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Your Global Air Filtration Partner

Choosing the right air filter for your application is an important decision, whether your goal is ensuring the comfort and well-being of people, protecting production processes, or preventing exposure to dangerous substances. Achieving your goal while minimizing total operating cost makes the choice even more difficult.

Products for all areas and applications.

Selling you a filter is easy. Supplying a clean air solution that includes an in-depth analysis of your needs, professional advice, plant specifications, life cycle cost projections and customer service is much tougher.

Whatever the purpose and size of your filtration investment, look to Camfil, the world leader in air filtration solutions and filter production. You'll gain the security and confidence of working with the most versatile and knowledgeable air filtration partner.

Camfil is the world leader in air filtration and clean air solutions, with 23 production plants and R&D centers in the Americas, Europe and the Asia-Pacific region. In North America our facilities are in Riverdale NJ, Washington NC, Conover NC, Crystal Lake IL, Corcoran CA, Toronto Canada.

Market leaders united. Our knowledge and capabilities are borderless.

With more than 50 years of experience, Camfil delivers value to customers all over the world while delivering something essential to everyone — clean air.

Our customers have access to the world's leading filter products through unmatched distribution and marketing channels. Camfil's commitment to R&D ensures that we can provide the latest filter technology, the highest quality and the best value. Our applications experts provide your in-house staff with "know-how" and experience accumulated over the past half century through operations around the world.

Whether you're in the Americas, Europe or Asia-Pacific region, we're there. We operate in more than 60 countries with an extensive manufacturing and distribution infrastructure to make sure you have access to Camfil products and technical support. We think globally and act locally.

In this brochure, you'll find products and filtration solutions for the following application areas:

Comfort Air - protecting people
Clean Processes - protecting processes
Safety & Protection - protecting the environment

We also offer products for dust collection, gas turbine and transportation applications.

Take the first step toward more effective filtration by reviewing the products on the following pages. For more personalized service, consult your local Camfil Representative.

Make the right choice. Choose Camfil, the world's #1 provider of clean air solutions.

Visit us at www.camfil.us or www.camfil.com to learn more about our innovations, solutions, products, services and expertise.



Comfort Air Protecting People

Camfil ventilation filters prevent airborne particles from reducing airflow volumes in HVAC systems. During their lifetime, these filters keep air-handling systems clean so they can perform in accordance with design parameters.

These same filters also help safeguard the well-being and health of people. Camfil's comfort air filters are commonly used in office buildings, schools, hospitals, conference centers, shopping malls and airports.



Farr 30/30®

- MERV 8 mechanical particle capture, guaranteed to maintain efficiency and last longer
- Specific media blend exclusive to Camfil
- 16, 15 or 11 pleats per foot in 1", 2" or 4" depths respectively, in a wide variety of sizes, 4" deep available with header
- Radial pleats for even dust loading, lower average resistance and longer life
- Welded wire grid for maintaining radial pleats and stabilizing the media
- High wet-strength beverage board frame guaranteed to 2.0" w.g. without filter failure
- MERVA of 8 when tested per Appendix J of ASHRAE Filter Test Standard 52.2
- Listed by Underwriters Laboratories as UL Class 900
- See Literature # 1002

30/30® Dual 9

- MERV 9 mechanical particle capture, guaranteed to maintain efficiency and last longer
- Dual layered media combines two filtration layers in one package. Upstream white layer designed to remove large particles and downstream green layer designed to remove fine particles.
- Combined solution provides a dust holding capacity 4 times higher than general commercial grade pleats.
- 15 or 11 pleats per foot in 2" or 4" depths respectively
- Radial pleats for even dust loading, lower average resistance and longer life
- Welded wire grid for maintaining radial pleat configuration and stabilizing the media
- High wet-strength beverage board frame guaranteed to 2.0" w.g. without filter failure
- MERVA of 9 when tested per Appendix J of ASHRAE Filter Test Standard 5.2
- Listed by Underwriters Laboratories as UL Class 900
- See 30/30 Dual 9 Pleated Panel Air Filter Brochure



5-Star ECI Rating

Camfil's filters are rated as 5-Star filters through the Energy Cost Index (ECI) program. Based upon a five-star scale, the Energy Cost Index is an indicator of what a filter will cost over its lifetime. The best rating – five stars – indicates that the filter is the most energy-efficient, longest lasting filter available.



Aeropleat® IV

MERV 8 and 8-A medium efficiency filtration

Ideal for applications where filters are changed on a PM schedule with planned changes of three to two changes per year

16, 15 or 11 pleats per foot in 1", 2" or 4" depths respectively, in a wide variety of sizes

Radial pleats for even dust loading and welded wire grid for maintaining radial pleats and stabilizing the media

High wet-strength beverage board frame

Listed by Underwriters Laboratories as UL Class 900

See Literature # 1012



Aeropleat® III

MERV 8 and 8-A medium efficiency filtration

Ideal for applications where filters are changed on a PM schedule with planned changes of four to six changes per year

12, 10 or 9 pleats per foot in 1", 2" or 4" depths respectively, in a wide variety of sizes

Radial pleats for even dust loading and welded wire grid for maintaining radial pleats and stabilizing the media

High wet-strength beverage board frame

Listed by Underwriters Laboratories as UL Class 900

See Literature # 1008



AP-Eleven

High efficiency MERV 11 performance in a compact 2" deep filter

16, 15 or 11 pleats per foot in 1", 2" or 4" depths respectively

Fine-fiber synthetic media blend with unique media loft provides high dust holding capacity and longer life

High wet-strength beverage board frame

Excellent prefilter upgrade for medical facilities

Listed by Underwriters Laboratories as UL Class 900

See Literature # 1035



AP-Thirteen

High efficiency MERV 13 performance in a compact 2" deep filter to meet LEED requirements

15 or 11 pleats per foot in 2" or 4" depths respectively

Synthetic media with unique media loft provides high dust holding capacity and longer life

High wet-strength beverage board frame

Excellent prefilter upgrade for medical facilities

Listed by Underwriters Laboratories as UL Class 900

See Literature # 2119



Opti-Pac®

4" deep high-efficiency filter, light weight, easy to handle

Fine fiber media maintains published efficiency throughout the life of the filter

Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2, and MERV-A 11-A, MERV-A 13-A or MERV-A 14-A respectively when tested in accordance with Appendix J of that Standard

Upgrade efficiency in older systems with minimized in-line depth

High wet-strength beverage board frame

Listed by Underwriters Laboratories as UL Class 900

See Literature # 1608



Aeropac®

Rigid box style filter with wet-laid fine fiber sheet media ideal for high-humidity applications

Fine fiber media maintains published efficiency throughout the life of the filter

Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2, and MERV-A 11-A, MERV-A 13-A or MERV-A 14-A respectively when tested in accordance with Appendix J of that Standard

Available in 6" or 12" depths in various sizes

Listed by Underwriters Laboratories as UL 900

See Literature # 1602

Durafil® ES

Radial outlet with 60% more open area, and radial inlet with 30% more open area decreases filter resistance for lower resistance, longer life and less energy usage

Guaranteed to maintain efficiency and last longer

Available in MERV 11, 13, 14 or 16 per ASHRAE Standard 52.2, and MERV-A 11-A, MERV-A 13-A, MERV-A 14-A or MERV-A 16-A respectively when tested in accordance with Appendix J of that Standard

Built-in space to allow air to blend when a prefilter is mounted to the face of the filter

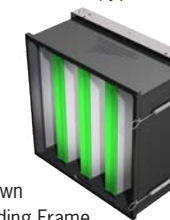
Integral handles for installation ease and frame penetrations for fastener attachment

Excellent choice for air-starved systems

Includes a nominal 1" header and is available in a box style with dual headers

Listed by Underwriters Laboratories as UL Class 900

See Literature # 1515



Box style shown in Type 8 Holding Frame



Durafil® 2V

Unique V-bank mini-pleat design offers uniform airflow and even media loading

Fine fiber media maintains published efficiency throughout the life of the filter

Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2, and MERV-A 11-A, MERV-A 13-A or MERV-A 14-A respectively when tested in accordance with Appendix J of that Standard

Supported media excellent for VAV systems

Includes a header for side-access or built-up bank applications

Listed by Underwriters Laboratories as UL Class 900

See Literature # 1519



All 12" deep Riga-Flo models are available with a 1" (nominal) header

Riga-Flo®

Totally rigid construction; ideal for VAV systems or systems with frequent start-ups and shut downs

Available in MERV 9, MERV 11, 13, or 14 per ASHRAE Standard 52.2, and MERV-A 9-A, MERV-A 11-A, MERV-A 13-A and MERV-A 14-A respectively when tested in accordance with Appendix J of that Standard

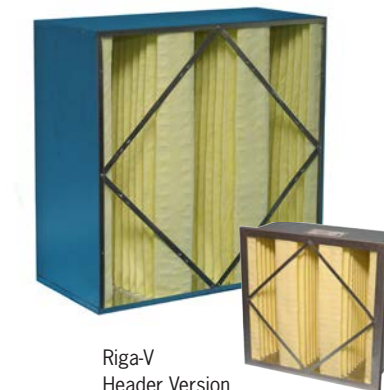
Air-laid, high loft fine fiber media maintains published efficiency throughout the life of the filter

Available 12" and 6" depths

Listed by Underwriters Laboratories as UL 900

Available with a header for side-access applications in 12" depth

See Literature # 1303 or 1303PH (for Riga-Flo with a header for side access)



Riga-V Header Version

Riga-V

High-efficiency air filtration in a low first cost supported media box filter configuration

Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2

High-loft depth-loading synthetic media in a V-pleat configuration for low airflow resistance and longer service life

Contour stabilizers support media and media is bonded to the galvanized steel enclosure

Listed by Underwriters Laboratories as UL 900

See Literature # 1414 or Literature # 1414PH for Riga-V with a header for side access



HP Elements

Externally supported filter cartridge for insertion into metal basket frames

Low replacement element cost, require minimal storage space and are completely incinerable

Listed by Underwriters Laboratories as UL 900

Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2

See Literature # 1103

Hi-Flo® ES

- Extended surface full media exposure multi-pocket filter
- Guaranteed to maintain efficiency and last longer
- Designed for use without a prefilter
- Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2, and MERV-A 11-A, MERV-A 13-A and MERV-A 14-A respectively when tested in accordance with Appendix J of that Standard
- Unique fine fiber media maintains published efficiency throughout the life of the filter
- Tapered pleat construction optimized for low pressure drop throughout the filters service life
- Plastic header frame eliminates the possibility of media damage and simplifys installation
- Listed by Underwriters Laboratories as UL 900
- See Literature # 1203



Hi-Flo®

- Extended surface full media exposure multi-pocket filter
- Available in MERV 9, MERV 11, 13, or 14 per ASHRAE Standard 52.2, and MERV-A 9-A, MERV-A 11-A, MERV-A 13-A and MERV-A 14-A respectively when tested in accordance with Appendix J of that Standard
- Unique fine fiber media maintains published efficiency throughout the life of the filter
- Pleat construction optimized for low pressure drop throughout the filters service life
- Listed by Underwriters Laboratories as UL 900
- See Literature # 1203

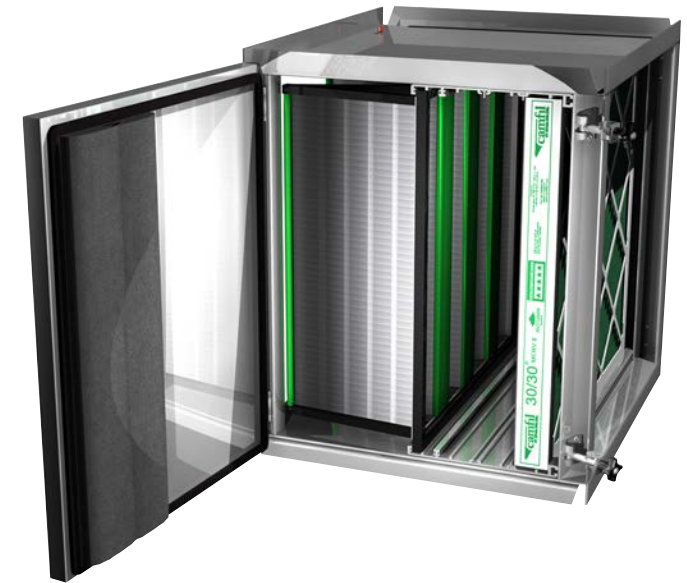
S-Flo

- Extended surface full media exposure multi-pocket filter
- Synthetic media offers high pocket strength
- Listed by Underwriters Laboratories as UL 900
- Available in MERV 11, 13, or 14 per ASHRAE Standard 52.2
- See Literature # 1205



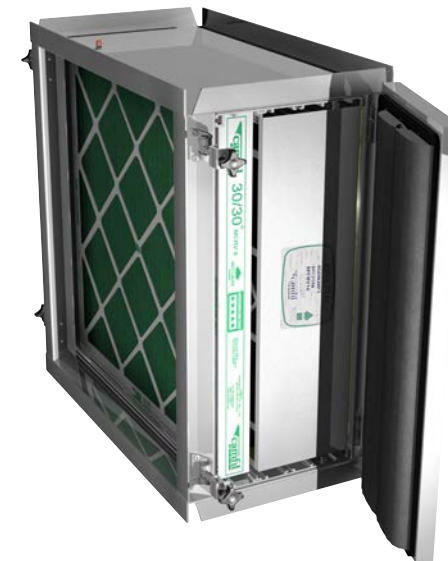
GlidePack® MultiTrack 25

- Side-access air filter housing that can accommodate a 2" or 4" deep prefilter, a 2", or 4" deep intermediate particulate or carbon filter, and a 6" or 12" deep rigid or pocket final filter
- Tracks include slide modifiers that may be moved or removed to change filter configurations
- Replaceable fin seal polypropylene final filter gasketing to ensure a secure filter to track seal of less than 1% across the filter at 3.0" w.g. , all of the air seen by the housing will be treated by the filter
- High-memory sponge neoprene door edge gaskets prevent contaminants from leaking into or out of the housing. Integrity of housing to ambient leakage is less than 1%
- Three integral static taps allows the installation of magnehelic gauge pressure drop readings across any individual filter or combined stages of filters
- Weatherproof 16-gauge galvanized steel dual-access doors for filter service from either side of the unit
- Minimal 25" in-line depth
- See Literature # 2425



GlidePack® MultiTrack 13

- Side-access air filter housing that can accommodate a 2", or 4" deep prefilter, a 2", or 4" deep intermediate particulate or carbon filter, and a 6" deep rigid or short depth pocket final filter
- Tracks include slide modifiers that may be moved or removed to change filter configurations
- Replaceable fin seal polypropylene final filter gasketing to ensure a secure filter to track seal of less than 1% across the filter at 3.0" w.g. , all of the air seen by the housing will be treated by the filter
- High-memory sponge neoprene door edge gaskets prevent contaminants from leaking into or out of the housing. Integrity of housing to ambient leakage is less than 1%
- Three integral static taps allows the installation of magnehelic gauge pressure drop readings across any individual filter or combined stages of filters
- Weatherproof 16-gauge galvanized steel dual-access doors for filter service from either side of the unit
- Minimal 13" in-line depth
- See Literature # 2426



GlidePack® UniTrack 13 & 25

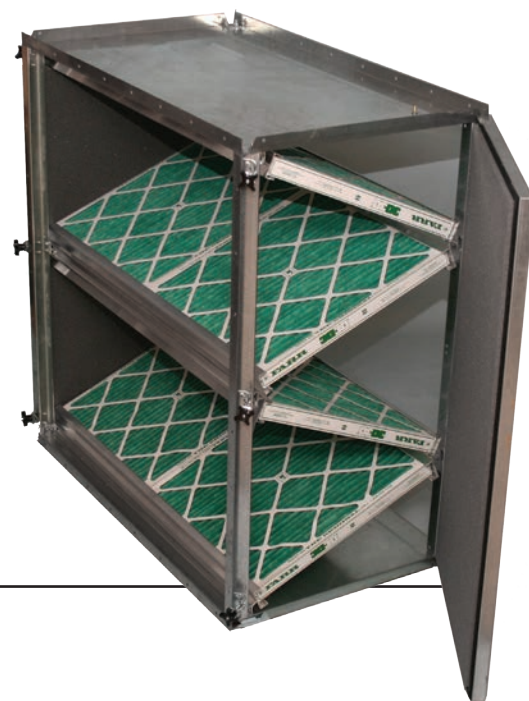
- Side-access air filter housing with a 1-inch nominal size filter header track, that will hold short depth bag filters or 6-inch deep box filters in the GlidePack UniTrack 13, or longer bags or 12-inch deep box filters in the GlidePack UniTrack 25
- Replaceable fin seal polypropylene final filter gasketing to ensure a secure filter to track seal of less than 1% across the filter at 3.0" w.g. , all of the air seen by the housing will be treated by the filter
- High-memory sponge neoprene door edge gaskets prevent contaminants from leaking into or out of the housing. Integrity of housing to ambient leakage is less than 1%
- An integral pneumatic fitting for the installation of an optional static pressure Magnehelic, or preventative maintenance computer system connections to facilitate evaluation of the installed filters
- Weatherproof 16-gauge galvanized steel dual-access doors for filter service from either side of the unit
- Minimal 13" or 25" in-line depth
- See Literature # 2427



Additional options for all housings include stainless steel construction, high-pressure construction (to 8.0" w.g.), double-wall with insulation and transitions to standard HVAC equipment

V-Bank GlidePack®

- Side-access air filter housing
- Accommodates 2" deep filters reducing the filter face velocity thus reducing resistance and energy used by filters
- Weatherproof construction with dual access doors for filter change from either side of the housing
- Integral static tap allows the installation of magnehelic gauge pressure drop readings across filters
- Minimal 28" in-line depth
- See Literature # 2421



DiffuserPack

- Air diffusion device that promotes uniform airflow across HVAC coils, filter banks and other downstream components
- Ideal for air discharge applications
- Pressure drop of less than 0.1" at 500 fpm
- Minimal in-line depth of 12"
- See Literature # 2407

ECO® MoisturePack

- Side-access housing for removal of oil or water mist
- Built-in drain system for liquid carry-off or recycling of liquids for manufacturing processes
- Pre-drilled standing flanges for easy mating to other system components
- Minimal 12" in-line depth
- See Literature # 2408



FastFrame Holding Frame

- Does not require cumbersome fasteners simplifying installation and cutting installation time by 80%
- Universal, accepts virtually all standard filters and depths from any manufacturer
- 16-gauge welded galvanized steel
- Includes a 3/4-inch sealing flange with a premium replaceable gasket
- Prefilters and final filters may be combined in one assembly
- Centering dimples align filters properly in the frame
- Frames may be assembled to banks as high as 6 high (12 feet high) by any number wide
- Frames are pre-drilled for application of filter fasteners for virtually any application
- See Literature # 2429

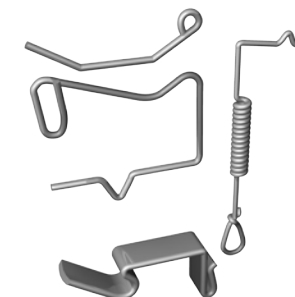


Type 8 Holding Frame

- Universal, accepts virtually all standard filters and depths from any manufacturer
- 16-gauge galvanized steel, stainless steel option
- Prefilters and final filters may be combined in one assembly with appropriate fasteners
- Permanent gasket, where filter meets the frame, ensures that all of the air will be treated by the filter
- Frames may be assembled to banks as high as 6 high (12 feet high) by any number wide
- Frames are pre-drilled for application of filter fasteners for virtually any application
- See Literature # 2301

Fasteners

- Allow secure connection of filters to Type 8 or competitive holding frames
- Over 80 variations available
- May be combined for tandem application of prefiltration and final filtration
- Constructed of high-tensile strength steel, brass or stainless steel
- See Literature # 2301



Type F/S

- Low or high-velocity permanent metal panel filter
- Removal of lint or high concentrations of larger particles
- Low resistance to airflow
- Can be cleaned on site, oiled for higher efficiency
- See Literature # 2001FS



Type 44

- High-velocity permanent metal filters
- Available with different types of media including stainless steel
- Low initial pressure drop
- Can be cleaned on site, oiled for higher efficiency
- See Literature # 2001



ECO® Moisture Separator

- 98% efficiency on water droplets
- Can be used for oil mist applications
- Liquids may be reclaimed for recirculation or reuse in processes
- Used with ECO® Moisture/Pack or built-up bank systems
- See Literature # 2003



CamSorb Canister Green

Designed for installation in Camsorb Canister GlidePack® or Camsorb Canister Holding Frames

Unique bayonet mount and double gasket ensures high mechanical efficiency and low bypass

Available with high-quality carbon or a variety of other adsorbents dependent upon gaseous contaminant challenge, in 18" or 24" lengths

Maximum adsorbent exposure for the highest capture efficiency

Excellent noise attenuation

See Literature # 2112

CamSorb DP

High capacity, low pressure drop box-style filter, with or without header, for odor control using carbon or impregnated carbon for diesel emissions

Minimal 12" depth includes pleated media impregnated with activated carbon for odor removal and ozone control

Media has a particle removal efficiency of MERV 15

Includes Camfil's Rapid Adsorption Dynamics (RAD) carbon for efficiency removal of target pollutants

Ideal for removal of low-level odor control or peak-shaving, and applications where outside air reduction is desirable to reduce energy expenditures

See Literature # 2110



CamCarb PG

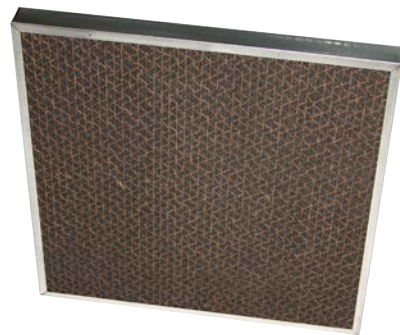
Designed for use in Camsorb CF4A built-up bank assemblies or Camsorb 3CF GlidePack® housings

Up to 85 pounds of coconut shell carbon or other adsorbent per 24" by 24" opening (12 panels required)

Polystyrene panels resistant to corrosive environments (also available in powder-coated steel)

Easily recharged through removable end cap

See Literature # 2101



CamCarb PC

Designed for use in Camsorb RS Retainer/Pack assemblies or Camsorb RS GlidePack® housings

Available in a disposable or rechargeable model

Up to 45 pounds of coconut shell carbon or other adsorbent per 24" by 24" opening (4 panels required per 2000 cfm)

May be used in built-up banks or side-access filter housings (2" deep track)

See Literature # 2103



CamSorb RS25 2-Inch Panels

Partial bypass sorbent panel for low-level contaminant control or peak-shaving

May be used in areas of EPA non-compliance to limit ozone introduction through make-up air. Include up to 8.5 pounds of sorbent per 24" by 24" opening (4 replaceable sorbent modules)

Sorbent panels are completely disposable

See Literature # 2105



CityFlo®

Pocket-style, extended surface filter for removal of particulates and odors

Includes Camfil's Rapid Adsorption Dynamics (RAD) carbon for efficient removal of urban odors and ozone

Media has a particle removal efficiency of MERV 13

Ideal for removal of low-level odor control or peak-shaving, and applications where outside air reduction is desirable to reduce energy expenditures

See Literature # 2119



CityCarb 1

V-cell cartridge design with header for removal of particulates

Minimal 12" depth includes multiple panels of pleated media impregnated with activated carbon for odor removal and ozone control

Media has a particle removal efficiency of MERV 15

Includes Camfil's Rapid Adsorption Dynamics (RAD) carbon for efficiency removal of target pollutants

Ideal for removal of low-level odor control or peak-shaving, and applications where outside air reduction is desirable to reduce energy expenditures

See Literature # 2120



CamCarb VC

V-cell cartridge design with header for installation into built-up bank assemblies or side-access filter housings

12" deep cartridge design features 1" deep panels filled with 26 pounds of coconut shell carbon (other adsorbents are available)

Low resistance to airflow, 0.38" w.g. at 500 feet-per-minute

Recommended for reduction of modest occupancy odors and peak-shaving of ambient air pollutants

See Literature # 2113



CamCarb Cylinder GlidePack®

Heavy-duty side access adsorber housing

Each 24" by 24" section holds sixteen canisters of carbon or other selected adsorbents to remove a variety of gaseous contaminants

Uses CamSorb Canisters for the highest mechanical efficiency available (see Literature # 2112)

Airflow may be in either direction. Integral particulate filter track may be applied as a prefilter or after filter

Weatherproof construction with dual access doors for filter change from either side of the housing

See Literature # 2118



CamCarb PG GlidePack®

Heavy-duty side access adsorber housing

Each 24" by 24" section holds twelve rechargeable CF-1 panels of carbon or selected adsorbent to remove a variety of gaseous contaminants without degradation of cell (see Literature # 2101)

Airflow may be in either direction. Integral particulate filter track may be applied as a prefilter or after filter

Weatherproof construction with dual access doors for filter change from either side of the housing

See Literature # 2107



CamCarb PS RetainerPack

Medium-duty side access adsorber housing

Each 24" by 24" section holds four panels of carbon or selected adsorbent to remove a variety of gaseous contaminants

Uses four CamSorb RS 80 panels per section, available in a disposable or rechargeable models (see Literature #s 2103 & 2105)

Prefilters and adsorbents use the same track, increasing exposure to contaminants and decreasing system pressure drop

Weatherproof construction with dual access doors for filter change from either side of the housing

See Literature # 2108



CamSorb Canister Holding Frame

Heavy-duty canister adsorber frames for built-up bank installations

Each 24" by 24" frame holds sixteen canisters of carbon or other selected adsorbents to remove a variety of gaseous contaminants

Uses CamSorb cylindrical canisters for the highest mechanical efficiency available (see Literature # 2112)

Airflow may be in either direction

See Literature # 2117



CamSorb CF4A Modular Assembly

Heavy-duty adsorber modules for built-up bank installations

Each 24" by 24" section holds twelve rechargeable CF-1 panels of carbon or selected adsorbent to remove a variety of gaseous contaminants without degradation of cell (see Literature # 2101)

Airflow may be in either direction, integral particulate filter frame may accept either a prefilter or after filter, or combination of both

See Literature # 2106



CamSorb RS Retainer/Pack

Medium-duty adsorber modules for built-up bank installations

Each 24" by 24" section holds four panels of carbon or selected adsorbent to remove a variety of gaseous contaminants

Uses four CamSorb RS 80 panels per section, available in a disposable or rechargeable models (see Literature #s 2103 & 2105)

Prefilters and adsorbents use the same track, increasing exposure to contaminants and decreasing system pressure drop

Built-in holding frames allow the addition of prefilters or final filters dependent upon application

See Literature # 2102

CamCleaner (vertical free-standing model)

1000 CFM capacity to service areas that may have corrosive gases and contain sensitive computer or electronic equipment

Applications include pulp and paper mills, photochemical facilities, chemical handling locations, steel mills, refineries, sewerage treatment plants, archival and cultural heritage storage rooms, and data centers

Includes low level air intakes and topside exhaust creating a natural contaminant removal circulation pattern

Particulate filters are available in a variety of efficiencies dependent upon desired contaminant removal and may include a prefilter, a secondary filter and/or an adsorber section

Includes a fan that has been specially selected to deliver uniform airflow at a noise level unobtrusive to room occupants

Includes industrial quality locking casters for ease of transportatio

Electric configuration of 120V 1Ph 60Hz



CamCleaner (horizontal model)

Available in 2000 or 4000 cfm versions to service high load particulate concentration applications such as warehouse dust, welding, oil mist, printing, food & beverage and other locations where direct source capture may be difficult

Particulate filters are available in a variety of efficiencies dependent upon desired contaminant removal and may include a prefilter, a secondary filter and/or a HEPA final filter

Includes a fan that has been specially selected to deliver uniform airflow at a noise level unobtrusive to room occupants, air is delivered through back to the space through adjustable directional louvers

Available with sorbent canisters to remove odors and gases

Available in electric configurations of 120V/1P, 240V/1P, 240V/3P or 480V/3P



City-M Air Purifier

Combines particulate and molecular filtration in one compact unit to remove allergens, dust, gases and odors

Designed for offices, schools, hospitals, nursing homes, hotels, laboratories, stores, and homes

Includes easily replaceable filter modules that incorporate a certified HEPA filter and a carbon-based molecular filter

Filters last twice as long and use 50% less energy than competitors' units

Includes a powerful multi-speed Electronically Commutated (EC) fan with low noise and power consumption

Serves up to 800 sq. ft. and is available in black or white

See Camfil City-M Air Purifier Brochure



CamCarb VG300

Exact replacement plastic adsorber module for existing industrial exhaust system modules

Designed to remove corrosive gases from industrial environments

See Literature # 2121 300

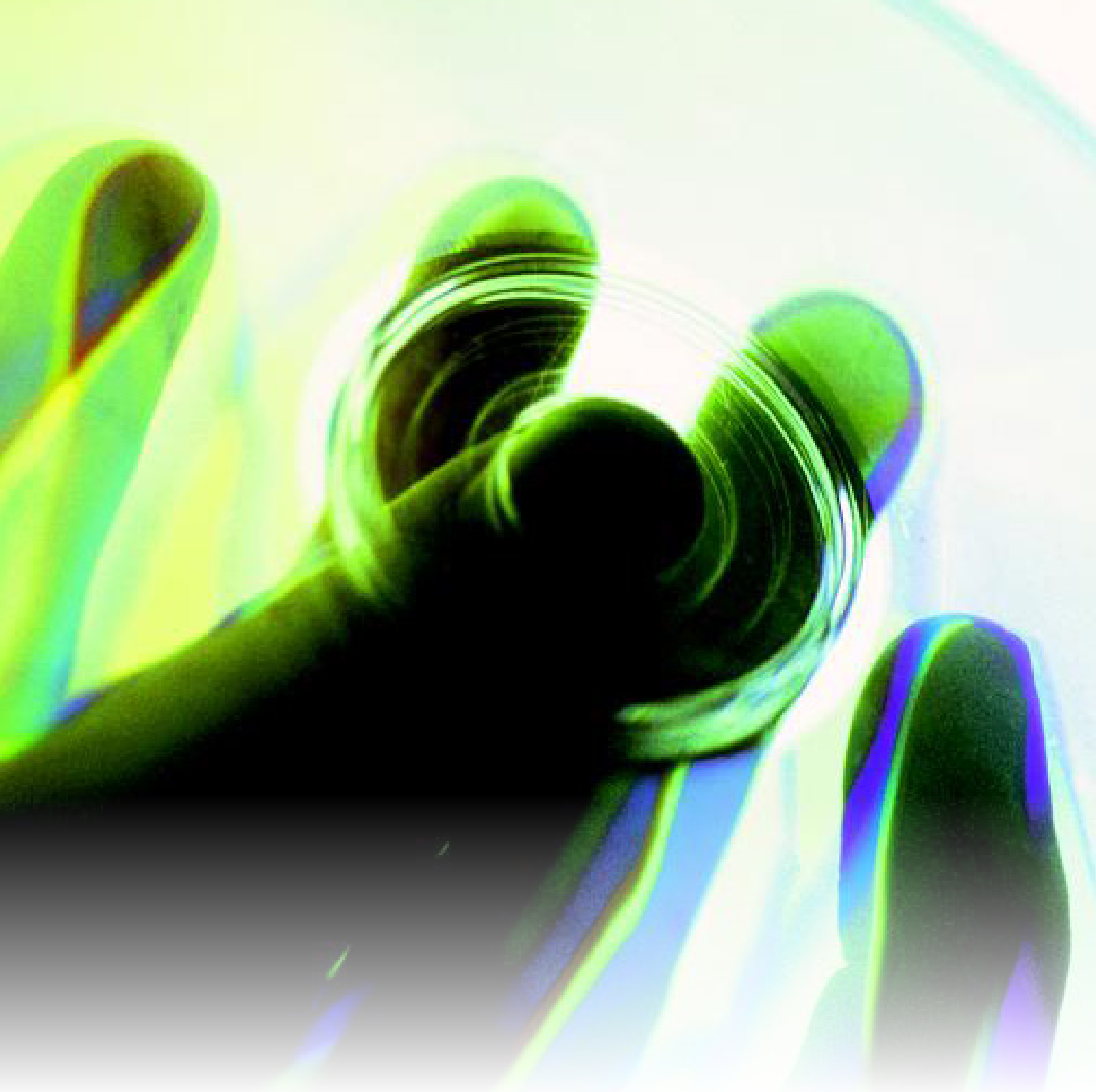


CamCarb VG440

Exact replacement plastic adsorber module for existing commercial odor control system modules

Designed to remove corrosive gases from make up air in commercial environments

See Literature # 2121 440



Clean Processes Protecting Processes

A few unfiltered particles can have serious consequences in certain applications. In fact, certain semiconductor and pharmaceutical processes would be impossible without ultra-clean air.

Different processes require different degrees of air purification, so an important part of Camfil's business concept is to help customers analyze and specify their requirements. We offer a wide range of filter solutions to satisfy all your needs.

Absolute® VG

HEPA and ULPA efficiencies (99.99% to 99.999%at 0.3 micron)

Individually mounted V-bank panels in a single filter enclosure allow up to 2400 cfm with a minimal airflow resistance of only 1.0" w.g.

Up to 430 square feet of media area ensures lower average pressure drop and a longer filter life, excellent for air-starved systems

Installs in any standard HEPA mounting system

Available with exclusive poured-in-place gasket or gel seal creating a leak free connection to hardware

Each unit individually tested and certified

See Literature #s
 1823 for poured-in-place gasket seal
 1823Gel for gel seal model
 1823GelC for gel seal (for S & P housings only)



Filtra 2000 Absolute®

HEPA and ULPA efficiencies (99.99% to 99.999%at 0.3 micron)

Individually mounted V-bank panels in a single filter enclosure allow up to 2400 cfm with a minimal airflow resistance of only 1.0" w.g.

Up to 430 square feet of media area ensures lower average pressure drop and a longer filter life, excellent for air-starved systems

Installs in any standard HEPA mounting system

Available with exclusive poured-in-place gasket or gel seal creating a leak free connection to hardware

Each unit individually tested and certified

See Literature #s
 1823 for poured-in-place gasket seal
 1823Gel for gel seal model
 1823GelC for gel seal (for S & P housings only)



XS & XH Absolute®

HEPA and ULPA efficiencies (99.97% at 0.3 micron to 99.9995% at Most Penetrating Particle Size (MPPS))

X-body enclosure assembled without penetrations for leak-free and dependable performance

Available with exclusive poured-in-place gasket or gel seal creating a leak-free connection to hardware

Construction materials may include stainless steel, aluminum, galvaneal, with various separator construction options (consult factory)

See Literature # 1801(XS; standard capacity) or 1801H (XH; high capacity)



Wood-Framed Standard Capacity and Wood-Framed High Capacity Absolutes®

Available in efficiencies of 99.97% to 99.99% at 0.3 micron particle size

Frame is constructed of a high-density fiberboard

Includes exclusive poured-in-place creating a leak free connection to hardware

May be incinerated

Includes safe-edge aluminum separators to prevent media damage during shipment or operation

See Literature # 1803 for standard capacity) or 1803H for high capacity)



Absolute® D-Pyro

Efficiency: H14 (99,995%) and H13 (99,95%) at MPPS (acc. to EN 1822)

Zero emission: maintaining quality performance in all production phases even when temperature can vary at 350°C.

The media is free from Bisphenol A, Phthalate's and Formaldehyde.

Zero tempering: No tempering needed. Heating/cooling ramp: 5°C/min (tested)

Leak free even after minimum 200 cycles (stable value during process)

Max. pressure drop: 700 Pa

See Literature #1835



Termikfil 2000 Absolute®

HEPA efficiency, 99.99% 0.3 micron, at temperatures to 650° F (350° C)

The only filter available that can comply with FDA GMP requirements

Unique design allows for filter expansion and contraction

Exclusive heat-cycle preparation by Camfil factory reduces on site start-up expenditures

Each unit individually tested and certified

See Literature # 1816



K & F High-Temp Absolutes®

K Absolute applicable to installations operating to 500° F, F Absolute applicable to installations operating to 750° F

Unique construction components to ensure leak-free HEPA level efficiency

Includes gaskets specific to application temperature

K Absolute available in efficiencies of 95% at 0.3 micron, and 99.97% or 99.99% at 0.3 micron

F Absolute available in efficiencies of 95% at 0.3 micron, or 99.97% at 0.3 micron

See Literature #s 1813 or 1812 respectively



Micretain®

95% particle capture efficiency at 0.3 micron

X-body enclosure assembled without penetrations for leak-free and dependable performance

Available with exclusive poured-in-place gasket or gel seal creating a leak-free connection to hardware

Construction materials may include stainless steel, aluminum, galvaneal, with various separator construction options (consult factory)

See Literature # 1821



Ultra-Pac®

95% or 99.99% efficiency on particles 0.3 micron in size

Unique mini-pleat design in a 12" filter enclosure is ideal for air-starved systems or facilities that wish to decrease energy expenditures

Enclosure assembled without penetrations for leak-free and dependable performance

Includes exclusive poured-in-place gasket creating a leak-free connection to hardware

See Literature # 1824



Magna-Frame II

Built-up bank frame for HEPA filters, and prefilters as required by application with optional prefilter kit

14-gauge galvanized steel construction

Swing bolt filter attachment assemblies with equi-bearing clamps

Holds gasket type full or under-sized Absolute® filters (nominal sizes)

See Literature # 2303B



Magna-Frame III

Built-up bank frame for HEPA filters, and prefilters as required by application with optional prefilter kit

14-gauge galvanized steel construction

Includes knife-edge to create a positive seal with gel-channel type Absolute® filters

See Literature # 2303C



Magna-Grid

Factory-assembled Absolute® filter bank

Constructed of all-welded 11-gauge galvanized channel steel (available in stainless steel)

Includes filter support swing-bolt assembly fasteners and filter mounting support

May accommodate 6" or 12" deep Absolute filter, and virtually any combination of ASHRAE grade prefilters and final filters

Easy to install into duct work with peripheral stitch welds

See Literature # 2302

Absolute® Prefilter Kits (not shown)

Combine Absolute®, ASHRAE grade prefilters and ASHRAE grade final filter in one easy to service assembly

Includes all required hardware for HEPA filter mounting, prefilter fasteners ordered separately

Available in stainless steel

See Literature # 2902K

Magna/Pack

- Side-access housing for Absolute® filters
- Includes a swing-bolt absolute filter fastening assembly with equi-bearing clamps for positive filter seal
- Constructed of 14-gauge galvanized steel, weatherproof without modification
- Includes challenge injection port for on-site testing
- Includes dual access doors for filter access from either side of the unit
- Available with prefilter track
- Capable of withstanding ±8.0" w.g. without compromising filters or housing seals
- See Literature # 2411



1 high by 1 wide housing



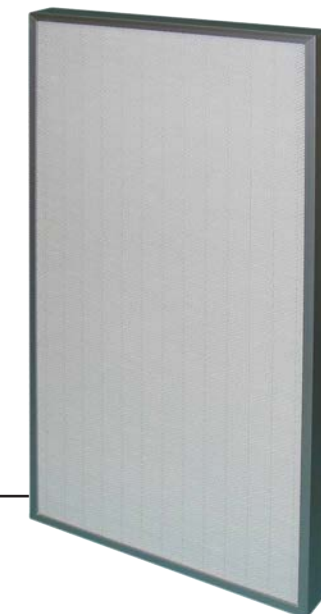
1 high by 3 wide housing

Sidelock® Housing

- Side-access housing for Absolute® filters
- Includes a spring-loaded crank-type absolute filter sealing mechanism with built in knife-edge to ensure leak-free performance when mated with gel seal absolute filters
- Includes removable dual access doors for filter access from either side of the unit
- Includes a 2" prefilter track
- See Literature # 2415

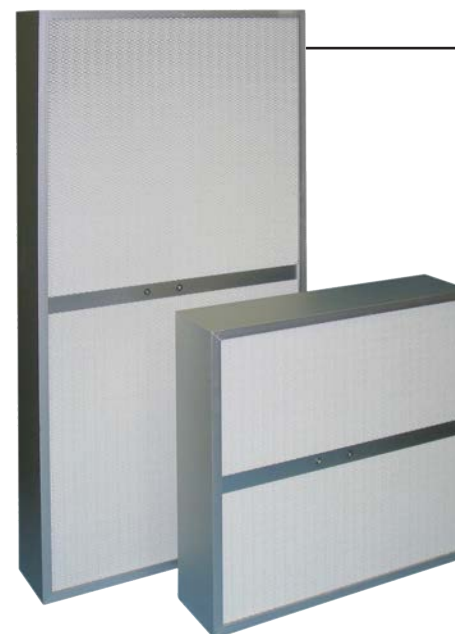
Megalam® Panel Filters

- Patented close-pleat manufacturing technology ensures low pressure drop, uniform airflow and minimal configuration losses
- Available in efficiencies from 95% at 0.3 micron to 99.9995% at Most Penetrating Particle Size (MPPS)
- Anodized aluminum frame ensures a rigid and durable pack
- Various frame configurations, sealing options and media options available, consult factory
- Each unit individually tested and certified
- See Literature # 3216



Megalam® Terminal Diffuser

- Available in efficiencies from 95% at 0.3 micron to 99.9995% at Most Penetrating Particle Size (MPPS)
- Patented close-pleat manufacturing technology ensures low pressure drop, uniform airflow and minimal configuration losses
- Diffuser/damper adjusts airflow from the room side
- 10" or 12" flexible duct collar connection
- See Literature # 3217



Megalam® ES

- Unique ultra-fine fibers that are highly tolerant to oil-based challenge agents such as PAO. They are resistant to SOP cleaning, disinfectant and decontamination agents including chlorine dioxide, formaldehyde and vaporized hydrogen peroxide
- Lower pressure drop than other media technologies for increased airflow and energy savings.
- Robust construction makes the filter 5 times more resistant to damage during handling, transport and installation.
- Each filter is individually tested and available in efficiencies from 99.95% to 99.9995% at most penetrating particle size.
- See Literature # 3219



Slimline DCM

- Low-profile ducted ceiling module with integral filter
- Available in efficiencies from 95% at 0.3 micron to 99.9995% at Most Penetrating Particle Size (MPPS)
- Minimal filter height under 4.75", with 10" or 12" flexible duct collar connection
- Patented close-pleat manufacturing technology ensures low pressure drop, uniform airflow and minimal configuration losses
- Diffuser/damper adjusts airflow from the room side
- See Literature # 3218



Pharmaseal®

Room-side replaceable HEPA/ULPA ducted ceiling module with all-welded construction eliminating leakage into the clean space

Accepts gel seal filters in efficiencies from 95% at 0.3 micron to 99.9995% at Most Penetrating Particle Size (MPPS)

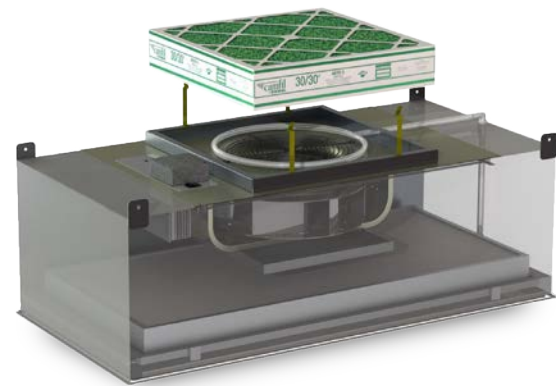
May be installed in T-bar ceiling or flush mounted in plaster or sheet rock ceilings

Includes aerosol injection/diffusion system for uniform challenge distribution

Includes guillotine damper for precise control of airflow, available in varied inlet sizes

Available in 00.63 aluminum or 16-gauge 304 stainless steel

See Literature # 3420



Pharmaseal® FFU (fan filter unit)

Same housing and performance features as above

Incorporates electronically commutated (EC) fan technology for greater energy efficiency

Designed and tested to meet the Life Science industry certification factory and field aerosol testing requirements

Available in sizes to produce 217, 538 or 1163 CFM

Can be remotely speed adjusted individually, by zones or as a large bank



Slimline RSR

Room-side replaceable HEPA/ULPA ducted ceiling modules

For Class M1-M7 cleanrooms, efficiencies from 95% at 0.3 micron to 99.9995% at Most Penetrating Particle Size (MPPS)

Easy room-side replacement of fluid seal filters

Diffuser/damper adjusts airflow from the room-side

See Literature # 3422



Pharmaseal® Exhaust Housing

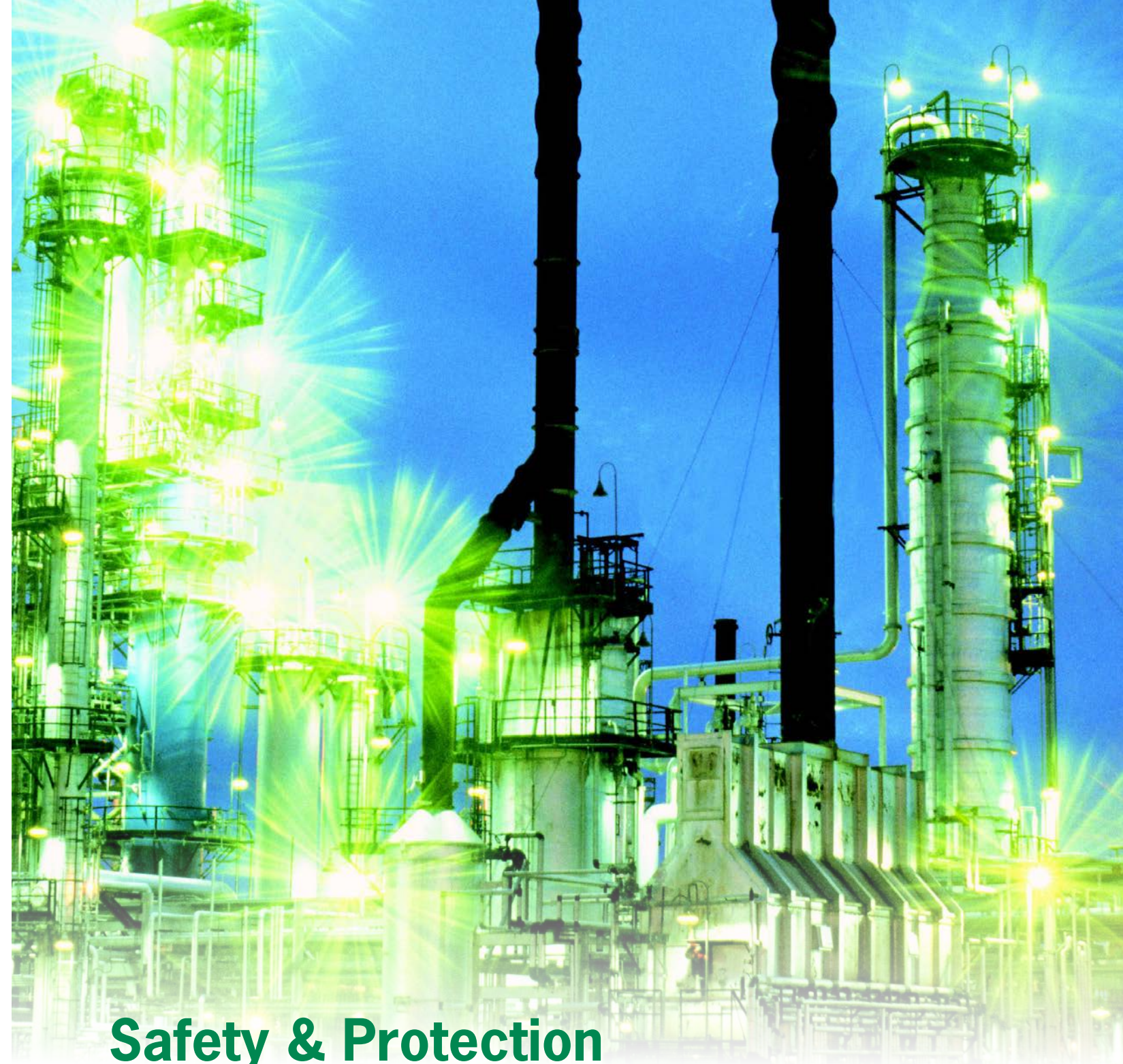
Room-side recessed wall-mount exhaust or recirculation module (optional testing shroud available)

Accepts standard Absolute filters and 2" prefilter

Easy room-side replacement of Absolute® fluid seal filters

Constructed of 0.063 aluminum or 204/316L stainless steel and leak tested to 3.0" w.g. (inside trim & grille 304 stainless steel on all units)

See Literature # 3422



Safety & Protection Protecting the Environment

Exhaust air from many industrial processes is unhealthy. Examples include emissions from nuclear power plants, laboratories and chemical plants. Harmful exhaust air needs to be filtered before it is released to the atmosphere.

Camfil has filters that adsorb and collect odorous or harmful substances that can pollute the outdoor air. To protect employees, processes and the environment, plant managers must control the indoor air quality surrounding a wide range of manufacturing processes.

Camfil uses patented technology within a range of air pollution control systems that remove process-related airborne contaminants in an efficient cost-effective manner.



CamContain Integrated SafeScan Solution

Advanced biocontainment system specifically designed for BSL-3 and BSL-4 laboratories
 CamContain utilizes proprietary scanning technology to ensure precise filter validation every time
 Up to 40% smaller footprint than other containment filtration systems
 Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options
 Automated scanning and validation system utilizes advanced filter scan probe mechanisms that scan across the full face of the filter element and the perimeter of the filter seal
 See literature # 3424



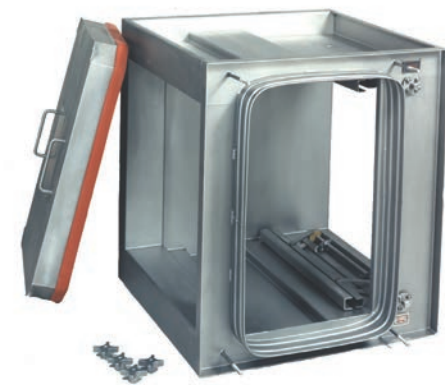
CamContain Test Sections

Allows upstream and downstream sampling, overall efficiency or scan testing without compromising the system's integrity
 Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options
 Mates directly to Camfil's Safety & Protection containment housings
 See Literature # 3407



CamContain PB Prefilter Housing

Prefiltration housing for containment level systems
 Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options
 Accepts any standard ASHRAE grade air filter in 1/2 or full size configurations
 Will accept filters with nominal depths of 2", 4", 6" or a combination of 2" & 12" prefilters
 Designed to withstand ± 15" w.g.
 See Literature # 3403



CamContain GB and FB Safe Change Bag-In/Bag-Out Filter Housing

High end protection in a robust filter housing, accepts gasket and gel seal
 Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options
 For use with Absolute® or HEGA molecular filters
 Available in sizes from 1/2 by 1/2 to 4 filters high by 6 filters wide
 Stringent Quality Control procedures
 See literature # 3401 or # 3402



CamContain GB-R and FB-R Round Safe Change Round Bag-In/Bag-Out Filter Housings

Access to filters is through top of unit
 Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options
 Incorporates 12" by 12" or 24" by 24" Absolute® or HEGA molecular filters
 Options include legs, static pressure taps, testing ports, drain, and high-pressure
 Designed to withstand ± 15" w.g. (higher pressure available)
 Filter change is through an 8 mil PVC bag
 See Literature # 3408



CamVent HEPA Filter Housing

Replaces large containment filter housings for venting applications
 Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options
 Integral SafeScan scanning mechanism for HEPA filter validation
 See Literature # 3426



CamSafe

Economical safe change Bag-In/Bag-Out filter housing for non-nuclear applications
 Fully welded; painted carbon steel is standard
 Designed to withstand ±22" w.g.
 Suitable for vertical and horizontal flows
 See Literature # 3413

HEGA Molecular Adsorbers

High efficiency gaseous adsorbers are available with sorbent media to meet any gaseous containment demand

Enclosure available in plastic or stainless steel

Unique V-bed design to reduce resistance to airflow manufactured in accordance with ASME AG-1 Section FH and IEST CC-008.2 (type IV)

Gasket and gel seal models available

Sorbent bed depths of 1" or 2"

See Literature # 3431, or contact factory for media selection assistance



Rectangular Dish-style Isolation Dampers

Every damper tested to bubble-tight integrity

Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options

Factory mounted manual actuators; pneumatic and electric options available

May be assembled in series as an integral component section in a CamContain filter train

Tested to ± 10" w.g.

See Literature # 3440S



Round Isolation Dampers

Every damper tested to bubble-tight integrity

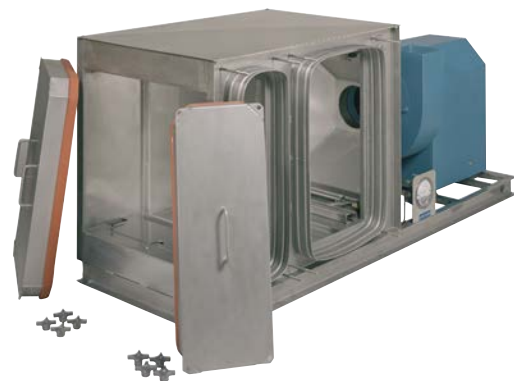
Fully welded; available in 7 and 11 gauge, 304/L and 316/L stainless steel options

Available in sizes 6" to 32" diameters

Factory mounted manual actuators; pneumatic and electric options available

May be mounted in parallel

See Literature # 3440R



Self-Contained Systems

Available for CamSafe and CamContain products

Custom designed containment train that may include all components, including fan

Commonly applied in health care applications for pathogen isolation

Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options

Available with lifting lugs, structural base or with a mobile base and casters

See Literature # 3409

Pharmatain

Localized control of compounds eliminating the contamination of downstream ductwork

Available with all containment level components, including prefilter section, final filter section, test sections, and isolation dampers

Fully welded; available in 11 and 14 gauge, 304/L and 316/L stainless steel options

Factory pressure decay tested at 10" w.g. at the HEPA filter sealing surface and at 15" w.g. for the overall system pressure boundaries

See Literature # 3411



Bags & Accessories

Camfil PVC bags for Camfil Safety & Protection containment systems (available for competitive models as well)

Banding kit

Security straps

Cinching straps

Banding ties

Filter change-out shelf

See Literature # 3410



Camfil Safety & Protection products are designed to control airborne contaminants that may be hazardous to those servicing the units or the occupants of the facility. Before applying containment products, please consult with your authorized Camfil Representative or our Washington, North Carolina Customer Service Department.

Important considerations include the exact nature of the particulate or gaseous contaminants, the contaminant volume per unit of airflow and the desired level of air cleanliness result. Camfil will recommend the proper particulate filter combination or/and a gaseous adsorber to fit your application.

CamField In-Situ Filter Testing

Today's filtration marketplace includes products offered in many configurations that present various advantages and disadvantages, when compared to other offerings. There are also different types of media incorporating varying principles of particle capture, each with its own advantage when applied in a heating and air conditioning application.

How can filter users differentiate manufacturer's claims and make intelligent decisions as to what products are applicable to meet their needs? Historically, many depended upon test reports. Unfortunately, today's testing laboratory methodologies may not give a true barometer of a filter's performance over time as these filters are not tested under real-life conditions.

Camfil addresses these concerns by performing actual on-site filter performance evaluations using industry defined procedures. The final report includes a particle size versus efficiency analysis detailing the filter's ability to capture large particles, down to sub-micron size respirable particles that may affect health or processes. Pressure drop data, relative to a filter's actual life within a system, and its overall affect on system airflow and use of energy is also detailed.

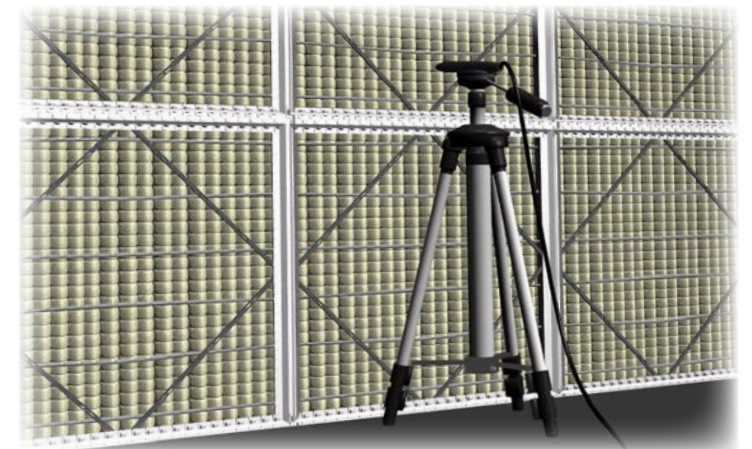
Users can evaluate the use of increased media area filters compared to standard media area offerings. They can evaluate filters of similar construction that use different types of media. And most important, they can evaluate Camfil products against other manufacturer's offerings.

The process includes a facility survey to establish the integrity of the filter holding mechanisms, the HVAC worthiness of the system, and

an analysis of past usage data to develop a baseline of comparison. Actual in-place testing begins with an initial filter efficiency test and continues on a periodic schedule (dependent upon the type of filters being evaluated).

The user is provided with a detailed report, with data often used to demonstrate performance to the facility's required standard of care for air quality and ensuring that their filter expenditure has the lowest life cycle cost.

Camfil maintains a database of historical analysis that may assist others in their selection of filters for similar applications. Contact your authorized Camfil Representative or Distributor for details on Camfil's In-Situ Filter Evaluation Program.



Capabilities,
Testing,
Performance,
Optimization

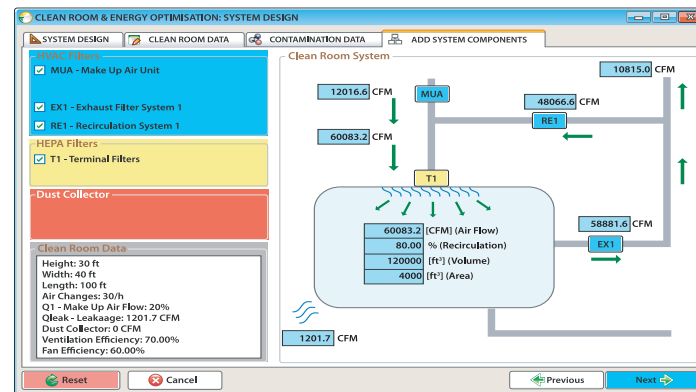
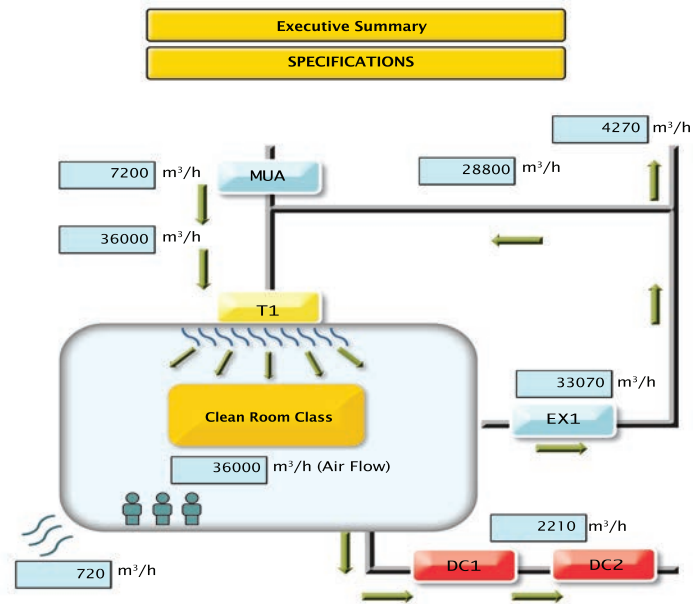


CREO

Camfil has created CREO, Clean Room Energy Optimization, software that simplifies design, product selection and makes recommendations related to the energy use related to the air supply in the final design.

The CREO (Clean Room and Energy Optimization)

application enables the user to create a customized clean room design. The software allows the user to calculate the Life Cycle Cost and cleanliness class for different Clean room layouts. Different clean room configurations can be analyzed ranging from ventilating to unidirectional (Laminar flow) installations. Expected operational time of filters, energy consumption and the total operating cost for the filter installation is calculated. Wide ranges of reports are available, including Cleanroom classifications as well as specifications for selected products. Additional information such as CO₂ emissions and efficiency of the filter system is also available.

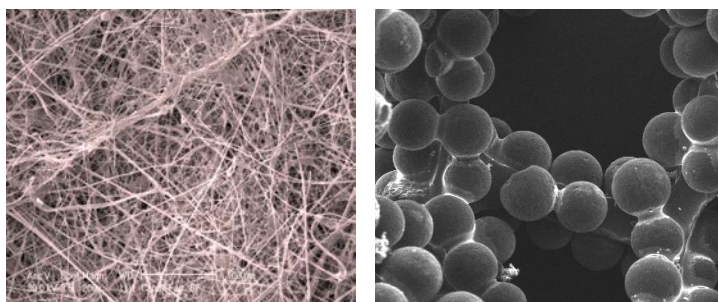
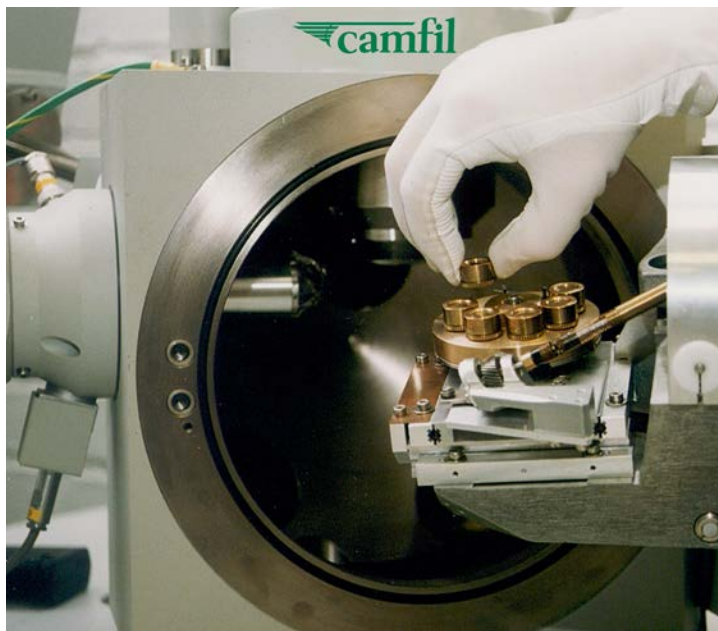


Analyzing for Results

Camfil operates multiple laboratories around the world, all having a goal of developing technology for improved air quality for people, processes and the environment. Camfil also performs analyses of collected contaminant, either from the environment or from filters used in applications, to improve our understanding of existing technologies and develop new technologies to remove contaminant from the air. Camfil analyzes these samples with our scanning electron microscope (SEM).

SEM images have a characteristic three-dimensional quality and are useful for judging the surface structure of a sample. The photo at the left shows a Camfil technician loading sampling tubes into our scanning electron microscope (SEM).

The two lower photos are HEPA media at 200X magnification and a magnification showing the inner structure of a carbon granule. By studying the media loading characteristics, specific to an application, Camfil is able to provide or create the optimum combination of air filtration products to suit contaminant removal requirements.



Choosing green products, made easy Camfil filters are rated as 5-Star filters through the Energy Cost Index (ECI) Program

A tool that defines the total value of a filter in your system.

With all the sales hype relating to air filters and indoor air quality, how can you be sure that you have selected the proper air filter for your specific application?

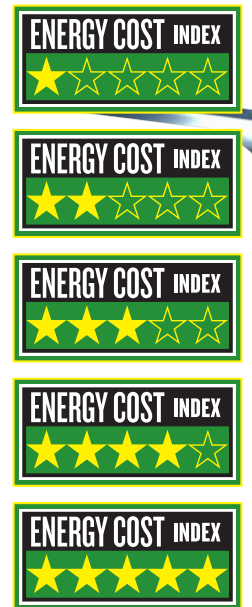
There are industry test reports and the data published in manufacturers' literature or packaging — but will they provide a true indicator of a filter's value over its life in your system?

Unfortunately the testing method prescribed today is an accelerated test — the test is performed in a matter of hours, hardly consistent with how the filter may perform over a matter of months or even years. Some manufacturers use filter enhancements to fool the test into exhibiting an efficiency that in actual application can degrade in a time period of weeks or less. Their literature may even portray the filter's performance based only upon the accelerated test data; misleading at best.

There is now the Energy Cost Index or ECI — a filter rating system that looks at a filter's efficiency over its lifetime and the energy required to move air through that filter. ECI compares filters of similar construction, under the same conditions of operation and provides an indicator of TRUE performance. Specifically, the formula is dollars per percent, of filter efficiency. The lower the value — the better the filter.

The icons on the chart to the left note star values ranging from one star to five stars. A filter with an ECI of five stars is a stellar performer — maintains its efficiency over its life and uses less energy to move air through the filter. It is in the top 20% of all filters evaluated. A 4-Star filter has a lower ECI value, and the pattern continues down to 1-Star, the poorest performers. Your local Camfil sales outlet can provide additional explanation on the Energy Cost Index. Camfil's R&D department can provide ECI values on all Camfil products and ECI values for products offered by other manufacturers.

Drive down energy costs.



More Stars, More Savings.

Energy Use You Can See.



Camfil CamTester Energy Use You Can See

The Camfil CamTester is a mobile unit that evaluates energy used by air filters — any manufacturer's air filters. Install our Camfil air filters in the clear plenum and adjust the airflow. Digital readouts display cfm and the filter's resistance to airflow. Now install a competitor's filter.

The comparison will astound you.

You can also "hear the difference" as the fan motor strains to provide the rated airflow through air filters with higher resistance. The CamTester is an excellent tool to bring decision makers together with visual evidence on how your facility can save energy by changing your filters to Camfil.

CAMFIL is a world leader in air filters and clean air solutions.

Camfil is a global leader in the air filtration industry with more than half a century of experience in developing and manufacturing sustainable clean air solutions that protect people, processes and the environment against harmful airborne particles, gases and emissions.

These products are used globally to benefit human health, increase performance and reduce energy consumption in a wide range of air filtration applications.

Our 26 manufacturing plants, six R&D sites, local sales offices and 3,800 employees provide service and support to our customers around the world.

Camfil is headquartered in Stockholm, Sweden. Group sales in the global air filtration market total more than 730 million US dollars.

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North American Manufacturing Locations

Concord Ontario Conover North Carolina Corcoran California Crystal Lake Illinois
Laval Quebec Riverdale New Jersey Washington North Carolina

Worldwide Manufacturing Locations

Belgium France Germany Ireland Malaysia Sweden Switzerland United Kingdom