

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

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| Name: | Date: March, 2010 |
| Job Title: Project Engineer/Senior Project Engineer | Department: Engineering |
| Related "market" titles: Senior Mechanical Design Engineer | Supervises (Positions): Design staff |
| Completed By: HR Manager | Status: Exempt |
| | Reports To (Position) : Director of Project Management |

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. Provide the leadership associated with running project on time and within budget.

Part III – Job Responsibilities

Essential Duties

1. Provide broad-based design expertise in terms of functionality, cost, and manufacturability of large OEM projects.
2. Organize & conceptualize assemblies and sub-assemblies so that portions of the job can be effectively and appropriately delegated amongst the project team.
3. Translate product performance requirements into technical specifications.
4. Utilize design software to:
 - Provide design concept & specifications for other members of design staff
 - Perform engineering calculations
 - Perform FEA analysis to optimize design
5. Select and specify materials and interact with purchasing to modify materials or components when necessary.
6. Oversee design staff to include delegation of tasks, approving rework, and checking drawings and BOM's for accuracy.
7. Communicate with other members of the project team and other departments to ensure projects are completed within time/budget constraints.
8. Provide necessary guidance, mentoring, and training on Harper-specific technology and best practices to transfer knowledge and increase efficiencies.
9. Collaborate with chief engineer on projects that require in-depth technical analyses.

10. Interface and provide assistance to subcontractors and customers.
10. Review and certify final release of drawings.
11. Support manufacturing with design/fabrication/assembly improvements and ensure project is completed within time/budget constraints.
12. Provide support during the installation and start-up phase of projects.
13. Provide technical expertise and support during customer interactions.
14. Actively manage & drive overall project cost, schedule, and quality performance relative to internal metrics & contractual requirements.
15. Assist Applications department with engineering studies as needed.

IV – 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 & 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. Knowledge of thermal systems & other related heat transfer systems for high temperature (typically 700-2500 C) applications preferred.
9. Must possess ability to communicate effectively with customer

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

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| The job requires the following 1/3 – 2/3 of the time: |
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| 1. Sitting |
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| The job requires the following more than 2/3 of the time: |
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| 1. Using hands |
| 2. Talking |
| 3. Hearing |

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M/F/D/V