



IMPROVE
COOLING

REDUCE
WARMING



**BALTIMORE
AIRCOIL COMPANY**

BLUE by nature
GREEN at heart

IMPROVE COOLING, REDUCE WARMING

As leading innovator in the evaporative cooling and thermal storage industry, BAC is committed to freeze the climate change and improve cooling by limiting the use of natural resources and embracing smart cooling technology. With this in mind, 3 key drivers guide us through all our business processes making BAC your dedicated partner in innovative heat transfer and thermal storage.

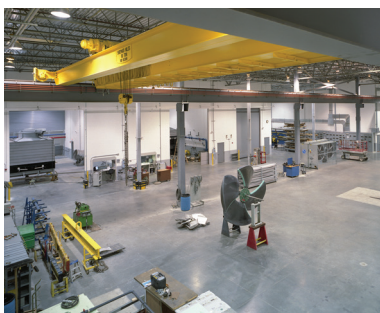


Reliability - At BAC, we care about the quality of our work and the relationship with our clients.

BAC delivers the **highest quality products**, designed and manufactured according to the latest standards and local regulations. The thermal performance of all standard BAC cooling towers and crossflow closed circuit cooling towers is independently **certified by CTI-Eurovent**.

With more than 80 years of experience, we have over 200,000 units reliably operating worldwide, all locally supported throughout the product life-cycle.

At BAC we have a **continuous learning culture** that stimulates people to become key experts in various aspects of the cooling industry. We look forward to using our expertise and network to your advantage.

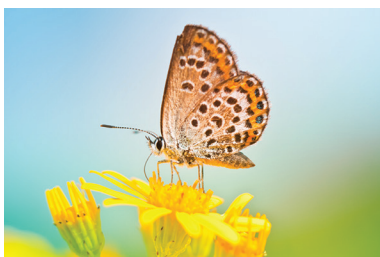


Innovation - At BAC, we are passionate about innovation.

Our design process is streamlined and systematic. We start with the research of new technologies and end with providing a quality product to the jobsite.

Ongoing investment in research, combined with the **most advanced R&D laboratory facility in the industry**, enables BAC to consistently offer the most technologically advanced products to exceed both industry standards and the needs of our customers. As a result, BAC holds **more than 100 patents**.

Impassioned by innovation for more than 80 years, today we broadly adopt innovation and creativity across all our business functions and business processes to reach new levels of industry leadership. We are driven to bring new value into your future.



Sustainability - At BAC, we care deeply about our planet and its natural resources.

For more than 80 years we've been helping our customers achieve their sustainability goals. Today we **integrate sustainability not only into WHAT we do but also into HOW we do it**. Sustainable innovation is fostered and cultivated in all BAC's business processes. Our 5 sustainability goals guide us each day to become **the leading provider of sustainable cooling solutions**. We are committed to become your most sustainable partner.

Sustainability commitments



Develop and offer innovative products.



Design and operate our facilities to efficiently use natural resources.



Partner with suppliers to align with BAC's sustainability goals.



BLUE by nature GREEN at heart

Create an environment that encourages our employees, our communities and our partners to conserve and respect natural resources.



Be the recognized leading provider of sustainable heat transfer solutions.

HEAT TRANSFER PRODUCTS

		Crossflow	Counter flow	Combined flow	Indoor installation	Axial fan	Centrifugal fan	Low sound	Energy efficiency	Easy maintenance	Operational safety	Water saving
Open cooling towers	S1500E	•				•		C	A	A	A	
	S3000E	•				•		C	A	A	A	
	FCT/IST		•			•		F	A	D	D	
	VTL-E		•		•		•	A	F	D	E	
	VT 0/1		•		•		•	A	F	D	E	
Closed circuit cooling towers	FXVE			•		•		C	A	A	A	E
	FXV-D			•		•		C	A	A	A	E
	FCI		•			•		F	A	D	D	D
	VFL		•		•		•	A	F	D	E	D
	VXI		•		•		•	A	F	D	E	D
	HXI			•		•		C	A	B	B	C
	SP		•			•		D	C	A	A	B
	DFCV-AD		•			•		D	C	A	A	B
Evaporative condensers	CXVE			•		•		C	A	A	A	E
	CXV-D			•		•		C	A	A	A	E
	ECI		•			•		F	A	D	D	D
	VCL		•		•		•	A	F	D	E	D
	VXC		•		•		•	A	F	D	E	D
	VCA		•			•		E	B	D	E	D
	HXC			•		•		C	A	B	B	C
	TSDC		•			•		D	C	A	A	B
	TVFC		•			•		E	D	A	A	B

Addition of product accessories can improve standard product features e.g. sound attenuation, plume abatement, maintenance, operational safety, corrosion protection. Contact your BAC representative for more information.



More information on www.BaltimoreAircoil.co.za



Benefits

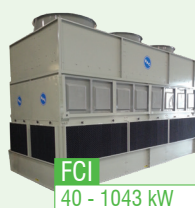
- Contaminant-free cooling circuit
- Reduced system maintenance
- Lower overall system costs thanks to year-round reliable savings on maintenance, water, energy and water treatment
- Dry operation in winter

How does it work?

Closed circuit cooling towers dissipate the process fluid heat load into the ambient air via a heat exchange coil. This isolates the **process fluid** from the outside air, keeping it **clean** and free from contamination in a closed loop.



Closed Circuit Cooling Towers



Evaporative Condensers

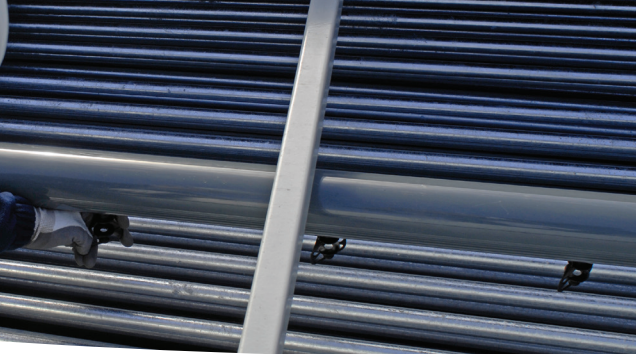


Benefits

- Initial cost savings
- Low system operating costs: low condensing temperatures for a more compact compressor using less power
- Low refrigerant charge minimizing costs and environmental impact
- Space saving: up to 50% area savings compared to air-cooled installations

How does it work?

The refrigerant vapour is condensed in a **coil**, which is **continually wetted** on the outside by a recirculating water system. Air is circulated over the coil, evaporating a small portion of the water. The heat is removed from the vapour in the coil, causing it to condense.



Benefits

- Optimized electricity usage, water usage and water treatment
- Reduced maintenance
- Simplified system design

How does it work?

The **hybrid wet/dry** products cool the liquid to be cooled by efficiently combining dry sensible air cooling with evaporative cooling. These products include two or more distinctive heat transfer surfaces combined into one product optimising the use of **the ambient dry and wet bulb temperature**.



Hybrid Cooler & Condenser



HXI
130 - 1275 kW



HXC
545 - 1895 kW

Adiabatic Coolers and Condensers



TVFC
250 - 2000 kW



SP
340 - 1560 kW



DFCV-AD
220 - 1620 kW



TSDC
109 - 371 kW

Benefits

- Low process temperatures
- Saving more than 80% on annual water compared to cooling towers
- Up to 40% increased capacity compared to dry cooling
- Reduced energy consumption
- Operational safety

How does it work?

Adiabatic products are air-cooled coolers with adiabatic **pre-coolers**. Before the fan draws the ambient air through the finned coil, the air is pre-cooled adiabatically when traversing an **humidification pad**. This evaporates the water in the air, thus boosting the cooling capacity.

Benefits

- Guaranteed thermal performance
- Low maintenance
- Long service life

How does it work?

Refrigerant liquid is evaporated in a coil. The fans draw the ambient air into the evaporator and force the air over the finned coil. The liquid inside the coil absorbs the heat from the air and evaporates. Then this cooled air is blow into the area that needs to be cooled. BAC manufactures 2 types of evaporator coils: galvanized and stainless steel aluminium. They can come with horizontal or vertical headers.



Evaporators



All our evaporator selections are custom engineered by our Engineering Team and tailored to suit our customer's unique applications and capacity requirements to ensure optimum efficiency and performance. Modelled in accordance with BAC's strict design criteria, and based on a proud heritage of over 80 years of air coil design and manufacturing, all selections are accompanied by comprehensive engineering data sheets and supporting drawings.



Benefits

- Very efficient cooling
- Low process temperatures
- Small footprint

How does it work?

Open cooling towers discharge heat from water-cooled systems into the atmosphere. The hot process water is distributed over a **fill pack** (heat transfer medium) to interface with air blown by a fan through the cooling tower. During this **evaporative cooling** a small part of the water evaporates while cooling the remaining process water.



Check ongoing validity of certificate: www.cti.org



Open cooling towers



Ice thermal storage products



Benefits

- Refrigeration systems up to 50% more compact
- Operational cost savings
- Low energy consumption
- Reduced carbon footprint
- Less compressor maintenance
- Back-up cooling

How does it work?

These products use ice to **build and store cooling** when cooling demands and/or energy rates are low (mostly overnight). The system then uses this stored cooling for air-conditioning or process purposes when energy rates are high (mostly daytime). There are 2 melt types. For **"internal melt"** only glycol solutions can be used as secondary refrigerant. **"External melt"** ice storage products can use either direct refrigerant feed or glycol solutions.



BAC ORIGINAL SPARE PARTS AND SERVICES KEEP YOUR EQUIPMENT IN OPTIMUM CONDITION

BAC original spare parts are not just components. They guarantee year-round reliable operation of your cooling equipment.

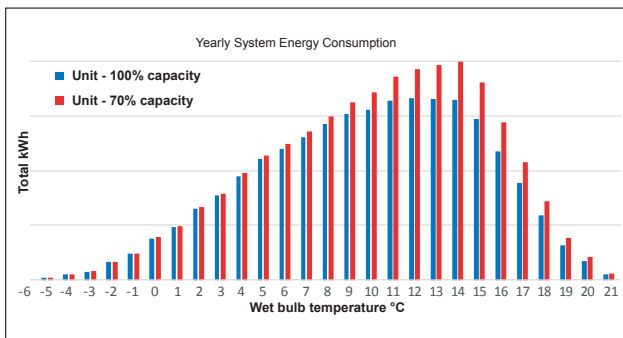
So make sure you take advantage of all the benefits BAC spare parts offer:

- Original performance for lowest system operation cost
- Minimum downtime and maximum lifetime
- Operational safety
- Improved operation and maintenance through integration of latest technology
- Long-term availability and traceability
- Quick delivery

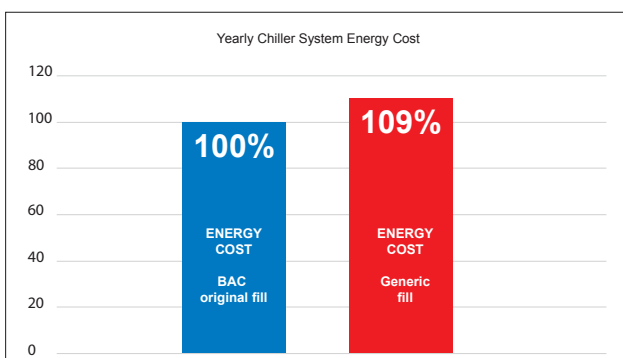
Lowest system operating cost

Using generic fill means

- up to 30% capacity loss,
- 3°C higher temperature,
- 9% higher chiller system energy cost.

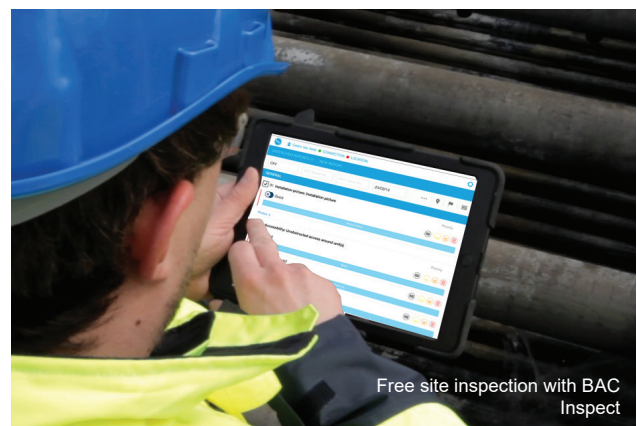


Unit with generic fill has a 30% capacity loss yearly, with a 3°C higher temperature.



Using generic fill leads to 9% higher chiller system energy costs.

BAC offers a complete range of products and **services** for optimal efficiency and safe operation of your cooling equipment.



Free site inspection with BAC Inspect


These services include:

- Rigging, supervision, start-up and commissioning
- Preventive maintenance
- BAC Inspect – free site inspection followed by an extended condition report
- Corrective repairs
- Refurbishment and upgrades
- Cleaning and disinfection

Are you searching for a specific spare part for your equipment?

Find a detailed 3D view specifically designed for your product.



Go to www.baltimoreaircoil.co.za/parts/parts-list-with-3d-view and find your product. 



OPTIONS AND ACCESSORIES

At Baltimore Aircoil Company, we never stop investing in **research and development** to improve our products. We offer options and accessories that bring solutions for different customer needs. Discover a selection of options here:



Improve maintenance and accessibility



Ladder & platform



Filter



Save water



Water treatment equipment



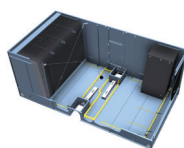
3-way-valve



Increase hygiene



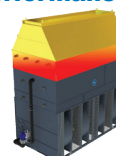
Clean out port



Sump sweeper piping



Save energy and increase performance



Discharge hood



Baltiguard drive system



Reduce sound emission



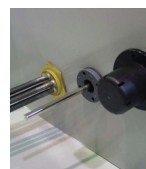
Sound attenuation



Whisper Quiet Fan



Increase reliability



Basin heater package



Standby pump

Refurbishment services extend the equipment's operating life. **New technology and upgraded** components can be incorporated into existing installations. Upgrades allow you to **comply with any new regulations or standards**.



More information

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