

Portable or for integration in the production process

OptiEMAT® is the test device for noncontact ultrasonic inspections (EMAT) at electrically conducting materials.

Applications are thickness measurements, weld inspections for pipes or blank sheets (Taylor Welded Blanks), surface inspections, also for hot components, as well as corrosion inspections.

Advantages of EMAT Ultrasound

- Measurements WITHOUT couplant
- Material inspections also for hot components
- Generation of guided waves
- Applications in which conventional ultrasonic testing methods are difficult or not applicable, e.g. inspection of thin materials

Industrial applications

- Weld inspection (for longitudinal seam welded pipes and blank sheets, Taylor Welded Blanks)
- Crack detection, e.g. for pressure cylinders and gas accumulators
- Surface inspection of rolled, hot or cold-formed parts
- Corrosion inspection, e.g. at pipes and vessels



OptiEMAT ® is the test device for noncontact ultrasonic inspections (EMAT) at electrically conducting materials. Integrated digital converter and wide-band channels enable a large range of industrial applications.

Tone burst with frequencies in a kHz and Mhz range are generated and create various wave modi, like surface waves, lamb waves and shear waves.

The data analysis of **OptiEMAT** ® is done via connection to an external computer. All probes from our EMAT probe product range can be used with **OptiEMAT** ®.

Technical Data

Channels: 1, 2, 4, 6

Band width: 250kHz - 3MHz

PRF: up to 1kHz

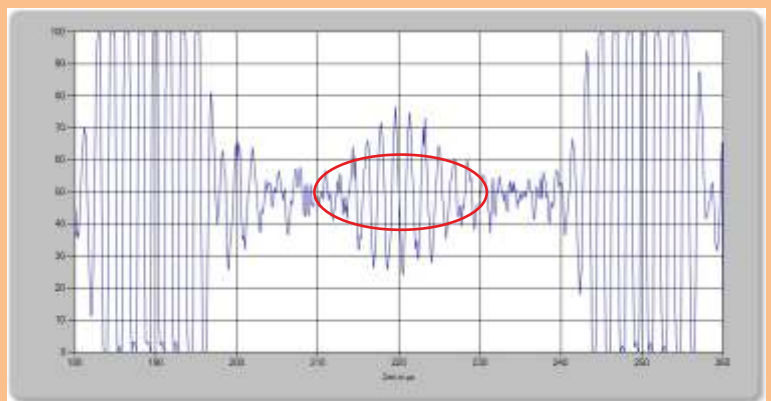
PC-Software: grafical and analyzing software

Dimensions & weight: 47cm x 32cm x 16cm, approx. 5kg

Example of an EMAT inspection



Defect in a welding seam of an aluminium tube: groove 3 x 1 x 0.3mm



A-Scan at the defect