

General

Surepleat Side Access Filter Housings are minimum depth units designed to accommodate ASHRAE-rated filters 2 in. (standard), 4 in. or 6 in. (optional) in depth. They are factory-assembled flanged units suitable for installation in a duct or next to an air handling unit. As little as 12 in. of in-line depth is required with no need for holding frames or fasteners.

Surepleat Housings accommodate filters of different types and efficiencies up to 95% per ASHRAE Standard 52.1 dust-spot test methods.

Filters are easily serviced through quick-opening access doors. Factory-gasketed channels and doors assure positive sealing. The efficiency of fully-loaded housings is equal to that of the individual filters.

Versatility

Both prefilter and final filter requirements can be accomplished by using the combination 2 in./4 in. track. Surepleat Housings are available in a wide range of sizes up to 8 ft. high and 12 in. wide. They can operate at face velocities up to 625 fpm with 4 in. filters.

Construction

Housings are constructed of 16 ga. galvanized steel with upstream and downstream outwardly turned flanges. Units include "Z" channel vertical support members on all four corners.

Filter tracks are extruded aluminum and are gasketed with replaceable polypropylene pile air seals. Housings are equipped with two access doors that are sealed with neoprene gasketing on the perimeter. Doors are equipped with 1.5 in. positive-sealing knobs made of UV-resistant plastic with corrosion-resistant brass inserts. Construction of the top pan allows rainwater to drain off easily so that additional weather proofing is rarely required.

Options

- Double-walled insulation on doors only or on the entire housing
- Drain tubes for moisture separators
- Flanges to connect with air handlers
- 1 in. wide track for 6 in. headered filters
- 4 in. track
- Aluminum or 304 stainless steel construction.

Important Features

- Units are constructed of durable 16 ga. galvanized steel.
- "Z" channel support members reinforce all four corners.
- All tracks and doors are fully gasketed.
- Holding frames or fasteners are not required.



Height Code	Overall Flange Height (in.)	Face Velocity FPM	Width Code										
			10W	15W	20W	25W	30W	35W	40W	45W	50W	55W	60W
			Overall Flange Width										
			23-3/8	34-3/4	46-3/4	58-1/8	70-1/8	81-1/2	93-1/2	104-7/8	116-7/8	128-1/4	140-1/4
05H	15	375	750	-	1500	-	2250	-	3000	-	-	-	-
		500	1000	-	2000	-	3000	-	4000	-	-	-	-
		625	1250	-	2500	-	3750	-	5000	-	-	-	-
10H	27	375	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
		500	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
		625	2500	3750	5000	6250	7500	8750	10000	11250	12500	13750	15000
15H	39	375	2250	-	4500	-	6750	-	9000	-	11250	-	13500
		500	3000	-	6000	-	9000	-	12000	-	15000	-	18000
		625	3750	-	7500	-	11250	-	15000	-	18750	-	22500
20H	51	375	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
		500	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000
		625	5000	7500	10000	12500	15000	17500	20000	22500	25000	27500	30000
25H	62-7/8	375	3750	-	7500	-	11250	-	15000	-	18750	-	22500
		500	5000	-	10000	-	15000	-	20000	-	25000	-	30000
		625	6250	-	12500	-	18750	-	25000	-	31250	-	37500
30H	74-7/8	375	4500	6750	9000	11250	13500	15750	18000	20250	22500	24750	27000
		500	6000	9000	12000	15000	18000	21000	24000	27000	30000	33000	36000
		625	7500	11250	15000	18750	22500	26250	30000	33750	37500	41250	45000
35H	86-7/8	375	5250	-	10500	-	15750	-	21000	-	26250	-	31500
		500	7000	-	14000	-	21000	-	28000	-	35000	-	42000
		625	8750	-	17500	-	26250	-	35000	-	43750	-	52500
40H	98-7/8	375	6000	9000	12000	15000	18000	21000	24000	27000	30000	33000	36000
		500	8000	12000	16000	20000	24000	28000	32000	36000	40000	44000	48000
		625	10000	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000

Notes:

1. Height and Width Code: The first numeral represents the number of 24 in. x 24 in. filters high or wide. If 24 in. x 12 in. filters are also used in the height or width, the second numeral is "5".
2. Dimensions are based on using nominal size 24 in. x 24 in. and 24 in. x 12 in. filters. Select filters from capacity chart for 2 in. disposable filters; 2 in. or 4 in. PrePleat filters; 6 in. RAH Rigid- Air; or 4 in. PrecisionCell mini pleat filters.
3. For capacities other than those shown, ratio the face velocities.
4. Maximum recommended velocities:
 - 2 in. disposable filters: 300 fpm
 - 2 in. pleated filters: 500 fpm
 - 4 in. pleated filters: 625 fpm
 - 4 in. PrecisionCell filters: 625 fpm
 - 6 in. Rigid-Air and PrecisionCell filters: See applicable capacity chart.

Model Number Development

Example: The number **SP2/4-20H35W-X** represents a Surepleat housing for both 2 in. prefilters and 4 in. PrecisionCell final filters, 2 filters high and 3-1/2 filters wide. The letter X indicates that special features are required.



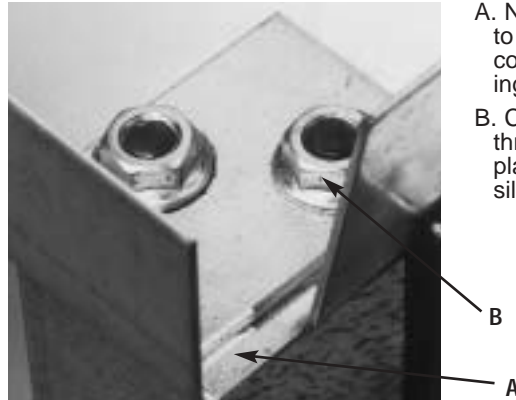
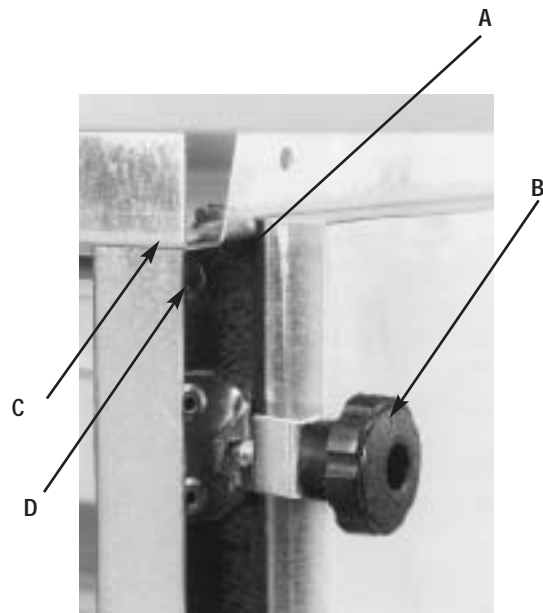
Type of housing, which in this case is Surepleat (SP)

Type of filter track: 1 for 1" track (6" RAH or PrecisionCell single header filters 2 (for 2" track for 2" filters) or 4 (for 4" track for 4" filters or 2/4 (combination 2"track for prefilters and 4" track for Precisioncell final filters

Height and Width code: The first numeral of each section represents the number of 24"x24" filters high or wide. If a 24"x12" filter is used to complete the height or width, the second numeral of section will be "5".

For special features or sizes, end with the suffix "X" and describe them.

Surepleat Features



- A. Notched top flange to prevent rain from collecting on housing top
- B. Corner posts bolted through bearing plates sealed with silicone compound

- A. Neoprene gaskets around periphery of door
- B. Easy-grip knob for positive sealing to door latch
- C. 1-1/2 in. standing duct connection flange front and back
- D. Bolted "Z" channel support posts in each corner

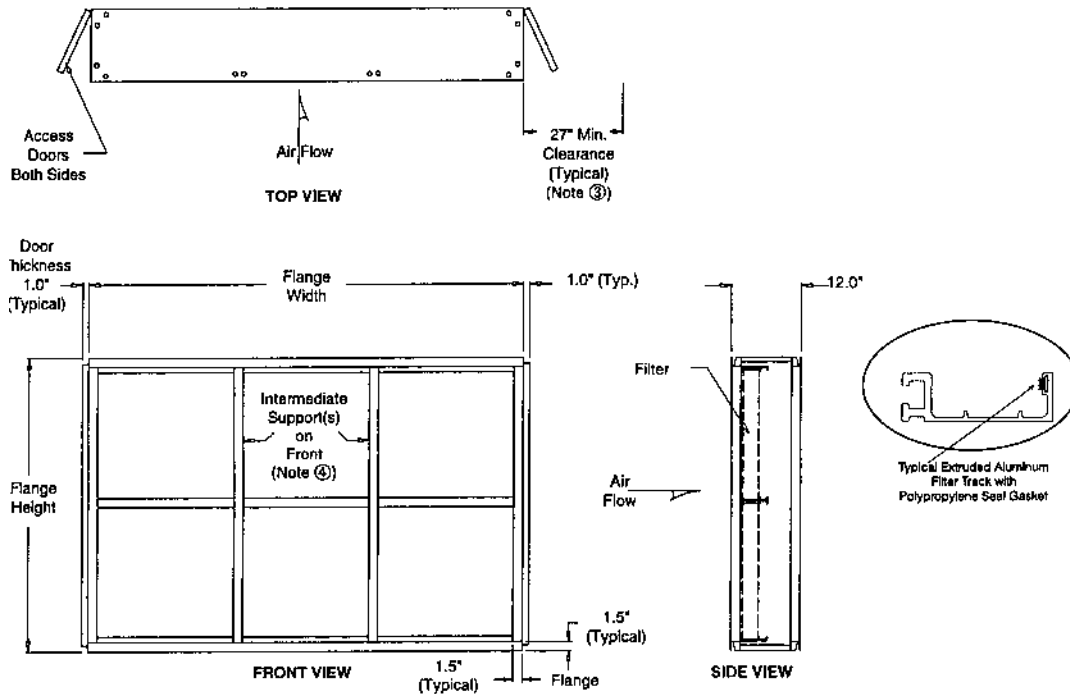
Filter Usage and Housing Weight

Height Code	Filters Weight Lbs.	Width Code										
		10W	15W	20W	25W	30W	35W	40W	45W	50W	55W	60W
05H	Filters	1C	--	2C	--	3C	--	4C	--	-	--	--
	Weight	23	-	34	-	49	-	64	-	-	-	-
10H	Filters	1A	1A-1C	2A	2A-1C	3A	3A-1C	4A	4A-1C	5A	5A-1C	6A
	Weight	29	38	44	51	58	65	77	84	94	101	108
15H	Filters	1A-1C	--	2A-2C	--	3A-3C	--	4A-4C	--	5A-5C	--	6A-6C
	Weight	40	-	54	-	81	-	101	-	123	-	141
20H	Filters	2A	2A-2C	4A	4A-2C	6A	6A-2C	8A	8A-2C	10A	10A-2C	12A
	Weight	47	59	68	83	92	105	115	130	139	150	159
25H	Filters	2A-1C	--	4A-2C	--	6A-3C	--	8A-4C	--	10A-5C	--	12A-6C
	Weight	56	-	81	-	113	-	139	-	169	-	203
30H	Filters	3A	3A-3C	6A	6A-3C	9A	9A-3C	12A	12A-3C	15A	15A-3C	18A
	Weight	68	81	95	117	128	149	159	182	193	209	219
35H	Filters	3A-1C	--	6A-2C	--	9A-3C	--	12A-4C	--	15A-5C	--	18A-6C
	Weight	74	-	110	-	145	-	204	-	216	-	238
40H	Filters	4A	4A-4C	8A	8A-4C	12A	12A-4C	16A	16A-4C	20A	20A-4C	24A
	Weight	86	105	124	149	164	188	227	236	245	251	260

(1) Filters/Weight: Top letter/number combination indicates the number of and nominal face size of filters required to fill the unit. "A" stands for nominal 24" x 24" filter. "C" stands for nominal 24" x 12" filter. Bottom number indicates the approximate weight of the housing EMPTY. Add approximately 2 pounds per 2 inch depth filter; 5 pounds per 4" depth filter; and 12 pounds per 6" depth filter to determine approximate weight when loaded with filters.

- Standard housing depth is 12"

Construction Details



1. Standard construction is 16 ga. galvanized steel frame and casing, extruded aluminum filter tracks with replaceable polypropylene pile gaskets, neoprene door gaskets and positive-sealing door latches with easy-grip knobs.
2. System static pressure range for standard housings is from -4.0 in. w.g. to +3.0 in. w.g.
3. Allow 27 in. minimum clearance on one or preferably both sides for filter installation.
4. Intermediate supports furnished on housings over 4 ft. wide.

Guide Specifications

1.0 Filter Housings

- 1.1 Minimum depth side access filter housings shall be Surepleat as manufactured by Flanders Precisionaire
- 1.2 Unit shall be a factory-assembled housing with upstream and downstream outwardly-turned flanges for installation in the ductwork or next to an air handling unit. Housing shall have an in-line depth of 12 in. and must be capable of accepting filters without the use of holding frames or fasteners.

2.0 Construction

- 2.1 Housing construction shall be of 16 ga. galvanized steel with "Z" channel vertical support members on all four corners. Metal-to-metal joints shall be sealed with silicone compound.
- 2.2 Filter track shall be extruded aluminum and incorporate a replaceable polypropylene pile gasket to insure sealing of the filters to the track. Filter track shall be suitable for the filters specified elsewhere.
- 3.1 Model number and capacities shall be as specified and/or shown on the drawings.
- 3.2 Provide options as specified.

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