

General

Surelock-B Side Access HEPA Filter Housings are designed to accept all gasket-seal HEPA filters. They are all-welded factory-assembled flanged units suitable for installation in a duct on the downstream side of an air handling unit.

Housings guarantee filter system efficiency equal to the efficiency of the individual filters. Optional prefilter tracks are designed to accommodate 2 in. pleated panel filters with efficiency ranges up to 50% per ASHRAE Standard 52.1 dust-spot test methods. Both prefilters and primary HEPA filters are serviceable through gasketed access doors.

Options

- Prefilter tracks
- Double-walled insulation on doors only or on the entire housing
- Aluminum or 304 stainless steel housing construction
- Modifications for high temperature (400 °F continuous, 500 °F intermittent duty)
- Swing-arm assemblies for 6 in. deep HEPA filters

Construction

Housings are 27 in. deep in the direction of air flow and are constructed of 14 ga. galvanized steel. Upstream and downstream outwardly-turned flanges are furnished for attachment to the ductwork. Each HEPA filter is secured in place by four positive-pressure spring-loaded swing-arm assemblies which maintain continuous pressure on the filter gasket against the sealing surfaces.

Optional prefilter tracks are galvanized steel furnished with a pile gasket. Hinged/removable access doors are furnished with rubber sealing gaskets and positive-pressure adjustable latches with easy-grip knobs on the air entering and the air leaving sides to create an airtight seal. Metal-to-metal joints are welded to ensure a leak-proof assembly at + 8 in. w.g. internal pressure.

Versatility

Surelock-B Housings are designed to accommodate Alpha 95 filters with a DOP efficiency of 95% and Alpha Cell and Alpha 2000 filters with DOP efficiencies of 99.97%, 99.99% and 99.999%. Standard housings will accept nominal 12 in. deep 24 in. x 24 in. and 24 in. x 12 in. filters from one filter high and one filter wide to four filters high and six filters wide. If large units are not practical to install, smaller units are available with modifications to facilitate stacking.

Important Features

- Units are constructed of durable 14 ga. galvanized steel
- All metal-to-metal joints are welded for leak-tightness at + 8 in. w.g. internal pressure
- Prefilter tracks and doors are fully gasketed
- Positive-pressure adjustable door latches create an air-tight seal
- Spring-loaded swing-arm assemblies hold HEPA filters to sealing surface
- Access doors are hinged/removable for easy service.



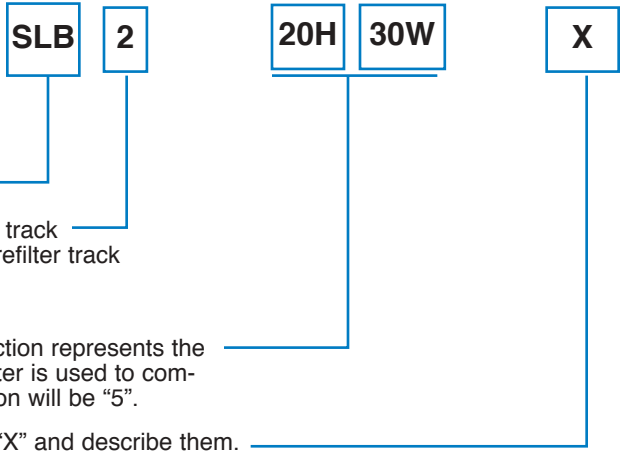
Cfm Capacities and Dimensions Using Standard Alpha Cell and Alpha 2000 High Capacity HEPA Filters															
Height Code	Overall Flange Height (in.)	Initial PD (in. w.g.)	Face Velocity (fpm)	Filter Type (Note 4)	Width Code										
					10W	15W	20W	25W	30W	35W	40W	45W	50W	55W	60W
					Overall Flange Width (inches)										
					26	39-9/16	51-9/16	65-1/8	77-1/8	90-11/16	102-11/16	116-1/4	128-1/4	141-13/16	153-13/16
05H	15-5/6	1.0	300	Std	600	--	1200	--	1800	--	2400	--	--	--	--
		1.0	375	HC	750	--	1500	--	2250	--	3000	--	--	--	--
		1.3	500	HC	1000	--	2000	--	3000	--	4000	--	--	--	--
10H	27-5/16	1.0	300	Std	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
		1.0	375	HC	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
		1.3	500	HC	2000	3000	4000	5000	6000	7000	8000	9000	10000	11100	12000
15H	39-5/16	1.0	300	Std	1800	--	3600	--	5400	--	7200	--	9000	--	10800
		1.0	375	HC	2250	--	4500	--	6750	--	9000	--	11250	--	13500
		1.3	500	HC	3000	--	6000	--	9000	--	12000	--	15000	--	18000
20H	51-5/16	1.0	300	Std	2400	3600	4800	6000	7200	8400	9600	10800	12000	13200	14400
		1.0	375	HC	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
		1.3	500	HC	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000
25H	63-5/16	1.0	300	Std	3000	--	6000	--	9000	--	12000	--	15000	--	18000
		1.0	375	HC	3750	--	7500	--	11250	--	15000	--	18750	--	22500
		1.3	500	HC	5000	--	10000	--	15000	--	20000	--	25000	--	30000
30H	75-5/16	1.0	300	Std	3600	5400	7200	9000	10800	12600	14400	16200	18000	19800	21600
		1.0	375	HC	4500	6750	9000	11250	13500	15750	18000	20250	22500	24750	27000
		1.3	500	HC	6000	9000	12000	15000	18000	21000	24000	27000	30000	33000	36000
35H	87-5/16	1.0	300	Std	4200	--	8400	--	12600	--	16800	--	21000	--	25200
		1.0	375	HC	5250	--	10500	--	15750	--	21000	--	26250	--	31500
		1.3	500	HC	7000	--	14000	--	21000	--	28000	--	35000	--	42000
40H	99-5/16	1.0	300	Std	4800	7200	9600	12000	14400	16800	19200	21000	24000	26400	28800
		1.0	375	HC	6000	9000	12000	15000	18000	21000	24000	26250	30000	33000	36000
		1.3	500	HC	8000	12000	16000	20000	24000	28000	32000	35000	40000	44000	48000

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 width, the second numeral is "5".
2. Standard housing depth is 27 in. with or without a 2 in. prefilter track.
3. For capacities and pressure drop other than those shown, ratio the face velocities.
4. Capacities shown are based on Standard (Std) and High Capacity (HC) 99.97% and 99.99% Alpha Cell filters nominal 12 in. deep and actual face sizes of 24 in. x 24 in. and 24 in. x 12 in.
5. Use Surelock Housings with Alpha 95 filters rated at 500 fpm and 1.0 in. w.g. initial pressure drop.

Model Number Development

Example: The number **SLB220H30WX** represents a Surelock B housing with 2 in. prefilter track, 2 filters high and 3 filters wide. The letter X indicates that special features are required.



Prefix SLB stands for Surelock B style housing

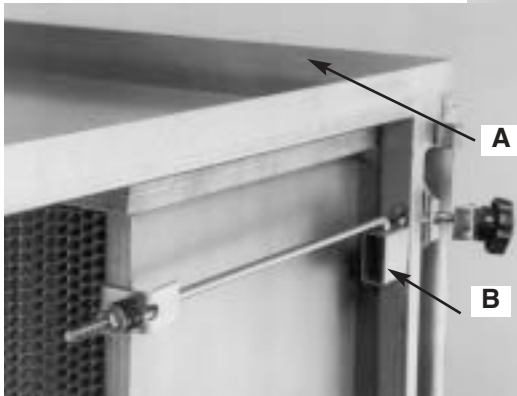
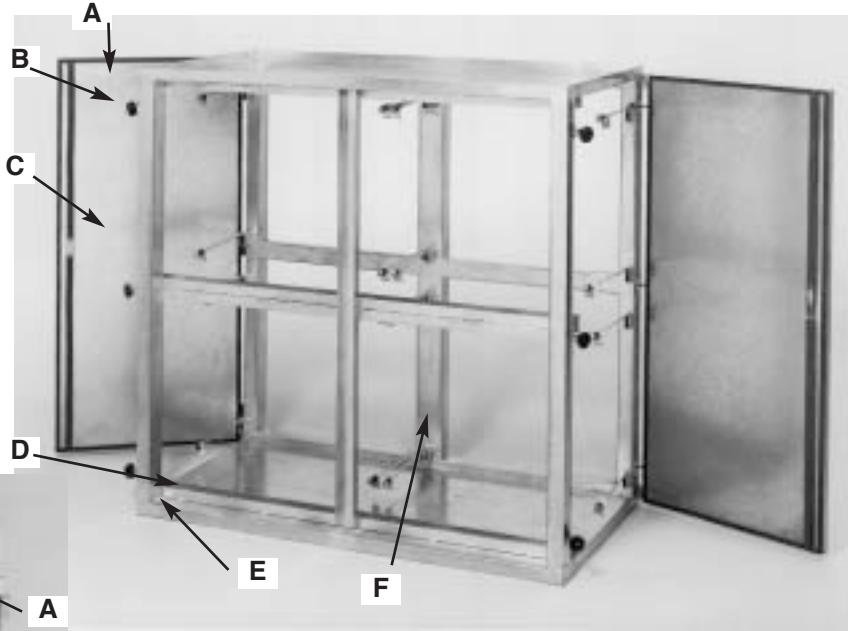
Prefilter track designation. Nothing goes here if no prefilter track is desired. Insert a 2 for a 2" prefilter track or a 4 for 4" prefilter track

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.

Surelock Features

- A. 14 ga. galvanized steel construction
- B. 1-1/2 in. easy-grip UV-resistant knobs on positive-pressure adjustable door latches
- C. Hinged/removable doors
- D. Optional 2 in. pre-filter tracks
- E. All metal joints welded
- F. Filter sealing surface



- A. Standing flange for duct connection
- B. Spring loaded swing-arm filter clamping assembly

Filter Usage and Housing Weight

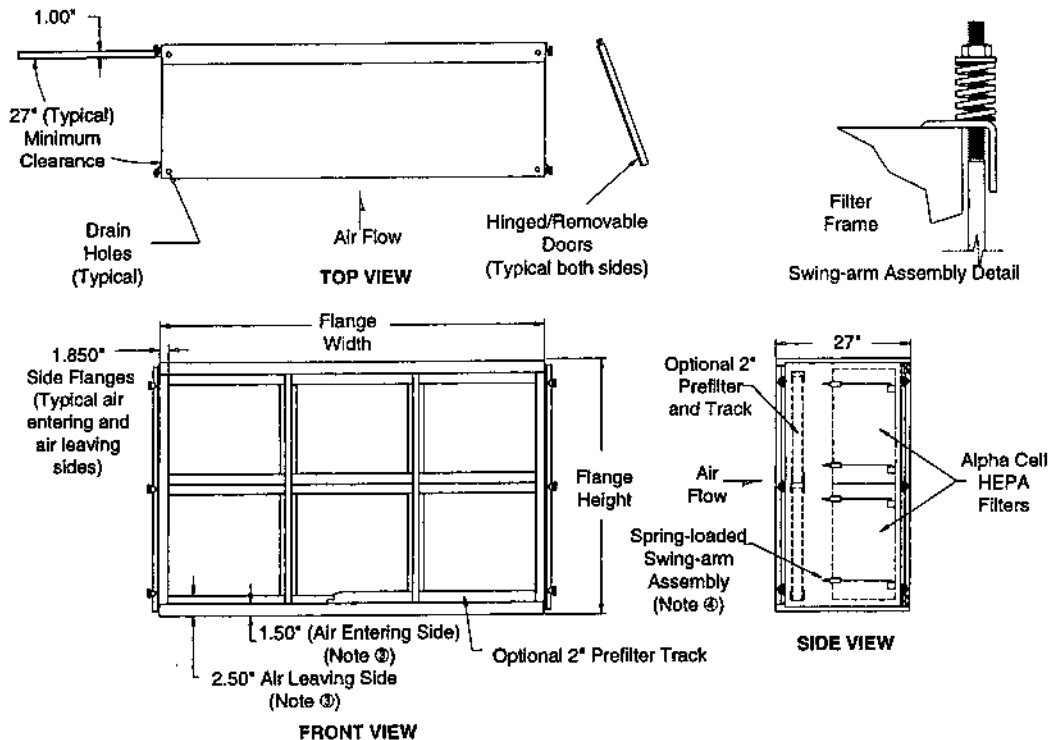
Height Code	Filters Weight (lb)	Width Code										
		10W	15W	20W	25W	30W	35W	40W	45W	50W	55W	60W
05H	Filters	1C	--	2C	--	3C	-	4C	--	--	--	--
	Weight	110		140		160		180				
10H	Filters	1A	1A-1C	2A	2A-1C	3A	3A-1C	4A	4A-1C	5A	5A-1C	6A
	Weight	165	205	240	275	300	332	360	385	408	465	510
15H	Filters	1A-1C	--	2A-2C	--	3A-3C	--	4A-4C	--	5A-5C	--	6A-6C
	Weight	185		250		310		390		450		560
20H	Filters	2A	2A-2C	4A	4A-2C	6A	6A-2C	8A	8A-2C	10A	10A-2C	12A
	Weight	215	250	267	318	350	395	410	446	475	546	615
25H	Filters	2A-1C	--	4A-2C	--	6A-3C	--	8A-4C	--	10A-5C	--	12A-6C
	Weight	225		318		370		500		565		712
30H	Filters	3A	3A-3C	6A	6A-3C	9A	9A-3C	12A	12A-3C	15A	15A-3C	18A
	Weight	270	312	350	392	435	470	506	545	585	600	742
35H	Filters	3A-1C	--	6A-2C	--	9A-3C	--	12A-4C	--	15A-5C	--	18A-6C
	Weight	282		385		470		612		765		945
40H	Filters	4A	4A-4C	8A	8A-4C	12A	12A-4C	16A	16A-4C	20A	20A-4C	24A
	Weight	340	392	446	502	555	612	670	758	845	922	985

(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 32 lb per 24 in. x 24 in. filter and 15 lb per 24 in. x 12 in. filter plus 2 lb per prefilter to determine approximate weight when loaded with filters.

- Standard housing depth is 12"

Flanders Precisionaire - Foremost in Air Filtration

Engineered Products: 1-800-637-2803 Replacement Products: 1-800-347-2220



1. Standard construction: All-welded 14 gauge (.078 in.) galvanized steel housing and doors, leak -tight at + 8 in. w.g.
2. Flange dimensions are typical for both top and bottom of openings.
3. Each HEPA filter is individually secured and clamped in place with four spring-loaded swing arm assemblies.
4. Maximum operating temperature for standard Surelock Housings is 250 °F. High temperature Surelock housings are available for 400 °F continuous and 500 °F intermittent duty. These units are furnished with silicone sponge gasketing on the doors and stainless steel springs on the swing arm assemblies.

Guide Specifications

1.0 Filter Housings

- 1.1 Side access HEPA filter housings shall be Surelock-B as manufactured by Flanders Precisionaire.
- 1.2 Unit shall be a factory-assembled air-tight housing with upstream and downstream outwardly-turned flanges for installation in the ductwork.
- 1.3 Housings shall be suitable for operation + 8 in. w.g. internal static pressure.

2.0 Construction

- 2.1 Housing construction shall be of 14 ga. galvanized steel. Metal-to-metal joints shall be welded.
- 2.2 Prefilter tracks, if required, shall be galvanized steel and incorporate a pile gasket to ensure seal-

ing of the filter to the track.

- 2.3 Each HEPA filter shall be secured in place with four spring-loaded swing-arm assemblies to provide positive sealing of the HEPA filter to the mounting surface.
- 2.4 Access doors shall be hinged/removable and shall have continuous neoprene gasketing on the perimeter. They shall be equipped with positive-pressure adjustable latches with easy-grip knobs.

3.0 Features

- 3.1 Model number and capacities shall be as specified and/or shown on the drawings.
- 3.2 Provide options as specified.

Flanders Precisionaire
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