

# RECIRCULATING LOOP CHILLERS



TYPICAL CHILLER

## APPLICATIONS

Jacket Cooling	Computers
Lasers	Power Supplies
Induction Heaters	Vacuum Ovens
Machine Tools	Injection Molding
Welders	Plasma Spraying
MRI Equipment	Linear Accelerators
CAT Scans	Electron Microscopes

## FEATURES

### Optional Stainless Steel Exterior

### 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°F to 90°F [4.4°C to 32°C] and will hold temperature within ±1.5°F [0.8°C] of setting. [± 0.5°F/0.3°C 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* (<https://www.filtrine.com/chiller-options-and-accessories/>) for more information.

## MODEL..... PCP or POC-75-7

### DESCRIPTION

Recirculating chillers recirculate a clean coolant at constant temperature and pressure to increase the stability and consistency of water cooled machines and instruments. Air cooled chillers eliminate the use of tap water and prevent clogging and corrosion of small diameter heat exchangers due to rust and scale build-up.

• **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.

• **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 ..... 7,600  
Watts ..... 2,227

#### Rating Conditions

Coolant Discharge Temperature ..... 68°F [20°C]  
Ambient Temperature ..... 90°F [32°C]

COMPRESSOR: HP ..... 3/4

Lifetime lubricated, welded hermetic type supplied with condenser as specified [see below], charging port, expansion valve and dehydrator.

#### STANDARD CONDENSERS [Designated by suffix]

- A** Fan cooled condenser inside chiller housing.
- 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 ..... 8 gal. [30 liters]  
Welded all stainless steel shell and immersion coil evaporator. Tank tested for 125# working pressure. Insulated with closed cell thermo-elastomer with an R factor of 3.7 and enclosed in a rust-proofed steel jacket.

PUMP: HP ..... 1/3  
Capacity ..... 8 GPM @ 15 PSI [30 LPM @ 1.0 bar]  
Centrifugal pump mounted on rubber pads over a stainless steel condensation tray. All piping and fittings plastic, copper, or brass and insulated with closed cell thermo-elastomer with an R factor of 3.7. Supplied with manual on/off switch.

THERMOSTAT: Adjustable Range ..... 40° to 90°F [5° to 32°C]  
Temperature Stability ..... ±1.5°F [0.8°C]

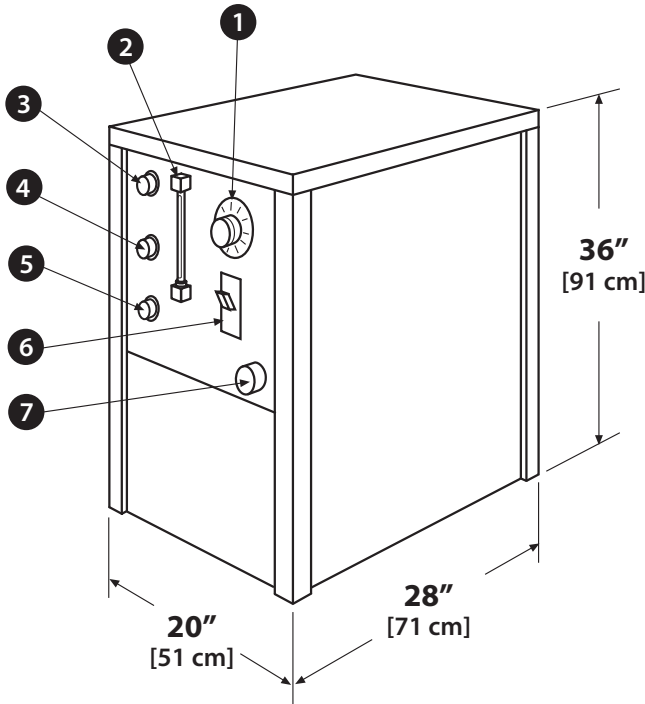
CABINET: Enameled aluminum panels with stainless steel corner legs and top. Panels removable for access to all components.

SUPPLY POWER ..... 115 or 230/60/1  
FLA Amps Maximum ..... 18 or 9

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

PLUMBING CONNECTIONS IN & OUT ..... 1/2" FPT [13 mm]  
SHIPPING WEIGHT ..... 325 lbs [146 Kg]

## STANDARD MODELS— Suffix A & W



### LEGEND

1. Temperature Control
2. Level Gauge
3. Fill Port
4. Coolant Return
5. Coolant Discharge
6. On/Off Switch
7. Electrical Connection

Chiller dimensions and shipping wts. may vary depending on options. All information given on this bulletin is for general use only. Confirm specifications with factory for your specific requirement.

### EXPLANATORY NOTES

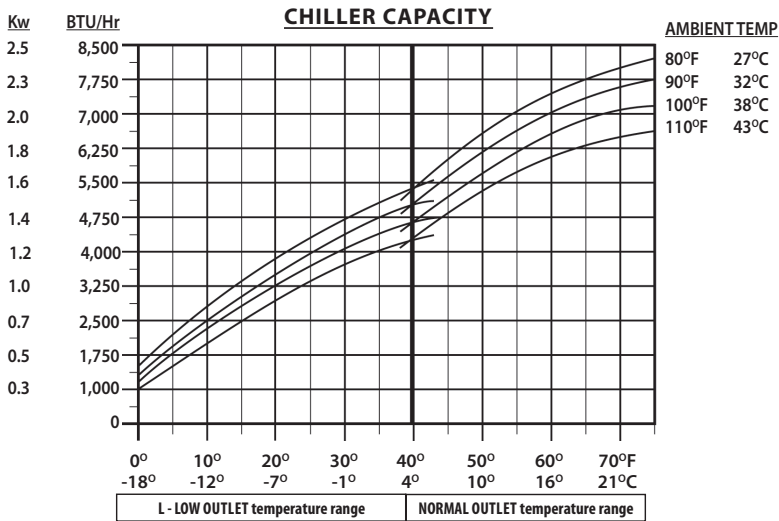
**VENTILATION PANELS:** Standard models — air intake at right end and air discharge at rear on A & WP models. Allow 12" [30 cm] clearance at these ends.

**REMOVABLE SERVICE PANELS:** Front & rear on all models.

**SERVICE ROOM:** Allow 16" [40 cm] at left end and 22" [55 cm] at front for service.

**INSTALLATION & SERVICE:** Arranging for installation, start-up and service is the responsibility of the purchaser.

**WARRANTY:** All parts are covered F.O.B. factory for 15 months from date of shipment.



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

MODEL NUMBER*	PUMP CAPACITY							
	GPM @ PRESSURE SHOWN							
	psi	5	10	20	40	60	80	100
	ft	12	23	46	92	138	184	231
STD-1/3C		20	15	4	—	—	—	—
OP-1/2C		30	20	15	—	—	—	—
OP-1/3T		7	7	7	7	7	5	3
OP-1/2T		8	8	8	8	8	8	7

\*Standard pump is 1/3 HP, centrifugal. Optional pumps [OP] include centrifugal [C] or turbine [T] models. All turbine pumps include an adjustable pressure relief bypass in lieu of a manual bypass valve.