



**TYPICAL CHILLER**

#### FEATURES

- Uses HFO “Ozone Safe - Low GWP” refrigerant
- Optional anodized aluminum and stainless steel exterior for a lifetime of service

#### DESCRIPTION

A closed loop, packaged chiller designed specifically to cool [2] High Energy Varian Clinacs [7.5cl] 2100C/D, 2300C/D, 21EX, 23EX, IX, Trilogy & Novalis Tx and True Beam to recirculate a clean coolant at a constant temperature, pressure and flow. Ideal for all installations where a dependable source of clean cooling water is not available.

Filtrine PCP 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 or fouling, and supplied with a liquid level gauge, fill port and clean out. The pump recirculates the coolant at a constant temperature, pressure and flow.

The chiller is available in four standard configurations. The self-contained air cooled model should be installed in a well ventilated room. The water cooled model may be installed in a non-ventilated room but requires a source of condenser cooling water. The remote air cooled model may be installed in a non-ventilated area with the condensers mounted outdoors. The weather-resistant model would be installed completely outdoors.

#### ENERGY SAVING OPTIONS AVAILABLE CONSULT FACTORY

##### 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..... TPCP-1500G-180-DUC [2] SCROLL COMPRESSORS

##### SPECIFICATIONS:

##### Cooling Capacity:

Btu/hr..... 180,000

Watts .....52,755

##### Rating Conditions:

Coolant Discharge Temperature .....68°F [20°C]

Ambient Air Temperature .....90°F [32°C]

Condensing Unit: Compressor HP ..... [2] 7-1/2

Description: Dual scroll compressors with condenser as specified [see options below], supplied with high/low pressure stat, freeze control, pump-down solenoid valve, head and suction gauges, thermostatic expansion valve, refrigerant sight glass and dehydrator.

##### Condenser Options [see back for further details]:

**A** Self-contained air cooled condenser

**W** Water cooled condenser

**AR** Remote air cooled condenser

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

Cooling Tank & Evaporator: Capacity ..... 170 Gals. [646 L]

Construction: Welded stainless steel shell with stainless steel immersion coil evaporator. Tank tested at 250# for 125# working pressure, supplied with drain connection and insulated with closed cell thermo-elastomer with an R factor of 3.7.

Pump: Motor HP .....2

Capacity .....16 GPM @ 30 PSI [61 LPM @ 2 bar]

Description: Stainless steel centrifugal pump mounted on a rubber pad over a stainless steel condensation tray and supplied with unions and service valves and a manual bypass valve. All piping and fittings brass, copper or bronze, and insulated with closed cell thermo-elastomer with an R factor of 3.7.

Adjustable Differential Thermostat:.....40° to 90°F [4° to 32°C]

Temperature Stability..... ±1.5°F [0.8°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:..... 208-230/60/3 or 460/60/3

Full Load Amps.....60 or 30

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

Plumbing Connections In & Out..... 1-1/2" MPT

Decibel Rating [nominal at 5 ft.] .....74dBA

Shipping Weight ..... Chart on reverse

##### “Fail Safe” Options: [Designated by suffix]

**DPA DUAL PUMPS:** Automatic switchover to backup pump on loss of coolant.

**LL LOW LEVEL INTERLOCK:** Float switch in tank lights a warning light if coolant level drops below safe low limit.

**LF LOW FLOW INTERLOCK:** Flow switch lights a warning light if flow rate drops below safe low limit.

**HT HIGH TEMPERATURE INTERLOCK:** Thermostat lights a warning if coolant temperature rises above safe high limit.

**AS AUTOMATIC SWITCHOVER TO CITY WATER:** In case of pump or compressor failure, city water switchover solenoids are activated to allow for temporary cooling using city water.

**CHILLER DIMENSIONS & WEIGHTS  
BASED ON STANDARD AMBIENT CONDITIONS  
[INDOOR UP TO 90°F & OUTDOOR UP TO 100°F]**

| CHILLER DIMENSIONS and WEIGHTS                                                        |     |     |    |     |    |     |             |      |
|---------------------------------------------------------------------------------------|-----|-----|----|-----|----|-----|-------------|------|
| FILTRINE<br>MODEL NUMBER                                                              | W   |     | D  |     | H  |     | SHIPPING WT |      |
|                                                                                       | in  | cm  | in | cm  | in | cm  | lb          | kg   |
| TPCP-1500G-A-DUC                                                                      | 136 | 346 | 54 | 137 | 80 | 203 | 3500        | 1575 |
| TPCP-1500G-W-DUC                                                                      | 104 | 264 | 54 | 137 | 70 | 178 |             |      |
| TPCP-1500G-AR-DUC                                                                     | 104 | 264 | 54 | 137 | 70 | 178 |             |      |
| TPCP-1500G-A-WP-DUC                                                                   | 136 | 346 | 54 | 137 | 80 | 203 |             |      |
| TPCP-1500G-A-WP-LP-DUC*                                                               | 140 | 356 | 87 | 221 | 44 | 112 |             |      |
| *Low profile , weather-resistant unit for rooftop installation                        |     |     |    |     |    |     |             |      |
| NOTE: Chiller dimensions and shipping weights may vary depending on options installed |     |     |    |     |    |     |             |      |

### STANDARD CONDENSER OPTIONS

- A SELF-CONTAINED AIR COOLED CONDENSER:**  
With a lifetime lubricated welded hermetic compressor.
- W WATER COOLED CONDENSER:**  
Same specifications as self-contained air cooled models with water cooled condenser for hookup to city or tower water.
- A-WP WEATHER-RESISTANT OUTDOOR INSTALLATION:**  
Same specifications as self-contained air cooled models, but packaged for outdoor installation. [Not available in space saving design models.]
- A-WP-LP WEATHER-RESISTANT OUTDOOR INSTALLATION-LOW PROFILE:**  
Same specifications as weather-resistant model above but in low profile design for mounting on roof.
- AR REMOTE AIR COOLED CONDENSER:**  
Same specifications as self-contained air cooled models but with weather-resistant air cooled remote condenser furnished separately for mounting outdoors in ambients up to 100°F [38°C]. For higher ambients, see HA options. Consult factory for condenser specifications.

### STANDARD OPERATING CONDITIONS

#### INDOOR AMBIENT:

50° to 100°F [10° to 38°C]

#### OUTDOOR AMBIENT:

-20° to 100°F [-29° to 38°C]

### OPTIONAL OPERATING CONDITIONS

#### OUTDOOR AMBIENT:

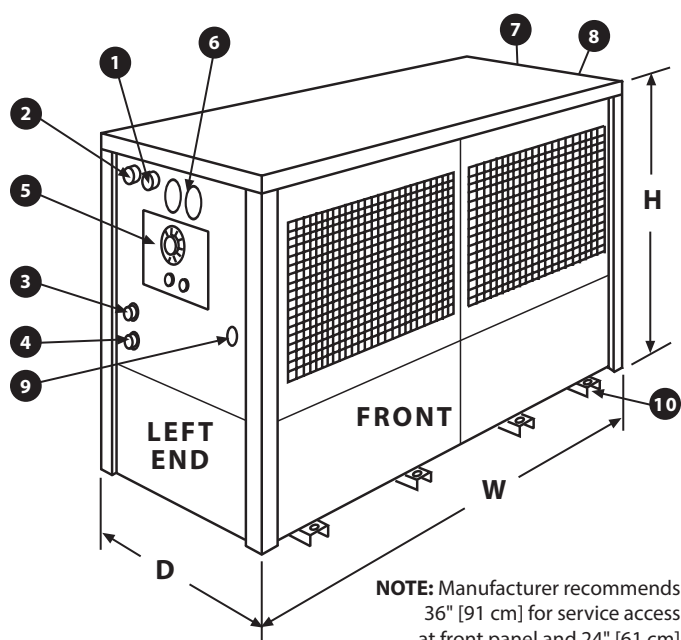
Up to 110°F [43°C]

Up to 120°F [49°C]

**NOTE:** Higher ambient options may affect unit dimensions.

**All information given on this bulletin is for general use only. Please confirm specifications with factory for your specific requirement.**

### STANDARD MODELS— Suffix A, W, AR & A-WP



**NOTE:** Manufacturer recommends 36" [91 cm] for service access at front panel and 24" [61 cm] minimum clear space opposite all ventilation panels.

### LEGEND

- |                      |                                      |
|----------------------|--------------------------------------|
| 1. Air Vent          | 7. To Remote Condenser [AR models]   |
| 2. Fill Port         | Condenser Water Out [W models]       |
| 3. Coolant Return    | 8. From Remote Condenser [AR models] |
| 4. Coolant Discharge | Condenser Water In [W models]        |
| 5. Control Panel     | 9. Electrical Connection             |
| 6. Gauges            | 10. Channel Skids                    |

### VENTILATION PANELS

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

### REMOVABLE SERVICE PANELS

Front and 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.