APPENDICES

APPLICATIONS
Jacket Cooling
Lasers
Induction Heaters
Machine Tools
Welders
MRI Equipment
CAT Scans

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 within a range of 40°F to 90°F (5°C to 32°C) and will hold temperature within ±2°F (1°C) of setting. (1°F 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 (www.filtrine.com/chillers/options-and-accessories) for more information.

ENERGY SAVING OPTIONS AVAILABLE
CONSULT FACTORY

MODEL ......................... PCP or POC-8000-860
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 .......................................................... 860,000
Watts .................................................................................................................. 252,052

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

COMpressor: HP ................................................................................... DUAL 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)
W Water cooled condenser for hookup to city or tower water
AR Remote air cooled condenser furnished separately for mounting on roof
AR-WP Remote air cooled condenser; complete unit made weather-resistant for outdoor installation

COOLING TANK & EVAPORATOR: Capacity .............................. 540 gal (2,044 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 ........................................................................................................................... 5
Capacity .......................................................... 80 gpm (303 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°C 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: .................................................. 350 or 175

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

PLUMBING CONNECTIONS IN & OUT .................................. 3" (75mm) MPT

SHIPPING WEIGHT ............................................... Chart on reverse

Filtrine Mfg. Co. • 15 Kit St. Keene, NH 03431 USA
800-930-3367 • 603-352-5500 • FAX 603-352-0330
WEB www.filtrine.com • EMAIL cool@filtrine.com

609-80
[PCP – POC 8000-860]
REV. 07.11.19
STANDARD MODELS
Suffix W, AR & AR-WP

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

DRAWING LEGEND
1 Air Vent
2 Fill Port
3 Coolant Return
4 Coolant Discharge
5 Control Panel
6 Gauges
7 To Remote Condenser (AR units)
8 From Remote Condenser (W units)
9 Electrical Connection
10 Channel Skids

NOTE: Drawings are not to scale. Shown are composites of various models to illustrate hook-up locations. Confirm footprint with factory.

PUMP CAPACITY

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<tr>
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CHILLER DIMENSIONS and WEIGHTS

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

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.

REMOVABLE SERVICE PANELS
Front & rear on all models.

CHANNEL SKIDS
Channel skids project 2" (5cm) 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.

CHILLER CAPACITY

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

L - LOW OUTLET temperature range
NORMAL OUTLET temperature range

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

STANDARD MODELS
Suffix W, AR & AR-WP

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

DRAWING LEGEND
1 Air Vent
2 Fill Port
3 Coolant Return
4 Coolant Discharge
5 Control Panel
6 Gauges
7 To Remote Condenser (AR units)
8 From Remote Condenser (W units)
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