

# ThicknessPRO 2000





# LASER Based Thickness Measurement System



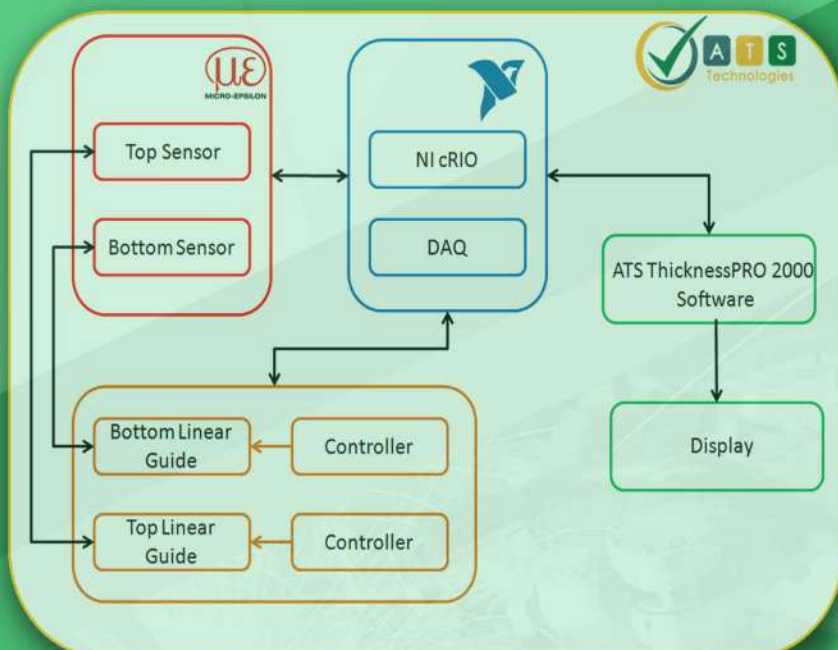
Deviations from the specified dimensions during hot-rolling and cold-rolling processes usually occur at the beginning of the production chain. Fluctuations and deviations from nominal values for thickness and /or width result in non-acceptable material costs as well as quality deteriorations, which increases the difficulties in downstream processing of production goods, finally resulting in complaints and heavy financial losses.

It costs money and time if there is production deviations. Highly accurate production monitoring is absolutely essential in the production process, and it can

be reliably ensured with the use of laser sensors. Optical methods based on laser triangulation are advantageous when compared with other methods, since measurements are made without contact, and hence, without wear. Additionally, an exact geometrical measurement in relation to the strip surface can be carried out, irrespective of the condition of the material.

## Our Solution

Our system is a perfect solution because it is highly accurate and measures thickness at micron levels. The Laser sensor we used in our system is capable of measuring  $\pm 30$  microns, which gives the ability to measure thickness of sheet metal quickly and accurately. We also do some customization in our software to cater the needs of our client. We use MicroEpsilon high precision sensors for thickness measurement, in our system to inspect various sheets ranging from few mm to 2000mm.

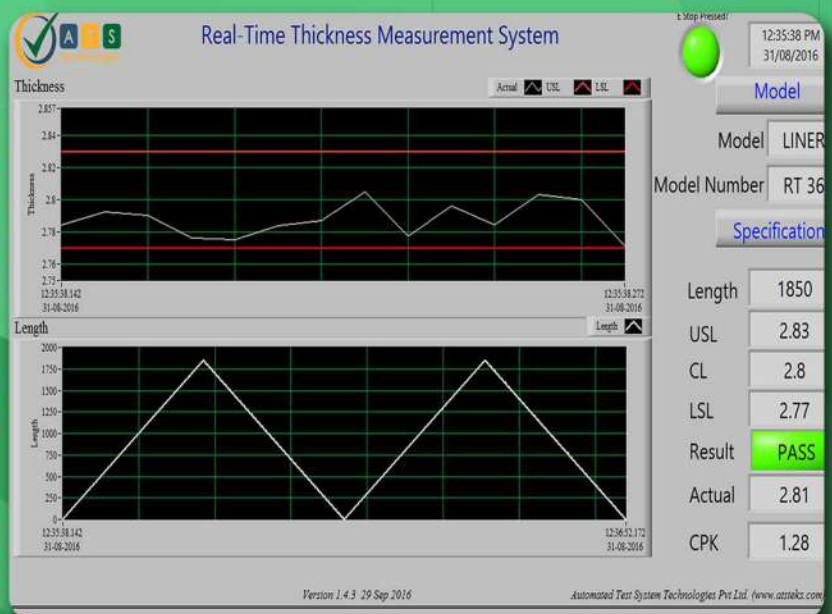




# Technical Datasheet of ThicknessPRO 2000

FEATURE	ATS ThicknessPRO 2000 SPECIFICATION
Measuring Principle	Triangulation
Linearity	±0.08 % FSO
Sensor Resolution	0.5 µm
Overall System Resolution	±30 micron
Measurement frequency programmable	2.5 kHz
Light source (laser diode)	Wave length 670 nm, red, max. power 1 mW,
Permissible ambient light (at 2.5 kHz)	10.000 lx
Temperature stability	0.01
Sensor Operating temperature with Thermal Enclosure	0 ... +70 °C
Laser Class	2
Storage temperature	.-20 ... +70 °C
Protection class	IP 65 (with plugged connection)
Thickness Measuring Range	0 - 8 mm
Maximum Sample Length Measurement	2000 mm
Cycle Time	1 Second / 300 mm
Panel Size	600*400*1000
ATS ThicknessPRO Software	Graphical and Numerical display, Report, Offline Data Analysis

Thickness measurements are carried out with one pair of laser sensors which are installed together on one axis. The Laser sensor pair self-synchronize to take measurements and calculate thickness with the sensors. The difference between the measurement results produces the thickness of the measuring object. The data from the sensor is taken via National Instruments cRIO module and with the help of LabVIEW we have developed ATS ThicknessPRO software to monitor the results with permissible variations.





# About Us

Automated Test Systems Technologies Pvt Ltd is an Alliance Partner of National Instruments based in Chennai, India. We are experts in design and development of automated test systems for engineering validation and End of Line production testing. We help our clients to optimize productivity and quality in the production of goods and delivery of services. We take pride in providing complete turnkey solutions, Data Acquisition and Measurement systems, Hardware-in-Loop testers, Vision inspection and Real time systems for manufacturing industry.

## Our Products



Data Acquisition System



Vision Inspection System



Test Rigs



ATE

## Our Expertise

- ✓ End of Line Tester
- ✓ Performance Tester
- ✓ Endurance Tester
- ✓ Machine Vision System
- ✓ LASER Inspection System
- ✓ In circuit Tester
- ✓ Functional Tester
- ✓ HIL Tester
- ✓ Scratch / Dent Inspection System
- ✓ Thickness Measurement System
- ✓ Motor Testing System
- ✓ In-Vehicle Data Logger
- ✓ Structural Health Monitoring System

## Contact Us

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## Our Services



Teststand



AMC



Integration

## Our Clients

