

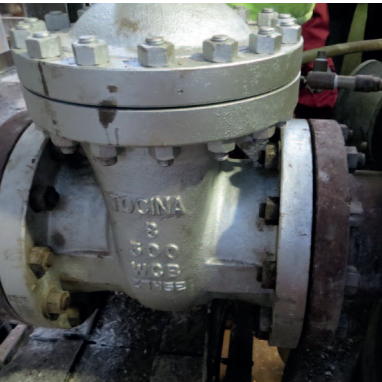


The Academy of Joint Integrity™

Allied Distributor



WILLIAM JOHNSTON
& COMPANY LIMITED



Training, Competence, and Awareness

Accredited Flange Assembly and Gasket Awareness Courses

www.williamjohnston.co.uk



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.*



<p>SCAFFTAG</p> <p>JOINT ASSEMBLY TAG</p> <p>READY FOR SERVICE / LEAK TEST</p> <p>JOINT REGISTER NO. _____</p> <p>REGISTERED BY: _____</p> <p>DATE: _____</p> <p>SEE REVERSE FOR DETAILS</p>	<p>SCAFFTAG</p> <p>SERVICE / LEAK TEST COMPLETED</p> <p>PRINT NAME: _____</p> <p>SIGN & DATE: _____</p> <p>ENTER DETAILS AND ATTACH TAG TO JOINT CONTROL RECORD</p> <p>HELD BY: _____</p> <p>JOINT TORQUED / TENSIONED BY: _____</p> <p>JOINT RE-ASSEMBLED BY: _____</p> <p>JOINT RE-ASSEMBLED BY: _____</p>	<p>SCAFFTAG</p> <p>DISTURBED JOINT</p> <p>JOINT REGISTER NO. _____</p> <p>REGISTERED BY: _____</p> <p>DATE: _____</p> <p>SEE REVERSE FOR DETAILS</p>	<p>SCAFFTAG</p> <p>FLANGE ASSEMBLY</p> <p>JOINT REGISTER NO. _____</p> <p>REGISTERED BY: _____</p> <p>DATE: _____</p> <p>SEE REVERSE FOR DETAILS</p>
<p>SCAFFTAG</p> <p>READY FOR TORQUE / TENSION</p> <p>JOINT REGISTER NO. _____</p> <p>REGISTERED BY: _____</p> <p>DATE: _____</p> <p>SEE REVERSE FOR DETAILS</p>	<p>SCAFFTAG</p> <p>JOINT TORQUED / TENSIONED</p> <p>PRINT NAME: _____</p> <p>SIGN & DATE: _____</p> <p>ENTER DETAILS AND ATTACH TAG TO JOINT CONTROL RECORD</p> <p>HELD BY: _____</p> <p>ENSURE JOINT IS TAPED</p> <p>JOINT RE-ASSEMBLED BY: _____</p>	<p>SCAFFTAG</p> <p>FLANGE BREAK</p> <p>JOINT REGISTER NO. _____</p> <p>REGISTERED BY: _____</p> <p>DATE: _____</p> <p>SEE REVERSE FOR DETAILS</p>	<p>SCAFFTAG</p> <p>FLANGE BREAK DATA</p> <p>JOINT REGISTER NO. _____</p> <p>REGISTERED BY: _____</p> <p>DATE: _____</p> <p>SEE REVERSE FOR DETAILS</p>



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

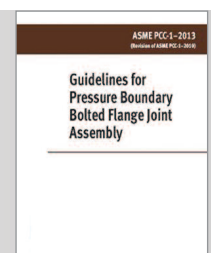
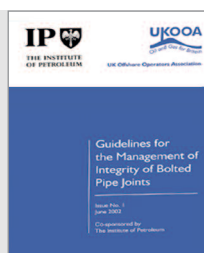
The Academy are the only UK member of the ASME Post Construction Committee, and have years of experience on site conducting Flange Integrity Surveys, providing recommendations to all industries.

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 latests industry Best Practice with ECITB/EI/ASME/EN1591-4 - Certification.

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



**Legislative Compliance
– Industry Best Practice
Standards**



ECITB Mechanical Joint Integrity Courses

MJI10	Hand Torque Bolted Connections
MJI10/19	Hydraulically Torque Bolted Connection
MJI18	Hydraulically Tension Bolted Connections
MJI10/18/19	Hydraulically Torque and Tension Bolted Connections
TMJI10	Dismantle, Assemble & Hand Torque Flanged Joints
TMJI11	Dismantle, Assemble & Hand Torque Clamp Connectors
TMJI18	Dismantle, Assemble & Tensioning Bolted Connections
TMJI19	Dismantle, Assemble & Hydraulically Torque Flange Joints
TMJI20	Dismantle, Assemble & Hydraulically Torque Clamp Connector Joints

Energy Institute Mechanical Joint Integrity Courses

All EI Courses utilise the unique Flange Assembly Demonstration Unit. Underpinned by latest ASME PCC/EN1591-4 Best Practice Standards.

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 / Contractor Latest Standards – Technical and Practical
JIO22	Bespoke Courses – Designed to suit client – Topside / Subsea Integrity Best Practice

Further courses available on request.

Training offered in the following UK facilities as well as several overseas locations:

Aberdeen • Teesside • Yorkshire • Humberside
Mobile Training Rigs available.

The Academy of Joint Integrity is a division of The Flexitallic Group. 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-1-2013 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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For further information please contact us at: sales@williamjohnston.co.uk

