

## **Elcometer FD700 Mini Flaw Detector**

When it comes to monitoring corrosion and erosion, or checking for flaws and defects in a broad range of industry applications, including the oil & gas, marine, transport, power and civil engineering sectors, typically ultrasonic NDT inspections are carried out.

Two common types of ultrasonic NDT inspection methods are thickness measurement and flaw detection.

Ultrasonic Thickness Measurement uses sound to measure material to ensure a part is within specification....

Whereas Ultrasonic Flaw detection identifies the size and position of volumetric material flaws such as Inclusions, cracks, incomplete fusion, and voids within the material.

Typically, ultrasonic thickness measurement and ultrasonic flaw detection are carried out by using two separate gauges – but wouldn't it be great if you could perform both inspections with one easy to use, handheld gauge?

This is where the Elcometer FD700 Flaw Detector comes in.

Combining state-of-the-art flaw detection; with advanced material thickness capabilities in one gauge, the versatile Elcometer FD700 allows you to inspect a wide range of applications by measuring material thickness, and simultaneously detecting the size, type and position of flaws.

When set to 'Thickness Gauge' mode, the Elcometer FD700 has dual, single contact and single delay line transducer options, ideal for any corrosion thickness or precision thickness measurement.

The Elcometer FD700 has a range of measurement modes such as Pulse Echo (PE), Echo Echo EE, Echo Echo Verify (EEV), Pulse Echo Coating Thickness (PECT), plus automatic High Temperature measurement compensation to stabilise readings.

When set to 'Flaw Detector' mode the Elcometer FD700 has all the functionality you would expect from a regular flaw detection gauge included as standard.

It has industry standard defect sizing tools, such as Distance Amplitude Correction (DAC), Time Corrected Gain (TCG), Distance Gain Size (DGS/AVG) and the American Weld Standard (AWS) to calculate the size of a defect.

And to identify the location of a defect in the material, the Elcometer FD7000 also has a Trigonometry function; that calculates how far in front and below the transducer the defect is – ideal for flat surfaces.

The Curved Surface Correction function is designed to improve the accuracy of longitudinal weld inspection on pipelines - as the gauge compensates for the effect the pipeline's curved surface has on weld trigonometry.

The Elcometer FD700 has automatic probe recognition for Elcometer's range of transducers - so as soon as the transducer is connected, the gauge will immediately detect what type of transducer you're working with.

The gauge also features best in class damping range adjustment, ensuring performance optimisation. This is particularly advantageous when using other manufacturer's transducers.

To enable measurements on an impressively large variety of applications, the Elcometer FD700 has three individual, and customisable gates, with Peak/Flank/Zero Cross-over detection.

Whether you're working in Ascan, Bscan, Landscape, or Numerical view, the FD700 offers exceptional visibility on its colour VGA display - critical for overcoming challenges of operating in difficult environments such as bright sunlight.

The Elcometer FD700 is available in two versions: the broadband version, known as the Elcometer FD700DL, has standard broadband filter frequency from 1.8Mhz to 19Mhz. The Elcometer FD700DL+ version offers broadband *and* 2.25, 5, 10 Mhz dedicated filter bandwidth selections for additional signal enhancements.

Conveniently powered by three double A batteries and weighing just 340 grams, the gauge is small, lightweight and portable.

Rated to IP65, its tough aluminium case is ideal for harsh environments. But for extra safety the optional protective case with lanyard connection and convenient stand, allows the device to be stood upright, or on its side.

With all the sizing tools and features included as standard the Elcometer FD700 has all the functionality required for modern-day inspections.

There are no hidden costs, no expensive software requirements or repeat licensing fees. You can carry out firmware updates or transfer measurement readings via USB to Elcometer's free data management software - ElcoMaster®, to create professional inspection reports at the click of a button.

The Elcometer FD700 is the ideal tool to be used as either a thickness gauge with added investigation and evaluation ability, or as a state-of-the-art flaw detector.

For more information on Elcometer's full range of NDT inspection gauges, 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.