- ENVIRONMENTALLY FRIENDLY
- ENERGY EFFICIENT
- MANEUVERABLE
- DURABLE
- RELIABLE
- SERVICE FRIENDLY
- TRUE REDUNDANCY
- INTEGRATED *COOLLOGIC* CONTROL SYSTEM

ENERGY AND ENVIRONMENTAL LEADERSHIP
R-410A
TOTAL GREEN SOLUTION

THE ULTIMATE CHILLER SOLUTION®

WATER COOLED MODULAR CHILLER - MODEL UCW/H 30, 50, 70 AND 85
CONFIGURABLE UP TO 1000 TONS PER BANK
AVAILABLE IN 208, 230, 460 AND 575 VOLTS

CLIMACOOL®
THE ULTIMATE CHILLER SOLUTION®

Major application flexibility and expandability

A dedication to energy and environmental leadership results in the Ultimate Chiller Solution modular design and fundamental features: compact size, redundant operation, maneuverability, efficiency, reliability, and serviceability. Available in 30, 50, 70 and 85* tons which, when combined, tonnages can obtain specific project turndown and capacity requirements from 30 to 1,000 tons per bank while having the ability to accommodate future growth and expansion needs.

Environmentally Friendly Incremental and minimum overall per ton refrigerant charge. Largest refrigerant circuit contains less than one pound per ton of charge per module. This typically eliminates the requirement for expensive refrigerant monitoring, ventilation and associated controls. Non-ozone depleting R-410A refrigerant offers better efficiency, higher capacity and utilizes superior synthetic lubricants for longer compressor life.

Energy Efficient High efficiency design offers up to 16.5 EER at full-load and up to 21.4 EER at part-load (IPLV), exceeding ASHRAE 90.1 minimum efficiency requirements.

Maneuverable All modules easily fit through standard 36" doorways and onto typical freight elevators. Modules are designed with a low center of gravity and base cutouts for forklifts and pallet jacks.

Durable Heavy gauge G90 galvanized steel base and framework with 3 mil powder coat paint finish, baked at 350° for resilience in transport and installation. Schedule 40 carbon steel pipe water headers are designed to connect to adjacent modules through the use of 300 psi rated grooved couplings.

Reliable Dual scroll compressors with independent refrigerant circuits provide reliable, efficient, quiet and redundant operation. Use of highly efficient, dual circuit brazed plate heat exchangers offer maximum performance at both full-load and part-load conditions.

Service Friendly Design allows easy access to major components, such as compressors, brazed plate heat exchangers, refrigeration components and pete's ports. Unique design is fully serviceable and maintainable without removal of module from the chiller bank or disassembly of headers.

True Redundancy Separate module electrical feeds provide true electrical redundancy. Dual independent refrigeration circuits per module provide true mechanical redundancy.

Individual Module Control Provides each module with an independent module control panel as well as chiller bank integration. Simple two-conductor shielded, daisy chain connection allows communication between modules and minimizes field wiring.

Photo shows three 70 ton modules totaling 210 tons capacity. The 30, 50 and 70 ton modules are configurable up to 400 tons per bank. The 85 ton module is configurable up to 1,000 tons per bank.

*Model UCW/H 85 cannot be directly coupled with models UCW/H 030, 050 or 070 due to differences in header and frame size.

Options for every application

Water Isolation Valves and Flush Ports

Provides isolation to the module for maintenance and cleaning of evaporator and condenser heat exchangers. This is accomplished without increasing unit or bank dimensions while adjacent modules continue normal operation. Optional choice of integral manual or motorized valves includes ¾" fill and flush valves.

Condenser Water Head Pressure Regulating Control

Motorized condenser water valves provide head pressure regulation for low entering condenser water temperature applications (less than 60°F).

CoolLogic Control System

CoolLogic provides complete system integration for ultimate chiller performance. Allows for control of up to 12 individual modules via two-conductor shielded cable, includes native BACnet, LonWorks, Modbus and N2 communication.

Hot Gas Bypass

Factory installed on both circuits allowing unit operation below the minimum step of unloading.

Heat Recovery

Factory installed option that provides hot water, as high as 135°F, while simultaneously producing chilled water for the chiller system.

Heat Pump

Reverse cycle heating and cooling operation compatible with boiler/tower and geothermal systems.

Water Header Bypass

To prevent deadheading the pump, a water header bypass may be utilized.

Pressure Differential Flow Sensor/ Switch

Prevent operation of the chiller without sufficient water flow to the evaporator and/or condenser.

Automatic CS Series Strainer Package

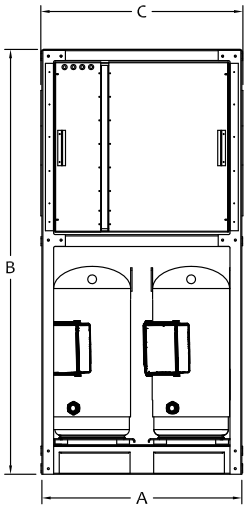
High quality, low maintenance stainless steel filtration systems with 60 or 80 mesh stainless steel screens will reduce operating costs and prevent nuisance condenser issues. Strainer package can be equipped with optional pressure differential alarm and automatic time flush.

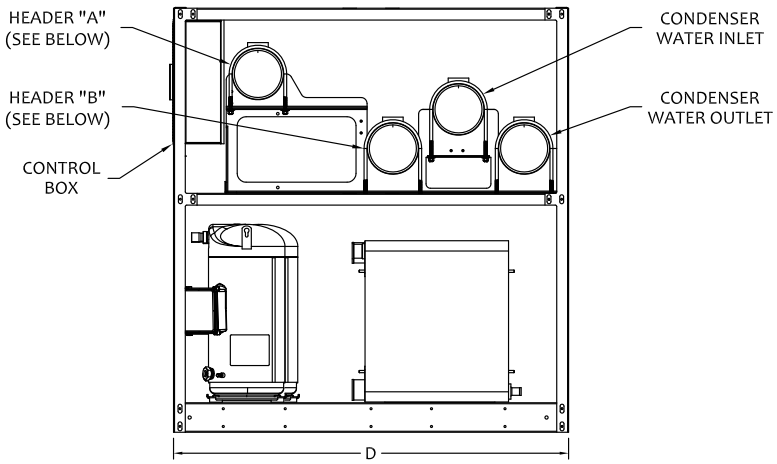
Manual Strainers

Utilize Y-style and Basket strainers of cast iron 200 psi or carbon 275 psi with 60 mesh stainless steel screens to increase efficiency and ensure long equipment life. All strainers are field installed external to the chiller bank for ease of service.

LEED categories satisfied by the UCW/H system:

- Sustainable Sites and Building Re-Use
  Compact design shrinks mechanical room and building footprint. This also allows modules to fit through existing doors eliminating the need for demolition and reconstruction.
- Water Efficiency
  Ideally suited for variable pumping which increases water efficiency when utilizing motorized valves.
- Enhanced Commissioning and Measurement and Verification
  CoolLogic Control System provides maximum flexibility with BAS interface.
- Optimized Energy Performance
  Exceeds ASHRAE 90.1 minimum efficiency.
- Enhanced Refrigerant Management
  Micro charge, amounting to less than one pound per ton, of chlorine-free and non-ozone depleting refrigerant.
- Thermal Comfort
  Precise required heating and cooling ensures the highest comfort for building occupants.





LOAD WATER PIPING CONFIGURATION ARRANGEMENT (HEADER "A")			
UCW	UCH HEAT RECOVERY	UCH HEAT PUMP (COOLING PRIORITY)	UCH HEAT PUMP (HEATING PRIORITY)
CHILLED WATER OUTLET	CHILLED WATER OUTLET	LOAD WATER OUTLET	LOAD WATER INLET
LOAD WATER PIPING CONFIGURATION ARRANGEMENT (HEADER "B")			
UCW	UCH HEAT RECOVERY	UCH HEAT PUMP (COOLING PRIORITY)	UCH HEAT PUMP (HEATING PRIORITY)
CHILLED WATER INLET	CHILLED WATER INLET	LOAD WATER INLET	LOAD WATER OUTLET

UNIT DIMENSIONS (IN INCHES)								
MODEL UCW/H	VOLTAGE	A UNIT WIDTH	B UNIT HEIGHT	C HEADER WIDTH	D UNIT DEPTH	UNIT WEIGHT [1] (lbs.)	OPERATING WEIGHT [2] (lbs.)	HEADER CONNECTION SIZE [3]
030	208/230/460/575/3/60	34	65 1/8	34 1/4	55 1/2	1290	1480	6
050	208/230/460/575/3/60	34	65 1/8	34 1/4	55 1/2	1880	2200	6
070	208/230/460/575/3/60	34	65 1/8	34 1/4	55 1/2	2130	2450	6
085	208/230/460/575/3/60	34	72	34 1/4	67	**2470**	2855	8

Notes:
1. Unit shipping weight includes refrigerant charge, compressor oil and packaging.
2. Operational weight includes refrigerant charge, compressor oil and water.
3. The model UCH085 cannot be directly coupled with models UCH030, 050 and 070 due to differences in header and frame size.

Contact your local ClimaCool representative or visit our website at www.climacoolcorp.com to find out more about UCW/H and other heating and cooling solutions that may fit your application needs.

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ISO 9001:2000 Certified
Quality: First & Always

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U.S. GREEN BUILDING COUNCIL MEMBER

COOLLOGIC DIGITAL CONTROLLER