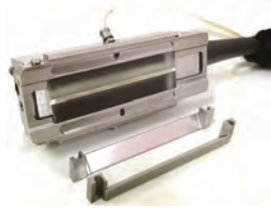


# PA Corrosion Mapping Solutions

Common testing for corrosion includes magnetic flux leakage method, guided wave method, and ultrasonic point thickness measurement. However, for sections of high-risk corrosion, such as elbows, tees, flanges and stress-concentrated welds with variable flow rates, the magnetic flux leakage method and the guided wave method have their disadvantages. Random points are taken in ultrasonic point thickness measurement, which may result in high miss rate and difficult to meet requirements for high detection rate and efficiency. In addition, if the wall thickness is thin, the top end of the etch pit may be close to the upper surface of the workpiece, especially difficult to find small aperture of pitting that often extends to the near surface or even causes perforation. Conventional UT and PA probes are not able to effectively detect such corrosion defects, due to the initial wave and near-field blind zone.

## Corrosion Mapping Solutions

Our solutions provide high density C-Scan data and analysis PC software, with the advantages of small blind zone, high precision, 100% coverage, intuitive test results, traceability and high efficiency.



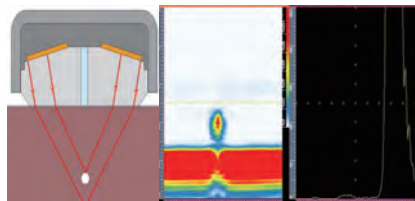
DLA Probe with Integrated Wedge



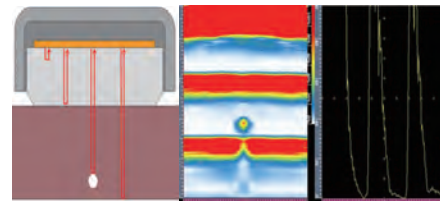
DLA Probe with Replaceable Wedge

### ● Dual Linear Array Probe

The DLA probe is a cost-effective corrosion solution. Coupled with mini encoder PES-02, it can be used for encoded C-scan imaging with 1 mm near-surface resolution. Probe with integrated or replaceable wedge is available.



Pitch-Catch

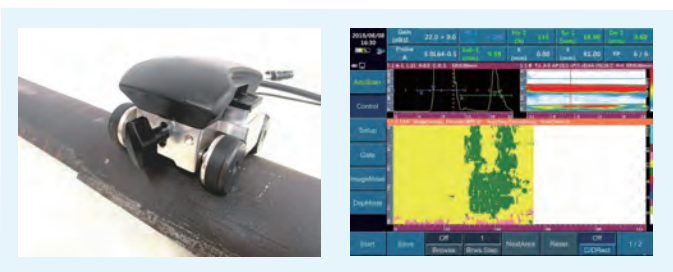


Pulse-Echo

Compared with the pulse-echo, the pitch-catch mode eliminates the clutter between the transmitting crystal and delay wedge, and avoids the initial pulse directly entering the amplifier, greatly reducing the blind zone and providing better near-surface resolution.

### ● Immersion Pipeline Testing with a Corrosion Mapping Scanner MPS-01A

The corrosion mapping scanner MPS-01A uses a mini water storage tank to maintain good coupling of rough workpiece surfaces, suitable for PA immersion testing. Wide coverage of sound beams improves user's testing efficiency.

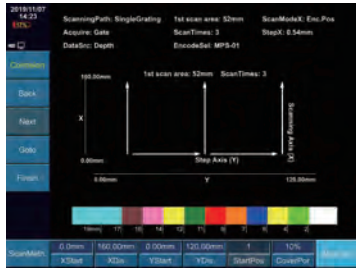


### ● Free 2D Corrosion Mapping Scanner MPS-02

The upgradeable solution from immersion corrosion solution with free 2D scanner MPS-02, which can achieve 360° coding. The Real-time display of probe position and statistical information is available, visualizing the detected area and optimizing the workflow.



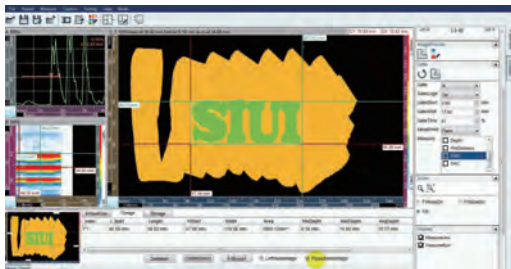
## PA Corrosion Solution Software



Suitable for corrosion mapping applications with a full range of features.

- Wizard for a seamless workflow from setup to report
- High density C-scan
- Real-time statistics and analysis for thickness changes
- Customized color map
- Report generation

## SuporUp PC Software



SuporUp displays A/B/C/D-scan views of corrosion on the PC, supporting a set of analysis functions.

- Customized view layouts
- Image processing
- Defect measurement
- PlanarScan setting for 2D corrosion data
- Versatile reporting capability

## Specification Comparison

	DLA		MPS-01A	MPS-02
PA probe	DLA probe with integrated wedge: 5.0DL32-1.0-4.8-F8E 5.0DL32-1.3-4.8-F8E 7.5DL32-1.0-4.8-F8E 7.5DL32-1.3-4.8-F8E	DLA probe with replaceable wedge: 5.0DL32-1.0-5.0-FRE 7.5DL32-1.0-5.0-FRE	PA immersion probe: 7.5L64-1.0-7-IH	DLA probe : 5.0DL32-1.0-4.8-F8E 5.0DL32-1.3-4.8-F8E 7.5DL32-1.0-4.8-F8E 7.5DL32-1.3-4.8-F8E
Delay line medium	Rexolite		Water	Rexolite
Suitable for plate	✓	✓	✓	✓
Suitable wall thickness	≥4 mm		≥6 mm	≥4 mm
Suitable pipe OD	≥20.3 mm	≥100 mm	≥100 mm	≥100 mm
Max. beam coverage	30-40 mm	30 mm	60 mm	30-40 mm
Typical near-surface resolution (2mm FBH)	1 mm near-surface resolution		N/A	1 mm near-surface resolution
Scan direction	Positive/ Reverse		Positive/ Reverse	2D
Encoder precision	0.05 mm/step (with PES-02)		0.12 mm/step	0.13 mm/step
IP	IP68 for PES-02		IP68	IP68
Composition features	Carbide wear-resistant design to protect wedge		Visual mini water storage tank for immersion testing; Bubble discharge design and consumable gasket for good coupling; Magnetic wheels for stable operation.	Magnetic or rubber wheels are available to adapt to different materials.
	Adjustable positioning strips & water injection frame with different curvatures for good coupling.	Detachable for perfect fit on different curvatures.		
Instrument compatibility	SyncScan/ SyncScan 2			SyncScan 2
Software	PA corrosion solution software; SuporUp PC software			