



## BMP MEDIUM PROFILE EVAPORATORS: GENERAL SPECIFICATIONS

*Engineered to provide superior performance and quality in applications that demand efficiency and reliability*



### 1. General:

The unit cooler is to be cULus Approved and is to be located inside of a walk-in refrigerated cooler or freezer. This unit consists of the casing, evaporator coil, fans and defrost (air, electric or hot gas) system as determined by the model. The evaporator systems and electrical control panels are to be housed within a single assembly with fan airflow pattern of draw-through design pulling air through the unit cooler and directing it outwards in a single direction. All of the component parts, options and accessories will be provided, mounted, piped and wired, as required by the manufacturer.

### 2. Casing:

Entire unit cooler casing shall be a minimum of 18 gauge aluminum with a textured finish. Cabinet consists of a fixed front fan panel and top panel, removable side panels and a hinged drain pan. Grey high-density polyethylene fan guards shall be affixed to the front fan panel. All components of the casing shall be assembled and cleaned.

### 3. Coil:

Evaporator coils are constructed using internally enhanced 0.375" OD seamless copper tubes in a staggered pattern mechanically expanded into die-formed fully collared high-efficiency double sine wave aluminum fin. Coils are available in 6 FPI (0.0075" thickness) and 4 FPI (0.009" thickness) fin spacing and are supplied with a Schrader valve and 0.25" OD equalizer line brazed on the suction header. The evaporator coil shall be tested for leaks at a minimum pressure of 300 pounds per square inch/gauge (psig) dehydrated and sealed.

### 4. Fans and Motors:

All motors are PSC type permanently lubricated direct drive 1075 RPM or electronically commutated (EC) type with two variations; two-speed operation utilizing a single pole double throw (SPDT) thermostat or infinitely variable speed. Infinitely variable speed variants require a 0-10VDC input for operation. Wire motor mounts to have four legs of 0.312" DIAMETER, zinc-plated steel wire with clear chromate and lacquer. Fan blades are 0.040" aluminum 5052 grade, all steel components to be zinc plated or powder coat finish.

### 5. Electric Defrost:

Four (4) stainless steel defrost heaters of 0.25" diameter are inset flush to the face of the coil even with the edge of the fins. An adjustable fan delay thermostat, fixed defrost termination control as well as a heater high limit switch are mounted to the endplate and factory wired to the terminal board.

### 6. Drain Pan:

Drain pan shall be manufactured from a single piece of 18 gauge textured aluminum DIE-formed in a single pass without welded corners. Drain pan depth to the 3/4" NPT condensate drain fitting shall be no less than 1.50". Drain pan may be defrosted by means of an electric heater or hot gas copper loop varying with model. A single pan heater is secured to the drain pan via clips and welded studs. Alternatively, 0.375" OD seamless copper tubes may be secured to the drain pan via clips and welded studs.

---

## **BMP MEDIUM PROFILE EVAPORATORS: GENERAL SPECIFICATIONS (cont'd)**

**Additional Resources:**

**Products Affected:**

BMP – Medium Profile Evaporators: <https://b-rp.ca/bmp>

**Affected Products Documentation:**

BMP Product Data and Specifications: <https://docs.b-rp.ca/1082853.pdf>

**Related Product Specialist Group:**

Evaporators: [evaps@b-rp.ca](mailto:evaps@b-rp.ca) 1-844-893-3222 ext. 520

**Additional Resources:**

Bally Refrigeration website: <https://b-rp.ca>

Bally Refrigeration Evaporators page: <https://b-rp.ca/product-category/evaporators>

**Author:**

Norman Haimes – Senior Application and Systems Specialist