



Structural Analysis of Bolted Joints

A Basic Understanding

Section 1: Welcome

Lecture 1: Introduction

Section 2: Anatomy

Lecture 2: Types of bolts

Lecture 3: Key Dimensions of a bolt

Lecture 4: The different parts of the joint

Quiz 1: Bolted joint anatomy quiz

Section 3: A Simple Bolted Joint

Lecture 5: Section Intro

Lecture 6: Loading the bolted joint

Lecture 7: Stresses in the bolted joint

Lecture 8: Allowable Stresses

Lecture 9: Margins of Safety

Lecture 10: Double Shear

Lecture 11: Worked Example

Lecture 12: Designing a Simple joint - summing up

Quiz 2: Simple Joint Quiz

Section 4: More Complex Joints

Lecture 13: Equivalent Force System

Lecture 14: Distributing the Moment

Lecture 15: Moments of Inertia

Lecture 16: Resultant Loads on the bolts

Lecture 17: A Bolt Group Spreadsheet

Assignment 1: Calculate Bolt Resultant Loads

Lecture 18: What's next and thankyou