

UltraScan Duo detects cracks and metal loss in a single in-line inspection

UltraScan™ Duo is the first in-line inspection tool capable of detecting and measuring both cracking and metal loss in the same inspection run.

The distinct advantage of Duo

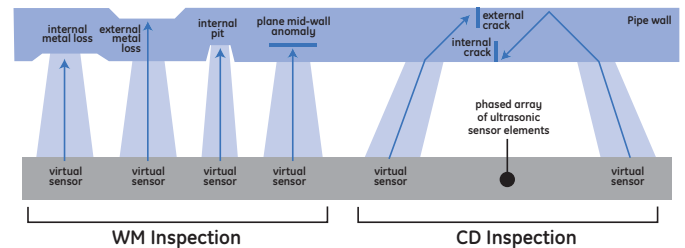
UltraScan Duo uses Phased Array Technology developed by GE Healthcare to perform higher-resolution brain, spinal and soft-tissue diagnostics and help save lives. Now, GE applies this same technology to help prevent pipeline failure. The new inspection tool enables greater data resolution and accuracy – giving pipeline operators higher confidence for important integrity-related decisions.

Duo's pioneering two-in-one capability can significantly reduce inspection costs. And because all data is collected in a single run, correlation of crack-detection (CD) and wall-measurement (WM) data is seamless – ideal for SCC modeling and other integrity management activities.

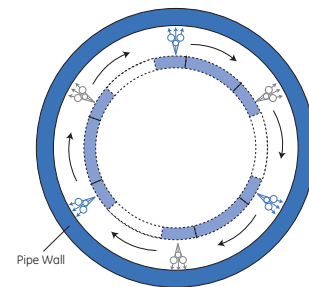
An UltraScan Duo inspection is a statistically reliable way to detect significantly more flaws of varying degrees than other procedures. It identifies defect type and scale, then enables prioritisation for monitoring and remediation activities. If you are concerned about SCC, UltraScan Duo can help give you greater peace of mind with its unprecedented ability to align and cross-reference metal-loss and cracking data.

Duo offers much more than a snapshot in time. It provides a fully detailed view of your pipeline's condition – and gives you the knowledge necessary to better control it in the future.

Phased Array Technology



A combination of adaptable perpendicular and angled ultrasonic beams optimise the probability of both detection and identification for all types of cracking and metal-loss defects. The size, strength and angle of the beams can be electronically tailored to each application.



Each virtual sensor transmits ultrasound beams in three directions (perpendicular, left and right); sensor arrays are arranged in two or more planes to provide full coverage of pipe circumference.

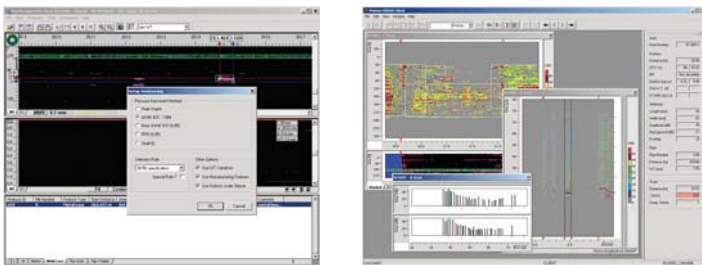


UltraScan Duo makes more information more affordable

UltraScan Duo can help simplify scheduling and cut inspection costs, giving you twice the data in half the time.

Key Features

- Combined CD and WM measurement capability
- The first application of Phased Array Technology (PAT) to inline inspection.
- Additional defect information improves crack-depth sizing and detection of mid-wall defects and lamination
- Minimum detectable crack size of 25 mm in length and 1 mm in depth
- High-speed inspection capability
- Metal-loss detection in thin walls
- More accurate detection and measurement of pitting
- Less susceptibility to echo loss
- Simultaneously identifies cracks and metal loss in SCC areas
- Discriminates between laminations and SCC
- Discriminates between metal loss and crack-like defects
- Identifies hook cracks



The final report and data are accompanied by advanced viewing software that includes intuitive navigation, simple top-down signal visualisation, multiple data-import options, dig sheet creation, Defect Severity and Distribution Assessment features.

Contact

For more information on UltraScan Duo, contact your GE representative or visit www.gepower.com/duo

Operating Parameters

Property	Specification
Diameter Range	24-42"
Operational Modes	CD, WM, Duo, Pitting
Inspection Speed	0-2.5 m/s in WM mode 0-1.9 m/s in CD mode 0-1.4 m/s in Duo mode
Inspection Range	> 300 km
Bend/bore Passing	1.5D / 85%
Max. Pressure	120 bar
Temperature	0-60°C

Tool Specifications

Property	Specification
Length	5.9 m
Weight	1500 kg
Wall Thickness	5-40 mm
Wall Thickness Resolution	0.1 mm
Crack Detection at POD* of 85% with Min. Depth 1 mm 95% with Min. Depth of 40% wt	
Min. Depth	1 mm
Min. Length	25 mm
Min. Width	0 mm
Metal Loss at POD of 90%	
Min. Depth	1 mm
Depth Sizing Accuracy	± 0.3 mm
Length Sizing Accuracy	± 6 mm
Width Sizing Accuracy	± 3.5 mm
Min. Sizeable Pitting Diameter	10 mm

* POD = Probability of Detection