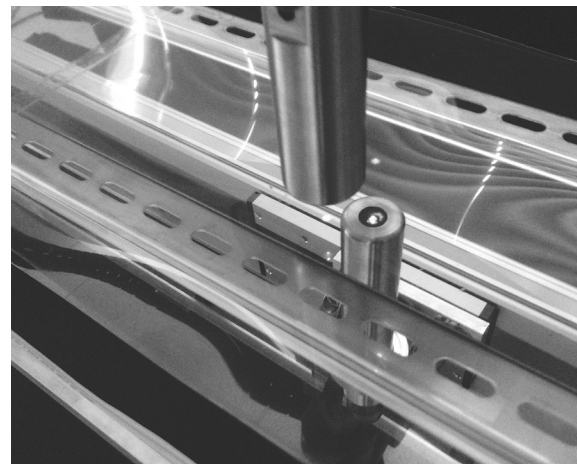# More Accurate In-line Coating Thickness and Film Layer Measurement

Introducing SpecMetrix® In-line Coating Measurement Systems. The award-winning measurement tools that set a higher standard for non-contact and real-time coating thickness and film layer measurement. Specially designed to streamline set-up, changeover and inspection times and reduce coating costs. SpecMetrix systems are flexible for use on wet or dry coatings and help to improve coating process control on multiple substrates in diverse manufacturing processes.

The SpecMetrix Advantage for Wet or Dry Coatings and Layers

✢ **Non-Contact** – All thickness measurements are taken without sacrificing part integrity, with no contact or harm to coatings or substrates.

✢ **Versatile** – SpecMetrix systems provide real-time measurements of single or dual layers, silicone, UV hardcoats, adhesives and other performance and barrier coatings.

✢ **Substrate Independent** – Measures coatings on foils, primed paper, print, plastic and films - over clear, colored or printed substrates.

✢ **Absolute Measurement Capability** – Measures exact coating thickness and applied film weight on production rolls, piece goods and laminations.

✢ **Non-hazardous and Safe** – Incorporates non-radioactive ROI optical technology that is easy to use, monitor and maintain. Non-contact measurements preclude any operator need to contact coated materials.

✢ **Scalable Inspection Tool** – The modular system design is flexible for use with multiple automation, scanning and process control tools, enabling improved process quality with reduced spoilage.

✢ **Powered by SensorMetric™ Software** – A powerful and user-friendly software package stores all data to a standard Excel® or compatible database template for SPC analysis during or following production runs.

✢ **Data Interface** – Layer thickness or film weight data can be easily and efficiently exported to all host data acquisition and corporate SPC systems.

Real-Time Coating Process Control and Film Layer Thickness Data

SpecMetrix® In-line systems include Integrated Sensory Packages that provide real-time coat weight or layer thickness measurements with nanometric precision, and provides database storage of all parameters for real-time and off line analysis and SPC use. Each SpecMetrix In-line system features:

✛ Standard or Enhanced optical packages for more accurate measurement of clear or opaque coatings, wet or dry

✛ Interactive and user-friendly SensorMetric operational software

✛ Touch screen convenience with real-time display of coating thickness or film weight results

✛ Rugged mounts and probe packages to support scanning or fixed probe configurations

✛ Running averages or thickness maps are available for improved visual analysis of film or coating thickness and tighter process control

✛ Various HMI screen and connectivity options are available to meet continuous real-time data and reporting needs.

Technical Specifications

Operating Specifications

Measurement Range:	0.2 to 250 microns (coating or film thickness)
Accuracy:	3% of coating thickness (nominal)
Web Speed:	Up to 2000 feet/minute Up to 600 meters/minute
Measurement Speed:	Up to 150 per second
Scanning Speed:	Up to 5" (125mm)/second
Temperature Range:	0° to 65° C
Humidity Range:	5 to 90% (non-condensing)
Cross-Web Resolution:	1/2" minimum lane width (configurable)
Output Metrics:	microns mils mg /sq. in. g/m^2 lbs./ream

Hardware Specifications

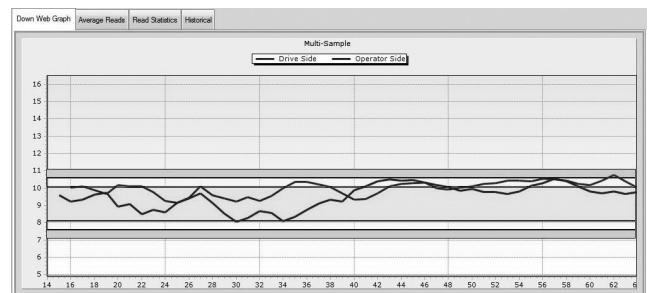|	
Operating System:	Windows® Operating System
System Components:	Processing unit Touch screen controls Operator input keyboard In-line control unit Light tower Machine control interface relays Traversing single optical probe or alternate optical probe assembly System hardware mounts - pedestal or wallmount Air conditioned display unit Installation hardware NIST traceable thickness standards Voltage isolation transformer
System Weight:	300 lbs. max
Power:	100-240VAC 50/60Hz Dedicated computer grade supply required to meet country requirements
Interfaces:	Touch panel operation 10/100/1000 Ethernet USB RS232 Control relays
Manufactured:	Made in USA $C \epsilon$ approved

Optional System Configurations
✛ Off-line Lab or Enhanced Lab Systems for sample testing
✛ Fixed probe or traversing system
✛ Optional closed loop control interface
✛ Replacement system for radioactive coat weight gauges

Integration Options
✛ OPC, TCP/IP or PLC on Ethernet (Siemens S7, Rockwell ControlLogix) integration can be used for gathering measurements in real-time or providing full control and automation of the SpecMetrix systems

Optional Accessories and Hardware
✛ Standard or Enhanced optical packages
✛ Alternate probes with varying lengths, designs and filters
✛ NIST traceable thickness validation tools
✛ Air conditioned electronics cabinet
✛ Explosion proof accessories, as required

Notes
This device and the methods to use same are covered by U.S. Patent Numbers 6,674,533; 7,128,985; 7,274,463; 7,365,865 and 7,537,681 with additional U.S. and foreign patents pending. All trademarks are acknowledged as the properties of their owners. Sensory Analytics®, SensorMetric™ and SpecMetrix® are all trademarks of SensoryAnalytics. All rights reserved. Windows® 7 and Excel® are trademarks of the Microsoft Corporation.

Technology by **SENSORY ANALYTICS**