

# Polairis - Model PLF2

## Closed circuit cooling towers



### Key benefits

- Extremely reliable
- Superb hygiene
- Minimal maintenance and easy inspection

#### Polairis™ PLF2 characteristics

- Counter flow, radial fan, forced draft

#### Capacity range

Up to 310 kW

#### Water distribution

Pressurized

#### Max. entering fluid temperature

82 °C

#### Typical applications

- Small to medium HVAC and light industrial applications with focus on reliability, energy efficiency and minimal maintenance
- Tight enclosures and sound critical installations



- Indoor installations
  - Dry operation in winter time

## Extremely reliable

- The Polairis™ closed circuit cooling tower's design incorporates all **experience** BAC acquired over the last decades with thousands of VXI units installed globally since 1978.
- Fan drive systems are located inside the unit, in the **dry air**, preventing condensation and eliminating corrosion issues and premature failures.
- Direct driven fans **eliminate potential mechanical failures**.
- Multiple, individually driven fans guarantee **redundancy**.
- The **thermal performance** of Polairis™ closed circuit cooling towers is tested and **certified by [Eurovent](#)**.
- **[Baltibond® hybrid coating](#)** for maximum equipment life, with corrosion resistance equivalent to SST 304L.
- **Dry operation** possible.

## Superb hygiene

- The **[DiamondClear® Design](#)** offers a **continuous self-cleaning operation**. During standstill the sloping surfaces fully drain, avoiding stagnant water and the risk of sedimentation of impurities.
- A completely encased collection basin eliminates any sunlight ingress, **preventing biological growth**.
- **[Baltibond® hybrid coating](#)** for a smooth surface finish that **reduces biofilm development**.
- The floor is fully sloped towards the drain - also in the dry section - for **easy cleaning**.
- Water treatment system connections are provided as standard.

## Minimal maintenance and easy to inspect

- Direct driven fans require **no maintenance** at all.
- The **[DiamondClear® Design](#)** offers a continuous self-cleaning operation. The **need for maintenance is**



**minimized** by using fully sloping surfaces, a constant impact of falling spray water and high water velocities.

- The double blank-off wall guides the spray water into the collection basin, which makes it subject to higher turbulences. This turbulence **reduces the risk for sediments to settle down** and **reduces the need for collection basin cleaning**.
- Two large access doors are included in the default unit construction for **easy access to all critical components**.
- **Unmatched accessibility** to the basin, drives and fans in the dry section, via the mansized access door at ground level.
- Water distribution system is **easily accessible** from outside.
- [Baltibond® hybrid coating](#) for a smooth surface finish that **facilitates internal cleaning**.

## Flexible to install

- Fans are prewired to a terminal box to avoid time-consuming on-site wiring. Integrated electronics of EC motors **eliminate the need for external VFD's**, electronic filters and shielded cables.
- **Installation costs are reduced** since units are shipped in 2 factory-built sections with a rigid base frame that guarantees squareness for easy on-site assembly. Additionally, **single lifts are possible**.
- Single side air intake allows for **installation in confined spaces and next to solid walls**.
- Pressure capability of fans allows indoor installation with ductwork.
- Silent radial fans reduce the need for installation of sound attenuation.

## Energy efficient

- EC motors have superior efficiency that exceeds the IE4 requirements.
- Integrated electronics of EC motors allow for **variable speed control** at a significantly **reduced power consumption** compared to AC motors with VFD.
- Optimized design with EC Fan Systems in combination with [DiamondClear® Design](#) results in a uniform air distribution over the entire footprint of the coil, for **year-round optimal certified thermal performance**.

## Low sound

- **Silent radial fans** are standard.
- Single side air inlet allows directing the quiet unit rear towards **noise sensitive areas**.
- Sound attenuation is available for the most **stringent sound requirements**.

**Interested in the Polairis™ closed circuit cooling tower to cool your process water?** Contact your local [BAC representative](#) for more information.



## Downloads

- [Polairis Closed Circuit Cooling Tower, Model PLF2 \(brochure\)](#)
- [Polairis PLF](#)
- [Spare Parts for PLF2](#)
- [Retrofit Opportunities for PLF2](#)
- [Operating & Maintenance PLF2](#)
- [Rigging & Installation PLF2](#)