

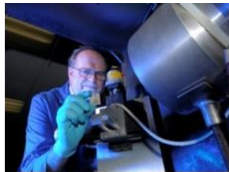


JOINING
INNOVATION
AND EXPERTISE

Training, Examination and Certification

Delivered by Steve Wisniewski

Training - built from TWI's Core Competencies with over 50 years of experience



Research and development

(materials, structural integrity, joining processes and inspection techniques)



Industry best practice and standards



Competence requirements

(knowledge, skills, experience and behaviours)



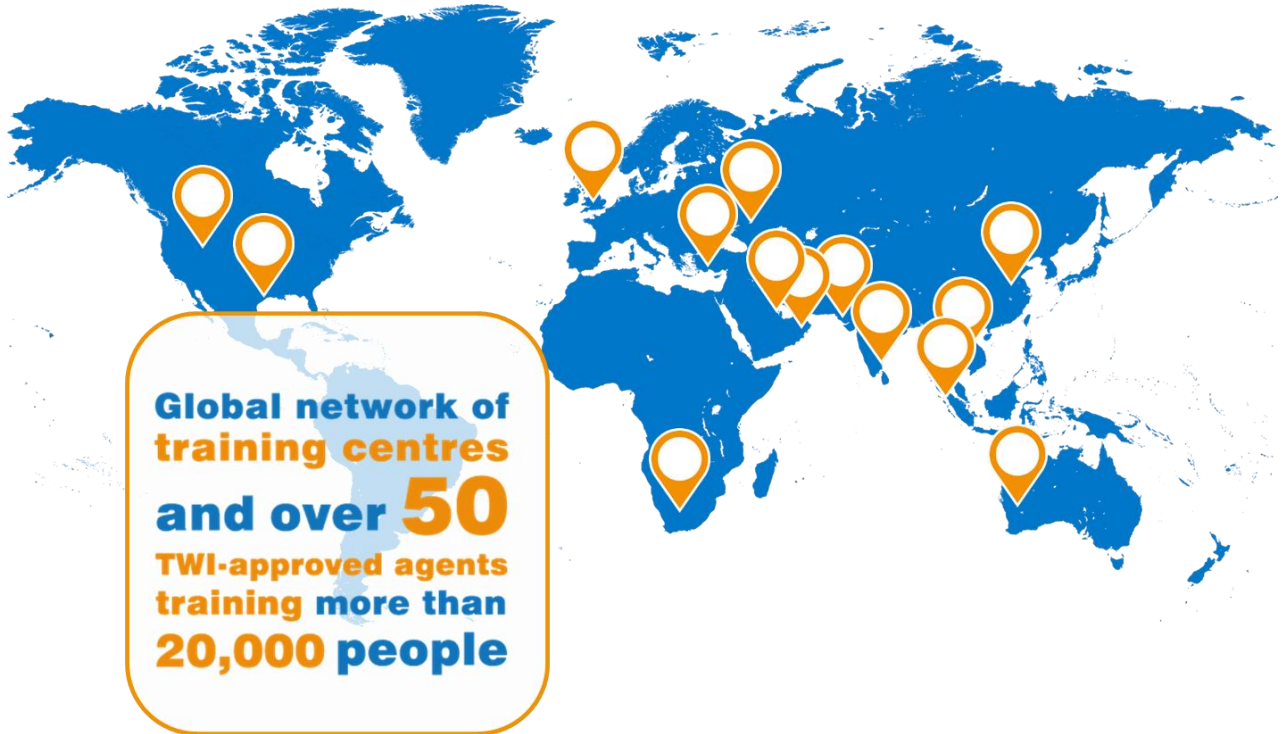
Guided learning and assessment

(training, experience, assessment)

Certification of compliance



TWI's Global Training Centres – Training 20,000 personnel per year



Training portfolio 1

Welder training and qualification



- Manual metal arc
- TIG (GTAW) welding
- MIG(GMAW)/MAG/FAW welding
- Oxy-fuel gas cutting
- Practical brazing appreciation
- Plastics welding

Welding inspection



- Visual Welding Inspector Level 1
- Welding Inspector Level 2
- Senior Welding Inspector Level 3
- Visual welding inspector with practical workshop experience
- eLearning options for refresher and pre-learning

Welding coordination



- CSWIP QC Coordinator
- Welding Diploma:
 - ☐ Specialist (IWS)
 - ☐ Technologist (IWT)
 - ☐ Engineer (IWE)
- ASME IX Welding Procedure review

Plant inspection, site coatings and painting inspection



- Plant Inspector
- Painting Inspector
- Site Coatings Inspector
- Cathodic Protection
- Offshore Visual Inspector (OVI)

Training portfolio 2

Conventional NDT



- General Appreciation
- Surface Testing
- Standard Radiography
- Conventional UT
- ASNT Level III
- UT Corrosion Monitoring
- eLearning options for UT
- Refresher courses

Advanced NDT



- Time of Flight
- Diffraction (ToFD)
- Phased Array UT
- Automated UT
- Long Range UT
- ACFM
- PAUT Corrosion monitoring
- eLearning options: PAUT & ToFD

Underwater inspection and NDT



- NDT Inspection Diver
- ROV Inspector
- Underwater Inspection
- Controller
- ACFM
- Wet Welding

Health, safety and environmental



- Management and Development
- Health and Safety
- Plant and Logistics
- Environmental

International certification of competence

- CSWIP
- BGAS-CSWIP
- IIW/EFW
- TWI Diploma
- PCN
- Specific courses leading to Lloyd's Register and AWS qualifications
- NEBOSH and IOSH
- SN-TC-1A
- ISO 9712



International certification of competence

TWI also work with large international organisations in providing competency based examinations for project staff.

All assessment reports are then relayed back to the organisations to ensure contracted staff have the skills to provide the service level required.

TWI Virtual Academy



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Refresher CSWIP Welding
Inspection - Theory

Pre-course Learning CSWIP
Welding Inspection - Theory

Non-destructive Testing
(NDT)

eLearning from TWI, Cambridge, UK

- Saves time and money
- Learn when and where you want
- Study at your own pace
- Track your progress



eLearning
Benefits



eLearning
Demo



Online Course
List



eLearning
Experience



TWI Virtual Academy

TWI continually create and add training materials on it's virtual academy platform. This course materials can be accessed globally.

TWI also create bespoke training packages for individual clients and host these within it's platform. This ensures the client gets the package of training they require for their personnel.

TWI Virtual Academy – Snapshot of a few of the TWI modules

- Introduction to Metallurgy
- Duties of a Senior Welding Inspector
- Welding Procedures
- Weldability of Steels
- Non-Destructive Testing
- Destructive Testing
- Welding Processes
- Residual Stress and Distortion
- Welding Symbols
- Fracture Assessment
- NDT Reports
- Welding Inspection Refresher Assessment

- Mechanical Properties of Materials
- Manufacture of Steels
- Structure of Pure Metals
- Alloys and Phase Diagrams
- Structure of the Welded Joining

- Basic Engineering Maths
- Welded Joint Design
- Forces and Strength of Materials
- Introduction to Fatigue
- Different Types of Loading

- Principles of MT
- Methods of Magnetisation
- MT Detecting Media and Equipment
- MT Techniques
- Assessing Magnetising Force and Amperage

- Introduction to Managing Safely
- Managing Safely
- Assessing Risks
- Controlling Risks
- Understanding Responsibilities
- Understanding Hazard
- Investigating Incidents
- Measuring Performance

- Common Discontinuities
- Basic Steel Metallurgy
- Steel Making
- Casting
- Wrought Products
- Welding

TWI Virtual Academy – Snapshot of a few of the TWI modules

Basics of Plant Inspection

Pressure Vessel

Fundamentals of Process Piping

Above Ground Storage Tank

Damage Mechanism and Inspection strategy

Material Inspection and Verification

Basics of Welding

Welding Procedures

Destructive testing

Non-destructive testing

Risk Based Inspection

Inspection, Examination and Pressure Testing Practices

Inspection Interval, Frequency and Extent of Inspection

Repair, Re-rating and Alteration

Painting & Cathodic Protection

Quality Assurance

Phased Array Ultrasonic Testing -
How does it work?

Ultrasound

Phasing

Steering

Focusing

Data Quality

Review

Final Assessment

Training, Examinations and Certification Summary



- Over 50 years experience
- Over 300 courses spanning Weld Inspection, NDT, Coatings, Underwater, H&S, Cathodic Protection and Plant Inspection.
- Virtual academy backup with access to highly experienced tutors.
- Bespoke client course delivery in class, online or distance learning.
- Certification to international standards and employer specific based schemes backed by the latest industrial practice.