

One-Day Training Programme on Welding Qualification of Tube-to-Tubesheet (TTS) Joints -As per ASME Section IX



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**26th
Sep, 2026**

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Evolve by TCR
215, Pancham Icon,
Vasna Road, near D-Mart,
Vadodara, Gujarat 390007

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Fees: INR 8,000/-
for single person +
GST 18% extra.

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10% Discount on total
amount of invoice for 03
or more nominations from
the same organization.

Course Content

- Introduction to tube-to-tubesheet welding and its importance in boilers and heat exchangers
- Types of TTS joints including strength welds, seal welds, and expanded joints
- Materials and welding processes used for tube-to-tubesheet welding
- Welding procedure qualification including essential variables and qualification limits
- Welder performance qualification requirements for TTS welding applications
- Inspection and testing including visual inspection, macro-etch examination, and leak testing
- Common TTS weld defects, failure mechanisms, and practical best practices

Who Should Attend

- Welding Engineers and Welding Supervisors
- Boiler and Heat Exchanger Engineers
- QA / QC and Inspection Engineers
- Maintenance and Reliability Engineers
- Metallurgical and Materials Engineers
- Plant Operation Engineers

Objectives of the Training Programme:

- Develop understanding of ASME Section IX requirements for TTS joints
- Interpret essential welding variables specific to tube-to-tubesheet welding
- Understand qualification methods and testing requirements
- Minimize tube leaks, weld failures, and re-qualification issues
- Improve coordination between welding, inspection, and integrity teams

Meet The Faculty

Subject Matter Expert (Another Faculty)

- He holds an M.E. in Metallurgical Engineering and a Ph.D. in Welding Technology, with over 15 years of expertise in welding consumable testing, selection for similar/dissimilar metals, and welding procedure qualification. He is proficient in advanced welding processes including SMAW, GTAW, GMAW, SAW, Pulse TIG, Plasma TIG, Activated TIG, and WAAM, and is a recognized expert in induction heating for pre- and post-weld heat treatment. With deep insight into welding metallurgy and heat-affected zone behaviour, he has trained professionals across industries on ASME Section VIII Div. 1, ASME IX, and EN/ISO 15614-1 & 9606-1 standards. His unique ability to connect metallurgical theory with practical applications makes him a highly respected trainer in welding technology and heat treatment practices.



Subject Matter Expert (Another Faculty)

- He holds a Ph.D. in Metallurgical Engineering and is a certified International Welding Technologist (IWT), BS EN ISO 14731 Welding Coordinator, and BS EN ISO 3834 Auditor. With over 12 years of specialized experience in welding training, he brings deep technical knowledge in welding metallurgy—particularly of stainless steels and dissimilar metal combinations. He is highly proficient in international welding standards, including ASME Section VIII Div. 1, ASME IX, EN ISO 15614-1, ISO 9606-1, ISO 14732, and AWS D1.1. Known for his clarity in interpreting welding codes and qualification processes (WPS-PQR-WPQ), he has successfully trained engineers, inspectors, and coordinators across industries. His strong academic foundation and code-based expertise make him an authoritative trainer in welding metallurgy and compliance-driven welding practices.



Mr. M.N. Patel

- BE & ME in Metallurgical Engineering from Maharaja Sayajirao University of Baroda. Brings over 33 years of teaching experience at undergraduate and postgraduate levels in subjects such as Mechanical Metallurgy, Plastic Deformation of Metals, Welding Metallurgy, Physical Metallurgy, Non-Destructive Testing (NDT), and Failure Analysis.
- He has guided 20+ postgraduate dissertations and published 16 technical papers focusing on weldability of steels, corrosion, stainless steel sensitization, and failure investigations.
- His expertise includes microstructural analysis, material characterization, welding metallurgy, SEM/EDS techniques, and metallurgical failure analysis, with strong application in correlating microstructure to material performance.

Mr. Kamlesh Rana

- With a Diploma in Mechanical Engineering and an impressive 38 years of experience, this professional has built a solid career in the QA/QC departments of the fabrication, fitting, and forging manufacturing industries. Over the years, they have developed deep expertise in quality assurance protocols and inspection standards critical to heavy industrial manufacturing.
- Their technical proficiency includes strong command over ASME Code Specifications, particularly Sections IX, VIII, and II (A, B, C). They are a certified welding engineer under AWS, an API-qualified internal auditor, and hold ASNT Level 2 certifications in Radiographic Testing (RT), Ultrasonic Testing (UT), Penetrant Testing (PT), and Magnetic Particle Inspection (MPI), making them a highly skilled and versatile asset to any engineering or inspection team.



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