

# **TVFC Cooler**

# Adiabatic cooling











# Key benefits

- Largest adiabatic capacity
- Highest degree of redundancy
- Unrivalled reliability

#### **TVFC** cooler characteristics

Counter flow, adiabatic pre-cooling, axial fan, induced draft

#### **Capacity range**

250 - 2000 kW

#### **Maximum entering fluid temperature**

60°C

#### **Typical applications**

- Small to medium HVAC and industrial applications
- Locations with limited water and space availability
- High temperature industrial applications



#### Largest adiabatic capacity

- TVFC TrilliumSeries coolers offer **maximum thermal performance per m² footprint**, with an optimal air distribution over V-shaped coils with maximum heat transfer surface.
- TVFC TrilliumSeries coolers can be designed with a coil freeze-up safeguard that allows for operation with pure water as process fluid, providing on average 8% higher performance than comparable systems with glycol solutions.
- Lowest system pump motor kW due to low hydraulic coil pressure drops for an **optimal system efficiency**.
- Synchronous EC motors with IE4+ efficiency; variable speed control for **maximum system efficiency**.

#### **Highest degree of redundancy**

- TVFC TrilliumSeries coolers have a larger amount of fans that provide an unmatched degree of backup capacity.
- Optional internal partioning panels create individual air intake ducts for each fan, which **eliminates thermal performance loss** due to the air bypassing the coil through an idle fan.
- The optional pre-cooler pump recirculation system with **adiabatic back up guarantee** (patent pending) in case of pump failure.
- Optimal controls guarantee **full performance** even with loss of controller or communication.

#### **Unrivalled reliability**

- BAC's TVFC TrilliumSeries coolers come with all structural elements protected with <u>Baltiplus 800<sup>™</sup></u>
   <u>protection</u>. We also offer <u>Baltibond hybrid coating\*</u>, designed for severe conditions it offers the same reliable life expectancy as stainless steel 304L.
- All critical components are located outside, providing easy access at all times.
  - Fan motors can be replaced in all safety for both the intervening technician as well as for the unit.
    Any risk of damage to critical components such as the heat exchangers and bottom panels is removed.
  - Pump maintenance is possible during adiabatic operation.
- Small motors and fans, increasing the ease with which they can be handled during replacement.
- Special anti-abrasive protection on the pads, to **ensure their durability** under harsh conditions.
- Epoxy coating (optional) on the coil fins **increases the resistance** against a humid environment, high chlorides and other corrosive agents.

#### Saving water

 TrilliumSeries coolers achieve annual water savings exceeding 90% water compared to normal cooling towers by limited adiabatic operation.

## Top hygiene control



- No aerosol formation: TrilliumSeries coolers minimize the Legionella risk.
- TrilliumSeries coolers cool incoming air without transferring water to the dry coil.
- No continuously wet parts: all parts that come into contact with water are **fully drainable**, no water is stored in the unit during dry operation.

## Plug and Play with factory set custom controls

- Proven controls running for more than a decade.
- All site specific parameters are factory set and tested before the unit is shipped.
- 8 control strategies allowing you to optimise the cooler to your specific needs.

\* option

Interested in the TVFC TrilliumSeries cooler to cool your process fluid? Contact your local BAC representative for more information.

### **Downloads**

- TVFC Cooler
- Operating & Maintenance TVFC
- Rigging & Installation TVFC
- TVFC Dry and adiabatic cooling