

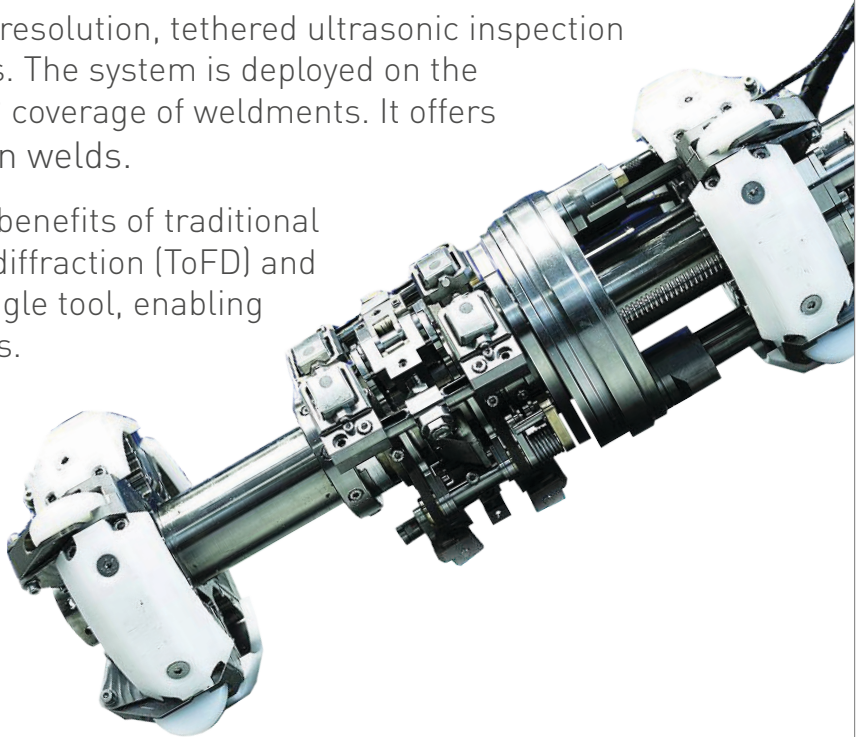
WeldScan System

Tethered ultrasonic inline inspection tool

The WeldScan system provides high-resolution, tethered ultrasonic inspection of circumferential welds for pipelines. The system is deployed on the PipeScan platform and provides 360° coverage of weldments. It offers precise radial and axial positioning on welds.

The WeldScan system combines the benefits of traditional ultrasonic testing with time of flight diffraction (ToFD) and phased array (PA) techniques in a single tool, enabling correlation and comparison of results.

This system can detect cracks, lack of fusion, lack of penetration, slag inclusions, porosity, corrosion, geometric deviations, and wall thicknesses.



FEATURES

Deployed on PipeScan platform

Real-time optimization of inspection parameters

Precise radial and axial positioning on welds

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The WeldScan system is capable of inspecting welds on unpiggable pipelines, risers, caissons, flowlines, conductors, and subsea tie-ins. Using a variety of propulsion methods, the tool can inspect up to 32,808 ft (10 km) from the entry point.

WeldScan Features	
WeldScan size range	10–42 in / 25–107 cm, with other sizes available upon request
Ultrasonic technology	Ultrasonic testing, time of flight diffraction (ToFD), and/or phased array (PA)
Operating liquid	Water, treated seawater, stabilized crude, diesel, and other liquids by agreement
Wall thickness range	> 0.2 in / 5.0 mm
Bend radius	Minimum 3.0 x D bend
Materials	Carbon and non-ferrous
Accuracy of thickness measurement (general)	+/- .01 in (.3 mm) [theoretical +/- .004 in. (1 mm)]
Accuracy of positioning along axis	+/- .04 in (1 mm)
Accuracy of crack sizing	+/- .04 in length, .001 in depth (1 mm in length, .3 mm in depth)
Inspection coverage	360°
Feature detection	Porosity, slag, cracks LOF, LOIRF, Hi/Lo, corrosion, dents, and other ID/OD features
Detectable pipeline installations	Valves, tees, fittings, bends, and sleeves
Applications	Risers, flowlines, caissons, pipelines, conductors, subsea tie-ins
Propulsion methods	To choose the correct propulsion/deployment method, it is important to understand pipeline conditions such as: Tool entry point (e.g., a broken flange) Bends: Number, bend radius Tees: Number, barred/unbarred Pipe information: ID, ID changes