

# € TRAINING

Process Equipment Integrity



23 - 27 March 2025  
Istanbul (Turkey)



# Process Equipment Integrity

REF: E420 DATE: 23 - 27 March 2025 Venue: Istanbul (Turkey) - Fee: 6375 Euro

## Introduction:

Maintaining the integrity of process equipment is crucial for ensuring safe and efficient industrial operations. Process equipment integrity focuses on preventing failures through regular inspections, maintenance, and adherence to safety standards to extend asset life and reduce risks. This training program offers comprehensive instruction on inspecting, evaluating, and repairing process plant equipment and connected piping systems. Through it, participants will explore inspection techniques, evaluation methods, and repair strategies essential for maintaining process plant equipment and piping systems.

## Program Objectives:

At the end of this program, participants will be able to:

- Explore the fundamentals of process plant equipment inspection and safety protocols.
- Apply various inspection techniques for pressure vessels, including NDT methods.
- Evaluate and inspect piping systems using visual and advanced testing methods.
- Implement effective repair strategies, including welding and corrosion mitigation.
- Follow safety practices and regulations during equipment inspection and repair activities.

## Targeted Audience:

- Process, Mechanical and Chemical Engineers.
- Operation and Maintenance Engineers.
- Project Engineers.
- Supervisors and Managers.
- Technical Personnel involved in the inspection.

## Program Outlines:

Unit 1:

Fundamentals of Process Plant Equipment Inspection:

- Introduction to process plant equipment inspection.

- Importance of equipment inspection for safety and reliability.
- Overview of process plant equipment types.
- Understanding inspection standards and regulations.
- Introduction to non-destructive testing NDT methods.
- Safety protocols and procedures for inspection.

## Unit 2:

### Inspection Techniques for Pressure Vessels:

- Overview of pressure vessel inspection requirements.
- Visual inspection techniques for pressure vessels.
- Ultrasonic testing UT methods for inspection.
- Radiographic testing RT methods for inspection.
- Magnetic particle testing MPT methods for inspection.
- Liquid penetrant testing LPT methods for inspection.

## Unit 3:

### Evaluation of Piping Systems:

- Introduction to piping system evaluation.
- Piping inspection techniques and procedures.
- Visual inspection of piping systems.
- Ultrasonic testing UT methods for piping inspection.
- Radiographic testing RT methods for piping inspection.
- Magnetic particle testing MPT methods for piping inspection.

## Unit 4:

### Repair Strategies for Process Plant Equipment:

- Overview of repair strategies for process equipment.
- Importance of proactive maintenance.

- Repair and replacement considerations for damaged equipment.
- Welding techniques and procedures for repair.
- Non-destructive testing NDT methods for weld inspection.
- Corrosion prevention and mitigation strategies.

## Unit 5:

### Safety Practices in Equipment Inspection and Repair:

- Importance of safety in equipment inspection and repair.
- Regulatory requirements and industry standards for safety.
- Personal protective equipment PPE requirements.
- Hazard identification and risk assessment.
- Safety procedures for working at heights and confined spaces.
- Lockout/tagout LOTO procedures for equipment isolation.