





Camfil Washington, NC

CAMFIL Global Experts in Containment Air Filtration

With more than 50 years of experience, Camfil delivers clean air solutions to customers in local markets all over the world. With high quality custom engineered products, we contribute to something that is essential to everyone - clean air for health, performance, and well-being.

Camfil's Containment Segment provides safety-critical solutions to protect people and the environment against dangerous airborne contamination. These specialty engineered solutions for biosafety labs, nuclear, chemical and biological facilities, and healthcare demonstrate our advanced technology in containment control.

The Washington N.C. manufacturing facility is the Camfil USA world class metal production facility serving North and South America. Established in 1995, the 130,000 sq ft factory is located in eastern North Carolina approximately two hours from Raleigh.

The High Performance Products Containment Group currently employs more than 165 highly-skilled workers with over 2,600 years combined experience. The facility operates under dual quality programs: ISO 9001-2015 certified quality program and NQA-1-2008 with 2009 addendums nuclear quality program.



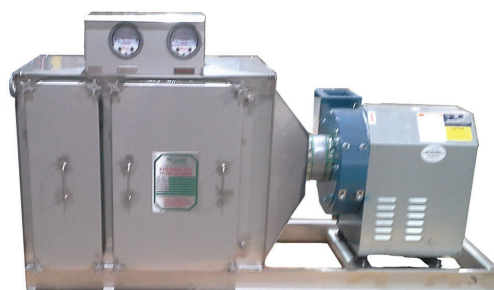
All Camfil CamContain products carry the **Camfil Certified Lifetime Warranty.**

To learn more or to schedule a visit, contact Sales-WA@camfil.com

Compliant Air Filtration Programs

- 10 CFR 50 Appendix B
- NRC Reg Guide 1.52 & 1.140
- ASME N509, N510, AG-1
- ASME NQA-1
- DOE-HDBK-1169-2003
- DOE-STD-3020-2015

GB-Series Gasket Seal Bag-In/Bag-Out (BIBO) Systems



GB-Series Gasket Seal BIBO System

Features may include separate prefilter access, weather cap, lifting lugs, pressure gauges, outlet transition, fan/motor assembly, and custom mounting base.



GB-Series Gasket Seal BIBO System

Features may include prefilter, inlet/outlet transitions, bubble tight manual isolation dampers, weather caps, view ports, lifting lugs, photohelic gauges, aerosol ports, mounting base and tabs.

GB-Series Gasket Seal Bag-In/Bag-Out (BIBO) Systems



GB-Series Gasket Seal BIBO System

Features may include separate prefilter access, inlet/outlet linear type bubble type isolation dampers with manual actuators, weather caps, lifting lugs, pressure gauges, aerosol injection port, sample ports, and mounting base.



GB-Series Gasket Seal BIBO System

Features may include in-place test injection, HEPA section, SafeScan M Test section, inlet/outlet transitions, decontamination ports, bubble tight manual isolation dampers, weather caps, view port, lifting lugs, Photohelic® gauge, and mounting base with tabs.

Example of an installed GB-Series Gasket Seal BIBO system with separate prefilter access, in-place inlet section, HEPA filter section, efficiency test outlet section with inlet/outlet transitions, bubble tight manual isolation dampers, tamper proof access doors, lifting lugs, weathercaps, gauges and mounting base.

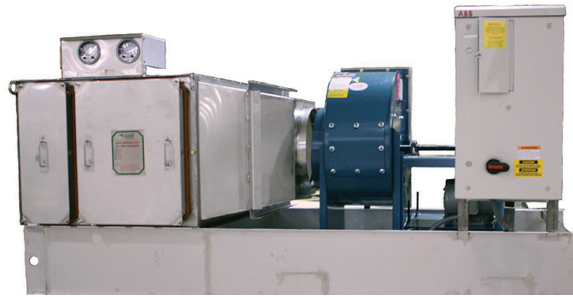


Example of installed CamContain system complete with decon ports, linear isolation dampers with electric and manual actuators, in-place aerosol injection capability, HEPA section, and in-place scan capabilities.



CUSTOM FIT

Custom Configurations for the Most Demanding Applications



2,000 CFM FB-Series Gel Seal BIBO System

Features may include separate prefilter access, outlet transitions, lifting lugs, static taps with photohelic gauges, aerosol sample ports, variable frequency drives, starters, programmable logic controller, and custom base.



CamContain FB-R/GB-R Safe Change Housing

Custom designed 12" x12" high pressure Round Housing with 2-inch 150 lb flange inlet/outlet connections and mounting base. Includes magnehelic gauge and aerosol sample ports. Varying sizes available to accommodate larger size filters and a range of diameters and lengths for the inlet/outlet connections.



2,000 CFM FB-Series Gel Seal BIBO System

Features may include prefilters first stage: HEPA and carbon filters with efficiency test section; second stage: HEPA filters and test outlet section, lifting lugs, weather caps, differential pressure gauges, inlet/outlet transitions, decontamination ports, inlet/outlet bubble tight isolation dampers with pneumatic actuators, custom seismic base, electrical switchgear, and fan/motor assembly.



Top 2,000 CFM, Bottom 4,000 CFM FB-Series Gel Seal BIBO System

Features may include prefilter section, in-place test inlet section, HEPA filters, in-place test outlet section, and plenum. Includes weather caps, in-place efficiency test housings, Magnehelic® gauge, instrumentation, inlet transition and outlet plenum, isolation dish dampers, custom mounting base and exhaust stack, and dual fan/motor assemblies.



FB-Series Gel Seal BIBO Vertical Airflow Vent System

Example of a prefilter and HEPA, top rain cap, side-mounted pressure gauges, and flanged inlet/outlet transitions.

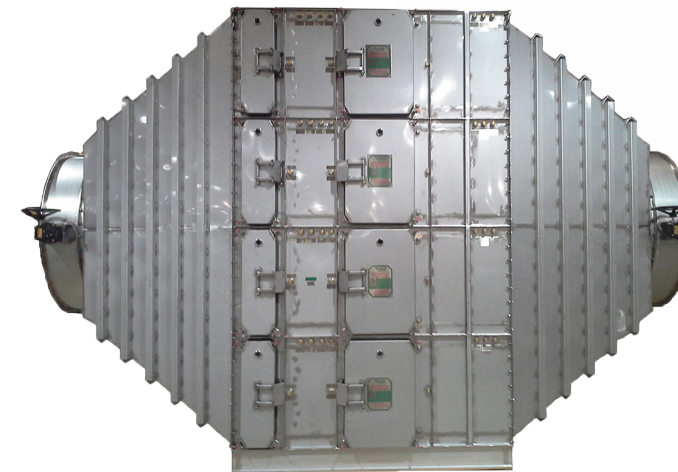
FB-Series Gel Seal System

Example of remotely operated three wide with inlet/outlet transitions, bubble tight manual isolation dampers, manifold connections, and custom mounting base.



6,000 CFM GB-Series Gasket Seal BIBO System

Example of a Prefiltration: First Stage: HEPA and carbon, Second Stage: carbon and HEPA filters, lifting lugs, weather caps, test ports, differential pressure gauges in an enclosed side mounting box, inlet/outlet transitions, inlet/outlet bubble tight isolation dampers, custom seismic mounting base, electrical switchgear, and complete fan/motor assembly.



12,000 CFM FB-Series Gel Seal BIBO System

Example of a separate prefilter access, in-place test inlet section, HEPA filter section, efficiency test outlet section with bolted on inlet/outlet transitions, bubble tight manual isolation dampers, hinged access doors, view ports, lifting lugs, and mounting base.

6 high x 6 wide bag-in/bag-out filter train





48,000 CFM Dust Collector
Compliant with the requirements of ASME AG-1 and NQA-1.

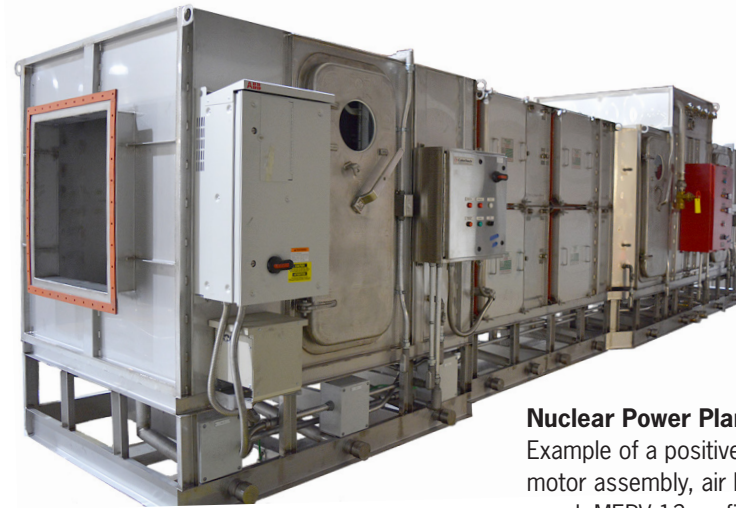
The two sections were stacked on-site at a U.S. DOE facility.

Unit displayed with temporary transportation base.



Drum Scrubber

Example of a self contained molecular filtration system. Stainless steel or corrosion resistant polyethylene for high acid level or outdoor exhaust vent applications. Full range of carbon media available.



Nuclear Power Plant System

Example of a positive pressure system includes inlet/outlet flanged plenums, enclosed fan/motor assembly, air heater section, coil sized to maintain relative humidity, heater control panel, MERV 13 prefilter section, HEPA section, in-place test sections, ASME AG-1 Qualified Type III Deep Bed Carbon section, water deluge spray system, MERV 15 post filters in lighted walk-in plenum, differential pressure indicators, humidity and temperature sensors, drain ports, custom seismic mounting base with seismic analysis on the entire system.

NUCLEAR CONTAINMENT

Security When Safety is Critical



Multiple HVAC Housing Configurations

Various mounting, gauges, blower/motor, instrumentation options.



CamVent

Biocontainment HEPA Filter System

Non-intrusive validation biocontainment venting HEPA filter system ideal for filtering plumbing vent stacks or suited as a secondary HEPA filter system for biosafety cabinets.



1,000 CFM Nuclear Power Plant System

Example includes inlet/outlet dampers, moisture separator, air heater, prefilter section with two stages of HEPA filtration with in-place efficiency test sections, single row of Type II HEGA filters installed in Qualified Type II Carbon sections, enclosed fan/motor assembly, differential pressure indicators, humidity sensors, temperature sensors, seismically tested control panel, drain ports, custom seismic mounting base with seismic analysis on the entire system.

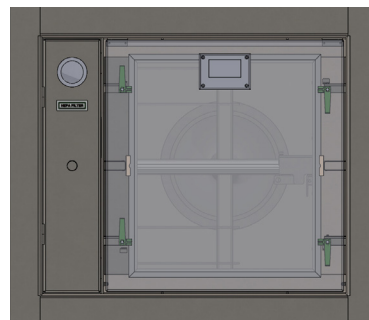


6,500 CFM Nuclear Power Plant System

Example includes inlet/outlet dampers, moisture separator, air heater, prefilter section with two stages of HEPA filtration with in-place efficiency test sections, four rows of Type II HEGA filters installed in Qualified Type II Carbon sections, enclosed fan/motor assembly, differential pressure indicators, humidity sensors, temperature sensors, seismically tested control panel, drain ports, custom seismic mounting base with seismic analysis on the entire system.

CamContain Ceil-X

Ceiling mounted, roomside replaceable HEPA exhaust system featuring Camfil's SafeScan automated scanning technology. Wall mount option available. Validation testing is conducted roomside.





CamCleaner Horizontal Unducted Air Cleaner
Modular design allows customized filter selection. Includes EC motor and fan system, LED status indicators, and viewing window. Available in 2000 and 4000 CFM.

CamCleaner Horizontal air cleaner with filter, molecular, and fan/motor modules shown.

Isolation Dampers

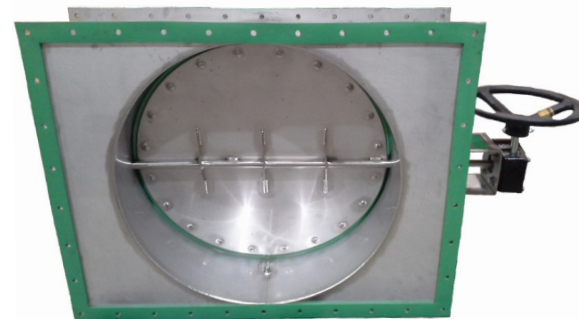
CamContain Bubble Tight Round Isolation Damper

Manufactured of 11-gauge and 7-gauge T-304 stainless steel. T-316L available. Continuously welded at all pressure barrier points. Available in sizes from 6" to 42" in various increments. Choice of manual, pneumatic, or electric actuators.



T-Shaped Bubble Tight Isolation Damper

For by-pass applications. Available in a variety of sizes. Choice of manual, pneumatic, or electric actuators.



CamContain Bubble Tight Flat Blade Isolation Damper

Manufactured of 11-gauge and 7-gauge T-304 stainless steel. T-316L available. Continuously welded at all pressure barrier points. Available in a variety of sizes from 6" to 42" in various increments. Choice of manual, pneumatic, or electric actuators.

CamContain Bubble Tight Flat Blade Isolation Damper

11-gauge and 7-gauge T-304 stainless steel. T-316L available. Continuously welded at all pressure barrier points. Available in sizes up to 32" in 2" increments. Manual, pneumatic, or electric actuator options. Three wide shown, two wide available.

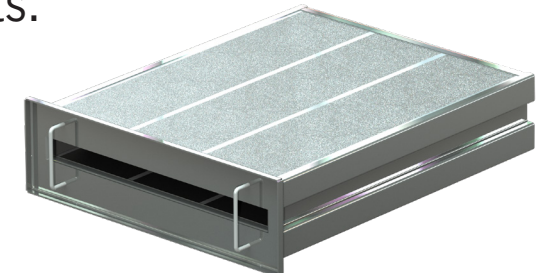


HEPA & ULPA FILTERS

Camfil's clean air solutions help to protect sensitive advanced manufacturing processes, prevent microbiological contamination in research labs and eliminate infectious airborne contaminants in the hazardous environments.

Our filters are tested and certified in accordance with the IEST Recommended Practice for Testing HEPA Filters (RP-CC034), to ISO Standard 29463 and EN Standard 1822.

Customers in heavily regulated industries, with strict quality requirements, trust Camfil's EPA, HEPA and ULPA filters. In manufacturing venues such as pharmaceutical, semiconductor or food processing, or critical laboratory services, our filters protect the people involved in the processes and ensure the integrity of what is being produced to reduce financial risks.



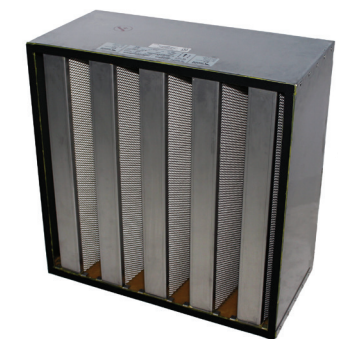
HEGA II (Type II) ASME AG-1 Design Carbon Adsorber

Rear loading design and two inch deep parallel media beds. High efficiency gas adsorber is 99.9% efficient.



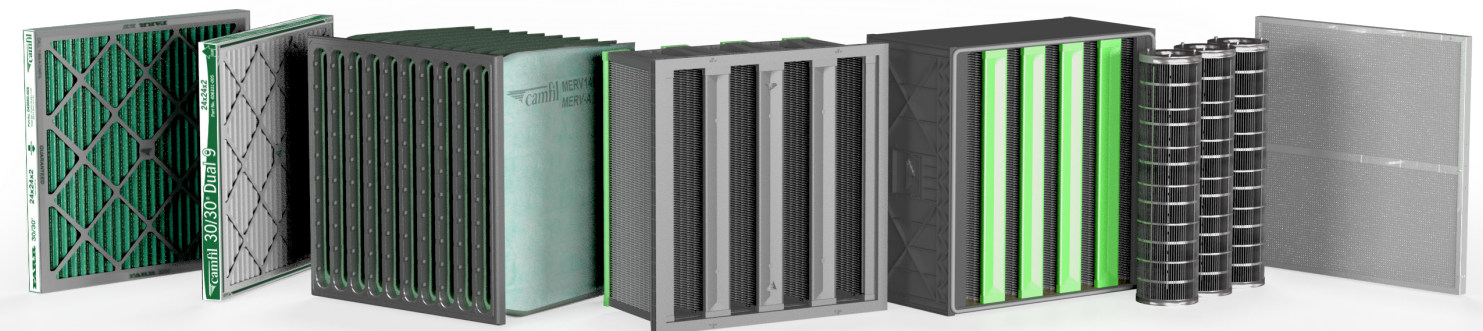
Size 7, 1500 CFM HEPA Filters

Manufactured with stainless steel and fire retardant plywood per the ASME AG-1 Code Section FC, UL-586 listed. Lower airflows available.



Size 8, 2000 CFM HEPA Filter

Manufactured per ASME AG-1 Code Section FC. UL-586 listed. Lower airflows available.



A wide selection of MERV rating prefilters and high efficiency Absolute HEPA filters are available. Some prefilters and HEPA models are qualified to meet ASME AG-1 design requirements.

CAMFIL

A Global Leader in Air Filtration Solutions and Filter Production.

Decommissioning Solutions

Nuclear-generated power is becoming an increasingly attractive proposition as nations look to reduce their carbon footprint. Additionally, the decommissioning of ageing nuclear facilities is accelerating as the world's nuclear fleet is upgraded. Qualified equipment for hazard containment is more important than ever.

Camfil has the engineering expertise to resolve your decommissioning air cleaning issues. Our comprehensive range of safety-critical equipment meets the highest industry standards, including the ASME AG-1 Code, to protect public health and safety.

In 2018, Camfil acquired MC Air Filtration Ltd, (MCAF) a European designer and manufacturer of equipment specifically designed for hazard containment during the decommissioning process.

The MCAF full range of self-contained mobile filtration units for nuclear, biological, and chemical contamination completes the Camfil portfolio for safety-critical and custom engineered clean air solutions.

Research and Development Engineering Capabilities

- Commercial grade dedication expertise
- Proprietary mechanical designs
- Safety or hazardous area equipment selection
- Industry application expertise
- Control and instrumentation system design
- PLC programming and testing
- Stress seismic and thermal analysis
- Project management and field services
- Custom equipment with lifetime warranty

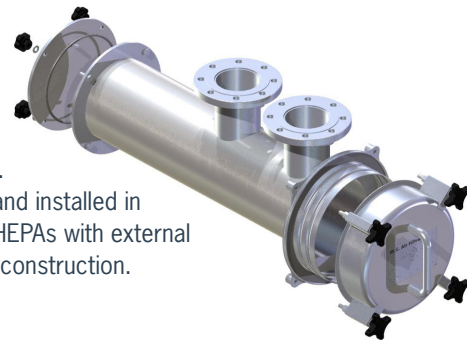
Quality Assurance Capabilities

- ASME NQA-1
- 10 CFR 50 Appendix B
- ANSI N45.2
- 10 CFR Part 21
- NRC Reg Guide 1.140
- NRC Reg Guide 1.52
- CSA N285.0
- ISO 9001:2015
- AESS 30-95200



Push-Through Filter Systems

Available in standard and non-standard sizes and designed to suit varying specification applications. Housings are configured as single or two stages and installed in any orientation. These systems utilize radial flow HEPAs with external gasket seals. Available in a range of materials of construction.



Push-Through Cylindrical Absolute® Filters

Push-Through cylindrical radial flow designed Absolute® filters are manufactured with rigid polypropylene end caps with nylon inserts, perforated plastic retaining grids and a polyurethane sealant. Available with low 248°F (120°C) or high 482°F (250°C) temperature non-combustible HEPA filters. The 3mm internal silicone rubber lip-seal mechanically fitted to the end cap eliminates clamping mechanisms.



Mobile and Modular Air Filtration Units

Mobile and modular air filtration units are designed for the removal of contaminated air during decommissioning. These portable systems are designed with a variety of components and options.

Typically, the overall unit is designed to pass through standard doorways. Once positioned, these units require the site connection of the power supply as well as inlet and outlet ducting connections.

Pharmaceutical Speciality Systems

The Camfil Pharmatain is a BIBO wall mounted housing typically used where hazardous compounds or vaccines are in production.

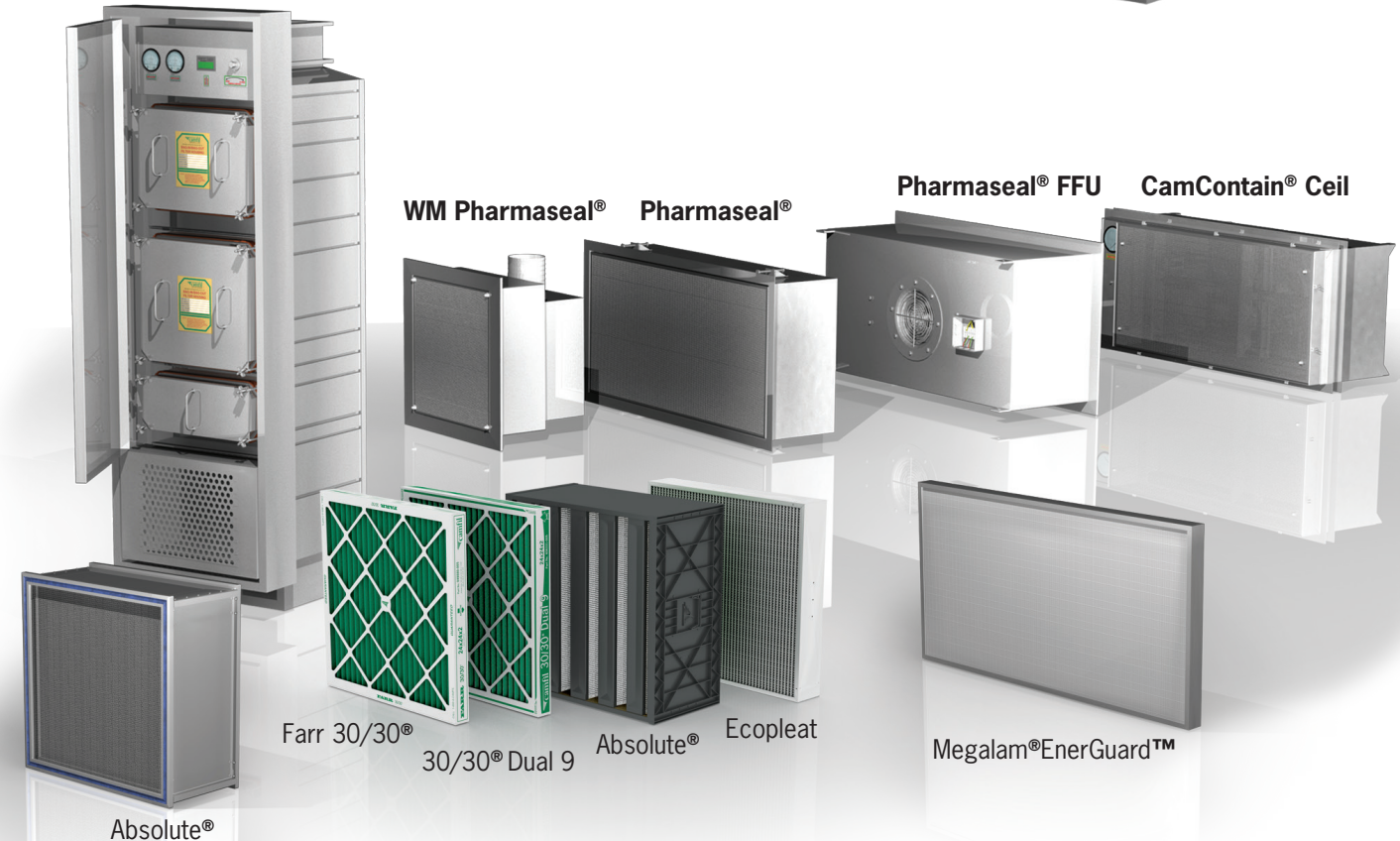
The Pharmatain can be manufactured in stainless or painted steel, options include prefilter & HEPA filters sections, filter scan section, inlet grille with banded welds, leveling feet, Photohelic® gauges, bubble-tight damper and cosmetic door.

For additional information on Camfil's life sciences product portfolio, contact Sales-WA@camfil.com.



Pharmatain

Pharmatain



WM Pharmaseal®

Pharmaseal®

Pharmaseal® FFU

CamContain® Ceil

Absolute®

Farr 30/30®

30/30® Dual 9

Absolute®

Ecopleat

Megalam®EnerGuard™

CAMFIL is a world 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 and gas filtration and 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.

1 North Corporate Drive | Riverdale, NJ 07457
Phone: 973.616.7300 | Toll-free 888.599.6620
camfil@camfil.com
www.camfil.us

www.camfil.us

For further information, please contact your nearest Camfil office.