MsS Underwater Inspections

Underwater Inspection Methodology

For underwater applications the MsS system incorporates a dry coupling tool, a critical adaptation that enables effective inspection in submerged environments. This tool displaces water between the MsS probe and the pipe surface, ensuring proper acoustic coupling necessary for wave propagation. The probe generates torsional mode waves which are particularly effective for underwater conditions. This method allows inspections in rivers, lakes, and flooded areas without the need to dewater the pipe, significantly reducing logistical challenges and costs.

Aspect	Details
Method	MsS Guided Wave System using dry coupling tool for underwater pipeline inspection
Tool Functionality	Displaces water between MsS probe and pipe surface for proper coupling
Probe Type	MsS probe generates torsional mode (shear particle motion)
Inspection Environments	Rivers, lakes, flooded areas, with minimal water removal from outer surface of pipe
Frequencies Used	16 - 250 kHz center-frequency sets

MsS guided wave testing for underwater inspection is a non-invasive method that incorporates high-frequency ultrasonic waves and a dry coupling tool to inspect submerged pipelines efficiently and effectively.