



Position Description

Title: Mechanical Engineer

Department: Engineering

Reports To: Engineering Manager

FLSA Status: Exempt

Summary: This individual will be responsible for engineering process systems, providing sales and technical support, and determining best practices to ensure customer and project needs are met.

Essential Duties: Essential job duties for this position include the following items. Other duties must be performed as assigned or required.

- Engineer process systems to meet applicable codes and customer requirements.
- Read and understand engineering specification documents.
- Perform calculations and determine material requirements.
- Coordinate project milestones with all team members.
- Communicated and professionally interact with consulting engineers, vendors, and customers.
- Determine best practices and materials for production.
- Provide Sales support to ensure specifications are met during the bidding stage.
- Maintain design and fabrication standards for piping, vessels, skids, etc.
- Provide accurate, timely information and documentation.
- Specify components to meet performance and engineering requirements.
- Provide technical support for Service department and customers.
- Research and implement new products for continuous product improvement.
- Review and maintain vital project documentation.
- Perform all job functions in compliance with company safety program.
- Work toward continuous quality improvement.
- Stay current with changing technology, including software and position/industry specific programs.
- Uphold, support, and promote all company policies and procedures.

Supervisory Responsibilities: None

Qualifications: To perform this job successfully, the individual in this position must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the minimum knowledge, skills and ability required.

Education/Experience:

- Requires bachelor degree in a field of engineering or science
- Experience in process equipment engineering preferred.
- Knowledge in the fields of chemistry, physics, mathematics, design principles, material properties, and manufacturing principles required.
- Ability to utilize AutoCAD software, to apply multiple engineering disciplines to design equipment, to apply mathematical functions for design and problem solving, to read



Position Description

and understand engineering drawings, and to troubleshoot and repair electrical and mechanical components preferred.

- Experience with computers, including Microsoft Office and general engineering software, small hand tools, calibration tools, etc., required, as well as the mechanical aptitude to design, build, and repair industrial equipment.

Language Skills:

- Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations.
- Ability to write reports, business correspondence, and procedure manuals.
- Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.

Mathematical Skills:

- Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry.
- Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations, and utilize a calculator.

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 several abstract and concrete variables.

Certificates, Licenses, Registrations:

- Valid drivers license required; current Professional Engineering license, or ability to obtain within an acceptable time frame

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.

- Standing – Approximately less than 1/3 of on-the-job time.
- Walking – Approximately 1/3 to 2/3 of on-the-job time.
- Sitting – Approximately greater than 2/3 of on-the-job time.
- Use of hands to finger, handle or feel – Approximately greater than 2/3 of on-the-job time.
- Reaching with hands and arms – Approximately less than 1/3 of on-the-job time.
- Climbing or balancing – Approximately less than 1/3 of on-the-job time.
- Stooping, kneeling, crouching or crawling – Approximately less than 1/3 of on-the-job time.
- Talking or hearing – Approximately 1/3 to 2/3 of on-the-job time.
- Tasting or smelling – Approximately less than 1/3 of on-the-job time.
- Weight lifted/Force exerted – An average of approximately more than 50 pounds, less than 1/3 of on-the-job time, non-continuously.
- Ability to work at heights of 20 feet or more

Physical demand requirements listed are primarily applied to performance of various engineering related tasks, as well as work related to the manufacturing and/or fabrication processes. Usage of all required PPE and safety equipment is also required.



Position Description

- Vision – Close vision (clear vision at 20 inches or less), Distance vision (clear vision at 20 feet or more), Color vision (ability to identify and distinguish colors), Peripheral vision (ability to observe an area that can be seen up and down or to the left and right, while eyes are fixed on a given point), Depth perception (three-dimensional vision, ability to judge distances and spatial relationships), and Ability to adjust focus (ability to adjust the eye to bring an object into sharp focus).

Vision requirements listed are primarily applied to reading engineering specification documents, computer monitors, and related detailed work, as well as various tool usage.

Work Environment: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job.

Environmental – Exposure to potentially hazardous environmental conditions may include the following:

- Wet/humid conditions (non-weather) – Approximately less than 1/3 of on-the-job time.
- Work near moving mechanical parts – Approximately less than 1/3 of on-the-job time.
- Work in high, precarious places – Approximately less than 1/3 of on-the-job time.
- Fumes, gasses or airborne particles – Approximately less than 1/3 of on-the-job time.
- Toxic or caustic chemicals – Approximately less than 1/3 of on-the-job time.
- Outdoor weather conditions – Approximately less than 1/3 of on-the-job time.
- Extreme cold (non-weather) – Approximately less than 1/3 of on-the-job time.
- Extreme heat (non-weather) – Approximately less than 1/3 of on-the-job time.
- Risk of Electrical Shock – Approximately less than 1/3 of on-the-job time.
- Vibration – Approximately less than 1/3 of on-the-job time.

Noise: Loud – (noise levels not exceeding 85dB)

Acknowledgement:

I acknowledge this position description was reviewed with me and a copy was provided to me. I agree to and accept the terms and conditions and acknowledge this does not represent a contract of employment.

Employee Signature

Date

Supervisor Signature

Date