



"Moxie"
Photo by Billy Black

World Class Systems for World Class Boats

Since its inception, Technicold has been dedicated to delivering marine quality products for the demanding at-sea environment. Today, Technicold by Northern Lights is the industry leader in marine air conditioning, heating and refrigeration systems. Highest quality components and exacting engineering are dedicated toward crafting the best built, best backed systems available.

Whatever climate control your vessel requires, Technicold has a solution. Air conditioning systems are available in chilled water or split DX configurations. Reliable air handlers and evaporators can be installed virtually anywhere your needs dictate. Refrigerated sea water systems for the commercial applications keep your vessel at sea and making money. Even load banking is available, to help balance all of your vessel's electrical requirements.

Our staff boasts over 50 years of experience, and are backed by the reliability, durability and simplicity of Northern Lights, Inc. Custom solutions are available and serviceable through our dealer network.



Chilled Water
Air Conditioning System



Automatic Load Bank



Air Conditioning
Split DX System

Chilled Water Air Conditioning

Technicold by Northern Lights offers a comprehensive line of chilled water air conditioning systems, in BTU capacity from 24,000 to 120,000, with a variety of custom options available.

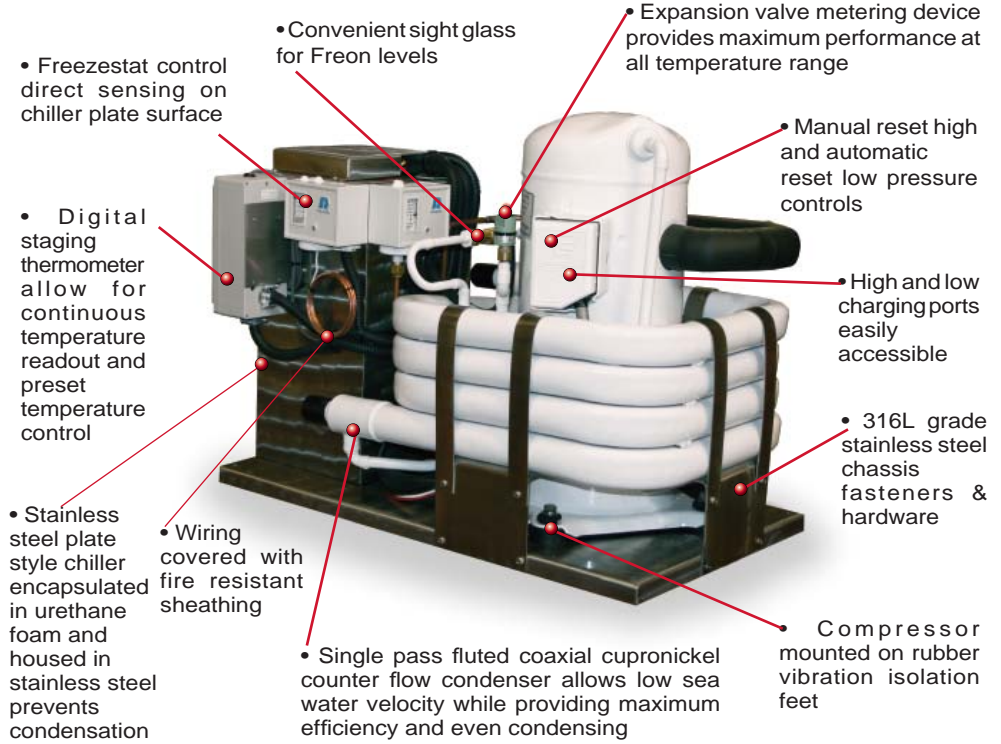
All Technicold chilled water systems are constructed to withstand the harshest marine environments with features like 316L stainless and other corrosion resistant materials.

Because on-board space is always at a premium Technicold AC systems are built to fit the smallest footprint possible while retaining their robust build.

Technicold climate control systems can even facilitate electrical and reverse cycle heating.

Versatile, reliable and compact - Technicold chilled water systems represent the state of the art in climate control.

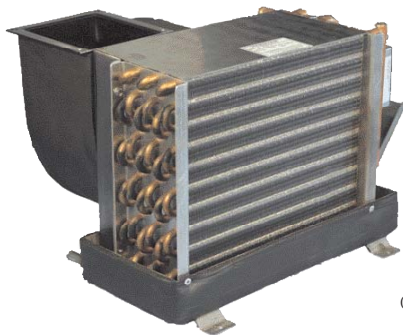
- Tempered water is circulated throughout the vessel via closed loop circuit.
- Each room on the vessel can be temperature controlled with a zone control valve and air handler.
- Blowers are available with down discharge, remote, and even double blowers (24,000 BTU+)
- Each modular chiller is staged to cycle on and off as cooling loads vary.



MODEL	CAPACITY IN BTU	DIMENSIONS: HxWxD in. (mm)	AMP Draw 230V 1ph (208V 3ph)	Weight Lbs (kg)
CW24B(C)	24,000	16 (406) x 13.5 (343) x 26.5 (673)	6.8 (5.4)	151 (68.49)
CW30B(C)	30,000	16 (406) x 13.5 (343) x 26.5 (673)	8.4 (6.3)	164 (74.39)
CW36B(C)	36,000	16.75 (425) x 13.5 (343) x 26.5 (673)	10.5 (7.6)	170 (77.18)
CW48B(C)	48,000	18 (457) x 14.5 (368) x 26.5 (673)	13.3 (9.9)	181 (82.10)
CW60B(C)	60,000	18.75 (476) x 14.5 (368) x 26.5 (673)	17.9 (12.4)	187 (84.82)
CW70(C)	72,000	24.75 (629) x 14.5 (368) x 26.5 (673)	n/a (14.2)	187 (84.82)
CW120(C)*	120,000	24.75 (629) x 14.5 (368) x 34 (864)	n/a (19.8)	410 (185.97)

NOTES: Electrical specifications are rated at 45°F(7.2°C) Evaporating and 100°F(37.8°C) Condensing temperatures.
 * Dimensions and weights are for our standard 10 Ton Compact Chiller.
 Specifications will change for Vertical or Side-By-Side configurations.

Chilled Water Air Handlers



Chilled Water Air Handler

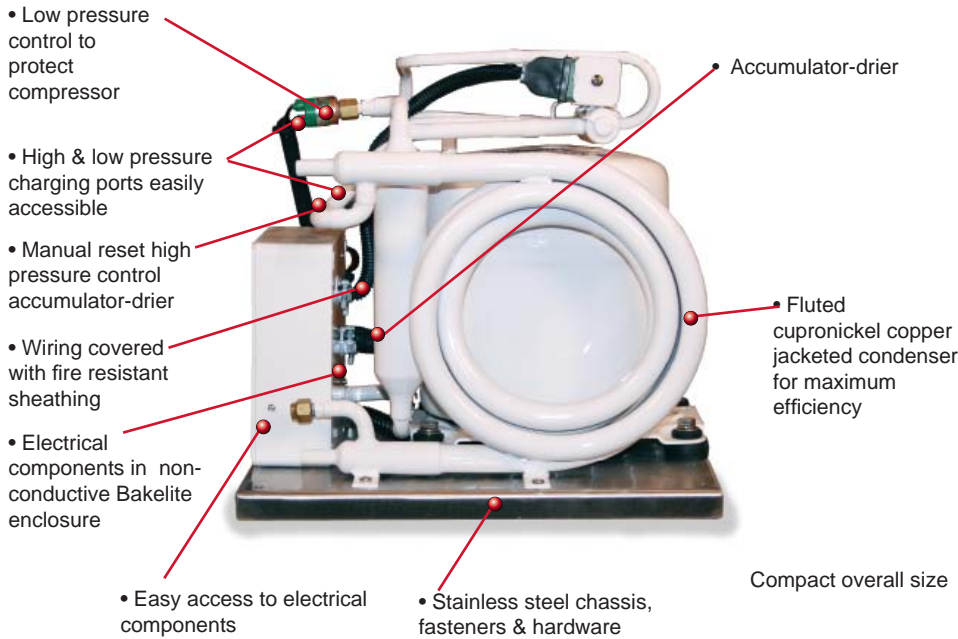
In addition to manufacturing industry leading air conditioning and refrigeration systems, Technicold produces a variety of components and accessories.

Technicold chilled water air handlers are designed for use with or without Technicold chilled water AC systems. The direct expansion systems are built to work with DX evaporators. All of our patented air handlers feature a high volume variable speed blower, which rotates 120 degrees for truly versatile installation. Install in a closet, under a settee, beneath a berth - even ceiling mounting is possible with down discharge.

MODEL	CAPACITY IN BTU	DIMENSIONS- HxWxD: in. (mm)	AMP Draw 115V 1ph (230V 1ph)	CFM	Weight Lbs (Kg)
RA08A(B)	8,000	9 (229) x 17 (432) x 13 (330)	1.86 (0.93)	265	19 (8.62)
RA12A(B)	12,000	12 (305) x 18.5 (470) x 14 (356)	3.2 (1.6)	350	27 (12.25)
RA16A(B)	16,000	12 (305) x 18.5 (470) x 16 (406)	3.55 (1.7)	500	28 (12.70)
RA18A(B)	18,000	12 (305) x 19 (483) x 17 (432)	3.55 (1.7)	500	33 (14.97)
RA24A(B)	24,000	12 (305) x 35 (889) x 14 (356)	6.4 (3.2)	700	51 (23.13)
RA32A(B)	32,000	12 (305) x 35 (889) x 15.5 (394)	7.1 (3.4)	1,000	55 (24.95)

Above dimensions include water valve. For remote water valve installation subtract 3" from width Above dimensions represent the blower in a vertical discharge position without a duct ring or plenum box attached

Split DX Air Conditioning



An ingenious solution for on-board air conditioning, Technicold Split Direct Expansion (DX) systems are compact, versatile and available in capacities from 9,000 to 60,000 BTU.

Small enough to install virtually anywhere on the boat, Technicold's Split DX air conditioning systems feature such sea-worthy attributes as cupronickel condenser fluting, bakelite electrical boxes and a hermetically sealed compressor, all on 16 gauge stainless steel.

Tough, Reliable and quiet - Technicold's Split DX systems set the industry standard.

- The unit's compressor removes heat from the refrigerant with a counter-flow condenser.
- Soft copper refrigerant tubing connects the condensing unit to the evaporator.
- The non-corrosive, non-conducting electrical box holds the start and run switches to ensure reliable start-up, even under low voltage.

MODEL	CAPACITY IN BTU	DIMENSIONS-HxWxD: in (mm)	AMP Draw 50/60 Cycle 115V (230V)	Weight: Lbs (kg)
RC09	9,000	15 x 13.5 x 10 (381 x 342.9 x 254)	8.9 (4.4)	59 (26.79)
RC12	12,000	15 x 13.5 x 10 (381 x 342.9 x 254)	11 (5.9)	64 (29.06)
RC16	16,000	15 x 13.5 x 10 (381 x 342.9 x 254)	15 (6.2)	66 (29.96)
RC24	24,000	17 x 16 x 13 (431.8 x 406.4 x 330.2)	-- (12)	120 (54.48)
RC28	28,000	17 x 16 x 13 (431.8 x 406.4 x 330.2)	-- (14.4)	120 (54.48)
RC32	32,000	17 x 17 x 13 (431.8 x 431.8 x 330.2)	-- (16.5)	128 (58.11)
RC40	40,000	17 x 18 x 13 (431.8 x 457.2 x 330.2)	-- (22.5)	130 (59.02)
RC48	48,000	17 x 20 x 13 (431.8 x 508 x 330.2)	-- (22.7)	149 (67.65)
RC60	60,000	17 x 21 x 13 (431.8 x 533.4 x 330.2)	-- (26)	152 (69.01)

Specifications may change without notice. Use of alternate compressor may alter dimensions

Reverse cycle heating capacity is dependent on seawater temperature, and diminishes as water temperature decreases. For 50 Hz applications - decrease capacity by 17%

Direct Expansion Evaporator

- 316L stainless steel construction, ideally suited for the marine environment.
- Fully rated capacity coils for maximum air handling capability.
- Heliarc welded seams to resist corrosion.
- Two inch deep fully insulated drip pan keeps your systems dry even in rough seas.
- Chilled water air handler features a motorized Pop-Top water valve for easy serviceability.



Direct Air Conditioning Expansion Evaporator

MODEL	CAPACITY IN BTU	DIMENSIONS- HxWxD: in. (mm)	AMP Draw 115V 1ph (230V 1ph)	CFM	Weight Lbs (Kg)
RE06A(B)	6,000	9.5 (241) x 13 (330) x 13 (330)	1.86 (0.93)	265	18 (8.17)
RE09A(B)	9,000	9.5 (241) x 13 (330) x 13 (330)	1.86 (0.93)	265	19 (8.62)
RE12A(B)	12,000	12 (305) x 15 (381) x 14 (356)	3.2 (1.6)	350	25 (11.35)
RE16A(B)	16,000	12 (305) x 15 (381) x 16 (406)	3.55 (1.7)	500	27 (12.26)
RE24A(B)	24,000	12 (305) x 32 (813) x 14 (356)	6.4 (3.2)	700	51 (23.13)
RE32A(B)	32,000	12 (305) x 32 (813) x 15.5 (394)	7.1 (3.4)	1,000	55 (24.95)

Dimensions shown without electrical heat options.

Above dimensions represent the blower in a vertical discharge position without a duct ring or plenum box attached

Refrigeration Sea Water Systems

Technicold's line of refrigerated sea water systems makes dependence on ice availability, loading, and storage a thing of the past. By adapting technology that has been used by commercial fisherman to a system that is custom designed to your vessel. We are able to chill sea water to 28°-30°F, which improves heat removal rate from the catch that is not only easier than ice, but frees up space on board.

Technicold offers two types of refrigerated sea water systems. One Method involves using custom stainless steel chill plates in the chilling tank and the compressor and condensing unit installed separately. The second method is available self-contained or remote and may be used with tanks above or below decks. This system incorporates a titanium tubed chiller barrel in which water is circulated through and pumped back to the chilling tank. This system is available self-contained and pre-charged, or in components for modular installation. This type of system can accommodate any number of tanks at any given time enabling the connection of a single tank at the start of a fishing trip and adding additional tanks as needed.



RSW and Hold Over Tank

Refrigeration System	
Model Number	CC-MTZ-16HM-208-3
Chiller Type	2 Stage 208 - 3 Phase
Constant water temp	34° F
Heat Exchanger	Titanium Plate
BTU: @ evap. temp	164,490 @ 10°F
BTU: @ cond. temp	169,490 @ 100°F
Power Usage	21 kW
Chiller Base	316L Stainless Steel
Dimensions: in (mm)	
Length	15 (381)
Width	15 (381)
Height	13 (330)

TECHNICOLD® Engine Driven Refrigeration is designed to operate with one of the following refrigerants: R12, MP39 or R134A. This must be specified when placing an order.

Technicold RSW systems are available with capacities to accommodate a 30 foot sport fishing vessel to a 200 foot commercial vessel.

As with all Technicold products, only the highest quality components are used. Environmentally approved refrigerant is used throughout the product line. The refrigerated sea water systems boasts an all stainless steel chassis and hardware condensing unit, counter-flow cupronickel condensing coil, high and low pressure safety controls protect the system. As always, Technicold products are built for ease of installation, simplicity of operation and maximum flexibility.



Load Bank Heat Transfer Module

Load Bank PLC Control Panel



Automatic Load Bank

Protect and maximize the utility of your electronics with a Technicold automatic load bank. Technicold load banks supply a supplemental electrical load to your vessel's generator, ensuring that the set is always optimally loaded.

- Fresh water cooled module houses up to four banks of heating elements.
- Cupronickel heat transfer coil - no zinc required.
- Marine grade aluminum housing with 316L stainless steel base.
- Stainless steel expansion tank with sight glass.

The Technicold automatic linear load bank provides even more precise management. Variable outputs manage electrical load on each individual phase leg; from less than 1kW up to 48kW. Ideal for vessels with multiple generator configurations and today's modern electronics, the automatic linear load bank can be outfitted with an optional PLC control panel for load maintenance and management at your fingertips.

STANDARD CONTROL PANEL

MODEL	VOLTAGE	PHASE	HZ
LB48LDC	120/208	3	60
LB48LDE	220/380	3	50
LB48LDJ	230/400	3	50

PLC CONTROL PANEL (Available on Linear Load Bank Only)

MODEL	VOLTAGE	PHASE	HZ
LB48LPC	120/208	3	60
LB48LPE	220/380	3	50
LB48LPJ	230/400	3	50



TECHNICOLD

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