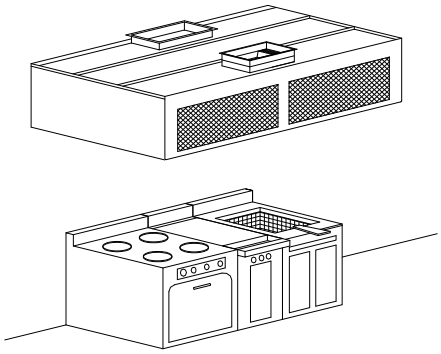
Dry Extractor

DN-B-MG
DN-B-MI
DN-B-MP

Canopy With Makeup Air
And Exhaust Duct Collar



MP MAKEUP SHOWN

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

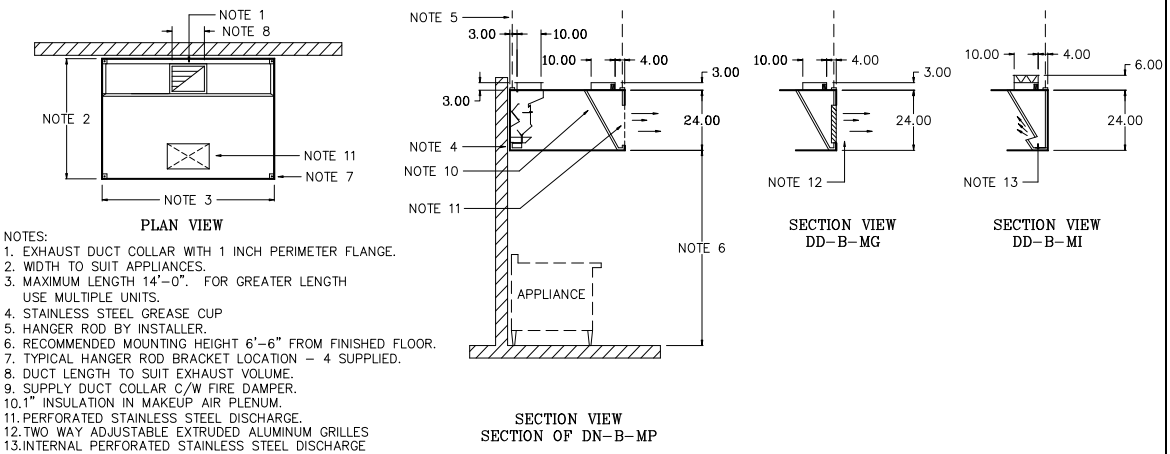
The hood is equipped with a high efficiency type “D” grease extractor. The high efficiency is achieved by applying maximum centrifugal force to the grease, dirt and lint particles through multiple, and abrupt, high velocity exhaust air direction changes. The grease extractor design incorporates a vortex collection chamber, where the exhaust air accelerates 270 degrees around the vortex baffles and a secondary Variflow baffle for adjustable exhaust airflow. 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 DN-B-M



NOTES:
1. EXHAUST DUCT COLLAR WITH 1 INCH PERIMETER FLANGE.
2. WIDTH TO SUIT APPLIANCES.
3. MAXIMUM LENGTH 14'–0". FOR GREATER LENGTH USE MULTIPLE UNITS.
4. STAINLESS STEEL GREASE CUP
5. HANGER ROD BY INSTALLER.
6. RECOMMENDED MOUNTING HEIGHT 6'–6" FROM FINISHED FLOOR.
7. TYPICAL HANGER ROD BRACKET LOCATION – 4 SUPPLIED.
8. DUCT LENGTH TO SUIT EXHAUST VOLUME.
9. SUPPLY DUCT COLLAR C/W FIRE DAMPER.
10. 1" INSULATION IN MAKEUP AIR PLENUM.
11. PERFORATED STAINLESS STEEL DISCHARGE.
12. TWO WAY ADJUSTABLE EXTRUDED ALUMINUM GRILLES
13. INTERNAL PERFORATED STAINLESS STEEL DISCHARGE

Catalog Table of Contents **Dry Ventilator Table of Contents**

Engineering Data

Ventilator Length		Air Flow Rate (EFR*)											
		Exhaust @ 350 CFM/ft (544 l/s/m)				Supply @ 245 CFM/ft (381 l/s/m) (70% of Exhaust)				Supply @ 280 CFM/ft (435 l/s/m) (80% of Exhaust)			
(ft)	(mm)	Exh. Vol. (CFM)	Exh. Vol. (l/s)	Exha. Duct 10 in x	Exh. Duct 254 in x	Sup. Vol. (CFM)	Sup. Vol. (l/s)	Sup. Duct 10 in x	Sup. Duct 254 in x	Sup. Vol. (CFM)	Sup. Vol. (l/s)	Sup. Duct 10 in x	Sup. Duct 254 in x
3.0	**914**	1050	498	9	229	735	348	14	356	840	398	14	356
3.5	**1067**	1225	581	10	254	858	407	16	356	980	464	16	406
4.0	**1219**	1400	664	12.5	318	980	464	18	457	1120	531	24	610
4.5	**1372**	1575	746	13.5	343	1103	523	24	610	1260	597	24	610
5.0	**1524**	1750	829	16	406	1225	581	24	610	1400	664	24	610
5.5	**1676**	1925	912	17	432	1348	639	24	610	1540	730	28	711
6.0	**1829**	2100	995	18	457	1470	697	28	711	1680	796	28	711
6.5	**1981**	2275	1078	20	508	1593	755	28	711	1820	863	32	813
7.0	**2134**	2450	1161	21.5	546	1715	813	32	813	1960	929	36	914
7.5	**2286**	2625	1244	23.5	597	1838	871	32	813	2100	995	36	914
8.0	**2438**	2800	1327	25	635	1960	929	36	914	2240	1062	2 @ 24	2 @
8.5	**2591**	2975	1410	26	660	2083	987	36	914	2380	1128	2 @ 24	2 @
9.0	**2743**	3150	1493	28	711	2205	1045	2 @ 24	2 @	2520	1194	2 @ 24	2 @
9.5	**2896**	3325	1576	30.5	775	2328	1103	2 @ 24	2 @	2660	1261	2 @ 24	2 @
10.0	**3048**	3500	1659	31.5	800	2450	1161	2 @ 24	2 @	2800	1327	2 @ 24	2 @
10.5	**3200**	3675	1742	32.5	826	2573	1219	2 @ 24	2 @	2940	1393	2 @ 28	2 @
11.0	**3353**	3850	1825	34	864	2693	1276	2 @ 24	2 @	3080	1460	2 @ 28	2 @
11.5	**5305**	4025	1908	36	914	2818	1336	2 @ 28	2 @	3220	1526	2 @ 28	2 @
12.0	**3658**	4200	1991	37	940	2940	1393	2 @ 28	2 @	3360	1592	2 @ 28	2 @
12.5	**3810**	4375	2073	39	991	3063	1452	2 @ 28	2 @	3500	1659	2 @ 32	2 @
13.0	**3962**	4550	2156	40.5	1029	3185	1509	2 @ 28	2 @	3640	1725	2 @ 32	2 @
13.5	**4115**	4725	2239	29.5	749	3308	1568	2 @ 32	2 @	3780	1791	2 @ 32	2 @
14.0	**4267**	4900	2322	31.5	800	3430	1626	2 @ 32	2 @	3920	1858	2 @ 36	2 @
14.5	**4420**	5075	2405	32	813	3553	1684	2 @ 32	2 @	4060	1924	2 @ 36	2 @
15.0	**4572**	5250	2488	33.5	851	3675	1742	2 @ 32	2 @	4200	1991	2 @ 36	2 @

*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	1.0	0.25
250	388	1.0	0.25
300	465	1.1	0.28
350	544	1.2	0.30
400	620	1.3	0.33

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

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

The dry extractor hood shall be a Spring Air Systems model no. DN-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 duct collar shall be complete with a 1" perimeter flange.

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: _____

Catalog Table of Contents **Dry Ventilator Table of Contents**