

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 PolairisTM 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** <u>Eurovent</u>.



- Baltibond hybrid coating for maximum equipment life, with corrosion resistance equivalent to SST 304L.
- Dry operation possible.

Superb hygiene

- The <u>DiamondClear Design</u> offers a continuous self-cleaning operation. During standstill the sloping surfaces fully drain, avoiding stagnant water and the risk of sedimenation 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 <u>DiamondClear M Design*</u> 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 <u>DiamondClear M Design</u> 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 guiet 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 <u>BAC representative</u> 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

^{*} patent pending