# Construction details

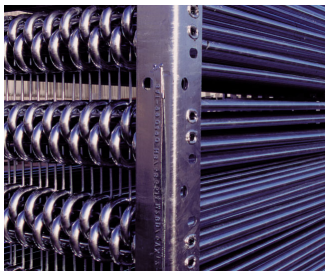
## Closed circuit cooling towers

## Construction details

### 1. Material options

- Heavy guage steel is used for the external steel panels and structural elements, featuring the Baltiplus 800™ material option.
- The casing sides panels are made of **FRP (Fibreglass Reinforced Polyester)** are light and can be easily slid upwards to access the heat exchange coil.
- **Optional** stainless steel panels and structural elements with type 304L or 316L construction is available for additional corrossion resistance.
- Or the economical alternative: a **water-contact stainless steel cold water basin**. Its key components and the basin itself are stainless steel.

### 2. Heat transfer media



- Our heat transfer media is a cooling coil. In comprehensive **lab thermal performance tests**, it showed proved thermal cooler performance and offers you unrivalled system efficiency.
- The coil is constructed of continuous length of prime surface steel, hot-dip galvanized after fabrication. Designed for maximum 10 bar operating pressure according to PER.
- **Sloped tubes** for free drainage of the coil.
- **Optional stainless steel coils** are in type 304L or 316L.

## 3. Air movement system

- **FCI fan system** features **low kW and noise axial fan(s)** in corrosion resistant aluminum, with polypropelyne blades encased within the fan cylinder with removable fan guard.
- Models FCI 18-0 to FCI 180-4 use **multiple independantly driven fans,** providing the user with additional capacity control.
- Larger units use optimally selected **V-belt drives**, furnished with a steel fan shaft and heavy duty ball bearings and extended lubrication lines, this guarantees optimal and year-round operational efficiency. This drive system is encased in a steel with a large access door.
- **Our drift eliminators** come in UV-resistant plastic, which will not rot, decay or decompose. They are assembled in **easily handled and removable sections**, for optimal internal access.
- Easy removable UV-resistant plastic **combined inlet shields** at air inlet, block sunlight to prevent biological growth in tower, filter air and stop water splash-out.

## 4. Water distribution system

These consist of:

- **Spray branches** with non-clog plastic **nozzles** secured by rubber grommets.
- Easy accessible **sloped cold water basin**, including anti-vortexing steel strainer, make up and overflow connection.
- Close coupled, bronze fitted centrifugal **spray pump** with totally enclosed fan cooled (TEFC) motor**.**
- Bleed line with metering valve is installed from pump discharge to overflow.

**Interested in the FCI cooling tower?** Contact your local BAC representative.