



POSITION DESCRIPTION

Non-Metallics Materials Component Design and Testing Engineer IV

POSITION SUMMARY:

A subject matter expert (SME) in the design and non-metallic material selection for products that include laminated elastomeric bearings for offshore and rocket motor applications, as well as shock and vibration isolation systems. Working with Oil States Elastomer Chemists and mechanical designers, aid in the development followed by mechanical and durability characterization of elastomer materials, adhesives and processes associated with these product lines.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Process material test data and develop viscoelastic and hyper-elastic material properties for FEA.
- Perform FEA analysis of Oil States' products, and future products, based on these Viscoelastic and hyper-elastic properties
- Prepare presentations of designs and analysis for customer presentations and be able to discuss the process
- Maintain the Mechanical, physical and durability test programs that have been developed for the elastomer compounds and associated adhesive systems while building on these as needed to advance the products
- Detailed data analytics of material test data and assessing trends in rubber manufacturing and final product performance testing in order to make decisions and adjustments as needed to maintain product manufacturing flow
- Coordination with manufacturing, quality, procurement, engineering and material vendors in order to maintain and improve product performance along with ensuring long term consistency.
- Prototype and qualification test program design, coordination and post-test evaluation using Oil States' developed criteria
- Problem solving design, manufacturing and test issues associated with the use of rubber materials.
- Provide technical support to both internal and external customers.
- Perform other duties assigned by the manager.

QUALIFICATION REQUIREMENTS:

- MS Mechanical Engineering or related degree with 6 years of related experience; BS in Mechanical Engineering or related degree with at least 7 years of related experience.
- Minimum of 6 years related experience with non-metallic materials (i.e. rubber, plastics & adhesives) preferred.
- General understanding of rubber compounding and mixing.
- Proficiency with running non-linear FEA with rubber materials
- Proficient understanding of engineered rubber components (i.e. seals, laminated bearings, shock mounts)
- Detailed oriented with excellent observation skills in interpreting test results and problem solving.
- Familiarity with test equipment and standards for rubber material testing.
- Excellent communication skills.
- Ability to read engineering drawings and schematics.
- Perform multiple tasks at one time.
- Self-motivating individual who can work independently and with a sense of urgency.

PHYSICAL REQUIREMENTS

- Use of a computer, phone, and other office equipment, including copier/scanner, etc.
- Frequent sitting, standing, walking, and reaching with arms and hands.
- Occasional use of stairs and/or elevator

- Moderate walking, reaching, bending, pushing and pulling
- Lift, carry, push, or pull objects up to 20 pounds, over 20 lbs. with assistance.
- Occasional exposure to moving mechanical parts.
- Exposure to chemicals, heat and cold.

CITIZENSHIP REQUIREMENTS –

By contractual requirements, the project and job location for this position requires that all persons establish proof of US Citizenship. Dual Citizenship (US citizenship and citizenship of some other country) cannot be accepted. You will be required to provide original or certified copies of documents establishing your citizenship prior to consideration for this position.

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