

ONE-PASS CHILLER



TYPICAL CHILLER SHOWN

APPLICATIONS

Photo Developing
Ingredient Make-up
Poultry Cooling
Bottling
Dispensers
Pharmaceuticals

Reverse Osmosis
Ice Machines
Spray Washes
Beverages
Eye Wash Water
Boiler Feed Samples

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 $\pm 2^\circ\text{F}$ [1°C] of setting.

Welded Stainless Steel Cooling Tank

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

Uses HFC Refrigerant

Eliminates use of ozone-depleting refrigerant as per Montreal Protocol.

Unlimited Options

Design the perfect cooling system for any application. Over 50 options to meet almost any special need. Refer to Bulletin O & A.

LIFETIME WARRANTY Consult factory for details.

ONE YEAR WARRANTY All parts covered FOB jobsite for [12] months from start-up date or [15] months from date of shipment, whichever comes first. Consult factory for details.

START-UP and FIRST YEAR SERVICE Filtrine can arrange start-up and first year service on all parts and labor. Regular maintenance, to help prevent costly down-time, is available on a contractual basis. Consult factory for details.

MODEL PC-5000-540

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

BTU/HR 540,000

Watts 158,264

Rating Conditions

Coolant Discharge Temperature 68°F [20°C]

Ambient Temperature 90°F [32°C]

Flow rate 50 gpm [190 lpm]

COMPRESSOR HP DUAL 25

Field servicable 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]

-W Water cooled condenser for hookup to city or tower water

-AR Remote air cooled condenser for outdoor installation

COOLING TANK & EVAPORATOR

Capacity 280 gal [1064 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 rust-proof steel jacket.

THERMOSTAT: Adjustable Range 40° to 90°F [5° to 32°C]

Temperature Stability $\pm 2^\circ\text{F}$ [1°C]

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

SUPPLY POWER: 208-230/60/3 or 460/60/3

FLA Amps Maximum: 190 or 96

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

PLUMBING CONNECTIONS IN & OUT 2-1/2" [63 mm] FPT

SHIPPING WEIGHT SEE CHART ON REVERSE

CHILLER DIMENSIONS and WEIGHTS

FILTRINE Model No.	W		D		H		SHIP WT	
	in	cm	in	cm	in	cm	lb	kg
PC-5000-540-AR	116	295	62	157	70	179	5600	2520
PC-5000-540-W	116	295	62	157	70	179		

NOTE: Chiller dimensions and shipping wts. may vary depending on options - confirm with factory.

LEGEND

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

VENTILATION PANELS

Recommend 3 ft. 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 mounting holes located 6" [15 cm] from chiller end and 1" [2.5 cm] from chiller edge front and rear. Skids add 2" [5cm] to overall height.

STANDARD OPERATING CONDITIONS

OUTDOOR AMBIENT
-20° to 100°F [-29° to 38°C]

OPTIONAL OPERATING CONDITIONS

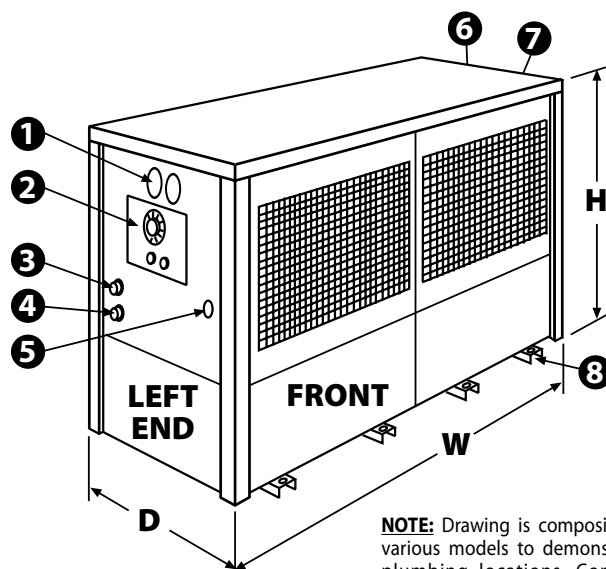
OUTDOOR AMBIENT
Up to 110°F [43°C]
Up to 120°F [49°C]
Down to -30°F [-34°C]

NOTE Higher ambient options may affect unit dimensions.

REMOTE CONDENSER

AR model furnished complete w/controls for operating in ambient temperatures to minus 20°F [-29°C]. Connections for remote condenser are at right end of chiller cabinet.

STANDARD MODELS: Suffix AR and W



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

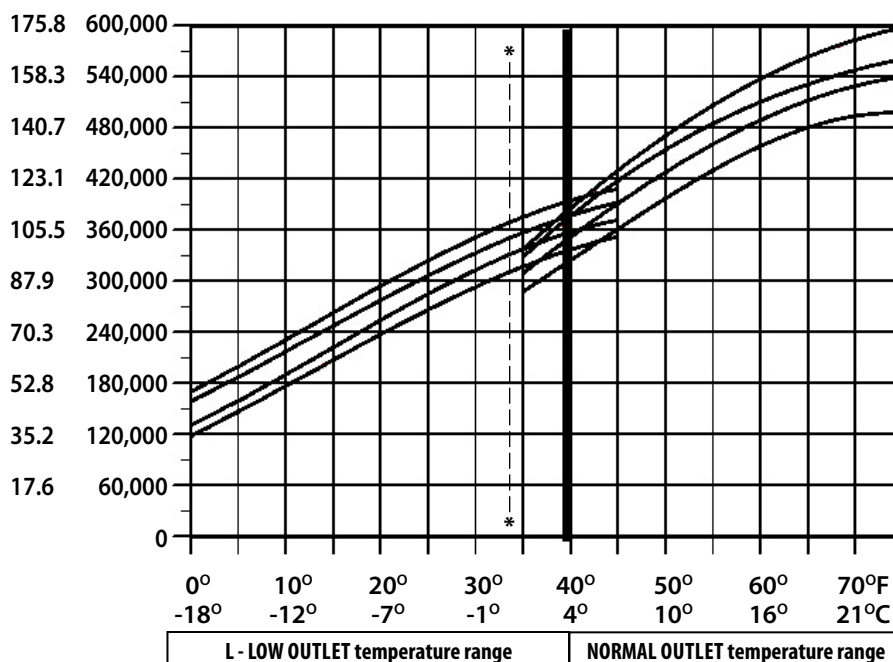
GPM - CHILLER COOLING CAPACITY

CHILLER MODEL NUMBER	MAKE UP WATER	CHANGE IN TEMPERATURE THROUGH CHILLER				
		5°F	10°F	20°F	30°F	40°F
PC-5000-540	90°F	241	114	54	34	23
	80°F	217	108	51	30	19
	70°F	209	102	45	26	17*
	60°F	193	90	39	22*	14*
	50°F	169	78	33*	18*	—
	40°F	133*	66*	27*	—	—

* Agitation pump required

Kw BTU/Hr

CHILLER CAPACITY



AMBIENT TEMP

80°F 27°C
90°F 32°C
100°F 38°C
110°F 43°C

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