Job Title: Manufacturing Engineer

Department: Manufacturing

Reports To: Vice President of Operations

FLSA Status: Exempt

SUMMARY

Plans and coordinates manufacturing processes in the manufacturing operations by performing the following duties.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following. Other duties may be assigned.

- Develops, evaluates, and improves manufacturing methods, utilizing knowledge of product design, materials and parts; metal fabrication processes along with machine milled and lathed parts; finished processes such as heat treat, passivation, and paint; tooling and production automation equipment capabilities, including PLC programming, industrial equipment wiring and installation; assembly method and quality control standards.
- Analyzes and plans work force utilization, space requirements, workflow, and designs layout of equipment and workspace for maximum efficiency.
- Confers with planning and design staff concerning product design and tooling to ensure efficient design and production methods.
- Evaluates opportunities for major reductions in manufacturing costs through the introduction and use of current technologies, and where feasible, implements new technologies as approved.
- Confers with vendors to determine product specifications and arrange for purchase of equipment, materials or parts, and evaluates products according to specifications and quality standards.
- Estimates production times, staffing requirements, and related costs to provide information for management decisions.
- Confers with management, engineering, and other staff regarding manufacturing capabilities, production schedules, and other considerations to facilitate production processes.
- Applies statistical methods to estimate future manufacturing requirements and potential.
- Reviews and analyzes manufacturing process proposals submitted to determine if benefits derived and possible applications justify expenditures.
- Submits proposals considered feasible to management for consideration and allocation of funds or allocates funds from department budget.
- Designs products and systems to interface machines, hardware, and software. Uses computer assisted design/drafting equipment and software to develop designs for tooling and equipment. Records test procedures and results, numerical and graphic data, and recommendations for changes in product or test method.
- Complies with and conducts business in accordance with the letter, spirit, and intent of all relevant laws and regulations, policies, work procedures, instructions; wherefore, refrains from any illegal, dishonest, unethical conduct. Maintains communications with all employees, vendors, customers and others in a cooperative and professional manner, while treating them in with dignity, respect and courtesy.
- Performs other related duties as required and may be assigned.

QUALIFICATIONS To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below 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.

• Critical Skills and Abilities:

- Design: Understands material properties, manufacturing processes and finishes, and incorporates knowledge
 into creative solutions; translates concepts and information into images; uses feedback to modify designs;
 applies design principles; strong mechanical aptitude; demonstrates attention to detail.
- Communication: Effective strong verbal and written communication skills, with the ability to clearly present information to internal and external customers. Ability to interpret component or assembly drawings to common industry standards.
- Detail oriented: Ability to perform work and job function with precision and accuracy, realizing that errors
 can have significant impact on desired results; systematically monitors processes and progress of projects,
 maintaining documentation records.
- Work habits: Ability to work independently and be self-motivated, assuming ownership of multiple assigned
 projects in a fast-paced environment, but also possesses the ability to collaborate with other Engineers and
 Department members as needed; must be able to manage projects independently and marshalling resources
 in a matrix reporting environment.
- o Computer literate: Microsoft Windows environment -- MS Office, CAD/CAM programming using Solidworks, Inventor, Esprit, CamWorks, or similar.
- o This position must meet "US Person" Export Control compliance requirements, as defined by 22 C.F.R. § 120.15, which includes: US Citizen, US National, Legal Permanent Resident, Asylee, or Refugee.

ESSENTIAL EDUCATION and/or EXPERIENCE

- Education: Bachelor of Science degree in Manufacturing or Mechanical Engineering.
- Work Experience: Preferred background experience of 2-5 years in a manufacturing environment, requiring moderately complex planning activities for development of manufacturing methods and metal fabrication processes, while utilizing knowledge of product design, materials, tooling, and production equipment capabilities, etc. The position also requires applied experience using the Lean Manufacturing principles to aid in the standardized methods of factory improvements. Knowledge of PLC controls, along with electronic assembly process, preferred.
- Or, equivalent combination of education and experience.

REASONING ABILITY

- Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists.
- Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

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 occasionally works near moving mechanical parts and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock.
- The noise level in the work environment is usually moderate.