

#### PRODUCT OVERVIEW

- Side Service Housings for MERV Rated Filters constructed of16 GA Galvanized Steel with Extruded Aluminum Filter Tracks with Integral Gasketing
- Adaptable to a Variety of Filter Designs
  - Single Stage 2" Filter
  - Single Stage 4" Filter
  - Dual Stage 2" & 4" Filter – Dual Stage 2" & 1"
  - Header Filter
  - Dual Stage 4" & 1" Header Filter
- Housings may be combined in series to form longer filter trains such as HEPA Bolt, Crank Seal and Carbon Sorb Housings
- Ideal for Use in
  - Equipment Protection
  - Gun Ranges
  - Health Care
  - General HVAC
    Renovations



# **<u>AEROSTAR</u>** INNER SEAL<sup>™</sup> HOUSING

# WHY SPECIFY THE AEROSTAR INNER SEAL HOUSING?

- Welded construction provides a robust finished product suitable for multiple applications.
- Hinged access doors are mounted on both sides of the housing for ease of filter change-outs.
- Doors are secured with hinged studs and aluminum star knobs.
- Door Gaskets Ensure No Bypass around the filters.
- Housing Constructed for operational pressures of +/- 6"- WG
   Higher Pressure Designs are Available
- Extruded Aluminum Filter Tracks with Integral Gasket provides downstream seal to installed filters

# **OPTIONS:**

- Weather Cover
- Double Wall Insulated Construction
- Magnehelic or Photohelic Gages
- T304 and T316 SST Construction
- Duct Transitions
- Factory Drilled Flanges
- Vertical Air Flow
- Bottom Access
- High Temp Door Gaskets
- Intake Weather Hood
- Intake Fixed Louver

#### PERFORMANCE DATA

#### FILTER HOUSING CAPACITY (CFM) BASED ON 2000 CFM/24 X 24 FILTER

	WIDTH									
HEIGHT					2.5		3.5		4.5	
.5		1000	_	2000	_	3000		4000	_	5000
1	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
1.5		3000	4500	6000	7500	9000	10500	12000	13500	15000
2	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000
2.5		5000	7500	10000	12500	15000	17500	20000	22500	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:  $21,000 \text{ CFM} = 3 \times 3.5$ . 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  $3H \times 3.5W$ . First determine number of filters in a row (width). Example: Width = 3.5 is  $3-24 \times 24$  filters wide and  $1-12 \times 24$  wide. Second, multiply each size by the number of rows (height). Example: Height = 3. There are  $9-24 \times 24$  filters and  $3-12 \times 24$ .

In selecting a housing, Filtration Group offers a broad range of track style and configurations to meet specific needs.

The following construction options are available:

#### THE INNER SEAL 02 & 04 (DEPTH=8.5")

- Slim profile—for "limited" space applications
- One 2" or 4" track
- Holds any 2" OR 4" filter
- High efficiency achieved with 4" mini-pleat

### THE INNER SEAL 24 (DEPTH=12")

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

## THE INNER SEAL 21 (DEPTH=22.25")

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

#### THE INNER SEAL 41 (DEPTH=22.25")

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

#### ENGINEERING SPECIFICATIONS

1.0 Scope

1.1 This specification details the requirements for side access filter housings designed to accommodate 2" or 4" Prefilter, 2" and 4" Filters or 2" or 4" Prefilter and 1" Single Header Final Filter as scheduled.

2.0 Construction

- 2.1 Side access filter housings shall be Inner Seal as manufactured by Filtration Group.
- 2.2 Side access filter housings shall be constructed from minimum 16 GA galvanized steel. Panels and posts shall be permanently fastened to maintain tolerances. No holes shall be drilled or punched to assure a leak free field installation. All metal to metal joints shall be welded and caulked.
- 2.3 Housing design must be such that filter installation is done without any additional clips or holding frames.

- 2.4 The track shall include an integral replaceable gasket to seal filters on the downstream side. The track shall be designed to accept a 2" deep prefilter and 1" header type secondary filter.
- 2.5 Doors shall be 16 GA galvanized steel and mounted on both sides of the houseing for ease in filter installation and replacement. Swing aside door studs and aluminum star knobs shall be permanently mounted. Perimeter door gasket shall be oil and moisture resistant high density PVC foam.

3.0 Performance

3.1 Leakage upstream to downstream shall be less than 0.5% at 125% of rated air flow and verified by an independent test lab.



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