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## POSITION DESCRIPTION

Job Title: Final Test Engineer  Exempt  
Department name: Final Test  Non-exempt  
Manager: Director Global Operations  
Work location: Billerica, MA

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### **Job summary**

Starting with complex industrial machines that are newly built and have never been turned on before, evaluate and test all aspects of the equipment. Troubleshoot, identify and document problems with function, performance and safety. Work with others to resolve these problems until all specification requirements have been met. Develop, specify and teach the industrial machine testing methods and techniques that will make final test an efficient and safe process.

### **Essential duties and responsibilities**

- Perform testing and troubleshooting of complex industrial equipment and its mechanical, electrical and software subsystems.
- Identify equipment problems and work with and direct others to efficiently resolve the problems.
- Identify potential machine safety problems and work with others to resolve.
- Perform work in a safe and responsible manner. Take responsibility for maintaining a safe work environment.
- Read and understand equipment specifications. Devise efficient test plans and methods that are effective tools for validating that BTU equipment is meeting the requirements of its specifications.
- Develop, document and maintain standardized testing methods for common equipment functions.
- Train other individuals on trouble shooting techniques and test procedures.
- Read controller and instrumentation documentation. Configure these devices appropriately for the machine application.
- Develop, use and maintain problem tracking methods that provide organizational visibility to equipment problems.
- Actively participate in design reviews by offering suggestions for improvement and anticipating things that might go wrong with new designs.
- Demonstrate organizational leadership by taking responsibility for and working with others to improve our products and processes.
- Efficiently use BTU information systems to access product and process information necessary for performing the Final Test responsibilities.
- Maintain and follow ISO Procedures and Safety Policies.
- Clearly and confidently communicate with customers about their equipment, technical details, test plans and schedules.
- Occasionally travel to customer factories to assist with machine problem solving.

### **Skills and knowledge**

- Excellent electrical, mechanical and systems level troubleshooting skills with an ability to efficiently identify the root cause of machine problems
- Good systems level understanding of machines, their mechanics, electrical systems and software controls
- Excellent understanding of instrumentation such as gas analyzers, PID controllers, common electrical components such as relays, transformers, variable frequency drives, switching devices, electromechanical devices such as motors, solenoid valves, blowers. Sensors such as Thermocouples, pressure sensors, encoders, gas flow sensors, mechanical devices such as pressure regulators, mechanical drive components and flow meters
- Excellent written and verbal communication skills
- Superior user of Microsoft Excel and other Windows computer applications
- Expert user of machine control systems
- General understanding of international machine safety standards
- Five years' experience testing complex industrial machines

### **Education and experience**

Bachelor of Science in Electrical Engineering or similar discipline