



**MANUFACTURED**  
with high-quality components  
and innovative techniques

**DESIGNED**  
for economical, trouble-free  
performance and long-life reliability



**SUPPORTED**  
by a world-wide distribution network

**REFRIGERATED  
WATER CHILLERS**



# Pneumatech's

## Refrigerated Water Chillers

### Applications

Injection & Blow Molding	Welding Equipment	Laboratory Equipment
Thermoforming	Heat Treating	Food Processing
NC Machining	Die Casting	Soap Formulation
Metalworking Cutting Oils	Chemical Processing	Offset Printing
Pipe & Sheet Extrusion	Pharmaceutical Formulation	

Models available from 1/4 to 100 ton capacity, air-cooled or water-cooled. Larger, specialty sizes are also available.

### Advanced Design Chiller System

Pneumatech water chillers feature an advanced design chiller system that ensures precise liquid outlet temperature control to your process. All models feature high efficiency refrigeration systems and close approach stainless steel heat exchangers for maximum heat transfer. Pneumatech water chillers are manufactured using industrial grade components and are equipped with the proper controls and protection safeties to ensure reliable operation and long life. Models PCA-100 and larger are available with the choice of air-cooled or water-cooled type refrigeration condensers. Smaller models are available in air-cooled only.

### Features

- Advanced design chiller system
- High efficiency refrigeration condenser (available in air or water cooled)
- Compressor overload protection for safety and long life
- Crankcase heater & service valves on the compressor for easy maintenance and servicing
- Condenser fan motors with ball bearings for long life
- Fan cycling control for constant performance in varying ambient conditions
- Balanced-port design Thermostatic Expansion valve for steady performance
- Refrigerant sight glass for easy maintenance
- Refrigerant system accumulator for compressor protection
- Electronically controlled hot gas bypass valve for precise temperature control
- Power on/off switch with power on light
- Refrigerant high temperature light
- Refrigerant suction pressure gauge
- Liquid inlet temperature gauge
- NEMA 1 electrical
- Closed-cell elastomeric thermal insulation on all cold surfaces
- Factory tested with full refrigerant and oil charge
- Factory tested safety controls for trouble free start up and automatic operation

### Digital Temperature Monitor (Optional)

Monitor displays six temperature functions:

1. Refrigerant suction
2. Refrigerant discharge
3. Chilled water entering
4. Chilled water leaving
5. Condenser water inlet\*
6. Condenser water outlet\*\*



\* Ambient temperature - air-cooled models

\*\* Not used in air-cooled units

# Features

## And Special Options

### **Additional Standard Features for Larger Chillers (15 ton through 100 ton)**

- Semi-hermetic refrigeration compressor with unloading (75 ton and larger use multiple compressors)
- Refrigerant dual-pressure & oil-pressure controls
- Direct expansion design
- Vertical air flow condenser(15 ton and larger)
- Compressor running lights
- Water inlet & outlet pressure and temperature gauges
- Refrigerant discharge pressure gauge
- Oil pressure gauges
- Open frame design for ease of maintenance and service



PCA - 6000

### **Available Options**

- Water pump
- Water storage reservoir
- Digital temperature monitor (six function)
- Outlet water temperature gauge
- Inlet/outlet water pressure gauge
- Ambient filter
- Remote air-cooled condenser
- Low ambient headmaster control
- NEMA 3R, 4, 4X, 7, 9 and 12 electrical
- Heat recovery package (available on air-cooled units)
- Dual independent refrigeration circuits
- Casters are available for smaller, portable units (through 10 ton)

# SPECIFICATIONS

MODEL	REFRIGERATION H.P. (TONS)	RATED CAPACITY (BTU/HR)			DIMENSIONS (INCHES) (MILLIMETERS) L x W x H	VOLTAGE	INLET & OUTLET COINN	APPROX. SHIP WT. LBS. (KGS.)
		40°F WATER OUT	50°F WATER OUT	60°F WATER OUT				
PCA-25	.25	1,980	2,350	2,750	17 x 18.5 x 17.5 (432 x 470 x 445)	115-1-60 208/230-1-60	.5" NPT	120 (54)
PCA-33	.33	3,160	3,730	4,350	17 x 18.5 x 17.5 (432 x 470 x 445)	115-1-60 208/230-1-60	.5" NPT	125 (57)
PCA-50	.5	4,000	4,880	5,800	17 x 18.5 x 17.5 (432 x 470 x 445)	115-1-60 208/230-1-60	.5" NPT	155 (70)
PCA-75	.75	5,580	6,680	7,890	32 x 23 x 32 (813 x 584 x 813)	115-1-60 208/230-1-60	.5" NPT	275 (125)
PCA-100	1	8,922	11,282	14,130	32 x 23 x 32 (813 x 584 x 813)	208/230-1-60	.75" NPT	330 (150)
PCA-150	1.5	14,000	17,000	18,500	32 x 23 x 32 (813 x 584 x 813)	208/230-3-60 460-3-60	.75" NPT	375 (170)
PCA-200	2	17,100	20,800	24,500	39 x 31 x 44 (991 x 787 x 1118)	208/230-3-60 460-3-60	1" NPT	650 (295)
PCA-300	3	28,000	33,750	39,500	39 x 31 x 44 (991 x 787 x 1118)	208/230-3-60 460-3-60	1" NPT	660 (299)
PCA-400	4	38,550	46,000	52,500	53 x 33 x 45 (1346 x 838 x 1143)	208/230-3-60 460-3-60	1" NPT	1,050 (476)
PCA-500	5	45,500	54,100	61,450	53 x 33 x 45 (1346 x 838 x 1143)	208/230-3-60 460-3-60	1.5" NPT	1,250 (567)
PCA-750	7.5	67,697	88,250	111,735	72 x 42 x 60 (1829 x 1067 x 1524)	208/230-3-60 460-3-60	1.5" NPT	1,625 (737)
PCA-1000	10	98,471	120,760	145,890	72 x 42 x 60 (1829 x 1067 x 1524)	208/230-3-60 460-3-60	2" NPT	1,700 (771)
PCA-1500	15	145,063	178,624	216,061	CF	208/230-3-60 460-3-60	2.5" NPT	2,900 (1,315)
PCA-2000	20	163,300	210,100	258,300	CF	208/230-3-60 460-3-60	2.5" NPT	CF
PCA-2500	25	213,900	264,900	322,100	CF	208/230-3-60 460-3-60	2.5" NPT	CF
PCA-3000	30	287,100	349,000	423,000	CF	208/230-3-60 460-3-60	3" NPT	CF
PCA-3500	35	334,500	411,100	498,900	CF	208/230-3-60 460-3-60	4" FLG	CF
PCA-4000	40	369,200	453,900	551,200	CF	208/230-3-60 460-3-60	4" FLG	CF
PCA-5000	50	442,000	546,100	667,400	CF	208/230-3-60 460-3-60	4" FLG	CF
PCA-6000	60	512,400	633,800	772,900	CF	208/230-3-60 460-3-60	5" FLG	CF
PCA-8000	80	738,400	907,800	1,102,400	CF	208/230-3-60 460-3-60	5" FLG	CF
PCA-10000	100	884,000	1,092,200	1,334,800	CF	208/230-3-60 460-3-60	6" FLG	CF

CF = Consult Factory

\*Dimensions and weights may increase if pump and reservoir options are taken.

NOTE: "A" designates air-cooled condenser; "W" designates water-cooled condenser. Models PCA-100 and larger available in air-cooled or water-cooled condenser.

Open frame design on model 750 and larger.

## CAPACITY CORRECTION FACTOR (C<sub>G</sub>) FOR % GLYCOL SOLUTION

% GLYCOL	0	10	20	30	40	50
FREEZING TEMP.	32°F (0°C)	25°F (-4°C)	14°F (-10°C)	3°F (-16°C)	-13°F (-25°C)	-33°F (-36°C)
FACTOR, C <sub>G</sub>	1.0	.98	.96	.94	.90	.87

### Total Heat Load Calculation:

Total Heat Load = (GPM) x (500) x ΔT (°F)    ΔT = (Water Inlet Temp.) – (Water Outlet Temp.)  
(BTU/HR)

### Refrigerated Water Chiller Sizing Calculation

Total Heat Load = (Rated Capacity) x (CG)

### QUALITY ASSURANCE

Pneumatech chillers are fully automatic, self-contained units. Every component is specially selected to meet Pneumatech's strict specifications. All chillers are pretested before shipment.

Pneumatech's ongoing investment in research and development results in continuous product improvements. Changes in specifications or product designs in connection with any product feature do not entitle the purchaser to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

### WARRANTY

All Pneumatech chillers are warranted for 14 months after shipment or 12 months after installation, whichever comes first.

Distributed By:

**PNEUMATECH INC.**  
& **ConservAIR® Technologies Co. LLP**

4909 70th Avenue • Kenosha, Wisconsin U.S.A. 53144  
(262) 658-4300 • Fax: (262) 658-1945 • www.pneumatech.com



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