



External Posting

Mechanical Design Engineer

Looking for a dynamic Mechanical Design Engineer to join our team in Dorchester, Ontario!

An innovative company with an entrepreneurial spirit, Armatec was established in 1997 and has established itself as a significant player in the defense survivability market. Our products are instrumental in saving soldiers' lives around the world and we continually strive for innovation and product excellence.

Armatec offers a competitive compensation package with a comprehensive group benefits program. Cafe and gym onsite for your convenience at low cost to employees.

General Description:

Working closely with a team of experienced engineers and manufacturing, purchasing and material planning departments, the Mechanical Design Engineer develops, prototypes, tests and ensure production readiness of parts, assemblies and systems. Hands on experience in a prototyping environment is essential; as all of our designers take part in the initial production of their designs. This type of environment demands a creative mindset, where a challenge is the motivation to get the job done.

Tasks assigned include: preparation of CAD models, drawings, plans, designs, calculations, cost estimates, and bills of material in accordance with established codes, standards, drawings or other specifications. Assisting the technicians with directing the disassembly process, stowage, modification, assembly and testing of vehicles and other equipment.

Creating and maintaining technical documentation and instructions, analyzing lessons learned and applying continuous improvement methods.

Essential Duties:

The duties associated with this position include, but are not limited to:

Technical

- Develop designs from concept through to completion adhering to customer, internal and other requirements including applicable standards
- Interpret technical requirements to develop component detailed specifications.
- Create 3D models and technical drawings using CAD.

- Produce drawings in accordance with ASME Y14.100 and associated standards (i.e. ASME Y14.5, Y14.24, etc.).
- Conduct tolerance stack-up analysis on mating assemblies.
- Develop welding requirements in accordance with ANSI/AWS welding standards.
- Implement Engineering Change Orders (ECOs)
- Develop and document data, proposals, presentations, analysis or similar using Microsoft PowerPoint, Word and Excel.
- Conduct manufacturability assessments during development.
- Perform trade studies to ensure an optimal balance between weight, cost, risks and functionality.
- Create bill of material & bill of labour
- Support cost evaluation process
- Evaluate component stresses using free body diagrams, hand calculations, and Finite Element Analysis.
- Conduct material selection based on resulting stress and trade off studies.

Personal and Project Management

- Assist in developing project plans, schedules, reviews and risk mitigation plans
- Develop and propose new processes or standards to advance efficiency and capability of the department.
- Review and resolve issues associated with production, productivity, quality, and customer expectations.
- Work closely with technicians to support the disassembly, stowage, maintenance, assembly and testing of vehicles and other equipment.
- Assist prototyping and testing efforts vehicle modifications
- Present and participate in design reviews within a cross-functional team.
- Continuously work to identify opportunities for improvement.
- Liaise with other departments to ensure project deliverables are met.
- Maintain individual schedule, tasks and priorities.
- Create and conduct updates using the Engineering Change Order (ECO) process.
- Support the Configuration Review Board (CRB) review processes.
- Comply with the company Health & Safety rules and regulations
- Other duties as required.

Prerequisite Skills and Qualifications:

Required:

- Bachelor's Degree in a technical field, or equivalent work experience
- Three (3) year of applicable experience
- Experience in mechanical component design

- Experience and understanding of fundamental design calculations and techniques used in analysis
- Proficiency in 3D CAD applications, ideally SolidWorks
- Proficiency in blue print reading and creation in accordance with ASME Y14.100 and associated standards, including geometric dimensioning and tolerancing (GD&T) in accordance with ASME Y14.5
- Demonstrated application of analytical and problem-solving skills
- Experience writing and presenting technical reports
- Excellent communication skills, both oral and written
- Must be able to secure a secret security clearance

Desirable:

- Proficiency in Finite-Element-Analysis (FEA) simulation
- Knowledge of welding practices
- Knowledge of surface treatments required for adhesion, wear, environmental protection or similar
- Knowledge of typical test equipment (i.e. accelerometers, load cells, potentiometers, transducers, etc.) and analysis of test results
- Project management experience (team or individual)
- Experience with manufacturing technologies
- Experience with Integrated Logistics Support (ILS)
- Experience working with automotive, aerospace & defense related standards (i.e. ISO 9000, AS9100, ISO/TS 16949, Stanag 4569 AEP 55 Volume 1 and 2, ITOP 4-2-508)
- Knowledge of Canadian Motor Vehicle Safety Standards (or FMVSS)
- Experience working with, maintaining or modifying vehicles
- Knowledge of reliability analysis and testing
- Knowledge of advanced Fiber Reinforced Plastics (Glass, Carbon, Aramid)

Armatec is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, veteran status or any other prohibited ground of discrimination.

We are committed to providing an inclusive and barrier-free work environment, starting with the hiring process. If you need to be accommodated during any phase of the evaluation process, please advise us and we will do our best to support you. All information received in relation to accommodation will be kept confidential.

We appreciate your interest in Armatec, however only those chosen to move forward in the recruiting process will be contacted regarding this position.