

How PlastiMeasure 1000 Works?

PlastiMeasure 1000 is a 3-axis automated turnkey thickness measurement system suitable for preforms and round containers that measures multi layer and overall wall thickness in both opaque and translucent plastics with superior accuracy and gauge R&R- in just four simple steps:

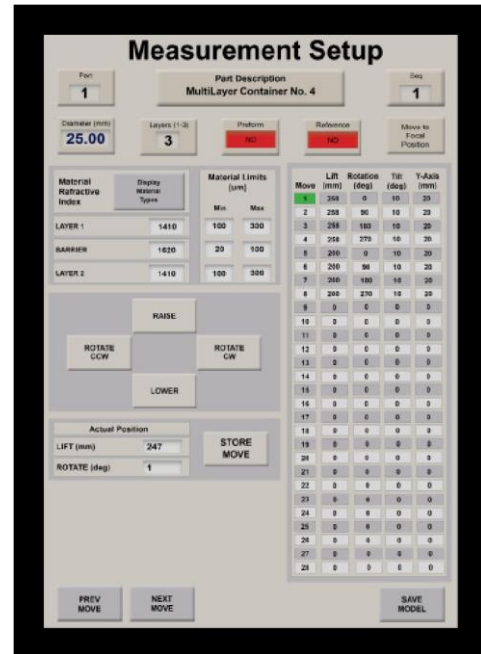
Step 1

Easily load sample into the machine



Step 2

Select pre-set measurement recipe for the sample and press Start



Custom sample holders are available for different container types and sizes.

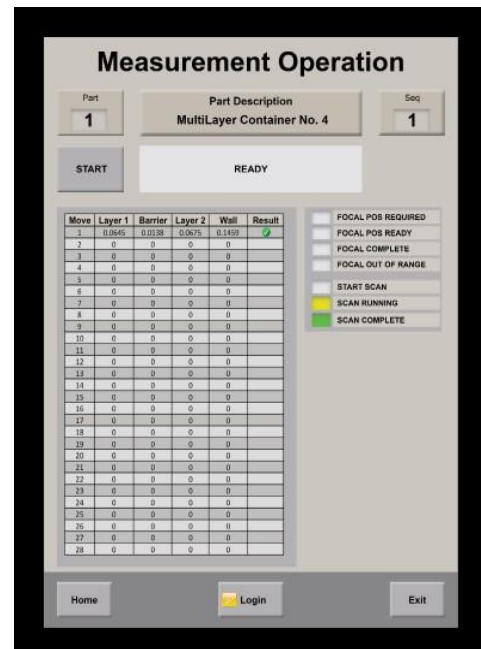
Step 3

Machine moves the sample to the pre-set points and conducts measurement at each point



Step 4

Measurement results are displayed on the HMI and saved on the computer



Sample holder moves up and down and rotates to conduct complete measurement of the sample under test

Key Specifications

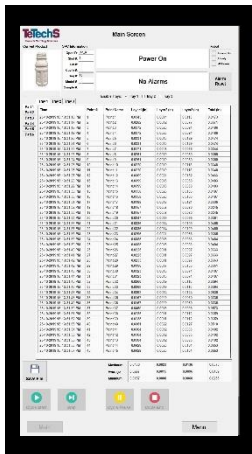
Tooling Options

Custom tooling is available to meet specific needs for various preform and container sizes and types.

Software Features

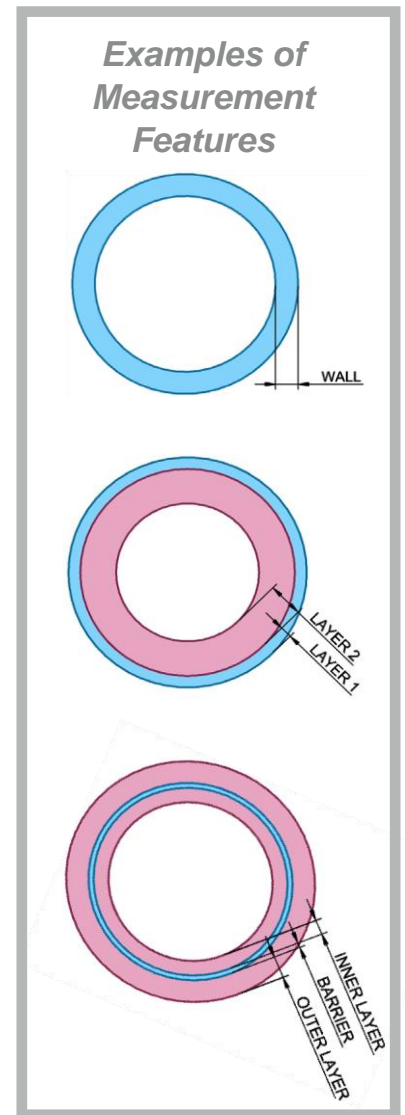
PlastiMeasure comes complete with customized software to meet user's thickness measurement needs.

Preprogrammed with the user's own unique container and preform types, the included HMI allows for quick changes between samples with just a push of a button.



Other features include:

- ✓ Real-time data display
- ✓ Printable and transferable results
- ✓ Pass/fail indication
- ✓ Intuitive user interface
- ✓ No on-going calibration is required
- ✓ Fast, accurate, and repeatable
- ✓ Non-contact, non-destructive



PlastiMeasure 3000 System Specifications

Sample handling system	Automated conveyor belt or tray feeder
Number of layers	1-3
Minimum layer thickness	0.002"
Maximum sample height	12"
Repeatability	±0.0002"
Accuracy	±0.0002"
Time per measurement	<1s per measurement
System dimensions (W X L X H)	64" x 36" x 72"
System weight	550 lbs
Power requirement	100-240 V AC

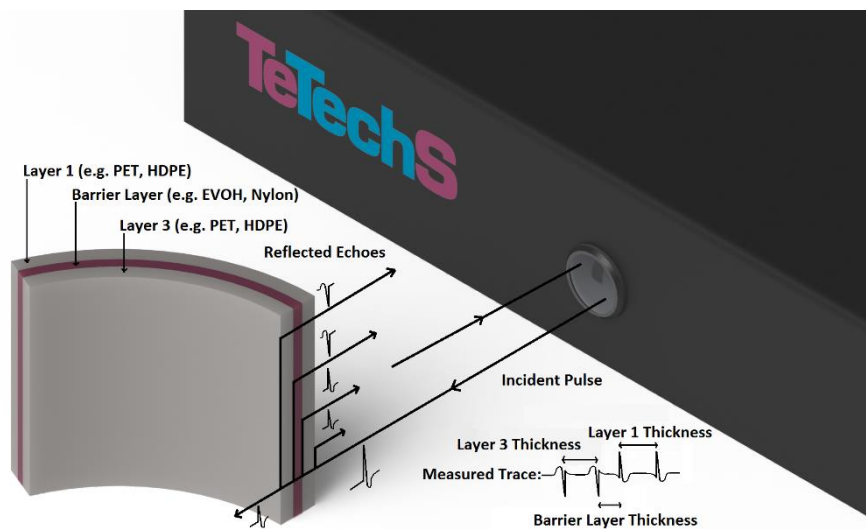
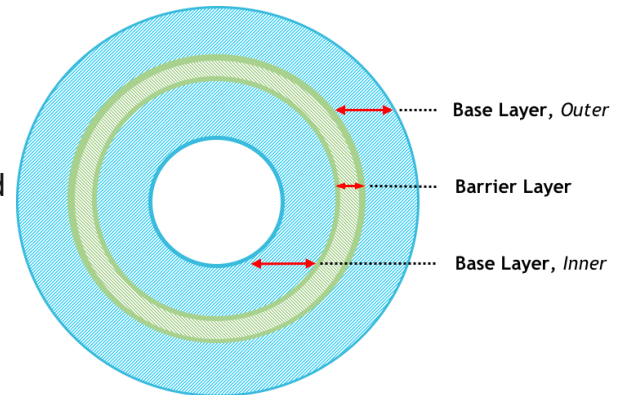
Powered by Terahertz Waves™

TeTechS' terahertz metrology solutions are powered by terahertz waves, a form of light with its wavelength falling along the electromagnetic spectrum between microwave and infrared. For various industrial applications, e.g. non-contact thickness measurement, terahertz metrology has distinctive advantages over optical, ultrasonic, and x-ray metrologies.



Terahertz time-of-flight measurement technique is ideal for multi-layer thickness measurement in plastic containers. The layer thickness is calculated based on the speed of light in the material, hence it is a "true thickness" measurement with no on-going calibration required. Terahertz waves pass through opaque and transparent plastics, and accurately measure multiple layers with a minimum thickness of 50 microns (2 mil) and maximum thickness of 30 mm (1.180 inches) with an accuracy of better than 5 microns (0.2 mil).

As a fully automated and hands-off turn-key solution combined with a gauge R&R less than 4%, TeTechS' PlastiMeasure offers a new way for plastic container manufacturers to control their production process and protect their customers' brand by supplying them with highest quality products.



Terahertz time-of-flight thickness measurement