



# **Position Description**

**Title: Control Systems Engineer** 

Reports to: Engineering Manager – Controls

#### **About Mesabi:**

For over 30 years Mesabi has worked to meet the compounding control system needs for the rubber industry. From simple to complex control systems, Mesabi provides customized hardware, software, engineering, fabrication, installation supervision, commissioning, training, and 24/7 support.

Mesabi has a proven track record supplying cutting-edge technology to the rubber industry. This technology provides the competitive edge necessary to succeed in a dynamic business environment. Mesabi is continually improving its compounding control system products to help our customers maintain this competitive edge. Driven by a customer oriented and industry specific approach, Mesabi is also committed to providing the best service and support available to the rubber compounding industry.

Mesabi, recently acquired by HF Mixing Group, has developed an aggressive growth strategy to leverage rubber mixing equipment built by HF Mixing Group with Mesabi's proven control systems software package. The 5-year plan is to double our engineering staff; with an imminent move to a new 10,000 square foot office and electrical panel shop in Oakdale, MN. Our growth strategy presents opportunities for Control Systems Engineers of all skill levels to join the Mesabi team.

#### **Position Summary:**

Develop, coordinate, and implement PLC based controls systems and PC based SCADA projects. Provide technical assistance on projects to ensure successful implementation of project scope. Participate in new product development to promote profitability, production efficiency, quality, service, and cost-effectiveness.

# **Primary Responsibilities:**

- Develop controls systems designs (P&ID), hardware specifications, programming, simulation, on-site start-up, and training.
- Provide electrical panel design and layout, bill of materials, and electrical schematic drawings.
- Generate detailed project documentation.
- Provide PLC programming and memory register layout.
- Provide operator interface programming and memory register layout.
- Provide operator controls (switches, lights) design and integration.
- General understanding of PC programming and configuration.
- General understanding of Server and Database programming and configuration.
- Assure the company and its mission, programs, products and services are consistently presented in strong, positive image.
- Promote positive relations with partners, vendors, and distributors.
- Develop and maintain customer contact for maintenance and support services.
- Identify and help resolve customer technical and product development concerns.

## **Additional Responsibilities:**





- On-site commissioning and training.
- Participate in 24/7 Support Team coverage.

#### **Knowledge and skill requirements:**

- Proven experience creating electrical drawings, panel layouts, and P&I diagrams (AutoCAD Electrical or Eplan).
- Proven experience in PLC ladder logic programming with Rockwell (Studio5000), Siemens (TIA), and GE (Proficy) PLCs.
- Proven experience of the current and legacy fieldbus technologies (Ethernet I/P, Profinet, ControlNet, Profibus).
- Proven experience with operator interface technologies (Rockwell FactoryTalk View ME).
- Knowledge of Ethernet network administration desired.
- Knowledge of PC programming and configuration desired (C#).
- Knowledge of Server and Database programming and configuration desired (SQL Server).
- Bachelor of Science degree in Electrical, Industrial, or Computer Engineering is desired.
- Experience in the Rubber Mixing/Processing Industry is a plus.

### **Working Conditions:**

- Typical office environment at Mesabi facility (flex hours).
- Participation in 24/7 Support Team coverage (on rotational basis), requires night and weekend availability to respond to support calls.
- On-Site trips to customer's manufacturing facilities and exposure to typical rubber compounding facility environment (25% 35% travel).