



# **Model ECW-\*D**

## **Water-Cooled Refrigeration Systems**

ITEM NO: \_\_\_\_\_

### **ENVIRO-COOL REFRIGERATION SYSTEM**

The packaged refrigeration system is to be U.L. Listed and will be located on a pad outside of the building. This unit includes the frame, compressor and water-cooled condenser systems and electrical control panel, all housed within a single assembly. The evaporator coil assemblies will be supplied with all the required

options and accessories. All of the component parts, options and accessories will be provided, mounted, piped and wired, as required by the manufacturer. The system shall be manufactured to operate at: \_\_\_\_\_ volts, \_\_\_\_\_ phase, \_\_\_\_\_ hertz.

### **FRAME**

The frame shall include a welded, de-burred and cleaned structural steel base frame made of 3 inch members. The frame shall be

painted with a primer coat of epoxy based paint and finished with a coat of polyurethane acrylic enamel.

### **COMPRESSOR AND CONDENSER SYSTEMS**

All compressors will be Copelaweld, Tecumseh, Copelametic or Discus. All compressors will be manufactured to operate with R-22 or R-404A refrigerant. Each Compressor system shall be filled with refrigerant compatible refrigeration oil by the manufacturer and will include discharge and suction line vibration protection (vibrasorbers with Copelametic and Discus compressors), dual pressure control with stainless steel braided piping, liquid line filter-dryer, moisture indicating sight glass, and crankcase heater. Each of these systems shall also include a receiver tank capable of accepting all of the system refrigerant without exceeding 90% of its volumetric capacity. Each receiver will be provided with a pressure relief vent and, at its

inlet and outlet, a roto-lock isolation valve with a service port. Additionally, all compressor systems that will operate at suction temperatures below 0°F shall include a suction line accumulator.

The condenser system shall utilize a coaxial style condenser, Tube-in-tube design, with copper inter tubes surrounded by a steel shell. The condenser is pre-piped with water regulating valve, vibrasorbers and water isolation valves. The compressors and condenser circuits shall be sized to operate at a maximum temperature differential of 20°F between the inlet and outlet condenser water temperature.

### **CONTROL PANEL**

The exterior mounted, electrical control panel will be manufactured of 14 gauge galvanized steel which has been assembled, welded, de-burred and cleaned. The control panel shall include hinged access doors with a built-in fused disconnect switch inter-locked to shutoff all system electrical power when the doors are opened, circuit breakers and contactors for each compressor, required

defrost time clocks, and circuit breakers, and start capacitors. A wiring diagram of the refrigeration system shall be photo etched onto an anodized aluminum plate and permanently affixed to the inside of the refrigeration system. All internal wiring shall be held in place with fasteners and individually numbered. The wire numbers shall be shown on the wiring diagram

### **EVAPORATOR COILS**

The evaporator assemblies, and the parts associated with them, will be mounted inside of the walk-ins. Each evaporator coil shall include a matching thermostatic expansion valve, liquid line solenoid valve and thermostat. In cases where two (2) or more evaporator

coils are to be piped to a single compressor the thermostat and liquid line solenoid valve will be shipped loose to be mounted and wired at the job site.

### **INTERNAL REFRIGERATION PIPING**

All of the internal refrigeration piping shall be extended to one side of the refrigeration system in a neat and orderly manner. Each set of piping shall have a label permanently affixed identifying the system it will service. All internal refrigeration and condenser water piping shall be refrigerant grade A.C.R. or type L copper tubing. All tubing shall be held in place with Uni-Strut channels and clamps and protected with neoprene grommets. A minimum of ½ inch thick

insulation shall cover all suction lines.

After circuiting the condenser shall be tested for leaks at a minimum pressure of 500 pounds per square inch/gauge (psig). After final assembly the entire system shall be tested for leaks at 300 psig and evacuated pressure test at 500 microns at the factory. The refrigeration system shall be shipped with a 25 psig charge of dry nitrogen.

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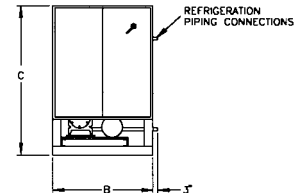
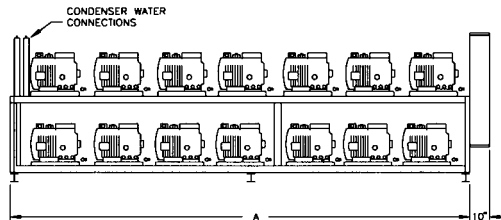
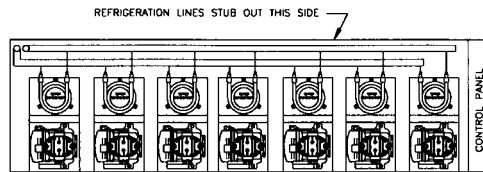
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### DIMENSIONAL DATA

ENVIRO COOL  
COMPRESSOR RACKS

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### PHYSICAL DATA

Model	Maximum Number of Comp. (Space)*	Typical Overall Dimensions (In.)		
		A	B	C
ECW-4D	4	48	45	60
ECW-6D	6	72	45	60
ECW-8D	8	96	45	60
ECW-10D	10	120	45	60
ECW-12D	12	144	45	60
ECW-14D	14	168	45	60

\* 1/2 - 3 HP. = 1 comp. space, 5 - 7 HP. = 2 comp. spaces.

NOTE: 3 HP. and loarger on lower deck only.

### COMPRESSOR DATA

System	Item	Fixture Description	Freon	Compressor	Voltage	Evaporator(s)	Voltage

Note: Compressors are designed with matching evaporator coil. Consult factory for specific electric data.

Specification subject to change without prior notice.