

FLAT FILTER HOUSING UNIT

MODEL: FFHU

1 STAGE FILTRATION • PRE-FILTER • SIDE ACCESS



OVERVIEW:

Side-access Flat Filter housings (FFHU's) will accommodate a single pleated filter, either 2" (51) or 4" (102) deep. Designed for a single stage of air filtration, typical uses are for pre-filtration. Additional uses may include filtration of return air in an air handler or energy recovery ventilator. Width and height sizing of the enclosure is expressed in module sizes, and ranges from .5 to 6 and .5 to 4 respectively. Depth of the enclosure is determined by which filter is selected and results in either a 6.5" (165) or 8.5" (216) depth. Standard 1" (25) mounting flanges aid installation onto ductwork or air handlers. Each unit includes an access door as standard (right mounted) and is fully gasketed around the perimeter to provide an airtight seal when closed. Additional foam gasketing is applied to the interior of the door to seal against filter sides, preventing bypass of unfiltered air. Every unit is sealed to eliminate casing leakage. Each unit is constructed with reinforcing gussets to increase strength and includes additional bracing on larger units as standard. Options on FFHU's include different material types, custom sizing, custom flange lengths, weatherproofing, insulation and application specific construction methods. FFHU Series of housings offer exceptional value for single stage filtration needs.



STANDARD CONSTRUCTION:

SIZE: Available in ½ width and height module sizes, up to size 6 wide and size 4 high. Two depths will accommodate pleated filters either 2" (51) or 4" (102) deep.

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

TRACK: 20 ga. (1.00) galvanized steel formed filter (FILTER) track.

FINISH: Mill finish interior and exterior.

DOOR: Hinged side access door (right hand mounted 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

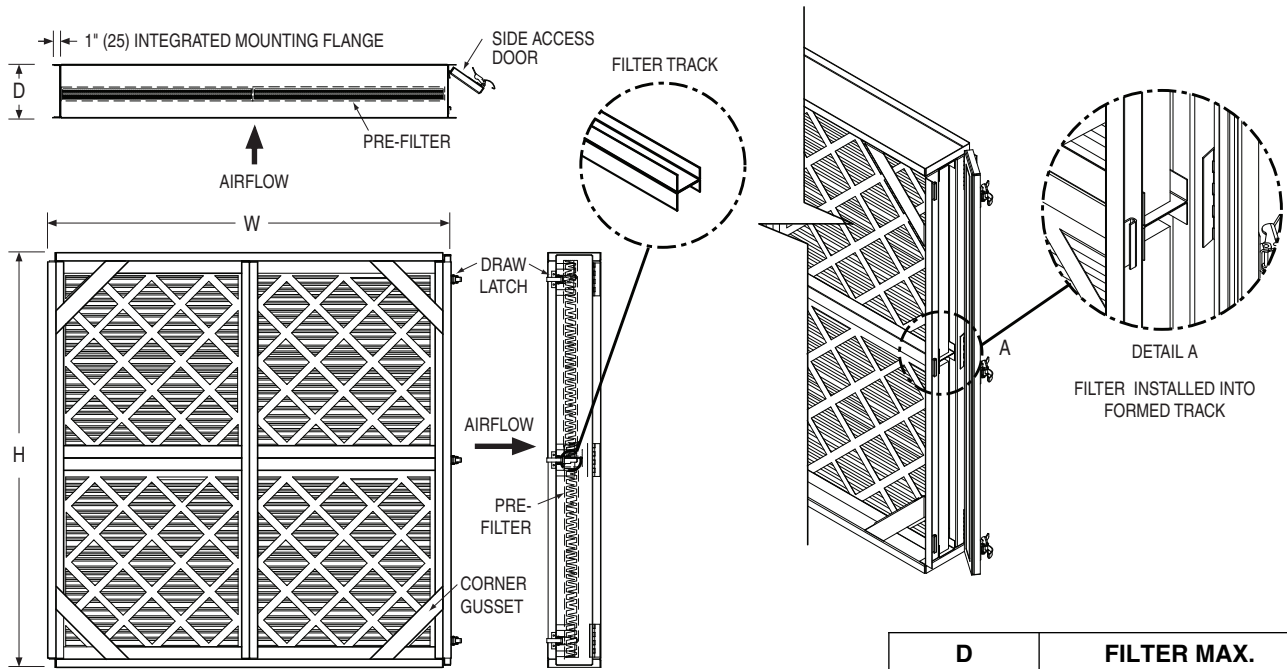
FFHU

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

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D	FILTER MAX.
	PLEATED
CABINET	
6 1/2 (165)	2 (51)
8 1/2 (216)	4 (102)

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 (356)	26 (660)	37 3/4 (959)	49 3/4 (1264)	61 5/8 (1565)	73 5/8 (1870)	85 1/2 (2172)	97 1/2 (2476)
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 (1852)	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:

DIMENSION: INCHES (mm) P. 2 of 3.

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OPTIONS:

- 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/m³) 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/m³) 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) 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 filter depth.
- 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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