

POSITION TITLE: Structural Design Engineer

DEPARTMENT: Engineering

REPORTS TO: Engineering Manager



OBJECTIVES OF POSITION

The Structural Design Engineer will be under the guidance of the Engineering Manager and will devise and design new products, using Engineering best practices, related to Sioux Steel Company and divisions.

DUTIES/RESPONSIBILITIES

- Partner with Sales & Marketing to identify new product development opportunities
- Determine design objectives and assure the design meets company objectives
- Determine appropriate design loads for structures using applicable building codes and/or design standards
- Use STAAD engineering design software to model various product structures
- Utilize SolidWorks modeling software to develop solid models and detailed drawings in accordance with applicable standards
- Utilize SolidWorks Simulation software to perform finite element analysis (FEA) on various parts and assemblies
- Work directly with research & development lab and/or outside shops for fabrication of prototype product components and assemblies
- Prepare and review technical documents, including product installation manuals
- Work with manufacturing engineering and operations to determine efficient and cost effective product designs
- Implement rigorous product design reviews including pier reviews, design for manufacture reviews (DFM), and design failure mode and effect analysis (DFMEA)
- Work closely with Senior Management to prioritize projects that are in line with company goals and objectives
- Work with Purchasing and Operations Management to specify appropriate raw materials and/or parts for new and existing designs
- Investigate and evaluate new engineering technologies and materials to remain innovative and competitive in product design and cost
- Implement and track product design changes
- Prepare technical specifications, reports, cost estimates, and project timelines for products and product components
- Interface with outside vendors for component selection, manufacturing, and assembly
- Read and interpret blueprints, technical drawings, schematics, and computer-generated reports
- Research and analyze customer design proposals, specifications, manuals, and other data to evaluate the feasibility and cost of designs or applications
- Exhibit thorough understanding of pertinent codes, governing regulations, or industry standards
- Provide technical support as necessary to dealers and erectors with installation questions
- Travel as situations arise pertaining to the job and as deemed necessary by supervisor
- Work independently and exercise appropriate judgment
- Identify opportunities for quality enhancement and cost reductions
- Employees may be requested to perform other duties as assigned

QUALIFICATIONS/EXPERIENCE

Bachelor's degree in Civil/Structural Engineering required

5+ years relevant work experience preferred

- Prior knowledge of current International Building Code (IBC) and Minimum Design Loads for Buildings and Other Structures (ASCE-07) preferred
- Project management experience preferred
- Results-oriented with ability to think critically to solve problems and drive results
- Strong communication skills required to effectively interact with people and manage projects
- Ability to multi-task with a pro-active team approach to issue resolution
- Capable of working in a team environment and independently (with little or no supervision) using the overall goals to set actions