

## **TECHNOWRAP™ STAGE 1 TECHNICIAN TRAINING**

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**Course Name:** Stage 1 ICR Technowrap™ Technician Training

**Course Description:** Students will learn about the Technowrap™ process and its applications. Within this stage of ICR Technical Competency, internal and external delegates will gain knowledge of composite application through understanding suitable application parameters of a 2K LT repair in accordance with a prescribed calculated design. Practical application of a 2K LT repair to both a six-inch straight pipe and a six in T-Piece pipe, under the supervision of the ICR Trainer, will be carried out to demonstrate correct application techniques. Thereafter, the applied composite repair will be pressure tested to ensure correct installation. Once completed, a test will be administered and if passed, the student will receive a Stage 1 Certificate.

**Training Location:** training may be performed at company's own location(s); additional costs may apply.

**Course Duration:** Three (3) days, 8 am – 4 pm.

**Qualifications:** Stage 1 Technowrap™ Technician. To achieve Stage 1 certification, students must complete three (3) days of combined lecture and hands-on training and pass the Stage 1 test. In addition to passing the Stage 1 training course, a Stage 1 Technician must complete five (5) days of hands-on Technowrap™ field experience before taking the Stage 2 training course.

**Pre-requisites:** High School diploma or GED. Five (5) years industrial service technician experience, preferably in on-line leak sealing or welding.

**Required Materials** (student must bring them to training):

- Safety glasses
- Work gloves
- Hearing protection
- Work clothes

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## CLASSROOM TRAINING

### CLASSROOM MATERIALS:

- Overhead Presentations and Projector.
- Hand-outs
- Whiteboard with markers

### CLASSROOM TRAINING AGENDA:

1. Health and Safety
2. Composite Repairs – What is it?
3. Examples of Composite Repairs
4. Compliance to International Standards
5. Engineering and Design
6. Steps in Installation Process
7. Discussion on Surface preparation standards and how to achieve them
8. Filling or Profiling
9. 3K Primer / Pre-Treatment Wipe Application
10. Application of Gel Coat
11. Application of Technowrap Layers
12. Structuring & Peel Ply
13. Time to reach full cure
14. Quality Assurance and Quality Control during installation
15. Practical – Delegate will wrap test spool piece with through wall defect under general supervision only which will later be pressure tested
16. Certificate Validity –Logbooks, Supervision and Refresher course
17. Completion of Technowrap applicators theory test

### TRAINING OBJECTIVES:

1. Discuss different types of composite repair (straights & tees) & given applications.
2. Learn the basic engineering design principles which a composite is designed in line with (ISO 24817);
3. Understand the importance of surface preparation & repair application.
4. Complete practical assignment –wrapping of one straight and one tee piece.
5. Understand the environmental conditions that must be adhered to during repair application.
6. Carry out the mandatory QA/QC checks that must be completed after the installation of a composite repair.
7. Complete theory test on knowledge gained throughout training course.

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## HANDS-ON TRAINING

### SHOP MATERIALS:

- Personal Protection Equipment
- Technowrap™ System and Materials

## PRICING

### STAGE 1 ICR TECHNOWRAP™ TECHNICIAN TRAINING PRICING

Price per student: TBD

Prices may vary over time.