

# Installation, Operation, Maintenance Manual UniFlow FM Floor Mounted Fume Hood

Model # s



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# HEMCO

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## **INSTALLATION INSTRUCTIONS FOR FM FLOOR MOUNTED FUME HOOD**

The HEMCO Fume Hoods are shipped palletized fully crated, padded and wrapped for maximum protection and ease of handling. If damaged call the adjuster for the delivering carrier promptly and notify HEMCO at 1-800-779-4362.

1. Upon receiving, inspect for crate damage and possible concealed damage that may have occurred in transit. Save all delivery receipts and crating materials. If damaged call the adjuster for the delivering carrier promptly and notify HEMCO at 1-800-779-4362.
2. When uncrating the hood remove the top section of the crate, which is stapled to the top of the side. Then carefully remove the front, two sides and the rear of the crate.
3. When ready to install Fume Hood, carefully lift from pallet and set on work surface in proper location (see Fume Hood Installation).
4. Remove accessory/sash weight box, which may be attached inside the Hood, on the skid or on the top of the hood.

**CAUTION: DO NOT lift the hood by the airfoil.**

### **SITE PREPARATION**

A Fume Hood requires that it be installed on a level surface. If Fume Hood Base Cabinets are included with the Fume Hood installation make sure the floor is clean and level,

All service lines for the Fume hood installation, such as water, air, gas, etc. should be purged of dirt, capped and tested prior to connection to the Fume Hood.

### **BASE CABINET INSTALLATION**

Position the cabinets in the desired location approximately 7 inches from a rear wall or in a suitable island location. Top of the cabinet should be leveled using the adjustment feet on the bottom of the cabinet. If multiple cabinets are involved, bolt together and to existing cabinets or walls.

### **WORK SURFACE INSTALLATION**

Once the Fume Hood Base Cabinet is installed apply an adhesive to the top surface of the cabinet. Carefully place work surface on cabinet and correct position. Allow adhesive to dry before setting Fume Hood.

## **FM FLOOR MOUNTED FUME HOOD OPERATION / MAINTENANCE**

1. Fume Hood must be set on the work surface or a flat level surface.
2. Once the Hood is in place, service lines can be connected (See Electric and Plumbing).
3. Service panels are provided to allow access for service hookup. Service panels can be taken off by removing plastic caps and attachment screws. Panels may be set aside for later replacement after the installation is complete. The front access panel above the sash is removable to allow access to the top of the Fume Hood (pull out or lower edges and push up to remove). The electrical junction box, light fixture, outlet collar for duct connection, special plumbing connections, and sash weight can be accessed from this position.
4. Fume Hoods are equipped with a tempered glass sash. Remove shipping tape alongside edges of sash and sash track. The sash counter balance weight(s) are packaged separately as noted in (Uncrating the Hood]. The sash weight should be hung from the sash cable loops located on the left side within the double-wall construction. The sash cables should ride in the pulley groves to ensure smooth operation.
5. The fluorescent or incandescent light fixture is factory mounted.

**NOTE: Fluorescent tubes are not provided with the Hood.** To install fluorescent tubes liftoff front access panel. With a Phillips screwdriver remove the 2 screws. The fixture housing will hinge back and the tubes can be installed. For those hoods with explosion proof lights, the fixture positions in a flanged cut-out. The top of the fixture threads off for wiring. For those hoods with vapor-proof incandescent light(s), unscrew the glass globe install bulb and replace globe. Once the fixture is wired, remove the screw caps and screws from the ceiling inside the Hood and the donut flange plate will release. The glass globe of the fixture will thread off and a light bulb can be installed.

6. A bead of white silicone sealant should be applied between the work surface and the Hood.
7. Reinstall front access panel and service panels.
8. Finally clean up with Formula Glass Cleaner.

**NOTE: In those areas where seismic codes are a consideration, it is recommended that qualified engineers be consulted for necessary installation requirements for seismic codes.**

Additional installation details are on page 3

## **FUME HOOD OPERATION**

### **ELECTRICAL**

Electrical services supplied with your Hood are factory mounted but not wired. Wiring must be completed by a licensed electrician to comply with local codes. It is also suggested that the main junction box be grounded and that a quick disconnect in the power source be provided.

### **PLUMBING**

All service fixtures requiring plumbing are normally installed on the Fume Hood ready for connection to the service outlets. Piping should be copper, however, stainless steel, black PVC or galvanized pipe may be used if required. A certified plumber should be used for all installation.

**CAUTION:** Be sure that plumbing lines do not interfere with movement of the sash weight(s).

### **BLOWERS**

If your Fume Hood was ordered with an integral blower, it will be mounted on the hood. It will be necessary to wire it per local codes. Depending on the types of fumes being exhausted and the length of the ductwork, rigid PVC, flexible neoprene, sheet metal or stainless ducting must be attached for fume removal.

**CAUTION: The maximum length of run of ducting with integral blowers should be 15' or less to minimize static pressure loss.**

### **GENERAL**

Remote mounted blowers and ducting requirements other than as specified are site specific and require a qualified engineer or installer

### **CLEAN UP**

Upon completion of the installation of your Hood it is a good idea to dean thoroughly to eliminate any miscellaneous debris and/or surface soil.

1. For all composite surfaces use a general-purpose nonabrasive household cleaner.
2. For glass surfaces use a formula glass cleaner. (Windex).
3. For the work surface it is recommended that you use soap and water.
4. For metal cabinet painted surfaces use a general purpose nonabrasive cleaner,

### **Dual Entry Fume Hood & Floor Mounted Special Instructions**

The design intention for the dual entry and floor mounted fume hoods are that only (1) sash is opened to any point while the other sash remains in the full closed position. If this design intention is not maintained the results can cause a failure of the hood to contain contaminates and an unsafe condition for personnel.

Any questions? Call HEMCO customer service at 1-816-796-2900.

## **SAFETY RECOMMENDATIONS**

**DO** - AVOID UNNECESSARY EXPOSURE OF PERSONNEL TO FUMES INSIDE HOOD BY KEEPING SASH CLOSED EXCEPT WHEN LOADING OR UNLOADING HOOD.

**DO** - KEEP MATERIALS 6" OR MORE FROM FRONT EDGE OF SASH PLANE.

**DO** - KEEP THE SASH AT DESIGN OPENING WHILE UTILIZING THE FUME HOOD.

**DO** - CLEAN UP IMMEDIATELY ANY MAJOR SPILLS OCCURRING INSIDE HOOD.

**DO** - USE ONLY GROUNDED ELECTRIC EQUIPMENT.

**DO** - REPORT ANY MALFUNCTION OF THE EXHAUST SYSTEM.

**DO** - ELEVATE CONTAMINATES AND EQUIPMENT ABOVE WORKSURFACE OF HOOD ENABLING AIR FLOW BE NEATH AND AROUND.

**DO** - KEEP MOVEMENTS IN THE HOOD AND IN FRONT OF THE HOOD TO A MINIMUM.

**DO** – CHECK FUME HOOD FACE VELOCITY ON A REGULAR SCHEDULE.

**DO NOT** - USE HOOD UNLESS EXHAUST SYSTEM IS IN OPERATION.

**DO NOT** - CHANGE DAMPER OR BAFFLE SETTINGS AFTER INITIALLY SET.

**DO NOT** - USE FUME HOOD FOR STORAGE OF CORROSIVE OR VOLATILE MATERIALS.

**DO NOT** - BLOCK BAFFLE OR GRILL OPENINGS.

**DO NOT** - GENERATE LARGE QUANTITIES OF INFLAMMABLES WITHIN THE FUME HOOD.

**DO NOT** - PERMIT TEMPERATURES OF SASH GLASS TO EXCEED 160 DEGREES FAHRENHEIT.

**DO NOT** - PLACE UPPER BODY OR HEAD INSIDE THE FRONT PLANE OF THE HOOD OPENING.

**DO NOT** - OPEN OR CLOSE SASH SWIFTLY AS THIS MAY CAUSE ADVERSE AIR FLOW CURRENTS.

**DO NOT** - APPROACH OR LEAVE HOOD FACE SWIFTLY AS THIS MAY CAUSE ADVERSE AIR FLOW CURRENTS.

## TROUBLE SHOOTING

PROBLEM	CAUSE	CORRECTIVE ACTION
Insufficient air flow	1) Improperly sized blower 2) Motor (impeller wheel) is running backwards 3) Obstruction in duct system 4) Leaks in duct system 5) Overloaded filters	1) Resize blower, change drive package 2) Correct wiring for reverse rotation of motor. 3) Locate and Remove obstruction 4) Trace and repair 5) Clean or replace filters
Fume Hood or Blower not operating	1) Blown fuse or open circuit breaker 2) Defective motor 3) Thermal protector on 4) Motor improperly wired	1) Replace fuse or reset circuit breaker 2) Consult factory 3) Check for high or low voltage input or ambient temperatures over 40 degree C ( 104 degree F) 4) Correct wiring for reverse rotation of motor
Contaminates outside fume hood face	1) Improper use or procedures 2) External factors 3) Improper face velocity	1) Follow safety guidelines and procedures 2) Check external air flow patterns around fume hood 3) Recertify fume hood face velocity and/or duct system
Sash binding	4) Cable off of pulley Cable Broke	5) Replace Sash / Cable
Air Flow Monitor	6)	7)
Electrical Services not working	8) Circuit Breaker 10)Corroded Contacts	9) Check Main Load Center 11)Clean or replace