

High Power Polarized Shear Wave EMAT HWR22LM-GF

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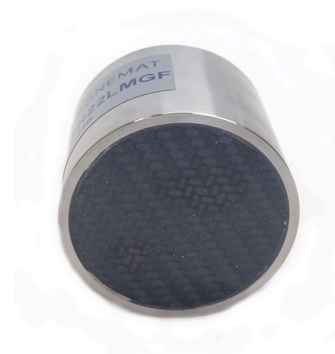
Product Features

- ▶ No couplants required, works on rough surfaces
- ▶ Our most powerful EMAT for challenging applications
- ▶ A strong signal even at high sample-EMAT lift-offs, suitable for scanning applications - up to 5mm
- ▶ Compatible with all Sonemat's bulk wave electronics



Unlock the full potential of EMAT NDT with our High Power Polarised Shear Wave EMAT, HWR22LM-GF, ideal for pulse-echo inspections in challenging environments where the signal with other EMATs can be low, such as with large lift-offs (e.g. scanning) and on samples with high ultrasonic attenuation. This EMAT uses a unique magnet arrangement to produce a very strong magnetic field at the sample surface, safety precautions are required when working with magnetic materials.

This EMAT provides a broad frequency coverage with peak energy around 3-5MHz. Its robust construction ensures a stable working field and exceptional performance on conductive and magnetic properties.



Applications



Energy
Generation



Nuclear



Tanks and
vessels



Pipelines



Oil and Gas

Applications include: thickness gauging, corrosion monitoring and measurement of acoustic birefringence for crystallographic texture and stress. In some circumstances linearly polarised EMATs can offer improved performance over radially polarised ones, as they can be aligned with a material texture axis to ensure no splitting of waves.

- Thickness gauging ($\pm 0.1\text{mm}$)
- Corrosion monitoring
- Acoustic birefringence
- Crystallographic texture
- Boiler tube inspection
- Defect detection

Feature	Description
Probe Configuration	Pulse-Echo, can be used in pitch-catch with two probes
Polarisation Direction	Labelled with a sticker at the top of the probe
EMAT Working Principle	Lorentz force mechanism Magnetostrictive effect (if sample is magnetostrictive)
Weight	0.45kg
Dimensions	44mm length x 54mm diameter, width with BNC socket 63mm
Operating Temp.	0 - 80 °C
Working Voltage	300 - 1000V pulse
Excitation Frequency	Broadband (spike) optimised for peak energy around 3-5 MHz
Wear Face	Composite (as standard, alumina ceramic can be used)
Connections	BNC socket (50Ω)
Magnet Type	Unique magnet arrangement
Recommended Electronics (Driver and Amplifier)	Sonemat's GS2020, PR5000 or PR5020 Contact us for more information
Options	Contact us for more information

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