

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.

Part I - Reporting Structure

Job Title: Project Support Engineer

Department: Engineering

Reports To (Position): Director of Engineering

Supervises (Positions): n/a

Status: Exempt

Date of last revision: September '16

Part II – Position Objective

For the next one to two years, this position will directly support a key project for a major client. The Project Support Engineer will make a significant contribution by acting as the tactical back up to the project manager, and as a technical communications intermediary between the client and our project team.

Once the project is complete, the engineer will join Harper's engineering department as either a controls engineer or a project engineer, depending on their functional experience and education. They will remain available to act as a project support engineer, as their primary role, on future jobs.

Controls Engineer:

Will plan, develop, program, configure, test and debug software and automation control systems for thermal processing equipment.

Mechanical Project Engineer:

Will provide broad-based equipment design expertise and leadership for projects. Responsible for the technical integrity of product, from design concept to final acceptance.

Part III – Job Responsibilities

Essential Duties

1. Assist with project management duties by performing task level scheduling tasks and project controls.
2. Rely on language skills and knowledge of Chinese culture to assist with understanding client's expectations. Assist the project manager in developing appropriate responses to client needs with both technical precision and appreciation subtleties between differing languages and cultures
3. Assist with customer-client interface, including arranging meetings, transportation, answering technical or commercial questions, and resolving disputes.
4. Support the project by reviewing and replying to customer emails, including translation as needed.

5. Act as translator and intermediary between the company and the client during meetings and trainings.
6. Review (translate as needed) various documents including instruction manuals and drawings.

IV – Knowledge, Skills, Education

1. Master's degree or higher in mechanical or electrical engineering
2. Native Mandarin speaker who is fluent in English and has spent a significant amount of time living in China. Must have technical translation experience or proven ability to do so.
3. Experience with project management. Experience with MS Project a plus.
4. Experience with custom/engineer to order capital equipment
5. Must be willing and able to travel to China two to three times a year, for one to four months at a time (home leave may be provided as needed).

Electrical Engineering Desired Qualifications:

1. PLC programming/troubleshooting experience with AB.
2. HMI configuration experience including graphical screen development using AB,
3. Experience with industry standard communication protocols such as Devicenet, Ethernet /IP, Modbus, ModbusTCP, Profibus.
4. Knowledgeable in computer networking architectures, topologies and hardware.
5. Extensive knowledge and hands on experience in developing complex control architectures.
6. General knowledge of applicable electrical standards such as, IEC, UL, and the National Electric Code
7. P&ID Knowledge

Mechanical Engineering Desired Qualifications:

1. In depth knowledge of classical mechanical engineering design skills
2. In-depth knowledge & experience designing industrial equipment to include:
 - Wide range of weldments
 - Strength of materials.
 - Heat resistant materials.
 - Mechanical power transmission.
 - Mechanical stress and flow analysis
 - Thermal stress analysis and applications awareness.
3. Familiarity with material handling of amorphous bulk materials including metered feeds, conveying, storing, measuring, etc.
4. General familiarity with industrial equipment.
5. Preferred to be fully proficient with 2D & 3D design tools, such as Autocad and Inventor.
6. Possess knowledge of thermal processing systems preferably for high temperature (typically 250-3000 C) applications.
7. Understanding of standard industrial gases and off gas handling systems such as scrubbers, TOX, and related piping systems, etc.

VI - 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 walk. The employee is frequently required to sit, use hands, reach with hands and arms, talk and hear. The employee is occasionally required to stand, stoop, kneel, crouch or crawl.