

Filter Hood FD-S Shelf Style Exhaust Fire Damper

General Description

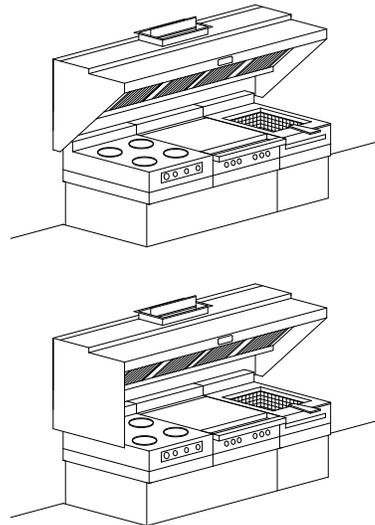
The FD-S shelf filter hood is used with counter cooking equipment. The FD-S is 24" deep and covers 2/3rd of the deep of the cooking equipment. The hood is very effective because of the close proximity of the filters to the surface of the appliances. The hood sits right at the surface of the cooking equipment. Check high of fryer flues to ensure they do not interfere with the FD-S grease trough. The hood is finished in a No. 4 stainless steel finish on all exposed sides. Complete end panels are available as an option. The bottom sketch on the left shows a complete left end panel on the FD-S shelf hood.

Efficiency

The hood is equipped with high efficiency UL/ULC listed baffle grease filters. The exhaust air accelerates through multiple turns within the baffle filter. Centrifugal forces causes grease dirt and lint to deposit on the baffles. The liquefied grease drains down the baffles, along the grease trough, and into a grease cup.

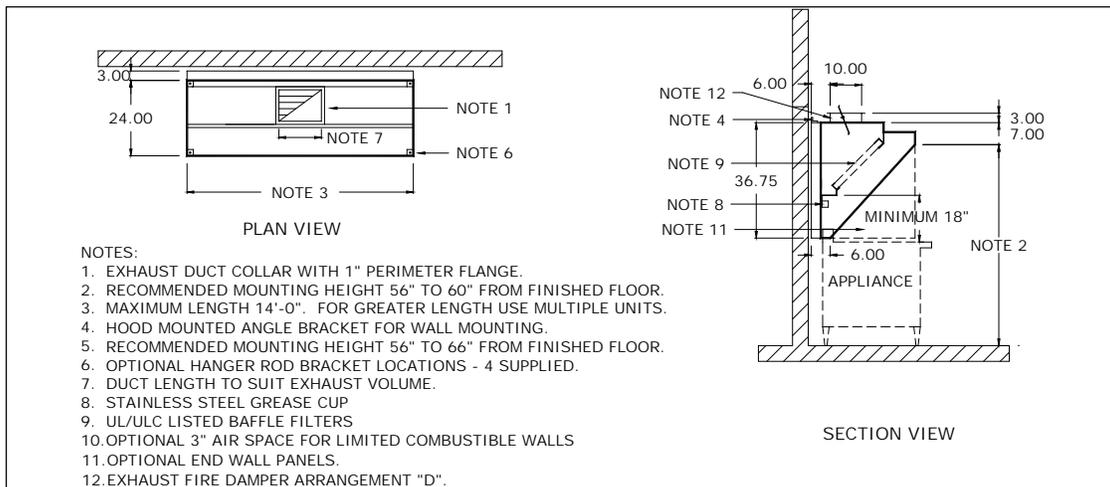
Exhaust and Supply

The total exhaust required to properly ventilate a commercial kitchen is directly related to the type of cooking equipment under the filter hood. An exhaust flow rate between 100 and 300 CFM/ft (155 and 465l/s/m) is satisfactory for most applications. Introducing supply air back into the kitchen is good



engineering practice. An adequate supply of fresh air eliminates cold drafts, and hot spots, enhances the capture capability of the filter hood and results in a more comfortable kitchen environment. A heated supply air volume up to 80% of the total exhaust is recommended.

Model FD-S



Engineering Data

Ventilator Length		Exhaust Flow Rate*							
		100 CFM/ft		150 CFM/ft		250 CFM/ft		300 CFM/ft	
		Exhaust Volume	Exhaust Duct	Exhaust Volume	Exhaust Duct	Exhaust Volume	Exhaust Duct	Exhaust Volume	Exhaust Duct
ft.	mm	CFM	L (in) W=10	CFM	L (in) W=10	CFM	L (in) W=10	CFM	L (in) W=10
3.0	914	300	3	450	4	750	7	900	8
3.5	1067	350	3	525	4.5	875	8	1050	9
4.0	1219	400	4	600	5.5	1000	9	1200	11
4.5	1372	450	4	675	5.5	1125	9	1350	12.5
5.0	1524	500	4.5	750	7	1250	11	1500	13.5
5.5	1676	550	4.5	825	8	1375	12.5	1650	14.5
6.0	1829	600	5	900	8	1500	13.5	1800	16
6.5	1981	650	5.5	975	9	1625	14.5	1950	18
7.0	2131	700	6	1050	9	1750	16	2100	19
7.5	2286	750	7	1125	10	1875	17	2250	20
8.0	2438	800	7	1200	11	2000	18	2400	21.5
8.5	2591	850	8	1275	11	2125	19	2550	22.5
9.0	2743	900	8	1350	12.5	2250	20	2700	25
9.5	2896	950	8.5	1425	12.5	2375	21.5	2850	26
10.0	3048	1000	9	1500	13.5	2500	22.5	3000	27
10.5	3200	1050	9	1575	13.5	2625	23.5	3150	28
11.0	3353	1100	9.5	1650	14.5	2750	25	3300	29
11.5	3505	1150	9.5	1725	16	2875	26	3450	31.5
12.0	3658	1200	10	1800	16	3000	27	3600	32.5
12.5	3810	1250	11	1875	17	3125	28	3750	34
13.0	3962	1300	11	1950	18	3250	29	3900	35
13.5	4115	1350	12.5	2025	18	3375	30.5	4050	36
14.0	4207	1450	13	2100	19	3500	31.5	4200	38

* Refer to the Ventilator Engineering Manual for Exhaust Volumes and Flow Rates not shown above.

Exhaust Flow Rate		Static Pressure at Duct Collar	
CFM/ft	l/s/m	in W.C.	kPa
100	155	0.22	0.07
150	233	0.28	0.07
250	388	0.32	0.07
300	465	0.35	0.09
350	544	0.55	0.14
400	620	0.64	0.16

Notes:

- Exhaust duct can be located anywhere along length of the filter hood.
- For lengths greater than 14' (4270 mm) join multiple sections together

Spring Air Systems FD-S Hood Specification

The filter hood shall be a Spring Air Systems model no. FD-S, shelf type, high efficiency, filter hood, UL/ULC listed, and built in accordance with the NFPA-96. The unit casing shall be a minimum 18 GA. stainless steel on all exposed surfaces. The filter hood shall include UL/ULC listed baffle grease filters mounted in an integral stainless steel rack inclined at 45 degrees. The filter rack shall include a full length stainless steel grease gutter and grease cup. The fire damper shall be an arrangement "D", butterfly type, constructed of stainless steel with metal blade and edge seals. The fire damper shall be activated by a fusible link and dead weight arrangement.

Engineering Data:

- Item Number: _____
- Model Number: _____ FDS_____
- Number of Sections: _____
- Hood Length: _____
- Hood Width: _____
- Lights: _____
- Exhaust Specifications**
- Exhaust Volume: _____
- No. of Duct Collars: _____
- Size of Duct Collar: _____
- Static Pressure: _____

FDS