

NEXUS

Closed circuit cooling towers



Key benefits

- Maximum Uptime
- Lowest operating costs
- Lowest environmental impact

NEXUS characteristics

Counter flow, radial fan, forced draft
Hybrid wet-dry cooling

Capacity range

up to 790 kW

Maximum entering fluid temperature

82 °C

Typical applications

- Small to medium HVAC and light industrial applications with focus on reliability, efficiency and minimal maintenance
- Tight enclosures and projects with height limitations
- Indoor installations
- Water saving requirements

Maximum Uptime

- Units are **CTI-Eurovent certified** which guarantees thermal performance and eliminates field thermal performance testing costs.
- Independent individual modules that **guarantee redundancy**.
- **Corrosion-resistant materials come standard** for maximum equipment life: stainless steel hCore® Heat Transfer Technology combined with [Baltibond® hybrid coating](#) on all structural components, with corrosion resistance equivalent to SST 304L.
- The cold water basin of the patent-pending **DiamondClear® Design** can be **inspected while the unit is in operation**.
- EC Fan 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**.

Lowest operating costs

- Innovative **iPilot® Control System** with patented intelligence operates in multiple modes to **optimize both water and energy savings** based on your needs and preferences.
- Patented hCore® Heat Transfer Technology delivers **high thermal efficiency** (wet and dry) in a compact footprint, maximizing both water and energy savings.
- **DiamondClear® Design** optimizes air distribution over the heat exchanger, provides **continuous self-cleaning**, reduces spray water volume by up to 60%, reduces water treatment and spray pump energy costs.
- **EC Fan System** has a **superior efficiency** that exceeds the requirements of efficiency class IE4. Integrated electronics of EC motors permit variable speed control for maximum system efficiency, at a significantly reduced power consumption.
- Energy efficient radial fans give up to 40% savings versus standard centrifugal fans and provide high external static capability.

Lowest environmental impact

- **DiamondClear® Design** offers a continuous **self-cleaning operation**. During standstill the sloping surfaces fully drain hence avoiding stagnant water inside the unit and the risk of sedimentation of impurities.
- External collection basin with its **80% lower water volume** reduces the chemical usage and **eliminates the need to access the interior** for cleaning.
- Possibility to use water treatment systems that allow drainage from the hybrid cooler to surface water.
- Completely encased collection basin **eliminates any sunlight ingress**, preventing biological growth.
- Baltibond® hybrid coating for a smooth surface finish that **reduces biofilm development**.
- Guarantee operational safety through the optional factory installed **chemical free UV biocide system**.



Lowest installation costs

- Can be installed as a **single piece** or as individual modules that **fit in a freight elevator** .
- Up to 35% less weight, 40% smaller footprint and 1,5 m lower height.
- **Plug & Play design** with innovative **iPilot® Control System** and integrated electronics of EC motors, which eliminate external VFD's, electronic filters and on-site shielded cable wiring.
- Modular header included as standard for **single point process fluid connections**.
- **No passivation required** due to fully corrosion-resistant structure and hCore® Heat Transfer Technology.
- Pressure capability of fans allows indoor installation with ductwork.

Lowest maintenance

- Patent-pending **DiamondClear® Design** offers a continuous self-cleaning operation through fully sloping surfaces, a constant impact of falling spray water, high water velocities and 80% lower water volume (with no stagnant water inside the unit) **minimizing the need for maintenance** by reducing scale build-up and biological growth.
- The external cold water basin with spray pump, the direct drive fan in the dry system, the water distribution system and drift eliminator are all **easily accessible from the outside** without the need for any permanent ladders or elevated platforms.
- Swing-out EC Fan System allows easy inspection and requires **no maintenance** whatsoever.
- Inspection and maintenance of critical parts is possible during operation.
- [Baltibond® hybrid coating](#) and stainless steel for a smooth surface finish that **facilitates internal cleaning**.

Interested in the Nexus® modular hybrid cooler for cooling your process fluid? Contact your local [BAC representative](#) for more information.

Downloads

- [Nexus Modular Hybrid Cooler](#)
- [Nexus Water Treatment Solutions](#)
- [NEXUS Closed circuit cooling towers](#)
- [Operating and Maintenance NXF](#)
- [Rigging and Installation NXF](#)
- [Spare parts for Nexus](#)