

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

Date of last revision: Dec 2018

Department: Electrical Eng

Job Title: Electrical Designer

Status: Non-exempt

Reports To: Electrical Engineering Supervisor

Part II – Position Objective

Responsible for supporting Project Engineers and Electrical Engineers producing accurate drawing packages for complex power delivery projects & proposals including plan views, elevations, single line and three line diagrams, electrical schematic & interconnect drawings, Instrument/Control loop diagrams, structural / electrical details, and a detailed bill of material. Assist during the testing and startup for a variety of equipment types.

Part III – Job Responsibilities

Typical Duties

1. Design and layout electrical engineering drawings for a variety of equipment types.
2. Take conceptual rough plan mark-ups and create final design documents.
3. Perform CAD functions proficiently in the electrical discipline.
4. Developing power schematics, calculating power consumption and heat dissipation for machine controls.
5. Develop I/O list, BOM, and schematics used to build thermal processing equipment controls.
6. Defining, requesting and coordinating the purchase of electrical materials, components, equipment, and support services for the construction, assembly, and conditioning of prototype parts and machines.
7. Provide training support to Operations personnel in the proper setup, function and control of automated manufacturing equipment.
8. Programming of PLC applications and HMI interfaces.
9. Programming discrete controls for motion and temperature control.
10. Performing start-up services.

IV – Knowledge, Skills, Education

Required Qualifications:

1. Holds and AAS or BSET (Bachelor's Degree in Electrical Engineering Technology)
2. 1-5 years of electrical design experience in the industrial and/or controls field.

3. Formal training in Autocad or Solid Works Electrical and prior experience with Autocad Electrical and Solid Works Electrical preferred.
4. General knowledge of applicable electrical standards such as, IEC, UL, and the National Electric Code
5. P&ID Knowledge
6. Excellent verbal and written communication skills
7. Strong interpersonal and communication skills
8. Must be willing to travel-both domestic & international 25 % of the time.

Desired qualifications:

1. PLC programming/troubleshooting experience with AB, Siemens, and others..
2. HMI configuration experience including graphical screen development using AB, Siemens, and others..
3. ACAD Electrical experience in creating and maintaining electrical schematics and/or component layout diagrams.
4. Experience with high temperature equipment.
5. Knowledgeable in computer programming languages (VB, C#, C++, Java script), database design (SQL), HTML development.
6. Experience with integrating devices from multiple vendors into packaged solution.

VI - Physical Demands

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.