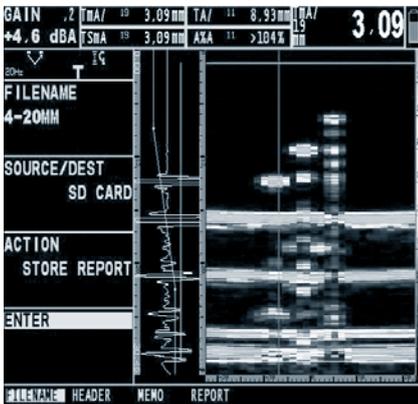


## PHASED ARRAY

## INSPECTION TECHNIQUE

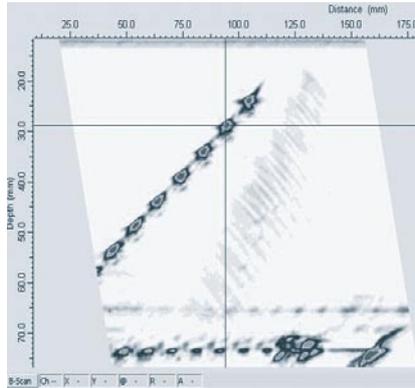
Phased array is an advanced pulse-echo technique utilising multiple miniaturised transducers and time-delays to shape the ultrasonic sound beam in a desired angle and focus. Therefore the technique has a wide range of applications.

A phased array probe houses an array of ultrasonic transducers which are acoustically insulated from each other. By pulsing the elements with different time-delays, the angle of the ultrasonic sound is 'steered' to a specific angle, focus-point or both.



Phased array has several advantages in comparison to manual pulse-echo, such as

- Digital storage of all data, location and system settings
- Visualisation of indications in weld and/or base material, using B-, C-, D- and S-scans (with all A-scans included)
- Possibility to facilitate inspections of complex geometries



Interpretation of the data can be done after scanning.

An overlay of the geometric configuration can also be plotted over the collected data (before and after scanning) for easy defect identification, location and orientation.

## APPLICATIONS

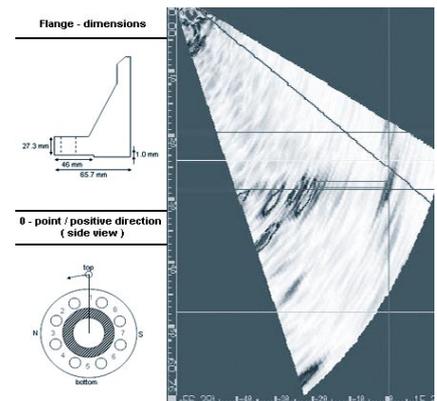
With phased array there is a wide range of applications, such as

- Weld inspection of vessels, pipelines and plates
- Weld inspection of complex geometries, such as nozzle-welds
- Flange face corrosion inspection
- Fast corrosion scanning utilising 0 degree angled wedges
- Code case inspection in combination with Time of Flight Diffraction (TOFD) and/or pulse-echo

The outcome of a phased array report can be either a simple document with all settings and results or an extended report with all scans/views included.

## THE SGS EXPERTS

SGS Industrial Services has the knowledge, expertise and experience to perform conventional and advanced Non-Destructive Testing (NDT) inspections around the world using our unique international network. Our services offer variations from techniques and systems from Guided Wave and conventional NDT techniques to Risk Based Inspection (RBI/AIM), TOFD, Corroscan, Positive Material Identification (PMI), Magnetic Flux Leakage (MFL), Alternating Current Fields Measurement (ACFM), Leak Testing, Thermography, Electromagnetic Testing (ET), Remote Field Eddy Current (RFEC), Internal Rotary Inspection System (IRIS), Digital Radiography, Radiation Detection, Remote Visual Inspection (RVI) and Endoscopy Inspections.



We are pleased to provide services to any location around the world, pertaining as to how SGS can help you in improving the reliability of your processes and assets.

## CONTACT US

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