

## **Job Description: Metal Fabrication Engineer**

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Metal Fabrication Engineers are responsible for the preparation of drawings by means of Solidworks in accordance with customer requirements. They work directly with customers to convert customer needs into engineering specifications and to improve product designs interactively. They design products for cost-effective and high quality metal fabrication and improve production processes, methods and controls accordingly. They conduct supplier visits to understand supplier and subcontractor capabilities and assist in the inspection of components and finished goods. They also program the drawing features into automated manufacturing and inspection systems and generate files required for effective product inspection.

**Essential Duties and Responsibilities** include but are not limited to the following:

- Uses Computer Aided Design and Drafting (Solidworks) to prepare drawings:
  - Convert customer drawings and specifications into GenMet models
  - Specify dimensions, materials and fabrication procedures
  - Provide fabrication details of components
  - Create and store drawings electronically
- Programs drawings into automated manufacturing and inspection systems
- Enhances product designs by improving manufacturability and developing manufacturing techniques that prevent fabrication errors and reduce fabrication costs
- Generates files required for effective product inspection
- Assures compliance with GenMet design and quality processes
- Implements revisions in accordance with the GenMet revision control process
- Assists purchasing and scheduling departments with estimates of required engineering times, fabrication requirements, routing steps and inspection tasks
- Validates finished products (prior to and after Subcontract activities) by confirming Customer specifications; conducts visual and measurement tests
- Determines and documents disposition of non-conforming product – rework, request Customer deviation, or scrap. Records information into quality database
- Conducts root cause analysis of non-conforming components. Works with production teams to resolve non-conformances and implement corrective actions
- Suggests and executes engineering and quality related process improvements
- Coordinates the manufacturing launch of new or revised products
- Assists manufacturing in the development of standard operating procedures, safety, quality control and training
- Conducts customer and supplier visits, enhancing GenMet's understanding of customer requirements and supplier capabilities
- Maintains leading edge professional and technical knowledge by attending educational workshops; reviewing professional publications; participating in professional societies

### **Essential Skills/Qualifications:**

- Expert level experience with CAD design and drafting in a metal fabricating environment, ideally using Solidworks
- Extensive blueprint reading, interpretation, measurement and reporting
- The ability to assist others with understanding blueprints and specifications

- Knowledge of sheet metal fabrication machine capabilities, fixtures, methods and procedures
- Technical expertise and skill optimizing designs for manufacturability
- Experience with the integration of components into assemblies
- Proven track record of enhancing product designs that lead to a prevention of fabrication errors and to reduced fabrication costs
- Quality inspection to assure conformance of fabricated items
- Experience working directly with customers and suppliers

### **Desirable Skills/Qualifications:**

- Working knowledge of Geometric Dimensioning and Tolerancing
- Experience operating metal fabricating machinery, ideally consisting of forming, cutting, welding and machining
- Experience with the programming of drawings into automated manufacturing systems (e.g. laser cutting, robots) and inspection equipment (e.g. CMM)
- Quality inspection and root cause analysis in metal fabrication related processes
- Ability to use and improve quality assurance documents, procedures and processes
- Ability to apply Six Sigma and Root Cause analysis tools
- Experience in training or mentoring drafters, engineers or manufacturing personnel
- Military experience is highly regarded

### **Educational and Other Requirements**

Bachelors Degree in a related field with 3 years of experience or 5 years applicable experience, or equivalent combination of education and experience.

### **Cultural Requirements**

- Demonstrate uncompromising ethical behavior
- Value team accomplishments over personal/individual accomplishments
- Strong customer orientation: exhibit a desire to interact with fellow employees as internal customers, with external customers, suppliers and subcontractors
- Continually drive improvement
- Extremely well organized with excellent time management skills
- Communicate effectively with peers, superiors and subordinates
- Desire additional responsibility
- Self-directed, self-reliant and resourceful
- Ability to manage the work of others and be accountable for the outcome
- Thrive in a fast paced environment
- Provide a positive influence on employee morale
- Mentor new or less experienced team members
- Demonstrate ownership and accountability for the goals of the organization

### **Reasoning Ability**

- Ability to define problems, collect data, establish facts, and draw valid conclusions
- Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with abstract and concrete variables

### **Other Requirements**

- Drive moderate distance by car/van or travel by common carrier (including airplane)

**Additional**

All employees are expected to abide by and support the values, culture and mission of GenMet Corp. The job duties as outlined are intended to represent the major elements of this role within the organization. They are not to be considered all inclusive. Other or modified duties may be assigned as appropriate.

Superior Safety, Quality and On Time Delivery  
Supported by Employee Led Continuous Improvement and State of the Art Technology  
Resulting in Profitable, Long Term Relationships