BAC MODULAR HYBRID COOLER

HYBRID

NEW! Enhanced Water Management, Acoustics, and Code Compliance

WHAT'S NEXT IN HYBRID COOLING

Nexus[®] Modular Hybrid Cooler

The revolutionary Nexus[®] Modular Hybrid Cooler is the world's first intelligent, plug-and-play, modular hybrid fluid cooling system for HVAC and light industrial applications. Shattering what you know about traditional hybrid fluid coolers, it can automatically optimize water and energy savings while delivering the lowest installation costs, lowest operating costs, maximum uptime, lowest maintenance costs, and best water quality in a simplified, compact, and lightweight design.



SIMPLIFIED SYSTEM DESIGN 15% REDUCTION IN SYSTEM COSTS^{III}

- No need for a separate heat exchanger or controls
- Reduced water treatment requirements, with no sweeper piping and side-stream filtration required^[3]
- Compact design for constrained spaces, including indoors



LOWEST OPERATING COSTS 30% REDUCTION IN OPERATING COSTS^{III}

- Up to 50% water savings and 40% energy savings with the i**Pilot® Control System**
- Reduction in spray water volume by up to 60% and reduced water treatment costs with the **DiamondClear® Design**^[3]
- Superior efficiency with a direct-drive, variable-speed EC Fan System

LOWEST MAINTENANCE 90% REDUCTION IN MAINTENANCE COSTS^{III}

- Significantly reduced spray water basin maintenance costs with the Patent-Pending **DiamondClear® Design** by minimizing scale build-up and biological growth^[3]
- Best-in-class safety; no need for permanent ladders or elevated platforms to perform routine maintenance
- No regular drive maintenance required with direct-drive EC Fan System



LOWEST INSTALLATION COSTS

35% REDUCTION IN INSTALLATION COSTS^[2]

- Flexible shipping options to fit modules into a freight elevator
- Reduced installation cost, time, and risk with:
 - Up to 35% less weight, 40% smaller footprint, 8' lower height
 - Single point wiring for all standard electrical components
 - Immediate startup with no need for field passivation

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MAXIMUM UPTIME UNMATCHED RELIABILITY AND LONGEVITY

- Corrosion-resistant, premium materials are standard
- Fan and motor redundancy reduces unplanned downtime
- EC motor and direct-drive fan system provide the greatest reliability
- Fastest inspection of spray water basin while the unit is in operation

+ B

BEST WATER QUALITY

PREVENT, INHIBIT, AND REMOVE BACTERIA

- Turbulent design prevents stagnant water in the system
- Optional daily drain of spray water basin to purge debris and bacteria
- Optional **UV System** minimizes bacterial growth, integrates with your water system enhancing health and safety







Spray Water Basin at Workbench Height Allows for Fastest A<u>ccess</u>

For design, technical information, cost of ownership and more, locate your Sales Rep at BALTIMOREAIRCOIL.COM

Notes:

- 1. Percentage comparisons based on the Nexus® Cooler vs. traditional centrifugal fan fluid coolers. 2. Reduction in installation costs based on 100 ton heat pump installation in Baltimore, MD.
- 3. Consult your local water treatment expert for your specific system's needs

Nexus® Modular Hybrid Cooler INNOVATIVE DESIGN FEATURES you won't find anywhere else



P hCore® Heat Transfer Technology

Using a highly corrosion-resistant stainless steel alloy and greater heat transfer surface, it provides unmatched thermal performance, exceptional reliability, and long life in an incredibly compact package.

🕑 DiamondClear® Design 🕴

This innovative design significantly cuts maintenance costs. The spray water basin has 60% less spray water volume, has turbulent spray water flow, and can be inspected while in operation. The high-performance spray resists clogging and delivers proper water coverage for reduced scaling.



P *i***Pilot** Control System

Minimizes operating costs by effectively balancing water and energy savings based on your needs and preferences with three modes of operation: ENERGY SAVER Maximizes energy savings though evaporative cooling WATER SAVER Maximizes water savings through dry cooling NEXUS Balances energy and water savings to fit your needs



Hodular Design

Its flexible, robust design is ideal for confined layouts and indoor installations. The lightweight, compact modules can easily be maneuvered with a pallet jack and fit into most freight elevators.



UV System (Optional)

Optional UV system reduces bacterial growth for best water quality. Factory installed UV lamp, intensity sensors, and recirculating pump wired into the iPilot[®] Control System.



EC Fan System

Simple design for lowest maintenance, easiest access and maximum efficiency, this system includes a direct-drive radial fan and a variable-speed EC motor.



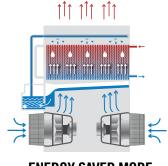
AVAILABLE OPTIONS TO MEET YOUR APPLICATION NEEDS:

- Non-combustible construction for local code compliance
- Intake and discharge sound attenuation to further reduce sound levels
- **Tapered discharge hood** to elevate air discharge, increase air discharge speed, or reduce plan area for indoor ducting

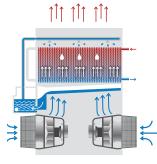
EVAPORATIVE

- Positive closure dampers to reduce heat loss from heat pump loops
 during winter months
- UV System reduces bacterial growth providing best water quality enhancing health and safety

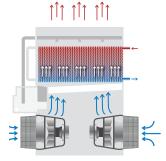
MODES OF OPERATION



ENERGY SAVER MODE MAXIMUM ENERGY SAVINGS



NEXUS MODE BALANCED ENERGY AND WATER SAVINGS



WATER SAVER MODE MAXIMUM WATER SAVINGS

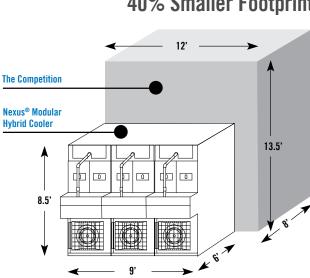
DRY

Nexus® Modular Hybrid Cooler THE BEST CHOICE



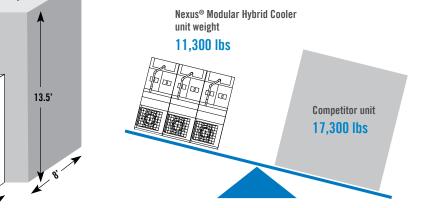
	Competitors' Centrifugal Fan Fluid Cooler	Nexus® Modular Hybrid Cooler	ADVANTAGE NEXUS®!
L x W x H	12' x 8' x 13.5'	9' x 6' x 8.5'	40% SMALLER FOOTPRINT, 5' SHORTER
Operating Weight	17,300 lbs	11,300 lbs	35% LESS WEIGHT
HP (Fan + Pump)	30 + 3 HP	22.5 + 1.5 HP	25% LESS FAN HP, 50% LESS PUMP HP
Process Fluid Volume	332 gal	117 gal	65% LESS FLUID VOLUME
Spray Basin Volume	212 gal	90 gal	60% LESS WATER VOLUME
Heat Exchanger	Galvanized Steel	Stainless Steel	CORROSION-RESISTANT, ZERO PASSIVATION
Unit Construction	Galvanized Steel	Thermosetting Hybrid Polymer/ Stainless Steel	HIGHER CYCLES OF CONCENTRATION

Note: Selections are based on cooling 270 gpm water from 95°F to 85°F at 78°F wet bulb. Consult your local water treatment specialist.



40% Smaller Footprint

35% Lighter Weight



ASSURED PERFORMANCE

The Nexus® Modular Hybrid Cooler was subjected to a rigorous qualification process to ensure corrosion resistance, longevity, and reliability. It also complies with a number of industry specifications, as well as independent certification from the Cooling Technology Institute (CTI).

