**Manufacturing Technician I-V**

**Manufacturing overview and Job description**

**Roles and Responsibilities**

* Test products or subassemblies for functionality or quality.
* Troubleshoot problems with equipment, devices, or products.
* Collect hazardous or non-hazardous waste in correctly labeled barrels or other containers and transfer them to collection areas
* Build product subassemblies or final assemblies.
* Monitor and adjust production processes or equipment for quality and productivity
* Prepare and assemble materials.
* Set up and operate production equipment in accordance with current good manufacturing practices and standard operating procedures.
* Assist engineers in developing, building, or testing prototypes or new products, processes, or procedures
* Build packaging for finished products.
* Calibrate or adjust equipment to ensure quality production, using tools such as calipers, micrometers, height gauges, protractors, or ring gauges.

Inspect finished products for quality and adherence to customer specifications.

* Keep production logs.
* Maintain inventory of job materials.
* Package finished products.
* Plan and lay out work to meet production and schedule requirements.
* Prepare production documents, such as standard operating procedures, manufacturing batch records, inventory reports, or productivity reports
* Provide production, progress, or changeover reports to shift supervisors.
* Set up and verify the functionality of safety equipment.
* Start up and shut down processing equipment.
* Adhere to all applicable regulations, policies, and procedures for health, safety, and environmental compliance.
* Clean production equipment or work areas.
* Install new equipment.
* Measure and record data associated with operating equipment.
* Provide advice or training to other technicians.
* Select cleaning materials, tools, or equipment.
* Ship packages, following carrier specifications.
* Clean scrap materials for recycling or reuse, such as preparing aluminum scrap for cold-bonding processes or preparing paper for pulping or ink removal processes.
* Conduct environmental safety inspections in accordance with standard protocols to ensure production activities comply with environmental regulations or standards

Separate scrap or waste materials for recycling, reuse, or environmentally sound disposal.

* Transfer hazardous or non-hazardous waste materials to collection areas for disposal, recycling, or reuse.

**Activities**

* Making Decisions and Solving Problems -- Analyzing information and evaluating results to choose the best solution and solve problems.
* Getting Information -- Observing, receiving, and otherwise obtaining information from all relevant sources.
* Controlling Machines and Processes -- Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
* Communicating with Supervisors, Peers, or Subordinates -- Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
* Monitor Processes, Materials, or Surroundings -- Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
* Inspecting Equipment, Structures, or Material -- Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
* Evaluating Information to Determine Compliance with Standards -- Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
* Updating and Using Relevant Knowledge -- Keeping up-to-date technically and applying new knowledge to your job.
* Interacting With Computers -- Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
* Thinking Creatively -- Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.
* Identifying Objects, Actions, and Events -- Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
* Repairing and Maintaining Mechanical Equipment -- Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
* Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment -- Providing documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment, or structures are to be fabricated, constructed, assembled, modified, maintained, or used.
* Estimating the Quantifiable Characteristics of Products, Events, or Information -- Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity.
* Analyzing Data or Information -- Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
* Organizing, Planning, and Prioritizing Work -- Developing specific goals and plans to prioritize, organize, and accomplish your work.
* Processing Information -- Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
* Documenting/Recording Information -- Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
* Establishing and Maintaining Interpersonal Relationships -- Developing constructive and cooperative working relationships with others, and maintaining them over time.
* Handling and Moving Objects -- Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

**Skills and Experience** **Required**

* Operation Monitoring -- Watching gauges, dials, or other indicators to make sure a machine is working properly.
* Reading Comprehension -- Understanding written sentences and paragraphs in work related documents.
* Critical Thinking -- Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
* Monitoring -- Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
* Active Listening -- 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.
* Equipment Maintenance -- Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
* Operation and Control -- Controlling operations of equipment or systems.
* Complex Problem Solving -- Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
* Repairing -- Repairing machines or systems using the needed tools.
* Quality Control Analysis -- Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
* Judgment and Decision Making -- Considering the relative costs and benefits of potential actions to choose the most appropriate one.
* Troubleshooting -- Determining causes of operating errors and deciding what to do about it.

**Skills and Experience** **Preferred**

* Mechanical -- Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
* Production and Processing -- Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
* Engineering and Technology -- Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
* Mathematics -- Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
* Design -- Knowledge of design techniques, tools, and principals involved in production of precision technical plans, blueprints, drawings, and models.
* Computers and Electronics -- Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
* English Language -- Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.