



BARD MANUFACTURING COMPANY, INC. QC501 Series Chilled Water A/C Engineering Specification Guide

1.0 GENERAL

Furnish and install a self-contained, vertical, floor standing, chilled water air conditioner be manufactured by Bard Manufacturing Company, Inc. The unit shall be approved and listed by Intertek ETL listed (ETL US/C). Unit shall be factory assembled, pre-wired, tested and ready to operate. Unit shall include 5 year parts warranty covering parts, and heat transfer coils, subject to terms and conditions of Bard Limited Warranty agreement.

Manufacturers: Capacities shall be as indicated on drawings and units shall be manufactured by Bard Manufacturing Company, Inc. or prior approved equal.

2.0 CONSTRUCTION FEATURES

2.1 CABINET

Constructed of 20 gauge pre-painted or vinyl laminated galvanized steel. Choices available are either two-tone (vinyl) finish with "slate" front panels and "platinum" cabinet for designer appearance, (gray) or (beige) painted steel (select one). Vinyl finish is very resistant to scratching and marring and is easy to clean. Tamper resistant fasteners are provided for access panels. Unit includes built-in rollers for each installation into wall sleeve and removal for service, if necessary. Front panel is hinged and lockable for filter service and access to primary functional electrical controls.

2.2 INSULATION

Cabinet is fully insulated with foil covered, high density fiberglass insulation with sealed edge treatment and special sound deadening insulation material in the compressor section. All insulation is designed to resist mold and mildew growth and facilitate ease of cleaning.

2.3 Water coil and control valves

Water coil shall be constructed of copper tubes and aluminum fins, with two circuits, providing 2-stages of control. Either 2-way or 3-way valves are available for field installation.

2.4 CONDENSATE DRAIN SYSTEM

Condensate shall be removed from the unit by connections located in the back or side of the unit. The chilled water coil shall have a stainless steel drain pan to eliminate corrosion.

2.6 INDOOR BLOWER MOTOR

The indoor blower motor shall be a variable speed (ECM) type to produce the same rated air flow from 0 to .8 inch WC of external static pressure. The motor is to be self adjusting to provide proper rated air flow at high static pressures without user adjustment or wiring changes by the user. The motor shall be programmed for 20-second ramp up and 60-second down rate for quiet, smooth starting and stopping. PSC motor shall not be acceptable.

2.7 ELECTRICAL COMPONENTS

Electrical components are easily accessible for routine inspection and maintenance through front service panels. Circuit breaker is standard on all models. Available voltages are 208/230 single phase and 115 volt single phase. Circuit breaker access is through lockable access panel. Lock and key are provided as standard equipment. Unit shall have single point entry for line voltage.

2.8 CONTROL CIRCUIT

The internal control circuit shall consist of a current limiting 24VAC type transformer.

3.0 HEAT OPTIONS (Select One)

3.1 None

3.2 Electric Heat

The heat pump shall have a factory installed electric resistance heater available that is designed specifically for application in the Q-Tec Series unit. Heater shall include automatic limit safety controls.

3.3 HOT WATER COIL

The hot water coil shall be factory mounted in discharge air plenum, or for ducted application, coil is complete with 3-way valve (field installed) and can be wired for first or second stage heat.

cleaner and water. Desiccant shall not dissolve or deliquesce in the presence of water or high humidity. All diameter and perimeter seals shall be provided as part of the cassette assembly and shall be factory set. Drive belts shall not require external tensioners or adjustment. Cassette wheels shall include rims to prevent belts from slipping off wheels. Intake and exhaust blowers shall have selections of high, medium or low speed and selected independently, to allow for positive pressurization if desired. The ERV cassette including parts and media shall include 5year warranty subject to terms and conditions of Bard's warranty.

The ERV thermal performance shall be certified by the manufacturer in accordance with ASHRAE Standard 84, Method of Testing Air-to-Air Heat Exchangers and ARI Standard 1060, Rating for Air-to-Air Energy Recovery Ventilation Equipment Cassettes, and shall be listed in the ARI Certified Products. Unit complies with ANSI/ASHRAE Standard 62.1 Ventilation for Acceptable Air Quality.

5.0 FILTER OPTIONS - (Select One)

- 5.1 1" Fiberglass**
- 5.2 2" Fiberglass – Pleated – MERV 6**

7.0 CABINET COLOR – (Select One)

- 7.1 Washable Vinyl - Two-Tone Finish**
- 7.2 Slate Gray**
- 7.3 Beige**

- 8.0 COIL OPTIONS – (Select Standard Hydrophilic coated indoor coil)**

10.0 ACCESSORIES

- 10.1 WALL SLEEVE
(Wall sleeve and louver required for ventilation options)**

Wall sleeve shall be factory supplied and must be constructed of 16 gauge galvanized steel, coated with an epoxy primer and baked-on polyester enamel paint. It shall be designed to withstand a minimum of 1000 hours of salt spray protection when tested per ASTM B117-03 standard.

10.2 Furnish factory louver designed for ventilation (outside) air intake and exhaust. Louver shall be aluminum construction with removable core for service. Access to removable core is by tamper-proof screws. Louver shall have a powder coat finish. See our color chart for color selections.

10.3 AIR DISTRIBUTION – (Select 1)

10.3.1 The Q-Tec shall have a discharge air plenum with double deflection register mounted on front.

10.3.2 The Q-Tec shall have a discharge air plenum with double deflection supply register on the front and both sides.

10.3.3 The Q-Tec shall be ducted with a cabinet extension to cover ductwork

11.0 WARRANTY

11.1 The Bard product specified shall be free from defects in materials and workmanship for a period of 5 years for a period of 5 years for all parts. Warranty period shall start from date of installation as stated on warranty card; or from date of shipment if no warranty card is returned to Bard Manufacturing. Equipment must be used under normal conditions and warranty is subject to Bard Manufacturing's standard limited warranty statement.

12.0 INSTALLATION

12.1 Installation shall be done in strict adherence to Bard's Installation Instructions.