

# Ultrasonic Thickness Gauge

## Multigauge 3000 Underwater Gauge

The Multigauge 3000 Underwater Gauge is a simple, robust ultrasonic thickness gauge designed for most common underwater thickness gauging applications. The gauge is pressure tested to 500m and has the option to transfer measurements to a surface display unit with the simple addition of a replacement end cap. It has been designed and built to survive extremely harsh conditions that exist in the offshore and underwater industries worldwide. The gauge uses multiple echo which means measurements can be easily taken without the need to remove coatings and the large bright LED display ensures the display can be seen by the diver, even in poor visibility.

The gauge is equipped with IPR (Intelligent Probe Recognition), which automatically adjusts settings in the gauge for enhanced performance and AMVS (Automatic Measurement Verification System) to ensure only true measurements are displayed, even on the most heavily corroded metals.



### Features:

- ★ Ignores coatings using multiple echo
- ★ Pressure tested to 500m
- ★ Bright clear LED display
- ★ Easy to use
- ★ No fuss upgrade option to a topside repeater
- ★ Rugged and robust
- ★ Intelligent probe recognition (IPR)
- ★ Automatic measurement verification (AMVS)
- ★ No zeroing required

simple . accurate . robust

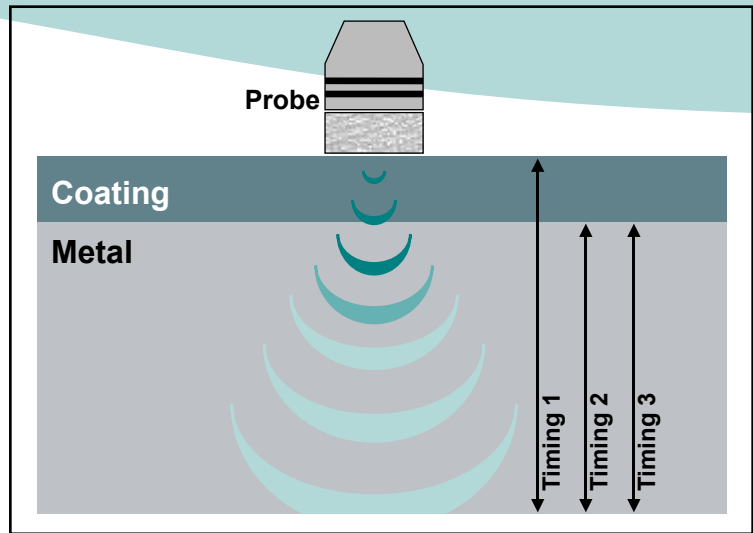


# About Triple Echo

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. Triple Echo ensures all coatings are completely eliminated from the measurement.

## How it works:

A transmitted ultrasound pulse travels through 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).



# Specification

<b>Sound Velocity Range</b>	From 1000 m/s to 8000 m/s (0.0394 in/μs to 0.3150 in/μs)		
<b>Single Crystal Soft Faced Probe Options</b>	2.25 MHz	3.5 MHz	5 MHz
<b>Probe Measurement Range</b>	3 - 250 mm (0.120" to 10")	2 - 150 mm (0.080" to 6")	1 - 50 mm (0.040" to 2")
<b>Probe Sizes</b>	13 mm (0.5") & 19 mm (0.75")	13 mm (0.5")	13 mm (0.5")
<b>Resolution</b>	0.1 mm (0.005") or 0.05 mm (0.002")		
<b>Accuracy</b>	± 0.1 mm (0.005") or ± 0.05 mm (0.002")		
<b>Display</b>	Red 4 character 7 segment LED		
<b>Depth Rating</b>	500 metres		
<b>Batteries</b>	1 x Rechargeable 7.2V 2.3Ah NiMH battery pack		
<b>Battery Life</b>	35 Hours continuous use		
<b>Gauge Dimensions</b>	235 mm x 80 mm (9.25" X 3.15")		
<b>Gauge Weight</b>	1110 g (38.85 ounces) fully assembled		
<b>Environmental</b>	Case rated to IP65. RoHS and WEEE compliant		
<b>Operating Temperature</b>	-10°C to +50°C (14°F to 122°F)		
<b>Storage Temperature</b>	-10°C to +60°C (14°F to 140°F)		

The Tritex Multigauge 3000 has been manufactured to comply with British Standard BS EN 15317:2007, which covers the characterisation and verification of ultrasonic thickness measuring equipment.



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