

**ABCO Industries Inc.**

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JOB DESCRIPTION

Title: Naval Architect Technologist (Aluminum Vessels)

Reporting to: Head of Marine

Job Summary:

The Naval Architect Technologist's primary function will be to conceptualize, design, and optimize aluminum hull forms, and vessel systems as part of the Marine Team at ABCO, for the manufacture and sale of aluminum vessels. The ideal candidate will support ABCO's growing Marine Team as they look to expand their Aluminum Vessel offerings.

Key Duties:

- Support the development and evaluation of aluminum vessels in accordance with customers, Classification Society and regulatory requirements including certification activity
- Providing hull form and hydrodynamic performance; development of hull form geometry and line plans, hydrostatics and curves of form, resistance and powering estimates, propulsion design and performance
- Performing weight and stability analyses; developing weight and center of gravity estimates, intact and damaged stability analyses, deadweight surveys and inclining experiments
- Performing concept and feasibility design studies; addressing whole vessel sizing and performance analyses, requirements validation, and design optimization
- Performing design integration, coordinating inputs from various engineering disciplines and suppliers to establish principal characteristics and design features such as length, beam, depth, draft, displacement, speed, and other performance parameters
- Performing structural design; developing hull girder bending moments and structural configurations, developing scantlings in accordance with appropriate rules or design standards, developing superstructure and local support structure to withstand primary and secondary loads
- Making general arrangements and configurations; developing requirements for area and volume, preparing overall vessel arrangement concepts and drawings illustrating primary functional allocation of spaces within the craft considering location and adjacency constraints, performing special studies including access and line of sight analyses, assisting in detailed layouts of individual compartments including all vessel systems
- Staying current with competitive landscape, market trends, customer requirements and technological developments
- Overall product development and planning
- Following up on product performance and design issues including continuous improvement
- Assisting with review of design proposals and specifications
- Other specific activities that may be requested by the Head of Marine
- Taking all such actions necessary within the above-described areas of responsibility to protect the safety of all employees and others, the financial security of the Company and to work towards the corporate goals

Education:

- Possess a bachelor's degree or technology diploma in Naval Architecture from an accredited Canadian university or College

Required Qualifications:

- Proficiency in SolidWorks and Rhino (or other 3D modeling software)
- Passion and creativity for small craft design and sustainability

- Proficiency in hydrostatics and flow simulation packages
- Organized with strong attention to detail ensuring accuracy of completed product
- Self-motivated with a high degree of initiative
- Reliability
- Ability to collaborate across various departments and professional disciplines
- Ability to effectively work in an ever-changing environment with diverse people
- Well-developed communication, interpersonal and customer service skills
- Excellent time management skills and trouble shooting skills
- A self-starter with a can-do attitude and a great sense of humour

Desired Skills and Qualifications:

- have a minimum of 3 years of work experience in marine design.
- Experience with small craft design and analysis (hull/structural, electrical/electronic, mechanical)
- Experience with Classification Society Rules and Transport Canada Regulations
- Experience in ship general arrangements, space arrangements and outfitting using Three Dimensional (3D) SolidWorks software or similar
- Experience with MaxSurf or Prosurf software
- Knowledge in weight and stability calculations
- Knowledge of resistance and powering calculations
- Knowledge of seakeeping calculations
- Knowledge of basic structural design
- Experience in the design of small commercial marine vessels (4 – 24 meter)
- Knowledge of aluminum vessel design

Schedule:

- Monday – Friday, 8 am to 5 pm
- Work as required to meet deliverables

Environment:

- Fast-paced, self-motivated, creative atmosphere, supportive team culture, and flexible work environment

Location:

- Lunenburg, Nova Scotia

Please submit your resume to: careers@abco.ca