REJCIRULATING LOOP CHILLERS

MODEL ............................ PCP or POC-4000-430

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 ensure constant temperature in the sump.

SPECIFICATIONS

COOLING CAPACITY: BTU/HR ................................................................. 430,000

Watts ........................................................................................................... 126,025

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

COMPRESSOR: HP ...................................................................................... 40

Field serviceable semi-hermetic type supplied with 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, dehydrator and oil separator.

STANDARD CONDENSERS  (Designated by suffix)
A Fan cooled condenser for indoor installation
W Water cooled condenser for hookup to city or tower water
AR Remote air cooled condenser furnished separately for mounting on roof.

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

COOLING TANK & EVAPORATOR: Capacity ......................... 320 gal (1,211 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 ................................................................................................. 3

Capacity ............................................................................................... 50 gpm (190 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°F to 90°F (5°F to 32°C)

Temperature Stability ........................................................................ ±2°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: .............................................................. 230/60/3 or 460/60/3

FLA Amps Maximum: ............................................................. 175 or 88

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
### CHILLER DIMENSIONS and WEIGHTS

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>W</th>
<th>D</th>
<th>H</th>
<th>SHIP WT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in</td>
<td>cm</td>
<td>in</td>
<td>cm</td>
</tr>
<tr>
<td>PCP or POC 4000-430-A</td>
<td>140</td>
<td>356</td>
<td>87</td>
<td>221</td>
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<tr>
<td>PCP or POC 4000-430-W</td>
<td>116</td>
<td>295</td>
<td>62</td>
<td>157</td>
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<tr>
<td>PCP or POC 4000-430-AR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCP or POC 4000-430-A-WP</td>
<td>140</td>
<td>356</td>
<td>87</td>
<td>221</td>
</tr>
</tbody>
</table>

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

### STANDARD MODELS

**Suffix A, W, AR & A-WP**

![Diagram of chiller]

**NOTE:** Manufacturer recommends 36” clearance at front for service and 18” clear space opposite all ventilation panels.

### STANDARD OPERATING CONDITIONS

**OUTDOOR AMBIENT**
- -20°F to 100°F (-29°C 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

- **Standard A & A-WP models:** air intake at front, rear and right end; air discharge out top

### 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.

### PUMP MODEL

<table>
<thead>
<tr>
<th>GPM @ PRESSURE SHOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>psi 25</td>
</tr>
<tr>
<td>ft 58</td>
</tr>
</tbody>
</table>

- **STD-3C:** 120 80 50
- **OP-5C:** 140 120 80 60

* Standard pump is 3HP, centrifugal (C) Optional pumps (OP) are available

### CHILLER CAPACITY

**Ambient Temp**
- 80°F 27°C
- 90°F 32°C
- 100°F 38°C
- 110°F 43°C

**L - Low Outlet Temp Range**
- 8°F -12°F
- 0°F 0°F
- 10°F 16°F
- 18°F 21°C

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