



# FILTRINE MEDICAL & PROCESS WATER CHILLER 60+

## OPTIONS/ACCESSORIES TO MEET YOUR SPECIFIC REQUIREMENTS

*Options Identified By Suffix and Description*

### **SENSOR CONTROLS**

#### **ADT - AMBIENT DRIVEN THERMOSTAT**

Senses the ambient air temperature and maintains the chilled water at a fixed differential (plus or minus) from that ambient.\*

#### **CDT - COMPUTER DRIVEN THERMOSTAT**

Solid state temperature controller with appropriate output to communicate with computers.

#### **CTC - CLOSE TEMPERATURE CONTROL**

Solid state temperature controller and hot gas bypass maintain liquid temperature at  $\pm 0.5^{\circ}\text{F}$  [ $\pm 0.3^{\circ}\text{C}$ ] of setting.

#### **HGBP - HOT GAS BYPASS**

Allows compressor to run constantly without cycling. When thermostat is satisfied, liquid line solenoid closes causing the hot refrigerant gas to bypass through a regulating valve directly into the evaporator until the water temperature rises enough to reactivate the thermostat.

#### **PLC - PROGRAMMABLE LOGIC CONTROLLER**

Controls operation of refrigeration unit, circulation pump, fans and other accessories of Filtrine chillers. Compatible with most building monitoring systems. Available with touch screen display.

#### **SST - SOLID STATE THERMOSTAT**

Temperature controller available with a variety of outputs to operate customers' recording device or other communication functions. Controllers can also feature programming functions such as PD, PID, ramp/soak and deviation alarms.

### **TEMPERATURE RANGE**

#### **L - LOW TEMPERATURE**

Chill water down to  $34^{\circ}\text{F}$  [ $1^{\circ}\text{C}$ ] or antifreeze liquids down to  $0^{\circ}\text{F}$  [ $-18^{\circ}\text{C}$ ].\*

#### **ILH - IN-LINE HEATER**

Heat liquids to optimum temperature automatically. Specify heater KW and temperature range.

#### **H/C - HEAT OR COOL**

Switch instantly from hot to cold and back. Example: Heat up work piece for vacuum coating then quickly cool it down for handling. Example: Product testing with quick and extreme coolant temperature changes.\*

#### **MHC - MIXED HOT & COLD**

Complete dial-a-temp control over a wide temperature range. Outlet temperature will follow the set point control up or down as it is changed. Example: Ramp heating and cooling of electronic components for precise computer-monitored testing.\*

#### **BHC - BATH COIL HEATER/CHILLER**

Extremely wide range heater/chiller. Ideal for cooling fluids at high temperatures. Example: Heat up a device to optimum process temperature, then cool it to maintain that temperature during the process.\*

### **SWITCHES, INDICATORS AND ALARMS**

#### **DT - DIAL THERMOMETER**

Makeup and/or discharge temperature.

#### **DGT - DIGITAL THERMOMETER**

Makeup and/or discharge temperature.

#### **FCL - FILTER CHANGE LIGHT**

Warning light activates when water filter element needs changing.

#### **HT - HIGH TEMPERATURE INTERLOCK**

Warning set off when chiller temperature exceeds set high temperature, signifying refrigeration failure.

#### **PM - PHASE MONITOR**

Protection from under or over voltage, phase loss or reversal and short cycling automatic reset included.

#### **LF - LOW FLOW INTERLOCK**

Warning signal triggered upon low flow signifying pump failure.

#### **LL - LOW LEVEL INTERLOCK**

Float switch in tank activates a warning light if coolant level drops below safe limit.

#### **LP - LOW PRESSURE INTERLOCK**

Warning signal triggered upon low pressure; signifying pump failure.

#### **LT - LOW TEMPERATURE INTERLOCK**

In-line sensor sets off warning when chiller temperature falls below set low temperature.

#### **PG - PRESSURE GAUGE**

Return and/or discharge water pressure.

#### **FM - FLOW METER**

Indicates water flow in gpm or lpm.

#### **OPG - OIL PRESSURE GAUGE**

Analog or digital on semi-hermetic compressors only.

#### **HPG - HEAD PRESSURE GAUGE**

Analog or digital refrigerant gauge.

#### **SPG - SUCTION PRESSURE GAUGE**

Analog or digital refrigerant gauge.

#### **UVML - UV STERILIZER MONITOR LIGHT**

Light indicates in-line UV sterilizer requires maintenance.

### **FOR SPECIAL CONDITIONS**

#### **N12 - NEMA 12 ENCLOSURE**

Oil tight NEMA 12 external electrical enclosures.\*

#### **XP - EXPLOSION PROOF**

All motors, wiring and controls rated for Class 1, Group D, Division 1, explosive environment. Groups B and C available on some models.\*

#### **WP - WEATHER-RESISTANT**

For outdoor installation in most climates. Standard weather-resistant is sufficient for ambients between  $-20^{\circ}\text{F}$  [ $-29^{\circ}\text{C}$ ] and  $100^{\circ}\text{F}$  [ $38^{\circ}\text{C}$ ]. For higher ambients see the **HA OPTION**. For lower ambients consult factory.

#### **CF - COPPER FIN CONDENSER**

Condensers supplied with copper fins instead of aluminum to prevent corrosion from salt spray or chemicals in the air.

#### **DPD - DUST PROOF DESIGN**

Air filter on intake to condenser.

#### **SP - SOUND PROOF DESIGN**

Acoustical insulation on all panels to reduce noise.

#### **OSP - PRE-APPROVED FOR OSHPD SPECIAL SEISMIC CERTIFICATION**

By the State of California Office of Statewide Health Planning & Development Facilities Development Division for specific closed loop chiller models

#### **EC - EPOXY COATING**

Helps to protect the condenser in a marine/salt atmosphere.

### **PUMPS**

#### **OP/T - OPTIONAL PUMP, TURBINE**

Turbine or gear pump to provide head pressures up to 200 psi with flow rates less than 20 gpm.

#### **OP/C - OPTIONAL PUMP, CENTRIFUGAL**

Larger than normal centrifugal pump to provide higher head pressure and flow rates than standard.

#### **DP - DUAL PUMPS**

Provide complete backup. Available with automatic switchover in case of failure.

*Options available for both Medical and Process Liquid Chillers (PW) unless otherwise indicated.*

*\*PW only.*

**MORE OPTIONS ON REVERSE**



# FILTRINE MEDICAL & PROCESS WATER CHILLER OPTIONS/ACCESSORIES (continued)

## ACCESSORIES

### **QCP - QUICK CONNECT PANEL**

See at a glance if your chiller is operating correctly. Complete pre-plumbed diagnostic panel allows for instant availability to city water backup (optional), pressure and temperature gauges, flow meter and in-line bag filter. Housed in 18 ga. stainless steel corner legs and top, and clear aluminum panels.

### **PS - PURE SYSTEM**

For deionized water or other liquids that cannot come into contact with copper or brass. Evaporator fabricated from type 304 stainless steel with polypropylene piping and fittings. Type 316 stainless steel also available for salt water or acids.

### **ILF - IN-LINE FILTER**

Removes sediment from makeup water and/or from water in circulating loop. Filter elements available with rating of 1 to 75 microns.

### **ILD - IN-LINE DEIONIZER**

Installed in-line; specify requirements.

### **ILS - IN-LINE STERILIZER**

UV sterilizer installed in makeup line and/or recirculating line to kill bacteria and other waterborne microorganisms.

### **AF - AUTO FILL**

On closed-loop chillers, float switch senses liquid level in tank and activates solenoid valve on makeup line to keep tank full.

### **AAV - AUTO AIR VENT**

Automatically vents air from system.

### **LCI - LIQUID COOLANT INTERCHANGER**

Shell-in-tube or plate-type heat exchanger to cool corrosive, viscous or high temperature liquids.

### **BD - BATCH DRAW**

Stainless steel cooling tank automatically fills with water, which is constantly agitated and chilled to as cold as 34°F [1.1°C]. When water is drawn off, a solenoid valve shuts off the makeup water preventing the mixing of warm and chilled water and insuring a uniform batch temperature from first drop to last.\*

### **PRV - PRESSURE RELIEF BYPASS**

Release excess pressure from pump discharge back to return line.

## COMPRESSORS/CONDENSERS

### **AR - REMOTE AIR-COOLED CONDENSER**

Ready for remote installation outdoors or indoors.

### **ARC - REMOTE AIR COOLED CONDENSING UNIT**

Outdoor refrigeration system, indoor evaporator and pump only – saves indoor space, reduces noise, exhausts heat.

### **AB - BLOWER**

Built into cabinet for ducting hot air out of building.

### **W - WATER COOLED CONDENSER**

For hookup to city water, tower water or plant chilled water.

### **AS - AUTOMATIC SWITCHOVER**

Auto switchover to city water in case of pump or compressor failure.

### **HA - OVERSIZED CONDENSER**

For safe chiller operation in ambients over 100°F [38°C]. Specify maximum ambient of 110°F [43°C] or 120°F [49°C].

## ELECTRICAL

110-120/1/60, 220-240/1/60, 220-240/1/50, 208-230/3/60, 200-240/3/50, 440-480/3/60, 380-420/3/50, 380/3/60, 575/60/3

## REFRIGERATION

### **RED: STANDBY REFRIGERATION**

For critical applications where downtime can be extremely expensive. Failsafe design with 50% or 100% backup refrigeration and circulating system packaged within a single housing.

### **RED2: TWO REFRIGERATION UNITS**

One active and one standby

### **RED3: THREE REFRIGERATION UNITS**

Two active and one standby

### **DUC: TWO REFRIGERATION UNITS**

Each handle 50% of the total cooling capacity. Other capacity splits available.

## CABINET DESIGN CHOICES

### **SSC - STAINLESS STEEL CABINET**

Cabinet exterior constructed of stainless steel.

### **RC - RUBBER CASTERS**

Rubber casters for complete mobility.

### **SSD - SPACE SAVING DESIGN**

Smaller footprint available on many designs (consult factory) – not available on weather-resistant models.

### **ADJ - ADJUSTABLE LEGS**

Stainless steel legs adjustable from 6" to 8".

### **LH - LIFTING HOOKS**

For lifting with a crane. Ideal for loading chiller onto ship or high platform.

### **LP - LOW PROFILE**

Reduced height available on many models (consult factory).

### **VIBRATION PADS**

Neoprene pads in rugged, vast iron casings mounted under channel skids.

### **SPECIAL PAINTS AND CUSTOM COLORS**

Available to match any space.

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*\*PW only.*

**PLEASE CONTACT FILTRINE FOR ANY  
REQUIREMENT NOT LISTED HERE**