

50 Years **BERG**

COOLING THE WORLD SINCE 1973

Berg Marine Refrigeration Systems



Trusted by clients worldwide, Berg's marine refrigeration systems redefine reliability and performance. From seawater-cooled HVAC packages with standby capabilities to outdoor chillers for onboard applications, Berg is the go-to choice for marine HVAC and specialized marine chiller design and supply.

Custom designed cooling systems specifically focused on individual applications.

Berg – A company with a successful history and an exciting future

Berg Chilling Systems is both small enough to be flexible and quick, and large enough to command any resources needed to get the job done. We are serious about producing the most efficient, effective, reliable custom-engineered solutions for marine and national defense cooling applications. The hallmark of our marine expertise is rugged, functional design. Berg equipment withstands the rigors of marine environments with purpose-engineered features including particular attention to vibration and shock control. We can offer total solutions of increased scope through our strategic partnerships.

Working in close collaboration with our customers, we provide turnkey, custom-engineered solutions that meet and exceed requirements. Our knowledgeable, field-experienced sales engineers work with you to conceptualize and present innovative solutions.



Berg marine applications include:

- Ship's stores and onboard refrigeration
- Marine HVAC
- Electronics cooling
- Onshore vessel cooling
- Radar systems cooling
- Life support systems cooling
- Environmental test chambers
- Modular, small packages for tight spaces and difficult to access onboard locations
- System redundancy for no-fail environments

Comprehensive cooling technologies:

Berg works with both conventional and the latest cooling technologies as appropriate to any given application.

- Water
- Air
- Glycol
- Brine solutions
- Dowtherm
- Dynalene

Peace of mind. Built right in.

Berg marine refrigeration solutions are custom-designed, manufactured, and tested at our own facility. There, we ensure they conform to your exact specifications, challenging standards, and specific operating conditions. When we are sure your requirements will be met, we skid-mount your equipment to suit any transport mode. You receive the precise high-quality solution you need without the unnecessary features and space-consuming extra equipment that can clutter one-size-fits-all solutions.



Experience examples

Berg has provided close to 150 solutions to over 30 clients in the marine sector. Here are descriptions of a few of Berg's marine installations:

Domestic and Cargo Refrigeration

Original supply and midlife refit of several Canadian Coast Guard vessels to modernize domestic and cargo refrigeration systems.

Scope of supply on each vessel:

- two water-cooled condensing units
- 14 unit coolers with built-in redundancy
- start up
- spare parts
- commissioning

Equipment was custom fabricated to fit in onboard locations with minimal disturbance to the vessels.

HVAC

Original supply and midlife refit on a Canadian Coast Guard vessel to modernize the HVAC system.

Scope of supply:

- one skid-mounted indoor water cooled condensing unit
- one air handling unit with primary and standby circuits
- engineering for refurbishment of existing HVAC units
- installation
- start-up
- training

Equipment was custom fabricated to fit in on board locations with minimal disturbance to the vessel.

Comfort and Electronics Cooling

Midlife refit of an air conditioning system and electronics equipment on an Oberon-class submarine.

Scope of supply:

- two air conditioning units
- vacuum pump
- spare parts

Onshore Vessel Cooling

Chiller for shore support of Victoria Class Submarine fleet.

Scope of supply:

- self-contained outdoor air cooled chiller and chiller tank unit capable of cooling de-ionized water to 7°C and accommodate flow rates from 20 - 102 USGPM at a constant head pressure of 166 feet

System was fully heat traced to prevent freezing during non-operational periods.

Radar Systems Cooling

Ship-board electronic cooling equipment for a missile detection system.

Scope of supply:

- three single zone liquid-to-liquid cooling systems with booster pumps
- two outdoor packaged ethyleneglycol / water chillers for shore based equipment testing
- spare parts

Life Support Systems Cooling

Cooling for a life support system for hyperbaric living quarters and diving bell on a deep sea diving support vessel.

Scope of supply:

- two water cooled packaged chillers providing 100% redundancy
- one chilled glycol pump tank unit
- one hot water pump tank unit



Berg Marine Refrigeration Units are designed and built to meet or exceed the following underwriters' regulations:

- ▼ Lloyds of London
- ▼ American Bureau of Shipping
- ▼ Bureau of Veritas of France
- ▼ Canadian Coast Guard
- ▼ U.S. Coast Guard
- ▼ Canadian Steamship Inspection

Typical Berg marine project employs 100% Canadian labour and involves a range of 65% to 85% Canadian materials and equipment content.

Proven Seaworthy

Designed, engineered, and built in Canada. In use worldwide. A truly seaworthy cooling solution must be cost-effective, efficient, and robust enough for rigorous maritime demands. And, because marine cooling system applications are as varied as there are types of vessels, Berg custom designs cooling systems specifically focused on individual applications' requirements.

After more than 50 years, Berg continues satisfying customers in more than 30 industries across 50 countries worldwide. In that time, we have developed innovative marine temperature control solutions that maintain optimal environments and living conditions for offshore, marine, and national defense sectors. Globally, Berg cools oil rigs, shipyards, coast guard, naval, fishing, and research vessels. This extensive experience and deep expertise in a Canadian supplier of vital components adds significant Canadian content to your bid regarding this important business opportunity.



Our global military and marine customers include:



Brazilian Navy



Seaspan Marine Corporation



Royal Canadian Navy



Israel Aerospace Industries



Davie Shipyard



US Army



Royal Coast Guard



Indian Navy



Lockheed Martin



Merdien Maritime
Canada



US Navy



Irving Shipbuilding, Inc.
(formerly Halifax Shipyard)



Lexmar Engineering



US Coast Guard



Ocean Group Inc.

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Visit www.berg-group.com to learn more on how Berg can help with your cooling challenges.

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