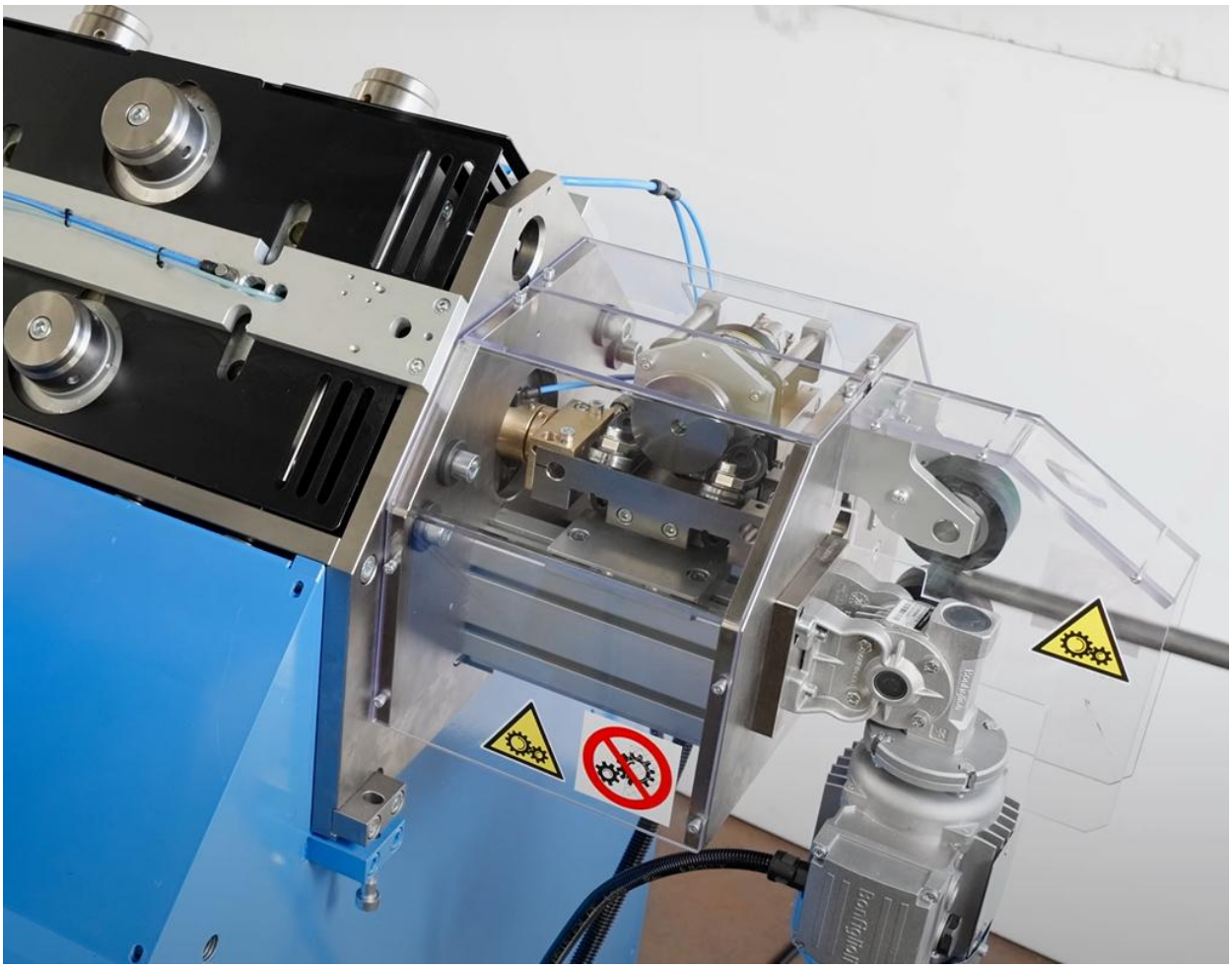
INLINE LENGTH MEASUREMENT UNIT FOR ROLLING MILLS



WATCH THE VIDEO

This unit is designed to be installed at the exit of the rolling mill to automatically measure the length of the heating elements.

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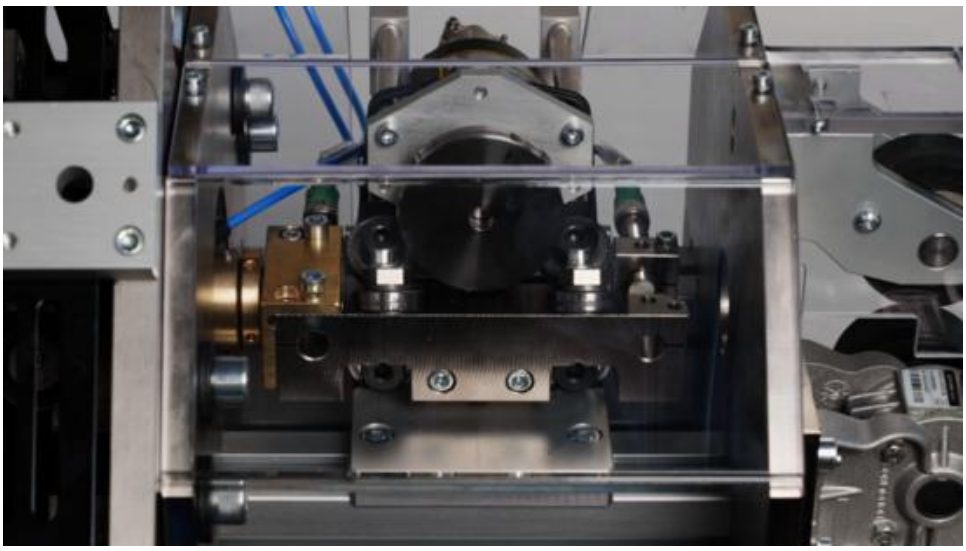
GENERAL CHARACTERISTICS

The element measuring unit is fully integrated into the roll reducing machine. The system automatically measures each element and verifies compliance with the preset length tolerance range. The operator can easily set the required minimum and maximum length values. As the element enters the rolling mill, its length is checked in real time: elements within tolerance are accepted and indicated by a green signal light, while elements outside the specified range are rejected and indicated by a red signal light.

ADVANTAGES

- **Automatic Sorting:** the system identifies if the heating elements are within the required tolerance range or if they are too short or too long. This eliminates the need for the operator to measure elements by hand or manually divide them into classes.
- **Early Process Control:** by monitoring the length in real-time, you can immediately detect anomalies in the production process (for example, issues during the filling phase). This allows you to stop and correct the process before rolling the entire batch, reducing scrap and saving time.
- **Precision Measurement:** the presence of the plastic plugs at the ends of the heating elements is not relevant to achieve a correct measurement of the real tube length. The system is engineered to focus on the actual metal tube dimensions.
- **Easy Integration:** the unit can be easily paired with your current rolling mill to create a more efficient and automated production line. This unit is designed to work perfectly with both CSM equipment and other brands of rolling mills.



TECHNICAL CHARACTERISTICS

Heating element diameter range	6 to 16 mm (specific diameter to be confirmed)
Measurement accuracy	+/- 2 mm

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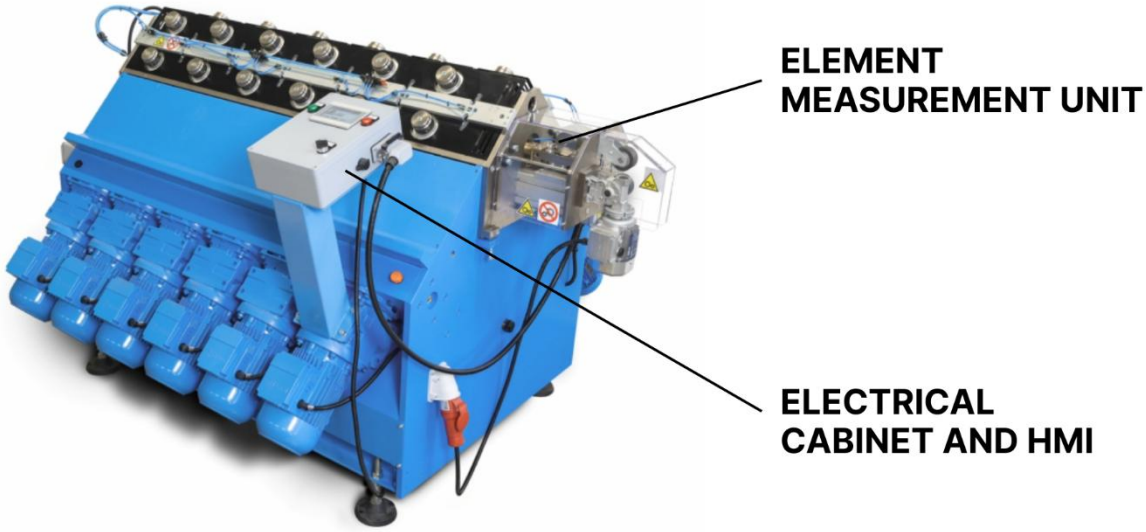
MACHINE COMPOSITION

The inline length measurement device includes:

- **Electronic measurement device:** equipped with an encoder to measure the heating element length
- **Electrical cabinet and HMI:** includes an interface with visual light indicators. This allows operators to quickly identify if the elements are OK or KO. The HMI screen also displays a history of the last 5 measurements using a color-coded system for immediate feedback:
    - Green boxes: for measurements within the desired range.
    - Red boxes: for measurements below the minimum limit.
    - Yellow boxes: for measurements above the maximum limit.



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