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## MATE GAUGE 3

### THE NEW STREAMLINED AUTOMATIC THICKNESS GAUGE FOR LEAD-ACID BATTERY

#### USE ON ANY PASTING LINE

- Can be installed **before** or **after flash drying**
- **In-line** or **near-process** set up options
- Measures **continuous strip**, **panel**, or **individual plates**



Individual Plates



Continuous Panel



Continuous Strip



#### REDUCES SCRAP BY 3-5%

- **Control the thickness of every plate** with unmatched precision
- **Eliminate operator error** using automatic control
- **Drive continuous improvements** using process data

#### CUTS YOUR THICKNESS VARIATION IN HALF

- **Slash thickness variations** across plate profiles using traversal scanning technology
- **Prevent uneven plates** and leaning stacks
- **Achieve superior quality**, every time

#### ACHIEVE TRULY AUTOMATIC CONTROL

- **Self-calibrating** operation for consistently accurate readings
- **Built-in cooling** and temperature stabilization to ensure low maintenance requirements
- **It even cleans itself** and performs diagnostic checks for errors or abnormalities

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## MATE GAUGE 3

### FEATURES

- ✓ NON-CONTACT MEASUREMENT
- ✓ FULL STRIP PROFILE DISPLAYED
- ✓ ACTIVE THERMAL CONTROL
- ✓ TOUCHSCREEN DISPLAY
- ✓ EASILY INSTALLED AND MAINTAINED
- ✓ NETWORKABLE
- ✓ REMOTE SUPPORT
- ✓ DATA LOGGING

### TECHNICAL SPECIFICATIONS

#### PASTING LINE SPECIFICATIONS

Line Speed	100+ m / min	[300+ ft / min]
Plate Thickness (typical)	0.1 mm to 10 mm	[ 0.003 to 0.40 in]
Plate Type	Continuous Strip; Single or Dbl Panels	
Pasting Machine	Cloth Belt, Steel Belt, Drum, FOP	
Surface	With or without pasting paper, flat or textured.	
Line Location	Before or After Flash Dry	
Spray-Down	Near Spray Down is acceptable. Not intended for frequent high-pressure washing.	

#### THICKNESS MEASUREMENTS

Resolution	0.1 $\mu$ m	[0.00004 in]
Accuracy (typical)	4 $\mu$ m	[0.00016 in]
Stroke	38 cm	[15 in]
Scanning Speed	15 cm/sec	[6 in/sec]
Thickness Range	0 to 20 mm	[0 to 0.8 in]
Measurement Freq.	1 to 3 kHz	

#### WEIGHT

Sensor Assembly	50 kg	[110 lbs]
Operator Panel	10kg	[22 lbs]

#### SUPPLY REQUIREMENTS

Supply Requirements	6 A @ 110V/60 Hz	3 A @ 240 V/50 Hz
Air	12 CFM @ 90 PSI	

#### PHYSICAL DIMENSIONS

Sensor Assembly	978 x 329 x 473 mm	[38.5 x 13 x 18.6 in]
Operator HMI Panel	285 x 190 x 60 mm	[11.2 x 7.5 x 2.5 in]

#### ENVIRONMENTAL

Operating Temperature	10 °C to 60 °C	[50 °F to 140 °F]
Humidity	< 90%	

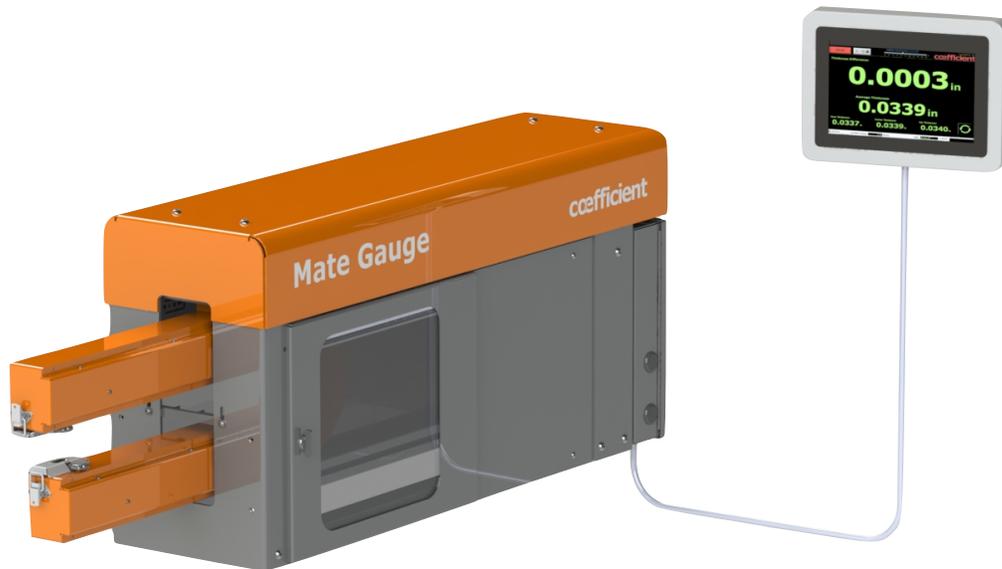
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## MATE GAUGE 3

### NEW STREAMLINED DESIGN. SAME CAPABILITIES.

We've re-engineered the Mate Gauge to bring you the **same functionality at a reduced price**. Here are the major changes from Mate Gauge 2 to Mate Gauge 3:

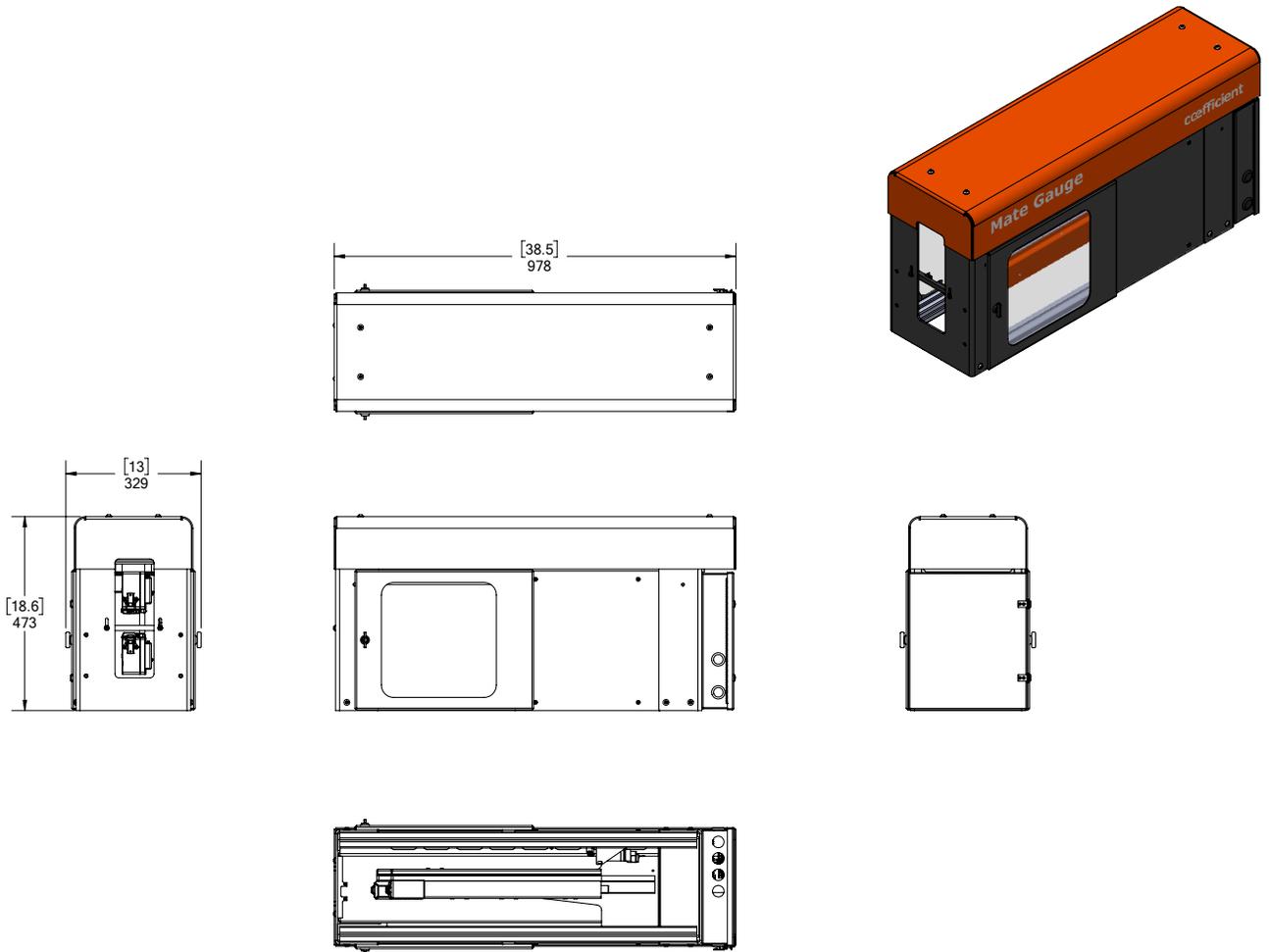
- The frame is constructed with aluminum instead of stainless steel. This reduces the corrosion resistance of the gauge but also the cost of production.
- Easier to Integrate: Smaller size to facilitate retro-fit installations on pasting lines.
- Integrated Electrical Box: Less external cabling, less field wiring.
- Improved Air Purge: Less manually cleaning.
- Included Housing: Housing completely covers the gauge when not in operation.



[ORDER YOURS TODAY.](#)

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## MATE GAUGE 3

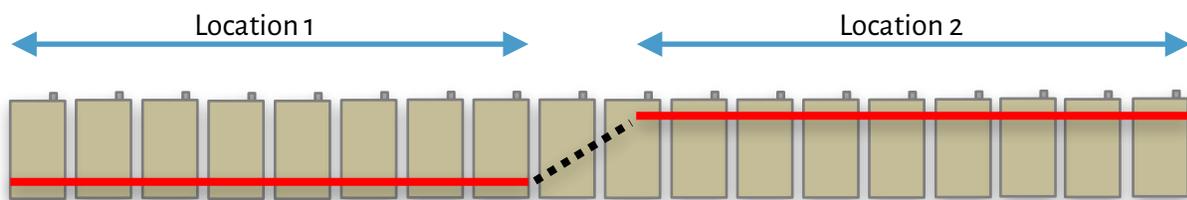


Co-efficient Precision Engineering Inc.  
105 Schneider Road  
Ottawa, Ontario, Canada

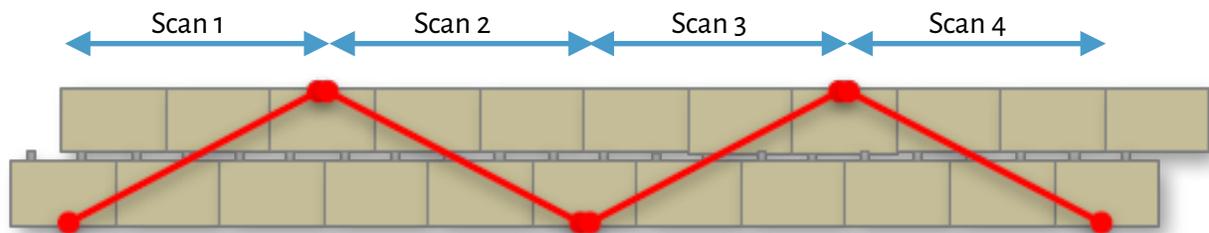
Phone: +1 (613) 287-0171  
[sales@co-efficient.com](mailto:sales@co-efficient.com)  
[www.co-efficient.com](http://www.co-efficient.com)

# Flexible Scanning Modes to Capture What's Needed

The **“Gauge and Go”** operating mode sets a number of transverse locations for the sensors to travel to for a defined period of time. While at each location, the sensors will continuously measure thickness. The software then reports thickness at each location and computes the side to side difference:



The **“Scan Capture”** mode performs simultaneous strip traversal and continuous thickness measurements:



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105 Schneider Road  
Ottawa, Ontario, Canada

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[www.co-efficient.com](http://www.co-efficient.com)



Integration with Conveyor.



Stand for strip (immediately after paster).



Cleaning Access.



Stacker Integration.

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[sales@co-efficient.com](mailto:sales@co-efficient.com)  
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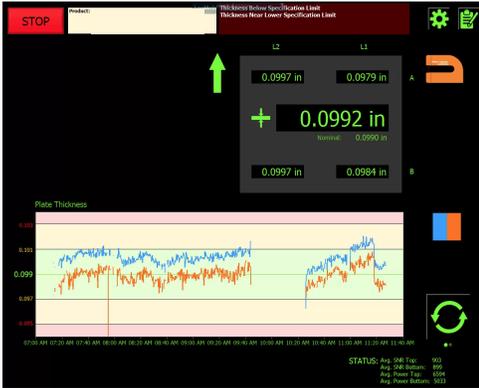
# Controls and Displays Purpose-Built for the Battery Industry

On-screen data visualizations ensure that the right data reaches line operators. The gauge display automatically connects to your existing systems to set thickness targets and key thresholds. Alarms appear on-screen with varying levels of severity (yellow tag, red tag, and flashing).

The visualizations show real-time thicknesses and run charts of multiple locations across the plates. Additional screens display cross-sectional and continuous profile thicknesses.



Large Numerical Display, Including Thickness Difference



Display showing thickness at locations, and dual-location run



Needle Gauge Location Showing Left-Right thickness.

## MATE GAUGE - SOFTWARE FEATURES

<b>Operation Modes</b>	Scan Capture Scan Capture - Sample Gauge and Go Gauge and Go - Micro Scan Gauge and Go - Four Corners
<b>Measurement Filters</b>	Outliers Working Range Deviation from recent average Deviation from target
<b>Alarming System</b>	Thickness Width Signal Quality Product centering System Health
<b>Full Line Integration</b>	Read line status from stacker Pass measurements to PLC Include PLC status in summary file Automatic Start/Stop of Mate Gauge based on line status Automatic product change based on product change at stacker PLC
<b>Product Selector</b>	Easily switch between multiple products manufactured on the same line Favourite products
<b>User Interface</b>	Separate UIs for Operators and Engineers Password Protected
<b>Graphs and Visualizations</b>	Thickness Shape Tilt Run Chart Needle Gauges (deviation from target)
<b>Reporting</b>	Measurement Summary file (MS Excel compatible) File Viewer (optional) Daily email report (optional)

