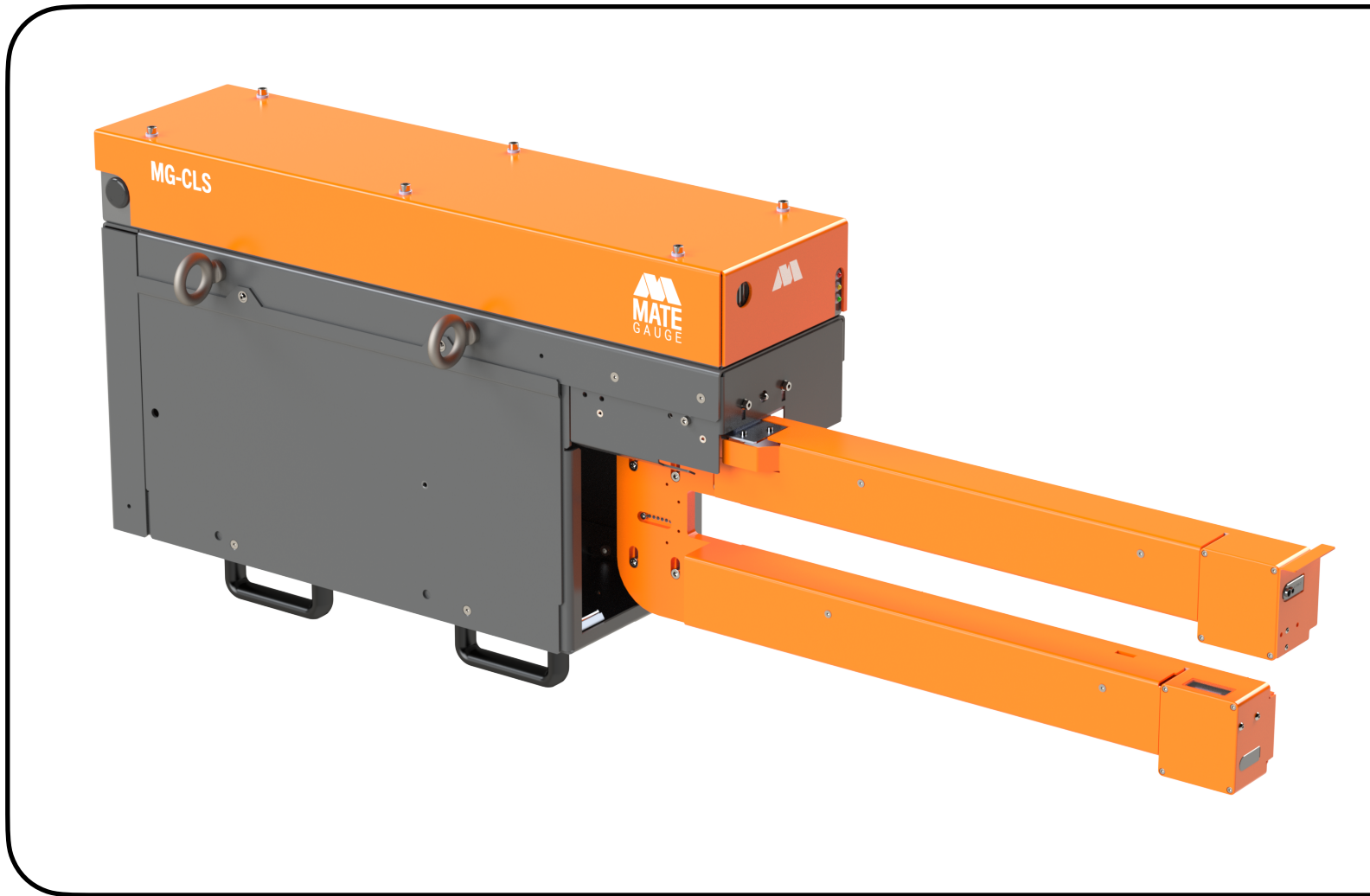


# MG-CLS

Non-contact thickness measuring solution for lead strip casters.



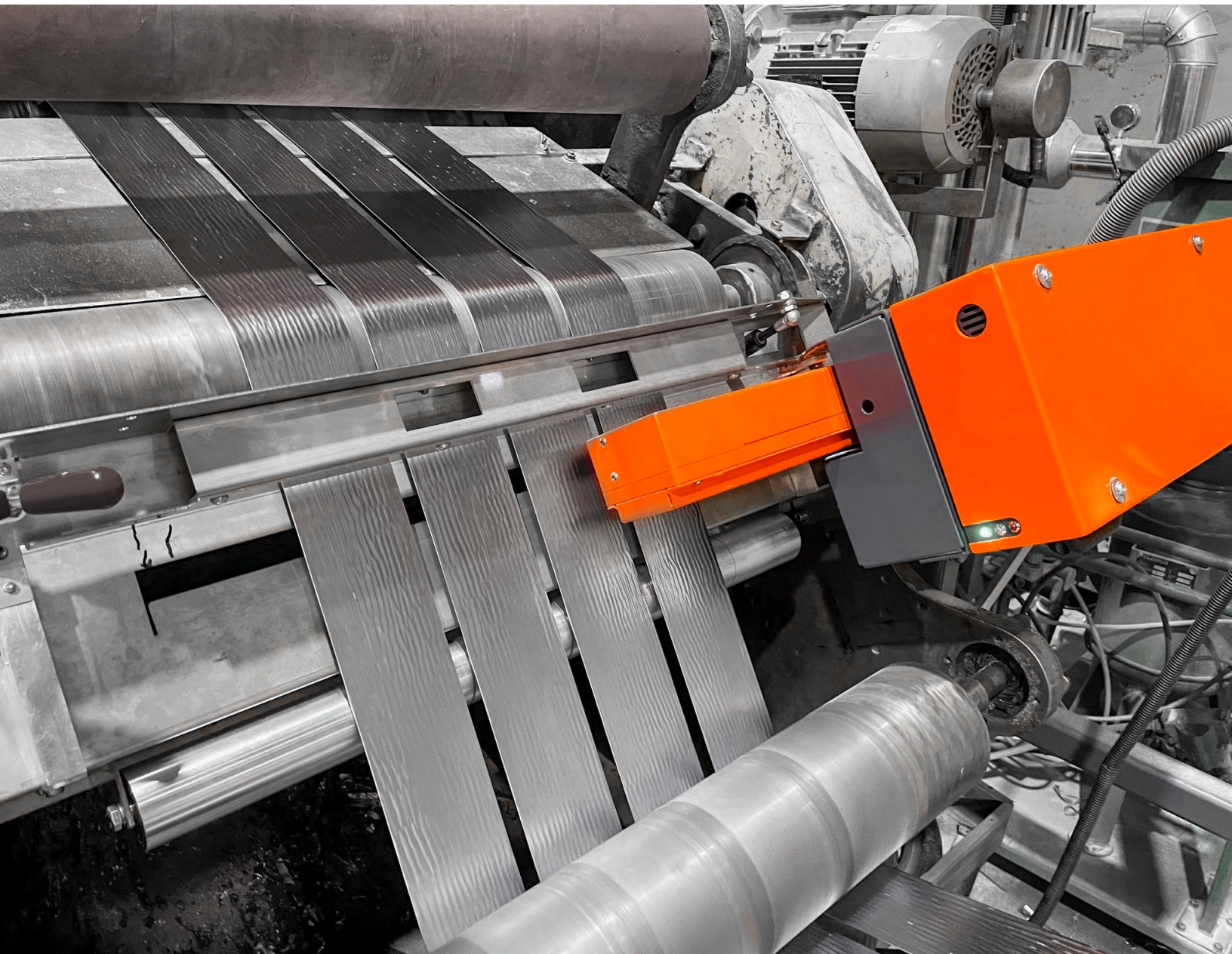
+1 613-287-0171  
mategauge.com



# 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**
- ✓ **Alert system** for sensor dirt accumulation
- ✓ **Belt-driven, single actuator** with built-in centring
- ✓ **Edge-to-edge thickness measurement** across individual strips
- ✓ **Automatic Thickness Reference (TR)** check compensates for thermal expansion
- ✓ **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



## Automation with PLC

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



## Data Visualization

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



## PDF and .CSV reporting

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



## Custom Strips App

- Virtual Micrometer settings
- Ability to set thickness KPIs



## Alerts

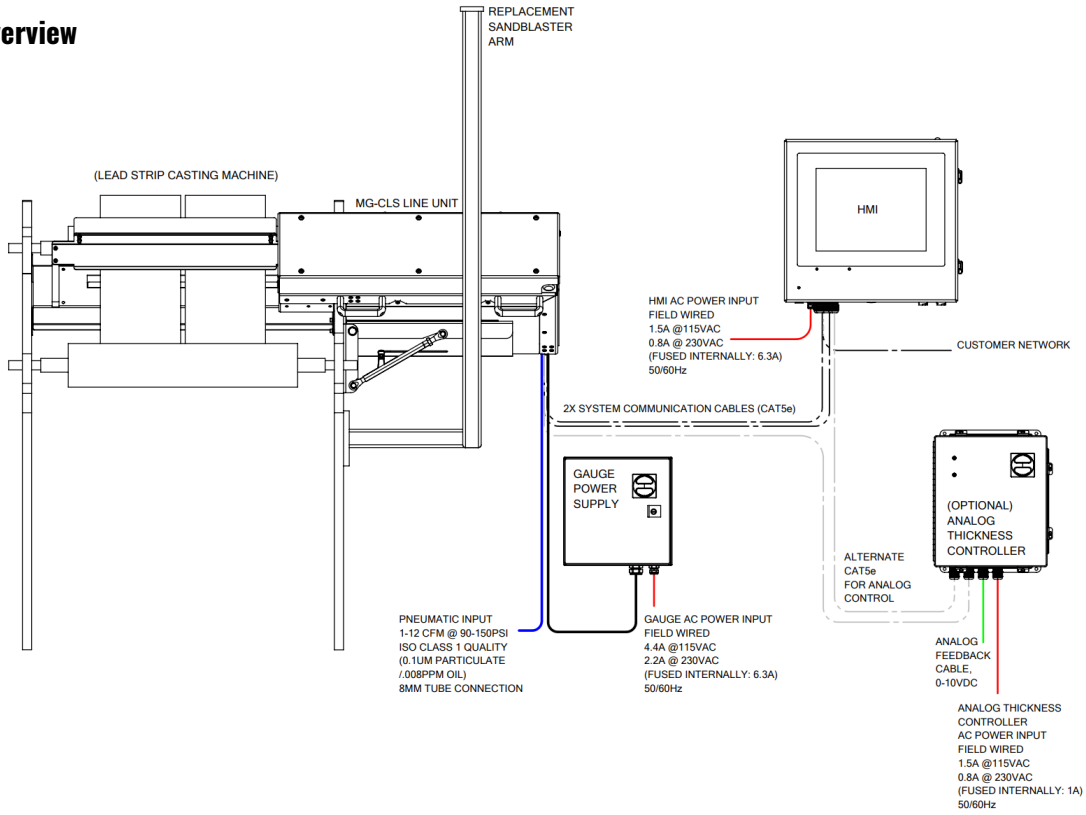
- Configurable alerts based on target specifications

# MG-CLS Schematics

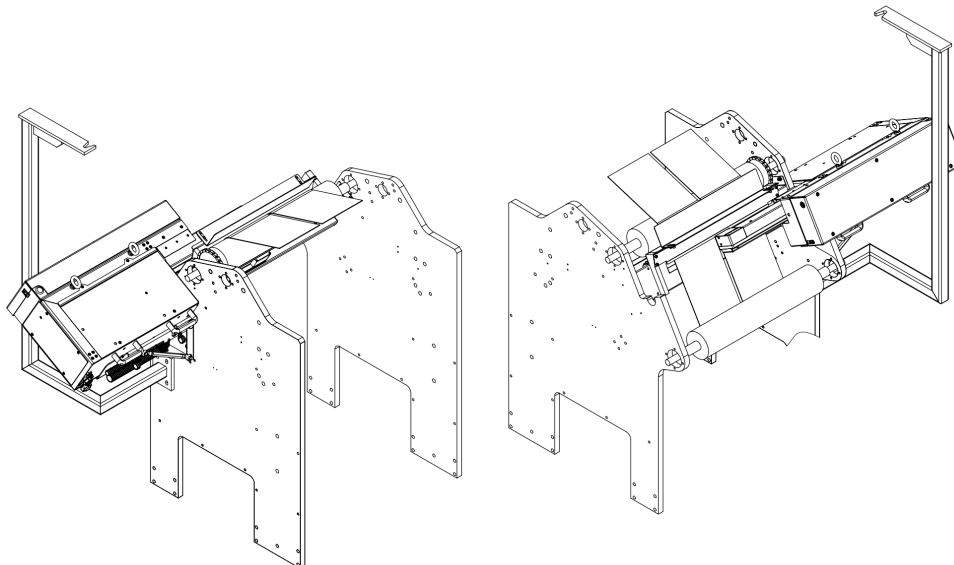
The following schematics illustrate the standard configuration of your Mate Gauge. This configuration includes the essential components and layout designed for general applications.

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

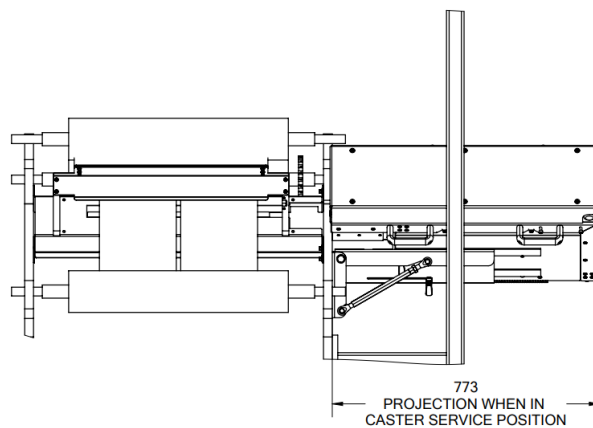
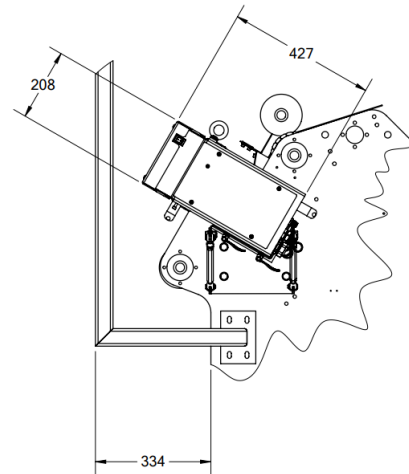
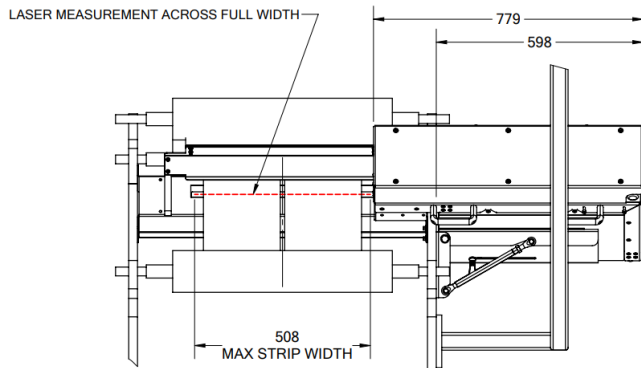
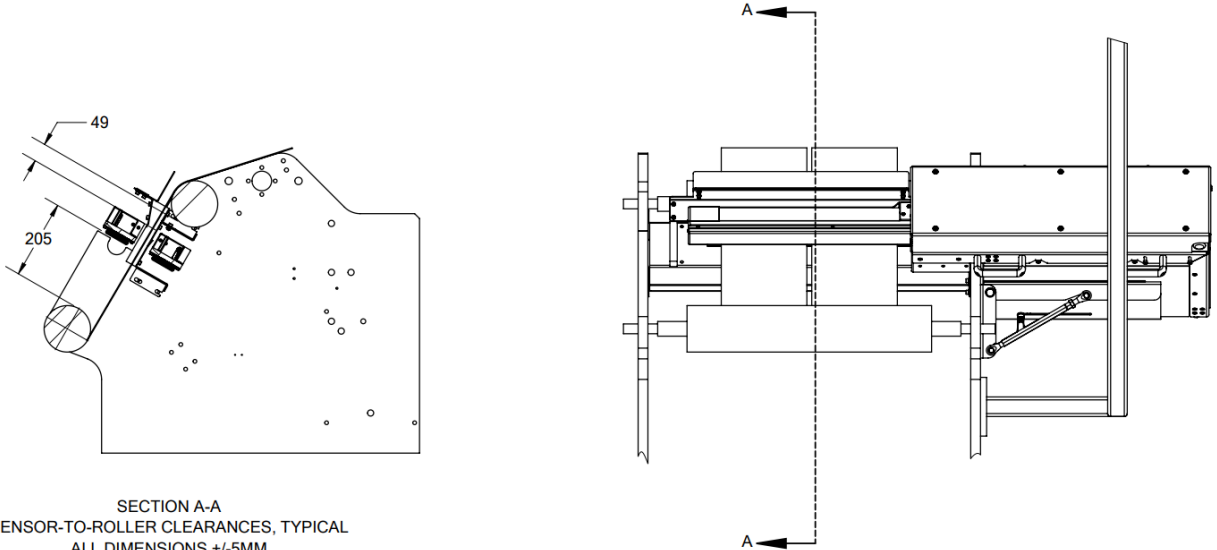


## Line Unit



# MG-CLS Schematics

## Line Unit



# MG-CLS Technical Specifications

## THICKNESS MEASUREMENT DETAILS

|                       |                   |                |
|-----------------------|-------------------|----------------|
| Resolution            | 0.5 $\mu\text{m}$ | [0.00002 in]   |
| Accuracy (typical)    | 2 $\mu\text{m}$   | [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

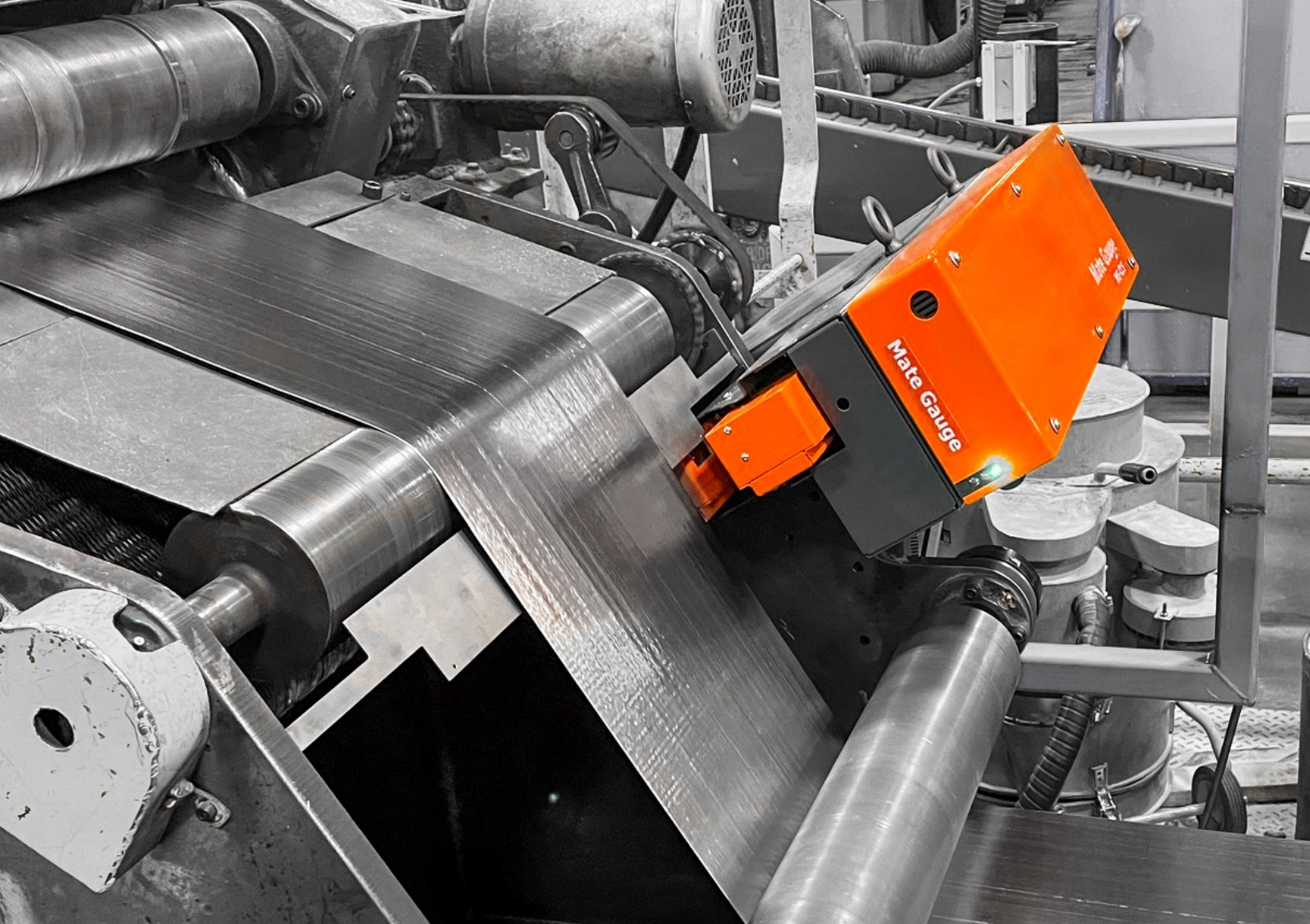
|           |       |           |
|-----------|-------|-----------|
| Line Unit | 39 kg | [86 lbs]  |
| System    | 67 kg | [148 lbs] |

## 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.**

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