

## **An Introduction to Ultrasonic NDT using the Elcometer MTG2 Material Thickness Gauge**

The Elcometer MTG2 Ultrasonic Material Thickness Gauge has been designed to provide fast, accurate material thickness measurements of uncoated steel substrates - ideal for monitoring corrosion and erosion before painting.

So, how do you measure the thickness of uncoated steel when you only have access to one side? Like a pipeline or storage tank for example?

Using an ultrasonic pulse to determine the thickness of the material, the Elcometer MTG2 provides instant and reliable steel thickness measurements from just one side of an uncoated steel substrate.

Taking a reading couldn't be easier - using a small amount of ultrasonic couplant, press the dual element transducer flat against the surface.

When the transducer is placed correctly on the material, the reading stability indicator shows how strong the ultrasonic signal is – a full bar means a strong signal; ensuring accurate, reliable measurements.

With a pre-set measurement rate of 4 readings per second (4Hz), the Elcometer MTG2 can measure uncoated steel up to 500mm (20") thick, with a maximum accuracy of  $\pm 1\%$  across its range.

And maintaining the gauge's accuracy couldn't be easier. Pre-calibrated specifically for steel, the Elcometer MTG2 is ready for use straight out of the box. Simply zero-point calibrate using the integrated zero disc, to ensure accuracy at all times.

You can connect the Elcometer MTG2 to a computer using a USB cable, and you can transfer your readings live to ElcoMaster, Elcometer's free software for PC - along with all of your other inspection data; such as surface profile or surface cleanliness readings, among others – to generate professional inspection reports, instantly.

But what if you want to non-destructively measure the thickness of a material that's already been coated? Or measure materials other than steel, such as aluminium, copper, plastics, porcelain or epoxies for example?

That's where the Elcometer MTG4, MTG6, and MTG8 Ultrasonic Material Thickness Gauges come in - and they are discussed in another video. For more information simply visit [Elcometer.com](http://Elcometer.com), or click on one of the links on screen.

And please, don't forget to Subscribe to the Elcometer Channel, to be notified of any new videos.