

## FEATURES

### Innovative Modular Design

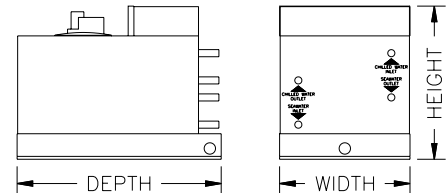
- Compact base design and footprint allows flexibility in space, usage and layouts.
- Individual modules can be multiplexed to provide precise capacity requirements for any application.

### High Efficiency Components

- Thermodynamically matched components assure maximum performance.
- Tecumseh Rotary and Copeland Scroll compressors provide high efficiency performance with less power consumption and quieter operation. The cylindrical shaped compressor allows for a compact encased design.
- Fewer moving parts ensure higher reliability.
- Condenser coil is custom fabricated of spiral fluted cupronickel to provide maximum heat transfer and high corrosion resistance.
- Exclusive Digital Diagnostic Controller (DDC) monitors and protects the system through the use of aquastats, high pressure switches, timers, freeze controls and high limit switches, all programmed to read out on an LED panel for immediate diagnosis.

### Quality Assurance

- Each unit is evacuated to 500 microns, pre-charged, hermetically sealed, load tested and electronically calibrated at the factory.
- Charge Guard® protection provides sealed access ports, ensuring environmental protection and chiller module integrity with no refrigerant in living quarters.
- All units meet or exceed applicable ABYC and U.S. Coast Guard regulations, CE Directives and general Air Conditioning and Refrigeration Industry (ARI) standards.



## SPECIFICATIONS

Model <sup>(1)</sup> Capacity (BTU/H)	CHC16RC(Z)	CHC20RCZ	CHC24SRCZ
Cool	16,000	20,000	24,000
Reverse Cycle	17,600	22,000	26,400
Refrigerant R-22 (oz/g)	12/340.2	14/396.9	16/453.6
"Green Gas" R-407C units available			

## Electrical Data

	115V	230V	230V	230V
Voltage (VAC) <sup>(2)</sup>				
FLA (cool mode)	8.0	3.8	5.3	6.6
FLA (heat mode)	11.9	5.6	7.9	10.0
LRA	67.0	29.0	45.0	54.0
KVA (Kilo-Volt-Amps)	1.4	1.3	1.8	2.3
Max. Circuit Breaker	35.0	20.0	25.0	35.0
Min. Circuit Ampacity	22.0	12.0	17.0	20.0

## Dimensions (in/cm)<sup>(3)</sup>

	18.00/45.7	18.00/45.7	18.00/45.7
Depth			
Width	11.50/29.2	11.50/29.2 <sup>(4)</sup>	13.00/33.0
Height	12.75/32.4	13.50/34.3 <sup>(4)</sup>	15.50/39.4
Net Weight (lbs/kg)	52/23.6	65/29.5	84/38.1

<sup>(1)</sup> Model number breakdown: CHC = Chiller Compact, 16, 20, 24 = BTU/H x 1000; RC = Reverse Cycle; Z = 230VAC; S = Scroll compressor (Rotary compressors are used on the 16 & 20).

<sup>(2)</sup> Standard models operate at 60 Hz and 50 Hz, 1ø. However, there is a 17% reduction in capacity when operating at 50 Hz. Full capacity 50 Hz only units are available upon request (220/240V only).

<sup>(3)</sup> Add 1.0"/2.5cm for each mounting bracket. The four brackets supplied can be mounted on any side of base pan (depth or width).

<sup>(4)</sup> Full capacity 20K 50Hz unit has same dimensions as 24K 60Hz unit. Full capacity 20K 50Hz unit has a Scroll compressor.

## ADVANTAGES

### M.A.S. CHILLED WATER SYSTEM VS. DIRECT EXPANSION SPLIT SYSTEM

- No refrigeration line sets and mechanical flare fittings which are subject to leaking refrigerant over time - thus eliminating refrigerant repair within living quarters.
- Environmentally friendly as hermetically sealed modules.
- No EPA certified technician required for startup or field installation.
- Flexible hose is easier to install and insulate compared to semi rigid copper refrigerant line sets.
- Provide full cooling capacity to areas which require fast pull downs from hot starts.
- Most applications result in a fewer number of compressors which increases reliability, reduces weight and conserves power.
- Multiplexed chiller installations typically realize a 50% power savings over a 24 hour period.

# Installation Guidelines for the CHC Chiller Compact

When choosing the proper model **CHC Chiller Compact** condensing unit, primary consideration should be given to calculated BTU loads and available power supply. Any special requirements (capacity modifications, voltages, cycles, auxiliary heat, etc.) should be determined prior to installation.

The location of the **Chiller Compact** condensing unit should be dry and accessible for service, typically in engine room, lazarette or machinery compartment. Secure the condensing unit to a level horizontal surface with the supplied brackets. These brackets are designed to hold the weight of the equipment as well as handle any torsional movement. Do not stack units directly on top of each other as each condensing unit must be independently supported. Racking is available to facilitate custom installations.

Reinforced marine grade hose is to be used for the seawater circuit. The hose is to be routed upwards from the thru-hull intake to the condensing unit to prevent air locks in the centrifugal seawater pump. Circulation connections between the condensing unit and chilled water lines are to be made with properly sized fittings and reinforced marine grade hose. All hose connections are to be double clamped and ball valves should be installed at chilled water inlet/outlet of each CHC unit and each air handler for ease of serviceability of the system. Insulate all hose and fittings airtight upon completion of leak tests to prevent condensation and capacity loss.

The condensing unit chassis has an integral condensation drain pan for removal of any water that may form. Secure a hose to this drain pan spud and route it downward to a proper sump or overboard discharge outlet.

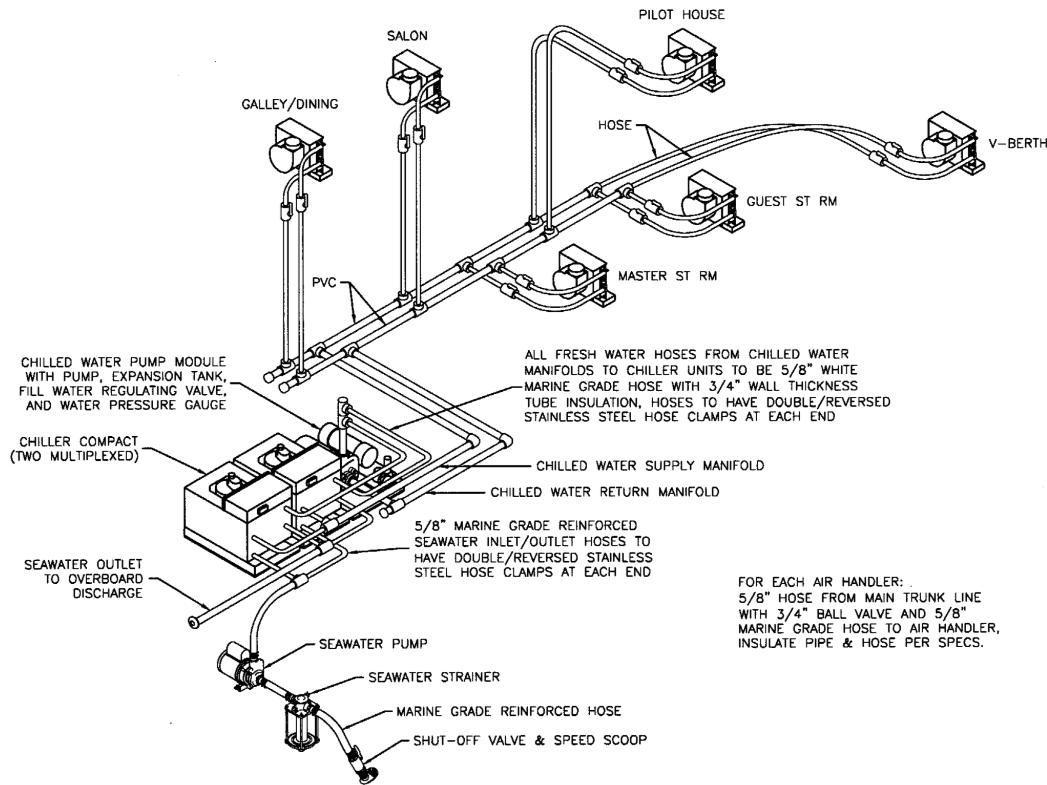
Never install the air handlers in bilge or engine room areas and insure that the selected location is sealed from direct access to bilge and/or engine room vapors. Do not terminate condensate drain lines within three (3) feet of any outlet of engine or generator exhaust systems, nor in a compartment housing an engine or generator, nor in a bilge (vapors can travel up the drain line), unless the drain is connected properly to a sealed condensate or shower sump pump. Failure to comply may allow bilge or engine room vapors to mix with the air handler's return air and contaminate living areas.

All circuit breakers and wire gauge must be sized according to marine design standards. Only stranded tinned copper wire should be used. Route all wiring through the strain-relief connectors provided in the electrical boxes.

All equipment should be properly grounded and bonded. Electrical boxes are pre-wired for power with solid state control circuits. The system control switch can either be mounted on the module or remoted on a panel for more convenient access.

All chilled water condensing units use closed-refrigerant circuits, pre-charged with R-22. No additional refrigerant is required during the installation or at initial start-up and operation of the system. Refer to other individual component sheets for specifications and details of air handlers, controls and related parts.

In keeping with regulations set forth by the EPA, only certified technicians should perform service on, or make adjustments to, any refrigerant circuits. However, this is not necessary when installing Chiller Compact modules.



In the interest of product improvement, Taylor Made Environmental's specifications and design as outlined herein are subject to change without prior notice.



Sold and Serviced By:

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