

GARRETT ELECTRONICS, INC. dba GARRETT METAL DETECTORS
POSITION DESCRIPTION

DEPT NO. 300	DEPARTMENT: ENGINEERING	POSITION TITLE: Mechanical Designer FLSA CLASS: EXEMPT
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POSITION SUMMARY:

Prepares working layouts and master drawings of components, assemblies, or systems from specifications, prior layouts, defined sketches, 3D models, and verbal instructions. Applies knowledge of conventional and computerized drafting techniques and procedures, design, manufacturing processes and limitations using computerized work aids. Reviews and analyzes specifications, sketches, engineering drawings, ideas and related design data to determine factors affecting component designs.

POSITION COMPETENCIES:

Competencies associated with each position are a combination of company-wide and department specific standards. Competencies are evaluated initially during each employee's Introductory Period using the Competency Validation Checklist. Thereafter, competencies are assessed on an on-going basis and formally documented using the Annual Performance Evaluation Form.

• ***COMPANY WIDE CORE COMPETENCIES:***

- Environment of Care
- Leadership Initiative
- Customer Service
- Ethics and Code of Conduct
- Employee Health and Safety
- Human Resources
- Performance Improvement
- Information and Management

• ***DEPARTMENT SPECIFIC COMPETENCIES:***

- Leadership
- Performance Improvement
- Ethics
- Education
- Customer Service
- Management of Fiscal Resources
- Information Management

ORGANIZATIONAL RANKING:

Reports To: Sr. Mechanical Engineer

JOB FUNCTIONS:

Every effort has been made to make this job description as complete as possible. However, it in no way states or implies that these are the only duties the incumbent will be required to perform. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or is a logical assignment to the position.

POSITION RESPONSIBILITIES:

- Understands the functional requirements of the company's products.
- Applies knowledge of conventional and computerized drafting techniques and procedures, design, manufacturing processes and limitations using computerized work aids.
- Reviews and analyzes specifications, sketches, engineering drawings, ideas, and related design data to determine factors affecting component designs.
- Lays out major or minor components, assemblies, or systems into working layouts.
- Performs the design of mechanical components and coordinates the generation of necessary detail and tooling drawings.
- Makes corrections, revisions, and changes to layouts as directed by a mechanical engineer.
- Recommends mechanical components and manufacturing materials.
- Assists purchasing in the selecting and approving component, material, tooling and process vendors.
- Assists in the evaluation of finished parts and assists in the establishment of quality criteria.
- Assists in problem solving and design improvements when required.
- Read, analyze and interpret technical documents to define problems and establish facts.
- Comply with all safety policies, practices and procedures. Report all unsafe activities to supervisor and/or Human Resources.
- Participate in proactive team efforts to achieve departmental and company goals.
- Provide leadership to others through example and sharing of knowledge/skill.

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MEASURES OF EFFECTIVENESS:

- As observed by manager and others.
- Review of documentation.
- Service is delivered in a safe, competent, and efficient manner as determined by outcomes, quality monitors, and other internal and external processes.
- Conduct and interpersonal relationships contribute positively to the delivery of quality product and services, and to orderly operation of the department and the facility.
- Skills are maintained and enhanced through participation in planning activities, and attendance at in-service and continuing education programs.
- Quality, suitability, and timelines of designs and product/proven improvements.

POSITION REQUIREMENTS/QUALIFICATIONS:

Education: Bachelor’s Degree (Mechanical Engineering) or two year associates degree or other postsecondary training in engineering technology.

Licensure/certification/registration:

Experience: 3 to 5 years in product design using 3D drafting and layout

Special Skills & Qualifications: Proficiency with AutoCAD and AutoCAD Inventor, engineering drafting principles, geometric layout and dimensioning. Experience with 3D modeling, and designs for injection molding, and metal fabrication required. Creative ability to develop functional and aesthetically pleasing designs. Ability to solve problems, develop creative solutions and perform work with a high level of accuracy and attention to detail. Ability to team with senior engineering staff to develop and document mechanical designs.

MENTAL AND EMOTIONAL REQUIREMENTS:

Have the ability to work independently and in a team environment. Effectively present information to management and public groups. Interpret a variety of technical instructions in mathematical or diagram form and deal with several different situations.

ENVIRONMENTAL CONDITIONS:

Work in a well-lighted, heated and/or air-conditioned indoor office setting with adequate ventilation and a quiet work area.

PHYSICAL DEMANDS:

Demands of physical activity are light to perform non-strenuous daily activities of a technical nature. It is necessary to work from a sitting or standing position, have manual dexterity sufficient to reach/handle items, work with fingers and perceive objects and materials. One must be able to stand under 33%, walk under 33%, sit over 66%, and usage of hands over 66%, reach with hand/arms over 33 %, and have the ability to carry or lift up to 50 pounds under 33%. Vision requirements at times will include close ranges (20 inches or less), distance (20 feet or more), and ability to adjust focus (bring an object into sharp focus). Travel occasionally overnight (up to 10%) by land and/or air.

CONTACTS / INTERACTS WITH:

Employees, Customers, Visitors, Management Staff, Production Staff

POSITION DESCRIPTION REVIEW/REVISION DATE:

Date: 04 February 2010

I have reviewed these job requirements and attest that I can perform all essential functions of this position with or without reasonable accommodation.

Employee Signature: _____ Date: _____