

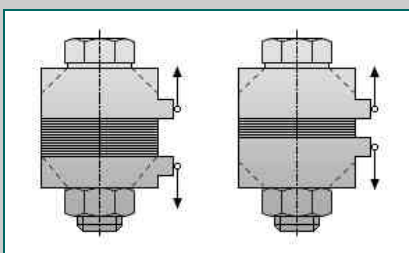
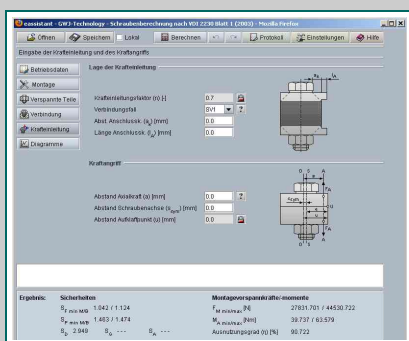
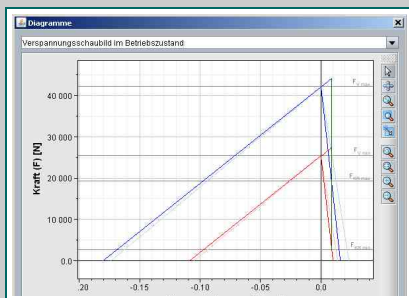
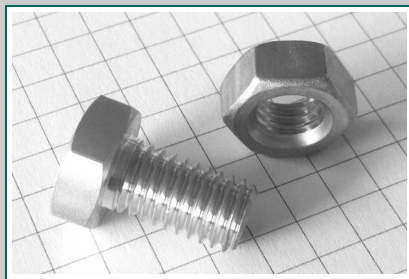
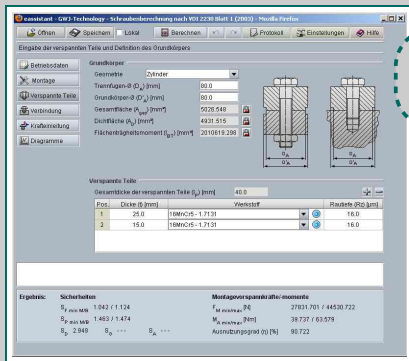
Bolted Joints

In this seminar, the participants gain in-depth insights into the bolt calculation according to VDI 2230. It starts with the general basics of bolts, followed by an introduction to VDI 2230, all with extensive examples. eAssistant and TBK 2014 are used.

This seminar is designed for young professionals, experienced engineers, designers as well as technicians.

Main Topics

- Basics: Helical axis, thread profiles, bolt types, nuts, strength grades of screws and nuts, types of bolted joints
- General kind of loads acting on bolted joints
- Assembly, assembly preload, yield point
- Tightening technique, tightening factor
- Embedment of bolted joints
- Load introduction factor
- Loads and deformation at the opening limit
- Bolt under bending moment
- Joint diagram
- Pre-dimensioning and rough calculation according to VDI 2230-1
- Introduction and basics of VDI 2230-1
- Notes and comments on VDI 2230-2
- Calculation of bolted joints with eAssistant/TBK 2014: Supported variants, operating data, assembly, clamped parts, joints, dimensioning, estimation of bolt size, load introduction
- Exercises for concentric clamping with concentric loading, transverse loading, bolted joints by axial and transverse load, flange connections
- Notes for the design of bolted joints



The seminar includes practical exercises with eAssistant or TBK 2014. Individual questions are allowed and welcomed during the workshop (depending on time).