HVAC Design Engineer

Purpose: To work directly with clients to design new or replacement heating, cooling, and refrigeration systems specific to customer needs and building specifications. To analyze customer needs, develop and propose recommended HVAC and related design solutions. Perform and coordinate system design for installation by project management and field construction resources. They may focus on solving problems related to air quality issues, environmental issues, or energy efficiency. HVAC design engineers work on industrial projects. Their tasks include completing HVAC-related drawings, preparing project estimates, and overseeing the installation of projects to completion.

Duties & Responsibilities:

- Respond to initial customer inquiries to investigate their HVAC needs. Discuss the specific customer requests and provide an overview of the general approach to be taken to resolve their needs. Response to customer inquiries may be with sales personnel or performed independently by the design engineer.
- Design HVAC, Processing and Non-Processing systems for a wide variety of industrial
- Designs will be performed per industry standard practice to meet the customers' needs and per regulatory requirements.
- Designs in the inquiry/bid phase will be schematic with enough detail to enable the labor and materials to be assessed.
- Designs in the contract phase will be detailed. Design activities will include heating and cooling load calculations performed on a computer program, air distribution design, boiler/chiller systems design, pump and piping design, steam system design, system choices, controls performance sequence definition, and miscellaneous components. Coordinate the schematic design and CAD drawings as necessary.
- Demonstrates expertise in a variety of mechanical engineering concepts, practices & procedures.
- Consistently complies with engineering standards and code requirements.
- With the assistance of the estimating staff, prepare construction cost estimates for the systems designed, including soliciting equipment quotations from vendors and users of the company's proprietary computerized estimation program to establish the labor and material cost of the jobs.
- Establish the price of the job by applying a profit margin as directed by the HVAC Engineer Manager.
- Prepare and present a proposal letter including the project description, scope of mechanical performance, assumptions and estimated cost to the customer. Follow-up and obtain customer commitment.
- Prepare and assemble construction drawings and arrange plan reviews as appropriate.
- Support service, refrigeration, and industrial ventilation departments engineering needs as required.
- Support and maintain a safe and Lean working environment

Qualification/Skills:

- BS in mechanical, architectural or HVAC engineering - Required
- Minimum of 5 years' experience in Industrial HVAC / Piping Processing – Required
- AutoCAD experience - Required
- Time & Materials Estimating experience - Required
- Good computer skills including the ability to work with Microsoft Excel, Word, Outlook, etc. - Required
- Aptitude and/or experience to manage design projects - Required
- Physical ability to climbing, crawling and other body movements necessary to inspect the systems – Required
- 3D modeling using AutoCAD MEP experience - Preferred
- 3D modeling using Revit MEP experience - Preferred

- Plumbing design and steam system design experience - Preferred
- CEM or similar certification, or specific energy efficiency-related project experience - Beneficial
- LEED AP accreditation – Beneficial