HARPER INTERNATIONAL

POSITION DESCRIPTION

The Position Description is the tool used by Harper International to communicate and clarify the essential job functions, establish the basis for performance expectations, and identify training needs for each position. Completing the details of the Position Description is a joint effort between the employee and the supervisor.

Part I - Reporting Structure

Job Title: Controls Engineer **Department:** Electrical Engineering
Reports To: Supervisor of Electrical Engineering
Supervises: None **Status:** Exempt

Part II – Position Objective

Plan, develop and test software and automation control systems for thermal processing equipment.

Part III – Job Responsibilities

Typical Duties

1. Programming of PLC applications and HMI interfaces from a variety of manufacturers.
2. Generate electric circuit drawings, various wiring diagrams, power-system schematics, and single line drawings. Experience with AutoCAD Electrical a plus.
3. PLC Programming for process and temperature control using PID loop software controls.
4. Design electrical and electronic hardware systems for machine control.
5. Develop I/O list, BOM, and schematics used to build thermal processing equipment controls.
6. Provide training support to Operations personnel in the proper setup, function and control of automated manufacturing equipment.
7. Performing start-up services and technical support for our field service personnel.
8. Ensure that designs are sound and meet all NEC, NFPA and UL508A standards.

Primary Duties

1. Development of PLC control programming and HMI applications, primarily focused around the Rockwell RS Logix 5000 family of PLC.
2. Testing and verification of system programming in Harper manufacturing facility and using simulation software.
3. Traveling for system startup and site acceptance testing.

IV – Knowledge, Skills, Education

1. 2-4 year degree in Electrical Engineering or Electrical Technology. Equivalent experience will be considered.
2. PLC programming/troubleshooting experience with AB. Siemens experience a plus.
3. HMI configuration experience including graphical screen development.
4. Experience with industry standard communication protocols such as Devicenet, Ethernet /IP, Modbus, ModbusTCP, Profibus.
5. Knowledgeable in computer networking architectures, topologies and hardware.
6. Knowledgeable in developing and reading electrical schematic diagrams for industrial equipment.
7. General knowledge of applicable electrical standards such as, IEC, UL, and the National Electric Code
8. P&ID Knowledge
9. Excellent verbal and written communication skills
10. Strong interpersonal and communication skills
11. Up to 25% travel required – both domestic & international

Desired qualifications:

1. PLC programming/troubleshooting experience with Siemens, and others.
2. HMI configuration experience including graphical screen development using Siemens, and others.
3. ACAD Electrical experience in creating and maintaining electrical schematics and/or component layout diagrams.
4. Experience with high power SCR controlled heating applications.
5. Developing power schematics, calculating power consumption and heat dissipation for machine controls.

V - Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to stand, walk, hear and talk. The employee is frequently required to sit and use hands. The employee is occasionally required to reach with hands or arms, climb or balance, stoop, kneel, crouch or crawl.

VI – Compensation

$90,000-$106,000 annually

Individual compensation is based on various factors unique to each candidate, including skill set, experience, qualifications, and other position related components.