



## Join Our Winning Manufacturing Team

JOB TITLE: Manufacturing Design Engineer

REPORTS TO: Manufacturing Engineering Manager

FULL/PART TIME: Full-time

LOCATION: Accident, MD

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*Disclaimer: This position description provides a summary of typical job functions. The assigned duties, tasks, and responsibilities are subject to change and are not limited by this position description.*

### **POSITION SUMMARY**

As a Design Engineer, you will be responsible for creating detailed storage container designs, drawings, and specifications for our manufacturing products or facilitating changes to existing designs for product improvements and efficiencies. You will collaborate closely with cross-functional teams including business development, manufacturing, and quality assurance to ensure designs meet all customer and product requirements and standards.

Applies knowledge of manufacturing product materials and engineering theory, methods, and technologies to the design, development, and production of Company products from concept to prototype, maximizing production and ensuing high levels of reliability, quality, safety, and customer satisfaction.

### **Attributes:**

- **Courteous and Ethical Behavior:** The ability to use good judgment and avoid situations that create an actual or perceived conflict between personal interest and those of the Company.
- **Mathematical Reasoning:** The ability to choose the right mathematical methods or formulas to solve a problem.
- **Deductive Reasoning:** The ability to apply general rules to specific problems to produce answers that make sense.
- **Inductive Reasoning:** The ability to combine pieces of information to form general rules or conclusions.

### **Essential Functions:**

- **Designing:** Creates conceptual and detailed designs that meet product requirements, cost-effectiveness, user experience, and environmental standards. Ensure designs comply with regulatory and safety standards.
- **Prototyping:** Experimentally implements ideas into tangible forms, such as from paper to digital. Conducts testing and validation of prototypes and provides support during product manufacturing process.
- **Analyzing:** Conducts feasibility analysis and simulations for new and existing designs. Analyzes data from tests on prototypes and assesses engineering prototypes for issues or risks.

- Documenting: Drafts blueprints, engineering plans, and graphics, and maintaining existing engineering records and designs. Document design processes, calculations, and progress reports.
- Estimating: Estimates cost limits and budgets for new designs.
- Design Technologies: Using CAD software, creates/prepares 3D models and 2D drawings detailing designs and generates bills of material.
- Collaborating: Collaborates with other engineers and technical personnel to resolve design and development challenges. Participates in design reviews and brainstorming sessions.
- Identify opportunities and/or implements changes to improve products or reduce costs using knowledge of fabrication processes, tooling and production equipment, assembly methods, quality control standards, or product design, materials, and parts.
- Interfaces with supply chain management to source products that meet technical standards and design criteria.
- Applies continuous improvement methods such as lean manufacturing to enhance manufacturing quality, reliability, or cost-effectiveness.
- Identifies the best production supplies to meet customer demands and regulatory obligations.
- Determines root causes of failures and recommend changes in designs, tolerances, or processing methods.
- Assures current design practices interface with production standards and practices.
- Travel to customer and partner sites as needed, less than 10%.

#### **Work Experience, Education, and Skills:**

- Bachelor's degree in engineering required, Mechanical Engineering preferred.
- Proven work experience as a Design Engineer or similar role in an industrial setting.
- Experience in 3D CAD software and MS Office preferred.
- Experience with Finite Element Analysis, in particular Ansys Mechanical, is a plus.
- Critical Thinking: Using logic and reasoning to identify the strengths and weaknesses of alternate solutions, conclusions or approaches to problems.
- Communication: Talking to others to convey information effectively. Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Complex Problem Solving: Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Engineering Technical Knowledge: Knowledge of appropriate industry standards as well as advanced engineering design principles.
- Ethics and Integrity: Treats people with respect. Keeps commitments. Inspires trust. Works with integrity and professionalism. Upholds and models company values.
- This position requires the incumbent to be a U.S. citizen.

#### **Physical Requirements:**

- Standing and Walking: Less than 1/3 of the time
- Sitting: More than 2/3 of the time
- Fingering or Manual Dexterity: More than 2/3 of the time
- Repetitive Finger Motion: More than 2/3 of the time

- Lifting up to 25 pounds: Less than 1/3 of the time
- Reaching and Stretching: Less than 1/3 of the time
- Crouching or Stooping: Less than 1/3 of the time
- Speaking and Hearing: 1/3 to 2/3 of the time
- Seeing: More than 2/3 of the time
- Close Vision: More than 2/3 of the time
- Distance Vision: Less than 1/3 of the time
- Peripheral Vision: 1/3 to 2/3 of the time
- Color Discrimination: More than 2/3 of the time
- Depth Perception: 1/3 to 2/3 of the time
- Focusing Ability: More than 2/3 of the time

**Work Environment:**

The position involves occasional exposure to wet or humid conditions, toxic or caustic chemicals, fumes or airborne particles and loud noise levels.

Garrett Container Systems, Inc. (GCS) is an Affirmative Action/Equal Opportunity Employer.