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LIZARD M8 - ACFM

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LIZARD M8 TECHNOLOGY

The Lizard M8 system is an electromagnetic system that enables to detect a crack, measure its depth and length as well as check the data quality by verifying the lift-off. This system can work with several mm of lift off therefore allowing to inspect through coatings.

The Lizard M8 provides impedance and phase information. This feature enables to identify and determine the depth profile of a crack.



HOW DOES THIS SYSTEM WORK?

The probes are multi-channel and have additional sensors that enable to establish if a correct coupling (lift-off) is maintained during the exploration and if the probes are manipulated correctly, reducing the operator's errors and effectively validating the data quality.

The Lizard M8 is powerful and can be used in any type of environment.

With the implementation of the new LIZARD M8 you can now have probe cables of up to 200 meters, either for above water or underwater inspections. This increases the capability to inspect deep water areas. This system can also operate with temperatures up to 500°C.

The M8 model allows testing with both ACFM and Eddy currents.

WHAT IS ACFM?

ACFM belongs to the family of electromagnetic techniques that measure the changes that occur in a magnetic field when scanning a surface.

This system detects surface cracks without the need to remove anti-corrosion coatings.

The technique is applicable both above water and underwater, having the ability to size length and depth of the cracks. The technique can be applied both on ferromagnetic and non-ferromagnetic materials.



ACFM is used extensively in different fields:

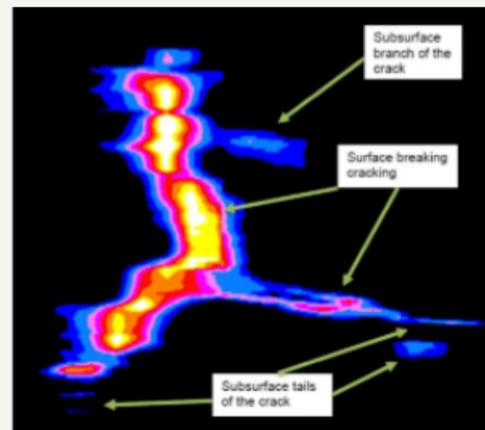
Naval sector, oil and gas, industrial plants, cranes, bridges and many others types of structures.

Features & Advantages

- ✓ It is not necessary to remove coatings or perform a thorough cleaning of the area under test.
- ✓ It can size in length and depth the cracks.
- ✓ It generates a database of inspected structures.
- ✓ Can work remotely (rope access, industrial diving, ROV).
- ✓ It operates in both underwater and industrial environments.
- ✓ It can inspect different materials (carbon steel, aluminium, stainless steel, various alloys).
- ✓ It minimises operator error.

- ✓ Both the Lizard system and the probes are multi-channel. The probes are equipped with additional detection sensors that enable to check the degree of coupling and the correct handling of the test.

- ✓ This tool can generate **FGI images** for the identification of multiple non-linear cracks. The FGI images show the depth profile of the crack.



- ✓ Both the electronics and the probes are multi-frequency. As different frequencies are normally needed to inspect different materials, the Lizard now enables the ACFM operators to use a single probe on multiple materials therefore increasing the flexibility of the inspection while decreasing the total cost of the equipment.

The system complies with standard documents EN1711; ISO 9712 and ASTM E2261 as well as with the ASME BPVC code.