

Sp-Arc

Small pipe corrosion mapping scanner



Sp-Arc inspecting the underside of a 3" pipe

Sp-Arc is a unique mapping tool for measuring wall thickness longitudinally along small bore ferritic pipes, enabling continuous corrosion assessment along unlimited lengths.

The scanner houses a curved ultrasonic array probe immersed in a water box with a compliant, low-friction foam seal.

Benefits

- Covers the important inspection area on the underside of pipes
- Up to 120° coverage in a single scan (1-2" NPS)
- Scans small bore pipes from 1" - 4" NPS
- Immersion quality ultrasonic data provides excellent near-surface resolution

The innovative design of the Sp-Arc scanner provides fast, continuous ultrasonic corrosion mapping of a sector of the pipe circumference. A single adjustable buggy operates on pipes from 1" - 4" NPS.

At the core of the scanner is an irrigated water box housing a curved ultrasonic array probe, set concentric to the pipe surface. The water box seals to the pipe using a soft foam, coated with a low-friction protective layer to improve both wear resistance and durability. The foam seals are a simple and inexpensive component to replace. Dedicated water boxes for specific pipe sizes are easily interchanged on the buggy to cover the full range of pipe diameters.

The Sp-Arc scanner is equipped with four high strength magnetic wheels, with their separation adjustable to suit the pipe diameter. In addition the transducer height is independently set to align the array to the pipe surface, making it simple, quick and easy to install and operate.



Features

- Magnetic wheeled buggy for use on 1–4” NPS pipes
- Dedicated irrigated water boxes available (1”, 2”, 3” and 4”) and easily interchanged
- Water box can be independently raised and lowered relative to the buggy to fine tune the concentricity
- Three ultrasonic curved phased array transducers available (R35, R55 & R70) to cover the complete pipe size range
- Spring loaded waterproof wheel encoder. IP68 rated (immersion up to 1m) with guard to protect from accidental damage
- Encoder resolution: 65.6 steps/mm

Options and Accessories

- **Curved array transducers:**
 - 10CC35-64-80X3-R-P-5-OM (R35 probe)
 - 10CC55-64-96X3-R-P-5-OM (R55 probe)
 - 10CC70-96-144X3-R-P-5-OM (R70 probe)
- **Water boxes:**
 - AEP-SPARC-WB1 (1” pipe)
 - AEP-SPARC-WB2 (2” pipe)
 - AEP-SPARC-WB3 (3” pipe)
 - AEP-SPARC-WB4 (4” pipe)
- **Foam seals:**
 - AEP-SPARC-SEAL1 (1” pipe)
 - AEP-SPARC-SEAL2 (2” pipe)
 - AEP-SPARC-SEAL3 (3” pipe)
 - AEP-SPARC-SEAL4 (4” pipe)
- **Encoder:** AEP-ENCWP-5M-TERM
- **Couplant pump**—details on request

Order Information

	Buggy	1" water box	2" water box	3" water box	4" water box	R35 array	R55 array	R70 array
AE-SPARC-1-2	●	●	●			●		
AE-SPARC-1-3	●	●	●	●		●	●	
AE-SPARC-1-4	●	●	●	●	●	●	●	●
AE-SPARC-2-3	●		●	●			●	
AE-SPARC-2-4	●		●	●	●		●	●
AE-SPARC-4	●				●			●



Scan

For more information about Sp-Arc

Kit

- Buggy
- Curved ultrasonic array probe(s) as required
- Water boxes as required
- Four replacement foam seals per water box
- Waterproof wheel encoder with 5m cable
- Irrigation tubing and Y connectors
- Rugged carry case



Kit featured is AE-SPARC-1-2