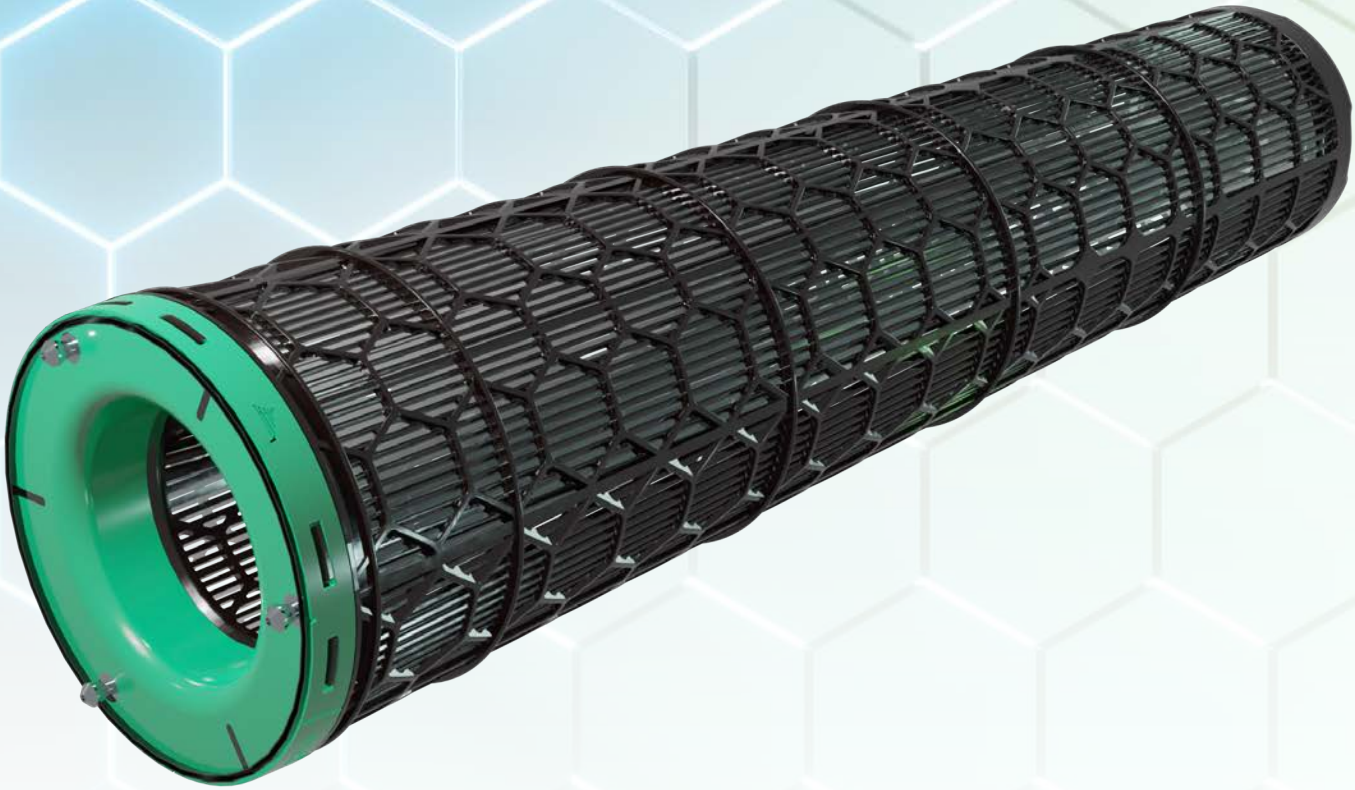
camfil

CAMCARB XG
MOLECULAR AIR FILTER

INNOVATIVE CONICAL DESIGN DELIVERS SUPERIOR PERFORMANCE

Engineered for energy and maintenance cost savings in molecular contamination control applications



Clean Air Solutions

DESIGNED TO DELIVER THE BEST-IN-CLASS PERFORMANCE

First of its kind, the proprietary conical shape of the innovative CamCarb XG delivers lower pressure drop and extended filter life. The lightweight, innovative design offers high media utilization and a long lifetime against corrosive contaminants and irritating gases and odors.

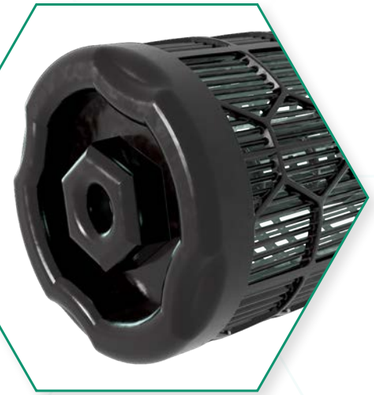
CamCarb XG is a versatile, ergonomic, cost-effective and corrosion-resistant filter suitable for supply, recirculation and exhaust air systems in commercial, industrial and process applications.

INNOVATIVE CONICAL SHAPE CYLINDER

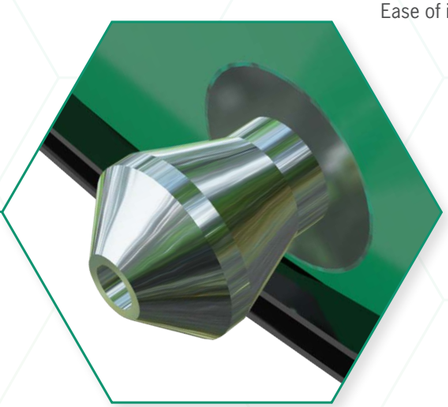
- Maximized media utilization, lightweight and optimized filter performance
- Robust construction
- Corrosion resistant
- Incinerable
- Adhesive-free
- No degradation of media and negligible outgassing
- Fillable with a wide range of molecular filtration media options for various applications

FACTORY REFILLABLE FILTER
Broad selection of media options available

DUST PROTECTION
Dust control protection on selected models

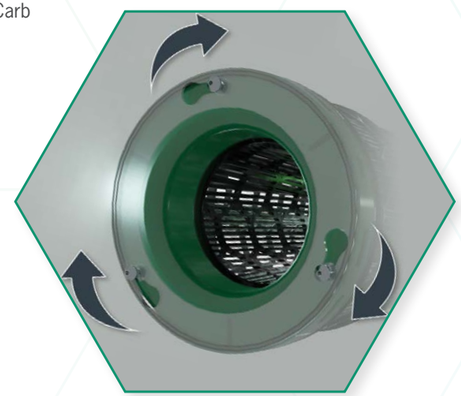


ERGONOMIC GRIP
Ease of installation



UNIVERSAL PINS
Compatible with all CamCarb cylinder holding frames

INTERNAL MOLDED GASKET
Leak-free installation



QUICK AND SIMPLE INSTALLATION

VERSATILE INSTALLATION

By mounting CamCarb XG filters securely in Camfil's unique holding frame, bypass is eliminated and high system efficiency is maintained.

CamCarb XG cylinders installed in Camfil's side access GlidePack cylinder housing are used in air handling units for supply, recirculation, or exhaust air. The CamCarb XG can also be installed in the Camfil CamCleaner with a molecular filter module.

Two-stage filtration is available as an option with a mounting rail for 2" (48mm) particle pre- or afterfilters. Housing can be used in commercial and industrial applications.

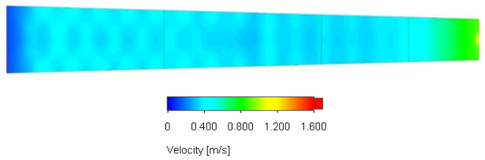
GlidePack CamCarb cylinder housing with CamCarb XG3500 cylinders with 2" 30/30 Dual 9 afterfilter

INCREASED LIFETIME AND REDUCED PRESSURE DROP

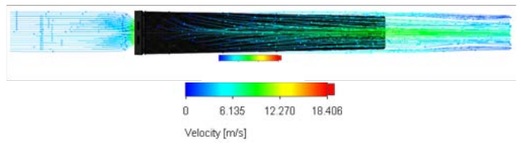
CAMCARB XG

AIRFLOW DIRECTION

Uniform air velocity across the entire filter results in maximum media utilization, longer lifetime.

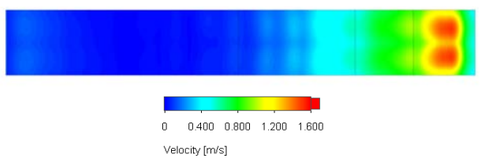


Stable laminar flow at the outlet reduces pressure drop.

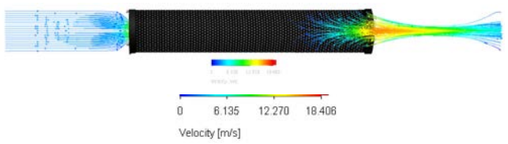


TYPICAL CYLINDRICAL FILTER

Uneven velocity across the entire filter restricts media utilization and decreases lifetime.



Turbulent airflow at the outlet increases pressure drop and energy usage.



**Images generated with computational fluid dynamics simulation*

CAMFIL'S BEST-IN-CLASS SOLUTION

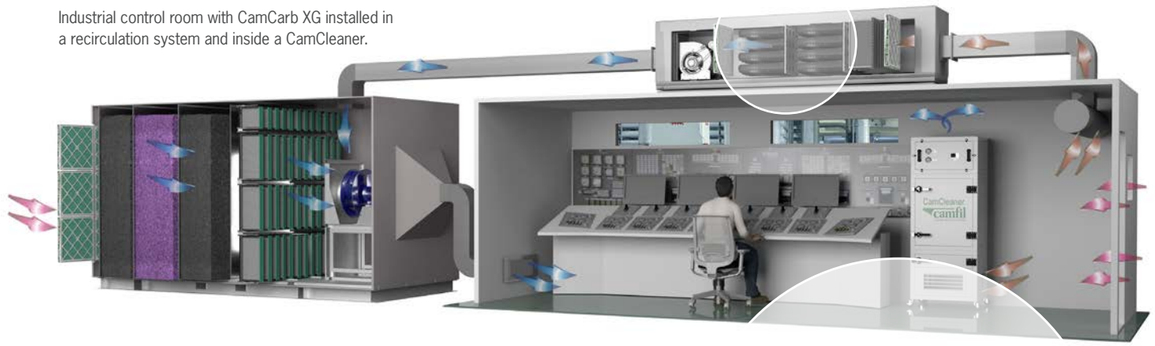
Camfil has always invested heavily in research and development (R&D) to provide the most innovative and cost-effective filtration solutions.

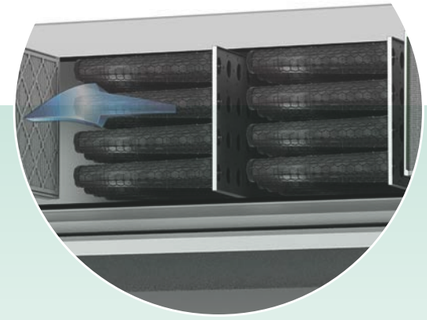
With multiple laboratories and, ISO 10121 test facilities around the world, Camfil develops molecular filtration solutions that meet a wide range of performance requirements. The state-of-the-art resources enabled researchers specializing in fluid dynamics and media adsorption to optimize the CamCarb cylinder shape to minimize pressure drop and maximize media utilization.

By leveraging customer input, intensive research, advanced simulation software, and in-house testing capabilities, Camfil developed a highly innovative product – the CamCarb XG.

The new CamCarb XG is the best-in-class solution. Its conical shape enables high removal efficiency while maintaining low-pressure drop. The patented design maximizes adsorbent media utilization resulting in an overall lightweight filter with a longer lifetime compared to the previous generation cylinder. **This unique combination provides a lower total cost of ownership (TCO).**

Industrial control room with CamCarb XG installed in a recirculation system and inside a CamCleaner.





LOWEST TOTAL COST OF OWNERSHIP

Total cost of ownership is the sum of all costs associated with a filter, including initial purchase cost, energy, service labor and disposal costs. The optimized media utilization, lower pressure drop and increased lifetime of the CamCarb XG provide lower energy consumption, less service labor and reduced waste, resulting in the lowest TCO in its class.

LABOR AND DISPOSAL COSTS UP TO **50%** REDUCTION

ENERGY CONSUMPTION **35%** REDUCTION

**Example for typical product vs existing solutions. Actual values depend on energy, labor and item costs in each country*

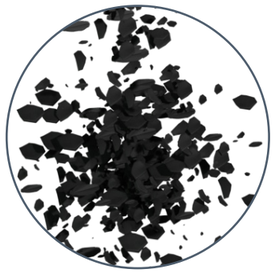
HIGH PERFORMANCE MOLECULAR FILTRATION

Designing the molecular filtration solution with the lowest total cost of ownership (TCO) requires selecting the appropriate media(s) for the contaminant gases.

Camfil molecular filters primarily utilize activated carbon or co-formed alumina or hybrid (CamPure™) adsorbent media.

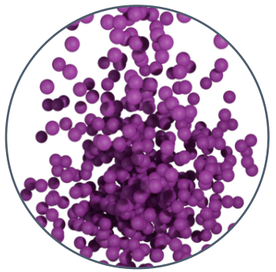
Camfil manufactures media in modern, state-of-the-art production facilities following strict quality assurance procedures and the latest process control technologies.

All media undergoes performance testing in accordance with ISO 10121-1:2013. The test conditions depicted in the standard closely reflect actual operating conditions.

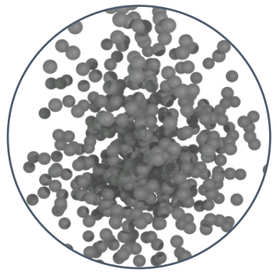


Activated Carbon Granular

Activated Carbon Pelletized



Activated Alumina CamPure™



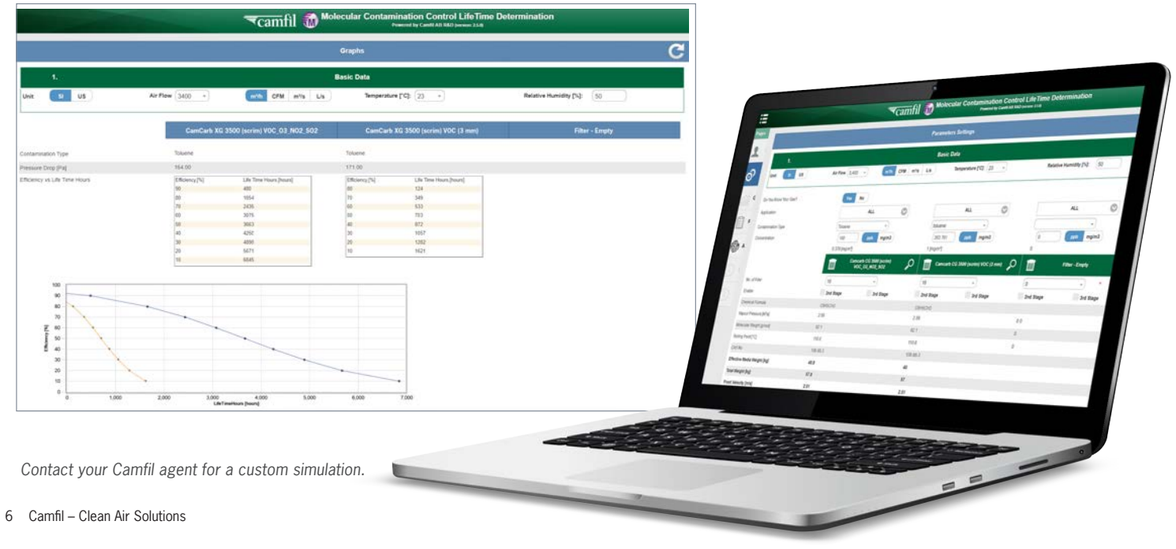
Hybrid Alumina Carbon CamPure™

PROPRIETARY LIFETIME SIMULATION SOFTWARE AND MOLECULAR MEDIA TESTING

The lifetime of the CamCarb XG molecular filtration cylinders can be simulated using Camfil's proprietary software, Molecular Contamination Control Lifetime Determination (MCCLD).

The media filter life analysis provides "best performance estimates" of Camfil's molecular filters under actual conditions.

Camfil recommends that the filter media is tested on a periodic basis for media life analysis. The test provides an indication of remaining removal capacity of the media. With this information, the media usage can be maximized, and the media replacement can be planned in advance before the overall performance of the system starts to deteriorate.



Contact your Camfil agent for a custom simulation.

THE NEED FOR MOLECULAR FILTRATION

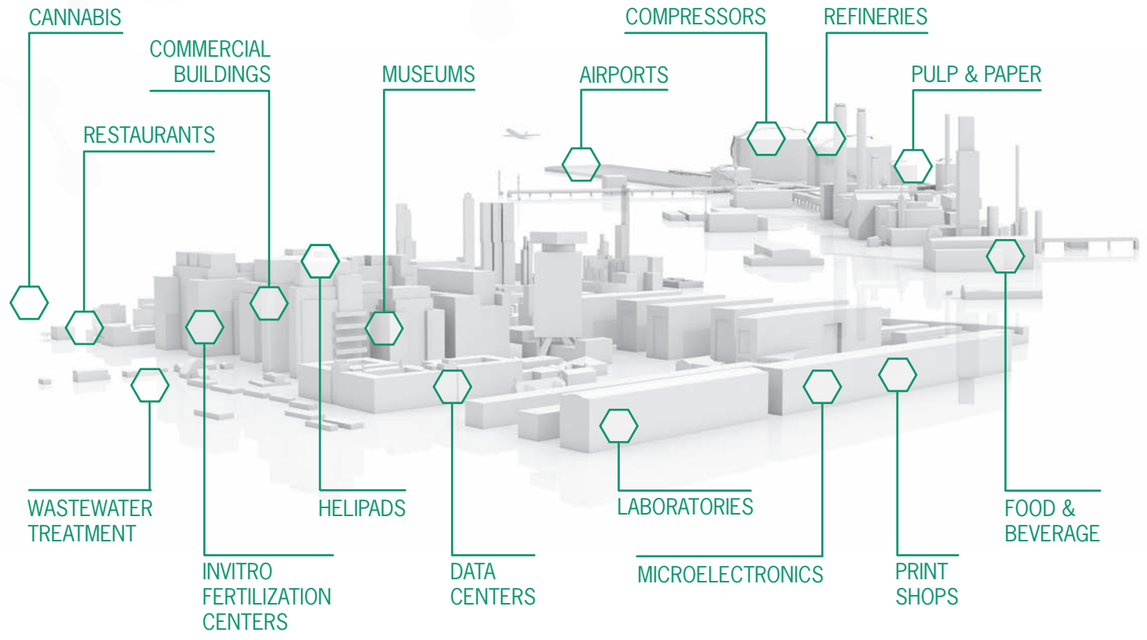
Throughout the industrialized world, there is increasing concern for the threat posed by molecular (also known as gaseous, chemical or gas-phase) pollutants. It is now recognized that the air we breathe is often contaminated by invisible chemical pollution.

Industrial processes, vehicle exhaust and power generation emit gaseous chemicals that threaten the environment and are harmful to human health and sensitive electrical equipment. Exhaust from odorous processes poses a nuisance to the surrounding community.

In addition to being harmful to human health and the environment, atmospheric pollution can cause irreversible damage to precious and seemingly inert objects, such as museum, archival and library artifacts.

Airborne molecular contamination (AMC) has proven to be severely detrimental to the yield of sensitive manufacturing processes, such as microelectronics. In the industry, the presence of certain gases even in concentrations as small as parts per trillion (ppt) can lead to costly product failure.

INDUSTRIES REQUIRING MOLECULAR FILTRATION



CHALLENGES FACED BY END USERS

Molecular filtration can solve gaseous contamination concerns in many industries and applications. It works by a mechanism known as adsorption. In simple terms, gas molecules adhere to or react with materials with extremely high surface areas.

In order to maintain the lowest possible levels of molecular contaminants, many facilities are challenged with the increasing costs of servicing and disposal of depleted filters and media. Additionally, facilities must balance the trade-off of high efficiency requirements with energy consumption.

Camfil – a global leader in air filters and clean air solutions.

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment.

We firmly believe that the best solutions for our customers are the best solutions for our planet, too. That's why every step of the way – from design to delivery and across the product life cycle – we consider the impact of what we do on people and on the world around us. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

The Camfil Group is headquartered in Stockholm, Sweden, and has 30 manufacturing sites, six R&D centers, local sales offices in 35+ countries, and about 5,600 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world. To discover how Camfil can help you to protect people, processes and the environment, visit us at www.camfil.com.

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