

ERIKS Provides On-site Gasket and Bolting Training Techniques, Including:

- Proper bolting techniques
- Pre-turnaround contractor training
- In-plant contractor training
- Plant engineering and maintenance training

FADU (Flange Assembly Demonstration Unit)

Our bolting training utilizes a FADU (Flange Assembly Demonstration Unit). This interactive training tool provides the maintenance, operations, and engineering personnel the ability to see the value of using a controlled bolting process in their plant, through a variety of modules that are listed below.



Mechanics judgement and torque preload study.

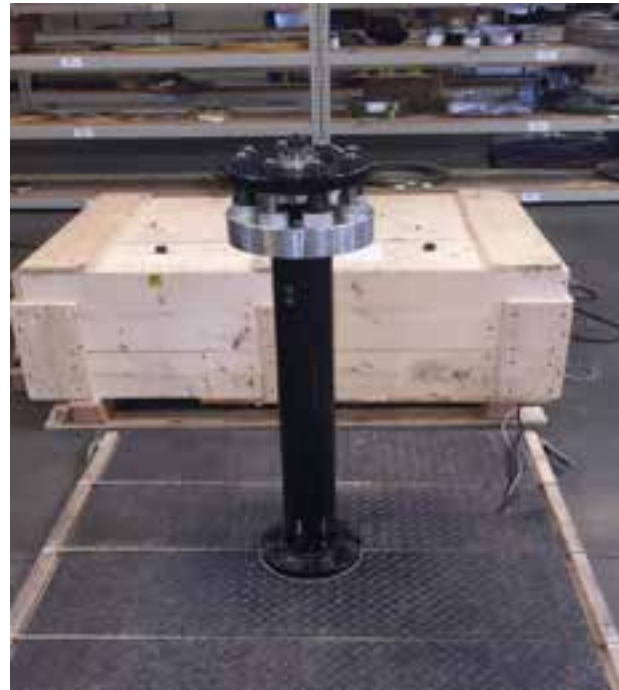
Training Modules

1. Mechanics Judgement

With this exercise, we show attendees the variability in stud load that is created by not using a controlled bolting program. Using a single stud with a load cell on the FADU unit (see photo), each attendee is given the opportunity to use their best judgement to achieve a common torque target. Once each participant has the opportunity to tighten the nut, the results are graphed to demonstrate the inherent scatter that results from hand tightening procedures.



Gasket compression study



The FADU unit with built-in platform

2. Gasket Compression

The main purpose of this module is to show the importance of a star cross pattern, highlight crosstalk between the studs, and demonstrate how stud stress relates to torque. This module enables students to bolt up the flange using their plant specific torque and bolt up procedure. It clearly shows the variability of bolt load based on the amount of lubricant applied to a stud(s).

3. Ring Joint Gasket Installation

With this exercise, we show the same information as item #2, but with a RTJ (Ring Type Joint) gasket, rather than a standard pipe flange gasket. You can run into the same types of variability as noted above.

4. Torque Preload

This module demonstrates the BIG difference that little differences can make. It demonstrates the importance of proper lubrication, nut up vs. nut down, washer vs. no washer. It can be used to compare lubricants, washer types, and differing types of torque wrenches.

5. Assembly Method Comparison

This exercise is typically not utilized in a classroom setting but is available for use by your engineering department to create a procedure for gasket installation. Engineers can work with ERIKS personnel to try many different gasket installation methods with the goal being to achieve reliable sealing with in the most efficient manner possible.

For more information or to schedule a training at your facility, contact Advanced Sealing or your nearest ERIKS North America location.