



Senior Mechanical Engineer

Status: Exempt Regular
Schedule: Full-Time
Travel: 10 - 20% of Time

Summary

Work includes support for all project phases, with particular focus in front-end engineering and detailed engineering. Position will be assigned as mechanical engineering lead for projects and will be responsible for coordination and ensuring effective communications with other engineering disciplines.

Reporting

Position reports administratively to the Engineering Manager. In project structure, position reports to the discipline lead engineer and/or the project manager/project engineer.

Responsibilities

Include the following. Other duties may be assigned as required.

- Responsible for leading piping engineering design activities for the project in front-end and detailed engineering phases. Including the following:
 - Piping specification selection and development
 - Piping stress analysis calculations
 - Piping support selection and design
 - Ensure compliance with the applicable piping codes (ASME B31.1, ASME B31.3, ASME B31.4, ASME B31.8)
- Interface with suppliers, clients, as well as other engineering disciplines and designers in support of the project deliverables.
- Responsible for leading mechanical equipment specifications and selection activities for the project in front-end and detailed engineering phases. Including the following:
 - Ensuring equipment complies with the appropriate industry (ASME, API, etc.) as well as client/facility standards.
 - Development of specification drawings.
 - Completion of hydraulic calculations for equipment sizing/selection.

Education, Skills and Experience

- BSc in mechanical engineering with minimum of 10 years' experience in the petrochemical, oil & gas, power generation and metallurgical/mineral processing industries.
- Ability to lead quality management of discipline work processes and deliverables.
- Must be familiar with common metallurgies used in an industrial environment, with welding procedures and related ASME code, common corrosion mechanisms and methods of mitigation and be thoroughly knowledgeable of pertinent API documents used for guiding design.
- Experience with hydraulic analysis for piping and ductwork using software (e.g., Design Flow Solutions, PipeFLO, or others) to size/select pumps, blowers, compressors, etc.
- Experience with piping stress analysis, both static and dynamic, using CAESAR II software.
- Experience with analysis of equipment attachments/connections using NozzlePRO/FEPipe software.
- Experienced with developing equipment specifications and data sheets, and working with vendors to obtain quotes, adjudicate proposals and provide recommendations.



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- Experience with ASME BPVC and design calculations using PV Elite software.
- Knowledge of applicable design standards addressing mechanical piping design/engineering (e.g., ASME, API, PIP, PFI, MSS, ANSI).
- Strong communication skills, with ability to lead execution of work and resolve issues in a team environment.
- Previous consulting experience is strongly preferred.

Certifications, Credentials, Licenses & Registrations

- PE license preferred with ability to register with NCEES and in other States of company practice.
- Eligibility to obtain or currently hold a valid Transportation Worker Identification Credential (TWIC) required.

We offer a full benefits package. Medical, Dental, Vision, 401K, Company paid Life & AD&D Insurance, Company paid Short-Term and Long-Term Disability, Supplemental Life & Dependent Life Insurance, and a Flexible Spending Account. We also offer a generous Paid Time Off program, 8 paid holidays, and overtime compensation for exempt staff.

Kestrel Engineering Group Inc. has a policy of conducting background checks and drug and alcohol testing for all candidates who accept an offer of employment with us.

“Kestrel is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, or protected veteran status.”

Qualification Requirements

All Kestrel staff must have the legal right to work in the United States. Kestrel does not provide immigration or work visa sponsorship.

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

Should also possess the following competencies: Able to identify and resolve problems in a timely manner; Develop alternative solutions; Keep emotions under control while under stressful situations; Speak clearly and persuasively in positive or negative situations; present numerical data effectively and accurately; show respect and sensitivity for cultural differences; promote a harassment-free environment; work with integrity and ethically; follow the Company’s policies and procedures; prioritize and plan work activities; use time efficiently; approach others in a tactful manner; accept responsibility for own actions; deal with frequent change, delays, or unexpected events; be consistently at work and on time; ensure work responsibilities are covered when absent; arrive at meetings and appointments on time; and ask for and offer help when needed.

Workplace Requirements:



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Due to the nature of our work, all employees must be capable, eligible and willing to visit our clients at their industrial facilities. This entails a willingness and ability to travel, wear required personal protective equipment and to comply with our safety policies as well as those of our clients.

Drug & Alcohol Testing: Drug and alcohol screening will be completed by Kestrel at employment initiation and periodically thereafter as required to meet our client requirements. This testing is performed in accordance with state and federal requirements and as defined by client drug and alcohol testing requirements. Failure to pass a drug or alcohol test, refusing to submit to testing, and/or providing an adulterated or substituted sample, will be cause for termination where not contrary to law.

Background Checks: Background checks will be completed by Kestrel at employment initiation and periodically thereafter as required to meet our client requirements. The results of background checks will be kept confidential and will not be actionable unless they reveal information that would make the employee ineligible for client site access.

Travel Requirements: Kestrel employees must be willing and able to travel by driving or flying to client facilities and other Kestrel offices. In order for Kestrel employees to drive as a course of their employment they must have a valid driver's license and be insurable through Kestrel's insurance provider. You must be willing and able to drive your own properly registered and insured vehicle. Any negative incidents such as speeding tickets or DUI's could prevent an employee from being insurable as a driver of a Kestrel or rental vehicle. Must also meet all requirements to fly with commercial airlines without restriction.

Language Skills

Because Kestrel maintains strict adherence to company policies and procedures, for an individual to perform this job successfully, he/she must have the ability to speak, write and understand English. Ability to read, communicate, interpret, and comprehend simple instructions, correspondence and memos, both electronically and in written form.

Mathematical Skills

Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals.

Reasoning Ability

Ability to apply common sense understanding to carry out instructions furnished in written, oral, electronic, or diagram form. Ability to deal with problems involving several concrete variables in standardized situations. Must be able to work and communicate well with others; work well under the pressure of ensuring that requirements and specifications are met; work with minimal supervision.

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. Kestrel employees, with reasonable accommodation, must be willing and able to independently enter, perform work within, and evacuate from all areas within the client's site. Reasonable accommodations may be made when possible to enable individuals with disabilities to perform the essential functions.

Must be willing and able to complete accurate and efficient field documentation in heavy industrial environment, including wearing personal protective equipment (PPE), may require physical ability to walk



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over uneven surfaces, work from elevated surfaces, and navigate around or climb on industrial equipment (i.e. climbing pipe racks, ladders, stairs, etc.) and related requirements.

While performing the duties of this job, the associate is regularly required to use hands to finger, handle, or feel and talk or hear. The associate frequently is required to sit and reach with hands and arms. The associate is occasionally required to walk; climb or balance; and stoop, kneel, crouch, or crawl. The associate must regularly lift and/or move up to 10 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, depth perception, and ability to adjust focus.

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 when possible, to enable individuals with disabilities to perform the essential functions. The noise level in the office work environment is generally quiet. The noise level at client sites is usually very loud. At client sites you may also be exposed to moving mechanical parts, fumes, gases, airborne particles, confined spaces, and may occasionally be exposed to risk of electrical shock.