

# TOTAL FOCUSING METHOD (TFM)



## COURSE CONTENT

Total Focusing Method (TFM) is an examination technique involving the combination of classic Full Matrix Capture (FMC) data acquisition and TFM data reconstruction. The method has capabilities of improved resolution and depth of field over a larger region with less scattering of sound waves from material noise which can be applied across a wide range of industries.

Our TFM course is designed to educate advanced inspectors in the methodologies and techniques to accurately identify and interpret defects in challenging inspections. The course syllabus has been written in accordance with ASME Section V and 2020 SNT-TC-1A.

## COURSE OUTLINE

- ☐ Overview of PAUT and FMC data collection
- ☐ Beam forming and resolution
- ☐ Amplitude fidelity, interface/dead zones and calibration
- ☐ Sensitivity correction
- ☐ Corrosion mapping
- ☐ FMC characteristics (direct modes and bi-modal techniques)
- ☐ Plane Wave Imaging (PWI)
- ☐ Understanding the various modes used in TFM and benefits of enhanced detection, characterisation and sizing
- ☐ Inspection of vertical angled joint faces
- ☐ Evaluation and examination including display settings, flaw characterisation, flaw dimensioning and software tools
- ☐ Weld and corrosion examinations including single v and double v welds
- ☐ Practical use of TFM phased array applications for austenitic stainless-steel and ferritic steel weld inspection
- ☐ Hands on practical testing on a wide range of samples using the latest technology equipment, such as the M2M GEKKO and the Omniscan X3



## DURATION

80 hours over 10 days (9 days training & 1 day examination covering both theory and practical).

## PRE REQUISITE

To be eligible for this course candidates must hold UT Level 2 Welds PCN or SNT certification. Ideally candidates will have an understanding of PAUT.

## CONTACT US

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