

Ultrasonic Phased Array Specific Training 40 hours Training Course Outline

The Phased Array training includes the concept of the Phased Array Principles The prerequisite for this Class is UT Level II

SCOPE

This course introduces the basic principles of ultrasonic phased arrays and prepares the candidate use Phased Array for ultrasonic examinations. This course prepares a candidate to

- Perform Specific Calibrations
- Specific NDT
- Record Results



TRAINING

Training is conducted in Modules

Module PA1: Phased Array Theory

- Beam Profile of a Conventional Probe
- Near Field and Beam Spread
- Conventional Focusing
- Phased array Focusing using Time Delays
- Beam Steering and Element Size

Module PA2: Phased Array Probes

- Probe frequency, element size and Aperture
- L-wave Probes
- S-wave Probes

- Probe definition

Module PA3 Phased Array Instrument

- Starting the instrument
- Navigating Menus
- Submenus

Module PA4: Instrument Basic Functions

- Entering Probe Data
- Entering Wedge Data
- Probe Element Verification

Module PA5: Calibration

- Sound velocity
- Wedge delay
- Sensitivity
- TCG
- Encoder

Module 6 Flaw Detection

- Weld inspection
- Manual Scans
- Encoded Scans
- Locating Flaws

Module 7: Sizing Flaws

- Selecting Phased Array Probes for Sizing
- Focal Spot Size
- Measuring the Flaw Size

Module 8: Phased Array in lieu of Radiography

- ASME Code case 2235 and 181
- Requirements of the code cases

Birring NDE Center, Inc.

832 533 8366

www.nde.com/training