

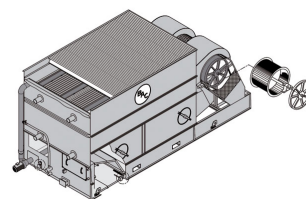
# Construction details

## Closed circuit cooling towers

### Construction details

#### 1. Material options

- Heavy-gauge hot-dip galvanized steel is used for external unit steel panels and structural elements featuring [Baltiplus Corrosion Protection](#).
- The unique [Baltibond® hybrid coating](#) is an optional extra. A hybrid polymer coating for longer service life, applied pre-assembly to all hot-dip galvanized steel components of the unit.
- Optional [stainless steel](#) panels and structural elements of type 304L or 316L for extreme applications.
- Or the economical alternative: a **water-contact stainless steel cold water basin**. Its key components and the basin itself are stainless steel. The rest is protected with the Baltibond® hybrid coating.



## 2. Heat transfer media

### Prime surface coil

- The coil is constructed of prime surface steel, hot-dip galvanized after fabrication. Designed for free drainage of the fluid and maximum 10 bar operating pressure according to PED. Pneumatically tested at 15 bar.
- All hot dip galvanized and stainless steel coils are delivered with BAC's **Internal Coil Corrosion Protection**, to ensure an optimal internal corrosion protection and guaranteed quality.



**Optional stainless steel coils** are in type 304L or 316L.

### Optional finned coil

- The dry finned coil is constructed of minimum 4 circuits of **staggered copper tubes** with aluminium plate fins.
- In galvanised steel casing with **access door** and enough space for inspection.
- Designed for free drainage of the fluid and maximum 10 bar operating pressure according to PED. Pneumatically tested at 15 bar.
- In combination with a **flow control package** including a [3-way valve](#), temperature sensor and piping.

## 3. Air movement system

- With motor-driven centrifugal fan and a **V-belt drive**, sized for dry operation as standard. You can easily remove the entire motor base for proper belt tensioning to ensure constantly correct belt alignment. Together with the **heavy duty fan shaft bearings** this guarantees optimal operational efficiency.
- **Centrifugal fan(s)** are forward-curved and nearly noiseless. Overcome external static pressure! Use [sound attenuators](#) and duct work etc. for air intake/discharge with no loss of thermal performance!
- **Our drift eliminators** come in UV-resistant plastic, which will not rot, decay or decompose and their performance is tested and **certified by Eurovent**. They are assembled in **easily handled and removable sections**, for optimal internal access.



## 4. Water distribution system

- A **header** and **spray branches** with wide non-clog plastic **nozzles**, secured by rubber **grommets**.
- A spray water collection section with:
  - dry sloped basin with circular access doors
  - wet water basin out of the air stream including easy to lift-out anti-vortexing **strainer, make up** , rectangular access doors.
- Close coupled, bronze fitted centrifugal **spray pump** with totally enclosed fan cooled (TEFC) motor at connection end of the unit. Bleed line with metering valve installed from pump discharge to overflow.
- The **electric water level control package** maintains a constant water level in the cold water sump independent of cooling load changes and water supply pressure variations.



**Like to know more about the HFL construction details?** Contact your [local BAC representative](#).