



RECIRCULATING LOOP CHILLERS MODULAR DESIGN



TYPICAL MODULAR CHILLER

APPLICATIONS

Computer Rooms
Power Supplies
Linear Accelerators

Emergency Rooms
MRI Equipment
CAT Scans

FEATURES

Modular Design: Delivered in four* sections to be assembled at final location.

Energy Savings: Provides capacity control and built in redundancy using four* independent 15 HP refrigeration circuits which can be staged to match varying loads for energy savings.

Storage Construction: Consistent temperature control and safety from freeze-up without constant operation.

Complete Temperature Control: Temperature adjustable within a range of 40° to 90°F (5° to 32°C) and will hold temperature within ±2°F (1°C) of setting. (1°F optional)

Welded Stainless Steel Cooling Tank: Recirculates clean coolant sealed from the atmosphere, eliminates bacterial build-up and internal corrosion.

Uses HFO Refrigerant: Eliminates use of ozone-depleting and high GWP (Global Warming Potential) refrigerant as per Montreal Protocol.

Unlimited Options: Design the perfect cooling system for any application. 60+ options to meet any special requirement. See *Options & Accessories sheet* (www.filtrine.com/chillers/options-and-accessories) for more information.

*Other configurations are available.

START-UP and FIRST YEAR SERVICE

FILTRINE Mfg. Co. provides start-up and first year service on all parts and labor. Regular maintenance on a yearly contract basis is a wise investment and will prevent costly downtime.

WARRANTY

All parts are covered FOB jobsite for (12) months from the start date or (15) months from date of shipment or whichever comes first.

SERVICE MAKES THE DIFFERENCE

Recognizing that downtime on critical medical equipment is unacceptable, Filtrine has established a national network of qualified service technicians, selected because of their extensive experience working on medical equipment chillers and their location within the "Emergency Response Zone" (approximately 40 miles). This expert and quick service is available on an 8/5 or 24/7 basis for all Filtrine medical chillers and heat exchangers.

MODEL PCP or POC-1500G-720-M4 MODULAR SCROLL MODELS

DESCRIPTION

For installations where entry space is limited due to doorways, hallways or freight elevators. The modular design can be disassembled into four sections and reassembled at the final location. (The design can be changed to 2, 3 or more modules based on site requirements.)

• **PCP - Closed Loop:** The pump in the first module recirculates the coolant at a constant pressure and flow through the customer's cooling loop and then through the four modules. A manual bypass valve allows for proper adjustment.

• **POC - Open Loop:** The pump in the first module pumps the coolant from the sump, pushes it through the four modules and back. The internal adjustable thermostat senses the return liquid temperature and cycles the module to maintain the sump's temperature.

SPECIFICATIONS

COOLING CAPACITY: BTU/HR 720,000
Watts 210,958

Rating Conditions

Coolant Discharge Temperature 68°F (20°C)
Ambient Temperature 90°F (32°C)

COMPRESSORS: HP FOUR 15

Hermetic scroll type supplied with condensers as specified below, high/low pressure stat, freeze control, head and suction gauges, anti-migration solenoid valves, thermostatic expansion valves, refrigerant sight glass, and dehydrator.

STANDARD CONDENSERS (Designated by suffix)

W Water cooled condenser for hookup to city or tower water

AR Remote air cooled condenser furnished separately for mounting on roof.

COOLING TANKS & EVAPORATORS: Capacity 400 gal (1,514 l)

Welded stainless steel shell and immersion coil evaporator. Tank tested at 250# for 125# working pressure. Supplied with liquid level gauge and insulated with closed cell thermo-elastomer with an R factor of 3.7.

PUMP: HP 5

Capacity 80 gpm (285 lpm) @ 45 PSI
All bronze centrifugal pump mounted on rubber pads over a stainless steel condensation tray and supplied with unions and service valves and manually adjustable bypass valve. All piping and fittings brass, copper, or bronze and insulated with closed cell thermo-elastomer with an R factor of 3.7.

THERMOSTAT: Adjustable Range 40° to 90°F (5° to 32°C)

Temperature Stability ±2°F (1°C)

CABINET: Four separate modules bolted together to act as a single chiller. Enameled aluminum panels with stainless steel corner legs and top on a welded angle iron frame. Panels removable for access to all components.

SUPPLY POWER: 230/60/3 or 460/60/3

FLA Amps Maximum: 240 or 120

NOTE: FLA may vary depending on options. See MCA and MOP ratings on nameplate of as-built unit.

PLUMBING CONNECTIONS IN & OUT 2-1/2" (63mm) MPT

SHIPPING WEIGHT Chart on reverse

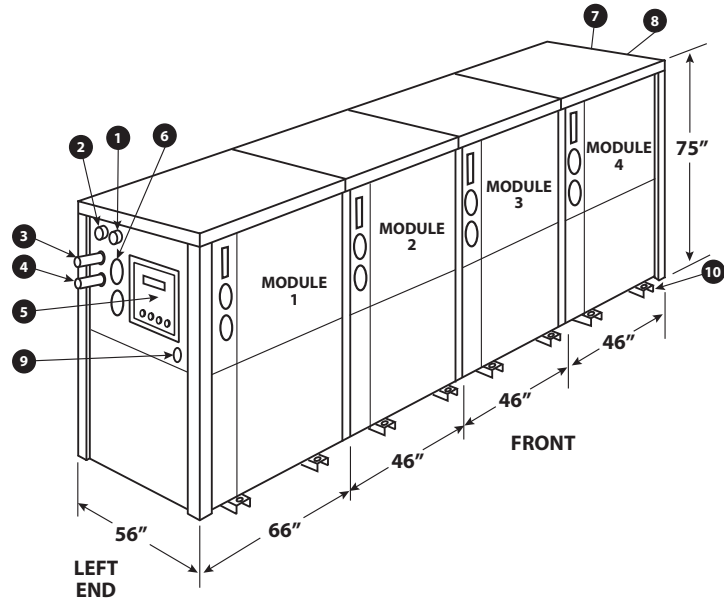


STANDARD MODELS

Suffix W, AR

DRAWING LEGEND

- 1 Air Vent
- 2 Fill Port
- 3 Coolant Return
- 4 Coolant Discharge
- 5 Control Panel
- 6 Gauges
- 7 To Remote Condenser (AR units)
Condenser Water Out (W units)
- 8 From Remote Condenser (AR units)
Condenser Water In (W units)
- 9 Electrical Connection
- 10 Channel Skids



NOTE: Drawings are not to scale. Shown are composites of various models to illustrate hook-up locations. Confirm footprint with factory.

STANDARD OPERATING CONDITIONS

OUTDOOR AMBIENT
-20° to 100°F (-29° to 38°C)

OPTIONAL OPERATING CONDITIONS

OUTDOOR AMBIENT
Up to 110°F (43°C)
Up to 120°F (49°C)
Down to -30°F (-34°C)

NOTE Higher ambient options may affect unit dimensions.

VENTILATION PANELS

Recommend 36 in. clearance at front for service and 18 in. clear space opposite all ventilation panels.

REMOVABLE SERVICE PANELS

Front & rear on all models.

CHANNEL SKIDS

Channel skids project 2" (5 cm) front and rear. Center of 5/8" (16mm) mounting holes located 6" (15cm) from chiller end and 1" (2.5 cm) from chiller edge front and rear. Skids add 2" (5 cm) overall height to chiller.

REMOTE CONDENSER

Use with AR Models. Furnished complete w/controls for operating in ambient temperatures to minus 20°F (-29°C), consult factory for specs. Connections for remote condenser are at right end of chiller cabinet.

NOTE

Information given in this bulletin for general use only.
Confirm exact specs with factory for your specific requirements.

CHILLER DIMENSIONS and WEIGHTS

FILTRINE MODEL NUMBER	W		D		H		SHIP WT	
	in	cm	in	cm	in	cm	lb	kg
PCP or POC 1500G-720-M4-W	204	295	56	157	75	218	5000	2700
PCP or POC 1500G-720-M4-AR								

Dimensions & weights may vary depending on options installed-consult factory.

PUMP CAPACITY

PUMP MODEL*	GPM @ PRESSURE SHOWN				
	psi	25	35	45	55
	ft	58	80	103	126
STD5C		140	120	80	60

* Standard pump is 5HP, centrifugal (C)

CHILLER CAPACITY (BTU/HR)*

45°F (7.2°C)	55°F (12.8°C)	68°F (20°C)
560,000	640,000	720,000

* Based on 90°F (32.2°C) ambient air or 85°F (29.4°C) condenser water temperature