

PRODUCT OVERVIEW

- Side Service housing for particulate and gas phase filtration
- Designed for 2" or 4" pre-filters combined with 3/4" chemical media trays
- Aerosorb® chemical media is suited for a vast range of application specific gas phase removal solutions
- Ideal for use in
 - Marijuana growing facilities
 - Airports
 - Waste water treatment
 - Pulp and paper
 - Corrosion or odor control



CARBON SORB HOUSING

WHY CARBON SORB HOUSING?

- The Aerostar Carbon Sorb Housing is a multistage unit designed to remove particulate and gaseous contaminants
- The strength and versatility of the Aerostar Carbon Sorb Housing design make it ideal for multiple applications
- The housing will hold 2" or 4" pleated pre-filters and 3/4" refillable carbon trays
- Designed for minimum air by-pass, constructed with 16 gauge steel, the housing components are permanently fastened for added strength
- Corner gussets are positioned along the upstream side and for housings that are wider than 24", center stability bars are added for extra rigidity
- Doors are mounted on both sides of the housing for ease of filter change-outs
- Positive tension door locks provide a tight seal between the housing and the gasket on the door



CARBON SORB HOUSING

PERFORMANCE DATA

FILTER HOUSING CAPACITY (CFM)*										
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	4000	6000	7000	9000	10000	12000	13000	15000
2	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000
2.5	—	5000	7000	10000	12000	15000	17000	20000	22000	25000
3	2000	6000	9000	6000	15000	18000	21000	24000	27000	30000

* Based on a 24 x 24 filter @ 1000 cfm. NOTE: 12 carbon trays per 24" of height.

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 20000 cfm = 2 1/2 x 4. 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 2 1/2 h x 4 w. First determine number of filters in a row (width). Example: Width = 4 is 4 - 24x24x2 pleated filters and 48 carbon trays (12 carbon trays per 24" of height). Second, multiply each size by the number of rows (height). Example: Height = 2 1/2. There are 8-24x24x2, 4-12x24x2 pleated filters and 120-24x24x1 carbon trays in this carbon housing configuration.

AVAILABLE OPTIONS

- Weather proofing
- Post filters tracks
- Double Wall Insulation
- Vertical Flow Application
- Bottom Access
- Custom Flanged Housing
- Static Port(s)
- Magnehelic Gauge
- Photohelic Gauge
- Lifting Lugs
- Transitions

ENGINEERING SPECIFICATIONS

1.0 Filter Housing

- 1.1 Molecular contamination control filter housings shall be side access Carbon Sorb housing; designed for refillable carbon trays as manufactured by Filtration Group. Model numbers shall be as per schedule for application specific requirements.
- 1.2 The housing shall be constructed of 16-gauge, galvanized steel and metal to metal joints shall be sealed with caulking.
- 1.3 The housing shall be designed with vertical "Z" channel support members on all four corners.
- 1.4 Filters are manufactured by an ISO 9001 registered company.
- 1.5 Panels, posts, hinges and latches shall be permanently fastened to maintain tolerances in the field. The housing shall be designed with vertical "Z" channel support members on all four corners.
- 1.6 Housing shall be factory assembled and capable of accepting filters without the use of holding frames or clips.
- 1.7 Access doors shall be 16 gauge steel and furnished on both sides of the housing for ease of access
- 1.8 Positive tension door locks shall provide a tight seal between the housing and the gasketing on the door.
- 1.9 The prefilter and carbon tracks shall be extruded aluminum and contain a replaceable polypropylene pile seal gasket.
- 1.10 The gasket shall be oil and moisture resistant high density PVC foam gasket.
- 1.11 There shall be a 1" flange around the air entering and leaving sides to accommodate connection to ductwork and air handling equipment.
- 1.12 No holes shall be drilled or punched to assure leak-free fields installation.

2.0 Chemical Media Trays

- 2.1 Trays shall be perforated steel epoxy powder coated black and shall be capable of being reloaded in the field.
- 2.2 The trays shall be furnished with virgin coconut shell granular activated carbon with a minimum carbon tetrachloride (CTC) activity of 60% per ASTM D-3467.
- 2.3 The granular carbon shall be 4 x 8 US mesh size. The minimum hardness shall be 97 per ASTM D 3802. The minimum surface area shall be 1100 m²/g (N₂ BET Method).
- 2.4 The carbon shall be designed for the removal of VOC's. The combined pressure drop of the chemical media and housing shall not exceed 0.50" w.g. at 500 fpm.

3.0 References

- 3.1 ASTM Test Method D 3467-88, Standard Test Method for Carbon Tetrachloride Activated of Activated Carbon, American Society for Testing and Materials, Philadelphia, 1988.
- 3.2 ASTM Test Method D 3802-79, Standard Test Method for Ball-Pan Hardness of Activated Carbon, American Society for Testing and Materials, Philadelphia, 1986.