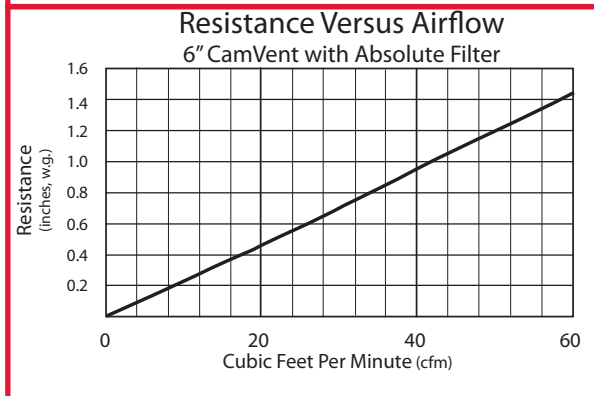
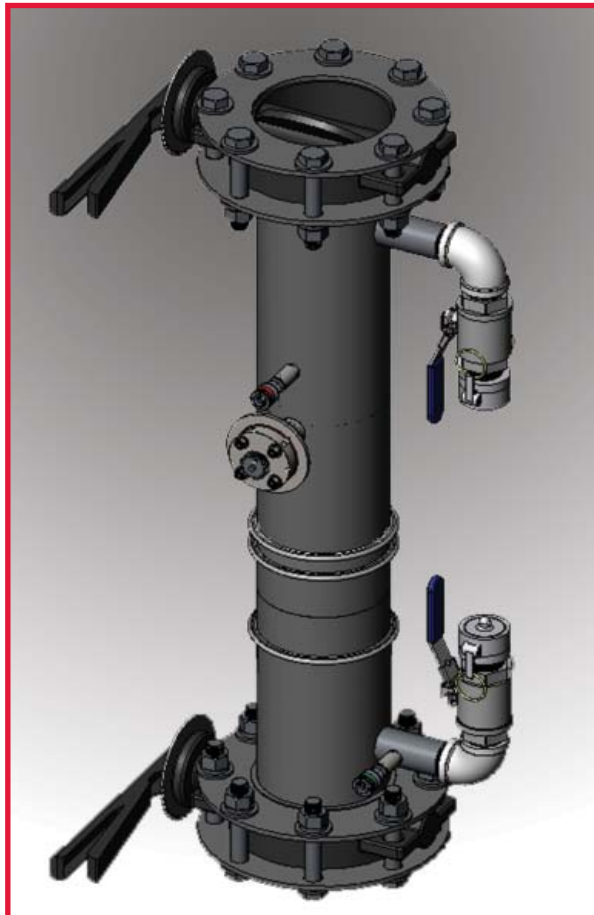


CamVent

Non-Intrusive Filter Certification Biocontainment Venting System



At 50 CFM, the total resistance of CamVent does not exceed 1.2" w.g. with a 99.99% Absolute filter installed.

The Camfil Farr CamVent is a slim and compact HEPA filter system. It is ideal for filtering plumbing vent stacks or as a HEPA filtered tank displacement device. It is well suited as a secondary HEPA filter system for biosafety cabinets. It may be used as a transfer HEPA filtering system to accommodate system pressure pulses between two biosafety zones. The Camfil Farr CamVent:

- Replaces larger containment systems in plumbing vents that formally incorporated traditional methodology.
- Provides HEPA filtration for toxic displaced air from storage tanks that collect liquid wastes from various process points.
- May be applied as a transfer system. Transfer systems minimize pressure pulses that are caused when someone enters a room. Because these rooms are tightly constructed opening a door could cause the room to go positive, unless there is some type of relief. This condition should be avoided at all costs.
- Offers an unobtrusive solution as a transfer system between adjacent spaces. When the door is opened, rather than building up the pressure in the room, the air is transferred to an adjacent space through a HEPA filter.
- Can be used to enhance the filtration of biosafety cabinets. Currently they use conventional HEPA filters mounted within the cabinet. However, they are difficult to service and impossible to test.
- Allows scanning of filters with the non-intrusive CamControl system. By adding an optional blower pack and the CamControl scanning package, non-intrusive scanning of the HEPA filter is possible for in situ certification.

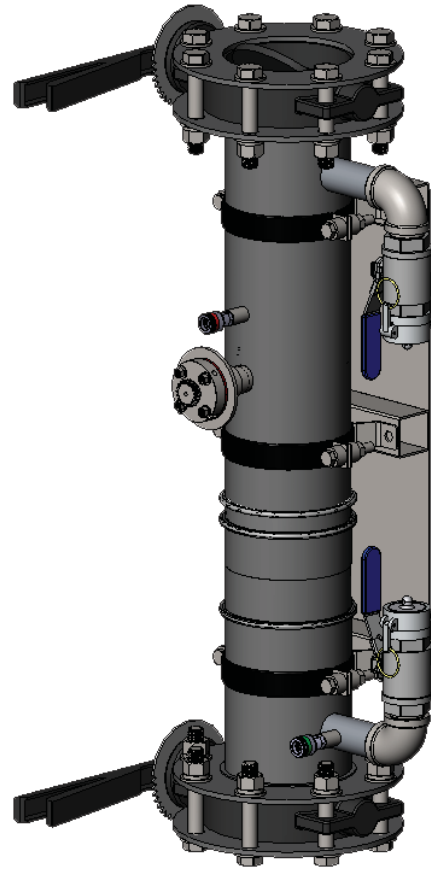


Camfil Farr	Product sheet
CamControl	3426 - 1009
Camfil Farr—clean air solutions	

Manufactured under strict quality control procedures (CFW-10001), all welding procedures, welders and welder operators are qualified in accordance with ASME Boiler and Pressure Vessel Code, Section IX. The program also meets the requirements set forth in ASME NQA-1.

The filter sealing surface and the complete assembly pressure boundary are leak tested by the pressure decay method as defined in ASME N510-1995 Reaffirmed, Testing of Nuclear Air Cleaning Systems, paragraphs 6 and 7. The filter sealing surface and overall system pressure boundary are tested at 10" w.g. and may not have a leakage rate exceeding 0.0005 cfm per cubic foot of volume tested.

The graphic to the right shows the CamVent with optional mounting assembly.

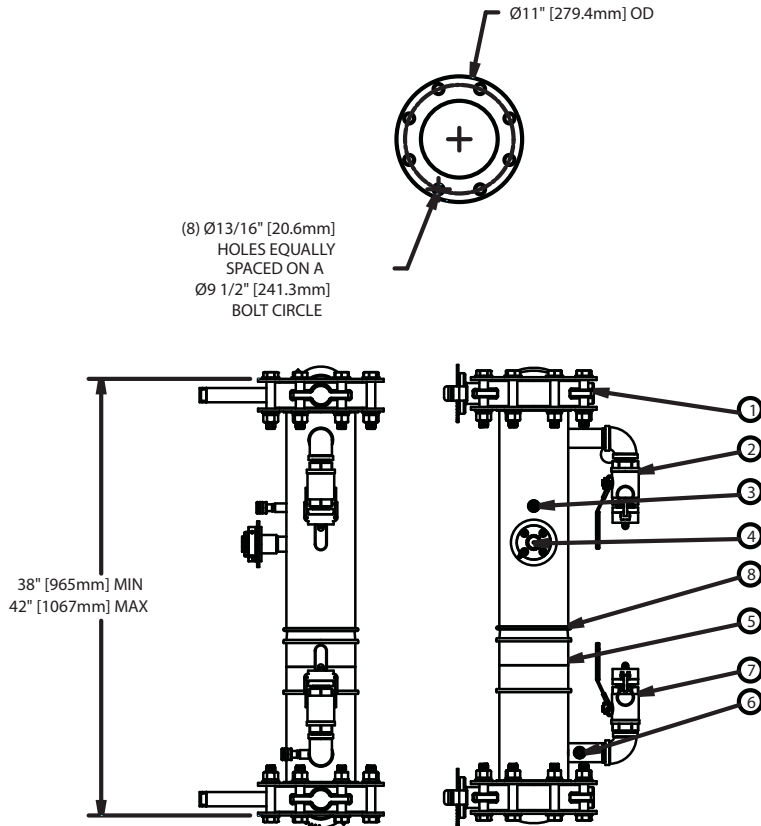


Auto-Scan Capability

The Auto-Scan assembly allows for non-intrusive in-place scanning of the unit's HEPA filter.

As an option, an automated scanning mechanism allows for validation tests to be conducted from the roomside while labs are operational, eliminating downtime and minimizing the risk of contamination of adjacent spaces.

The entire surface of the filter and the media to frame junctures are scanned for leaks. The filter may be validated in situ to on-site to IEST-RP-CC-007. The assembly also allows the use of Camfil Farr's optional CamControl or Motion Control Lite filter evaluation system.



Single Filter CamVent Assembly

- 1 - 6" butterfly valve for isolation
- 2 - 1-1/4" ball valve for decon
- 3 - Downstream sample port
- 4 - Manual actuator for scan
- 5 - Absolute (HEPA) filter
- 6 - Upstream sample port
- 7 - 1-1/4" ball valve for aerosol injection and decon
- 8 - 3 quick disconnect pull rings
- 9 - 6" ASME 1-1/2" wide bolt flange connection on air entering and air exiting sides

Notes:
 Housing includes quick disconnect pull rings for sealing housing gaskets.
 Installed weight 100 pounds, shipping weight is 150 pounds.
 Three feet of clearance in front of the scan actuator interface side is recommended to facilitate filter change.
 Butterfly isolation dampers are standard as are bolt flange connections

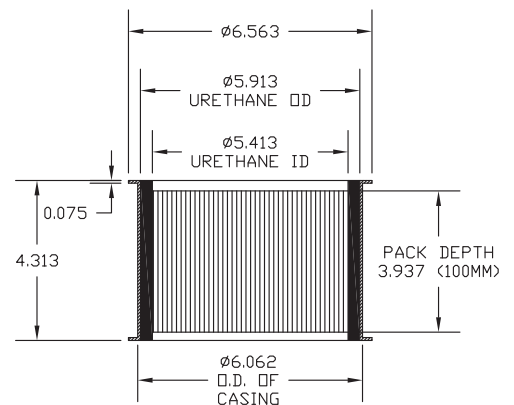
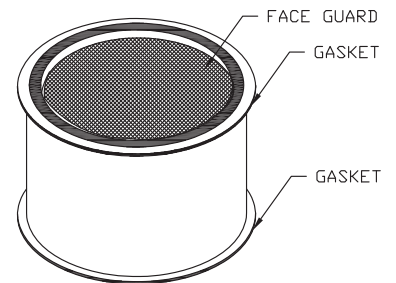
Camfil Farr Absolute® Filter

Camfil Farr Absolute Filters provide the highest level of protection for processes and personnel. Incorporating a silicone U-gasket seal filter for CamVent applications, each Absolute filter includes:

- Micro glass fiber media with an efficiency of 99.99% @ 0.3 microns.

The media is pleated using Camfil Farr's Controlled Media Spacing™ technology. CMS™ ensures optimized filter element depth and pleat spacing, resulting in minimized configuration losses and low resistance to airflow.

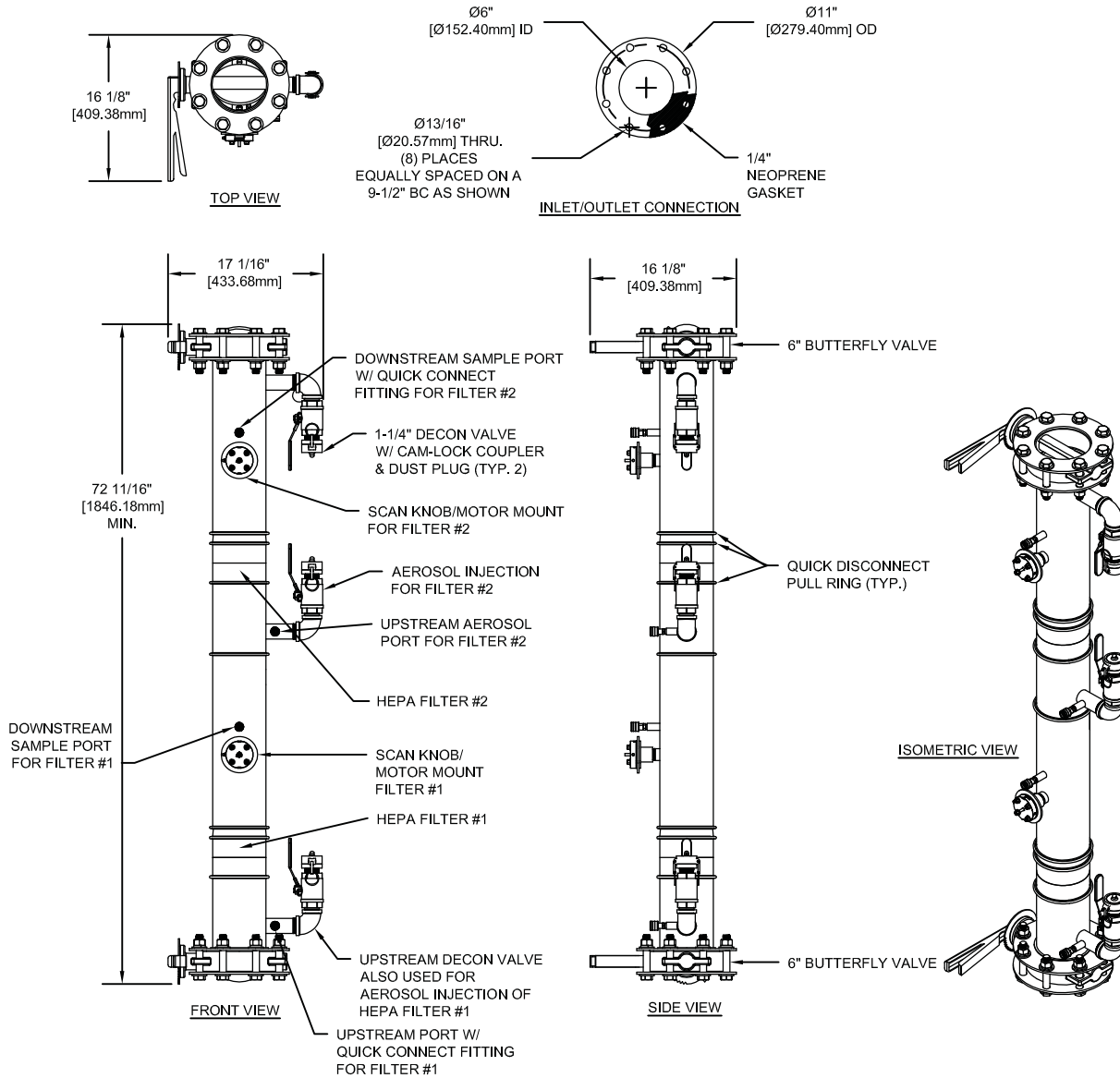
- Thermoplastic separators to ensure uniform pleat spacing and formation of a rigid self-supported media pack. Media-to-media contact, and associated fiber break-off, are eliminated.
- A heavy-duty, 304 stainless steel enclosing frame.
- Face guards on air-entering and air-exiting sides constructed of 304 SST wire mesh.
- CamPure™ phosphorus-free polyurethane sealant encapsulates the media pack to prevent air bypass. CamPure is a fire-retardant, thermally/chemically stable, shock-adsorbing polyurethane elastomer sealant assuring leak-free integrity and low out-gassing.
- Is tested using Camfil Farr's AUTO-SCAN™ automated leak detection system. Filters are serialized, bar coded, and all data is labeled on the filter. This allows for filter traceability back to the raw goods of unit construction.



Dual Absolute® Filter CamVent Assembly

The CamVent is also available in a double HEPA design, as shown below, to meet the BSL 4 requirements for double HEPA filtration. Multiple CamVents may be manifolded in parallel to increase the system capacity in applications where the required flow exceeds the rated flow of a single CamVent HEPA filter assembly.

Product detail is noted below for double HEPA filtration. For additional information contact your local representative or Camfil Farr.



Detailed specifications for Camfil Farr products are available at www.camfilfarr.com.

Camfil Farr has a policy of uninterrupted research, development and product improvement. We reserve the right to change designs and specifications without notice.

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Camfil Farr products meet the stringent requirements of ASME NQA-1, Quality Assurance for Nuclear Facility Applications.

