

## GRANULAR ACTIVATED CARBON FILTER – TYPE FV

Designed to fit containment housings, the Type FV-Activated Carbon Adsorber provides high-efficiency, single-pass filtration of gaseous contaminants from nuclear power or medicine ventilation air streams, laboratories working with mercury and heavy metal compounds, military and government installations providing destruction, testing or collective protection from chemical warfare agents, and any facility utilizing extremely hazardous chemicals.

Carbon types available include coconut shell, coal, and wood-based products, as well as a large variety of specialty impregnated carbons.

The adsorbers can be customized to remove radioactive gases, mercury vapors, acid gases, organic vapors, odors, and various other contaminants.

The Type FV-Bed Adsorber is designed with either a 1"-or 2"-thick carbon bed arranged in a V-Bank configuration. This design allows high airflow, low pressure drop, and even distribution of the process airstream across the carbon bed. Adsorber frames are constructed of T-304 stainless steel, carbon steel, or plastic. The adsorbers are designed for use in the "CM" Series Gasket Seal Bag-In/Bag-Out Housing, or the "KE" Series Knife-Edge (Gel) Seal Bag-In/Bag-Out Housing.

These adsorbers are manufactured under stringent quality control procedures. Each adsorber is filled, tested and packaged in accordance with IEST Recommended Practice. Each adsorber is tested in accordance with this standard to ensure a minimum mechanical efficiency of 99.9% prior to shipment.

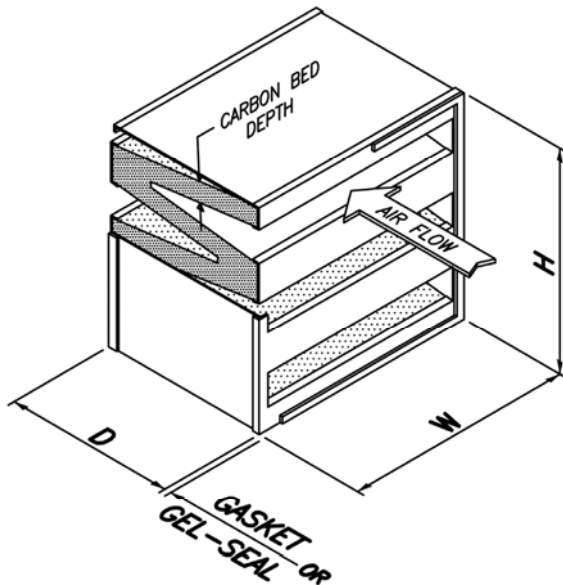
Barnebey Sutcliffe<sup>®</sup> offers unparalleled support for your spent adsorbers through our field and waste management services, including spent carbon recycling or incineration. We can uniquely assist you from media selection to the removal of expended filters. We also offer on-site filter exchange as well as shipment to off-site service centers with quick turnaround of your filters.

### Features

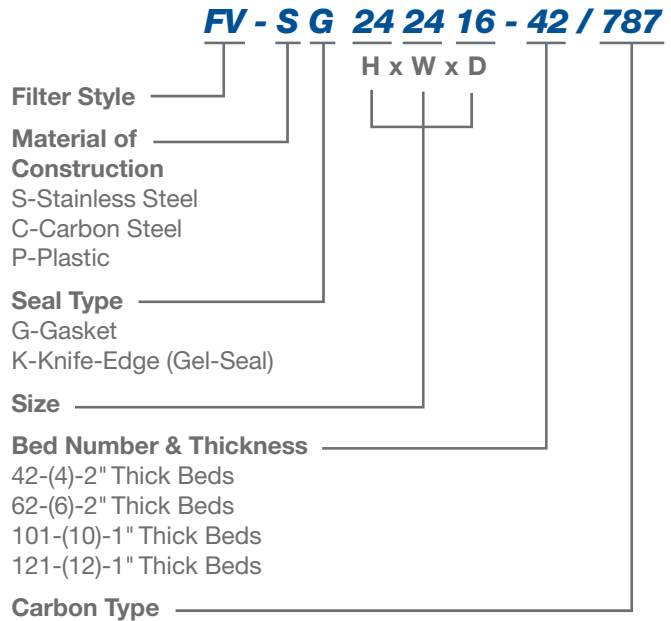
- Minimum chemical removal efficiency of 99.9% when tested in accordance with IEST-RP-CC008.2.
- Available in several standard sizes.
- Can be filled with the appropriate adsorbent to capture any contaminant.
- Available DMMP testing (war gas equivalent) for extremely critical military and government applications.



## High-Efficiency Activated Carbon Filter



## Model Nomenclature



Model	Actual Size HxWxD <sup>2</sup> (in.)	Rated Flow (cfm)	Typical Pressure Drop at Rated Flow (in. w.g.) <sup>3</sup>	Approx. Carbon (lbs.)	Approx. Shipping Weight (lbs.)
FV-XX-122412-42/CT <sup>1</sup>	12x24x12	500	0.4	50	85
FV-XX-242412-101/CT <sup>1</sup>	24x24x12	1,000	0.7	60	125
FV-XX-242416-62/CT <sup>1</sup>	24x24x16	1,250	1.4	95	170
FV-XX-242418-62/CT <sup>1</sup>	24x24x18	1,250	1.8	100	190
FV-XX-242419-121/CT <sup>1</sup>	24x24x19	1,500	2.0	100	190

- <sup>1</sup> \*CT-Specify Carbon Type.
- <sup>2</sup> Add 3/4" to "D" dimension for Knife-Edge (Gel) Seal filters (filter designation FV-SK-HWD-XX/Carbon Type).
- <sup>3</sup> Based on 8x16 U.S. mesh carbons.

### Limitation of Liability

Notwithstanding any provision to the contrary herein, in no event shall Supplier or its contractors or suppliers of any tier be liable to Purchaser for any indirect, special, consequential, incidental or punitive damages as a result of a breach of any provision hereunder or for any other claim of any kind arising out of or relating to this document, whether in contract, in tort (including without limitation, negligence or strict liability), indemnification or otherwise. Notwithstanding any provision to the contrary herein, for all losses, damages, liabilities or expenses (including attorney's fees and costs), whether for indemnity or negligence, including errors, omissions or other acts, or willful misconduct, or based in contract, warranty (including any costs and fees for repairing, replacing or re-performing services or curing a breach hereof), or for any other cause of action (individually, a "Claim"; collectively, "Claims"), Supplier's liability, including the liability of its insurers, employees, agents, directors, and officers and all other persons for whom Supplier is legally responsible, shall not, to the maximum extent permitted by law, exceed in the cumulative aggregate with respect to all Claims arising out of or related to this document, the total amount of compensation paid to Supplier hereunder. All Claims of whatsoever nature shall be deemed waived unless made in writing within forty-five (45) days of the occurrence giving rise to the Claim.

### Warranty Disclaimer

Calgon Carbon Corporation warrants that the Granular Activated Carbon Filter – Type FV will be free from defects in materials and workmanship for a period of 90 days following the date of purchase. In the event of a breach of this warranty, Calgon Carbon Corporation will, in its discretion, repair or replace any defective parts or the complete unit during the warranty period. This warranty does not apply to defects caused by (i) normal wear and tear, (ii) accident, disaster or event of force majeure, (iii) misuse, fault or negligence of or by Buyer, (iv) use of Granular Activated Carbon Filter – Type FV in a manner for which it is not designed, (v) external causes such as, but not limited to, power failure or electrical power surges, or (vi) improper storage and handling of the Granular Activated Carbon Filter – Type FV. EXCEPT AS EXPRESSLY PROVIDED IN THIS WARRANTY STATEMENT, CALGON CARBON CORPORATION DISCLAIMS ALL OTHER WARRANTIES, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CALGON CARBON CORPORATION DOES NOT WARRANT THAT THE GRANULAR ACTIVATED CARBON FILTER – TYPE FV ARE ERROR-FREE OR WILL ACCOMPLISH ANY PARTICULAR RESULT. ANY ADVICE OR ASSISTANCE FURNISHED BY CALGON CARBON CORPORATION IN RELATION TO THE GRANULAR ACTIVATED CARBON FILTER – TYPE FV PROVIDED FOR HEREUNDER SHALL NOT GIVE RISE TO ANY WARRANTY OR GUARANTEE OF ANY KIND. THIS WARRANTY WILL TAKE PRECEDENCE OVER ANY AND ALL OTHER WARRANTIES UNLESS SPECIFICALLY DISCLAIMED AND REFERENCED BY CALGON CARBON CORPORATION.

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