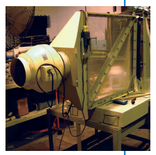
Proven performance with original BAC fill

Baltimore Aircoil has more than **70 years of experience and technical expertise** to guarantee outstanding performance of the fill for each BAC cooling tower.

Most of the BAC fill types are designed and developed in BAC's R&D laboratory. Engineers subject the fill to all kinds of environmental and operational conditions. These include testing on

- the influence of air and spray water flow, pressure and distribution patterns;
- the installation and maintenance procedures of the fill in order to keep the original performance and to guarantee operational safety.

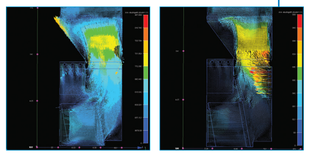
Counterflow fill testing



Crossflow fill testing

As a result almost every BAC fill pack is **patented** and **manufactured in house** to ensure the highest quality.

That's why replacing the heart of your cooling tower with non-authorised fill could lead to a significant reduction in performance and operational safety.



Air flow testing under different conditions

Major risks when choosing fill other than original BAC fill

1. The thermal performance of your equipment decreases compared with the original design capacity. Capacity shortage may only appear in peak periods – but by then it is too late to react or diagnose properly. Lower efficiency means that your system energy consumption will increase over the whole year.

2. Your cooling equipment needs more maintenance. Non-authorized fill can foul more easily and rapidly, resulting in a faster replacement need with extra down-time and fill purchase expenses.

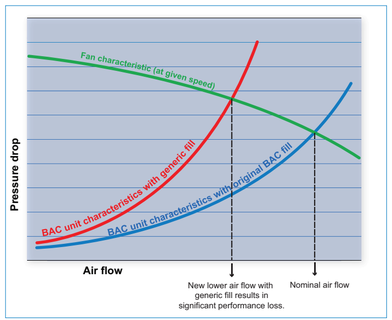
3. Your cooling equipment suffers from a longer than expected downtime. Fill that does not fit properly needs extra adjustments or replacement of extra components. This requires more labour and downtime. Increased downtime is even more relevant if you allow fill to be replaced by non-qualified technicians.

4. You encounter extra costs. If the thermal performance is no longer met, your year-round energy cost will be higher. Additional materials and labour for finding and fitting the fill are almost never taken into account when ordering cheap fill.

5. You are exposed to higher hygiene risks. The use of non-authorized fill can result in uneven water and air distribution. This may cause higher drift emissions of possible contaminated water. Additionally, generic fill is more sensitive to fouling and the development of bacteria and biofilm. Both of these consequences increase risk of Legionella outbreaks.

The graph below shows a typical example of what happens with the air flow inside the unit when using non-authorized fill.

Generic fill has other characteristics and typically a higher pressure drop. The new operation point may result in 35 % less air flow through the unit. This is a significant reduction of the unit's capacity.



Baltimore Aircoil

Keep the heart of your cooling tower in optimal condition with ...

BAC filtration packages and water treatment equipment

Dissolved minerals present in water as well as airborne particles that are carried into the tower will concentrate into the recirculating water. This condition can cause scale, corrosion, fouling and microbiological growth. Such results can place your fill in an undesirable condition.

BAC offers a wide range of specifically designed equipment that will protect the critical components of your tower, such as the fill, and prevent proliferation of harmful bacteria, including legionella.

- **Automatic water treatment assemblies** will control the quality of the recirculating water, minimise the water usage and are compatible with any chemical treatment programme.
- **Filtration packages** with basin sweeper piping will keep the water clean, minimising the cleaning requirements while improving the water treatment programme to work better.

Your benefits

- Achieve good water quality for optimal thermal performance
- Keep your fill clean to reduce maintenance or prevent replacement
- Avoid harmful microbiological growth

Factory trained service technicians

BAC has teams of trained and qualified technicians in your area that are experienced in working on all the models in the BAC range. They know how best to replace your fill pack with minimum downtime and guarantee that the work is properly executed to retrieve and maintain the original unit performance.

Your benefits

- Less downtime
- A quality job at competitive cost

www.BaltimoreAircoil.eu
info@BaltimoreAircoil.eu

For more information visit our website at www.BaltimoreAircoil.eu or contact your BAC representative to assist you with the upgrade or maintenance of your cooling installation, to ensure your process operates continuously at the highest efficiency.

BALTIMORE AIRCOIL COMPANY

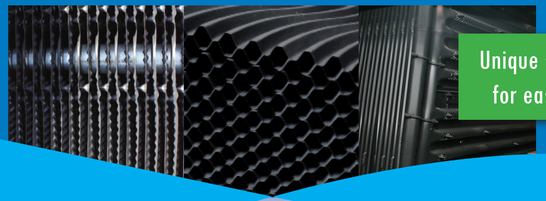
Your local contact:

... because temperature matters™

S FILL v02 EN

Baltimore Aircoil

Original BAC fill ...



Unique sheet design for easy cleaning

... is the heart of your cooling tower

Don't let wrong fill break the heart of your cooling tower.
Let BAC assist you in choosing **the best fill** and have maximum confidence in the **reliability and performance** of your BAC cooling tower.

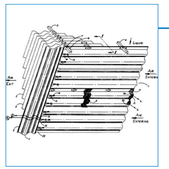
BAC fill guarantees :

- Original performance for lowest system operating cost
- Minimum downtime and maximum lifetime
- Operational safety
- Easy maintenance and cleaning

BALTIMORE AIRCOIL COMPANY

... because temperature matters™

Crossflow cooling towers



BACross®

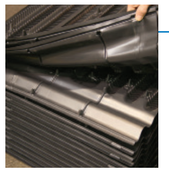
Original performance

- Guaranteed original performance
- Easy core inspection
- Reduced fouling
- Perfect fit : model specific size
- Optimal absorbed fanpower (kW)

CHARACTERISTICS

- BAC patented sheet design with maximum air and water contact
- Integrated eliminators (Eurovent certified)
- Self-extinguishing PVC material, impervious to rot and biological attack
- For temperatures up to 50°C

REPLACEMENT
TXV
FXT
S3000 previous generation
FXV, HXI (cooler)
CXV, HXC (condenser)



BACross® bundles

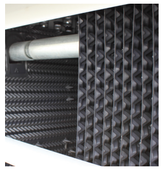
Easy dismantling & cleaning

- Guaranteed original performance
- Easy to handle, lift, dismantle and rebundle
- Easy core inspection : by bundle and by sheet
- Easy to clean
- Reduced fouling
- Perfect fit : model specific size

CHARACTERISTICS

- BAC patented sheet design with maximum air and water contact
- Bundled including hang-up handle
- Integrated eliminators (Eurovent certified)
- Self-extinguishing PVC material, impervious to rot and biological attack
- For temperatures up to 50°C

UPGRADE or REPLACEMENT
TXV
S3000 previous generation
FXV, HXI (cooler)
CXV, HXC (condenser)



BACross® II

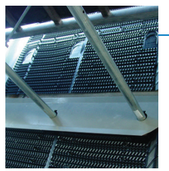
Sheet by sheet cleaning

- Guaranteed original performance
- Lower maintenance costs
- Easy core inspection : sheet by sheet without dismantling
- Easy cleaning : sheet by sheet inside the tower
- Easy to handle in tight enclosures or site conditions
- Perfect fit : model specific size
- Low shipping costs through nested shipment and smallest fill staging

CHARACTERISTICS

- BAC patented sheet design with telescopic fill support
- Maximum air and water contact
- Integrated eliminators (Eurovent certified)
- Self-extinguishing PVC material, impervious to rot and biological attack
- For temperatures up to 50°C

REPLACEMENT
S3000D
FXVE, FXV-D (cooler)
CXVE, CXV-D (condenser)



VersaCross™

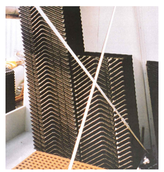
Increased capacity

- Improves thermal performance of original BACross fill by an average of 7.3 %
- Easy core inspection : sheet by sheet without dismantling
- Easy cleaning : sheet by sheet inside the tower
- Efficient installation with model specific retrofit kits
- Low shipping costs through nested shipment and smallest fill staging

CHARACTERISTICS

- BAC patented sheet design with telescopic fill support
- Integrated eliminators and louvers
- Complete installation kit supplied to upgrade existing unit
- Self-extinguishing PVC material, impervious to rot and biological attack
- For temperatures up to 50°C

UPGRADE
S3000 previous generation



Fill blocks

High temperature applications

- Lower initial cost
- High temperature applications (up to 70°C)
- Easy handling

ATTENTION: Fill blocks are not recommended for retrofitting BAC products because

- Up to 35 % loss of performance
- Very sensitive for fouling and hence higher maintenance costs
- Difficult to clean

Fill blocks are typically used in non-BAC cooling towers.

CHARACTERISTICS

- Welded blocks, crossflow pattern
- Integrated louvers
- Extra layer of (integrated) eliminators included
- Bottom frame included in retrofit kits
- Polypropylene material, impervious to rot and biological attack
  Also available in flame retardant material
- For temperatures up to 70°C

RETROFIT or REPLACEMENT
Crossflow units

Counterflow cooling towers

REPLACEMENT
VXT
VTL

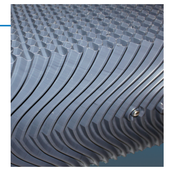
CHARACTERISTICS

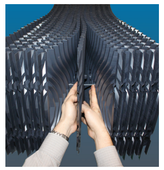
- BAC patented sheet design with maximum air and water contact
- Self-extinguishing PVC material, impervious to rot and biological attack
- For temperatures up to 55°C

BACount® bundles

Easy cleaning by bundle & sheet

- Guaranteed original performance
- Easy to handle, lift, dismantle and rebundle
- Easy core inspection : by bundle and by sheet
- Easy to clean
- Reduced fouling
- Perfect fit : model specific size. VTL has a sloping cut design for optimum performance.





REPLACEMENT
IMT
RCT
FCT
PTE

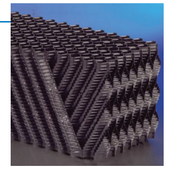
CHARACTERISTICS

- BAC tested cross fluted fill design
- Polypropylene material, impervious to rot and biological attack
  Also available in flame retardant material
- Model specific fill pattern
- Sheet spacing:
  - 12 mm for clear water application
  - 19 mm non-clogging for industrial application
- For temperatures up to 65°C

BAC Versapak®

Easy handling

- Guaranteed original performance
- Easy to handle, lift and remove
- Easy to replace
- Perfect fit : model specific size
- High temperature application



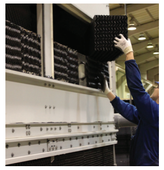
PTE

Special execution

- Special modules with lift-out-handles for easy removal
- Removable side panel option

Special execution

- Safe and easy inspection of fill core
- Easy maintenance and replacement



UPGRADE or REPLACEMENT
RCT
IMT

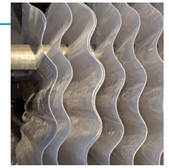
CHARACTERISTICS

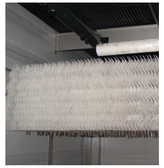
- BAC tested panel design with telescopic fill support and 26 mm non-clogging panel spacing
- Heavy duty waved FRP panels
- Nested for shipment

FRP fill

Dirty water applications

- Guaranteed original performance
- Easy to handle, lift and dismantle
- Easy core inspection
- Easy cleaning : sheet by sheet without dismantling
- Ideal for dirty water applications
- Low shipping costs through nested shipment and smallest fill staging





High temperature fill

BAC offers for all cooling tower types high temperature fill alternatives, depending on the type and requirements

- in CPVC instead of PVC fill material,
- in polyprop bundles instead of PVC bundled sheets.

In most cases changing the fill alone is not a sufficient solution. Other components of your cooling tower may need an upgrade as well.
We recommend to discuss your needs with your local BAC representative to ensure your process operates continuously at the highest efficiency.

BAC BALTIMORE AIRCOIL COMPANY