

# 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 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

- 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 continuous length of prime surface steel, hot-dip galvanized after fabrication. Designed for maximum 23 bar operating pressure according to PED. Pneumatically tested at 34 bar.
- 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 VCL coil options:

- **Extended surface coils** with selected rows, finned at 3 to 5 fins per inch and hot-dip galvanized after fabrication, for dry operation during winter time.
- **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

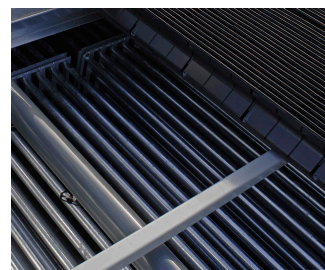
- With motor-driven centrifugal fan and a **V-belt drive**. You can easily remove the entire motor base for proper belt tensioning to ensure constantly correct belt alignment. Together with the **heavy duty fan shaft bearings** this guarantees optimal operational efficiency. Single- and multispeed **motors** available.
- **Centrifugal fan(s)** are forward-curved and nearly noiseless. Overcome external static pressure! Use [sound attenuators](#) and ductwork etc. for air intake/discharge with no loss of thermal performance!
- 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.
- Steel 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:

- A **header** and **spray branches** with wide non-clog plastic **nozzles**, secured by rubber **grommets**. You can easily remove, clean and flush both nozzles and spray branches.
- A cold water basin with:
  - **strainers** which are easy to lift out and the anti-vortexing device also helps stop trapped air
  - mechanical **make up**
  - circular **access door**
- 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.



**Like to know more about the VCL construction details?** Contact your [local BAC representative](#).