

# TG-570E

EMAT ULTRASONIC THICKNESS GAGE



## Introduction

The NDT Systems TG-570E is an advanced EMAT thickness gauge that can measure the thickness of metal products with high accuracy and reliability. EMAT stands for electromagnetic acoustic transducer, a technique that generates and detects ultrasonics waves in conducting materials without direct contact or couplant. This makes the TG-570E suitable for testing in harsh environments or under coatings, where conventional methods may not work.

## Key features

- Contactless Measurement of Ferromagnetic and Paramagnetic Materials
- Measurement Through Painted, Oxidized or Oily Surfaces Up to ¼ Inch (6mm) Thick
- No Couplant Required
- High Measurement Accuracy
- Measure at High Temperatures up to 1100° F/600° C (with Specialized Probes)
- Can Measure a Wide Range of Thicknesses from 0.023 Inch to 12 Inches (0.6 mm to 300 mm) or More
- Automatic Operation Mode Including A-Scan and B-Scan Display Modes
- Multiple Measurement Modes Including PEAK-to-PEAK, FRONT, ECHO and DUAL ECHO

## Applications

- Corrosion and Erosion Measurement
- High-Temperature Thickness Gauging
- Contactless Measurement Applications

# TG-570E

## EMAT ULTRASONIC THICKNESS GAGE

Technical Specifications		
<b>General</b>	Package	TG-570E unit, Standard EMAT Probe & Dual Lemo Cable, Li-Ion battery, AC charger (110-240V), USB Cable, User manual, COC
	Dimensions	6.5in x 3.5in x 2in, 1.15lbs   165mm x 90mm x 50mm, 0.5kg
	Power source	Li-ion battery (8 hours autonomy) or AC power (110/220V)
	Operating temp.	-4 °F - 122 °F (-20 °C to 50 °C)
	Storage temp.	32 °F - 104 °F (5 °C to 40 °C)
	Connector type	Dual Lemo-00
<b>Display</b>	LCD Screen	3.5" Color LCD   480 x 320 Resolution   adjustable brightness and palette
	Units	Inch/mm/μs
<b>Transducer</b>	Type	EMAT Electric Coil and Magnet
	Frequency	3.30 MHz; Transverse Wave
<b>Performance</b>	Thickness	0.023" – 11.5+"   0.6mm – 300+mm
	Resolution	0.001"   0.01mm
	Velocity	0.0393 in/us - 0.3930 in/us   1000 - 9999 m/s
<b>Modes</b>	Presentation	A-Scan, B-Scan, Control Mode
<b>Pulser</b>	Pulser voltage	100V - 400V
<b>Receiver</b>	Display modes	RF, FW
<b>Probe Temp Range</b>	Standard Probe	-4 °F - 122 °F (-20 °C to 50 °C)
	High-Temp Probe	-4 °F - 482 °F (-20 °C to 250 °C) - (depending on the conditions and duty cycle – up to +600 °C)
<b>Gates/Modes</b>	Multiple gates	Autocorrelation function (ACF), Echo, Echo-Echo, Peak-Peak, Front
<b>Alarms</b>	Modes	Low & High
<b>Outputs</b>		Mini-USB
<b>Storage</b>	Internal Memory	7000+ Measurements
	Card	Including A-Scans

