

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:** December 2021**Department:** Technology**Job Title:** Process Technology Engineer**Status:** Exempt**Completed By:** HR**Part II – Position Objective**

Provide innovative process and technological solutions to support the sale, design and manufacturability of custom capital high temperature processing equipment. Partner with customers to enhance existing processes and develop new applications that require high temperature processing.

Part III – Job Responsibilities**Primary Duties**

1. Understand clients' processes and needs, and Harper's technical strengths, and translate these into effective capital equipment solutions
2. Conceptualize designs and develop innovative solutions to enhance existing in-house technology. Communicate solutions to stakeholders via clear descriptions, drawings, and illustrations.
3. Provide the coordination between Sales, Applications, and Engineering to accommodate customer specifications and provide technical solutions.
4. Coordinate with sales to prepare proposals inclusive of all necessary specifications / information.
5. For received orders, develop the Risk Assessment document. Provide ongoing support to Engineering where required by Risk Assessment action items
6. Support Sales in assessing Harper's technical fit for new market opportunities
7. Use and, when necessary, develop in-house design programs to define the mass throughput, thermal requirements, and overall equipment dimensions.
8. Perform heat and material balance calculations.
9. Make and document materials of construction selections based on process requirements, risks, and economic factors
10. Create and adjust drawings as needed to ensure conformity with intended scopes of supply.
11. Support PFD and P&ID requirements for systems based projects.
12. Work with outside vendors to establish ancillary equipment requirements for systems based projects.

IV – Knowledge, Skills, Education**Knowledge, Skills, Education**

1. M.S. Degree in Chemical Engineering or Materials Science; PhD preferred

2. Broad multi-engineering discipline background (electrical, process, materials, mechanical) ideal.
3. Must have OEM equipment design experience preferably in an R&D/ product development setting.
4. Understanding of high temperature processes desirable
5. Must possess high degree of technical depth and creativity
6. Solid understanding of the practical application of engineering fundamentals (from a “1st principals” perspective)
7. Strong “hands on” bias” with mechanical inclination.
8. Must possess the following “soft” skills”
 - Comfort & ability to deal with ambiguity
 - Commercial savvy
 - Good judgment

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 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.