

# STANDARD FILTER HOUSING UNIT

MODEL: SFHU

2 STAGE FILTRATION • PRE-FILTER • FINAL FILTER • SIDE ACCESS



## OVERVIEW:

Standard side-access filter housings (SFHU's) are designed to filter air in two stages. Each sealed enclosure will accommodate a 2" (51) or optional 4" (102), deep pre-filter and a final stage bag or rigid filter with a 1" (25) header. Width and height sizing of the enclosure is typically expressed in module sizes, and ranges from .5 to 6 and .5 to 4 respectively. Depth of the enclosure is determined by the final filter. Three standard depths, 22 1/4" (565), 34 1/4" (870) and 42" (1067) will accommodate most final filter designs. Intended for new or existing applications, each unit includes integrated 1" (25) mounting flanges to aid installation onto ductwork or air handlers. Access doors are fully gasketed around the perimeter to ensure an airtight seal when closed. Urethane foam gasketing is also included on the interior of the door to seal against the filter sides, thus eliminating bypass flow. Designed as a single assembly, each unit is constructed with reinforcing gussets to increase strength. Anywhere metal contacts metal, sealant is applied to eliminate casing leakage. Available options on the SFHU's include different material types, custom sizing, custom flange lengths, weatherproofing, insulation and application specific construction methods. Every SFHU is engineered for ease of installation and maintenance while offering exceptional air filtration.



## STANDARD CONSTRUCTION:

**SIZE:** Available in 1/2 width and height module sizes, up to size 6 wide and size 4 high. Three depths will accommodate final filters up to a maximum 36" (914) for bag type filters.

**FRAME:** 16 ga. (1.63) galvanized steel frame with 4 sided integrated 1"(25) mounting flanges, turned outward, located on inlet and discharge.

**TRACK:** .080" (2.03) Type 6063-T6 extruded (FILTER) aluminum alloy filter track with integral nylon fiber pile seal. Pre-filter track accommodates 2" (51) deep filter. Final filter track is designed for filter with 1" (25) deep header.

**FINISH:** Mill finish interior and exterior.

**DOOR:** Hinged side access door (right hand as standard) with positive pressure draw latches. Doors sealed with closed cell neoprene gasketing around perimeter. Urethane foam gasket applied to inside of door to seal filter against door.

**BRACING:** Corner gussets for added rigidity. For units wider than 2 modules, formed center legs are added for strength and rigidity. Center legs will typically be on 24" (610) centers.

DIMENSION: INCHES (mm) P. 1 of 3.

SCHEDULE TYPE  
PROJECT  
ENGINEER  
CONTRACTOR

# Submittal

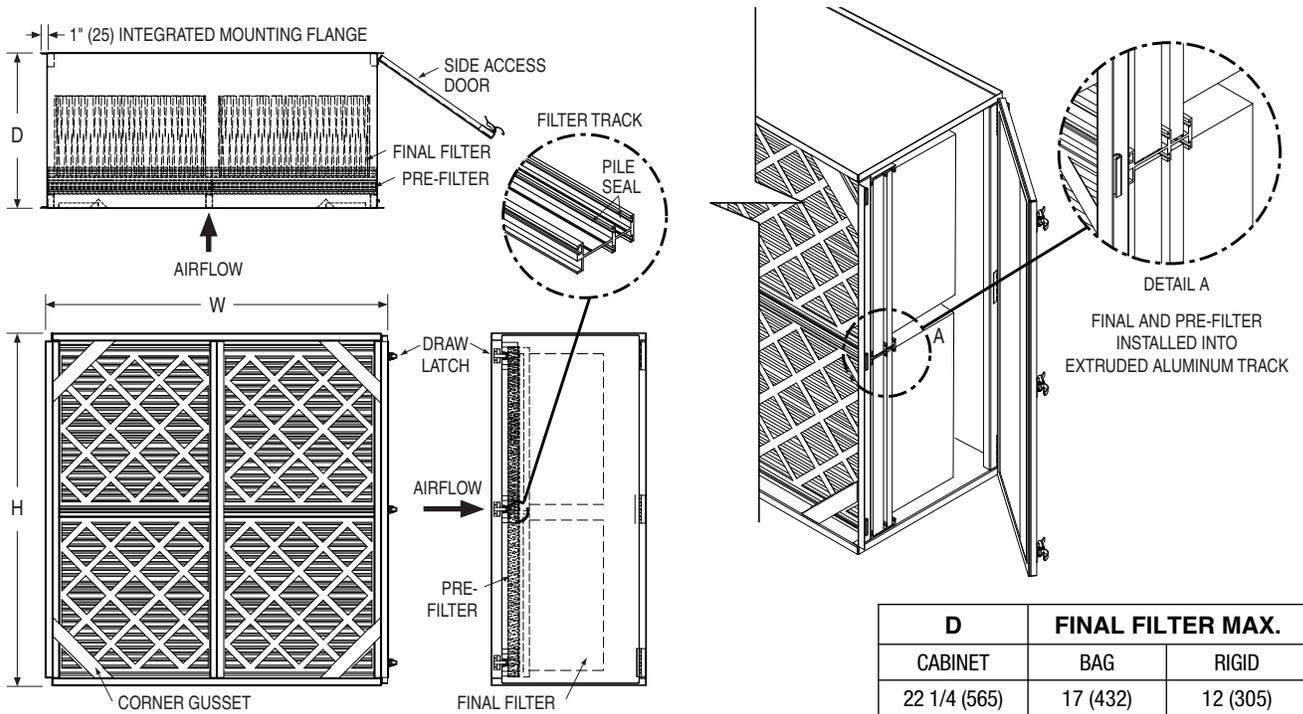
SFHU

SUPERSEDES: 10 - 15 - 10 REV.: 1 - 20 - 11

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D	FINAL FILTER MAX.	
	BAG	RIGID
22 1/4 (565)	17 (432)	12 (305)
34 1/4 (870)	29 (737)	12 (305)
42 (1067)	36 (914)	12 (305)

**SIZING\* W/ MAX AIRFLOW CAPACITY RATED @ 500 FPM**

MODULE	H	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
W	HOUSING	14 1/4 (362)	26 1/4 (667)	38 1/2 (978)	50 1/2 (1283)	62 3/4 (1594)	74 3/4 (1899)	87 (2210)	99 (2515)
0.5	13 5/8 (346)	—	1000 (472)	1500 (708)	2000 (944)	2500 (1180)	3000 (1416)	3500 (1652)	4000 (1888)
1.0	25 5/8 (651)	1000 (472)	2000 (944)	3000 (1416)	4000 (1888)	5000 (2360)	6000 (2831)	7000 (3303)	8000 (3775)
1.5	37 1/4 (946)	1500 (708)	3000 (1416)	4500 (2124)	6000 (2831)	7500 (3539)	9000 (4247)	10500 (4955)	12000 (5663)
2.0	49 1/4 (1251)	2000 (944)	4000 (1888)	6000 (2831)	8000 (3775)	10000 (4719)	12000 (5663)	14000 (6607)	16000 (7550)
2.5	60 7/8 (1546)	2500 (1180)	5000 (2360)	7500 (3539)	10000 (4719)	12500 (5899)	15000 (7079)	17500 (8258)	20000 (9438)
3.0	72 7/8 (1851)	3000 (1416)	6000 (2831)	9000 (4247)	12000 (5663)	15000 (7079)	18000 (8494)	21000 (9910)	24000 (11326)
3.5	84 5/8 (2149)	3500 (1652)	7000 (3303)	10500 (4955)	14000 (6607)	17500 (8258)	21000 (9910)	24500 (11562)	28000 (13213)
4.0	96 1/2 (2451)	4000 (1888)	8000 (3775)	12000 (5663)	16000 (7550)	20000 (9438)	24000 (11326)	28000 (13213)	32000 (15101)
4.5	108 1/8 (2746)	4500 (2124)	9000 (4247)	13500 (6371)	18000 (8494)	22500 (10618)	27000 (12741)	31500 (14865)	36000 (16988)
5.0	120 1/8 (3051)	5000 (2360)	10000 (4719)	15000 (7079)	20000 (9438)	25000 (11798)	30000 (14157)	35000 (16517)	40000 (18876)
5.5	131 3/4 (3346)	5500 (2595)	11000 (5191)	16500 (7786)	22000 (10382)	27500 (12977)	33000 (15573)	38500 (18168)	44000 (20764)
6.0	143 3/4 (3651)	6000 (2831)	12000 (5663)	18000 (8494)	24000 (11326)	30000 (14157)	36000 (16988)	42000 (19820)	48000 (22651)

\*Housings are ordered in Module designations. See notes for details.

AIRFLOW: **CFM (l/s)**

DIMENSION: INCHES (mm)

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## OPTIONS:

- 4" (102) pre-filter track
- 304SS frame and track construction, up to 12 ga. (2.67).
- 316SS frame and track construction, up to 12 ga. (2.67).
- .080" (2.03) Type 3003 aluminum alloy housing construction.
- Weatherproof construction to include pitched roof and rain guards over side access door(s).
- Multiple Access Doors, or non-hinged door applications. Contact factory for details.
- Air dried epoxy painted surfaces, gray as standard. Other Color: \_\_\_\_\_.
- Insulated housing. Standard insulation is 1" (25) thick, 4 lb./cu. ft. (64 kg/m<sup>3</sup>) density rigid fiberglass with a fire resistant reinforced aluminum foil-scrim-kraft (FSK) facing.
- Double wall insulated door. Includes 1" (25) 4 lb./cu. ft. (64 kg/m<sup>3</sup>) density rigid fiberglass insulation installed between door panels.
- Available positive or negative high pressure construction. Includes additional bracing for rigidity. Contact factory for information.
- High temperature construction. Contact factory for information.
- Custom housing sizes. Please indicate custom dimensions under **ORDERING: CUSTOM MODULES**.
- Custom mounting flange sizes (flanges turned outward or inward). Indicate custom flange sizes under **ORDERING: CUSTOM MODULES**.
  - 1 side (Inlet or Discharge)
  - 2 sides (Inlet and Discharge)
- Other: \_\_\_\_\_.

## ORDERING:

### STANDARD MODULES

Step 1: Select module W

Step 2: Select module H

Step 3: Select housing Depth based on final filter

Standard Housing Sizes:

W \_\_\_\_\_ x H \_\_\_\_\_ x D \_\_\_\_\_  
*Module Module*

## CUSTOM MODULES

Step 1: Enter overall outside filter housing width including mounting flanges.

Step 2: Enter overall outside filter housing height including mounting flanges.

Step 3: Enter overall filter housing depth.

Custom Housing Sizes:

W \_\_\_\_\_ x H \_\_\_\_\_ x D \_\_\_\_\_

Step 4: Enter custom flange sizes, if needed. These will be subtracted from overall dimensions listed above to find inside cabinet dimensions.

Inlet:

Top: \_\_\_\_\_ Bottom: \_\_\_\_\_ Left: \_\_\_\_\_ Right: \_\_\_\_\_

Discharge:

Top: \_\_\_\_\_ Bottom: \_\_\_\_\_ Left: \_\_\_\_\_ Right: \_\_\_\_\_

## NOTES:

- Module Width x Height sizing of units is based on 24" x 24" (610 x 610) filter face size. For example, a module 2W x 2H is constructed of four 24" x 24" (610 x 610) filters that are arranged 2 wide by 2 high. 1/2 increments refer to filters 12" (305) in size. Depth of the housing is determined by final filter selection.
- Capacities are based on a filter airflow velocity of 500 fpm (2.54 m/s).
- When numbers of filter modules exceed 2 wide, side access doors are included on both sides as standard.
- Selecting the weatherproofing option changes the overall dimensions. Width is reduced by 2" (51) and 1" (25) is added to the height. All mounting flanges are turned inward to prevent water penetration.
- On bottom access door, filter clips are added to retain filters, preventing the filter(s) from dropping when door is opened.
- All mounting hardware, clips, angles, etc. by others.
- All orders require approval of Engineered Submittal Drawings before manufacture.

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