

# **ONE-PASS CHILLER**



# **APPLICATIONS**

Ingredient Make-up **Poultry Cooling** Bottling Dispensers **Pharmaceuticals Boiler Feed Samples** 

**Reverse Osmosis** Ice Machines **Spray Washes** Beverages **Eye Wash Water** 

#### **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 range of 40° to 90°F [5° to 32°C] and will hold temperature within  $\pm 1.5^{\circ}F$  [1°C] of setting.

## Welded Stainless Steel Cooling Tank

Coolant sealed from the atmosphere, eliminates bacterial build-up and internal corrosion.

# **Uses HFO Refrigerant**

Ozone Safe - Low Global Warming Potential (GWP)

#### **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.

## 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 ...... PC-500G

# DESCRIPTION

A completely packaged liquid chiller designed for applications where the liquid to be cooled passes through the chiller only once before either being added as an ingredient to a product or fouled by the product it is cooling. It is most important that a one-pass chiller be able to chill liquids at high and low flow rates without significant pressure drop or danger of freeze up, and yet have close, accurate temperature control.

Filtrine PC chillers are specifically designed for one-pass cooling. A high transfer immersion coil evaporator supplies maximum capacity at any flow rate with no pressure drop. Storage tank design permits close temperature control without short-cycling.

# **SPECIFICATIONS**

COOLING CAPACITY @ 68°F discharge and 90°F ambient

	BTU/HR	WATTS	FLA @ 230 / 460
PC-500G-48	48,000	14,064	24 / 12
PC-500G-60	60,000	17,580	26 / 13
PC-500G-70	70,000	20,510	28 / 14

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

# COMPRESSOR HP...... 5

Lifetime lubricated, hermetic scroll type supplied with high/low pressure stat, freeze control, head and suction gauges, liquid line solenoid valve, thermo-static expansion valve, refrigerant sight glass and dehydrator.

STANDARD CONDENSERS [Designated by suffix]

Α Fan cooled condenser for indoor installation

AR Remote Air cooled condenser furnished separately for mounting on roof

Water cooled condenser for hookup to city or tower water

**A-WP** Weather-resistant for outdoor installation

# COOLING TANK & EVAPORATOR

Capacity...... 50 gal [190 ltr] Welded stainless steel shell and immersion coil evaporator. Tank tested at 250# for 125# working pressure and insulated with closed cell thermo- elastomer with an R factor of 3.7 and enclosed in rustproof steel jacket.

THERMOSTAT: Adjustable Range ......40° to 90°F [5° to 32°C] Temperature Stability..... ± 1.5°F [1°C]

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

PLUMBING CONNECTIONS IN & OUT ...... 1" [25 mm] FPT SHIPPING WEIGHT ...... SEE CHART ON OTHER SIDE

> **ENERGY SAVING OPTIONS AVAILABLE CONSULT FACTORY**





CHILLER DIMENSIONS & WEIGHTS								
Model	W		D		Н		SHIP WT	
Number	in	cm	in	cm	in	cm	lb	kg
PC-500G-A	72	183	35	89	60	152		
PC-500G-W	72	183	30	76	60	152		
PC-500G-AR	72	183	30	76	60	152		
PC-500G-A-WP*	72	183	35	89	70	178	1800	810
PC-500G-A-SSD**	48	130	35	89	90	229		
PC-500G-W-SSD**	40	102	30	76	84	213		
PC-500G-AR-SSD**	40	102	30	76	84	213		

<sup>\*</sup>Low, profile, weather-resistant for rooftop mounting

NOTE: Chiller dimensions and shipping weights may vary depending on options, confirm with factory.

### **VENTILATION PANELS**

**Standard A and A-WP models:** air intake at rear, air discharge out frontand right end. **LP models:** air intake rear, air discharge out both ends and top. Manufacturer recommends 24" [61 cm] minimum clear space opposite all ventilation panels.

### REMOVABLE SERVICE PANELS

Front and rear on all models. Manufacturer recommends 36" [91 cm] clearance at front for service.

### **CHANNEL SKIDS**

Channel skids project 2" [5 cm] front and rear. Allow additional 2" [5 cm] to height for channel skids. Center of 5/8" [1.6 cm] mounting holes located 6" [15 cm] from chiller end and 1" [2.5 cm] from chiller edge front and rear.

# STANDARD OPERATING CONDITIONS

**OUTDOOR AMBIENT** 

-20° to 100°F [-29° to 38°C]

# **OPTIONAL OPERATING CONDITIONS**

**OUTDOOR AMBIENT** 

Up to 110°F [43°C]

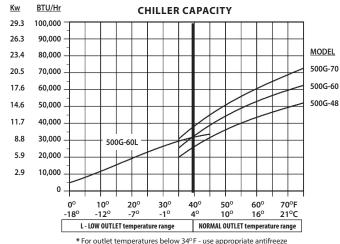
Up to 120°F [49°C]

Down to -30°F [-34°C]

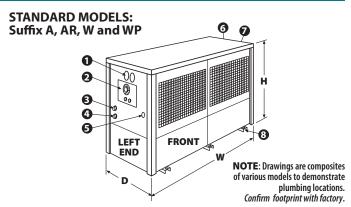
NOTE: Higher ambient options may affect unit dimensions.

### REMOTE CONDENSER

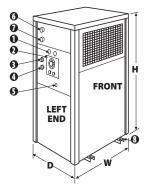
Use w/standard or SSD models: Furnished complete w/controls for operating in ambient temperatures to minus 20°F [-29°C], consult factory for specs. Connections for remote condenser are at right end of chiller cabinet.



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SSD - SPACE SAVING DESIGN MODELS: Suffix A, AR & W [A-WP not available in SSD model]



#### **LEGEND**

- 1. Gauges
- 2. Control Panel
- 3. Coolant In
- 4. Coolant Discharge
- To Remote Condenser (AR Models) Condenser Water Out (W Models)
- 7. From Remote Condenser (AR Models) Condenser Water In (W Models)
- 5. Electrical Connection 8. Channel Skids

GPH – CHILLER COOLING CAPACITY								
MODEL NUMBER	MAKE UP	CHANGE IN TEMPERATURE THROUGH CHILLER						
	WATER	5ºF	10°F	20°F	30°F	40°F		
PC-500G-70	90°F	-	-	422	241	145		
	80°F	1831	843	361	193	99 <b>*</b>		
	70°F	1325	723	289	121*	78 <sup>*</sup>		
	60°F	964	576	181 <mark>*</mark>	104 <sup>*</sup>	60*		
	50°F	482	361 <mark>*</mark>	157 <mark>*</mark>	80 <mark>*</mark>	30 <del>*</del>		
	40°F	72 <mark>*</mark>	313 <mark>*</mark>	121 <mark>*</mark>	40 <sup>*</sup>	15 <sup>*</sup>		
PC-500G-60	90°F	-	-	361	201	120		
	80°F	1590	723	301	161	75 <mark>*</mark>		
	70°F	1349	602	241	100 <b>*</b>	78 <mark>*</mark>		
	60°F	1064	482	151 <mark>*</mark>	104 <mark>*</mark>	60 <mark>*</mark>		
	50°F	795	301 <mark>*</mark>	157 <mark>*</mark>	80 <del>*</del>	30 <mark>*</mark>		
	40°F	361 <mark>*</mark>	313 <mark>*</mark>	121 <mark>*</mark>	40 <sup>*</sup>	15 <sup>*</sup>		
PC-500G-48	90°F	-	_	289	169	97		
	80°F	1253	578	253	131	54 <mark>*</mark>		
	70°F	1064	506	196	72 <mark>*</mark>	78 <mark>*</mark>		
	60°F	916	391	108 <mark>*</mark>	104 <sup>*</sup>	60 <mark>*</mark>		
	50°F	626	217 <mark>*</mark>	157 <mark>*</mark>	80 <mark>*</mark>	50 <mark>*</mark>		
	40°F	241*	313*	121*	40*	40 <b>*</b>		
* Agitation pump re	equired	•	•		_			

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





<sup>\*\*</sup>Space Saving Design