

# 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 hot-dip galvanized steel components of the unit.
- Optional water contact 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

- Our heat transfer media is a cooling coil. Its thermal performance is proven during comprehensive <u>lab thermal performance tests</u>, and it offers you unrivalled system efficiency.
- Coil only version optionally available.
- The coil is constructed of prime surface steel, hot-dip galvanized after fabrication. 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.
- Versapak in self-extinguishing plastic, which will not rot, decay or decompose.







#### 3. Air movement system

- PFI fan system features two aluminium sheaves and belts. Together
  with the heavy duty fan shaft bearings and the BAC Impervix motor
  (external for units up to 2,4 m wide), this guarantees optimal and yearround operational efficiency.
- Low kW axial fan(s) in corrosion resistant aluminum, encased in fan cylinder with removable fan guard. Easy accessible via sliding access door. To reduce noise even further, choose for a <u>Whisper Quiet fan</u> with minimal impact on thermal performance.
- Extended lubrication lines with easily accessible grease fittings to lubricate fan shaft bearings.
- 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.
- Easy removable UV-resistant plastic combined inlet shields at air inlet. Sunlight block to prevent biological growth in tower, air filter and water splash-out stop.

#### 4. Water distribution system

These consist of:

- The exclusive BranchLok™ system, including spray branches, external header clean out ports and non-clog plastic nozzles secured by rubber grommets. Unmatched cleaning system: tool free branch removal for easy inspection and flushing.
- Easy accessible **sloped cold water basin**, including anti-vortexing strainers, make up and **overflow** connection.
- 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.

**Interested in the PFI closed circuit cooling tower?** Contact your local BAC representative.



