



The Academy of Joint Integrity™

COURSE CONTENT – JI018

COURSE DESCRIPTION / CODE

JI018 – Assembly & Hydraulic Tension of Bolted Flanged Connections – 1 day

Course Aims:

The trainee is aware of the importance of Health and Safety in the Workplace.

The course delivers the theoretical and practical elements involved in the Hydraulic Tension tightening of Bolted Connections and provides an assessment of delegate's competence in applying these procedures. It covers the selection of components for the various types of flange connections found in the Oil and Gas, Petrochemical and Processing Industries materials focusing on gaskets/sealing elements and bolting materials

Target Audience:

Mechanical Engineers /Technicians/ Apprentices looking to enhance their skills.

Engineers and Technicians from a non mechanical discipline requiring multi skill or refresher training.

Graduates looking to understand key failure mechanisms within the field of Joint Integrity.

Notes to Clients:

This course is intended to meet the requirements of ECITB Training Specifications PF018.

Course Content:

- Key safety issues within the Joint Integrity Industry
- Introduction to Flanges /Types used within the Oil and Gas/Processing Industries
- Flange Inspection, defect identification
- Special Clamps and Flanges
- Inspection process, Fasteners, Nuts, Washers, Flange Faces, Gaskets.
- Gasket types, applications, material selection and identification
- Gasket Installation procedures and requirements.
- Axial alignment of Pipe Flanges, Flange Gap, Bolt Hole Alignment.
- Assembly Best Practice Procedures/Standards.
- How joint compression is affected by Tightening Methods

- Appreciation of Load Loss factors/ Bolt Load Checks
- Bolt Elongation and Yield.
- Theory and Practical issues ref Hydraulic Tensioning.
- Instruction and Practice in the Safe Use of Tensioning Equipment.
- HSE and Industry initiatives toward Hydrocarbon leak Reduction, and Staff Training and Competence.

Delivery:

Classroom and Workshop based.

Venue:

Aberdeen, Teesside, Humberside, West Yorkshire
Also Mobile Equipment available for delivery on site

Certification:

Energy Institute Certificate

Special Requirements:

Delegates are requested to provide their own PPE

Supporting Information:

All delegates receive a Training Tool Kit consisting of Flange Gap Tool, Flange Face Surface Comparator. Plus course notes.