

The Academy of Joint Integrity™

TRAINING, COMPETENCE, AND AWARENESS

Accredited Flange Assembly and Gasket
Technology Courses designed for your site



www.academyofjointintegrity.com



LOSS OF CONTAINMENT

- FLANGED BOLTED CONNECTIONS

Control of the Training and Competence Assurance of all personnel working on Bolted Flanged Connections is a **critical factor** in achieving and maintaining Leak Free Performance.

A bolted joint is one of many critical components of a pressurised system. Dependent upon the contents, pressure, location and purpose of the system, leakage or failure of a single bolted joint, can have potentially catastrophic consequences. To meet this challenge, every operator of pressurised systems must have in place a system to positively and pro-actively manage the integrity of bolted joints. It is expected that such a system will be part of an asset and/or process integrity management system, and be built around the principle of continuous improvement, based on lessons learned.

Ref EI Guidelines.

The duty holder should ensure that the integrity of bolted pipe joints over the whole life of the plant is addressed within the management system. This should be achieved as a matter of management policy, by specifically identifying management of bolted pipe joints within the engineering design, construction, maintenance and operation standards and procedures. An inspection of this topic should include reference to the latest industry bolted joint guidelines.

Ref: Loss of Containment Manual HID OSD3-Jan.



SCAFFTAGS READY FOR SERVICE / LEAK TEST JOINT REGISTER NO. Bolted / Flange Assembly Comments SEE REVERSE FOR DETAILS	SERVICE / LEAK TEST COMPLETED PRINT NAME SIGN & DATE ENTER DETAILS AND ATTACH TAG TO JOINT CONTROL RECORD HELD BY RHP JOINT RE-ASSEMBLED BY JOINT RE-ASSEMBLED BY
READY FOR TORQUE / TENSION "Shade in red" status JOINT NO. JOINT REGISTER NO. SEE REVERSE FOR DETAILS	JOINT TORQUED / TENSIONED "Shade in red" status PRINT NAME SIGN & DATE ENTER DETAILS AND ATTACH TAG TO JOINT CONTROL RECORD HELD BY RHP ENSURE JOINT IS TAPED
JOINT BROKEN JOINT NO. JOINT REGISTER NO. SEE REVERSE FOR DETAILS	JOINT RE-ASSEMBLED BY PRINT NAME SIGN & DATE ENTER DETAILS AND ATTACH TAG TO JOINT CONTROL RECORD HELD BY RHP

DISTURBED JOINT "Shade in red" status JOINT NO. JOINT REGISTER NO. SEE REVERSE FOR DETAILS	FLANGE TEST LOG JOINT NO. JOINT REGISTER NO. TEST DATE TEST TIME TEST PRESSURE TEST RESULT TESTED BY TESTED BY TESTED BY
FLANGE ASSEMBLY JOINT NO. JOINT REGISTER NO. ASSEMBLED BY ASSEMBLED BY	FLANGE BREAK DATA JOINT NO. JOINT REGISTER NO. JOINT TYPE JOINT SIZE JOINT PRESSURE JOINT TEMPERATURE JOINT LOCATION JOINT DESCRIPTION JOINT COMMENTS



To ensure the optimum level of resources and verification is carried out on each joint, a criticality assessment will be carried out, which will consider the service, pressure and local conditions of each connection.

LOW-RISK	Within alignment tolerances, existing controls are in place, eg procedures, vendor information, competent personnel; safe to proceed.
MEDIUM-RISK	Additional controls need to be identified, consider the use of specialist contractors, limit personnel in the area during testing and initial operation, improve access, re-check after completion.
HIGH-RISK	Engineering review of piping design and configuration, consider the use of a specialist contractor or vendor.

A procedure will be developed and implemented to ensure that individual joint status is displayed visually on site, by use of a multi-part tagging system. This will include a focus on temporary joints and joints requiring reinstatement after testing or component replacement. Including contractor activity.

CREDIBILITY

Flexitallic are the only UK Voting member of the ASME Post Construction Committee, and have years of experience on site conducting Flange Integrity Surveys, providing recommendations to all industries.

Latest EN1591-1 Software permits unique dynamic assessment of flanged joints, taking into account temperatures and materials. Also unique gasket constants to determine loading and tightening method to achieve and maintain performance.

Irrespective of International Design Codes, control of the Training and Competence assurance of personnel working on mechanical joints (including contractors) is critical in achieving asset integrity.

All Training Courses offered by the Academy are constantly updated to align with latest industry Best Practice.

Unique bespoke courses are designed specifically for site, also utilising state of the art mobile rigs.



TRAINING COURSES



ICHEME – MANAGEMENT OF THE INTEGRITY OF FLANGED BOLTED CONNECTIONS MODULES INCLUDE:

JIO10	Dismantle, Assemble and Hand Torque Flanged Joints
JIO18	Dismantle, Assemble and Tensioning Bolted Connections
JIO19	Dismantle, Assemble and Hydraulically Torque Flanged Joints
JIO20	Gasket Identification / Materials – Flange Assembly Best Practice
JIO21	Flange Management for the Engineer – Technical and Practical

Courses can be bespoke to meet your site needs. Further courses available on request.

All IChemE Approved Training Courses utilise our unique Mobile Training Rig (FADU – Flange Assembly Demonstration Unit) and are underpinned by latest ASME PCC-1/BS EN1591-4 Best Practice Standards.

ECITB MECHANICAL JOINT INTEGRITY COURSES:

MJI10	Hand Torque Bolted Connections – 4 Stage Route to Competence
E-Learning	Refresher Training – MJI 10/18/19 – Hand Torque/ Hydraulic Torque and Hydraulic Tension

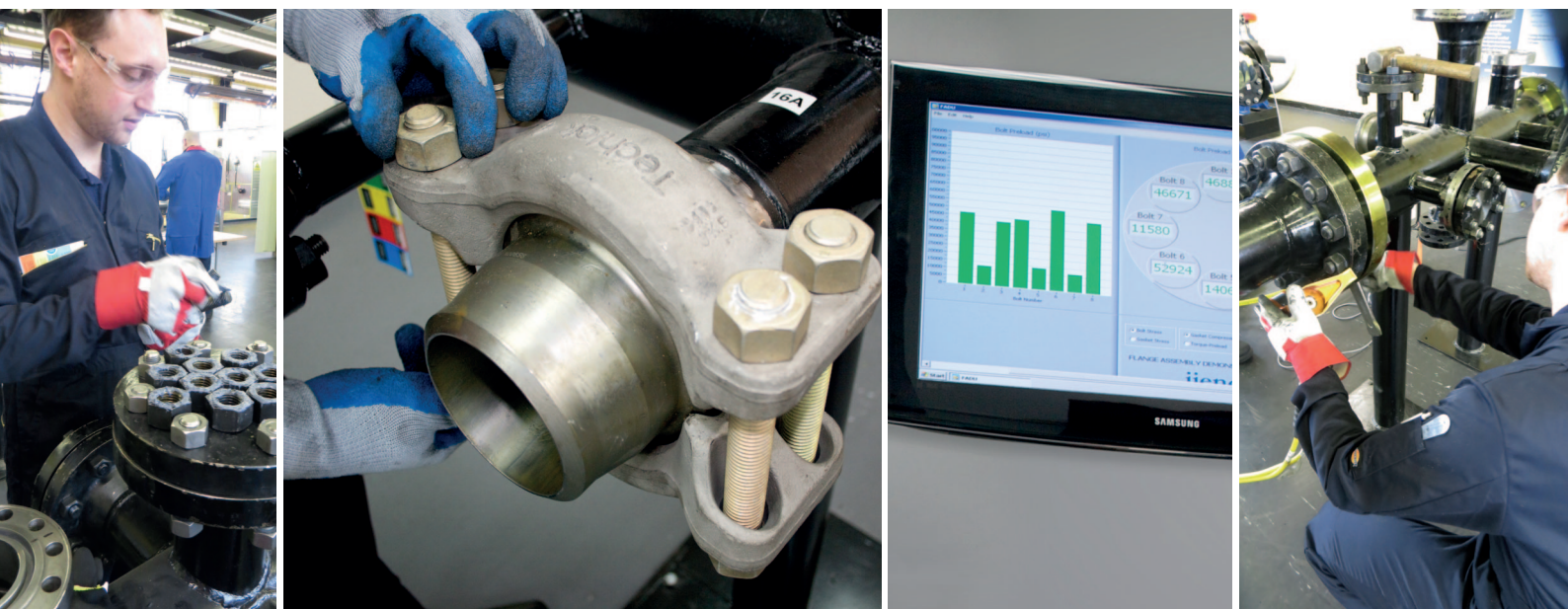
Training offered at our UK locations in Aberdeen, Teesside (Middlesbrough), Yorkshire, Ellesmere Port and the South West (Bridgend).

We can also deliver training on-site by utilising our unique Mobile Training Rigs (FADU – Flange Assembly Demonstration Unit).

The Academy of Joint Integrity is a division of Flexitallic.

We have contributed to the latest Energy Institute Guidelines specific to Training and Competency Issues, and are represented on various International Committees within the Sealing Industry, including ASME PCC-1 and EN1591-4.

All Training Courses are aligned to Industry Best Practice as recognised in the latest Energy Institute Guidelines, and provide a blend of sealing technology and practical elements associated with flange assembly.



BOOK TODAY:

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www.academyofjointintegrity.com

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