Spring Air
Engineering Energy Savings

Island Filter Hood

FN-DB-MG60

Double Box Canopy Single Row Appliance with Makeup Air

General Description

The island filter hood is used on single row cooking equipment in a double row island arrangement. The hood is ceiling hung with a recommended mounting height of 6'6" (1981 mm) from the finished floor. The hood has a full length "V" bank filter arrangement centered in the canopy width. The baffle filters on each side of the "V" can be sized for unequal exhaust air volumes. The hood is finished in a No. 4 stainless steel finish on all exposed sides. The double box canopy can be tapered to 12" (305 mm) at the front. The filter hood is available with fluorescent or incandescent lights.

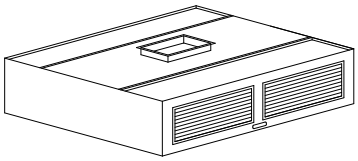
The heated makeup air is discharged through an adjustable grille located on the front of the hood.

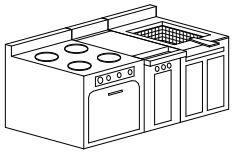
Efficiency

The hood is equipped with high efficiency UL/ULC listed baffle grease filters. The exhaust air accelerates through multiple turns within the baffle filter. Centrifugal forces causes grease dirt and lint to deposit on the baffles. The liquefied grease drains down the baffles, along the grease trough, and into a grease cup.

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

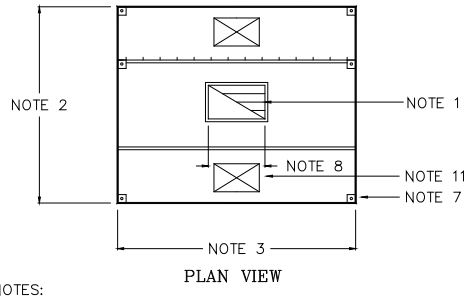




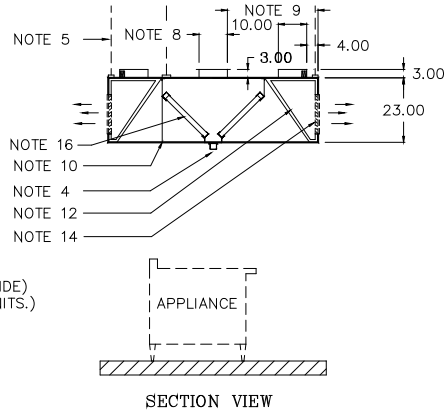
flow rate between 300 and 700 CFM/ft (465 and 1085 l/s/m) is required for most hoods. Heated fresh air is discharged out the front of the hood canopy for MP and MG types. Fresh air volume of 80% of the total exhaust is recommended for heated makeup air systems. Refer to the *Ventilator Engineering Manual* 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 FN-DB-MG60



PLAN VIEW



SECTION VIEW

NOTES:
1. EXHAUST DUCT COLLAR WITH 1 INCH PERIMETER FLANGE.
2. WIDTH TO SUIT APPLIANCES. (RECOMMENDED 12" OVERHANG EACH SIDE)
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 – 6 SUPPLIED.
8. DUCT LENGTH TO SUIT EXHAUST VOLUME.
9. LOCATION OF DUCT=(WIDTH OF HOOD(INCHES)–36)/2 + 13
10. HOOD SPLIT HERE FOR SHIPMENT. RECONNECTED IN FIELD BY CONTRACTOR.
11. SUPPLY DUCT COLLAR C/W FIRE DAMPER.
12. 1" INSULATION IN MAKEUP AIR PLENUM.
14. TWO WAY ADJUSTABLE EXTRUDED ALUMINUM GRILLES
15. STAINLESS STEEL INTERNAL FRESH AIR DISCHARGE
16. UL/ULC LISTED BAFFLE FILTERS

Engineering Data

Ventilator Length		Exhaust Flow Rate (EFR*)							
		Exhaust @ 600 CFM/ft (930 l/s/m)				Supply @ 480 CFM/ft (744 l/s/m) (80% Exhaust)			
(ft)	(mm)	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
3.0	**914**	1800	853	16	406	1440	682	2 @ 14	2 @ 356
3.5	**1067**	2100	995	18	457	1680	796	2 @ 14	2 @ 356
4.0	**1219**	2400	1137	21.5	546	1920	910	2 @ 16	2 @ 406
4.5	**1372**	2700	1280	23.5	597	2160	1024	2 @ 18	2 @ 457
5.0	**1524**	3000	1422	27	686	2400	1137	2 @ 24	2 @ 610
5.5	**1676**	3300	1564	29	737	2640	1251	2 @ 24	2 @ 610
6.0	**1829**	3600	1706	31.5	800	2880	1365	2 @ 24	2 @ 610
6.5	**1981**	3900	1848	35	889	3120	1479	2 @ 28	2 @ 711
7.0	**2134**	4200	1991	37	940	3360	1592	2 @ 28	2 @ 711
7.5	**2286**	4500	2133	40.5	1029	3600	1706	2 @ 32	2 @ 813
8.0	**2438**	4800	2275	14 x 30.5	356 x 775	3840	1820	2 @ 32	2 @ 813
8.5	**2591**	5100	2417	14 x 32	356 x 813	4080	1934	2 @ 36	2 @ 914
9.0	**2743**	5400	2559	14 x 34.5	365 x 876	4320	2047	4 @ 18	4 @ 457
9.5	**2896**	5700	2701	14 x 36	356 x 914	4560	2161	4 @ 24	4 @ 610
10.0	**3048**	6000	2844	14 x 38.5	356 x 978	4800	2275	4 @ 24	4 @ 610
10.5	**3200**	6300	2986	14 x 40	356 x 1016	5040	2389	4 @ 24	4 @ 610
11.0	**3353**	6600	3128	16 x 36.5	406 x 927	5280	2502	4 @ 24	4 @ 610
11.5	**3505**	6900	3270	16 x 38.5	406 x 978	5520	2616	4 @ 24	4 @ 610
12.0	**3658**	7200	3412	16 x 40	406 x 1016	5760	2730	4 @ 24	4 @ 610
12.5	**3810**	7500	3555	16 x 42	406 x 1067	6000	2844	4 @ 28	4 @ 711
13.0	**3962**	7800	3697	2 @ 35	2 @ 889	6240	2957	4 @ 28	4 @ 711
13.5	**4115**	8100	3839	2 @ 36	2 @ 914	6480	3071	4 @ 28	4 @ 711
14.0	**4267**	8400	3981	2 @ 37	2 @ 940	6720	3185	4 @ 28	4 @ 711
14.5	**4420**	8700	4123	2 @ 38	2 @ 965	6960	3299	4 @ 32	4 @ 813
15.0	**4572**	9000	4265	2 @ 40.5	2 @ 1029	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 CFM/ft	Exhaust Static Pressure (in W.C.)
400	0.35
500	0.45
600	0.66
Supply Air Rate	**Supply static Pressure (“W.C.)**
MG & MP	0.20
MI	0.45

Notes:

- Exhaust duct can be located anywhere along length of the filter hood.
- For lengths greater than 14’ (4270 mm) join multiple sections together.

Spring Air Systems Model No. FN-DB-MG60 Hood Specification

The filter hood shall be a Spring Air Systems model no. FN-DB-MG60, double box canopy for single row cooking,, high efficiency, filter hood, with make up air plenum, UL/ULC listed, and built in accordance with the NFPA-96. The unit casing shall be a minimum 18 GA. Stainless steel with all exposed sides no. 4 finish. The filter hood shall include UL/ULC listed baffle grease filters mounted in an integral stainless steel rack inclined at 45 degrees. The filter rack shall include a full length stainless steel grease gutter and grease cup.

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

The unit casing shall be a minimum 18 GA. stainless steel on all exposed surfaces. 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 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 FN-DB-MG60_____
Number of Sections _____
Hood Length _____
Hood Width _____
Lights _____
Exhaust Volume _____
No. Of Duct Collars _____
Size of Duct Collars _____
Static Pressure _____
Supply Volume _____
No. Of Duct Collars _____
Size Of Duct Collar _____
Static Pressure _____

FNDBMG60