

Job Title: CAD Designer
Department: Engineering
Reports To: Product Engineer Manager
FLSA Status: Exempt
Effective Date: August 10, 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 CAD Designer is responsible for preparation of major design layouts of complex units and/or complete products.

Essential Job Functions

- Acts as a liaison between the design group and engineering, program management, and outside vendors
- Checks and approves work done by support designers
- Creates and proposes new design concepts; outline and/or descriptive
- Creates artistic renderings and compile high quality, professional, presentations
- Creates detailed product design specifications, communicates design concepts and technical plans, and prepares bills of material
- Develops complex 3D solid model mechanical designs for finished product used in house and by outside customers
- Develops mechanical designs for finished product used in house and by outside customers
- Follows design standards, guidelines, and best practices
- Issues Bill of Material updates on a scheduled basis
- Leads the design effort on multiple component assemblies; utilizing support designers
- Maintains master 3D layout, directs and approves layout/tolerance studies, creates and releases drawing and 3D math documentation in a manner that meets company deadlines and in accordance with established standards. Supports Engineering Change Order and Cost Improvement activities
- Performs calculations in activities relating to form, fit and function, and ensures cost effective designs, in compliance with specified technical and contractual requirements; for both published internal and external industry/customer standards
- Represents the design department in program design reviews and/or team meetings
- Tasked with creating detailed product design specifications, communicating design concepts and technical plans, preparing bills of material, performing calculations in activities relating to form, fit and function, and ensuring cost effective designs in compliance with specified technical and contractual requirements
- Works with other designers, detailers, and engineers, to achieve completed designs
- Perform other duties as assigned

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:
 - Associates Degree or higher in CAD Design, Engineering or related field
 - Minimum of 5 years solid modeling experience creating complex models, assemblies, and drawings, in some version of Unigraphics NX and SOLIDWORKS
 - SOLIDWORKS experience
 - Experience working in Enterprise Product Data Management (EPDM)
 - Experience designing and documenting in a regulated environment
 - Parametric Solid modeling experience
 - Communicates effectively in written and spoken English while working in a cross-functional team environment
 - Ability to achieve quality results quickly and efficiently
 - Ability to handle multiple tasks and problem solve individually or in a team environment
 - Working knowledge of Microsoft Word, Excel, and PowerPoint
 - Working Knowledge of Lithium-ion Batteries and/or battery systems
 - Working knowledge of Geometric Dimensioning and Tolerancing (GD&T)

Supervisory Responsibilities: None.

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.

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

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.

Environmental Conditions

- Temperature Changes
- Infectious Disease
- Humid
- Noise

- Hazards
- Wet
- Hazardous Chemicals
- Blood/Body Fluids

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