



Institute of Joint Assembler Qualification

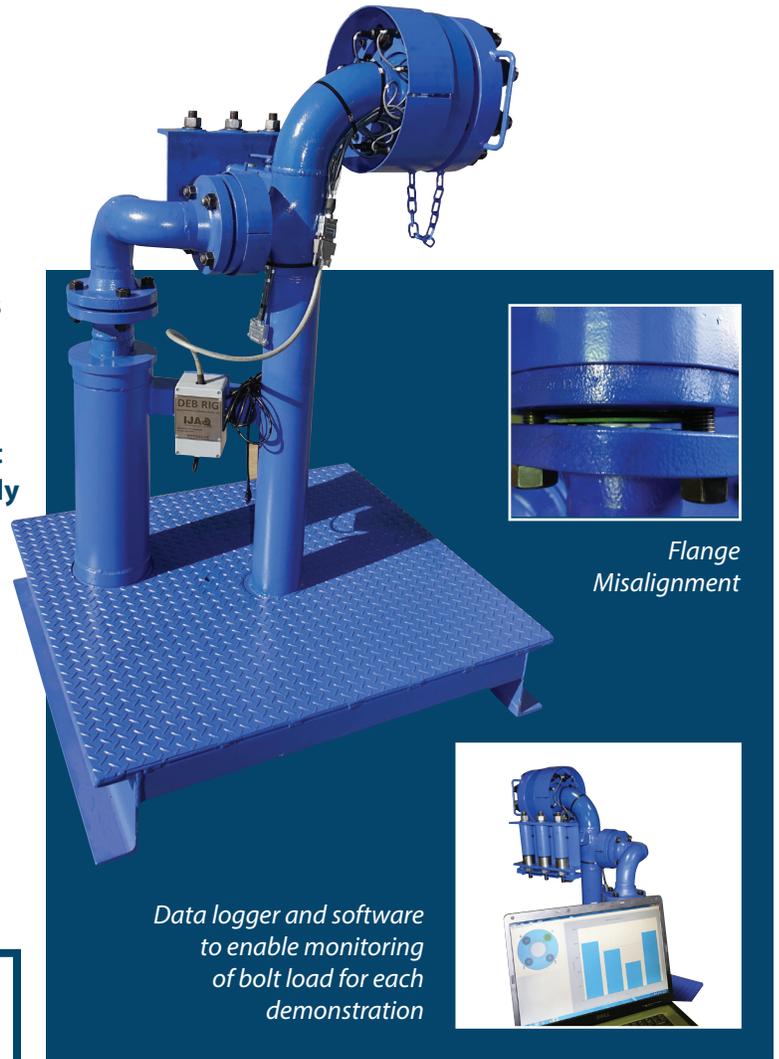
The Institute of Joint Assembler Qualification (IJAQ), was established in 2016 to facilitate qualification of pressure boundary bolted joint assemblers in accordance with ASME PCC-1 Appendix A and EN1591-4. IJAQ collects and disseminates the knowledge of pre-eminent Subject Matter Experts (SMEs) in the field of bolted joint assembly and assembler training. The IJAQ Curriculum is based on demonstration based learning, achieved through online pre-work to minimize class time and then in-person demonstrations to drive home learning points. This is achieved by use of the world-leading TED Rig (Testing, Examination and Demonstration Rig). The DEB Rig (Demonstration of Effective Bolting) is designed to complement the program by allowing demonstration of key concepts at a more basic level or for facilitation of on-boarding during maintenance, construction or turn-around activities.

The DEB Rig offers as standard:

- Fully instrumented 8 bolt, NPS 4, cl.1500 flange for hydraulic torque and tension demonstration
- Fully instrumented 4 bolt, NPS 3, cl.150 flange for manual torque demonstration, includes flange misalignment and two-joint configuration
- Data logger and software to enable monitoring of bolt load for each demonstration

Optional additional stations:

- 3 bolt Nut Factor Station
- Clamped Connector Station with instrumented bolts
- 12 Bolt (NPS 10, cl.150) flange (bolts not instrumented) for assembly pattern demonstrations
- Mounted all-in-one computer with 21" touch screen for viewing software
- Norsok Compact Flange with instrumented bolts
- Bolt calibration unit
- RTJ joint assembly unit
- Any other desired joint, with up to 8 instrumented bolts
- Rig cover



Flange Misalignment

Data logger and software to enable monitoring of bolt load for each demonstration

The DEB Rig (Demonstration of Effective Bolting Rig) is designed to allow the instructor to demonstrate the basic important aspects of bolted joint assembly in as simple a fashion as possible. The proprietary software is either installed on the optional touch-screen computer or directly on the user's laptop. Once installed, operation of the DEB Rig is as simple as plugging the USB cord into the computer and the desired demonstration station into the data logger. The software automatically displays the relevant data for the selected demonstration, enabling the trainees to observe important aspects of joint assembly, such as mechanical interaction, nut factor effects, proper lubrication, assembly patterns, assembly procedures and hydraulic assembly tools.

The DEB Rig is designed to bridge the gap between Qualified Bolting Specialist training using the TED Rig and the need for on-site or internal company training of non-qualified individuals involved in assembly of pressure boundary bolted joints. It can also be used for refresher courses and on-site toolbox or on-boarding training for major maintenance, construction or turn-around activities.

If you are a training organization wishing to offer bolted joint assembler qualification or an end-user, wanting to be involved in the review and feedback loop for the IJAQ course, please contact IJAQ at the below contact email address. Our website lists current training organizations offering our courses, qualified third-party auditing companies for PCC-1 Appendix A review and IJAQ curriculum reviewing end-user organizations.

Contact: email. info@ijaq.org web. www.ijaq.org



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