



# Example of Stress Engineer Job Description

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Our growing company is looking for a stress engineer. Please review the list of responsibilities and qualifications. While this is our ideal list, we will consider candidates that do not necessarily have all of the qualifications, but have sufficient experience and talent.

## Responsibilities for stress engineer

- Develop high-fidelity FEA models of new and existing valve assemblies and perform static and dynamic (forced vibration) analyses under thermal and mechanical loads, using ANSYS Workbench or ANSYS Classic
- Perform LCF and HCF life analyses on various components of valve assemblies, demonstrating compliance with customers' design life requirements under a variety of operating conditions
- Use classic stress analysis methods and simplified solution models for preliminary evaluation and/or sizing of valve bodies and actuation system hardware for given thermal and mechanical loads
- Perform above-stated analyses in support of product improvement initiatives, cost/weight optimization studies, qualification testing, and investigation of observed field failures
- Prepare professional thermal & structural analysis reports and presentations in support of product design reviews (e.g., PDRs, CDRs) and FAA/EASA certification
- Avidly contribute to the development and documentation of engineering analysis standard procedures & productivity tools for use by all members of the Engineering Analyses group
- As an Integrated Product Team member, provide timely input to the design process to minimize costly design-analysis iterations
- Liaise closely with a team of outsource engineers, supporting the Global Engineering team, to perform above-stated analyses in support of some

- The appointed Stress Engineer will ensure that company design is certified to EASA or FAA regulations and satisfies the contract specification

### Qualifications for stress engineer

- Typically requires a bachelors degree, masters degree or PhD in Mechanical, Structural, Aerospace, or Aeronautical Engineering from an accredited institution and progressive engineering experience as follows
- Minimum of 3 years' experience performing pipe stress analysis using Bentley Autopipe
- Combined cycle power plant steam system analysis experience preferred
- Prefer BSME degree and P.E
- Bachelor of Science or Master of Science of an Engineering Discipline
- In-depth understanding of airframe inspection methodology and past experience supporting in-service aircraft