



Phone 605-275-2025
 Office 500 W Hanger Street - Sioux Falls, SD 57104
 www.nelsonbaker.com

Job Description

Job Title	Mechanical Engineer	Job Category	Salaried (Exempt)
Experience Level	2-5 years	Travel Required	Based on needs of business
Location	Sioux Falls, SD Office	Position Type	Full Time
Reports to	Sr. Mechanical Engineer	Title	Mechanical Engineer

COMPANY OVERVIEW

Nelson Baker Biotech has quickly established a reputation as one of the most innovative renewable industry design builders in the upper Midwest. Nelson Baker Biotech combines engineering expertise, a solid business background and practical field experience to provide its clients with true, value-added advice and craftsmanship. NBB recognizes the renewable energy and products industry as an exciting new market that includes clients of all sizes with varied needs. NBB's experience and flexible approach allows it to work with all types of clients and project requirements. Our focus in the renewable industry includes Ethanol, Purified Ethanol, and BioChemicals. Of course, as this industry continues its rapid transformation, our goal is to guide our clients to the most efficient and cost-effective solutions in these constantly evolving markets.

At Nelson Baker Biotech we offer an excellent benefit package to all our regular full-time employees, including health, dental and vision insurance, 401(k) with company contributions, flexible spending accounts, paid time off, bonus program, and the opportunity for personal and professional growth.

GENERAL DESCRIPTION

Perform all routine mechanical engineering calculations. Perform mechanical engineering duties; plan, design, and oversee the equipment and materials selection for industrial projects. Develop engineering details into equipment specifications, requests for proposal and a final design. Gather, analyze, interpret, act upon, and pass on all pertinent project data. Maintain an informational database on all pertinent equipment information. Coordinate with structural, electrical, and chemical disciplines during the engineering for design-build projects.

Review designers' drawings. Develop subcontractor bid packages for piping, millwrights, insulation, etc. Perform periodic site visits to verify subcontractor conformance to drawings and specifications. Coordinate with site superintendent to address construction questions and issues. Perform cost estimating and create proposal documents for the mechanical scope of potential projects. Assist with equipment commissioning and startup as required. Coordinate with equipment vendors to solicit quotes and generate equipment purchase orders.

Be aware of all safety, health, and environmental issues that impact the project and all personnel.

Chemical/process engineering applicants may also be considered for this position.

ESSENTIAL DUTIES/RESPONSIBILITIES

- Ability to comprehend and perform calculations related to heat and mass transfer, fluid dynamics, and thermodynamics
- Coordinate with equipment vendors to specify and procure equipment
- Utilize engineering knowledge for project management; estimate timelines and schedules; anticipate risks and costs related to the technical aspects of the project
- Provide overall strategy and technical solutions as warranted for project challenges in the mechanical engineering scope of work
- Manages project plans including cost estimates, timelines, and blueprints; interpret and recommend changes to plans
- Manages projects regularly to ensure successful completion on time and on budget
- Perform detailed engineering, specification preparation, engineered equipment and material procurement, and on occasion, manages the work of a subcontracted engineer or consultant



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- Perform engineering studies to determine the best course of action to take to resolve a particular problem or select a particular process or piece of equipment
- Completion of feasibility studies and economic assessment of process/project alternatives
- Development of equipment layouts, piping layouts, construction packages, and occasionally PFDs and P&IDs
- Coordinate with and communicate pertinent information in a timely manner to other departments (i.e., electrical, structural, process, accounting, drafting, etc.)
- Answer technical inquiries, make technical recommendations, provide process and equipment troubleshooting, improve mechanical engineering tools, and develop process procedures
- Provide front end and detailed engineering for minor and major capital projects
- Review general project objectives and establish engineering requirements for the whole project or major system. This involves interpretation, definition of scope, and development of concepts
- Ability to plan, develop, coordinate, and direct the engineering effort for the major system(s) of a large complex project or for a total project of moderate scope
- Identify and assess improvement opportunities which will add value
- Identify and participate in the evaluation of new technological developments and processes for feasibility and cost effectiveness
- Assist operations training by presenting technical details to plant staff
- Continue to grow technically by enhancing job skills
- Build and maintain good relationships with NBB Partners and Affiliates
- Must be available to travel and work more than standard hours when necessary
- Participate and attend staff training, programs, and other training sessions
- Utilize software and other available tools proficiently and effectively
- Perform additional duties as directed or assigned
- Minimum B.S. Mechanical Engineering or Chemical Engineering required

KNOWLEDGE BASED SKILLS

- Microsoft Office Products
- Adobe Acrobat Professional or Bluebeam Revu
- Document Tracking Database
- Excellent verbal, written and computer communication and technical skills
- Superior organizational skills and the ability to multi-task
- Ability to work independently with minimum instruction
- Ability to maintain accurate records