

REV-LOW Water Wash Hood

Hot Water Wash with Makeup Air



HD-B-F-MP

Box Canopy Dead Weight Fire Damper

General Description

The REV-LOW hood is used on all single row cooking equipment lineups, wall mounted. 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 ventilator is installed with the core extractor section over the cook's head. The hood is finished with a number 4 finish on exposed sides. The REV-LOW hood is available with fluorescent or incandescent lights wired to a J-box. The "MP" heated makeup air is discharged through perforated panels located on the front of the hood.

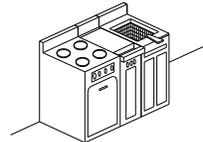
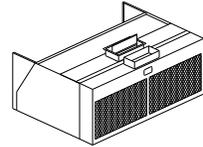
Efficiency

The hood is equipped with a high efficiency type "H" 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 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 also acts as a "Sump" to prevent deposited grease from re-entering the exhaust air stream.

Cleaning

The extractor is washed daily in conjunction with a water wash control panel. At the end of each cooking day the exhaust fan is switched off (either manually or automatically) and a



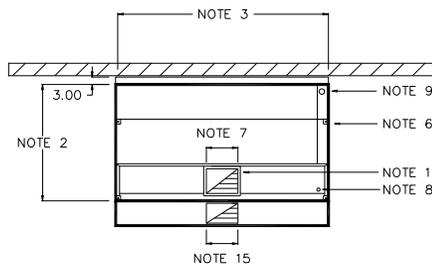
water/detergent mixture scrubs the interior of the grease extractor clean.

The extractor includes a wash manifold with nozzles spaced evenly along each length. The manifold design provides excellent cleaning with minimum hot water usage. To select a water wash control panel refer to a *Spring Air Systems Water Wash Control Panel Specification Sheet*.

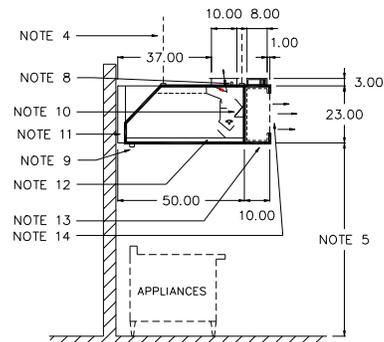
Exhaust and Supply

The REV-LOW hood exhaust calculations are outlined in the REV-LOW Engineering Manual. Heated fresh air is discharged out the front of the hood canopy for "MP". The complete kitchen ventilation system must be balanced, such that a minimum of 80% continuous heated makeup air is provided through a dedicated makeup air system or the kitchen A/C units. It is good engineering practice to provide this heated fresh air into the kitchen space. The heated fresh air should not exceed 90 percent of the total exhaust volume.

Model HD-B-F-MP



- NOTES:
1. EXHAUST DUCT COLLAR WITH 1 INCH PERIMETER FLANGE.
 2. MINIMUM WIDTH 47" OR 18" OVERHANG FROM APPLIANCES.
 3. MAXIMUM LENGTH 14'-0". FOR GREATER LENGTH USE MULTIPLE UNITS.
 4. HANGER ROD BY INSTALLER.
 5. RECOMMENDED MOUNTING HEIGHT 6'6" FROM FINISHED FLOOR.
 6. TYPICAL HANGER ROD BRACKET LOCATION - 4 SUPPLIED.
 7. DUCT LENGTH TO SUIT EXHAUST VOLUME.
 8. 3/4" HOT WATER INLET STUBBED OUT THE TOP ON EITHER END.
 9. 2" DRAIN OUTLET STUBBED OUT THE BOTTOM ON EITHER END.
 10. VARIFLOW BAFFLES.
 11. OPTIONAL 3" AIR SPACE FOR LIMITED COMBUSTIBLE CONSTRUCTION.
 12. S/S DRAIN CHASE TO BACK OF HOOD.
 13. MAKEUP AIR PLENUM WITH 1" FOAM INSULATION.
 14. STAINLESS STEEL PERFORATED FRONT DISCHARGE.
 15. SUPPLY DUCT LENGTH TO SUIT AIR VOLUME.



SECTION VIEW

Exhaust Duct Sizes

Exhaust Volume		Exhaust Duct Collar Size	
CFM	l/s	W x L in x in	W x L mm x mm
450	212	10 x 4	254 x 102
500	236	10 x 4.5	254 x 114
625	295	10 x 6.0	254 x 152
750	354	10 x 7.0	254 x 178
875	413	10 x 8.0	254 x 230
1000	472	10 x 9.5	254 x 241
1125	531	10 x 10.5	254 x 267
1250	590	10 x 12.0	254 x 305
1375	649	10 x 13.0	254 x 330
1500	708	10 x 14.0	254 x 356
1625	767	10 x 15.5	254 x 394
1750	826	10 x 16.5	254 x 419
1875	885	10 x 18.0	254 x 457
2000	944	10 x 19.0	254 x 483
2125	1003	10 x 20.	254 x 508
2250	1062	10 x 21.5	254 x 546
2375	1121	10 x 22.5	254 x 572
2500	1180	10 x 24.0	254 x 610
2625	1239	10 x 25.0	254 x 635
2750	1298	10 x 26.0	254 x 660
2875	1357	10 x 27.5	254 x 699
3000	1416	10 x 28.5	254 x 724

Supply Duct Sizes

Supply Volume		Supply Duct Collar Size	
CFM	l/s	W x L 10 in x	W x L 254mm x
350	165	10	254
400	189	10	254
450	212	10	254
500	236	10	254
550	260	10	254
600	283	10	254
650	307	14	356
700	330	14	356
750	354	14	356
800	378	14	356
850	401	16	406
900	425	16	406
950	448	16	406
1000	472	18	457
1050	496	18	457
1100	519	24	610
1150	543	24	610
1250	590	24	610
1300	613	24	610
1350	637	24	610
1400	661	24	610
1450	684	28	711

Hot Water Flow

Ventilator Length (ft)	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
Hot Water Usgpm @ 40 psi	2.6	3.3	4.0	4.6	5.3	5.3	5.9	6.0	6.6	7.3	7.9	8.6
Ventilator Length (ft)	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	
Hot Water Usgpm @ 40 psi	8.6	9.2	9.9	10.6	10.6	11.2	11.9	12.5	12.5	13.2	13.9	

1. If exact exhaust volume is not indicated use duct size closest to required exhaust.
2. Model B water wash hoods and dry extractors have 1.5" W.C. (0.38kPa) for exhaust flow rates from 90 to 450 CFM/ft (140 to 700 l/s/m); supply duct collar = 0.20" W.C. (0.05 kPa).
3. Refer to the REV-LOW Engineering Manual for detailed exhaust air volume calculations.
4. All hoods 8'0" (2438mm) and over must use two supply duct collars.

Notes:

- Hot water inlet connection 3/4" (19 mm) for all ventilators.
- Drain connection: Up to 25 ft (7620 mm) - 2.0" (51mm). This refers to multiple length with factory prepiped drain.
- Water wash ventilator is used in conjunction with a Spring Air Systems Water Wash Control panel.
- Exhaust duct can be located anywhere along length of ventilator, discharge out the top, back or front.
- Hot water pressure required is 40 to 70 psi (276 TO 482 kPa).

Spring Air Systems Model No. HD-B-F-MP Hood Specification

The REV-LOW water wash hood shall be a Spring Air Systems model no. HD-B-F, box canopy, high efficiency, hot water wash hood, with "MP" make up air plenum, ULC/UL listed, and built in accordance with the NFPA-96.

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, and a VARIFLOW baffle. The vortex chamber shall provide a full 270-degree turn. The VARIFLOW baffles are field adjustable without special tools to provide the minimum exhaust volume.

The chambers, baffles, stainless steel water wash manifold and the fire damper blades, bushing and edge seals shall be fully accessible through front removable doors within the hood canopy.

The drain trough shall be constructed of stainless steel with a 2" (52 mm) stainless steel drain stub with a 1/4" (8 mm) lip to provide a continuous blanket of water across the length of the drain trough.

The heated makeup air discharges through stainless steel perforated panels located on the front of the hood. The make up air plenum shall be insulated with 1" (25mm) attenuating foam. The supply duct collars shall each have a fire damper with a 165°F (74C) fusible link. The sheet metal contractor shall supply an access door on the duct above the damper for inspection.

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

Engineering Data

Item Number: _____
 Model Number: HD-B-F-MP _____
 Number of Sections: _____
 Hood Length: _____
 Hood Width: _____
 Hot Water Flow (40 psi): _____
 Exhaust Volume: _____
 No. of Exhaust Duct Collars: _____
 Size of Exhaust Duct Collar: _____
 Exhaust Static Pressure: _____
 Supply Volume: _____
 Supply No. of Duct Collars: _____
 Supply Size of Duct Collar: _____
 Supply Static Pressure: _____