



# SeaStar Solutions

---

<b>Job Title:</b>	Product Designer – Mechanical
<b>Job Purpose:</b>	This position focuses on product development including design, verification, validation, launch and support of products and components used in boat control and heavy duty transportation heating products. Develop and evaluate mechanical and mechatronic products to meet cost and functional targets.
<b>Reports To:</b>	Engineering Manager
<b>Direct Reports:</b>	N/A
<b>Version:</b>	2.0 December 1, 2016

## Education & Experience

- University or Institute qualifications in Mechanical, or Electro-Mechanical Engineering.

## Responsibilities

- Prepare design documentation for new products and components such as drawings, engineering specifications and test reports.
- Design products and components utilizing prescribed tools such as QFD, CAD, DFMA, DFMEA's in accordance with ISO9001 requirements and procedures.
- Participate in the full development cycle, from requirements analysis, design, development, implementation, validation, documentation and on-going support.
- Assemble and component design including, concept generation, 3D modeling, material selection, stress analysis, etc.
- Hold design reviews and conduct validation tests (salt spray, lifecycle, tolerance validation).
- Manage Bill of Materials for production assemblies.
- Research and develop systems solutions for identified market opportunities.
- Participate in "make versus buy" decisions for components and/or assemblies.
- Analyze operational efficiency for components and/or assemblies to determine if more efficient design or manufacturing methods can be implemented.
- Develop project plans, coordinate activities and report on project status.



- Work in multi-function/new product development teams, including program and product management, manufacturing engineering, supply chain management and production.
- Interact with customers and suppliers and represent SeaStar Solutions.
- Assist in applications support and troubleshooting as required.
- Complete additional job duties and assignments up to 15% of the time.

### Skills & Abilities

- Well-developed organizational skills with the ability to manage a variety of tasks.
- Strong proficiency with MS Office programs including: Word, Excel, Access, Outlook and PowerPoint; and, the ability to learn other applications quickly.
- Must have real world experience working with individuals of diverse backgrounds and a respect for difference.
- Professional demeanor whether in person, via email or on the telephone.
- Excellent verbal and written communication skills in English.
- Ability to work well independently and as part of a strong team.
- Familiar with volume production processes including casting, extrusions, powder metal, injection molding, precision machining sheet metal fabrication and welding.
- Thorough knowledge of various materials and secondary coatings.
- Proficient with Pro/Engineer, PDMLink/Windchill (AutoCAD is optional).
- Familiar with MRP systems to control engineering Bills of Materials.
- Proficient in design procedures, specifications and engineering software/simulation tools.
- Strong ability to produce reliable cost effective designs for industrial applications.
- Strong understanding of test methodology and design of experiments.
- Familiar with mechanical assemblies such as hydraulic gear pumps, axial piston pumps, cylinders, valves, motors, linear actuators, compressors, and internal combustion engines.
- Familiar with electronic instrumentation/sensors & test equipment.
- Working knowledge of safety regulations (UL, CSA, CE and other regulatory requirements).
- Apply industry standards such as SAE, ASTM, ISO; familiarity with ISO9001 requirements.
- Familiarity with QFD, Design and Process FMEAs.

### Deliverables

- Mechanical design, verification, validation, launch and support of products and components.
- Validate mechanical design solutions that meet requirements and cost targets in a timely manner.



- Approved mechanical design and test requirements documentation, test reports, and reports for customers on design and test results.
- As this position is constantly evolving, please speak with your supervisor/manager regarding daily, weekly and monthly objectives.

#### Things to Know & How to Apply?

- Occasional travel maybe required.
- SeaStar Solutions is an equal opportunity employer.
- If you are interested in this position, please send your cover letter and resume to [hr.canada@seastarsolutions.com](mailto:hr.canada@seastarsolutions.com) with the subject: 2018-002.
- Relocation assistance is not provided for this role.
- Only applicants legally eligible to work in Canada should apply. No foreign applicants will be sponsored.
- We look at each resume in detail, so please be sure to review the job description and highlight your experience in relation to this role.
- All candidates will be updated on the status of their application.

To find out more about SeaStar Solutions, please visit our company website at: [www.seastarsolutions.com](http://www.seastarsolutions.com) or <http://canada.seastarsolutions.com/careers/>