



CamContain™

Camfil Farr	Product Brochure
Safety and Protection	
Camfil Farr - Clean Air Solutions	



Protecting your Environment with Next-Generation Technology



Protection.

That's our end-goal at Camfil Farr. Our focus is on delivering the next generation of air filtration technology that safely provides clean air to your application. With the constant threat of harmful contaminant leakage from secure laboratory settings, Camfil Farr has concentrated on developing clean air solutions that will efficiently and effectively protect outside surroundings from harmful microorganisms and biocontaminants. Our systems ensure that the highest level of functionality is constantly achieved, because at Camfil Farr, delivering clean air is our top priority.

Experience.

Is what Camfil Farr brings to your industry. As a world leader in engineering and manufacturing comprehensive air filtration systems, we have invested our research and development capabilities towards understanding the direct demands of your market. We understand the importance of maintaining lab uptime while conducting validation procedures. We understand that a leak in the exhaust HEPA filter system could result in a reportable event that could either delay or shut down research initiatives altogether.

We understand the difficulties of accommodating for containment system real-estate requirements. At Camfil Farr we understand. And we have the solution.

Results.

Is what we deliver. **CamContain Advanced Biocontainment Systems (ABS)** are designed specifically to integrate into BSL-3, BSL-3Ag and BSL-4 level laboratories. CamContain systems are 40 percent smaller than conventional filtration systems and engineered to effectively remove sensitive microorganisms from the air. This proprietary filtration platform incorporates automatic scanning validation equipment with advanced HEPA filtration technology, for a resulting system tailored to your application. Exceeding all industry filtration and validation requirements, our team of researchers and engineers collaborated with industry and government professionals to design an auto-validating system, reduced in size, that surpasses top-level laboratory requirements. We asked the right questions, and we developed the all-inclusive system that delivers the solution – CamContain ABS.



Advancing the Industry with Secure Containment Technology

Small and accurate, CamContain ABS utilizes proprietary scanning technology to ensure precise filter validations – every time.

- As a non-intrusive filter validation system (NIFV), an automatic scanning system allows for validation tests to be conducted while labs are operational¹, eliminating downtime and minimizing the risk of exposure to maintenance personnel or contamination to adjacent spaces. This results in a significantly lower Total Cost of Ownership (TCO).
- With a fully welded, pressure decay tested construction, CamContain ABS is 40 percent smaller than conventional filtration systems, greatly reducing the amount of space required for installation while still ensuring a uniform aerosol distribution. The innovative configurable design allows for CamContain ABS to be positioned horizontally or vertically, and manipulated to accommodate a variety of duct combinations.
- The integrated platform of CamContain ABS incorporates a 360° rotatable, bubble-tight fitting option that can be configured for any type of inlet or outlet orientation.
- Linear bio-seal dampers have been designed to ensure the long-term integrity of the system. Certified to be bubble-tight after 15,000 cycles, the dampers require 27.1 Newton Meters (20 Pound Feet) of torque to seal, a reduction of approximately 70 percent compared to conventional bio-seal dampers.
- The unique design of the CamContain ABS filtration housing ensures uniform particle distribution during the filtration cycle, and allows for effective decontamination in preparation of filter changes.

¹ Optional components required.

The Next Generation in Filtration Technology – CamContain ABS.

Fully welded, heavy-gauge stainless steel filter housing. Meeting the most stringent global standards for filtration systems, the CamContain ABS fully welded, pressure decay tested housing and sealing surfaces prevent biocontaminant and microorganism leaks. The filter housing can also be adapted for multistage HEPA filter configurations.



Linear bio-seal isolation dampers. Certified to be bubble-tight after 15,000 cycles, our proprietary dampers require only 27.1 Newton Meters (20 Pound Feet) of torque to seal, which allows for use of smaller actuators.



Field configurable inlet and outlet orientations. Configurable to fit various field installation options, CamContain ABS is designed with an inlet and outlet system that can be restructured in the field in order to accommodate multiple environments.



Aerosol sample quick disconnects. In order to ensure correct aerosol sample identification, CamContain ABS features color coded and mechanically keyed quick disconnect fittings. The fittings are available¹ with decontamination ports to allow for the decontamination of aerosol sample lines at the completion of the filter certification test.





Changeout Bag Indicator.² Informs the operator as to whether a bag is installed in the unit so proper safety precautions may be followed.



HEPA filter and auto-scanning system. Performing in-place scan testing of HEPA filters, including the CamContain Very High Capacity V-Bed HEPA filters, the auto-scanning and validation system utilizes advanced probing mechanisms that scan across the full face of the filter and perimeter of the filter-to-housing seal surfaces (not shown, inside door).



Filtration access doors. Securing access to the containment enclosure, the filtration access doors include memory-resistant silicone gaskets that recreate a positive housing-to-ambient seal when properly secured after each filter change. Both bag-in/bag-out and non-bag-in/bag-out options are available.

¹ Optional components required.

² Available as an option.

Automatic Validation Capabilities with CamContain FVS



The **CamContain Filter Validation System (FVS)** is an integrated and intelligent auto-scanning and software package that allows for validation tests to occur while labs are still active¹. Innovative in design, and configurable to meet proprietary requirements, the CamContain FVS increases the quality and accuracy of revalidation procedures by reducing exposure to test personnel and adjacent environments, while increasing the speed of *in-situ* tests.

21 CFR 11 Compliance Ready.

Validation data may be collected and recorded through a linked, PC-based software system, which will produce comparison data between previous validations and indicate areas of current and potential failure. All information received meets the requirements of 21 CFR 11 and stringent international validation standards. And, all systems can be programmed for predetermined validation procedures.

Reduced risk. Immediate results. That's what CamContain FVS delivers to your filtration system. The automatic operation of CamContain FVS allows for lockable doors¹ to secure the containment enclosure, and does not require door removal for filter validation, minimizing door gasket damage.

Since the containment area remains secure, inadvertent system damage such as a puncture to the media of the HEPA filter from manual scanning probes is virtually eliminated. Data is safely and quickly received and results are recorded instantly, allowing for immediate adjustments or repairs to occur. And, by comparing with previous test data, unanticipated filter service and/or replacement can be proactively scheduled thus avoiding costly mid-experiment shut down.

Protect with confidence – CamContain FVS.

CamContain VHC – for Precise Biocontaminant Filtration



Soflair Green



Filtra 2000

Experience HEPA filtration at its best with **CamContain Very High Capacity Filters (VHC)**. Engineered for optimal performance with CamContain Advanced Biocontainment Systems, our *auto-scan testable* VHC HEPA filters are configurable to work seamlessly with CamContain FVS.

Operating at 4,075 cubic meters per hour (2,400 cfm) @ 250 Pascals (1.0" w.c.), each VHC unit is 100 percent individually factory-tested according to the IEST¹ Recommended Practice for

the applicable filter type and labeled with the test performance data.

The filter has the energy-saving features to apply for LEED^{®2} credits per the United States Green Building Council requirements. With an optional version that contains no metal parts, CamContain VHC units are easily disposed of with a combustible and crushable frame. The system extends service life delivering long-lasting performance in both high humidity and corrosive environments.

CamContain Very High Capacity Filters

Maximum Capacity	4,075 m ³ /h @ 250 Pa	2,400 cfm @ 1.0" w.c.
Normal Flow Capacity	1,700 m ³ /h @ 92 Pa	1,000 cfm @ 0.37" w.c.
Media Velocity	1.17 cm/s @ 1,700 m ³ /h	2.3 fpm @ 1,000 cfm
Service Life Ratio*	3.9	3.9
Weight (per filter)	13.6 Kg	approx. 30 lbs

*Service Life Ratio represents the ratio of increase in service life when compared to a conventional capacity HEPA filter treating 1,700 m³/h (1,000 cfm).

CamContain Advanced Biocontainment Systems successfully integrate research, technology, experience and leadership into a complete automatic filtration solution that exceeds all industry regulations.

¹ IEST - Institute of Environmental Sciences & Technology

² LEED - is a registered trademark for Leadership in Energy and Environmental Design



On World Standards...

...Camfil Farr is the leader in clean air technology and air filter production.

Camfil Farr has its own product development, R&D and worldwide local representation.

Our overall quality goal is to develop, produce and market products and services of such a quality that we aim to exceed our customers expectations.

We see our activities and products as an expression of our quality.

To reach a level of total quality, it is necessary to establish an internal work environment where all Camfil Farr employees can succeed together.

This means an environment characterized by openness, confidence and good business understanding.

www.camfilfarr.com

**FOR FURTHER INFORMATION PLEASE CONTACT YOUR NEAREST CAMFIL FARR OFFICE.
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English edition no. 3424-0907