

# HEPA FILTER HOUSING BOLT

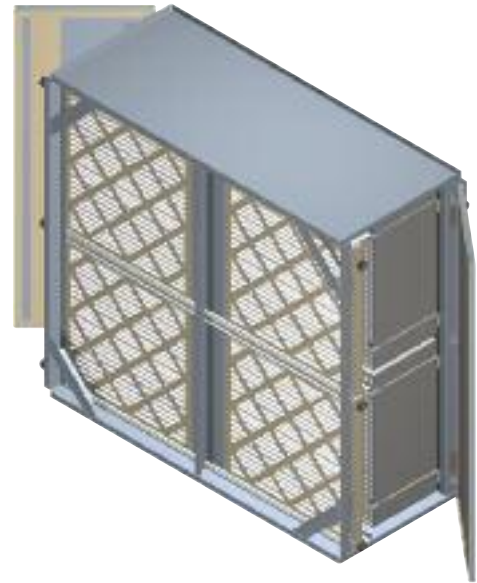
MODEL: HFHB

2 STAGES OF FILTRATION • PRE-FILTER • HEPA FILTER • SWING BOLT •  
SIDE ACCESS



## OVERVIEW:

Side access HEPA filter housings with bolt lock assemblies are designed to be final or 2 stage filter enclosures. Accepting 6" (152) or 12" (305) depth HEPA filters, each unit can be ordered with a 2" (51), or optional 4" (102), deep pre-filter. Bolt Lock units consists of a swing arm with clamp and tensioning springs to securely hold the HEPA filter(s) in place. Width and height sizing of the housing depends on HEPA filter selection. Expressed in module sizes, units range from .5 to 6 wide to .5 to 4 high. There are five standard depths, 16" (406), 20" (508), 22" (559), 26" (660) and 28" (711) which accommodate combinations of pre-filters and HEPA filters. Integrated 1" (25) mounting flanges, on both the inlet and discharge, allow for quick installation onto air handlers or ductwork. Every unit includes a standard right hand access door. Housings that equal or exceed 2 modules in width will have a second door added for easier filter access. Each door is fully gasketed around the perimeter to provide an airtight seal when closed. Additional gasketing is applied to the interior of the door to seal against pre-filters. Reinforcing gussets are added to housings to increase strength. Center legs on units 2 modules or larger will be added to the pre-filter, or inlet side, and will typically be placed on 24" (610) centers. Options on the HFHB Series are numerous and include custom sizing, custom flanges, specialty materials, insulated housings, weatherproof construction and more.



## STANDARD CONSTRUCTION:

**SIZE:** Available in ½ width and height module sizes, up to size 6 wide and size 4 high. Five depths will accommodate 6" (152) or 12" (305) HEPA filters with or without 2" (51) deep pre-filters.

**FRAME:** 14 ga. (2.00) galvanized steel frame with 4 sided integrated 1" (25) mounting flanges, turned outward, located on inlet and discharge.

**FILTER PRE: (TRACK)** .080" (2.03) Type 6063-T6 extruded aluminum alloy filter track with integral nylon fiber pile seal. Filter track accommodates 2" (51) deep filter.

### HEPA:

**Sealing:** .065" (1.65) wall structural steel tubing, seam welded, ground, polished and coated to provide a smooth surface for sealing HEPA filters against.

**Shelf:** 14 ga. (2.00) galvanized steel to provide support for filter weight. Shelf is minimum 2" (51) deep. Units that are 1 module high or for filters mounted on bottom row, casing will support filter.

**CLAMPING:** Four positive pressure, swing arm, spring tensioned, clamping bolts per filter are installed to HEPA sealing frame. When multiple module widths are selected, one center clamp will service two HEPA filters. Each clamp is tensioned with hex nut to secure the filter.

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

**DOOR: (ACCESS)** Hinged side access door (right hand as standard on single module widths, otherwise two access doors as standard) with positive pressure 4-arm hand knobs, located on both hinge and non-hinge sides. Hinges are lift off quick disconnect type. Closed cell neoprene gasketing installed around perimeter of door. Urethane foam gasket applied to inside of door to seal pre-filter against door.

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

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

SCHEDULE TYPE  
PROJECT  
ENGINEER  
CONTRACTOR

# Submittal

HFHB

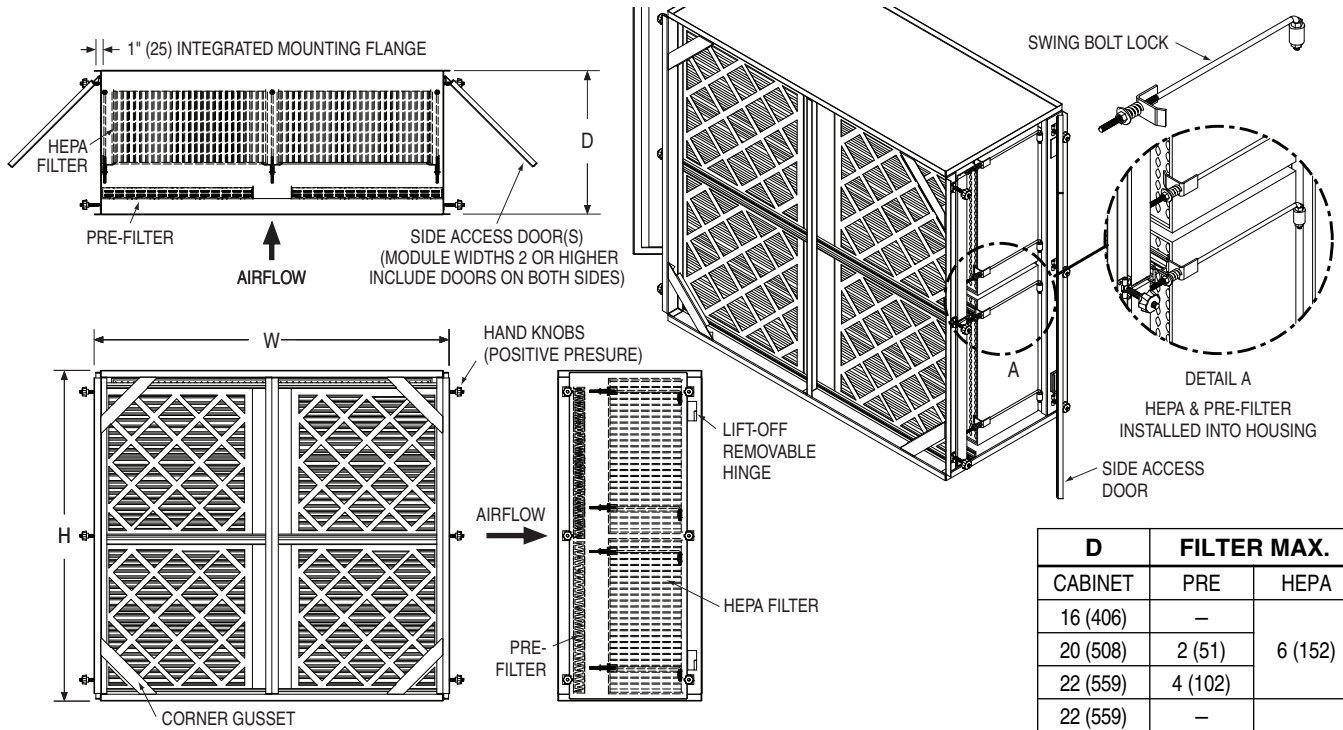
SUPERSEDES: 2 - 28 -11

REV.: 1 - 12 -12

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D CABINET	FILTER MAX.	
	PRE	HEPA
16 (406)	—	6 (152)
20 (508)	2 (51)	
22 (559)	4 (102)	12 (305)
22 (559)	—	
26 (660)	2 (51)	
28 (711)	4 (102)	

## STANDARD MODULE SIZES AND MAXIMUM AIRFLOW CAPACITY\* (@500 fpm)

MODULE	Width	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Height	HOUSING	16 (406)	28 (711)	41 (1041)	53 (1346)	66 (1676)	78 (1981)	91 (2311)	103 (2616)	116 (2946)	128 (3251)	141 (3581)	153 (3886)
	0.5	14 1/2 (368)	1000 (472)	1500 (708)	2000 (944)	2500 (1180)	3000 (1416)	3500 (1652)	4000 (1888)	4500 (2124)	5000 (2360)	5500 (2595)	6000 (2831)
1.0	26 1/2 (673)	1000 (472)	2000 (944)	3000 (1416)	4000 (1888)	5000 (2360)	6000 (2831)	7000 (3303)	8000 (3775)	9000 (4247)	10000 (4719)	11000 (5191)	12000 (5663)
1.5	39 (991)	1500 (708)	3000 (1416)	4500 (2124)	6000 (2831)	7500 (3539)	9000 (4247)	10500 (4955)	12000 (5663)	13500 (6371)	15000 (7079)	16500 (7786)	18000 (8494)
2.0	51 (1295)	2000 (944)	4000 (1888)	6000 (2831)	8000 (3775)	10000 (4719)	12000 (5663)	14000 (6607)	16000 (7550)	18000 (8494)	20000 (9438)	22000 (10382)	24000 (11326)
2.5	63 1/2 (1613)	2500 (1180)	5000 (2360)	7500 (3539)	10000 (4719)	12500 (5899)	15000 (7079)	17500 (8258)	20000 (9438)	22500 (10618)	25000 (11798)	27500 (12977)	30000 (14157)
3.0	75 1/2 (1918)	3000 (1416)	6000 (2831)	9000 (4247)	12000 (5663)	15000 (7079)	18000 (8494)	21000 (9910)	24000 (11326)	27000 (12741)	30000 (14157)	33000 (15573)	36000 (16988)
3.5	88 (2235)	3500 (1652)	7000 (3303)	10500 (4955)	14000 (6607)	17500 (8258)	21000 (9910)	24500 (11562)	28000 (13213)	31500 (14865)	35000 (16517)	38500 (18168)	42000 (19820)
4.0	100 (2540)	4000 (1888)	8000 (3775)	12000 (5663)	16000 (7550)	20000 (9438)	24000 (11326)	28000 (13213)	32000 (15101)	36000 (16988)	40000 (18876)	44000 (20764)	48000 (22651)

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

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

DIMENSION: INCHES (mm)

P. 2 of 3.

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## OPTIONS:

- 4" (102) pre-filter track.
- Gel seal framing system. Contact factory for knife edge dimensions.
- 304SS frame and track construction.
- 316SS frame and track construction.
- .080" (2.03) Type 3003 aluminum alloy housing construction.
- Weatherproof construction to include pitched roof and rain guards over side access door(s).
- Non-hinged access 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 housing. Fiberglass insulation installed between panels.
  - 1" (25) thick insulation
  - 2" (51) thick insulation
- Double wall insulated door. Includes 1" (25) 4 lb./cu. ft. (64 kg/m<sup>3</sup>) 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 filter selection

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.

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) HEPA 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. Pre-filters will be arranged and include same quantity as HEPA filters. Depth of the unit is determined by HEPA filter depth combined with selection of pre-filter option.
- 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.
- All filter mounting hardware, brackets will be supplied.
- All housing mounting hardware, clips, angles, etc. by others.
- All orders require approval of Engineered Submittal Drawings before manufacture.

P. 3 of 3.

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