

Job Title: Product Engineer
Department: Technology
Reports To: Product Engineer Manager
FLSA Status: Exempt
Effective Date: July 21, 2017

Position Overview:

EnerDel designs, builds and manufactures lithium-ion energy storage solutions and battery systems with a focus on heavy duty transportation, on- and off-grid electrical, mass transit and task-oriented applications. The Product Engineer (mechanical or electro-mechanical engineer) will require detailed specification and integration of Li-ion battery packs and systems. This position requires knowledge and experience in high voltage electric vehicle (EV) and grid energy storage systems (GESS).

Essential Job Functions

- Act as an internal interface to Business Development, Battery Cell Engineering, Battery Management Systems, Program Management, Procurement and Manufacturing.
- Adheres to safety standards with high degree of regard to employee and subcontractor safety
- Assists in performing system-specific training for owner/operator of lithium power system
- Assists in the assembly, test, validation, and commissioning of all systems as required
- Become very close with system architectures to respond quickly to change requests, customer issues, and design challenges
- Build and promote the company's "team" philosophy and observe respect for the existing cultural boundaries.
- Coordinates system documentation releases and engineering change procedures
- Create/Develop advanced innovative product features and processes to enhance safety, reduce cost, improve battery performance.
- Creates flow diagrams, sequence of operations, bill of material, and system layouts as required.
- Creates test & integration plans, user manuals, installation guides, and commission plans
- Demonstrate and execute performance in best interest of EnerDel, stakeholders, and customers
- Develop, monitor, and dynamically communicate product development objectives and milestones to program teams and management to ensure that performance, cost, and scheduling are met.
- Develops program specific design verification plans (DVP) with efficient test timing, coordinator test requests and schedules and sources test facilities; execute function, safety, thermal and robustness battery pack tests in laboratory
- Engineer manufacturing friendly concept designs per customer specification with the corresponding creation/execution of the design validation plan.
- Ensure team's adherence to EnerDel's quality management system
- Establish gap analysis/battery configurations and develop concept designs for the mechanical design architecture, thermal management, and packaging of the battery management systems.
- Identifies and resolves design issues and performs data analysis and generate comprehensive technical reports
- Interacts with customers on a frequent basis to support technical issues regarding system start-up, operation, repair, or warranty.
- Manages systems throughout their life-cycle and performing DFMEA, FEMA, 8-D, and other types of analysis when necessary
- Oversee and ensure the deliverables of AIAG's APQP process for product development strategy and mapping to achieve customer PPAP
- Performs value engineering to provide cost effective results while maintaining customer satisfaction
- Practice the product/process development philosophy of 'set based concurrent engineering.

- Regularly document all innovative concepts and initiate invention disclosures to promote the growth of EnerDel's I.P. portfolio
- Serve the engineering team to a designed battery system by utilizing the necessary skill sets, tools, and metrics needed to defend and promote the technical solutions that are mandated by the (automotive, stationary power, and military) markets.
- Serve, and interface directly with, the customer by providing the necessary technical capabilities and resources to meet their application requirements
- Supports customers onsite with installations, integrations, commissioning, and troubleshooting
 - ~15% travel (domestic/international)
- Understands and has the ability to work on high voltage systems
- Perform other duties as assigned

This job description is intended to convey information essential to understanding the scope of the job and the general nature and level of work performed by job holders within this job. This job description is not intended to be an exhaustive list of qualifications, skills, efforts, duties, responsibilities or working conditions associated with the position.

Required Knowledge, Skills, & Abilities:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skills, and ability required.

- Preferred:
 - BSME, BSMET, BSEE, BSEET
 - 5 years of experience in this field or related field
 - Intermediate to advanced skills with the: Internet, data entry, spreadsheets, and word processing, specifically with Microsoft Word and Excel;
 - Ability to organize work load efficiently, meet tight timelines, problem solve effectively, and perform duties of the job accurately and with input and follow-up from management.
 - Ability to work well with a team and independently.
 - Possess strong customer service and support skills.
 - Willingness to be flexible and adaptable to changing priorities

Supervisory Responsibilities: None.

Physical Requirements/Hazardous Working Conditions:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential work functions.

Physical Demands

- Standing
- Walking
- Sitting
- Lifting
- Carrying
- Pushing/Pulling
- Climbing
- Balancing
- Stooping
- Kneeling
- Reaching
- Handling
- Feeling
- Talking
- Eye/Hand/Foot Coordination
- Vibration
- Typing/Keyboarding

Vision/Sight/Hearing

- Vision-Far Acuity
- Vision-Near Acuity
- Vision-Depth Perception
- Vision-Peripheral
- Color Vision
- Listening/Hearing

Environmental Conditions

- Temperature Changes
- Infectious Disease
- Humid
- Noise

Physical Strength

- Sedentary Work
- Light Work
- Medium Work
- Heavy Work
- Lifting up to 10 lbs.
- Lifting up to 25 lbs.
- Lifting up to 50 lbs.
- Lifting over 50 lbs.
- Hazards
- Wet
- Hazardous Chemicals
- Blood/Body Fluids