

PHASED ARRAY SMALL BORE SCANNER



Oceaneering Specialist Inspection Services offers an innovative approach to the inspection of boiler tubes and thin walled piping. With advances in Phased Array technology it is now possible to replace on-site radiography with recordable ultrasonic's on tightly restricted plant components.

The innovative system allows for circumferential inspection on thin walled piping providing automated data collection on pipe diameters starting from 25mm.

The low profiled scanner is specifically designed for use on small bore piping where minimal clearance is a requirement. The design of the scanner allows for adjacent restrictions to be as close as 13mm, making the system ideally suited for boiler tube inspection.

The state-of-the-art scanner is fitted with a custom built 10Mhz 32 element Phased Array transducer which has been designed to give extended focal ability whilst achieving high ultrasonic sensitivity. The probe has interchangeable wedges that can be suitably selected depending on pipe diameter.

The scanner works with the Olympus OmniScan MX PA 32:128 and with its micro-wheel encoder allows for full encoded data collection ensuring the system is fully code compliant. By combining corrected C-Scan imaging and S-scan displays, indications can be measured for circumferential length and through wall extent.

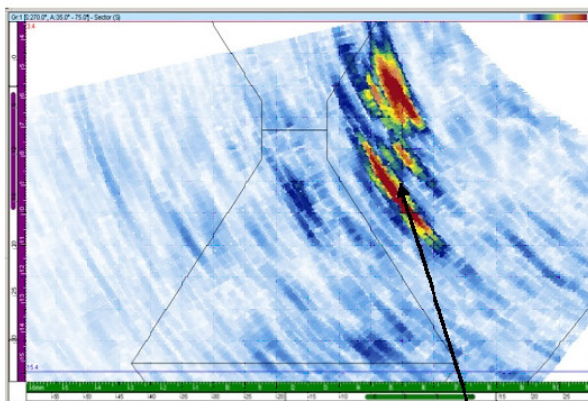
Features

- 32 Element 10Mhz Probe
- Semi-automated data collection
- 13 mm clearance
- Pipe diameter 25mm - 90mm
- Qualified on WT as little as 5.5mm
- Lightweight, portable and robust

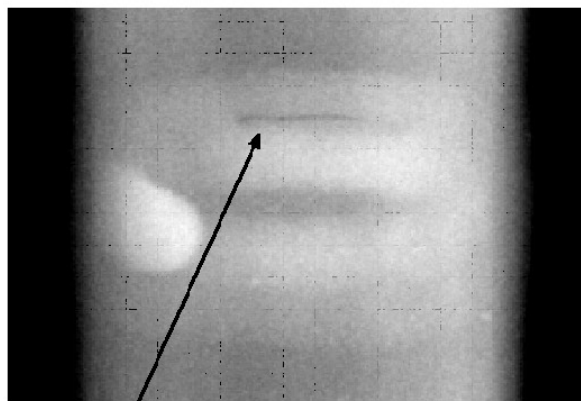


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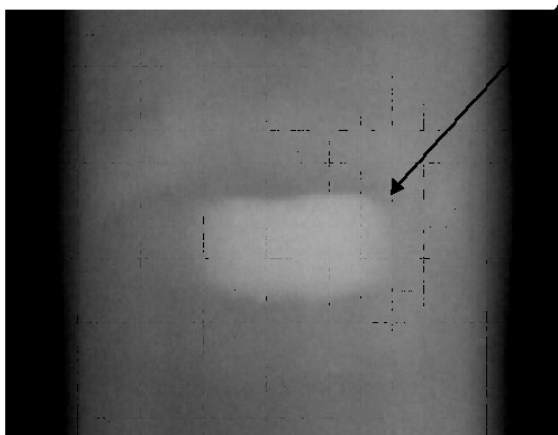
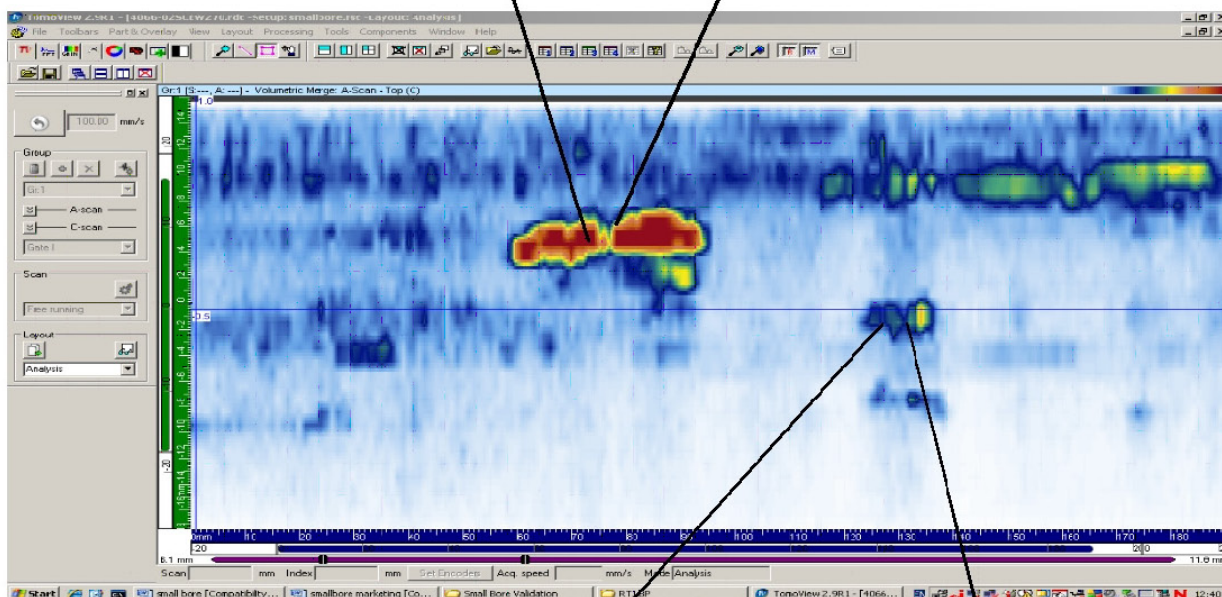
The data presented is from 50mm piping of 8mm wall thickness



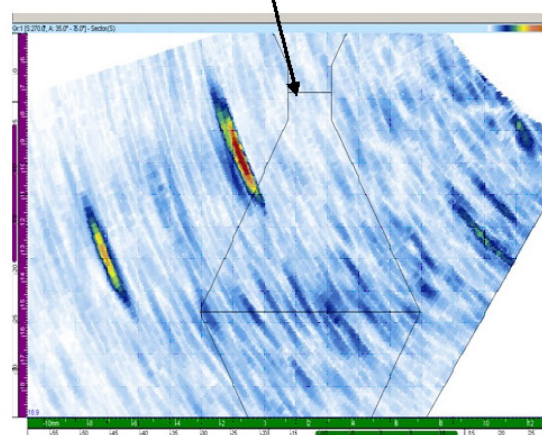
PAUT S-Scan showing root crack



Radiograph of root crack



Radiograph of excess root penetration



PAUT S-Scan showing excess root penetration

