

ART FMD

The trusted solution for Flooded Member Detection (FMD).

TSCSubsea utilises its proprietary radiation-free Acoustic Resonance Technology (ART) to detect seawater in a member. In contrast to alternative FMD techniques, such as Ultrasonic Testing (UT), the ART probe maintains a standoff distance from the inspection surface. This feature reduces the need for extensive cleaning and eliminates the potential for probe damage, making it a highly effective and efficient method for flooded member detection.

Our track record includes performing FMD inspections on a diverse range of offshore structures, ranging from jacket-type platforms to offshore wind structures, including floating installations and complex Caissons risers.



ACOUSTIC RESONANCE TECHNOLOGY (ART)

ART, an advanced non-contact ultra-wideband acoustic inspection technology, sets the industry standard for identifying unwanted substances, such as seawater, within offshore structures from their exterior surfaces.

Its remarkable ability to penetrate subsea coatings, soft marine growth, and materials makes it the top choice for many offshore operators seeking a reliable and efficient FMD inspection.



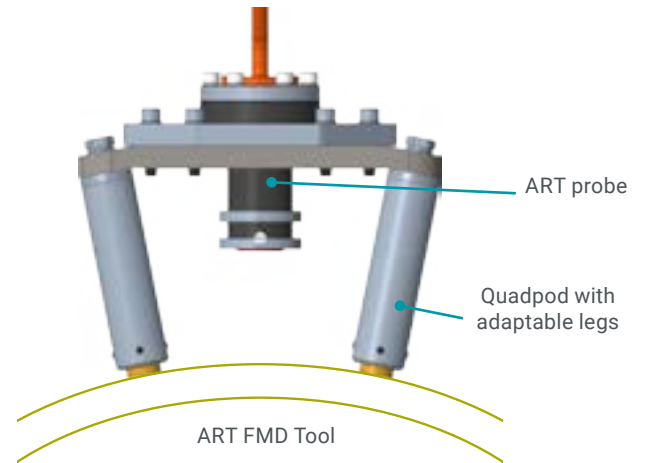
TSC SUBSEA BENEFITS

- > Safe and radiation-free inspections, ensuring operator safety.
- > Unique non-contact method for reliable, damage-free equipment inspections.
- > Accurate and reliable readings even through subsea coatings.
- > Reduced cleaning requirements thanks to ART's high tolerance to marine growth.
- > Deployable by ROV or diver, offering versatility in inspection.
- > Capability to measure water levels within the member.
- > Dual assessment methods for comprehensive evaluation of complex scenarios.

ART FMD DEPLOYMENT

The ROV or diver-deployed FMD tool features an ART probe mounted to a quadpod with four adaptable legs. These leg adjustments are instrumental in customising the tool to match the specific diameter, guaranteeing a uniform and dependable inspection process.

Strong magnetic feet hold the quadpod secure, while the topside operator collects and analyses the data. This seamless process provides instantaneous results, enabling swift determinations regarding the presence of undesired substances, such as seawater, within the member.



WHAT IS FMD?

Flooded Member Detection (FMD) or Flooded Member Inspection (FMI) is a crucial inspection process commonly applied to offshore platforms, subsea structures, and assets like Caissons. Typically, FMD serves as the initial and critical step in a life extension program.

The presence of water within these structures serves as an indicator of their current condition, revealing potential damage or defects. This is particularly relevant since most platform components are designed to remain dry. The detection of water within subsea structures can signify the possibility of through-wall defects or cracked welds.

If left unnoticed, these issues can significantly elevate the risk of structural failure. Therefore, conducting thorough inspections is imperative to promptly identify and rectify these concerns, ultimately mitigating the risks associated with water ingress and flooded members.



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