



ISO 3834 Fusion Welding Quality Lead Implementer Course

Overview

ISO 3834 defines quality requirements for welding. It is used for assessing the manufacturer's welding quality for fusion welding of metallic materials without being assigned to any products. There are 3 types of quality level certification based on ISO 3834 part 2, 3 & 4 (comprehensive, standard & elementary respectively). A selection criterion is based on safety critical and dynamic loading of the products, in service conditions.

Specification of quality requirements for welding processes is important because the quality of these processes cannot be readily or economically validated. Therefore, they are considered to be special processes as noted by ISO 9000:2015. ISO 3834 consists of the following parts, under the general title Quality requirements for fusion welding of metallic materials:

- Part 1: Criteria for the selection of the appropriate level of quality requirements
- Part 2: Comprehensive quality requirements
- Part 3: Standard quality requirements
- Part 4: Elementary quality requirements
- Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4

Course Objectives

This course is designed for

Those with design, procurement, manufacturing, inspection & testing of pressure equipment / structural support system, meant for European markets, including:

- Design Engineers
- Procurement personnel
- Factory Production managers and operators
- QA/QC Personnel
- Welding Engineers
- Department heads / engineers in production, NDE etc.,

Course Content

- ISO 3834– overview
- Elements of 3834
- Use of this part of ISO 3834
- Review of requirements
- Technical Review – materials type, welding process, NDE etc.,
- Welding coordination personnel competencies
- Responsible Welding coordinator (RWC) as per ISO 14731
- Sub-contracting of welding activities
- Heat Treatment & NDE
- Inspection & Testing
- Sub-contracting
- Welding personnel
- Inspection and testing personnel
- Equipment
- Welding and related activities
- Welding consumables
- Storage of parent materials
- Post-weld heat treatment
- Inspection and testing
- Non-conformance and corrective actions
- Calibration and validation of measuring, inspection and testing equipment
- Identification and traceability
- Quality records
- ISO 3834:2021 Internal Audit Process

- Internal Audit processes and criteria
- Identification of Non-Conformities [N/C's].
- Creating a Corrective Action Plan
- How to construct a Root Cause Analysis Checklist
- Examples of how a well-run Root Cause Analysis Process works
- Corrective and Preventive Actions

Training Methodologies

- Case Study
- Individual Exercises
- Role Play
- Group Exercises
- Group Presentation
- Examination