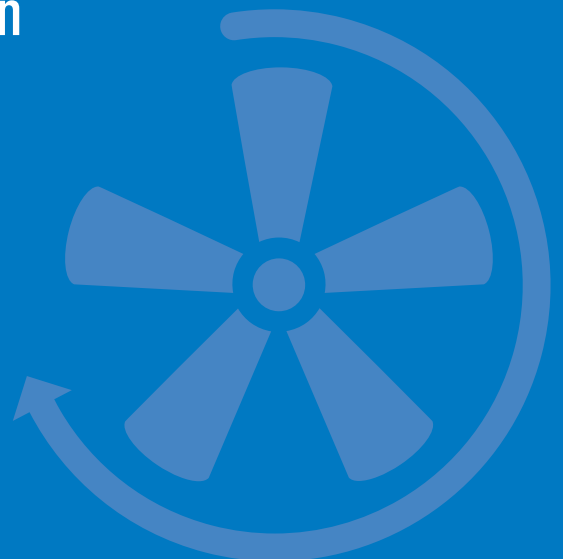




BAC Evaporators

Stainless steel tube - Aluminium fin





Benefits

Guaranteed thermal performance

- ✓ **COILS** and **HEADERS** are designed and manufactured according to the stringent requirements of ASME B31.5
- ✓ **TUBES** are staggered in the direction of airflow to ensure maximum air turbulence and coil heat transfer efficiency.
- ✓ **FINS** have a clean full collar to optimize performance, resistance to airflow and improve cleanability. They provide performance comparable to corrugated fins at a given horsepower.
- ✓ **FANS** are selected and positioned to maximize fan performance and efficiency.



Low maintenance

- ✓ The **COIL** improves cleanability by reducing cavities.
- ✓ **CASING PANELS** are removable to permit access to both faces of the tube bundle for maintenance and cleaning.
- ✓ **PANS** are furnished with an extra large drain connection that, when coupled with the flatness and smoothness of the sloped pan, permits swift and total drainage.



Long service life

- ✓ The **COIL** incorporates a heavy-duty rectangular structural frame, improving rigidity, squareness and long-term stability.
- ✓ **CASINGS** and **DRAIN PANS** are constructed of durable, corrosion resistant and self healing Baltiplus 800 or constructed of heavy-gauge, corrosion resistant Type 304 stainless steel.
- ✓ **LOAD CARRYING COMPONENTS** are engineered with reinforcing panel breaks and hardware particularly suited for the application.

Year-round reliable operation

- ✓ **FANS** are direct-drive and are individually compartmented.
- ✓ **MOTORS** are SATMOS treated and designed to ensure reliability and longevity in harsh environments.
- ✓ **COILS** have precise welds made by high quality orbital welding.
- ✓ BAC's evaporators are backed-up by a **3 YEAR WARRANTY**.



Safe and hygienic operation

- ✓ Heavy-duty **SUPPORT HANGERS** are engineered with rigging points to permit safe and easy hanging.
- ✓ The drain pan has a flat and smooth surface and is sloped for **EASY DRAINAGE**.
- ✓ Optional: Hinged fan panels for ease of **CLEANABILITY**.

Ideal replacement unit

- ✓ BAC's evaporators have a **SMALL FOOTPRINT, LOW WEIGHT** and **LOW REFRIGERANT VOLUME**.

Construction details



CASING

- **Standard** - Steel panels and structural elements are constructed of durable, corrosion resistant and self healing Baltiplus 800.
- **Optional** - Steel panels and structural elements are constructed of corrosion resistant stainless steel Type 304.

COIL CONFIGURATIONS

- **Coils** are manufactured according to ASME B31.5; pressure tested to 26 Bar with air under water and can be shipped with a nitrogen holding charge.
- **Tubes** are constructed of 15.88 mm diameter, stainless steel Type 304.
- **Fins** are constructed of aluminium, die-formed, in flat pattern.
- **Headers** are constructed of schedule 40 pipe as required by ASME B31.5

PAN

- **Standard** - Pan is constructed of durable, corrosion resistant and self healing Baltiplus 800.
- **Optional** - Pan is constructed of corrosion resistant stainless steel Type 304.
- **Defrost** - Electric heating elements or hot gas coil with double skin.
- **Pan insulation** is available in Baltiplus 800 or Stainless Steel Type 304
- Pans are furnished with an **extra large drain connection**.

FANS & MOTORS

- **Fans** are direct-drive, cast aluminium blade or polyprop (optional).
- **Fan motors** are foot-mounted on steel base plates, supported by fan housing constructed of heavy-gauge self healing Baltiplus 800. Motors are IP 55/IE, totally enclosed, fan cooled (TEFC), furnished with low temperature grease and SATMOS treated.

REFRIGERANT TYPE

- Ammonia pump (recirculation and flooded)
- Glycol

HIGH QUALITY COIL WELDS THROUGH ORBITAL WELDING

To address the issue of operator error in the tungsten arc welding process, BAC makes use of specially developed orbital welding equipment to weld our tubes.



Orbital welding provides the operator the ability to produce consistent, repeatable, high quality, controlled and documented welds maintaining accuracy while improving efficiency.

Orbital welding remains consistent, whereas manual welding may produce inconsistent results because each weld is completed by hand.



UNIT PLACEMENT

- **Cold store - Racked** - The flow should be directly down every other aisle if possible, with the alternating aisles left for return airflow. Flow across the tops of the racks is very disruptive and leaves no clear return path for the air. Air units placed opposite from the doors in freezers will have to penetrate the warm air pocket that rises up from the open doors. This will require a high velocity. Conversely, air units placed on the dock wall of a freezer will be subjected to high infiltration loads unless internal vestibules are used.
- **Cold store - Unracked** - Unracked rooms generally have ceiling heights of 3-5 meter. Therefore, the airstream does not have to fall far to be disrupted by the pallets or totes. Evaporators with propeller fans will only throw 15-18 meter in these conditions. Axial fan units will throw up to 30 meter. The airflow out of an evaporator without long throw adaptors will diverge out by approximately 10 to 15 degree per side.



More from BAC

More than 75 years of experience and know-how

With thousands of successfully operating installations worldwide Baltimore Aircoil has the **application and system experience** to assist you in the design, installation and operation of your cooling equipment. Ongoing investment in research, combined with an advanced **R&D** laboratory facility, enables BAC to consistently offer new technologies and products to meet developing industry demands.

Baltimore Aircoil has a **network of highly qualified sales representatives** backed up by an experienced technical staff to ensure that each customer project is a success.

EVAPORATIVE CONDENSERS

BAC's evaporative condensers meet economic and environmental needs. The low condensing temperatures in an evaporative condenser save compressor size and power-up to 30% when compared with air cooled systems. Its low refrigerant charge minimizes costs of vessels and impact on environment. The compact design reduces installed costs.

BAC offers a broad choice of condensers to provide an optimal solution for each and every application requirement. Depending on the needs, options and accessories are available to help improve the service life of the equipment, make access and maintenance easier or reduce the sound emission.



ICE CHILLER THERMAL STORAGE

Ice thermal storage products are used to build and store cooling in the form of ice during periods of reduced cooling demand. This way the mechanical refrigeration system needs not to be sized on peak load but on "average" conditions. Hence a smaller refrigeration system with much lower power requirements and a smaller refrigerant charge can be selected. Ice thermal storage products can either be of the "internal" or "external" melt type. For "internal melt" only glycol solutions can be used as secondary refrigerant. "External melt" ice storage products can use either direct refrigerant feed or glycol solutions.



TRILLIUMSERIES CO₂ CONDENSER

BAC's TrilliumSeries CO₂ condenser empowers transcritical CO₂ applications in warmer climates. The condenser uses a patented dry-coil adiabatic design that saves energy, reduces refrigerant charge and lowers operating costs. With the use of proprietary logic and EcoFlex controls, the on-demand adiabatic pre-cooler uses water only on the hottest days to maintain refrigerant temperatures that typical air cooled technology cannot achieve.



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