

RECIRCULATING LOOP CHILLERS



APPLICATIONS

Jacket Cooling
Lasers
Induction Heaters
Machine Tools
Welders
MRI Equipment
CAT Scans

Computers
Power Supplies
Vacuum Ovens
Injection Molding
Plasma Spraying
Linear Accelerators
Electron Microscopes

FEATURES

Energy Saving Design

Unlike most process chillers, compressor runs only as needed. Storage design provides close 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 $\pm 1.5^\circ\text{F}$ [1°C] of setting. [$\pm 0.5^\circ\text{F}$ 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 need. See *Options & Accessories* (www.filtrine.com/chillers/options-and-accessories) for more information.

ENERGY SAVING OPTIONS AVAILABLE CONSULT FACTORY

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-1500S-180

FIELD SERVICEABLE HERMETIC MODELS

DESCRIPTION

Filtrine's PCP and POC chillers recirculate a clean coolant at constant temperature and pressure to increase the stability and consistency of water cooled machines and instruments. Choose from different condenser configurations to match your specific site requirements.

● **PCP - Closed Loop Chillers:** Use a storage type cooling tank, with immersion coil evaporator, to provide close temperature control of recirculating coolants. The tank is sealed to prevent coolant evaporation and fouling, and supplied with a liquid level gauge, fill port and clean out. The pump recirculates coolant at constant pressure and flow, which is adjustable by turning a manual bypass valve.

● **POC - Open Loop Chillers:** Pump liquid from an open tank or sump, through the chiller and back to the sump. An adjustable thermostat senses the make up liquid temperature, cycling the chiller to insure constant temperature in the sump.

SPECIFICATIONS

COOLING CAPACITY: BTU/HR 180,000

Watts..... 52,755

Rating Conditions

Coolant Discharge Temperature..... 68°F [20°C]

Ambient Temperature 90°F [32°C]

COMPRESSOR: HP 15

Field serviceable semi-hermetic type supplied condenser as specified below, high/low pressure stat, freeze control, head and suction gauges, oil pressure switch, pump down solenoid valve, thermostatic expansion valve, refrigerant sight glass and dehydrator.

STANDARD CONDENSERS [Designated by suffix]

A Fan cooled condenser for indoor installation.

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

W Water cooled condenser for hookup to city or tower water

A-WP Self-contained air cooled condenser; complete unit made weather-resistant for outdoor installation

COOLING TANK & EVAPORATOR: Capacity 100 gal [380 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 2

Capacity..... 40 gpm [152 lpm] @ 35 psi

Stainless steel 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..... $\pm 1.5^\circ\text{F}$ [1°C]

CABINET: 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: 208 - 230/60/3 or 460/60/3

FLA Amps Maximum: 58 or 29

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

PLUMBING CONNECTIONS IN & OUT 1-1/2" [38 mm] MPT

SHIPPING WEIGHT..... Chart on reverse

CHILLER DIMENSIONS & WEIGHTS

FILTRINE MODEL NUMBER	W		D		H		SHIPPING WT	
	in	cm	in	cm	in	cm	lb	kg
PCP or POC 1500S-180-A	104	264	52	132	75	190	3500	1225
PCP or POC 1500S-180-W	104	264	30	76	60	152		
PCP or POC 1500S-180-AR	104	264	30	76	60	152		
PCP or POC 1500S-180-A-WP	104	264	52	132	75	190		

NOTE: Chiller dimensions and shipping wts. may vary depending on options, confirm 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

REMOTE CONDENSER

Use w/Standard 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.

PUMP CAPACITY

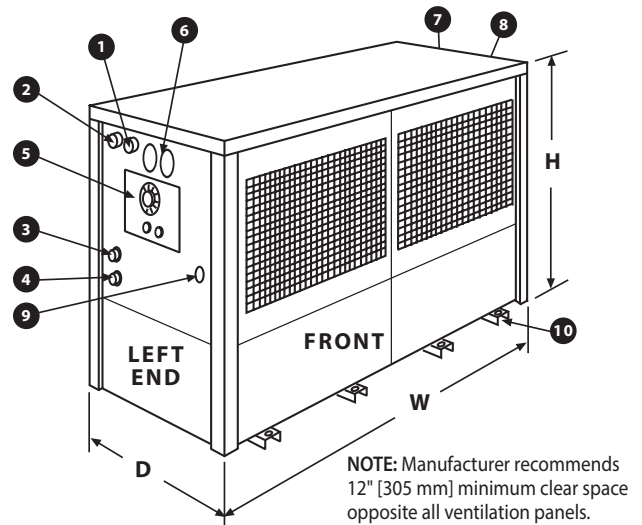
MODEL*	GPM @ PRESSURE SHOWN			
psi	10	20	30	40
ft	23	46	69	92
STD-2C	65	59	46	30
OP-3C	■	■	72	58

* Standard pump is 2HP, centrifugal [C].
Optional pumps [OP] are available.

* Standard pump is 2HP, centrifugal [C].
Optional pumps [OP] are available.

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

STANDARD MODELS: Suffix A, AR, W & A-WP



NOTE: Manufacturer recommends 12" [305 mm] minimum clear space opposite all ventilation panels.

LEGEND

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

VENTILATION PANELS

Standard A and A-WP models: air intake at rear, air discharge out front and right end.

LP models: air intake rear, air discharge out both ends and top.

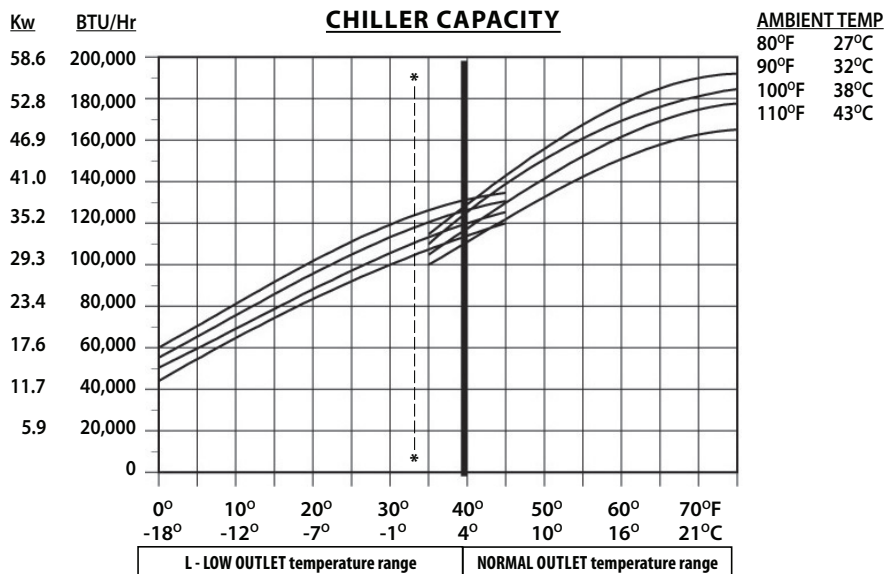
REMOVABLE SERVICE PANELS

Front and rear on all models. Manufacturer recommends 36" [915 mm] clearance at front for service.

CHANNEL SKIDS

Allow an additional 4" [102 mm] to depth and 2" [51 mm] to height for channel skids. Center of 5/8" [16 mm] mounting holes located 6" [153 mm] from cabinet end and 1" [26 mm] from cabinet edge front and rear.

NOTE: Drawing is a composite of various models to demonstrate plumbing locations. Confirm footprint with factory.



* For outlet temperatures below 34°F - use appropriate antifreeze