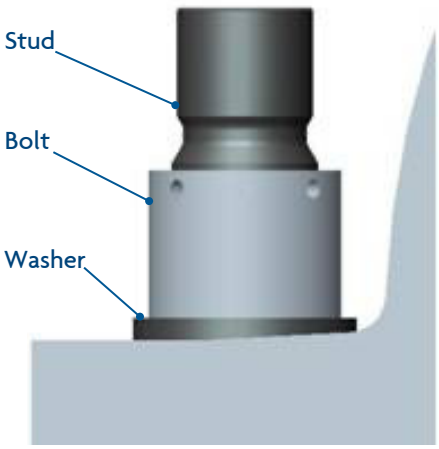
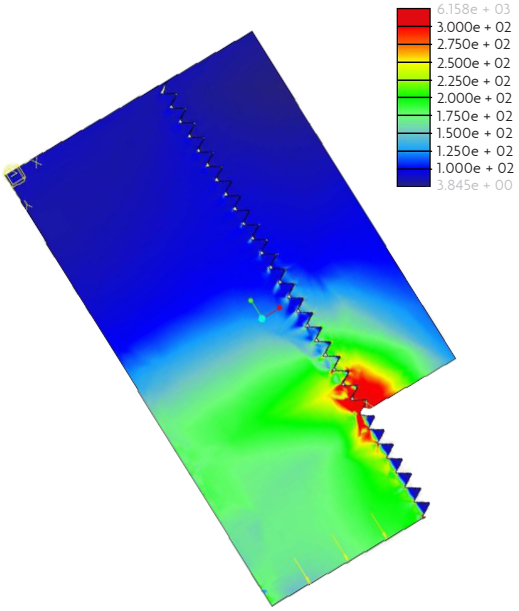


Design of Stud, Nut and Washer for turbine tensioners

The stud design incorporates extra protrusion of thread for the tensioner to grip onto. Typically this will be of a reduced diameter to the main bolt thread to allow quick assembly of the nut onto the stud.



The tensioning system uses a washer positioned under the nut to maximise the surface area and thus minimising the bearing stress on the casing.



A special nut is used in replacement of the existing one. It has a slightly reduced diameter to allow access of the tensioner bridge upon the washer.

The nut is designed and checked utilising FEA methods.



The design stress levels are considered for both service conditions:

- The bridge/washer/casing interface during bolt tightening
- The nut/washer/casing and stud/nut interface during normal turbine operation at temperature

BOLTIGHT
HYDRAULIC BOLT TENSIONING
BOLTIGHT is the UK Registered Trade Mark of Boltight Limited

Boltight Limited, Unit 2, Junction 10 Business Park, Bentley Mill Way, Walsall, West Midlands, WS2 0LE, United Kingdom.
Tel: +44 (0)845 500 5556 Fax no. +44 (0)845 500 5557
email: sales@boltight.com www.boltight.com