

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

Date of last revision: September 2023

Department: Engineering

Job Title: Project Engineer

Reports To: Engineering Manager

Status: Exempt

Completed By: HR

Related “market” titles: Senior Mechanical Design Engineer

Part II – Position Objective

Provide broad-based equipment design expertise and leadership to large OEM projects. The scope of the responsibility encompasses all aspects of engineering from mechanical to electrical and instrumentation. Responsible for the technical integrity of product, from design concept to final product.

Part III – Job Responsibilities

Essential Duties

1. Provide broad-based design expertise in terms of functionality, cost, and manufacturability of large OEM projects.
2. Translate product performance requirements into technical specifications.
3. Develop design concepts to meet performance and process specifications
4. Develop test methods and plans to verify product performance
5. Oversee engineering staff to ensure detailed design meet specifications
6. Utilize design software to:
 - Provide design concept & specifications for other members of design staff
 - Perform engineering calculations
 - Perform FEA analysis to optimize design
7. Select and specify materials and interact with purchasing to modify materials or components when necessary.
8. Provide necessary guidance, mentoring, and training on Harper-specific technology and best practices to transfer knowledge and increase efficiencies.
9. Collaborate with Process Technology Engineer(s) on projects that require in-depth technical analyses.
10. Interface and provide assistance to subcontractors and customers.
11. Provide support during the installation and start-up phase of projects.
12. Provide technical expertise and support during customer interactions.
13. Assist Applications department with engineering studies as needed.

IV – Knowledge, Skills, Education

Knowledge, Skills, Education

1. BSME or BSMT required

2. In depth knowledge of mechanical engineering design skills
3. In-depth knowledge & experience designing assemblies, sub-assemblies, and components using the following manufacturing processes:
 - Large structural fabrications
 - Sheet metal
 - Castings
 - Machining
 - Low-volume assembly
4. Experience and familiarity with materials such as various grades of stainless steel, silicon carbide, graphite, high-temp alloys, etc...
5. Capability to develop innovative optimal designs
6. Must demonstrate good judgment, ability to make decisions and delegate tasks effectively.
7. Proficiency with 2D & 3D design tools, such as Autocad and Inventor highly desirable.
8. Must possess ability to communicate effectively with customer
9. Must be able to receive feedback, participate a member of a cross-functional team, provide a high level of customer service to internal customers.
10. Must be willing to travel-both domestical/international-up to 15%

V – Physical Requirements

The job requires the following less than 1/3 of the time:

1. Standing
2. Walking
3. Reaching with arms/hands
4. Climbing or balancing
5. Stooping, kneeling, crouching or crawling
6. Talking or smelling
7. Lifting or moving up to thirty pounds

The job requires the following 1/3 – 2/3 of the time:

1. Sitting

The job requires the following more than 2/3 of the time:

1. Using hands
2. Talking
3. Hearing

VI – Compensation

\$85,000-\$100,000 annually

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