

# Construction details

## Closed circuit cooling towers

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#### 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 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® hybrid coating.



#### 2. Heat transfer media

- Our heat transfer media is a **cooling coil**. Its thermal performance is proven during comprehensive [lab thermal performance tests](#), 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 year-round 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 [Whisper Quiet fan](#) 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](#).