



## Manufacturing Engineer Job Description

### Overview

Responsible for planning, directing, and coordinating manufacturing processes, and implementing and reviewing procedures and equipment involved in the manufacturing process. Test new systems for efficiency and planning factory layouts to optimize production. Develop and maintain all necessary documentation.

### Essential Duties & Responsibilities

This list of duties and responsibilities is not all inclusive and may be expanded to include other duties and responsibilities as needed.

- Thorough understanding and use of the Dumore's Quality Plan in all phases of production
- Formulate and maintain manufacturing objectives, and coordinate these objectives with production procedures in cooperation with other departments to meet company goals and assure continuous improvement
- Analyze production processes, schedules, methods, and other data, and provide management with reports containing the data and statistics to enable management to better understand future requirements needed for the manufacturing process
- Develop, evaluate, and improve manufacturing methods and provide training for production personnel as needed
- Drive ongoing process and product improvement efforts to support continuous improvement and assure effectiveness of processes and systems
- Ensure all manufacturing processes are in compliance with government laws and regulations
- Review and calculate labor, material, and other production costs, along with schedules and future production requirements, to assist management in decision making and prepare accurate tooling and labor estimates
- Collaborate with design engineering, quality engineering, sales, operations, materials, and cost accounting to facilitate new product introduction
- Design tooling, fixtures, and equipment
- Program CNC equipment
- Work with die casters and foundries
- Administer quality control processes, make recommendations for improvements in quality control, and provide training for production team members as needed
- Analyze and plan workflow, equipment placement and space requirements to improve manufacturing efficiency
- Estimate production times, staffing requirements, and related costs in collaboration with cost accounting, to provide information for management decisions
- Confer with vendors to determine product specifications and arrange for purchase of equipment, materials and parts, and evaluate products according to specifications and quality standards
- Coordinate equipment maintenance and repair services and ensure manufacturer's procedures and instructions are followed to production equipment is properly maintained and operational
- Follow departmental procedures and directives in completing work assignments

## **Qualification Requirements**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

### **Education and/or Experience**

A minimum of a two year Associates degree, Bachelor's degree in Manufacturing Engineering or related field preferred; one to three years of related experience; or an equivalent combination of education and experience.

### **Language Skills**

Able to read, analyze and interpret common scientific and technical journals, and detailed product drawings. Able to respond to common inquires or requests from customers, regulatory agencies, or members of the business community. Able to write reports for publication that conform to prescribed style and format. Able to effectively present information to top management and conduct customer presentations. Able to effectively communicate necessary production information to team members.

### **Mathematical Skills**

Able to work with mathematical concepts including fundamentals of plane and solid geometry and trigonometry and statistical inference. Able to apply concepts such as fractions, percentages, ratios, and proportions to practical situations. Able to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

### **Reasoning Ability**

Must possess a high level of mechanical and electrical aptitude. Able to define problems, collect data, establish facts, and draw valid conclusions. Able to interpret a variety of technical instructions in mathematical, written, oral and diagram form and deal with several abstract and concrete variables.

### **Protective Clothing/Equipment Required**

When entering a safety sensitive situation or area, safety equipment and apparel is required and expected to meet applicable regulations and policies.

## **Physical Demands**

The physical demands listed are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- While performing the duties of this job, the employee is regularly required to sit, talk, and hear. The employee is frequently required to use hands to finger, handle, or feel objects, tools, or controls and reach with hands and arms. The employee is occasionally required to stand for extended periods of time when working in the engineering lab.
- The employee must occasionally lift and/or move up to 25 pounds.
- Specific vision abilities required by this job include close vision, depth perception, and the ability to adjust focus.

## **Work Environment**

The work environment characteristics described are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- While performing the duties of this job, the employee occasionally works near moving mechanical parts, exposed to vibration, and frequently exposed to risk of electrical shock
- The noise level in the work environment is usually moderate.