

# TT100 DIGITAL ULTRASONIC THICKNESS GAUGE

The **TT100** is a hand held microprocessor controlled thickness gauge specifically designed for measuring the thickness of metallic and non-metallic materials e.g. aluminium, titanium, plastics, ceramics, glass and any other good ultrasonic wave-conductor as long as it has parallel top and bottom surfaces.

With uses in many areas of industry, the **TT100** can perform precise measurements on various types of raw materials, component parts and assembled machinery. It can also be used to monitor all types of pipes and pressure vessels for loss of thickness due to corrosion or erosion.

The **TT100** is extremely easy to use. After a simple calibration to a known thickness or sound velocity, the gauge will give accurate readings in millimetres. Sound velocities for five different materials can be pre-set and ten thickness readings can be stored in the memory.

## Basic Operating Principle:

The principle of ultrasonic wave in the thickness measurement is similar to that of optical wave. The ultrasonic wave pulses transmitted by the probe reach the object to be measured and propagate in the object and, when they reach the interfaces, they are reflected back. The thickness of the object is determined by precisely measuring the time the ultrasonic wave travels in the object. To increase accuracy, the **TT100** is equipped with automatic gain control and V-path error correction.

## TECHNICAL SPECIFICATIONS:

<b>Display type:</b>	4-digit LCD	<b>Material</b>	<b>Sound velocity (m/s)</b>
<b>Minimum display unit:</b>	0.1mm		
<b>Measuring range:</b>	1.0mm-225.0mm (in steel with standard probe) (other maximum values depending on material)	Aluminium	6260
<b>Lower limit steel pipes:</b>	Minimum diameter 20mm x 3mm	Iron	5900
<b>Display accuracy:</b>	+/- 0.1mm	Copper	4700
<b>Sound velocity range:</b>	1000-9999m/s	Brass	4640
<b>Operating temperature:</b>	-5°C to 40°C	Zinc	4170
<b>Frequency:</b>	5 Mhz	Silver	3600
<b>Update rate:</b>	4 Hz	Gold	3240
<b>Power supply:</b>	1.5V AA alkaline cells (2 pcs)	Tin	3230
<b>Battery life:</b>	250 hours with one battery set	Glass	2350
<b>Dimensions (L x W x H):</b>	126mm x 68mm x 23mm		

## TABLE OF SOUND VELOCITY OF VARIOUS MATERIALS:

## *TT100 Ultrasonic Thickness Gauge*

*Includes 2 x 5 MHz Probes*

*(one side entry & one top entry)*

Couplant, Carrying Case & Instruction Manual

