# **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 <u>Baltiplus Corrosion</u> <u>Protection</u>.
- The unique <u>Baltibond<sup>®</sup> hybrid coating</u> is an optional extra. A hybrid polymer coating for longer service life, applied pre-assembly to all hotdip 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<sup>®</sup> hybrid coating.



#### 2. Heat transfer media

Unique and patented heat transfer system: featuring <u>combined flow</u> via heat exchange coil and fill pack.

#### Coil

- Our heat transfer media is a cooling coil. The coil is constructed of prime surface steel, hot-dip galvanized after fabrication. Sloping tubes for free drainage of fluid. Designed for maximum 10 bar operating pressure according to PED.
- 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.
- Maximum temperature 82°C.

Fill

- Patented <u>BACross II fill</u> with integrated drift eliminators certified by Eurovent. Its thermal performance is proven during comprehensive <u>lab</u> <u>thermal performance tests</u>, and it offers you unrivalled system efficiency. The fill pack includes individual sheets and a telescopic fill support. Sheets are easy to inspect and clean inside the tower without dismantling, eliminating the need for frequent fill replacement.
- In self-extinguishing plastic, which will not rot, decay or decompose.



#### 3. Air movement system

- FXVS fan system features two corrosion resistant sheaves, belt and motor. Together with the heavy duty fan shaft bearings and the BAC Impervix motor, this guarantees optimal and year-round operational efficiency.
- Low kW and noise axial fan(s) in corrosion resistant aluminum, encased in fan cylinder with removable fan guard. To reduce noise even further, choose for a Whisper Quiet fan with minimal impact on thermal performance.
- Our drift eliminators in the coil section 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 coil access.
- Easy removable UV-resistant plastic **combined inlet shields** at air inlet or optional at the top air inlet. Sunlight block to prevent biological growth in tower, air filter and water splash-out stop.

#### 4. Water distribution system

These consist of:

- **Spray branches** with wide non-clog, plastic, 360° distribution nozzles secured in grommets. Overlapping spray pattern for complete coil wetting. A **sloped cold water basin** with:
  - large hinged and inward swinging access door
  - anti-vortexing **strainers** and **make up** both easily accessible from inside the unit.
- Close coupled, bronze fitted centrifugal spray pump with totally enclosed fan cooled (TEFC) motor. Bleed line with metering valve installed from pump discharge to overflow.

Need more information? Contact your local BAC representative.



