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## OCEAN POWER TECHNOLOGIES

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### POSITION DESCRIPTION

**Job Title:** Senior Mechanical Engineer

**Reports To:** Mechanical Engineering Manager

The Sr. Mechanical Engineer is a motivated, creative, experienced engineer and leader with a focus on cutting edge mechanical engineering technologies and capabilities as they relate to power systems deployed in ocean environment, machine design, advanced materials such as composites, complex metal structures design, analysis and manufacturing, hydrodynamics, high voltage and high power packaging to name a few. The Sr. Mechanical Engineer is expected to work in a multi-disciplined team environment with highly qualified professionals. As such, he/she drives business priorities, program execution needs, and a systems view of problem solving while executing detailed engineering activities in their specific field of expertise. Working together with peers, the Mechanical Engineering Manager, Program Managers, Operations, purchasing and other managers and leaders within the business, their responsibilities include:

#### **Responsibilities:**

- a. Define mechanical system requirements, identify critical technical paths, and assess key technologies
- b. Work with system engineers to develop product design specifications and performance requirements
- c. Design mechanical components, modules, and systems for various assigned projects with a focus on meeting all performance requirements while designing for manufacturability (DFM) and design to cost (DTC)
- d. Assess design performance and reliability using hand calculation, FEA, fatigue, statistics, etc.
- e. Create product design validation approach and experimental setups
- f. Support fabrication of prototype systems
- g. Identify, quantify, and implement tools, methods, processes and equipment which improve the quality, reliability and productivity of the department
- h. Participate in technical marketing and proposal preparation
- i. Coordinate with the Program Managers to ensure a clear set of objectives, tasks and deliverables are defined and well understood within the framework of the business objectives associated with the program(s).

- j. Accountability for delivering on all priorities, assignments, and program/business expectations
- k. Support the development and implementation of a Risk Management based system solutions, as defined by the high level program objectives and customer (internal/external/market) product/solution application
- l. Support and/or coordinate product and technology development reviews in accordance with the company's Engineering development process (Stage Gate Process)
- m. Ensure all technical documentation is generated and reviewed in accordance with company's Engineering process, and Program/Customer contract deliverables/expectations
- n. Support the planning of all development
- o. Promote a safe working environment as well as a stringent focus on risk understanding, reporting and management, Design for Manufacturability (DFM), Design to Cost (DTC) without sacrificing quality and reliability.

**Requirements:**

- a. A degree in Mechanical, Structural, Marine Architecture engineering or related discipline (BS minimum, MS preferred) or
- b. 10 years of hands-on engineering development experience
- c. Required design experience includes:
- d. Prefer Power Systems/industrial background in heavy electro-mechanical and mechanical equipment and operations (heavy machinery, large welded structures, dynamics analysis, fatigue assessment, corrosion prevention, hydraulics, rigging, electric power generation and distribution, high-voltage packaging, and marine operations)
- e. Prefer marine experience - spent time in the marine or offshore industry with knowledge of techniques, practices, vessels, equipment.
- f. Demonstrated track record of challenging status-quo, continuously seeking business execution improvement (leaner, faster, and better)
- g. Demonstrated track record of leadership, accountability, and ownership
- h. Ability to think out of the box and work with executive management to define and implement business growth strategies
- i. Software Capability- Ansys, SolidWorks (preferred), ProE, OrcaFlex, , MS Project, macro programming (C# / VB)