

# COMPANY PROFILE

**tech marine** 

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Tech Marine Limited  
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## OVERVIEW

Tech Marine Limited is a seafood processing line and equipment design firm. We specialise in the development of custom solutions to specific and often unusual applications.

With over 75 projects completed since 1987, we have accumulated a wide range of basic designs ready to be adapted to your particular needs. Or, if your requirements are really special, we will conceive a new machine to meet the performance targets you specify. Actually, we have built our reputation by solving unique and challenging problems, improving yield and increasing productivity.

All of our equipment is designed and fabricated with particular attention to hygiene and sanitation standards, using only stainless steel, approved plastics, and high-quality off-the-shelf components.

We are located in the Burnside Industrial Park in Dartmouth, Nova Scotia, where we occupy 2,500 square feet of office and shop space for prototype development and testing, and equipment assembly.

Please visit our web site at [\*\*www.tech-marine.com\*\*](http://www.tech-marine.com)

## RESEARCH AND DEVELOPMENT OF NEW EQUIPMENT

To meet the demand for equipment for the further processing of traditional and non-traditional species, Tech Marine has developed and implemented a number of novel machines and systems for specific applications such as:

- *Computerised weight classifier for delicate products such as live lobster*
- *Computer-controlled fish box handling system with automatic conveying, box emptying and washing*
- *Automatic distribution and feeding system for shrimp cooker/peelers*
- *Continuous brine-making system with automatic control and monitoring of salinity regardless of consumption rate*
- *Batch and continuous thawing systems for block frozen and IQF product with electronic temperature and exposure time control*
- *Waterless crab shoulder meat extraction system*
- *Continuous high-volume steam cooker for shellfish*

## PROCESSING TECHNOLOGY

### ***Plant and Processing Line Engineering***

Having served clients from Ontario to Newfoundland, in the United States and Europe, Tech Marine has developed a thorough familiarity with the processing requirements of several species of fish and shellfish. We have designed new processing and packaging lines, and improved existing ones for:

- *Herring (smoked, salted, fillets, roe)*
- *Fresh water yellow perch*
- *Groundfish (fillets, salted)*
- *Salmon (smoking)*
- *Redfish (fillets)*
- *Shrimp*
- *Lobster*
- *Snow crab*
- *Scallops (harvesting and processing)*
- *Arctic surf clams*
- *Whelk*

Using our multi-station Computer Aided Design (CAD) system, we model entire plants in 3-D allowing the client to "walk through" and examine each piece of equipment as design progresses. Details of the layout can be evaluated to ensure that adequate work space is available for operation, maintenance and cleaning, before any of the equipment is fabricated.

## ***Machine Design***

Detailed fabrication drawings for custom equipment (work stations, packing tables, material handling, etc.) are also produced on our CAD system, from scratch or by modifying existing designs chosen from our large library of common models. All equipment is conceived for ease of manufacturing, maintenance, and cleaning, and fabricated from approved materials.

## ***Fabrication, Installation and Start-up***

Tech Marine can supply all the custom machinery required for integrating third-party machinery into a functional processing line. Fabrication drawings are transmitted electronically to our associated fabrication and machine shops. In many cases, component drawings can be used directly with CNC machine tools for important labour savings and better quality and accuracy than manual operation. To ensure that our clients are completely satisfied, we will supervise the installation and start-up of the lines and equipment we design and supply, and provide operator training and full documentation.

## SELECTED SEAFOOD PROJECTS

- Development, design and start-up of an electronically-controlled continuous thawing systems for block-frozen and IQF seafood products
- Design and start-up of an automatic system for the continuous production of brine at controlled concentrations on demand
- Design, fabrication and start-up of an electronic weight grader for live lobster
- Design, co-ordination of fabrication, installation and start-up of a highly automated shrimp processing line for frozen-at-sea and fresh raw material, incorporating the most modern technology and processing methods
- Design, co-ordination of fabrication, supply of equipment, installation and start-up of a unique Arctic surf clam further processing facility with emphasis on labour efficiency and ergonomics
- Evaluation and redesign of several freshwater and groundfish filleting and packaging lines with recommendations and implementation of improvements in efficiency, yield, and quality, including design of ergonomic work stations and specialised machinery
- Design of a spiral pump for handling fragile food products such as fresh peeled shrimp
- Design, assembly and in-plant testing of a crab shoulder meat extraction machine
- Design and preparation of fabrication drawings for a continuous high-volume steam cooker for shellfish

## OTHER INDUSTRIAL PROJECTS

- Design and fabrication of an automatic high-speed feeder for a large precision punch press including retrieving, deburring and stacking of parts
- Design and assembly of electronic test equipment for an offshore oil drilling rig Blowout Preventers
- Design and fabrication of laboratory prototype equipment for the separation and recovery of cheese whey ingredients
- Design and fabrication of a special oven to bake hollow bread rolls in the shape of lobster tails
- Design and fabrication of two punch press feeder coil pneumatic restrainers

## REPRESENTATIVE CLIENT LIST

Bayou Land Seafood, LLC, Breaux Bridge, Louisiana  
Charlottetown Metal Products, Charlottetown, Prince Edward Island  
Clearwater Fine Foods Inc., Bedford, Nova Scotia  
Comeau's Sea Foods Inc., Saulnierville, Nova Scotia  
Dalhousie University, Chemical Engineering, Halifax, Nova Scotia  
Errigal Fish Company Ltd., Carrick, Donegal Co., Ireland  
Fisheries Association of Newfoundland and Labrador, St. John's, Nfld.  
Fruits de Mer de l'Est du Québec, Matane, Québec  
Grand Bank Seafoods Ltd., Grand bank, Newfoundland  
Highland Fisheries, Glace Bay, Nova Scotia  
Kayio Trading Co. Ltd. Dartmouth, Nova Scotia  
Laitram Machinery, Inc., New Orleans, Louisiana  
McLean Brothers Fisheries Inc., Wheatley, Ontario  
Pêcheries de l'Aigle S.A., Saint-Pierre et Miquelon, France  
PFC, a division of Tesma International Inc., North Sydney, Nova Scotia  
Pierce Fisheries Ltd., Lockeport, Nova Scotia  
St. Anthony Seafoods Partnership, St. Anthony, Newfoundland  
Transocean Sedco Forex, Paris, France

## CONTACT

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