

NEW HYBRID TECHNOLOGY

RELIABLE PERFORMANCE IN ALL WEATHER CONDITIONS

Clean air solutions for turbomachinery

CAM-FLO GT HYBRID

BREAKTHROUGH TECHNOLOGY PROTECTS YOUR GAS TURBINE FROM THE ELEMENTS

The Cam-Flo GT Hybrid is a new generation of premium bag filters for gas turbines that utilize the breakthrough Hybrid media technology to combine glass fiber and synthetic fibers. The results are a smart solution for an extended filter life, a stable and predictable performance, and most of all, carefree operations.

Why pre-filtration matters

Pre-filters have an important impact on the overall efficiency of a filtration system. They are generally used as a first line of defense against the elements, and should therefore have good water handling performance and the capability to remove large amounts of heavy particulate from the airstream. Strength and dust holding capacity are obvious characteristics to consider.

Pre-filter efficiency is often overlooked since it may be perceived as only protecting and extending the life of the final filter. While this is true, air particulate filters do not work like strainers. Filter efficiency impacts all particle size by probability, so pre-filters may remove small particulates from the airstream that a final filter could have let through, increasing overall system efficiency. The pre-filter impact on overall efficiency is more important for lower grade final filters, while the pre-filter impact on extending the final filter life is more important on EPA grade final filters.

Table 1 shows how the right pre-filter can substantially reduce salt ingestion for turbines located in coastal environments.

TABLE 1. PRE-FILTER EFFICIENCY IMPACT

Gas turbine coastal application example

Pre-Filter	Final Filter	Penetration (g)
None	F9	9659
F7	F9	3054
G4	E10	353
F7	E10	227
F9	E10	136
None	E12	14
F7	E12	10
F9	E12	9

*Estimates based on one year operations (5500hr) of a 27MW gas turbine in a coastal environment (ambient salt concentration of 0.3 particles per million).
Filter classes according to EN779:2012 and EN1822:2009*



Application areas

A robust filter suitable for all environments, the Hybrid can be used in areas with high dust loads, turbulence or high humidity.

Most common applications where long filter life is needed:

- Air inlets for gas turbines
- Diesel engines
- Industrial air compressors
- Ventilation systems on control rooms and acoustical enclosures

THE HYBRID TECHNOLOGY

Performance and reliability that works for you

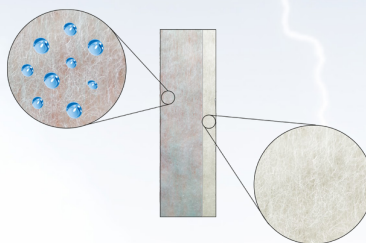
The Cam-Flo GT Hybrid filter combines the high efficiency and low pressure drop of glass fiber media with the strength and durability of the synthetic fibers. The result is an increased dust holding capacity and an extended filter life.

The synthetic pre-layer is composed of a lofty synthetic media that allows humidity to drain or dry out. It stops droplets, coarse and fine particles, providing reliable and predictable operations no matter the weather events. The fine glass fibers have high mechanical efficiency - they stop particles down to a sub-micron size and have a high dust holding capacity for great filtration performance.

KEY FEATURES

SYNTHETIC PRE-LAYER

The synthetic fibers have excellent high mechanical strength and durability, which makes it a perfect pre-filter match for gas turbine operations in areas where considerations for high humidity and/or turbulence are important.

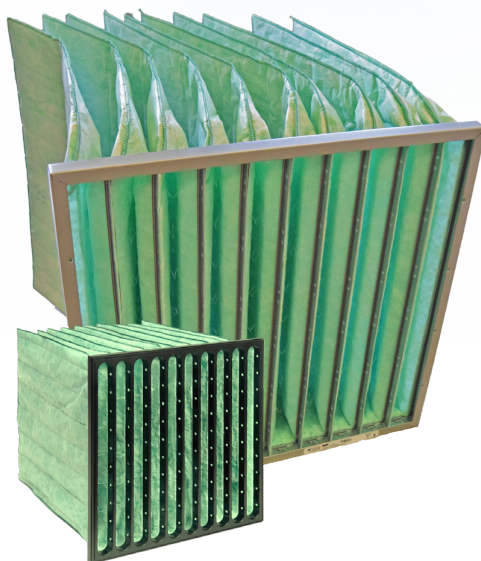


FINE GLASS FIBERS

Glass fiber media is best known for its efficiency, delivering high, stable and reliable performance. It has the finest, but most delicate fibers.

CONTROLLED MEDIA SPACING (CMS) Maximum Surface Use

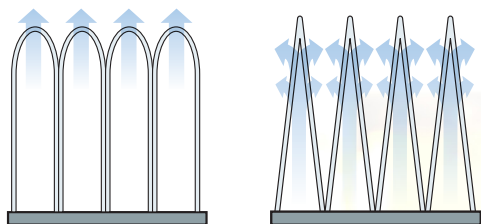
The pocket design of the Hybrid distributes the air more evenly over the filter area, using the entire filter surface. The filter pockets are manufactured using the proprietary CMS method. Each pocket is formed into a uniform V-Shape, inhibiting contact between bags and optimizing the airflow profile.



FRAME

The Hybrid filter is available with a rigid galvanized steel for maximum robustness or plastic for full incinerability. It is sealed with a neoprene gasket on either the upstream or downstream side.

Controlled media spacing



Traditional pockets

CMS V-shape pockets

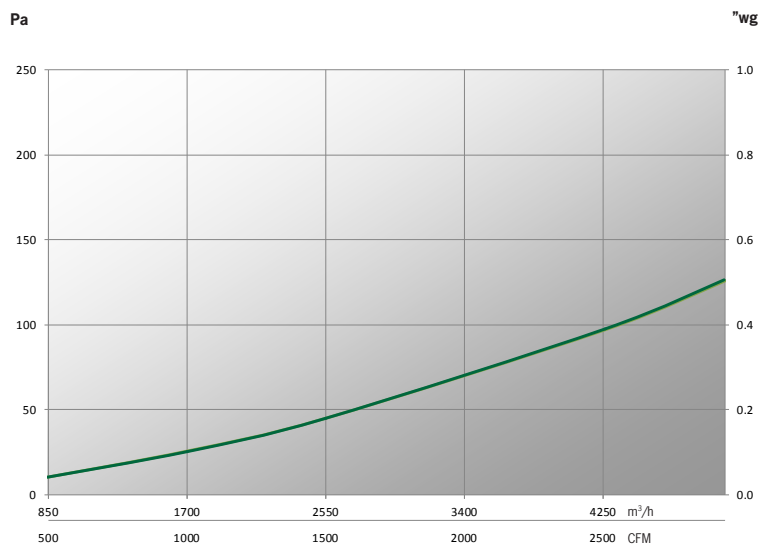
Key benefits

- Worry-free, and more profitable operations
 - More power output
 - Reduced fouling
 - Longer filter life
 - Lower pressure drop
- Less CO₂ emissions



Camfil Power Systems

Pressure drop



Technical data

Model	Media	Frame	Length x O.D. mm inch		Air flow/Press. loss m³/h/Pa CFM/"wg		Filter class
Cam-Flo Hybrid XMGT	Synthetic/ Glass	Galvanized steel	592x592x640	24 x 24 x 25	4250/ 90	2500/ 0.36	F7/MERV13
Cam-Flo Hybrid XLGT	Synthetic/ Glass	Plastic	592x592x640	24 x 24 x 25	4250/ 90	2500/ 0.36	F7/MERV13

Type	Bag filter	Rec. final pressure drop	450 Pa / 1.8" w.g. max
Frame	Galvanized steel (XMGT) or plastic (XLGT)	Rec. max. temperature	70°C / 160°F
Media	Hybrid Technology	Nominal air flow	4250 m³/h / 2500 cfm
Pockets	10 (standard)	Efficiency standard	EN779:2012 / ASHRAE 52.2:2017

Application	Suitable for all environments, also in high humidity and/or exposure to high turbulence
Additional information	Standard pocket length 640 mm / 25", other sizes & number of pockets available upon request

www.camfil.com

For further information please contact your nearest Camfil office.