

# Drone Ultrasonic Thickness Gauge

## Multigaugage 6000 Drone

The Multigaugage 6000 Drone gauge has been designed specifically to mount onto a drone. Multiple Echo technology is used to ignore coatings up to 6 mm thick, just the metal substrate is measured. The measurements are transmitted wirelessly in real time to a PC or laptop up to 500 metres away. The lightweight gauge is supplied with a plastic probe to further reduce weight. 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. The gauge can store measurements in either a grid or string format which can then later be used in other proprietary programs.

### Typical Applications

- Shipping
- Bridges
- Storage Tanks
- Phone Masts
- Silos
- Lighting Columns
- Offshore Platforms
- Wind Turbines

## Features

- Ignores coatings up to **6 mm thick** using **Multiple Echo**. Coating Plus+ ignores coatings up to 20 mm.
- Automatic Measurement Verification System (AMVS).
- Wirelessly transmits measurements up to 500 m.
- **Works with Tritex Gel Dispenser.**
- Lightweight.
- No zeroing required.
- 10 Vdc - 32 Vdc input supply.
- Single crystal soft faced probe.
- Easy calibration.
- Intelligent Probe Recognition (IPR).
- 3 year warranty.
- Free calibration for the life of the gauge.

Wireless  
Transmission  
up to 500m



Lightweight  
Plastic  
Probe



simple . accurate . robust

# Drone Probe Holder

The Probe Holder has been designed to accurately present the probe onto the surface being measured. The connecting spring allows flexibility in all directions and the cone shaped guard ensures the probe is aligned flat onto the surface. A damping compression spring means the probe cannot be driven onto the surface too hard causing damage. The lightweight construction can be used with most drones. It is supplied with two 250 mm x 16 mm diameter carbon tubes to extend the probe out beyond the drones rotors. A specially designed knurled ring allows couplant to be pumped onto the surface of the probe using the Tritex Gel Dispenser.



# Tritex Gel Dispenser

Ultrasonic Thickness Gauges rely on good coupling to the surface being measured and the best option for doing this is to use a gel couplant specifically designed for the job. However, up until now, it has always been a challenge to do this when taking measurements by drone because it has to be applied before each measurement.

The Tritex Gel Dispenser allows for a small amount of gel to be pumped onto the surface of the probe wirelessly by clicking a button on the Communicator software on the PC. It is connected to the Multigauge 6000 Drone gauge which receives the signal from Communicator and in turn sends a signal to the pump within the gel dispenser for a preset time. Gel is pumped from the internal reservoir onto the face of the probe at the optimum time.

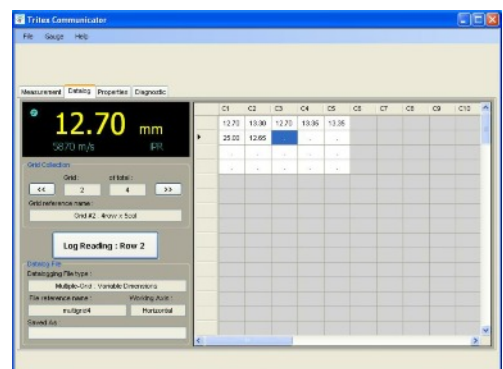


## Features

- Pumps couplant directly to the probe face only when needed.
- Wireless control from Communicator software.
- Lightweight.
- Large 70 ml couplant reservoir.
- Facility to mount onto most drones.
- Supplied as a complete kit including specially modified knurled ring, tubing and connecting cables.

# Communicator Software

The Multigauge 6000 Drone gauge uses wireless technology to transmit the readings to the PC or laptop where dedicated Communicator software displays the measurements in real time. Each measurement can also be stored in a .txt file format which can be opened in proprietary programs to produce reports.



# Specifications

## Multigauge 6000 Gauge

\* Figures relate to most coating types

Sound Velocity Range	From 1000 m/s to 8000 m/s (0.0394 in/μs to 0.3150 in/μs)		
Single Crystal Soft Faced Probe Options	2.25 MHz	3.5 MHz	5 MHz
Probe Measurement Range	3 - 250 mm (0.120" to 10")	2 - 150 mm (0.080" to 6")	1 - 50 mm (0.040" to 2")
Probe Sizes	13 mm (0.5")	13 mm (0.5")	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	Communicator software on PC or laptop		
Data Transmission	Wireless RF, 2.4 GHz. Internationally Acceptable		
Coatings Range	Up to 6 mm (Standard Mode)*; up to 20 mm (Coating Plus+)*		
Power Supply	10 Vdc - 32 Vdc. Polarity Protection		
Wireless Transmission Range	Up to 500 Metres		
Dimensions (Including switches and connectors)	139 mm x 62 mm x 31 mm (5.47" X 2.44" X 1.22")		
Gauge Weight	150 g (5.3 ounces)		
Probe Weight (Plastic Housing)	20 g (0.71 ounces)		
Probe Cable Weight (1.5 m)	65 g (2.3 ounces)		
Environmental	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)		



The Tritex Multigauge 6000 has been manufactured to comply with British Standard BS EN 15317:2013, which covers the characterisation and verification of ultrasonic thickness measuring equipment.

## Gel Dispenser

Power Supply	6 Vdc taken from Multigauge 6000 Drone Gauge
Reservoir Volume	70 ml
Flow Rate (water)	90 ml / min
Pressure (water)	9 psi
Tubing	Silicon, 2.4 mm (0.1")
Dimensions (Including switches and connectors)	110 mm x 68 mm x 45 mm (4.33" x 2.67" x 1.77")
Weight including 1.5 m Tubing (Empty)	180 g (6.35 ounces)
Environmental	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)



## Probe Holder

Dimensions (Flexible Cage)	110 mm x 82 mm (4.33" x 3.23")
Weight (with 2 x 250 mm sections)	105 g (3.7 ounces)

### Kit Contents:

Multigauge 6000 Drone gauge, probe, probe lead, spare membranes, membrane oil, ultrasonic gel, 15mm test block, membrane key, power supply, power - XT30 connector lead, manual, calibration certificate, carry case.

**Optional:** Flexible Probe Holder, Tritex Gel Dispenser.

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**3 YEAR WARRANTY**



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