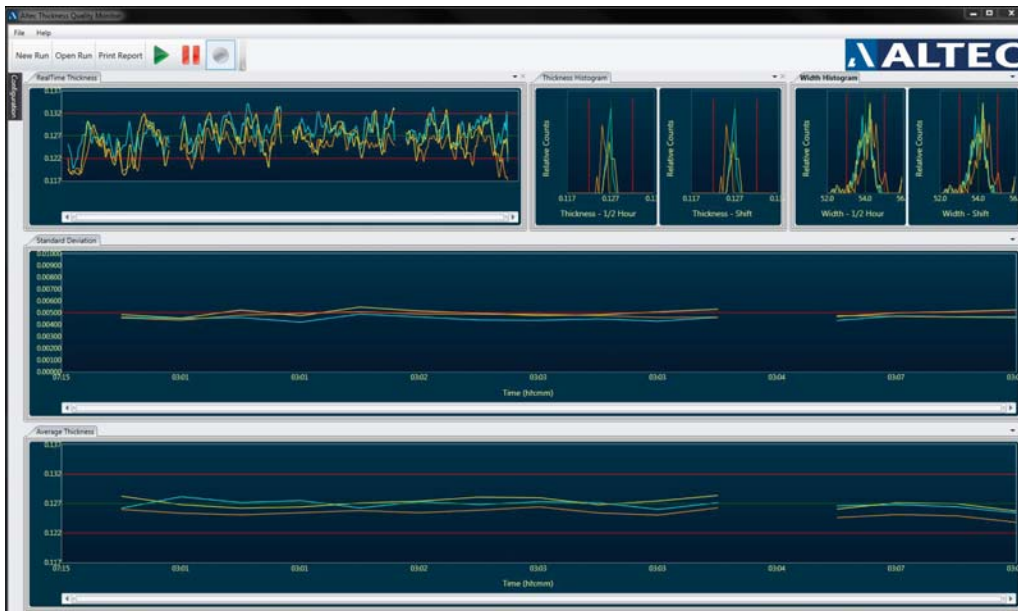


# THICKNESS QUALITY MONITOR VERSION 2.0

THE MOST VERSATILE AND ACCURATE SYSTEM ON THE MARKET



## INTRODUCTION

The ALTEC Thickness Quality Monitoring System Version 2.0 is the very latest in high-performance on-line non-contact measurement system that provides real-time thickness and sheet length/width measurements in industrial manufacturing processes.

Typical applications include Veneer, Planer Board, Plywood and OSB manufacturing. The system uses high-precision lasers to provide real-time thickness, average thickness and standard deviation trending as well as thickness and width distribution histograms.

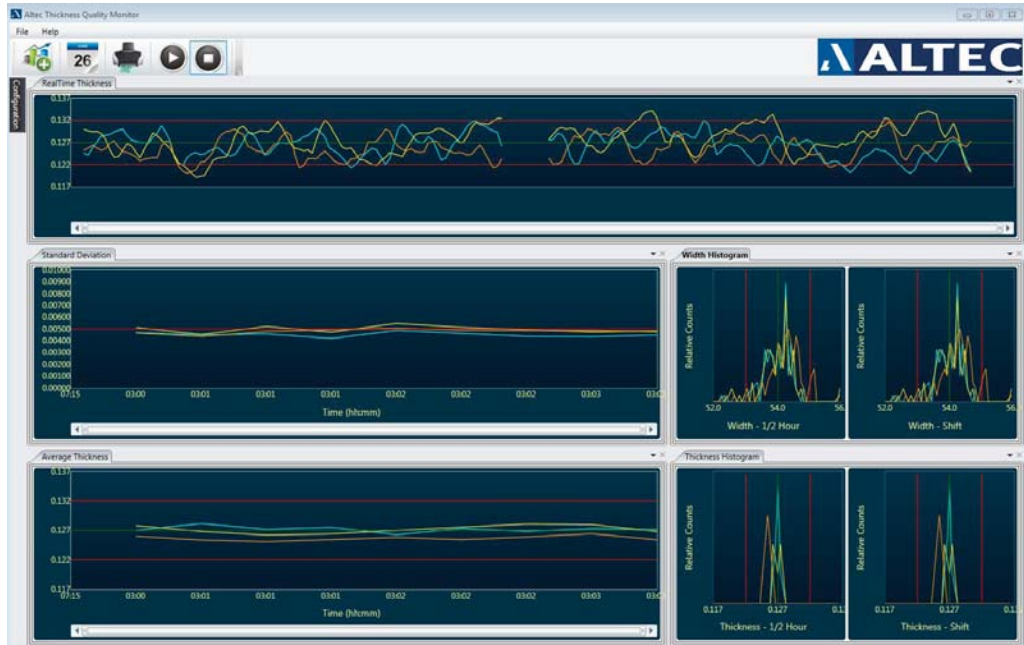
The system's real time functionality and alarming allows manufacturing personnel to detect product quality problems before defects cause product downgrading or customer returns.

All data is stored in a 64-bit fully scalable SQL Server database. This includes the raw laser sensor data that is streamed into the database in real-time. Power users and client applications can connect to the database remotely to run their own custom queries and reports.

Configurable automatic reporting using Microsoft Excel provides a permanent record of the plant's performance. An unlimited number of products can be stored with individual values and limits.

## FEATURES

- Laser Resolution 0.000039 in (0.001 mm)
- Measurement repeatability of +/-0.0005 in (0.0127 mm)
- High throughput, 4 kHz laser sampling rate allows for 20 samples per inch at a sheet velocity of 1000 ft/min
- Encoder input for sheet width measurement
- User-configurable measurement parameters, target sheet thickness/width and upper and lower deviation and full-scale measurement limits
- 64-bit SQL Server database
- Integrated Microsoft Excel™ shift reporting
- Built-in system diagnostics
- Configurable system alarms
- Connects to industry standard PLCs



## SPECIFICATIONS

### SYSTEM MEASUREMENT

#### Thickness

Sample Rate	20/inch @ 1000 ft/min
Resolution	0.000039 in [0.0010 mm]
Repeatability	+/- 0.0005 in [0.0127 mm]
Accuracy	+/- 0.001 in [0.0254 mm]

#### Width

Input Frequency	3.5 kHz
Resolution	0.10 in @ 1000 ft/min
Accuracy	0.20 in @ 1000 ft/min

### SYSTEM FUNCTIONAL

#### Lasers

Input Channels	Up to 6 laser pairs [2]
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#### System

Thickness Range	User configurable 0.005 to 2.000 in [0.127 to 50.8 mm]
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Width Range	User configurable
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#### NOTES:

- Encoder input provided as part of the system for width measurement.
- Systems with more than 6 laser pairs are also available.
- Custom Scanner Frames and Air Purge Systems are available. Contact ALTEC for further information.



### LASER GENERAL

Source	Laser Diode, 670 nm
Power	1 mW (optional 3-7 mW)
Class	II (IIIB)
Dimensions	(W x H x L)
Laser	6.61 x 1.54 x 4.29 in [168 x 39 x 109 mm]
Purge Housing	10.24 x 3.54 x 6.30 in [260 x 90 x 160 mm]
Weight	2.45 lbs [1100 g]

### LASER TECHNICAL

Rate of Measurement	4,000 samples/sec
Range	2.75 in [70 mm] [1]
Offset Distance	7.5 in [190 mm] [2]
Resolution	0.000039 in [0.0010 mm]

#### NOTES:

- Other measurement ranges are available; please contact ALTEC for further information.
- Distance from laser face to start of measurement range.

### ENVIRONMENTAL

#### Temperature

Lasers	32 to 104°F [0 to 40°C]
Computers	32 to 131°F [0 to 45°C]

#### Humidity

Lasers	35-85% RH non-condensing
Computers	35-85% RH non-condensing

#### Housing

Lasers	NEMA 4
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Information contained in this document is subject to change. For current product information contact ALTEC.