

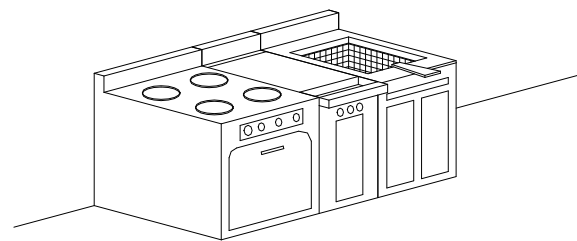
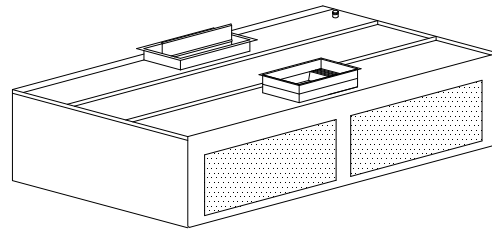
Dry Extractor

DD-B-MI

DD-B-MG

DD-B-MP

**Box Canopy With Makeup Air
Dead Weight Fire Damper**



General Description

The ventilator is used on all cooking equipment. The unit is ceiling hung with a recommended mounting height of 6'-6" (1981 mm) from the lower edge of the canopy to the floor. The hood is finished with a number 4 finish on three sides. The box canopy can be tapered to fit into kitchens with ceilings as low as 7'-6" (2286 mm). The ventilator is available with fluorescent or incandescent lights wired to a J-box.

For a single row island cooking arrangement add suffix "-F" to the model number.

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.

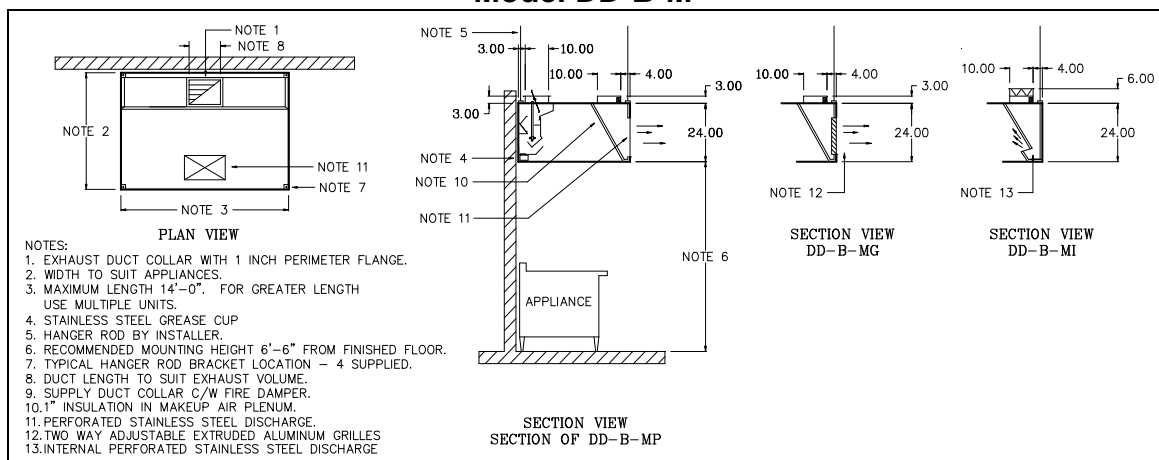
The grease extractor design incorporates a vortex collection chamber, where the exhaust air accelerates 270 degrees around the vortex baffles and a secondary Variflow baffle for adjustable exhaust air flow. The vortex baffle is removable for periodic cleaning.

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 150 and 350 CFM/ft (233 and 544 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-B-M



Engineering Data

Ventilator Length (ft)	Typical Exhaust and Supply Air Flow Rate for Heated Makeup Air MG & MP types (EFR*)				Typical Exhaust and Supply Air Flow Rate for Unheated Makeup Air MI type (EFR*)			
	Exhaust @ 300 CFM/ft		Supply @ 240 CFM/ft (80% exhaust)		Exhaust @ 300 CFM/ft		Supply @ 210 CFM/ft (70% exhaust)	
	Exhaust volume CFM	Exhaust Duct W=10 (L)	Supply Volume CFM	Supply Duct W-10 (L)	Exhaust volume CFM	Exhaust Duct W=10 (L)	Supply Volume CFM	Supply Duct W-10 (L)
3.0	900	8	720	13	1050	9	735	13
3.5	1050	9	840	14.5	1225	10	858	15
4.0	1200	11	960	16	1400	12.5	980	17
4.5	1350	12.5	1080	18.5	1575	13.5	1103	18.5
5.0	1500	13.5	1200	20.5	1750	16	1225	21
5.5	1650	14.5	1320	23	1925	17	1348	23
6.0	1800	16	1440	24.5	2100	18	1470	25.5
6.5	1950	18	1560	26.5	2275	20	1593	27
7.0	2100	19	1680	29	2450	21.5	1715	29
7.5	2250	20	1800	30.5	2625	23.5	1838	30.5
8.0	2400	21.5	1920	33	2800	25	1960	33
8.5	2550	22.5	2040	35	2975	26	2083	35.5
9.0	2700	25	2160	2 @ 18.5	3150	28	2205	2 @ 18.5
9.5	2850	26	2280	2 @ 19.5	3325	30.5	2328	2 @ 20.5
10.0	3000	27	2400	2 @ 20.5	3500	31.5	2450	2 @ 21
10.5	3150	28	2520	2 @ 22	3675	32.5	2573	2 @ 22
11.0	3300	29	2640	2 @ 23	3850	34	2693	2 @ 23
11.5	3450	31.5	2760	2 @ 24	4025	36	2818	2 @ 24.5
12.0	3600	32.5	2880	2 @ 24.5	4200	37	2940	2 @ 25.5
12.5	3750	34	3000	2 @ 25.5	4375	39	3063	2 @ 26.5
13.0	3900	35	3120	2 @ 27	4550	40.5	3185	2 @ 27
13.5	4050	36	3240	2 @ 28	4725	29.5	3308	2 @ 29
14.0	4200	38	3360	2 @ 29	4900	31.5	3430	2 @ 29.5

*Refer to the Ventilator Engineering Manual and Compensating Hood 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	0.62	0.155
250	388	1.00	0.250
300	465	1.26	0.315
350	544	1.15	0.288
400	620	1.38	0.345

Notes:

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

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

The dry extractor hood shall be a Spring Air Systems model no. DD-B-M, box canopy, high efficiency, ventilator, with make up air plenum, UL/ULC listed, and built in accordance with NFPA-96. The makeup air plenum 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 full length high velocity slot, a centrifugal vortex 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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Dry Ventilator Table of Contents