

Welding Inspection and Quality Control



Welding quality control is the process of ensuring that the welds produced meet the specifications and standards required for the product or structure. Welding quality control involves checking and testing the welding procedures, equipment, materials, and welds before, during, and after the fabrication process. This course is designed to equip students with the knowledge and skills required for effective welding inspection and quality control. Participants will learn about inspection techniques, quality assurance measures, industry standards, and best practices to ensure the integrity and reliability of welded components.

Training Outcome:

- Understand the importance of welding inspection and quality control.
- Learn about different welding inspection methods and their applications.
- Familiarize with industry standards and codes related to welding quality.
- Develop skills in interpreting welding inspection reports.
- Explore quality control measures to prevent welding defects and ensure compliance.
- Gain hands-on experience through practical exercises and case studies.

Education and/or Experience - Candidates having basic understanding on QA/QC having technology or engineering background is an advantage. All inspectors, tenured welders want to grow their career in the field of welding inspection and QA/ QC shall attend this course.

Examination - Each candidate must successfully pass a 30 question, multiple-choice examination that evaluates the candidate's knowledge of the topic.

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Training Outline – Welding Inspection and Quality Control

<p>1. Introduction to Welding Inspection and Quality Control</p> <ul style="list-style-type: none">• Importance of inspection and quality control in welding• Role of welding inspectors and quality control personnel• Overview of quality standards and codes (e.g., AWS D1.1, ASME Section IX) <p>2. Welding Inspection Techniques</p> <ul style="list-style-type: none">• Visual inspection: Basics, inspection criteria, limitations• Liquid penetrant testing (PT): Principles, application, interpretation of results• Magnetic particle testing (MT): Techniques, equipment, defect detection• Radiographic testing (RT): X-ray and gamma-ray methods, image interpretation• Ultrasonic testing (UT): Principles, equipment, flaw detection, thickness measurement <p>3. Welding Inspection Procedures</p> <ul style="list-style-type: none">• Pre-weld inspection: Joint preparation, fit-up assessment• In-process inspection: Monitoring welding parameters, defect prevention• Post-weld inspection: Visual, NDT, and dimensional checks• Welding procedure qualification (WPQ) and welder qualification testing (WQT)	<p>4. Interpretation of Welding Inspection Reports</p> <ul style="list-style-type: none">• Reading and understanding inspection reports• Identification of welding defects and discontinuities• Reporting standards and documentation requirements <p>5. Quality Assurance and Quality Control (QA/QC) in Welding</p> <ul style="list-style-type: none">• Quality management systems (QMS) for welding operations• QA/QC plans and procedures• Control of welding processes and variables• Non-conformance management and corrective actions <p>6. Industry Standards and Codes</p> <ul style="list-style-type: none">• Overview of relevant standards (e.g., AWS, ASME, ISO)• Compliance with regulatory requirements• Impact of standards on welding practices and quality control <p>7. Best Practices for Welding Quality Control</p> <ul style="list-style-type: none">• Welding parameter optimization• Material selection and preparation• Welding technique improvements• Training and certification of personnel <p>8. Case Studies and Practical Exercises</p> <ul style="list-style-type: none">• Analysis of real-world welding inspection challenges• Hands-on exercises in visual inspection, PT, MT, RT, and UT.• Application of QA/QC principles in welding projects
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Who should attend this training Program

Candidates having basic understanding on different types of welding, QA/QC inspectors, Welders and other artisans want to grow their career in the field of welding inspection and QA/ QC shall attend this course.

ADMISSION PROCESS

Applications will be screened with regard to their suitability for each program. Kindly ensure that your complete online application form reaches the office by the deadline.

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Payment

Payment is due upon receipt of the acceptance letter along with the invoice. Please ensure that the payment reaches the office BEFORE the start of the program. Space in the program may only be ensured after we receive the fee.

Account Title:	FANCO Industrial Solutions (For Local Payments) FANCO Solutions LLC (USA – For International Payments)
Account Number:	Will share on invoice

"in addition to our contract price, 16% Punjab Sales Tax (PRA) will also be applicable as per Punjab Sale Tax on Services Act 2012."

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