

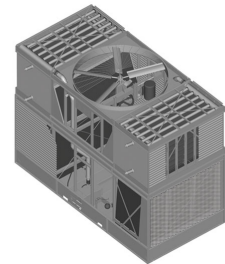
# Construction details

## 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](#). For casing panels we use UV resistant **fiberglass** reinforced polyester.
- 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

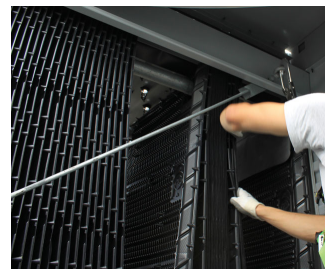
Unique and patented heat transfer system: featuring [combined flow](#) via heat exchange coil and fill pack.

### Coil

- Our heat transfer media is a **cooling coil**. The coil is constructed of continuous length 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.

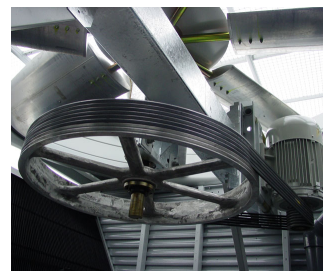
### Fill

- Patented [BACross II fill](#) with integrated **drift eliminators**. Its thermal performance is proven during comprehensive [lab thermal performance tests](#). 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

- **FXVT 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. 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](#).