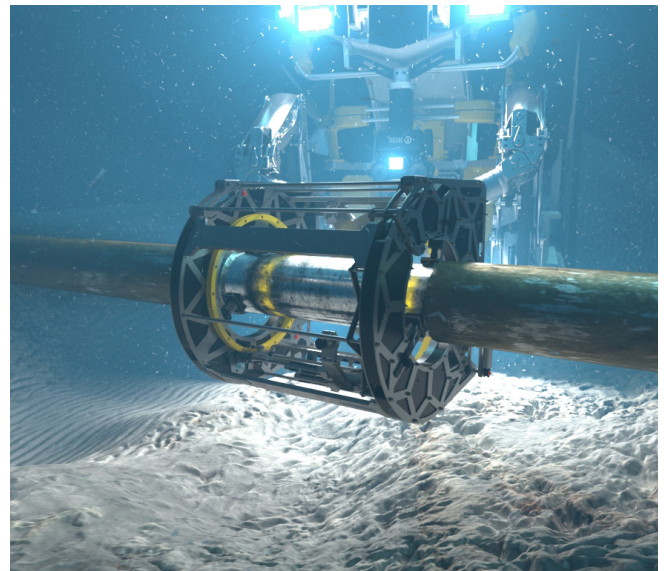


Neptune

ROV-deployed ultrasonic testing tool

Neptune is a high-resolution ultrasonic testing tool designed and developed to examine welds, subsea pipelines, risers, and tubular structures. Neptune's ROV-deployed technologies enable routine and project-specific ultrasonic inspection and provide cost-saving opportunities through reduced inspection time and reduced operational costs.



FEATURES

Deepwater capability to 10,000 ft / 3,000 m

Multiple advanced ultrasonic testing (UT) techniques available

Work or inspection class ROV-deployable

Neptune

ROV-deployed ultrasonic testing tool

Neptune performs high-resolution wall thickness mapping, time-of-flight diffraction (ToFD), and phased array weld inspection using multi-element, depth-rated transducers. The hardware and software developed in-house allow real-time data to be transferred topside via an ROV umbilical. Neptune's design provides operators with an alternative to traditional inspection methods.

The neutrally-buoyant Neptune system is deployed via an inspection or work class ROV and delivers high-quality, automated inspection data and imaging. Using this data, operators can complete fracture mechanic analysis and assess the remaining life of subsea assets.

The Neptune system can be provided with an ROV or as a stand-alone inspection solution capable of interfacing with the customer's ROV.

Applications

- » Integrity inspections of subsea risers, pipelines, and manifold piping
- » Follow-up inspections after pigging inspection activities
- » Underpinning routine subsea visual inspections
- » Pre-hot-tap integrity control solutions

Benefits

- » HSE: The equipment is ROV-deployed and can replace diver-completed operations
- » Cost Savings: The system is operated by an inspection or work class ROV and can be launched from the offshore installation. Performing the operation without the aid of a diving support vessel (DSV) can dramatically reduce operational costs
- » Inspection Quality: The high-definition mapping and weld inspection capabilities of the Neptune system provide valuable engineering information, ensuring accuracy of life expectancy calculations

Technical Data

Design depth maximum	10,000 ft / 3,000 m
Surface transfer	Fiber optic / Ethernet
Weight	Neutrally buoyant in water
Inspection area	360° Y axis / 500 mm X axis
Inspection resolution mapping	1 mm step on both axes
Weld inspection methods	time-of-flight Diffraction (ToFD) / phased array / pulse echo
Launching	From offshore installation or vessel
Asset dimensions suitable for inspection with standard tooling	6 in - 20 in
Wall thickness of item being inspected	No limitations

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