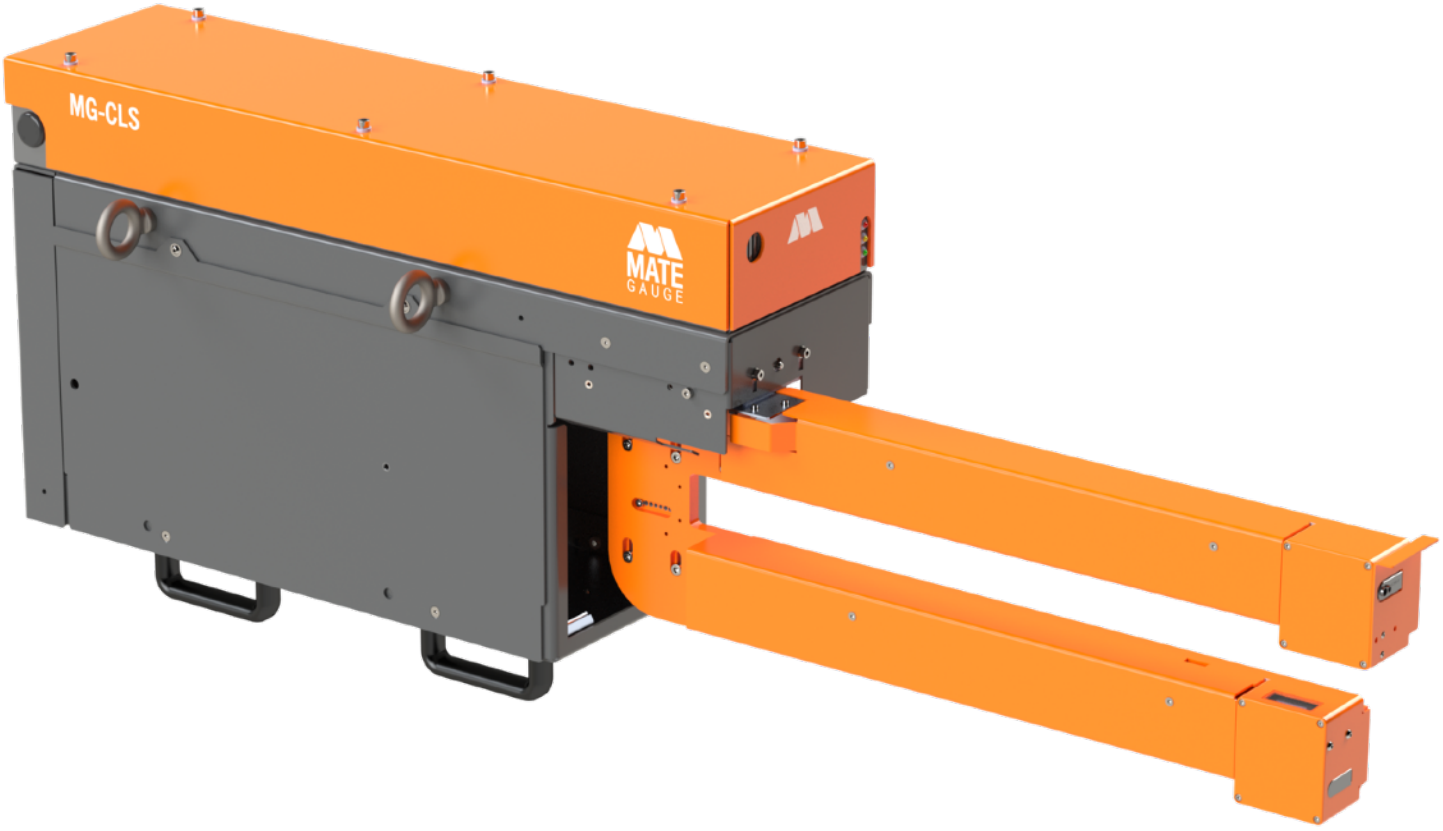
MG-CLS

Non-contact thickness measuring solution for lead strip casters.



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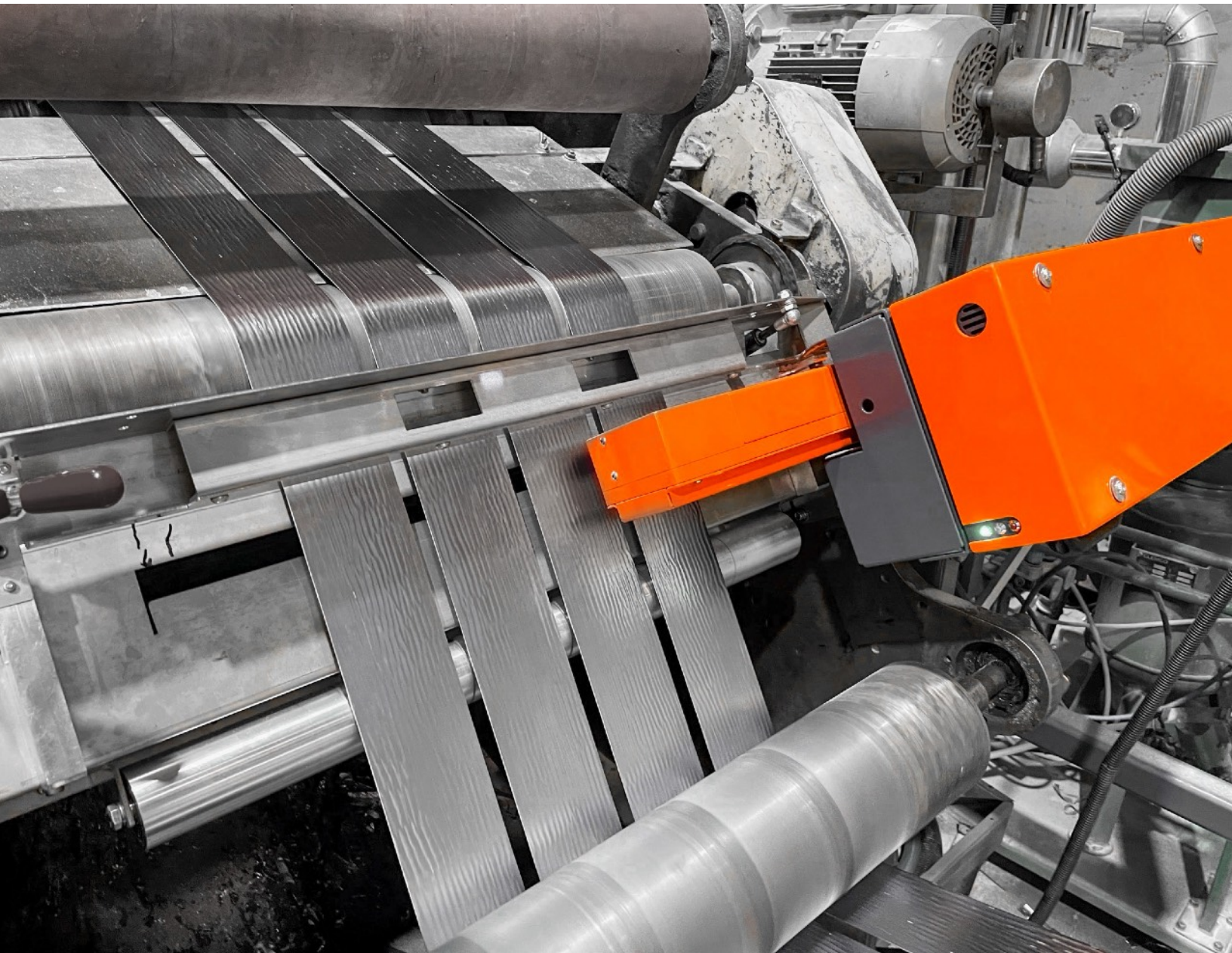
mategauge.com

MATE GAUGE

LASER TRIANGULATION TECHNOLOGY FOR NON-CONTACT THICKNESS MEASUREMENT

Sensors scan across the material at a sampling rate of 1-5 kHz. The thickness is determined from the distance of both measuring heads to each other and the difference of the measured individual distances to the material to be measured.

- **Closed-loop thickness control**
- **Belt-driven, single actuator** with built-in centering
- **Automatic Thickness Reference** (TR) check compensates for thermal expansion
- **Alert system** for sensor dirt accumulation
- **Edge-to-edge thickness measurement** across individual strips
- **Easy calibration** every 3 months using NIST-traceable master block



mgOS SOFTWARE - PURPOSE-BUILT FOR OPERATOR EASE

Whether you're upgrading existing systems or implementing new ones, the MG-CLS integrates with your systems through PLC connection and Ethernet ports. The Mate Gauge software filters and processes the thickness waveform to extract and record measurements and key performance indicators (KPIs). Measurement results are continuously published and displayed on a 15” HMI display.

Full thickness profile displayed

- Strips thickness measurement
- Strips width measurement

Data Visualization

- Real-time data visualizations designed for operator ease
- Touchscreen display

Custom Strips App

- Virtual Micrometer settings
- Ability to set thickness KPIs

Automation with PLC

- Automatic changes in thickness, settings, and scan data.

PDF and .CSV reporting

- Data file downloads for offline analysis
- Trend tracking over run-time

Alerts

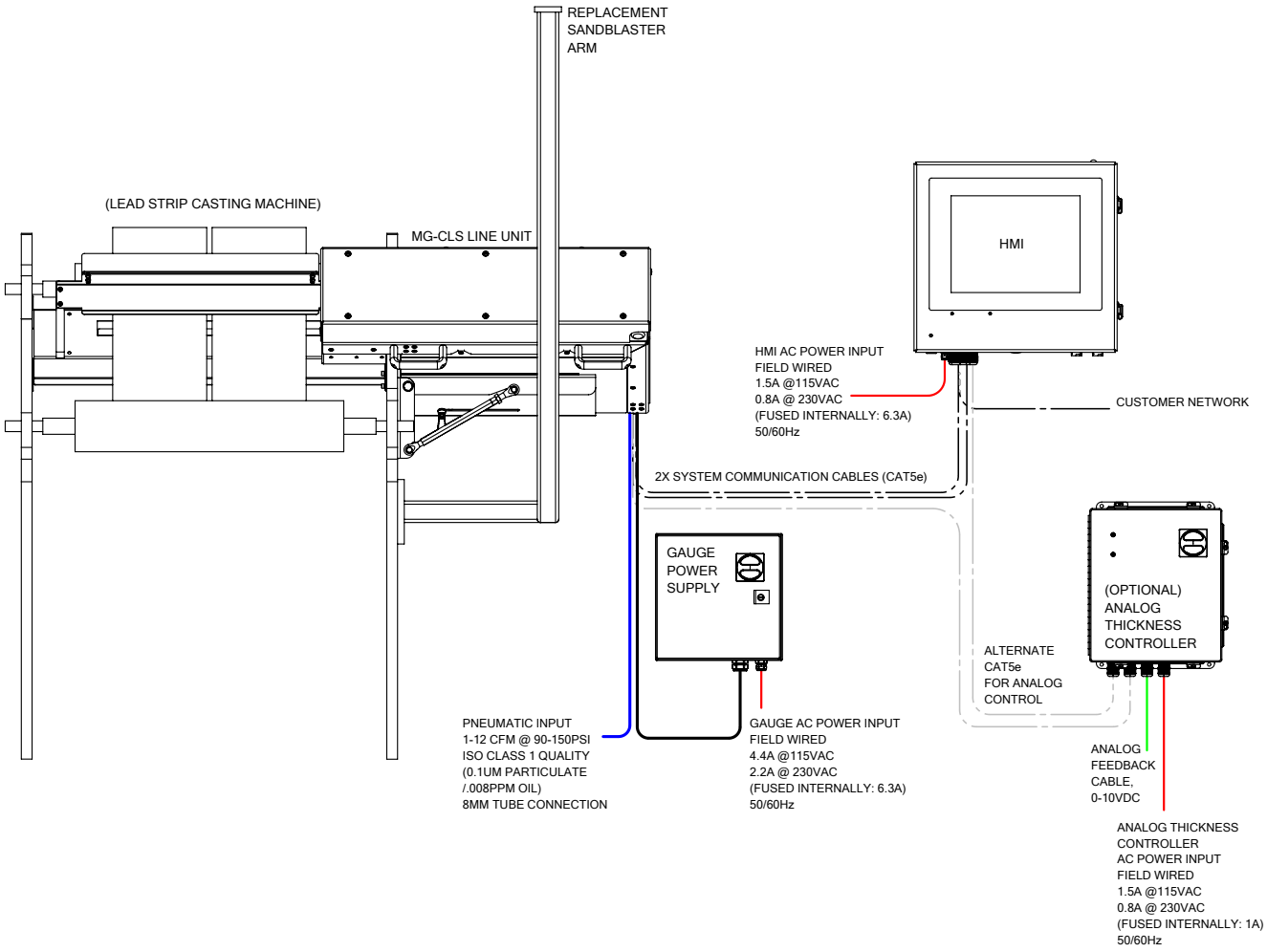
- Configurable alerts based on target specifications

MG-CLS Schematics

The following schematics illustrate the standard configuration of your Mate Gauge. This configuration includes the essential components and layout designed for general applications.

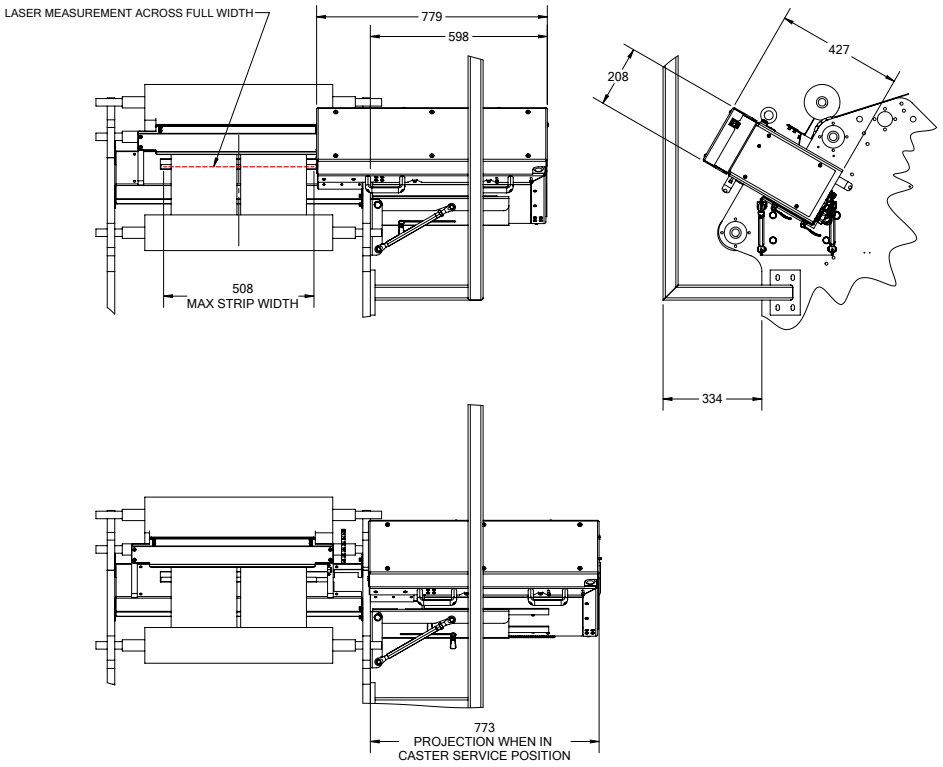
Different applications and sensors types require specific adjustments to the Mate Gauge configuration. We are committed to providing solutions tailored to your specific measurement needs.

System Overview

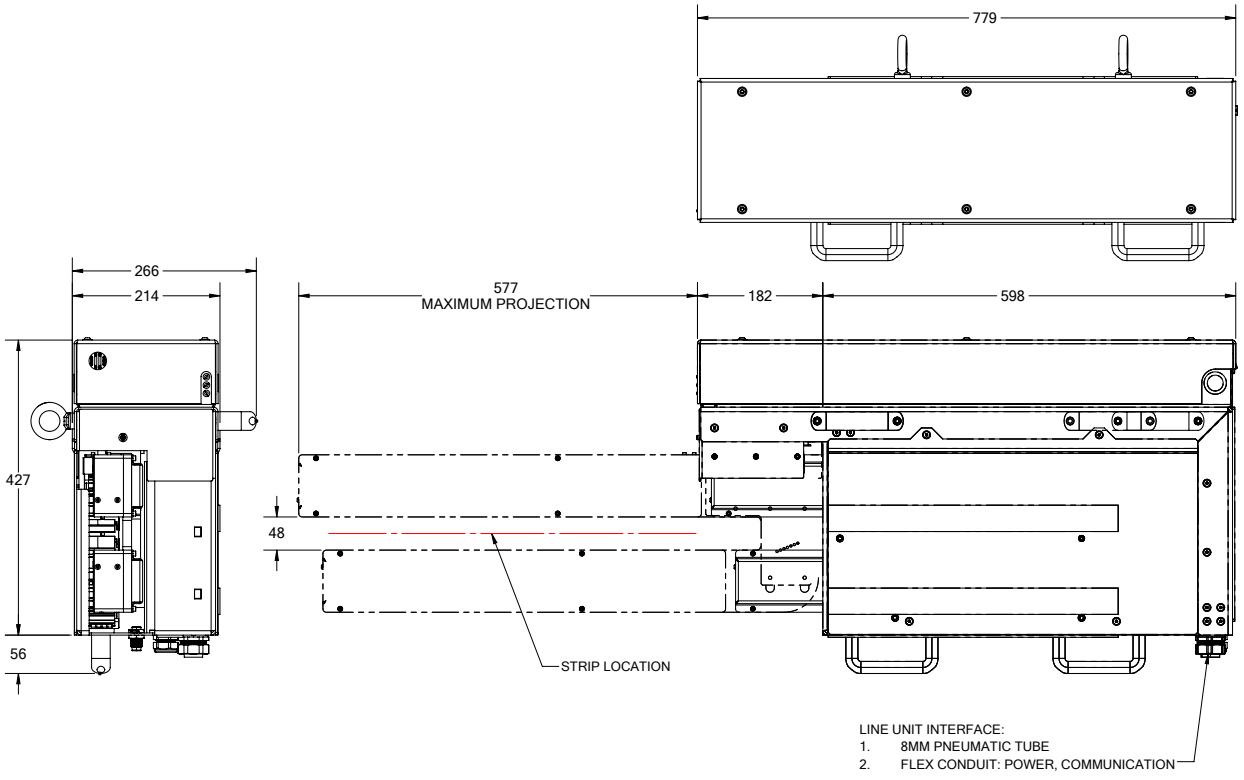


MG-CLS Schematics

System Overview



Line Unit



MG-CLS Technical Specifications

THICKNESS MEASUREMENT DETAILS

Resolution	0.5 µm	[0.00002 in]
Accuracy (typical)	2 µm	[0.00008 in]
Stroke	508 mm	[20 in]
Scanning Speed	150 mm/sec	[6 in/sec]
Thickness Range	0 to 8 mm	[0 to 0.32 in]
Measurement Frequency	1 to 5 kHz	

SUPPLY REQUIREMENTS

Line Unit Power	100-240 VAC @ 50/60Hz, 4.4-2.2A
HMI Power	100-240VAC @ 50/60Hz, 1.5-0.8A
Air Supply	2-8 CFM @ 90-110 PSI

WEIGHT

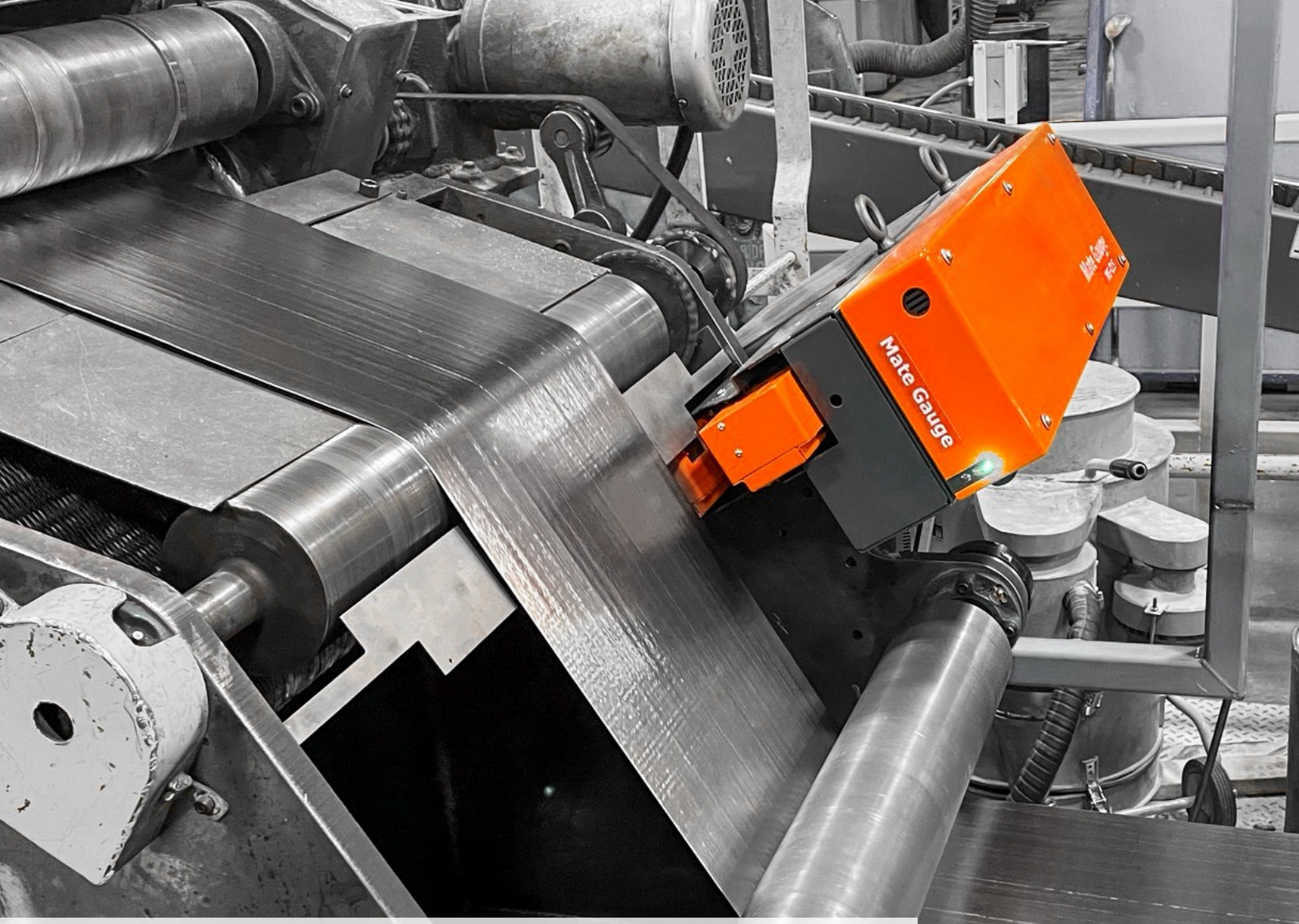
Line Unit	39 kg	[86 lbs]
System	67 kg	[148 lbs]

PHYSICAL DIMENSIONS

Main Housing	740x530x210 mm	[29x20x8 in]

ENVIRONMENTAL REQUIREMENTS

Operating Temperature	5 °C to 50 °C	[41 °F to 120 °F]
Humidity	< 90%	



SUPPORT AND SERVICES

Mate Gauge provides comprehensive support services to ensure optimal performance of your MG-CLS system. From initial setup to ongoing maintenance, our team is committed to your success.

- **Line location consultation**
- **Post-purchase support with on-call technicians**
- **Product setup guidance**
- **Operator training**

Beyond measure.