

Dry Extractor



DN-BS

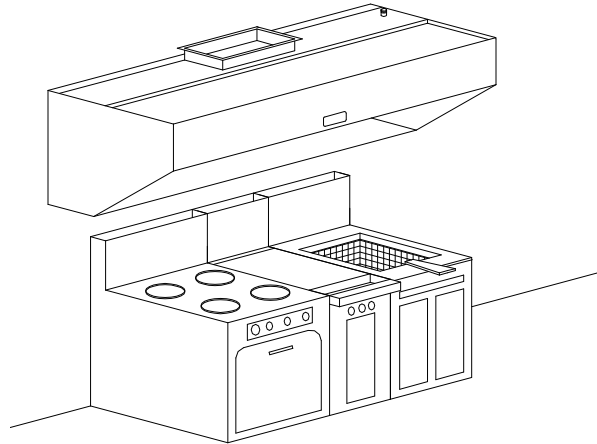
Box Shelf Type

General Description

The ventilator is used on low profile gas cooking equipment. The unit is wall mounted. This hood provides the most effective capture because of close proximity to the cooking surface. Canopy depth is only 33" front to back plus an optional 3" air space. The hood mounts on angle brackets secured to wall and/or hanger rods.

Exhaust and Supply

The total exhaust required to properly ventilate a commercial kitchen is directly related to the type of cooking equipment under the ventilator. An exhaust flow rate between 150 and 350 CFM/ft (233 and 544 l/s /m) is satisfactory for most applications. For detailed calculations refer to *the Spring Air Systems Ventilator Engineering Manual exhaust air section*. Introducing fresh 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 dry ventilator and results in a more comfortable kitchen environment. A supply volume between 80 and 90% is recommended. The



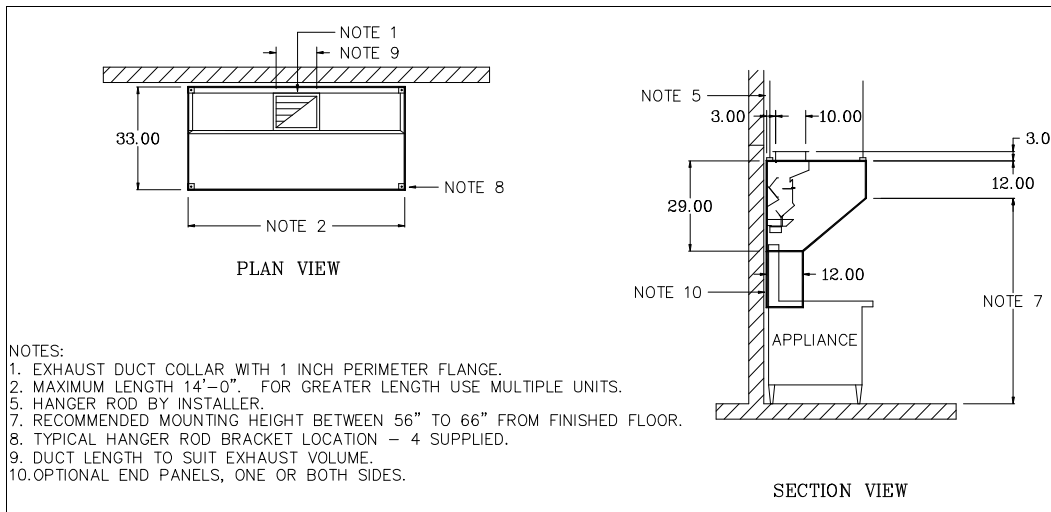
fresh air should be heated to between 50 and 75F (13 and 24C).

Efficiency

The hood is equipped with a high efficiency type "D" grease extractor. The high efficiency is achieved by applying maximum centrifugal force to the grease, dirt and lint particles through multiple, abrupt, high velocity exhaust air direction changes.

The grease extractor design incorporates a VORTEX collection chamber, where the exhaust air accelerates 270 degrees around the VORTEX BAFFLES and a secondary VARIFLOW BAFFLE for adjustable exhaust air flow. The VORTEX BAFFLE is removable for periodic cleaning.

Model DN-BS



Ventilator Length		Exhaust Flow Rate (EFR*)											
		Exhaust @ 150 CFM/ft (233 l/s/m)				Exhaust @ 250 CFM/ft (388 l/s/m)				Exhaust @ 300 CFM/ft (465 l/s/m)			
(ft)	(mm)	Exhaust volume (CFM)	Exhaust volume (l/s)	Exhaust Duct 10 in x	Exhaust Duct 254 in x	Exhaust volume (CFM)	Exhaust volume (l/s)	Exhaust Duct 10 in x	Exhaust Duct 254 in x	Exhaust volume (CFM)	Exhaust volume (l/s)	Exhaust Duct 10 in x	Exhaust Duct 254 in x
3.0	914	450	213	4	102	750	355	7	178	900	427	8	203
3.5	1067	525	249	4.5	114	875	415	8	203	1050	498	9	229
4.0	1219	600	284	4.5	114	1000	474	9	229	1200	569	11	279
4.5	1372	675	320	5.5	140	1125	533	10	254	1350	640	12.5	318
5.0	1524	750	355	7	178	1250	592	11	279	1500	711	13.5	343
5.5	1676	825	391	7	178	1375	652	12.5	318	1650	782	14.5	368
6.0	1829	900	427	8	203	1500	711	13.5	343	1800	853	16	406
6.5	1981	975	462	8	203	1625	770	14.5	368	1950	924	18	457
7.0	2134	1050	498	9	229	1750	829	16	406	2100	995	19	483
7.5	2286	1125	533	10	254	1875	889	17	432	2250	1066	20	508
8.0	2438	1200	569	10	254	2000	948	18	457	2400	1137	21.5	546
8.5	2591	1275	604	11	279	2125	1007	19	483	2550	1209	22.5	572
9.0	2743	1350	640	11	279	2250	1066	20	508	2700	1280	25	635
9.5	2896	1425	675	12.5	318	2375	1126	21.5	546	2850	1351	26	660
10.0	3048	1500	711	13.5	343	2500	1185	22.5	572	3000	1422	27	686
10.5	3200	1575	746	13.5	343	2625	1244	23.5	597	3150	1493	28	711
11.0	3353	1650	782	14.5	368	2750	1303	25	635	3300	1564	29	737
11.5	3505	1725	818	14.5	368	2875	1363	26	660	3450	1635	31.5	800
12.0	3658	1800	853	16	406	3000	1422	27	686	3600	1706	32.5	826
12.5	3810	1875	889	17	432	3125	1481	28	711	3750	1777	34	864
13.0	3962	1950	924	17	432	3250	1540	29	737	3900	1848	35	889
13.5	4115	2025	960	18	457	3375	1600	30.5	775	4050	1919	36	914
14.0	4267	2100	995	18	457	3500	1659	31.5	800	4200	1991	38	965
14.5	4420	2175	1031	19	483	3625	1718	32.5	826	4350	2062	39	991
15.0	4572	2250	1066	20	508	3750	1777	34	864	4500	2133	40.5	1029

* 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
150	233	0.8	0.20
250	388	0.8	0.20
300	465	0.9	0.23
350	544	1.0	0.25
400	620	1.1	0.28

Notes:

- Exhaust duct can be located anywhere along length of ventilator, discharge out the top, back or front.

Spring Air Systems Model No. DN-BS Hood Specification

The dry extractor shall be a Spring Air Systems model no. DN-BS, box-shelf type, high efficiency, dry ventilator, 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 ventilator shall have a full-length high-velocity slot, a centrifugal vortex chamber, and a VARIFLOW BAFFLE.

The vortex chamber shall provide a full 270-degree turn. The chambers and VARIFLOW baffle shall be fully accessible through front removable grease inserts within the hood canopy. The grease trough shall be constructed of stainless steel with a stainless steel grease cup.

Engineering Data

Item Number: _____
 Model Number: DN-BS _____
 Number of Sections: _____
 Hood Length: _____
 Hood Width: _____
 Exhaust Volume: _____
 No. of Duct Collars: _____
 Size of Duct Collar: _____
 Static Pressure: _____

DNBS