

DAFCO FILTRATION GROUP®

HEPA SEAL BAG IN/BAG OUT HOUSING



- Housing available in stainless or aluminized steel
- Optional 2", 4", or 6" pre-filter section available
- Designed for filters that use gasket or fluid seals
- Locking mechanism to secure seal between filter and housing
- Flange for installation to ductwork
- Custom made available to meet end user requirements



DESCRIPTION

The Aerostar HEPA Seal Bag In/Bag Out Housing is a single or multistage unit designed to hold HEPA filters in 99.97% and 99.99% efficiency at 0.3-micron size particles with either a gasket or fluid seal. An optional pre-filter section is available to accommodate 2", 4" or 6" pre-filters. Standard housing depth is 24" for housing with HEPA filters only and 36 1/2" for 2", 4" or 6" pre-filters. Other depth/configurations are available upon request. The HEPA Seal BB design provides a consistent compression over the perimeters of the filters, ensuring a leak free seal between the gaskets or the fluid seal on the filter.

Inside each door, a ribbed inlet collar provides for a PVC bag attachment. When changing filters the PVC bag creates a barrier seal between the operator and the contaminated filter. Removable retrieval rods ease both the installation and removal of filters. Housing is constructed with 14 gauge 304 stainless steel and the locking trays in 12 gauge 304 stainless steel. The housing components are seam welded to reinforce joint strength and to prevent collection of contaminants and air leakage.

BENEFITS

The HEPA Seal BB makes inserting and sealing the filters easy. For the safety of the operator the locking tray is on the downstream side of the HEPA filters, protecting from contaminants at filter change. To further hinder contaminations and air by-pass, the housing is fully seam welded with a broken channel for the filters instead of an aluminum extrusion. The strength and versatility of the HEPA Seal BB design make it ideal for all applications. Hand torqued door latches provide a positive seal between the housing and the gasketing on the door. The housing has a flange for easy installation and custom flanges are available.

APPLICATIONS

The HEPA Seal BB is used to protect people and equipment from hazardous contaminants in health care, biomedical, pharmaceutical and nuclear industries. The PVC bag used at filter change out ensures safety for the operator by creating a barrier that isolates the HEPA filter. Optimized for safety and performance, the Aerostar HEPA Seal BB housing can replace any existing HEPA housing. It is designed for HEPA filters with 99.97% and 99.99% efficiencies and could be combined with 2", 4" or 6" pre-filters.



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PERFORMANCE DATA (STANDARD CAPACITY, HEPA)

FILTER HOUSING CAPACITY (CFM)*				
HEIGHT	WIDTH			
	.5	1	2	3
.5	250	500	—	—
2	—	1000	2000	3000
3	—	2000	4000	6000
4	—	4000	8000	12000

* Based on a 24 x 24 filter @ 1000 cfm

ENGINEERING SPECIFICATIONS

FILTER HOUSING HEPA filter housing shall be Aerostar HEPA Seal Bag In/Bag Out Housing as manufactured by Dafco Filtration Group Inc. Housing shall be factory assembled and shall be tested in accordance with ANSI/ANSE-N510-1995 for operation between +/- 10 "w.g. Higher operational pressure up to +/- 20 "w.g. shall be available on request. The housing shall be able to create a positive seal with filters having gasket or fluid seal.

CONSTRUCTION Housing shall be constructed in 14-gauge 304L stainless steel. To hinder contaminations and air by-pass, the housing shall be fully seam welded with a broken channel for the filters instead of an aluminum extrusion. Welds shall be ground smooth. Welders and weld procedures shall meet or exceed the ASME Boiler and Pressure Vessel Code Section IX and be visually inspected following the workmanship acceptance criteria described in "Specification for welding of sheet metal" section 5 and 6 of ANSI/AWS D9.1-1990. Removable retrieval rods shall be available for multi-wide housings. There shall be a 1 1/2" flange around the air entering and leaving sides to accommodate connection to ductwork and air handling equipment. No holes shall be drilled or punched, ensuring leak-free field installation.

LOCKING MECHANISM The locking mechanism shall secure a leak free seal between gasketed filters and housing by an evenly distributed pressure of 1,400 lbs. The mechanism shall be on the downstream side of the HEPA filters, protected from contaminants and shall be constructed in 12-gauge stainless steel. For fluid seal filters the locking mechanism shall distribute an even pressure to guarantee a leak free seal between the knife-edge and the fluid seal.

TO DETERMINE HOUSING SIZE: Find the cfm you are filtering and go to the left to the height column. Write down the number. Then go from the cfm up to the width row and write down that number. Example 4000 cfm = 3 x 2. Note there may be more than one size for most cfm; choose the one that will best fit your space.

TO DETERMINE NUMBER OF FILTERS: Example housing is 3 h x 2 w. First determine number of filters in a row (width). Example: Width = 2 is 2 - 24x24x2 HEPA filters. Second, multiply each size by the number of rows (height). Example: Height = 3. There are 6-24x24x11HEPA filters in this configuration.

DOORS shall be 14-gauge stainless steel and mounted to the housing for ease of filter removal. There shall be a bagging collar around the filter door that will allow for a changeout out bag to be installed. The collar shall have 2-raised ridges as a holding device for the bag. Hand torqued door latches shall provide a positive seal between the housing and the gasketing on the door.

OPTIONS

- Weatherproofing, pitched roof with rain guard over the door
- Isolation dampers
- Additional bag kits
- Aluminized steel construction
- 316L 14 gauge stainless steel
- Double wall insulation
- Vertical flow application
- Bottom access
- Custom flanged housing
- Static port(s)
- DOP port(s)
- Magnehelic gauge
- Photohelic gauge
- Breather filter port
- High temperature gasket
- Lifting lugs
- Transitions

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