

VEE BANK FILTER UNIT

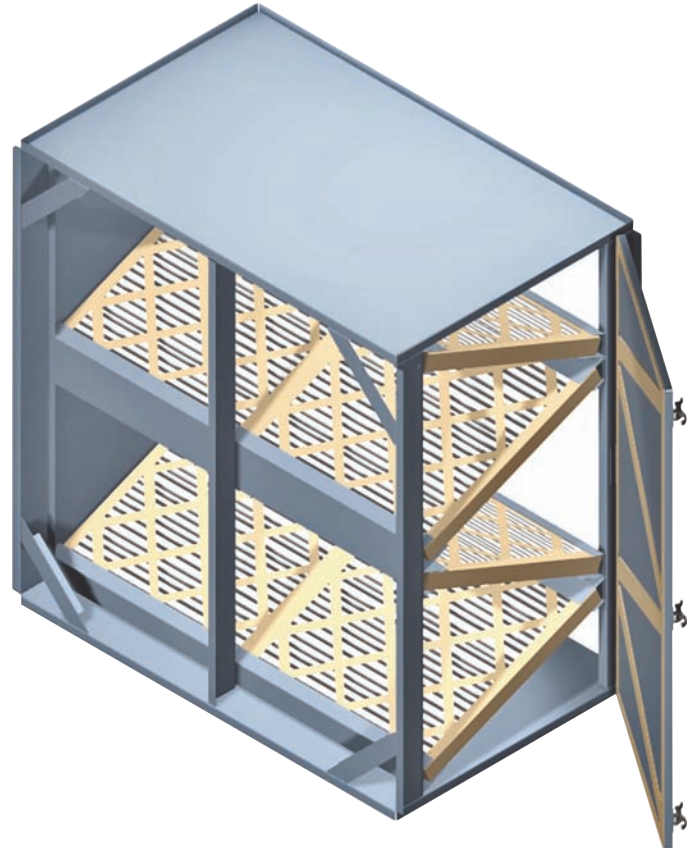
MODEL: VBFU

1 STAGE OF FILTRATION • PRE-FILTER • SIDE ACCESS



OVERVIEW:

The VBFU is a general purpose single stage pre-filter housing. Designed to arrange the filters into a Vee pattern for increasing filtration capacity without increasing footprint, the VBFU accepts 2" (51), or optionally 4" (102), pleated filters. Useful as an add-on to existing air handling equipment, VBFU's are especially effective when combined with other filter setups. Expressed in module sizes, units range from .5 to 6 wide to .5 to 4 high. One depth, 30" (762), is sufficient to accommodate the Vee shaped filter arrangement. Integrated 1" (25) mounting flanges, on both the inlet and discharge, allow for quick installation onto air handlers, ductwork or other filter housings. Every unit includes a standard right mounted access door. Housings over 2 modules in width will include a second access door 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 filter sides. Reinforcing gussets are added to housings to increase strength. Center legs on units 2 modules or larger will be added to the inlet side and will typically be placed on 24" (610) centers. Options on the VBFU Series include custom flanges, custom sizes, 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. Housing depth will accommodate 2" (51), or optional 4" (102), pleated filters.
- FRAME:** 16 ga. (1.63) galvanized steel frame with 4 sided integrated 1" (25) mounting flanges, turned outward, located on inlet and discharge.
- FILTER:** 16 ga. (1.63) formed galvanized steel track with integrated rubber pile seal. Filter track accommodates 2" (51) deep filter.
- 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 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

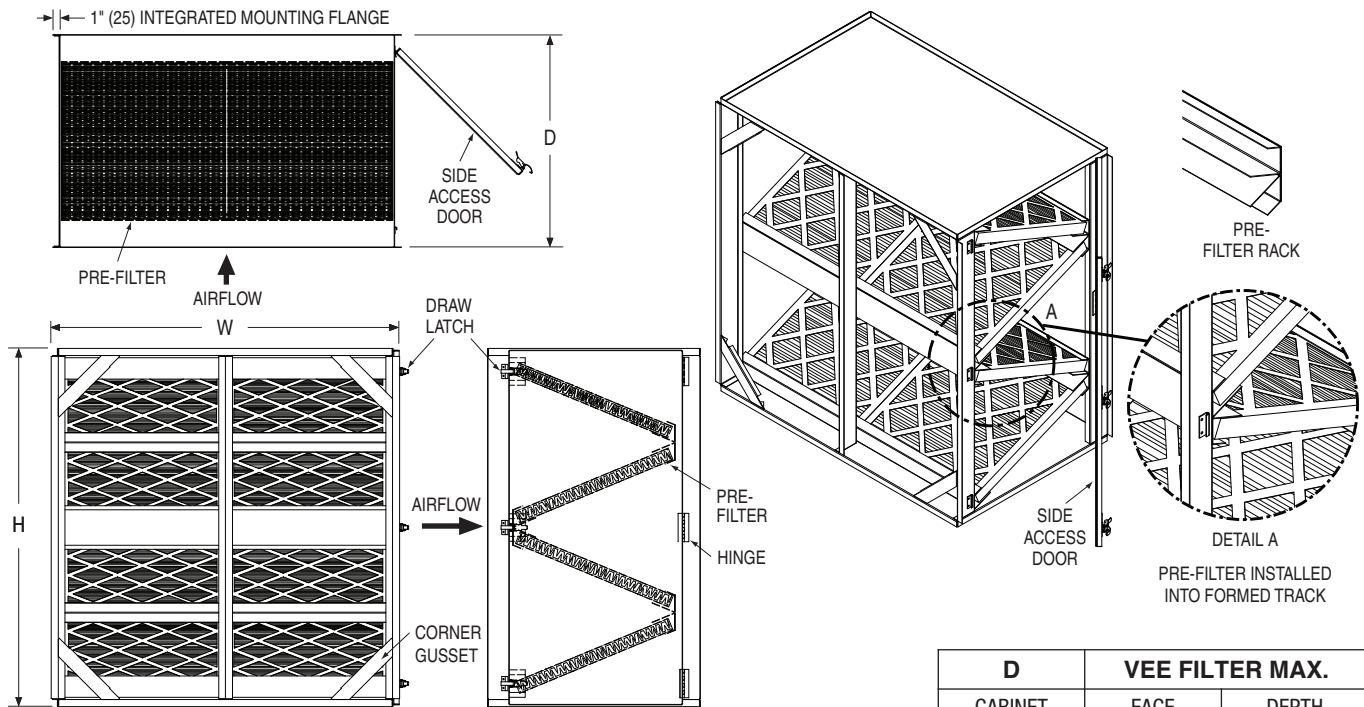
VBFU

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

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D CABINET	VEE FILTER MAX.	
	FACE	DEPTH
30 (762)	24 x 24 (610 x 610)	2 (51) OPT. 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 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)	—	2000 (944)	3000 (1416)	4000 (1888)	5000 (2360)	6000 (2831)	7000 (3303)	8000 (3775)
1.0	25 5/8 (651)	2000 (944)	4000 (1888)	6000 (2831)	8000 (3775)	10000 (4719)	12000 (5663)	14000 (6607)	16000 (7550)
1.5	37 1/4 (946)	3000 (1416)	6000 (2831)	9000 (4247)	12000 (5663)	15000 (7079)	18000 (8494)	21000 (9910)	24000 (11326)
2.0	49 1/4 (1251)	4000 (1888)	8000 (3775)	12000 (5663)	16000 (7550)	20000 (9438)	24000 (11326)	28000 (13213)	32000 (15101)
2.5	60 7/8 (1546)	5000 (2360)	10000 (4719)	15000 (7079)	20000 (9438)	25000 (11798)	30000 (14157)	35000 (16517)	40000 (18876)
3.0	72 7/8 (1852)	6000 (2831)	12000 (5663)	18000 (8494)	24000 (11326)	30000 (14157)	36000 (16988)	42000 (19820)	48000 (22651)
3.5	84 5/8 (2149)	7000 (3303)	14000 (6607)	21000 (9910)	28000 (13213)	35000 (16517)	42000 (19820)	49000 (23123)	56000 (26426)
4.0	96 1/2 (2451)	8000 (3775)	16000 (7550)	24000 (11326)	32000 (15101)	40000 (18876)	48000 (22651)	56000 (26426)	64000 (30202)
4.5	108 1/8 (2746)	9000 (4247)	18000 (8494)	27000 (12741)	36000 (16988)	45000 (21236)	54000 (25483)	63000 (29730)	72000 (33977)
5.0	120 1/8 (3051)	10000 (4719)	20000 (9438)	30000 (14157)	40000 (18876)	50000 (23595)	60000 (28314)	70000 (33033)	80000 (37752)
5.5	131 3/4 (3346)	11000 (5191)	22000 (10382)	33000 (15573)	44000 (20764)	55000 (25955)	66000 (31145)	77000 (36336)	88000 (41527)
6.0	143 3/4 (3651)	12000 (5663)	24000 (11326)	36000 (16988)	48000 (22651)	60000 (28314)	72000 (33977)	84000 (39640)	96000 (45302)

*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
- 304SS frame and track construction, up to 16 ga. (1.52).
- 316SS frame and track construction, up to 16 ga. (1.52).
- .080" (2.03) Type 3003 aluminum alloy housing and track construction. Track is formed, not extruded.
- 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 selected material panels.
- 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: Enter housing Depth

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:

- Vee filter size is typically 24" (610) wide by 24" (610) high and ranges from 2" (51) to 4" (102) in depth.
- Module Width sizing of units is based on 24" (610) wide filters. Module Height is based on stacking 2 filters per 24" (610) of height (trays arranged in Vee pattern). For example, a module 2W x 2H is constructed of eight 24" x 24" (610 x 610) filters that are arranged 2 wide by 4 high (stacked in Vee configuration). ½ increments refer to filters 12" (305) in size. Depth of the unit accounts for the 24" (610) height of the filter and the space gained by using the Vee configuration.
- 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.
- If a bottom access door is used, filter clips are added to retain filters, preventing the filter(s) from dropping when door is opened.
- All housing mounting hardware, clips, screws, etc. by others.
- All orders require approval of Engineered Submittal Drawings before manufacture.

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