Ultrasonic Thickness Gauges

tritex
ndt

"As far as I am concerned, Tritex gauges are the best thickness gauges I have used .... and they are less expensive than other makes that come close"

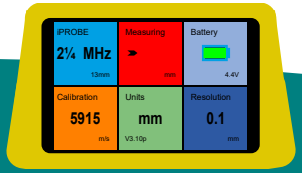
Sonometric, South Africa

Typical Applications

- Shipping
- Bridges
- Pipelines
- Dockyards
- Offshore Platforms
- Wind Turbines
- Pilings
- Dock Gates

Multigauge Range

The Multigauge range are simple, robust ultrasonic thickness gauges designed for most common thickness gauging applications. The easy to use keypad allows operator interface whilst the bright LCD display can be used in all light conditions. The moulded soft rubber surround feels comfortable, looks good and provides extra protection against knocks and scrapes. All probes have Intelligent Probe Recognition (IPR), which automatically adjusts settings in the gauge at the same time as transmitting recognition data - the result is a perfectly matched probe and gauge for enhanced performance. Additionally, the Automatic Measurement Verification System (AMVS) ensures only true measurements are displayed, even on the most heavily corroded metals.



Easy Menu System

Features

- Large colour display with easy to use menus
- Ignores coatings using multiple echo
- Rugged and robust
- Single crystal probes for linear accuracy
- Easy to use
- No fuss upgrade options available
- Can be mounted onto wrist with leather case
- Intelligent probe recognition (IPR)
- Automatic measurement verification (AMVS)
- No zeroing required
- Free calibration for the life of the gauge

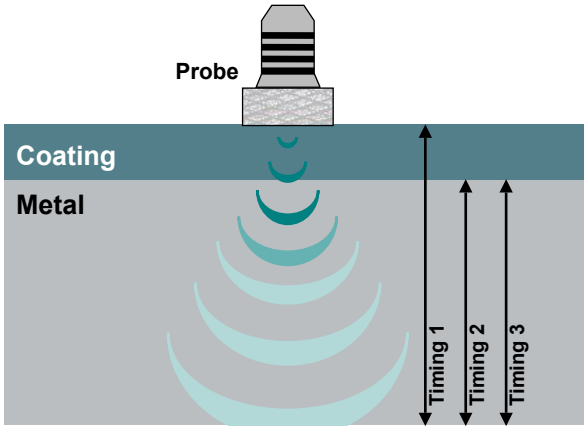
simple . accurate . robust

Multiple Echo - Through Coating Measurement

All Ultrasonic Thickness Gauges should be calibrated to the velocity of sound of the material being measured. Coatings have a different velocity of sound than metal and it is important they are not included in the measurement. Multiple Echo ensures all coatings, up to 6mm thick, are completely eliminated from the measurement.

How it works:

A transmitted ultrasound pulse travels though both the coating and the metal and reflects from the back wall. The returned echo then reverberates within the metal, with only a small portion of the echo travelling back through the coating each time. The timing between the small echoes gives us the timing of the echoes within the metal, which relate to the metal thickness. The returned echoes need not be consecutive as the gauge will interpret them automatically and calculate the thickness. A minimum of three echoes are checked each time. This is referred to as the **Automatic Measurement Verification System (AMVS)**.



"The ability of the gauge to provide repeatable accurate readings was outstanding. There was not a need to remove paint to conduct the testing at any stage. The costs saved for the thickness testing paid for it within one month of use."

Sedgman Pty Ltd - Australia

GRP Measurement

GRP is prone to delamination and blistering and the GRP feature of our gauges can be used to assess its condition to check for delaminations, blistering or osmosis. This is done by comparing the surrounding good area with the suspected faulty area to identify where these problems may have occurred. The gauge will give either an oversize reading, if moisture is present and caused swelling, an undersize reading if it is measuring to a delamination or no reading at all if the delamination has occurred close to the surface and below the measuring range of the probe. Caution should be taken when measuring core GRP as the gauge will not penetrate through the complete structure, but may be able to measure either side to the core depending on its thickness.

"The 5300 GRP has provided consistently repeatable reference GRP thickness measurements in the areas of interest."

Derry Connell Marine Ltd - Ireland

Product Range

	Material			Measurement Mode			
	Metal	GRP	Plastic	Multiple Echo	Echo - Echo	Single Echo	Datalogging
Multigauge 5300 GRP		✓	✓			✓	
Multigauge 5350 GRP Datalogger		✓	✓			✓	✓
Multigauge 5500 Hands Free	✓			✓			
Multigauge 5600 General	✓			✓			
Multigauge 5700 General Datalogger	✓			✓			✓
Multigauge 5650-SG Surveyor	✓	✓	✓	✓	✓	✓	
Multigauge 5650-S Surveyor	✓			✓	✓	✓	
Multigauge 5750-SG Surveyor Datalogger	✓	✓	✓	✓	✓	✓	✓
Multigauge 5750-S Surveyor Datalogger	✓			✓	✓	✓	✓

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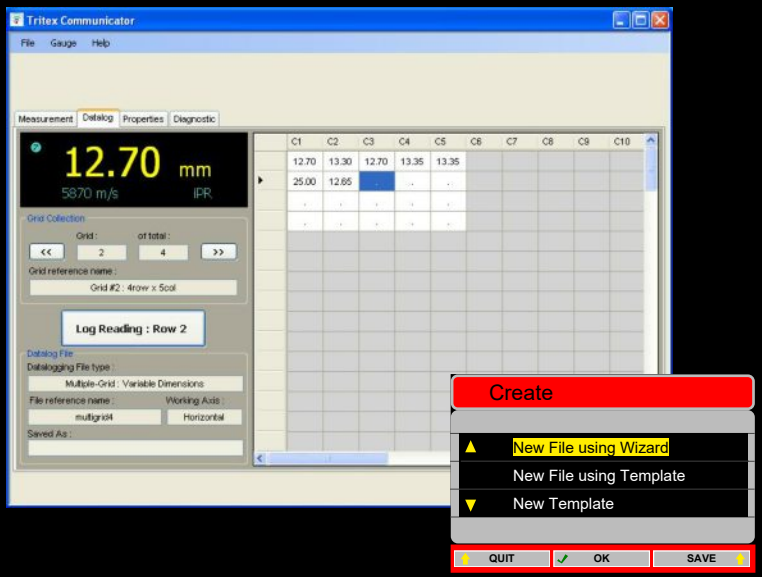
Communicator Software

Tritex Communicator software is used with all datalogging models. Templates can be simply preset, with the aid of a wizard, based on a grid or string of measurements. This gives maximum versatility for a wide range of applications including measurements on pipelines, pilings or ship hulls.

The software also transmits live measurements from the gauge, in real time. These measurement values can be stored along with the time, date and an identifying label for each measurement.

The stored data is saved in a standard TXT format in the form of a report that includes relevant information and the tabulated results. This can be easily opened in software such as Excel.



Features

- Easy to install and very user friendly
- Datalogging with grid or string templates, or a combination of both
- Transmission of live data between the gauge and Communicator software
- Data outputted in report format
- Time, date and a label can be added to each measurement value
- Common output interface (.txt)
- Easy to use wizards for template programming

Specifications

3 YEAR WARRANTY

Sound Velocity Range	*From 1000 m/s to 8000 m/s (0.0394 in/µs to 0.3150 in/µs)*			
Material Type	*GRP Only*	*Metal Only - Soft Faced Probes*		
Single Crystal Probe Options	*1 MHz*	*2.25 MHz*	*3.5 MHz*	*5 MHz*
Probe Measurement Range	*3 - 12 mm (0.120" to 0.5")*	*3 - 250 mm (0.120" to 10")*	*2 - 150 mm (0.080" to 6")*	*1 - 50 mm (0.040" to 2")*
Probe Sizes	*19 mm (0.75")*	*13 mm (0.5") & 19 mm (0.75")*	*13 mm (0.5")*	*6 mm (0.25") & 13 mm (0.5")*
Resolution	*0.1 mm (0.005") or 0.05 mm (0.002")*			
Accuracy	*± 0.1 mm (0.005") or ± 0.05 mm (0.002")*			
Display	*Colour LCD*			
Coatings Range (Multiple Echo)	*Up to 6mm (Standard Mode)*[1]; up to 20mm (Coating Plus+)*[1]*			
Batteries	*3 x disposable AA alkaline batteries or rechargeable NiMH / NiCD*			
Battery Life	*Up to 50 hours continuous use using alkaline batteries*			
Gauge Dimensions	*147 mm x 90 mm x 28 mm (5.75" X 3.5" X 1")*			
Gauge Weight	*325 g (11.5 ounces) including batteries*			
Environmental	*Case rated to IP65. RoHS and WEEE compliant*			
Operating Temperature	*-10°C to +50°C (14°F to 122°F)*			
Storage Temperature	*-10°C to +60°C (14°F to 140°F)*			
DATALOGGING GAUGES:				
Storage Capacity	*32 Mb*			
Data Transmission	*Wireless RF 2.4 GHz. Internationally Acceptable*			
Template Type	*Grid, String or Combination*			

Kit Contents

Multigauge, probe, probe lead, spare membranes *[2], membrane oil *[2], ultrasonic gel, 15mm test block, membrane key *[2], batteries, manual, calibration certificate and carry case.

Datalogging Gauges: Transceiver, Communicator software.

Optional: Leather case.

*1 Figures relate to most coating types
*2 Multiple echo gauges only

Contact

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QA1 International
ISO 9001:2015

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Made in the UK

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