

FILTRATION GROUP

INNER SEAL™ HOUSINGS



- Eliminates air by-pass
- 1", 2" & 4" track combinations available
- Works in particulate and gas phase applications
- PVC T-gasketing has a lifetime guarantee
- ASHRAE test available
- No clips or extra gasketing necessary
- Patented design
- Improves IAQ



DESCRIPTION

The Aerostar Inner Seal housing uses a patented design to seal-off and prevent virtually all air by-pass around filters in the housing. Constructed with 16 gauge galvanized steel, the Inner Seal is permanently fastened to maintain original design specifications. Horizontal and vertical components are permanently connected and gasketed with PVC T-gaskets to form the perimeter seal around each filter. The unique seal design results in the lowest by-pass in the industry, one half of one percent at 125% of airflow.

BENEFITS

The strength and versatility of the Inner Seal design make it ideal for all applications. Doors are mounted on both sides of the housing for ease of filter change-outs. Sized to fit actual filter width, no spacers are needed to block off unfiltered air. The seal is achieved simply by installing the filters and closing the doors.

Since the Inner Seal is virtually leak-proof, all incoming air is filtered, and rated filter efficiency is achieved. Thus the system operates at its design criteria. By having an Inner Seal housing, the dirt downstream can be reduced by as much as 3.7 times.

APPLICATIONS

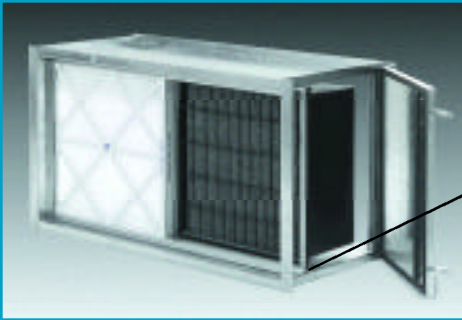
The Inner Seal housing can replace any existing filter housing. This design is built with a 1-3/8" flange around the air entering and exiting sides to accommodate connection to duct work. The Inner Seal housing is designed for low, medium and high efficiency systems. The housing is built with either two tracks for dual stage filtration or one four inch track for limited space applications. Both particulate and gas phase filters can be combined in the same housing, making this the most versatile sealing system in the industry.



The Inner Seal Selection Guide

In selecting a housing, Filtration Group offers a broad range of track style and configurations to meet specific needs. The following options are available:

The Inner Seal 21



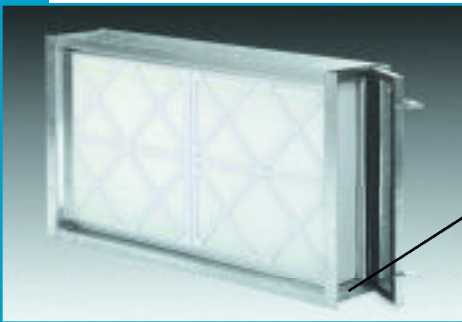
- n General use housing
- n Two tracks—2" track and 1" track
- n The 2" track for prefilter and 1" track for final filter with a 13/16" or 7/8" header
- n The standard in the industry for high efficiency or gas phase applications

The Inner Seal 41



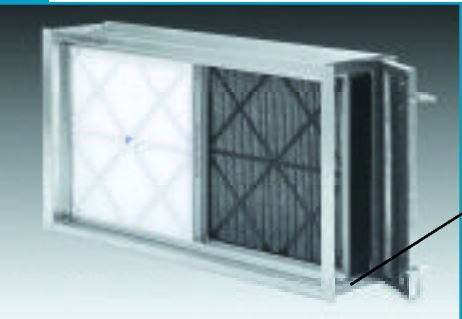
- n High capacity housing
- n Two tracks—4" track and 1" track
- n The 4" track for prefilter and 1" track for final filter with a 13/16" or 7/8" header
- n For high dirt loading applications

The Inner Seal 04



- n Slim profile—for "limited" space applications
- n One 4" track
- n Holds any 4" filter
- n High efficiency achieved with 4" mini-pleat

The Inner Seal 24



- n Slim profile—prefiltered applications
- n Two tracks—2" track and 4" track
- n The 2" track for a prefilter and 4" track for particulate or gas phase filter
- n High efficiency dual stage filtration for limited spaces

The Inner Seal 11



- n Two—1" tracks centered in housing
- n Fits filters with 13/16" and 7/8" header
- n Unique "**Face-to-Face**" filter mounting reduces pressure drop
- n Two 95% filters reduce penetration by 15 times
- n To achieve the highest ASHRAE efficiency

PERFORMANCE DATA

FILTER HOUSING CAPACITY (CFM) BASED ON 2000 CFM/24 X 24 FILTER										
HEIGHT	WIDTH									
	.5	1	1.5	2	2.5	3	3.5	4	4.5	5
.5	—	1000	—	2000	—	3000	—	4000	—	5000
1	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
1.5	—	3000	—	6000	—	9000	—	12000	—	15000
2	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000
2.5	—	5000	—	10000	—	15000	—	20000	—	25000
3	3000	6000	9000	12000	15000	18000	21000	24000	27000	30000

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: 21,000 CFM = 3 x 3.5. Note: There is more than one size for most CFM; choose the one that will best fit your space.

TO DETERMINE NUMBER OF FILTERS: Example housing is 3H x 3.5W. First determine number of filters in a row (width). Example: Width = 3.5 is 3-24 x 24 filters wide and 1-12 x 24 wide. Second, multiply each size by the number of rows (height). Example: Height = 3. There are 9-24 x 24 filters and 3-12 x 24.

OPTIONS

- Weatherproofing, pitched roof with rain guard over the door
- 304L stainless steel
- Insulation
- Double wall insulation
- Vertical flow application
- Bottom access
- Custom flanged housing
- Static port(s)
- Magnehelic gauge
- DOP port
- Photohelic gauge
- High temperature gasket
- Lifting lugs
- Transitions

FILTRATION GROUP

INNER SEAL™ HOUSINGS

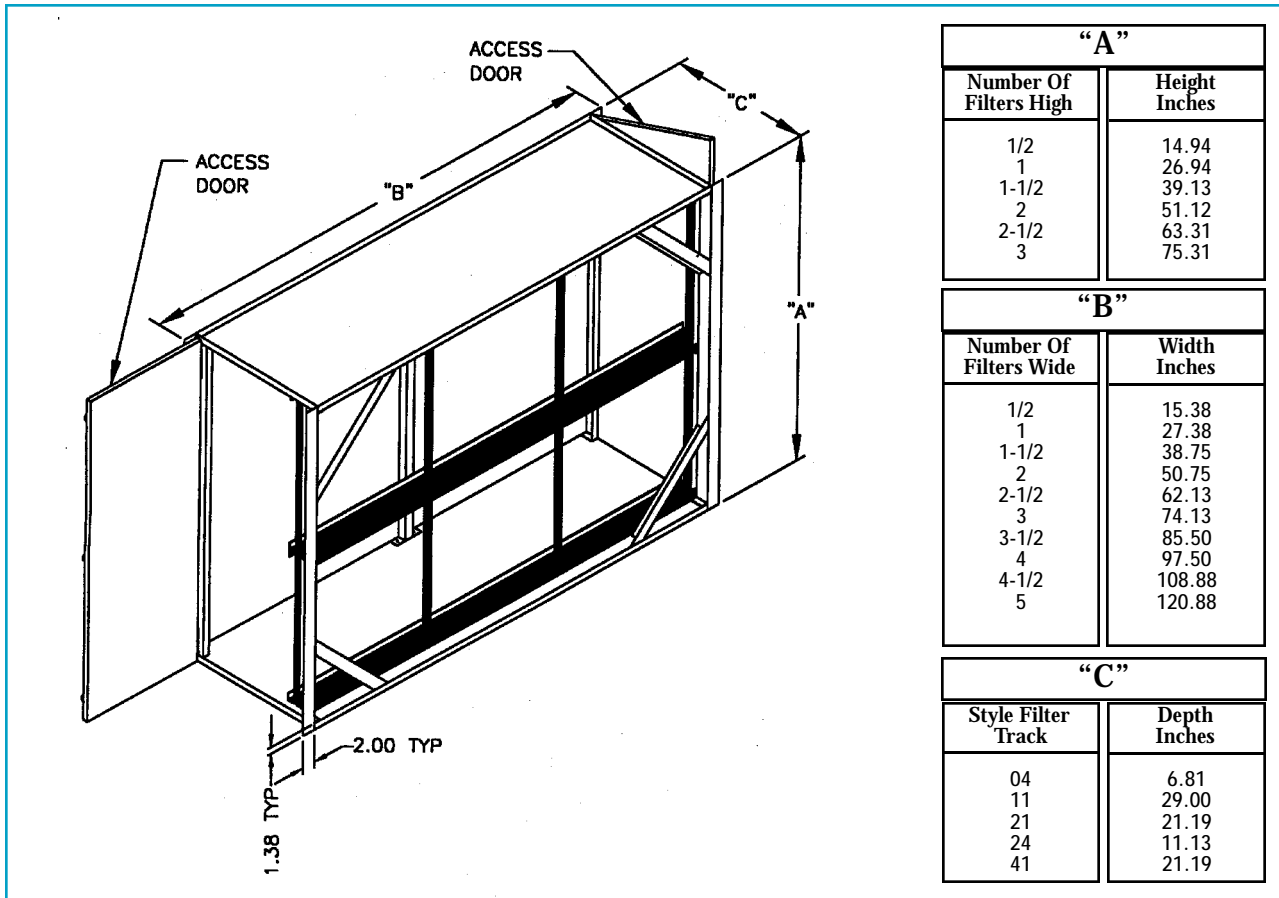
ENGINEERING SPECIFICATIONS

LEAKAGE upstream to downstream of filter(s) shall be no more than .5% at 125% rated airflow. Testing shall be performed with more than one filter to assure that filter to filter gaps are tested. Each seal shall have one stationary component to assure repeatability of seal. Seal shall occur without the use of clips, additional frames, or gaskets on filters. Pre-filters shall be sealed with the same care as final filters to enhance efficiency and extend final filter life.

CONSTRUCTION Housing shall be 16 gauge galvanized sheet metal. Panels and posts shall be permanently fastened to maintain tolerances. There shall be a 1-3/8" flange around the air entering and leaving sides to accommodate connection to ductwork and air handling equipment. No holes shall be drilled or punched to assure leak-free field installation.

DOORS shall be 16 gauge galvanized and mounted to both sides of the housing for ease of filter removal. Hinges and latches shall be permanently mounted to maintain factory tolerances in the field. Perimeter gaskets and track seal gaskets shall be oil and moisture resistant high density PVC foam gasket.

TRACK SYSTEM shall consist of horizontal and vertical components permanently connected to assure factory tolerances. System shall locate seals such that each filter is sealed around the entire perimeter in a single plane. Perimeter seals shall be replaceable in case of extraordinary damage. Seal material shall be flexible PVC. Vertical components shall be structural to maintain track stability during the use of any style of filter.



DISTRIBUTED BY

© FGI 06/03



FILTRATION GROUP

FILTRATION GROUP
 Phone: 877-FGI-TEAM (344-8326)
 Fax: 800-518-1162
 www.filtrationgroup.com
 e-mail: aerostar@filtrationgroup.com

