



# Construction details

Refrigerant condensers

## 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](#).
- The unique [Baltibond<sup>®</sup> 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<sup>®</sup> hybrid coating.

## 2. Heat transfer media

- Our heat transfer media is a **condensing coil**. Its thermal performance is proven during comprehensive [lab thermal performance tests](#), and it offers you unrivalled system efficiency.
  - The coil is constructed of prime surface steel, hot-dip galvanized after fabrication. Designed for maximum 23 bar operating pressure according to PED. Pneumatically tested at 34 bar.
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- 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.

Try our Vertex<sup>®</sup> coil options:

- **Multiple circuit coils (split coils)** for your halo carbon refrigerants, maintaining individual compressor systems. Or use it for compressor jacket water or glycol cooling.
- **Stainless steel coils** are in type 304L or 316L.
- **High pressure coils** are designed for 28 bar operating pressure and pneumatically tested for 40 bar. Hot-dip galvanized after fabrication.

All coils are designed for low pressure drop with sloping tubes for free drainage of fluid.

## 3. Air movement system



- The air movement system consists of **multiple, belt driven axial fans**. You can easily remove the entire motor base for proper belt tensioning to ensure constantly correct belt alignment. Together with the **heavy duty fan shaft bearings** this guarantees optimal operational efficiency. Single and multi speed are available.
- **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 easy inspection of the water distribution system.
- Steel drift eliminators, protected with the unique [Baltibond® hybrid coating](#) for optimal corrosion protection, are also available for specific applications.

## 4. Water distribution system

These consist of:



- **Spray branches** with wide non-clog plastic **nozzles**, secured by rubber **grommets**. You can easily remove, clean and flush both nozzles and spray branches from outside the unit.
- A sloping cold water basin with:



- **Strainers** which are easy to lift out and the anti-vortexing device also helps to stop trapped air
- Mechanical **make-up**
- Man-sized rectangular **access door**.
- A close couple, bronze fitted centrifugal **spray pump** with totally enclosed fan cooled (TEFC) motor, installed horizontally to **reduce the basin water volume**. Water treatment system connections in the pump piping and cold water basin are provided as standard.





The bottom of the coil is easily to inspect via the **man-sized rectangular access door** and the optional **internal walkway**. They provide **full access to all components** of the **lower section** without the need to drain the complete pan section, thus making it **quick and safe to inspect and maintain** the system.

**Like to know more about the Vertex<sup>®</sup> construction details?** Contact your [local BAC representative](#).