



1617 317th Ave.
P.O. Box 345
Vermillion, SD 57069

Department	Engineering	
Job Title	Design Engineer	
Position Reports To	Engineering Manager	
<u>Level/Grade</u>	<u>Type of position:</u>	Hours: 40-50 / week
N/A	<input checked="" type="checkbox"/> Full-time <input type="checkbox"/> Part-time	<input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Nonexempt

GENERAL JOB DESCRIPTION

Responsible for the ground up design of new projects and modification of previous designs. Equipment categories include a wide range of customized aggregate processing equipment including; Portable Washing, Screening, and Crushing Plants, and a wide variety of Conveyor Equipment. The Design Engineer will work closely with the Masaba team including sales, operations, purchasing and production. This fast-paced environment affords employee a challenging environment to grow and to expand their experience and skill sets in the discipline of mechanical engineering and general business.

ESSENTIAL JOB REQUIREMENTS

Essential Duties and Responsibilities

- Develop innovative products from concept to a manufacturable product while assuring design intent and integrity is maintained.
- Design custom equipment that meets all technical requirements of assigned projects including new products, product enhancements, and cost reductions.
- Perform analysis or calculations on project designs to achieve desired safety factors.
- Applicable knowledge of Design for Manufacturing and Design for Assembly Principles as well as material optimization.
- Initiate and implement design related cost reductions and quality improvement ideas.
- Provide project management and follow through on assigned projects.
- Develop and maintain design documentation including 2-D drawings, 3-D CAD designs and project specifications.
- Organize and maintain BOM's for all assigned projects.
- Collaborate with and Support internal departments with technical information.
- Work collectively with Purchasing to obtain components and materials for projects.
- Assist Manufacturing after projects are released and on design updates as required.
- Comply with all safety rules and procedures.
- Other duties as assigned.

Qualifications

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

- 2D CAD Drawings (AutoCAD)
- 3D CAD Modeling (Inventor Preferred or Solidworks, Catia, Creo)
- FEA – Analysis via hand calculation or FEA Software
- Vault/Data Management
- Knowledge and understanding of welding concepts and weld symbols on drawings
- Geometric Dimensioning & Tolerancing (GD&T)
- Microsoft Office Suite: Excel, Word, PowerPoint, Outlook
- The ability to understand mechanical concepts and processes easily
- Ability to work with hands, hand tools and/or machine tools.

Language Skills

Strong writing and verbal communication skills required. Ability to write reports and business correspondence. Ability to effectively present information and respond to questions from groups of managers, clients, and customers. Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, and governmental regulations.

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.

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Reasoning Ability

Excellent prioritization and project development skills. Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

Computer Skills

To perform this job successfully, an individual should have experience with 2D and 3D design software and the Microsoft Office Suite

EDUCATION REQUIREMENTS

- Bachelor's Degree (B.S.) from four year college or university in Engineering
- 2+ years' of related experience and/or training preferred.

PRE-EMPLOYMENT REQUIREMENTS

- Pre-Employment Drug Screening
- Health Assessment Questionnaire or medical examination