



Job Title: Electrical Design Engineer

Company Overview: Bushman Equipment, a subsidiary of Xtek, Inc (www.xtek.com), specialize in designing and manufacturing custom-engineered lifting devices for heavy-duty industrial applications. Our products are engineered to address challenging material handling needs in steel, aluminum, and other industries worldwide.

Job Summary: The Electrical Design Engineer will be responsible for designing, developing, and implementing electrical systems for heavy-duty, below-the-hook lifting equipment. This role involves close collaboration with a Mechanical Engineer to ensure systems are optimized for both electrical and mechanical integrity, safety, and functionality. The ideal candidate will work across departments and with clients to address technical challenges, integrate electrical systems seamlessly with mechanical designs, and uphold rigorous quality standards.

Key Responsibilities:

- **Electrical System Design & Development:**
 - Design and implement electrical systems, ensuring they integrate effectively with mechanical components.
 - Develop schematics, wiring diagrams, and control system layouts for equipment in compliance with industry standards.
 - Utilize AutoCAD Electrical, EPLAN, or equivalent software for creating and refining system designs.
- **Compliance & Quality Assurance:**
 - Review and adhere to applicable safety and industry standards.
 - Perform checks on electrical drawings, ensuring compliance with customer specifications and regulatory standards.
 - Collaborate with the Mechanical Engineer to validate the system's operational safety and performance.
- **Project Management & Documentation:**
 - Manage electrical aspects of projects, set timelines, and ensure on-time, within-budget delivery.
 - Document all phases of the design process, including Bills of Materials (BOMs), electrical calculations, and technical reports.
 - Maintain accurate documentation, including bills of materials (BOMs) in Bushman's ERP systems (Bluestar PLM and Microsoft D365).
- **Collaboration & Cross-functional Support:**
 - Work alongside the Mechanical Engineer to address design and production challenges.



- Coordinate with manufacturing, sales, and service engineering teams to resolve issues during the production and deployment phases.
- Provide technical support to clients and offer field support as needed.
- **Vendor & Supplier Liaison:**
 - Evaluate vendor bids for electrical components, ensuring alignment with project specifications.
 - Review vendor-provided electrical drawings to ensure compliance with project and safety requirements.

Qualifications:

- **Education & Experience:** Bachelor's degree in electrical or Electro-Mechanical Engineering, with 3+ years of experience in designing heavy-duty industrial equipment or relevant electrical systems.
- **Technical Skills:**
 - Proficient in AutoCAD Electrical, EPLAN, or similar software (3+ years).
 - Familiarity with industrial control systems, PLC programming, and drive systems is advantageous.
 - Knowledge of design detailing, BOM management, and regulatory standards.
- **Soft Skills:** Strong communication, problem-solving, and organizational skills; ability to work independently and collaboratively.

Preferred Qualifications:

- **Experience in hands-on electrical work and troubleshooting**

Please provide written answers to the questions on the following key employee qualities:

1. **Adaptability:** "Can you describe a time when you had to quickly adapt to a significant change at work? How did you handle the transition, and what was the outcome?"
2. **Communication Skills:** "Effective communication is crucial in any role. Can you provide an example of how you successfully communicated complex information to a team or client who was unfamiliar with the topic?"
3. **Problem-Solving Abilities:** "Tell me about a challenging problem you encountered at work. What steps did you take to address it, and what did you learn from the experience?"