

Corrosion Inspection

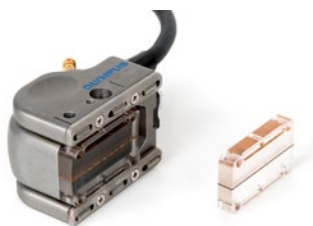
Dual Linear Array Probe

Fast, Simple, and Reliable Corrosion Imaging



The new Dual Linear Array™ probe for corrosion inspection provides many advantages over conventional ultrasonic dual element transducers. This phased array solution improves productivity through features such as larger beam coverage, faster scan speed, and C-scan imaging with increased data-point density. The pitch-catch technique used by this new probe offers better near-surface resolution and pit detection in corrosion survey applications than standard phased array pulse-echo, improving the probability of detection of critical wall thinning.

Thanks to new features, such as built-in irrigation and a replaceable delay line that can be contoured to better adapt to pipe curvature, the DLA corrosion probe can now be used to perform automated inspection.



NEW replaceable delay line

Probe Features

- Near-surface detection capability of 1 mm (0.04 in.).
- New replaceable delay line.
- New built-in irrigation.
- New high temperature option.
- Beam coverage width of up to 30 mm (1.18 in.).
- Quick adjustment system adapts to diameters from 4 in. to flat.
- Carbide wear plates for wedge protection.
- Typical inspection depth of 1 to 80 mm in carbon steel.
- OmniScan configuration files (MX, MX2, and SX) on USB key.

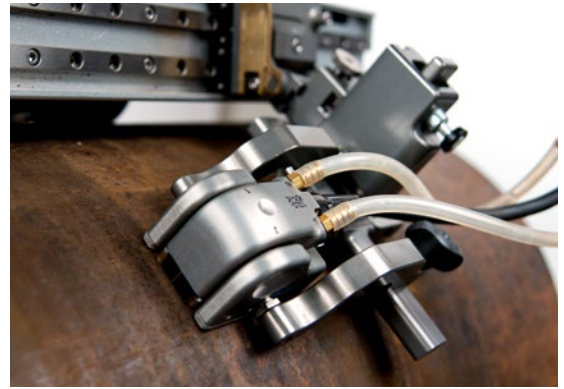
OmniScan Software Features

- Side, end, and top view imaging (B-scan, D-scan, C-scan).
- Full high-resolution A-scan storage.
- Two configurable detection gates.
- Offline analysis on an OmniScan® or a computer using OmniPC™.

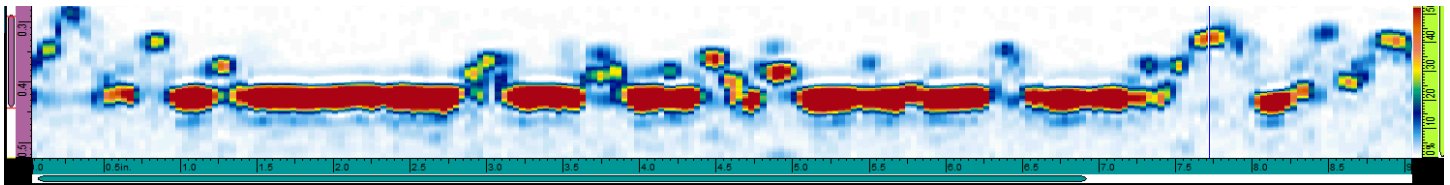
New Features, New Possibilities

When combined with the OmniScan® SX flaw detector, the DLA corrosion probe represent an affordable inspection option. The setup and operation is simple: load the supplied setup file, check the calibration, then inspect and record the data. No Pulse/Receive (PR) instrument required.

Whether it is for fast manual screening of an area with an encoder or for high-speed full volume mapping with the MapROVER™ motorized scanner, the DLA corrosion probe is the tool of choice to quickly and easily perform C-scans on smooth surfaces. The innovative probe stabilization system is now combined with the new contoured removable delay line and irrigation features to provide excellent sound transmission on piping surfaces as small as 4 inches in diameter. Furthermore, the DLA corrosion probe can now be ordered in a high temperature version capable of inspecting surfaces up to 150°C (300°F).



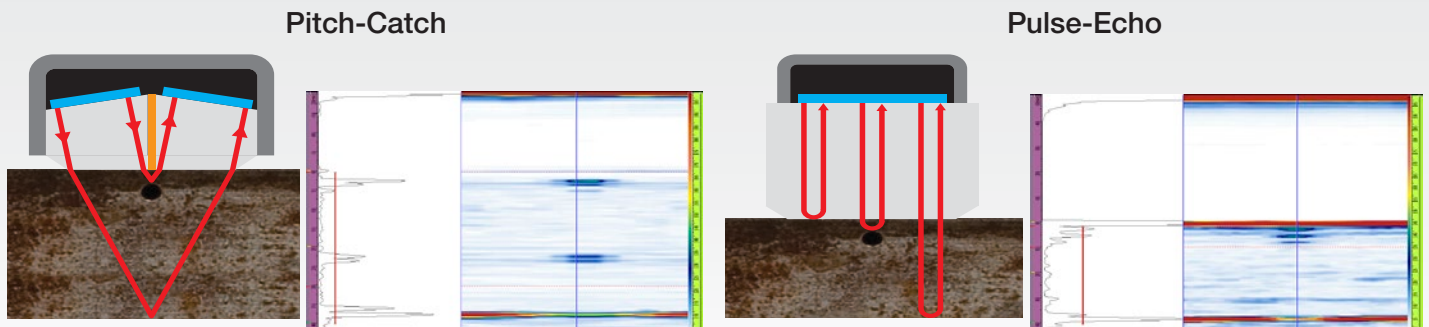
DLA corrosion probe used with the MapROVER scanner for automated inspections



B-scan image of corrosion on carbon-steel pipe.

Dual Array Pitch-Catch Technique

Like dual element UT probes, dual linear array probes incorporate separate transmitting and receiving elements mounted on delay lines that are cut at an angle. This configuration generates beams that focus beneath the surface of the test piece, which considerably decreases the amplitude of surface reflection. This results in increased near-surface resolution, providing higher probability of detection of critical defects such as pitting, creep damage, and HIC (hydrogen induced cracking).



Compared to phased array pulse-echo, the pitch-catch technique produces very little interface echo, offering better near-surface resolution.

Ordering Information

Part Number	Item Number	Frequency (MHz)	Number of Elements	Pitch (mm)	Active Aperture (mm)	Elevation (mm)	Cable Length (m)	Application
7.5DL32-32X5-REX1-P-2.5-OM-IHC-RW	Q3300635	7.5	64 (2 × 32)	1	32	5	2.5	Manual
7.5DL32-32X5-ULT1-H150-2.5-OM-IHC-RW	Q3300636	7.5	64 (2 × 32)	1	32	5	2.5	Manual high-temperature
7.5DL32-32X5-REX1-P-7.5-OM-IHC-RW	Q3300649	7.5	64 (2 × 32)	1	32	5	7.5	Manual and automated

These probes come standard with an OmniScan® connector.

www.olympus-ims.com

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