



## Job Description

**Job Title:** Manufacturing Mechanical Engineer  
**Department:** Manufacturing Engineering  
**Reports To:** Manufacturing Engineering Manager  
**FLSA:** Exempt

**Summary:** Plans, directs, and coordinates manufacturing processes in industrial plant by performing the following duties.

**Essential Duties and Responsibilities** include the following:

- ❑ Develops, evaluates, and improves manufacturing methods.
- ❑ Analyzes and plans work force utilization, space requirements, and workflow, and designs layout of equipment and workspace for maximum efficiency. Assesses equipment, and manufacturing process capability and capacity and makes recommendations for improvement.
- ❑ **New product Development**
  - Participates in the concept design,
  - Estimates costs,
  - Processes FMEA in the Pre-launch/Manufacturing phase,
  - Writes plan for introduction to manufacturing by doing the following: capacity plan, process flowchart, assembly line design, create work centers and routings in ROI, and fixtures and equipment design,
  - Performs the pilot run, and
  - Trains the trainer. Trains production team members.
- ❑ Estimates labor, equipment and fixture costs for customer quotations. Collaborates with equipment and tooling suppliers as necessary as part of the new process development process.
- ❑ Applies statistical methods such as SPC and DOE to make improvements in throughput and product quality.
- ❑ Designs automated assembly machines, fixtures and workholding using CAD.
- ❑ Troubleshoots machines and processes. Uses structured problem solving techniques to determine root cause of process problems and implements countermeasures.
- ❑ Benchmarks existing process and products to ensure effective implementation of new technology in the production of new products.
- ❑ Evaluates, designs, and implements automation in a production environment.
- ❑ Uses project management skills to manage various programs under budgetary and timeline constraints.
- ❑ Writes Capital Authorization Requests for new process equipment. Performs justification, selects and implements new equipment.
- ❑ Generates all necessary process documentation (FEMA, process flow charts, instruction sheets, etc.) for new product manufacturing processes.
- ❑ Identifies, designs and procures improved tools, fixtures, and equipment for new and existing manufacturing processes

- ❑ Trains production team members on new processes or process improvements.
- ❑ Creates setup instructions, assembly instructions and equipment instructions for new and existing processes. Responsible for overseeing pilot, pre-production and PPAP runs for new and improved processes.
- ❑ Other duties may be assigned.

**Education and/or Experience:**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

This position requires a Bachelor's degree (B.S.) in Mechanical Engineering. Lean-Six Sigma training/certification desired. Experience with ultra-sonic welding processes and automated manufacturing processes a plus.

**Physical Demands:**

The physical demands described here 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 and talk and/or hear. The employee is frequently required to stand and walk. The employee is frequently required to use hands to finger, handle, or feel. The employee is occasionally required to reach with hands and arms.

**Work Environment:**

The work environment characteristics described here 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 is frequently exposed to moving mechanical parts. The noise level in the work environment is usually moderate.