PRODUCT SPECIFICATIONS

Thermo Scientific Laser TX optical thickness gauge

The Thermo Scientific™ Laser TX optical thickness gauge provides reliable and accurate online non-contact thickness measurements for a variety of sheet processing applications in the steel and aluminum industries. The laser based thickness measurement is completely insensitive to sheet composition and the sensor is safe, requiring no radiation registration or licensing.

Features

- Laser triangulation based measurement
- Completely alloy insensitive
- Robust frame design
- Flexible mill interface
- Logical operator screens

Benefits

- Product quality assurance throughout the entire sheet
- Scheduled maintenance is significantly reduced
- Eliminates the need for semi-annual regulatory inspections
- Scalable architecture able to integrate into automatic mill processes

The Thermo Scientific brand of thickness and coating weight gauges have been an integral part of flat sheet processing lines for over 60 years. The Laser TX optical thickness gauge now introduces a new era in thickness gauge technology.

Laser triangulation measurement

Specially selected for the process line application, the laser sensors are ideally suited for the sheet thickness range to be measured. The sensors have been qualified over a wide range of product finishes, and will automatically adjust to background lighting conditions.

By measuring the distance to the sheet surface, the measurement is completely independent of sheet composition. The Laser TX optical thickness gauge does not need an alloy table, it is ideal for service centers and cut-to-length warehouses that hold a variety of metal grades in their inventory. Additionally, the use of laser based sensors completely eliminates the need for semi-annual regulatory inspections. There is no longer a need for a radiation safety program or licensing.

Process line solutions

The Laser TX optical thickness gauge has been designed as a quality assurance tool. The standard design provides thickness monitoring for the entire length of a coil. Accurate and reliable thickness measurements verify the products are within tolerance head to tail. For continuous operations, thickness data can be used to adjust power settings on automatic welding equipment to ensure weld integrity throughout the process line. A variety of analog deviation and digital out-of-tolerance outputs are configurable to suit the application and mill computer interface.

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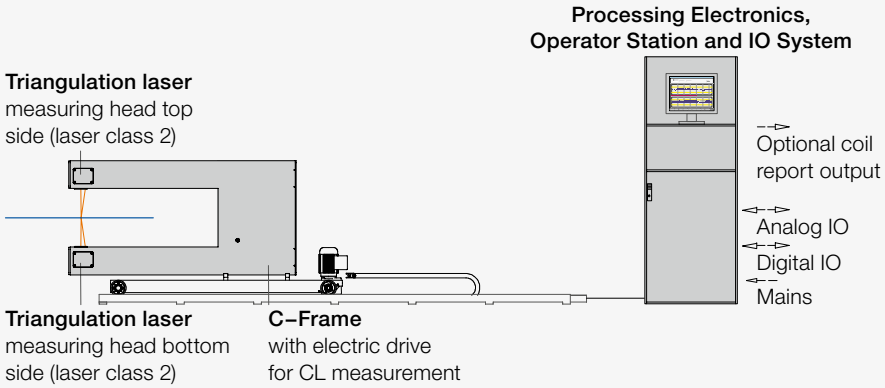
Applications:

- Hot dipped galvanization lines
- Slitting lines
- Continuous annealing and pickling lines
- Cut to length lines
- Rewind lines
- Metallic and paint coating lines



General specifications – Laser TX laser triangulation thickness gauge

Materials	Mild steel, aluminum alloys, stainless, non-ferrous
Thickness range	1 to 15 mm
Measuring mechanism	C-frame (for centerline measurement)
Laser classification	Laser class 2 acc. DIN EN 60825-1/A1 12.99
Thickness noise (See Note)	± 3 µm
Thickness accuracy (See Note)	within ± 10 µm regardless of alloy
Thickness reproducibility (See Note)	± 5 µm
Measuring gap	approx. 100 mm – standard, others available as option
Laser spot size	approx. 1 mm in diameter

Note: All data are 2-sigma values to be proven on offline samples.

ISO 9001 REGISTERED COMPANY *Thermo Fisher Scientific, Erlangen, Germany is ISO Certified.*

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CAD.6265.0619