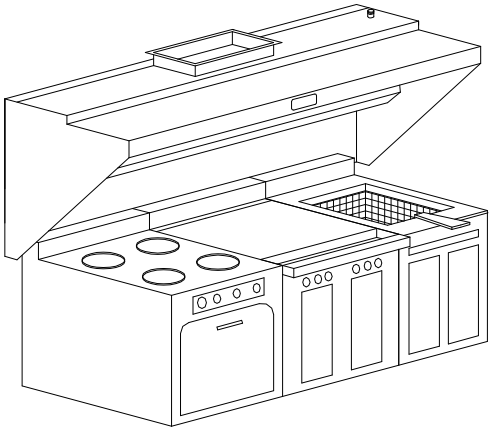
Dry Extractor

DN-S

Shelf Type



General Description
The ventilator is used on low profile electric counter cooking equipment. The unit is wall mounted with the lower back edge level with the top of the appliances. This hood provides the most effective capture because of close proximity to the cooking surface. Canopy covers only two thirds (2/3) of the depth of the cooking appliance and generally does not require overhang on either end. The hood mounts on angle brackets secured to wall.

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).

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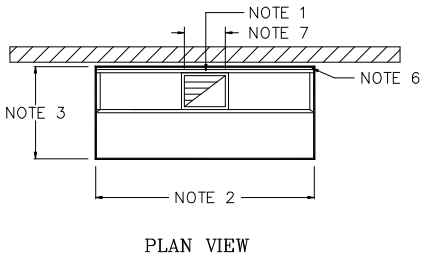
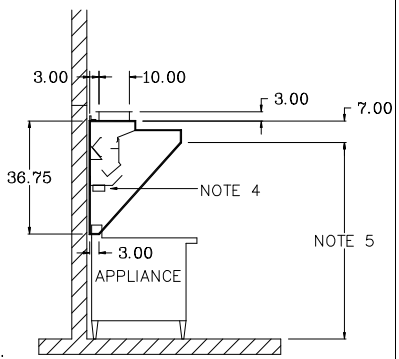
Efficiency
The hood is equipped with a high efficiency type "D" grease extractor. The high efficiency is achieved by applying maximum centrifugal force to the grease, dirt and lint particles through multiple, abrupt, high velocity exhaust air direction changes.
The grease extractor design incorporates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



PLAN VIEW



SECTION VIEW

NOTES:
1. EXHAUST DUCT COLLAR WITH 1 INCH PERIMETER FLANGE.
2. MAXIMUM LENGTH 14'–0". FOR GREATER LENGTH USE MULTIPLE UNITS.
3. STANDARD WIDTH 30" MINIMUM, 2/3 WIDTH OF APPLIANCE.
4. STAINLESS STEEL GREASE CUP
5. RECOMMENDED MOUNTING HEIGHT BETWEEN 56" TO 60" FROM FINISHED FLOOR.
6. WALL MOUNTING ANGLE BRACKET.
7. DUCT LENGTH TO SUIT EXHAUST VOLUME.

Engineering Data

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

* 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	1.2	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-S Hood Specification

The dry extractor shall be a Spring Air Systems model no. DN-S, 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, 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-S_____
Number of Sections: _____
Hood Length: _____
Hood Width: _____
Exhaust Volume: _____
No. of Duct Collars: _____
Size of Duct Collar: _____
Static Pressure: _____

DNS