



# Consulting Services

Practically every engineering product with any degree of complexity uses threaded fasteners. Threaded fasteners are generally considered to be a mature technology, however significant problems can exist with their use. Fastener and joint failures are widespread across many industries and often involve material loss and sometimes fatalities.

# **BOLT**

# SCIENCE



Bolt Science can assist you in the resolution of structural integrity problems relating to joints containing threaded and other types of fasteners.



By having extensively researched the subject and by keeping up to date with the published literature, we can offer state of the art solutions to your joint and fastener problems. Our approach is analytically based and whenever it is feasible we quantify the issues we discuss. When we make recommendations, their justification is explained and whenever possible, they are substantiated by references to published research.



Problems can often be solved more effectively with assistance from an outside organisation offering a fresh and unbiased view combined with extensive experience of solving similar problems across a range of industries.



Our services include:

- Resolution of product service and in-field problems that have fastener related issues.
- Fastener Failure Analysis (fatigue, tensile fracture, thread stripping, galling, insufficient preload, creep, stress relaxation, self-loosening).
- Determination of forces acting on the fasteners within a joint.
- Torque Tightening Analysis.
- Gasket Leakage Problems.
- Determination of fastener size and strength requirements.
- Solution of fastener loosening problems.
- Fastener design problems.



We pride ourselves on communicating the resulting examination, evaluation and opinions in a concise and easy to understand manner. If you have a problem that you think that we may be able to assist you with, why not contact us for a no fee, initial consultation.



**For further information contact Bill Eccles  
at:**

**BOLT SCIENCE LIMITED  
15 Isleworth Drive, Chorley,  
Lancashire, England PR7 2PU  
Tele: +44 (0)1257 411503  
Fax: +44 (0)1257 411650  
Email: [info@boltscience.com](mailto:info@boltscience.com)  
URL: [www.boltscience.com](http://www.boltscience.com)**

