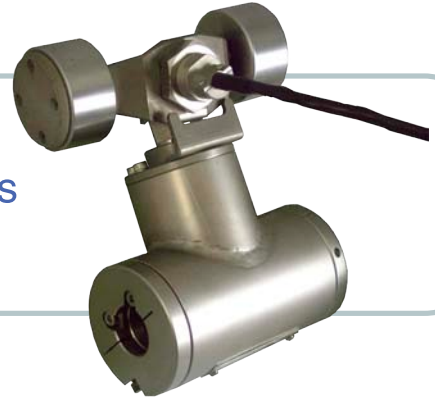


ON-CAL 3 is a precision gauge for the measurement of calendered materials, such as rubber, vinyl and other non-metallic polymers.



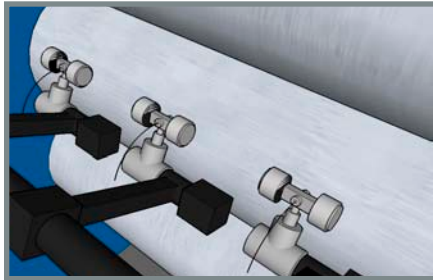
It is a contact measurement gauge that incorporates automatic zero-calibration to maintain high accuracy.

On Calender Mounting

On-Calender MOUNTING means on Spec production.

The small size and low profile of the ON-CAL 3 gauge head permits mounting on the calender near the roll nip for an extremely short transport delay.

This means rapid updates of automatic corrections or even manual corrections. Product can be brought into specification quickly and held on specification to minimize start-up scrap and to assure continued production quality.



Integration into Calender Control

The ON-CAL 3 gauge can be used as a stand alone gauge for monitoring only applications, or as part of the **FACTS** 1600 Series Total Calender Gauge Control System.

Typical installations incorporate an ON-CAL 3 gauge near each edge of each product sheet. An additional gauge is often placed in the center of each product sheet and used as the basis for automatic or manual adjustment of roll straightening and/or cross axis for control of product center gauge.

Features

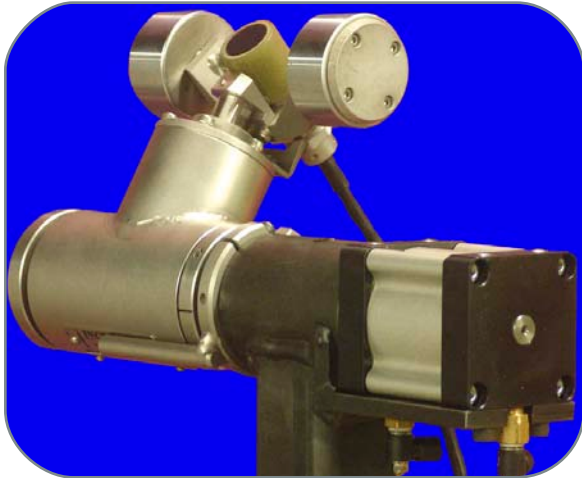
- ▣ High Accuracy
- ▣ Non Nuclear
- ▣ Small Size/Low Profile
- ▣ Simple Intuitive Operation
- ▣ Multiple Mounting Options
- ▣ Low Cost of Ownership
- ▣ Low Maintenance Costs
- ▣ Full Auto Zero on Calender
- ▣ Stand Alone or Fully Integrated Gauge Control System
- ▣ Multiple Measurement Ranges Available
- ▣ Sealed For Long Term Reliability

Maintenance

The gauge is simple to maintain, requiring no special skills or tools. Since ON-CAL 3 is a non-nuclear gauge, no special licenses are required to maintain the unit.

MULTI-LAYER FILM & COATING THICKNESS MEASUREMENT SYSTEMS

Principles of Operation



ON-CAL 3 utilizes a precision eddy current sensor to measure distance to the calender roll surface. The gauge zero point reference (automatically determined) is when the precision sealed rollers are riding on the bare calender roll surface. When the calendered material passes under the precision rollers it displaces the entire assembly, including the eddy current transducer, by the thickness of the calendered material.

The eddy current sensor measures the new distance to the calender roll, which is typically steel, through the non-conductive calendered material. The gauge provides a very linear analog signal representing the thickness of the measured material. The eddy current sensor does not detect the non-conductive materials, hence it can measure through plastic and rubber calendered webs.

The dual roller mechanical design is fully articulated and faithfully tracks over roll imperfections and is self-cleaning in normal operation.

Specifications

Measurement Range: 0-2mm, 0-5mm, 0-10mm, 0-20mm, 0-50mm

Linearity: Within $\pm 0.05\%$ of full scale at 77° F

Resolution: $\pm 0.01\%$ of full scale

Frequency of Response: DC to 20 Hz

S/N Ratio: Better than 60db

Sensor Temperature drift $\pm 0.01\%$ of full scale

AutoZero: On the calender at operating temperature

Operating Temperature:

Sensor: -22° F to 266° F

Connecting Cable: -13° F to 185° F

Converter Electronics: 32° F to 122° F

Engagement

The gauge is raised automatically via the electromechanical mounting mechanism when the calender stops and is lowered after a transport lag at calender start after the calendered web is past the gauge.

FACTS Inc. is the leader in process control technology for the polymer market. In fact, we wrote the book on extrusion control—literally. For the Society of Plastics Engineers, **FACTS** penned the chapter on Extrusion Control in the “Guide on Extrusion Technology & Troubleshooting.”

FACTS Inc. routinely provides new and existing process lines with complete electronic control systems and integrated HMI. This control includes but is not limited to: sequence control, drive systems, both temperature and thickness profile measurement and control, and pressure, temperature and speed control.

FACTS Inc. provides the tools to control your bottom line. Contact us today.

