



## ULTRASONIC TESTING – Level I 40 hours (5 Days)

### COURSE DESCRIPTION

This 40 hours course is a preparatory course designed for personnel without prior experience in the method. The course provides a full appreciation in the techniques and method of ultrasonic testing. A high theory and practical content is offered. This course is designed to meet ANSI/ ASNT CP-105: "Topical Outlines for Qualification of Nondestructive Testing Personnel".

### COURSE TOPICAL OUTLINE

#### BASIC ULTRASONIC

1. Introduction
2. Basic Principles of Acoustics
3. Equipment
4. Basic Testing Methods

#### ULTRASONIC TECHNIQUE

1. Testing Methods
2. Calibration

#### WHO SHOULD ATTEND

This course will benefit NDT personnel, maintenance personnel, Quality Assurance/ Quality Control Inspectors, engineers, surveyors, technicians, trainees in the aerospace, metal fabrication, oil refinery, petrochemical, offshore, shipbuilding, ship-repairing and building construction industries.

## ULTRASONIC TESTING – Level II 40 hours (5 Days)

### COURSE DESCRIPTION

This 40 hours course covers all the theoretical aspects of the method including application skills, defect sizing, and calibration. It is fully supported by 50% practical sessions and lectures on the latest developments. This course is designed to meet ANSI/ ASNT CP-105: "Topical Outlines for Qualification of Nondestructive Testing Personnel".

### COURSE TOPICAL OUTLINE

1. Review of Ultrasonic Technique
2. Evaluation of Base-Material Product Forms
3. Evaluation of Weldments
4. Evaluation of Bonded Structures
5. Discontinuity Detection
6. Evaluation

### LEARNING OBJECTIVES

1. Basic principles of the ultrasonic test method
2. Applications of the ultrasonic test method
3. Types of discontinuities detected with the ultrasonic test method
4. Cause and effect of various types of discontinuities
5. Operational steps in the ultrasonic test and the importance of each step
6. Ultrasonic examination following a written procedure
7. Interpretation and evaluation of test results with respect to the applicable standards
8. Test reports and written procedure
9. Location of defects in various materials, components and structures with a high probability detection

#### WHO SHOULD ATTEND

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