Spring Air
Engineering Energy Savings

## Island Filter Hood

# FN-DB60 with MC

## *Double Box Canopy for Single Row Island Appliances*

**General Description**

The island filter hood is used on all cooking equipment in a single row island arrangement. The hood is normally 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 hood is finished in a No. 4 stainless steel finish on all exposed sides. The double box canopy can be tapered at the front. The filter hood is available with fluorescent or incandescent lights.

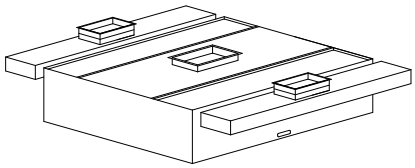
The tempered makeup air is discharged down through a perforated stainless steel panel located on the front of the filter hood.

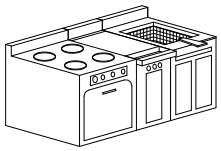
**Efficiency**

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

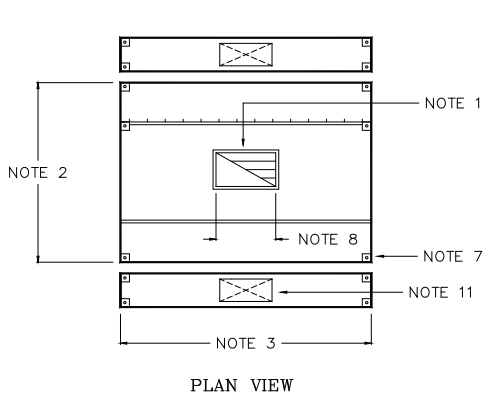




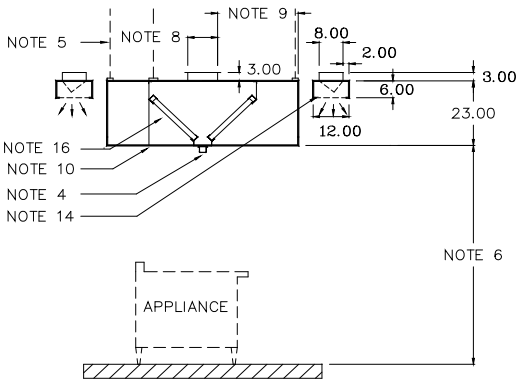
under the ventilator. An exhaust flow rate between 200 and 600 CFM/ft (310 and 930 l/s/m) is required for most hoods. Refer to the *Ventilator Engineering Manual* for supply air volume calculations.

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-DB60 with-MC




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.
14. FRONT DOWN DISCHARGE THROUGH STAINLESS STEEL PERFORATED
15. STAINLESS STEEL INTERNAL FRESH AIR DISCHARGE
16. UL/ULC LISTED BAFFLE FILTERS

# Engineering Data

| Ventilator Length | | Exhaust Flow Rate (EFR*) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Exhaust @ 300 CFM/ft (465 l/s/m) | | | | Exhaust @ 350 CFM/ft (544 l/s/m) | | | | Exhaust @ 400 CFM/ft (620 l/s/m) | | | |
| (ft) | (mm) | Exh. (CFM) | Exh. (l/s) | Exh. Duct 10 in x | Exh. Duct 254 in x | Exh. (CFM) | Exh. (l/s) | Exh. Duct 10 in x | Exh. Duct 254 in x | Exh. volume (CFM) | Exh. volume (l/s) | Exhaust Duct 10 in x | Exhaust Duct 254 in x |
| **3.0** | **914** | 900 | 427 | 8 | 203 | 1050 | 498 | 9 | 229 | 1200 | 569 | 10 | 254 |
| **3.5** | **1067** | 1050 | 498 | 9 | 229 | 1225 | 581 | 10 | 254 | 1400 | 664 | 12.5 | 318 |
| **4.0** | **1219** | 1200 | 569 | 11 | 279 | 1400 | 664 | 12.5 | 318 | 1600 | 758 | 13.5 | 343 |
| **4.5** | **1372** | 1350 | 640 | 12.5 | 318 | 1575 | 746 | 13.5 | 343 | 1800 | 853 | 16 | 407 |
| **5.0** | **1524** | 1500 | 711 | 13.5 | 343 | 1750 | 829 | 16 | 406 | 2000 | 948 | 18 | 457 |
| **5.5** | **1676** | 1650 | 782 | 14.5 | 368 | 1925 | 912 | 17 | 432 | 2200 | 1043 | 19 | 483 |
| **6.0** | **1829** | 1800 | 853 | 16 | 406 | 2100 | 995 | 18 | 457 | 2400 | 1137 | 21.5 | 546 |
| **6.5** | **1981** | 1950 | 924 | 18 | 457 | 2275 | 1078 | 20 | 508 | 2600 | 1232 | 22.5 | 572 |
| **7.0** | **2134** | 2100 | 995 | 19 | 483 | 2450 | 1161 | 21.5 | 546 | 2800 | 1327 | 25 | 635 |
| **7.5** | **2286** | 2250 | 1066 | 20 | 508 | 2625 | 1244 | 23.5 | 597 | 3000 | 1422 | 27 | 686 |
| **8.0** | **2438** | 2400 | 1137 | 21.5 | 546 | 2800 | 1327 | 25 | 635 | 3200 | 1517 | 28 | 711 |
| **8.5** | **2591** | 2550 | 1209 | 22.5 | 572 | 2975 | 1410 | 26 | 660 | 3400 | 1611 | 30.5 | 775 |
| **9.0** | **2743** | 2700 | 1280 | 25 | 635 | 3150 | 1493 | 28 | 711 | 3600 | 1706 | 31.5 | 800 |
| **9.5** | **2896** | 2850 | 1351 | 26 | 660 | 3325 | 1576 | 30.5 | 775 | 3800 | 1801 | 34 | 864 |
| **10.0** | **3048** | 3000 | 1422 | 27 | 686 | 3500 | 1659 | 31.5 | 800 | 4000 | 1896 | 36 | 914 |
| **10.5** | **3200** | 3150 | 1493 | 28 | 711 | 3675 | 1742 | 32.5 | 826 | 4200 | 1991 | 37 | 940 |
| **11.0** | **3353** | 3300 | 1564 | 29 | 737 | 3850 | 1825 | 34 | 864 | 4400 | 2085 | 39 | 991 |
| **11.5** | **3505** | 3450 | 1635 | 31.5 | 800 | 4025 | 1908 | 36 | 914 | 4600 | 2180 | 40.5 | 1029 |
| **12.0** | **3658** | 3600 | 1706 | 32.5 | 826 | 4200 | 1991 | 37 | 940 | 4800 | 2275 | 14 x 30.5 | 356 x 775 |
| **12.5** | **3810** | 3750 | 1777 | 34 | 864 | 4375 | 2073 | 39 | 991 | 5000 | 2370 | 14 x 32 | 356 x 813 |
| **13.0** | **3962** | 3900 | 1848 | 35 | 889 | 4550 | 2156 | 40.5 | 1029 | 5200 | 2464 | 14 x 33 | 356 x 838 |
| **13.5** | **4115** | 4050 | 1919 | 36 | 914 | 4725 | 2239 | 29.5 | 749 | 5400 | 2559 | 14 x 34.5 | 356 x 876 |
| **14.0** | **4267** | 4200 | 1991 | 38 | 965 | 4900 | 2322 | 31.5 | 800 | 5600 | 2654 | 14 x 35.5 | 356 x 902 |
| **14.5** | **4420** | 4350 | 2062 | 39 | 991 | 5075 | 2405 | 32 | 813 | 5800 | 2749 | 14 x 37 | 356 x 940 |
| **15.0** | **4572** | 4500 | 2133 | 40.5 | 1029 | 5250 | 2488 | 33.5 | 851 | 6000 | 2844 | 14 x 38.5 | 356 x 978 |

- Refer to the Ventilator Engineering Manual for Exhaust Volumes and Flow Rates not shown above.

| Exhaust Flow Rate CFM/ft | Exhaust Static Pressure (in W.C.) |
|---|---|
| 300 | 0.35 |
| 350 | 0.45 |
| 400 | 0.66 |
| **Supply Air Rate** | **Supply static Pressure ("W.C.)** |
| **All Flow Rates** | 0.20 |

**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-DB60 with MC Hood Specification**

The filter hood shall be a Spring Air Systems model no. FN-DB60 with MC, double box canopy, "V" bank filter hood, for use over a single row island cooking appliance, 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 "V" rack inclined at 45 degrees. The filter rack shall include a full-length stainless steel grease gutter and grease cup. The MC make up air plenum shall a down discharge through perforated stainless steel. The MC plenums shall ship loose.

The hood shall have incandescent/fluorescent lights evenly spaced along the length of the hood.

**Engineering Data**

Item Number _____
Model Number FN-DB60 with -MC_____
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 _____

FNDB60 WITH MC