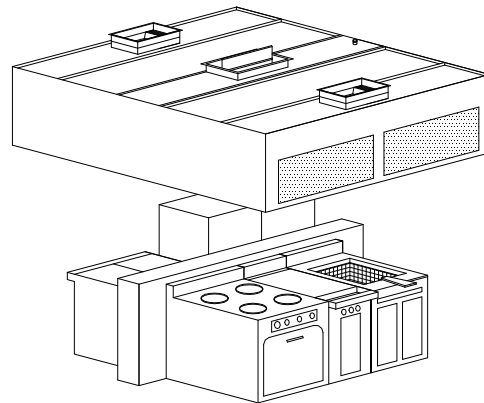


Island Dry Extractor



DD-DB-MI DD-DB-MG DD-DB-MP

**Double Box Canopy
Dead Weight Fire Damper**



General Description

The Ventilator is used on all cooking equipment in a double row island arrangement. The unit is ceiling hung with a recommended mounting height of 6' 6" (1981 mm) from the lower edge of canopy to the floor. The hood has a single grease extractor with double slot and adjustable Variflow baffle. The unit is finished on all four sides with No. 4 finish. The double box canopy can be tapered into kitchens with ceilings as low as 7' 6" (2286 mm). The ventilator is available with fluorescent or incandescent lights.

MI - The unheated makeup air is discharged directly into the dry extractor canopy.

MG - The heated makeup air is discharged through an adjustable grille located on the front of the hood.

MP - The heated makeup air is discharged through perforated panels located on the front of the hood.

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, and abrupt, high velocity exhaust air direction changes.

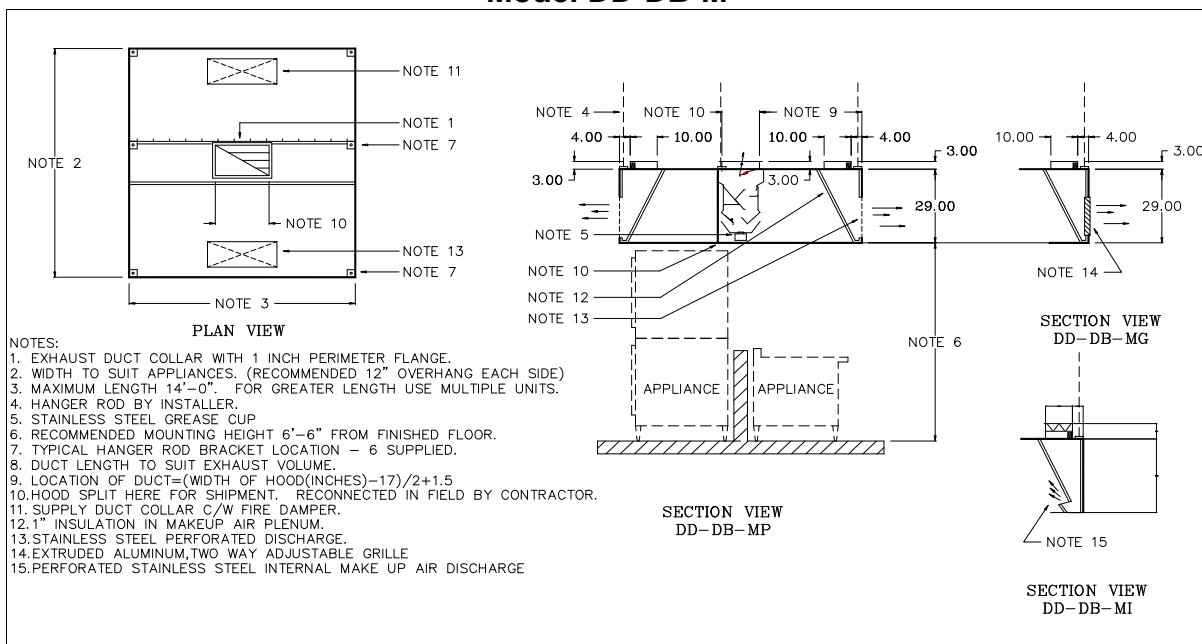
The grease extractor design incorporates a vortex collection chamber, where the exhaust air accelerates 270 degrees around the vortex baffle and a secondary Variflow baffle for adjustable exhaust air flow. The vortex baffle is removable for periodic cleaning.

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 300 and 700 CFM/ft (465 and 1085 l/s/m) is required for most hoods. Heated fresh air is discharged out the front of the hood canopy for MP and MG types and internally for MI types. Fresh air volume between 80 and 90% of the total exhaust is recommended for heated makeup air systems. Refer to the *Ventilator Engineering Manual* for supply air volume calculations.

Unheated fresh air volume between 50 and 80% of the total exhaust is recommended for compensating makeup "MI" air systems. For detailed calculations refer to the *Spring Air Systems Compensating Hood Engineering Manual*.

Model DD-DB-M



Engineering Data

Ventilator Length		Exhaust Flow Rate (EFR*)											
		Exhaust @ 600 CFM/ft (930 l/s/m)				Supply @ 420 CFM/ft (651 l/s/m) (70% Exhaust)				Supply @ 480 CFM/ft (744 l/s/m) (80% Exhaust)			
		Exhaust volume (CFM)	Exhaust volume (l/s)	Exhaust Duct 10 in x	Exhaust Duct 254 in x	Supply Volume (CFM)	Supply Volume (l/s)	Supply Duct 10 in x	Supply Duct 254 in x	Supply Volume (CFM)	Supply Volume (l/s)	Supply Duct 10 in x	Supply Duct 254 in x
3.0	914	1800	853	16	406	1260	597	2 @ 10	2 @ 254	1440	682	2 @ 14	2 @ 356
3.5	1067	2100	995	18	457	1470	697	2 @ 14	2 @ 356	1680	796	2 @ 14	2 @ 356
4.0	1219	2400	1137	21.5	546	1680	796	2 @ 14	2 @ 356	1920	910	2 @ 16	2 @ 406
4.5	1372	2700	1280	23.5	597	1890	896	2 @ 16	2 @ 406	2160	1024	2 @ 18	2 @ 457
5.0	1524	3000	1422	27	686	2100	995	2 @ 18	2 @ 457	2400	1137	2 @ 24	2 @ 610
5.5	1676	3300	1564	29	737	2310	1095	2 @ 24	2 @ 610	2640	1251	2 @ 24	2 @ 610
6.0	1829	3600	1706	31.5	800	2520	1194	2 @ 24	2 @ 610	2880	1365	2 @ 24	2 @ 610
6.5	1981	3900	1848	35	889	2730	1294	2 @ 24	2 @ 610	3120	1479	2 @ 28	2 @ 711
7.0	2134	4200	1991	37	940	2940	1393	2 @ 28	2 @ 711	3360	1592	2 @ 28	2 @ 711
7.5	2286	4500	2133	40.5	1029	3150	1493	2 @ 28	2 @ 711	3600	1706	2 @ 32	2 @ 813
8.0	2438	4800	2275	14 x 30.5	356 x 775	3360	1592	2 @ 28	2 @ 711	3840	1820	2 @ 32	2 @ 813
8.5	2591	5100	2417	14 x 32	356 x 813	3570	1692	2 @ 32	2 @ 813	4080	1934	2 @ 36	2 @ 914
9.0	2743	5400	2559	14 x 34.5	365 x 876	3780	1791	4 @ 16	4 @ 406	4320	2047	4 @ 18	4 @ 457
9.5	2896	5700	2701	14 x 36	356 x 914	3990	1891	4 @ 16	4 @ 406	4560	2161	4 @ 24	4 @ 610
10.0	3048	6000	2844	14 x 38.5	356 x 978	4200	1991	4 @ 18	4 @ 457	4800	2275	4 @ 24	4 @ 610
10.5	3200	6300	2986	14 x 40	356 x 1016	4410	2090	4 @ 24	4 @ 610	5040	2389	4 @ 24	4 @ 610
11.0	3353	6600	3128	16 x 36.5	406 x 927	4620	2190	4 @ 24	4 @ 610	5280	2502	4 @ 24	4 @ 610
11.5	3505	6900	3270	16 x 38.5	406 x 978	4830	2290	4 @ 24	4 @ 610	5520	2616	4 @ 24	4 @ 610
12.0	3658	7200	3412	16 x 40	406 x 1016	5040	2389	4 @ 24	4 @ 610	5760	2730	4 @ 24	4 @ 610
12.5	3810	7500	3555	16 x 42	406 x 1067	5250	2488	4 @ 24	4 @ 610	6000	2844	4 @ 28	4 @ 711
13.0	3962	7800	3697	2 @ 35	2 @ 889	5460	2588	4 @ 24	4 @ 610	6240	2957	4 @ 28	4 @ 711
13.5	4115	8100	3839	2 @ 36	2 @ 914	5670	2687	4 @ 24	4 @ 610	6480	3071	4 @ 28	4 @ 711
14.0	4267	8400	3981	2 @ 37	2 @ 940	5880	2787	4 @ 28	4 @ 711	6720	3185	4 @ 28	4 @ 711
14.5	4420	8700	4123	2 @ 38	2 @ 965	6090	2886	4 @ 28	4 @ 711	6960	3299	4 @ 32	4 @ 813
15.0	4572	9000	4265	2 @ 40.5	2 @ 1029	6300	2986	4 @ 28	4 @ 711	7200	3412	4 @ 32	4 @ 813

*For flow Rates not shown above refer to the *Ventilator Engineering Manual* for Exhaust and Supply Volumes for MG and MP hoods and the *Compensating Engineering Manual* for Exhaust and Supply Volumes for MI hoods

Exhaust Flow Rate		Static Pressure at Duct Collar	
CFM/ft	l/s/m	in W.C.	kpa
300	465	1.13	0.283
350	544	1.43	0.358
400	62	1.1.13	0.283
500	776	1.23	0.308
600	930	1.46	0.365
700	1085	1.74	0.435

Notes:

- Exhaust duct can be located anywhere along length of ventilator, discharge out of the top, back or front.
- The static pressure at the supply duct collars is 0.20" W.C. for MP and MG and 0.45" W.C. for MI.

Spring Air Systems Model No. DD-DB-M Hood

The dry extractor hood shall be a Spring Air Systems model no. DD-DB-M, double box canopy, high efficiency, ventilator, with make up air plenum, UL/ULC listed, and built in accordance with NFPA-96. The makeup air plenums shall be one of the following types.

MI - The unheated makeup air discharges directly into the dry extractor canopy through perforated stainless steel.

MG - The heated makeup air discharges through an adjustable grille located on the front of the hood, extruded aluminum, two way adjustable.

MP - The heated makeup air discharges through stainless steel perforated panels located on the front of the hood.

The unit casing shall be a minimum 18 GA. stainless steel on all exposed surfaces. The ventilator shall have A two full length high velocity slots, a centrifugal vortex

a two full length chamber, Variflow baffle and a secondary chamber. Both chambers, the Variflow baffle, and the fire damper blades, bushing and edge seals shall be fully accessible through front removable doors within the hood canopy.

The exhaust fire damper shall be an arrangement "D", butterfly type, constructed of stainless steel with blade and edge seals. The fire damper shall be activated by a fusible link and dead weight arrangement.

The make up air plenum shall be insulated with 1" attenuating foam. The supply duct collars shall each have a fire damper with a 165°F fusible link. The MI makeup air supply duct collars shall have a balancing damper with locking quadrant. The sheet metal contractor shall supply an access door on the duct above the damper for inspection. The hood shall have incandescent/fluorescent lights evenly spaced along the length of the hood.

Engineering Data

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



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