The FACTS AE Gauge is a precision, non-contact, gauge for the measurement of calendered materials, such as rubber, vinyl, and other non-metallic polymers.

The AE gauge is a non-contact measurement system that incorporates full automatic calibration to maintain high accuracy.

**On Calender Mounting**

"On Calender" MOUNTING means on Spec production.
The small size and low profile of the AE 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 AE 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 AE 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-Contact
- Non-Nuclear
- Small Size/Narrow Profile
- Multiple Mounting Options
- Low Cost of Ownership
- Low Maintenance Costs
- Full Auto Calibration on Calender
- Stand Alone or Fully Integrated Gauge Control System
- Multiple Measurement Ranges Available
- Spring loaded sensor kicks out in the event of contact with obstruction

**Maintenance**

The gauge is simple to maintain, requiring no special skills or tools. Since the AE gauge is a non-nuclear gauge, no special licenses are required to maintain the unit.
Principles of Operation

The FACTS AE gauge is the latest edition to our range of calender gauge measurement solutions. The AE gauge is a non-contact system that incorporates a servo positioned sensor assembly that has both an Eddy current sensor to determine the roll surface position and a precision Air Sensor that determines the position of the top surface of the material being measured. The difference of the two measurements is the true thickness of the web being measured.

The Eddy current sensor tracks the surface of the calender or reference roll and eliminates measurement error due to the roll runout or positional changes due to calender frame stretch.

Full automatic calibration of both sensor systems is provided. Air consumption is minimal and is on par with most air purge systems, costing about $100/year.

Specifications

**Measurement Range:** 0-2mm, 0-5mm

**Linearity:** Within ± 0.05% of full scale at 77° F

**Resolution:** ± 0.01% of full scale

**Frequency of Response:** DC to 20 Hz

**S/N Ratio:** Better than 60db

Sensor Temperature drift ± 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 Eletronics: 32° F to 122° F

Engagement

The gauge is raised automatically via the servo system when the calender stops and is lowered at calender start after the appropriate transport lag.

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**FACTS, Inc.** is the leader in calender gauge control, as well as overall process line control solutions. **FACTS** has provided systems worldwide to world class manufacturers in the tire and rubber, conveyor belting, power transmission, and hose industries.

**FACTS, Inc.** routinely provides new and existing process lines with complete electronic control systems and integrated HMI. Controls provided include, but are not limited to: temperature, speed and pressure control; sequence control; drive and heater systems; profile measurement and control.

**FACTS, Inc.** offers you experience at your fingertips with 24/7 support via Internet or modem.

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