



## Global Position Profile

Global Position Name	Function	Comp Class
Maintenance Engineer	Manufacturing	CC01

### Job Summary

Assists with planning and executing the preventive, predictive, and condition-based maintenance of production equipment.

### Key Responsibilities

Attends to breakdowns, diagnoses faults, and oversees equipment improvements and time-critical repairs.  
May oversee the work of teams of maintenance personnel, including technicians.  
Assists Facilities, Quality and Manufacturing Engineering on problem identification, trouble shooting and equipment issue resolution and repair.  
Oversees spare parts inventory and may use a computerized maintenance management system.  
Manage maintenance, repair and operating (MRO) supplies.  
Performs equipment engineering design evaluations; may recommend alterations to development and design to improve quality of products and/or procedures.  
May coach line employees on basic maintenance procedures.  
Establish preventative maintenance processes to ensure equipment is available and capable.

### Qualifications and Competencies

#### Skills

**Project Management** - Has a good understanding of and effectively applies project management techniques in low to moderately complex projects.

**Electrical System Troubleshooting** - This skill involves being familiar with the national, state, and local electrical codes that apply to their facility. It also involves the ability to design and repair facility and machine electrical systems while utilizing the required safety procedures User. Thorough understanding of machine electrical design requirements. Understands safety requirements and lockout/tag out procedures and uses them at all times. Routinely references national, state and local electric codes.

**Contractor Management** - The method of managing contractors is an extension or supplement to in-house resources. Dispenses and reviews subcontractor éIUs handbook, reviews Cummins safety and security procedures, incident reporting procedures. The creation and communication of the project plan (work instructions) to the contractor, the tracking of work performed, equipment modified, updates of drawings, etc. Experienced using the standard operating procedures. Communicates with contractors regarding the contractor's manual and site safety procedures. Can assure the proper permits have been obtained and that a job plan with clear deliverables has been created prior to the start of work.

**Maintenance Reliability Engineering** - Failure management strategies, including predictive (PdM), preventative (PM), and conditional maintenance, ratings/deratings of components to optimize useable life of components to meet specific needs based on the concepts of Reliability Centered Maintenance (RCM), Failure Mode and Effects Analysis (FMEA), and other quantitative techniques to choose the specific technology to be use to lower the probability of failure to acceptable limits. When failures do occur, Reliability Engineering techniques included are Fault Tree Analysis (FTA), Failure Analysis, FMEA. Understands the basics of Reliability Engineering techniques, and can use reliability data to help shape PdM, PM, tasks and frequencies.

**Fundamentals Of Manufacturing** - Basic competence in the body of knowledge as defined by the Society of Manufacturing Engineers for a Certified Manufacturing Technologist (CMfgT). The body of knowledge includes the following areas: Mathematics, Applied Science, Process Design, Materials, Manufacturing Processes, Manufacturing Management, Manufacturing Economics, Quality Control, Computer Applications, and Automation. Working knowledge of the Fundamentals of Manufacturing. More than 2 years of experience working as a Manufacturing Engineer, but not yet a Certified Manufacturing Technologist (Society of Manufacturing Engineers), or local equivalent).

**Electrical Safety** - Knowledge of related legislation, policies, procedures, and safety concerns related to electrical safety. Identification and control of electrical hazards, knowledge of lock out/tag out requirements, and electrical safety (including NFPA 70E requirements and electrical protection devices such as highly sensitive differential circuit breakers, fuses, etc.). Knows legislation, policies, procedures, and safety concerns related to electrical safety. Identifies and controls electrical hazards

**Programmable Logic Controller (Plc) Technologies** - Involves understanding and being able to use factory floor Programmable Logic Controller (PLC) technologies. Detailed understanding of Programmable Logic Controller (PLC) based machine control and communication technologies. Able to work with consultants to specify their design and operation. Can assist in the troubleshooting of system problems.

**Factory Automation And Control Systems** - Understanding of the closed loop control of factory automation systems. Understand the basics of how to set up and adjust existing systems. Can assist in the troubleshooting of system problems.

### Education, Licenses, Certifications

College, university, or equivalent degree required.

### Experience

Minimal level of relevant work experience required.