NEXUS

Closed circuit cooling towers





Key benefits

- Maximum Uptime
- Lowest operating costs
- Lowest environmental impact



- Tight enclosures and projects with height limitations
- Indoor installations
- Water saving requirements

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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 Techonology combined with <u>Baltibond[®] hybrid coating</u> 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 selfcleaning, 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.
- <u>Baltibond[®] hybrid coating</u> 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 <u>BAC representative</u> for more information.

Downloads

- <u>Nexus Modular Hybrid Cooler</u>
- <u>Nexus Water Treatment Solutions</u>
- <u>NEXUS Closed circuit cooling towers</u>
- Operating and Maintenance NXF
- <u>Rigging and Installation NXF</u>
- <u>Spare parts for Nexus</u>