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Installation, Operation, Maintenance Manual HazMax Floor Mounted Fume Hood



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Table of Contents

GENERAL SYSTEM DESCRIPTION.....3

RECEIVING AND INSPECTING SHIPMENTS..... 4

PREPARATION FOR INSTALLATION..... 4

SUGGESTED TOOL LIST..... 4

REQUIRED TOOL LIST 4

INSTALLATION..... 5

MAINTENANCE..... 9

GENERAL TIPS 9

PROJECT DRAWINGS..... 10

General System Description

HazMax Floor Mount Hood is constructed and equipped with:

- Modular Construction featuring wall panels that are 2” thick with chemical resistant composite resin surface skin panels.
- Structural framework to be clear of anodized aluminum extrusions.
- Front to have horizontal slide glass doors, (4) on (2) tracks.
- Doors are coated aluminum framed tempered glass.
- A rear composite resin varafLOW baffle is mounted on the rear wall of hood.
- A containment basin molded of one piece of composite resin is located below the hood to catch any spillage.
- 12” diameter exhaust collar

Laboratory Safety for Chemical Fume Hoods

The Fume Hood is often the primary control device for protecting laboratory workers when working with toxic and/or flammable chemicals. OSHA’s Laboratory Standard (29 CF 1910.1450) requires that fume hoods be maintained and function properly when used.

Before using the Fume Hood:

- Make sure that you understand how the Fume Hood works.
- You should be trained to use it properly.
- Know the hazards of the chemical you are working with; refer to the chemical (MSDS) Material Data Safety Sheet if you are unsure.
- Ensure that the Fume Hood is turned on.
- Make sure that the sash is open to the proper operating level, which is usually indicated by arrows on the frame.
- Make sure that the air gauge indicates that the airflow is within the required range.

When using the Fume Hood:

- Never allow your head to enter the plane of the hood opening. For example, for vertical rising sashes, keep the sash below your face; for horizontal sliding sashes, keep the sash positioned in front of you and work around the side of the sash.
- Use appropriate eye protection.
- Be sure that nothing blocks the airflow through the baffles or through the baffle exhaust slots.
- Elevate large equipment (e.g. a centrifuge) at least (2) inches off the base of the hood interior.
- Keep all materials inside the hood at least (6) inches from the sash opening. When not working in the hood, close the sash.
- Do not permanently store any chemicals inside the hood.
- Promptly report any hood that is not functioning properly to your supervisor. The sash should be closed and the hood “tagged” and taken out of service until repairs can be completed.
- When using extremely hazardous chemicals, understand your laboratory’s action plan in case an emergency, such as a power failure, occurs

Notes:

Receiving and Inspecting Shipments

Transportation companies are responsible for shipment from the time that it is received by them until it is delivered. All shipments leaving our plant have been carefully inspected and loaded on the carrier’s vehicle.

If a shipment arrives with the crating or packaging damaged, have the driver note the condition on the bill of lading and inspect the contents immediately for concealed damage. Due to the crate sizes and number of components HEMCO recommends that with **any** crate damage, even minor, that the bill of lading be signed for noting “crate damage...pending further inspection for concealed product damage”

If the equipment has been damaged in transit, immediately notify and file a claim with the carrier. Do not return to HEMCO. If this procedure is not followed, the carrier will reject the claim and the consignee will suffer the loss. Please notify HEMCO so that we may help you in anyway possible with evaluation, repair, replacement, and valuation of the damage that has occurred.

Preparation For Installation

- Read the Complete Manual
- Gather Required Tools/Equipment

Suggested Tool List

- Cordless screw driver/gun
- Thin flexible putty knife
- Quick ratchet bar clamps
- SAE Ratchet Set

Required Tool List

- 2 screwdriver
- Open-end wrench
- Stepladders, 2 or more

Installation

1. Deliver components to erection site and segregate. Note identification markings on each panel and inside aluminum extrusions.

Note: Insertion of the wall panels into the base may be aided by utilizing a thin flexible putty or spackling knife to guide the panel into the track.

Note: Be very careful as sub-assemblies and wall sections can be very heavy, particularly the basin and the rear wall section. Use dollies or mechanical means to carry items over any distance.

2. Orient basin so that the front is oriented to suit the customer's requirement.

Note: left and right would be determined by facing front of enclosure and the drawing set.

3. Remove banding holding grating into recess of the basin and the wood protecting the aluminum extrusions.

4. Set the Rear Wall Section. Be sure wall panels are seated fully into the structural channels and plumb and square. Secure with provided #8 or #10 sheet metal screws. Utilized #8 screws first, however, due to pre-assembly the #8 screw may “strip” or may not “bite” then utilize the #10 screw.

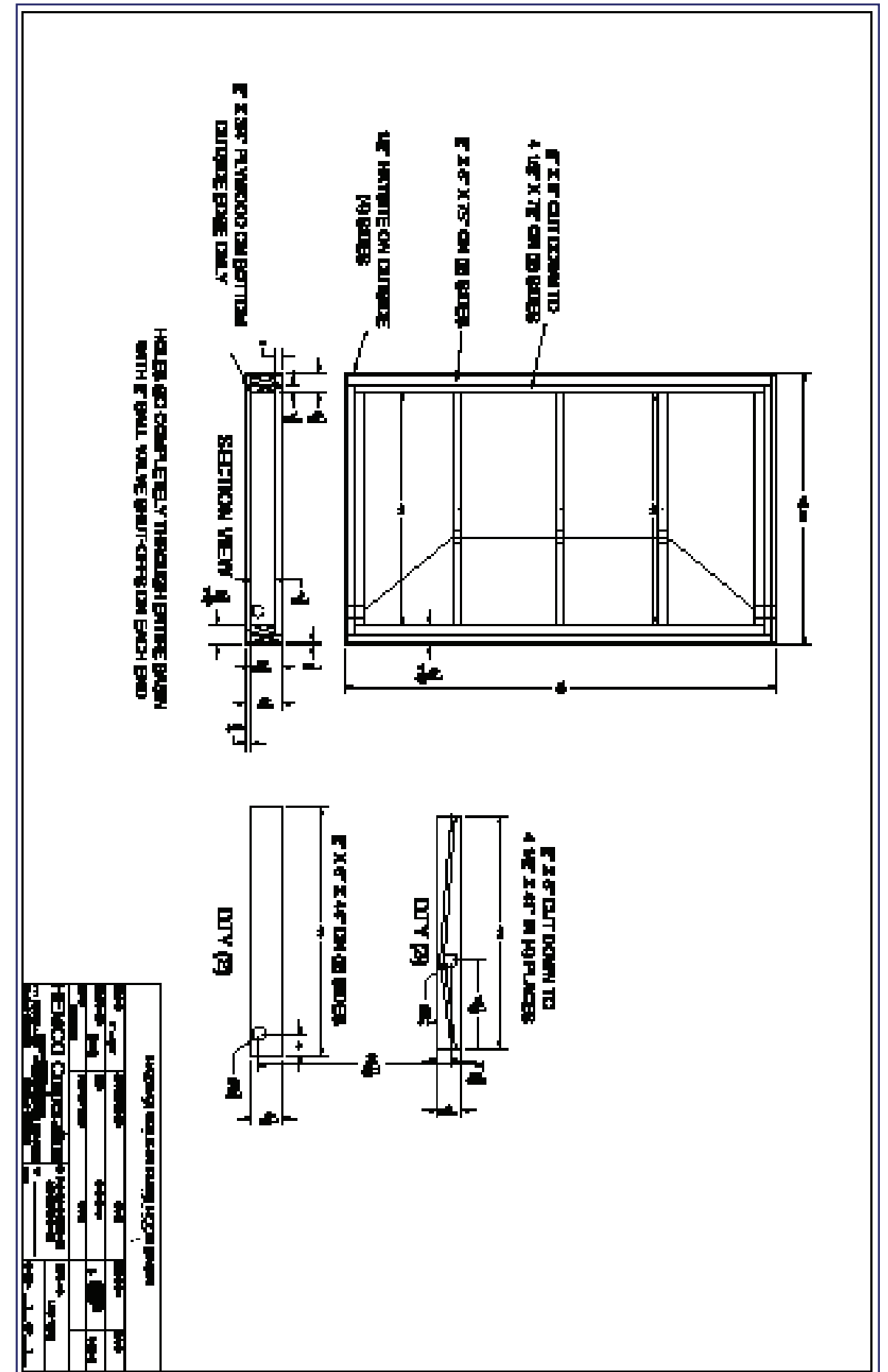
NOTE: Some pictures shown are from different but similar style projects.

NOTE: Quick ratchet bar clamps to stepladder may be used to partially support the initial panel until other panels can be permanently secured.

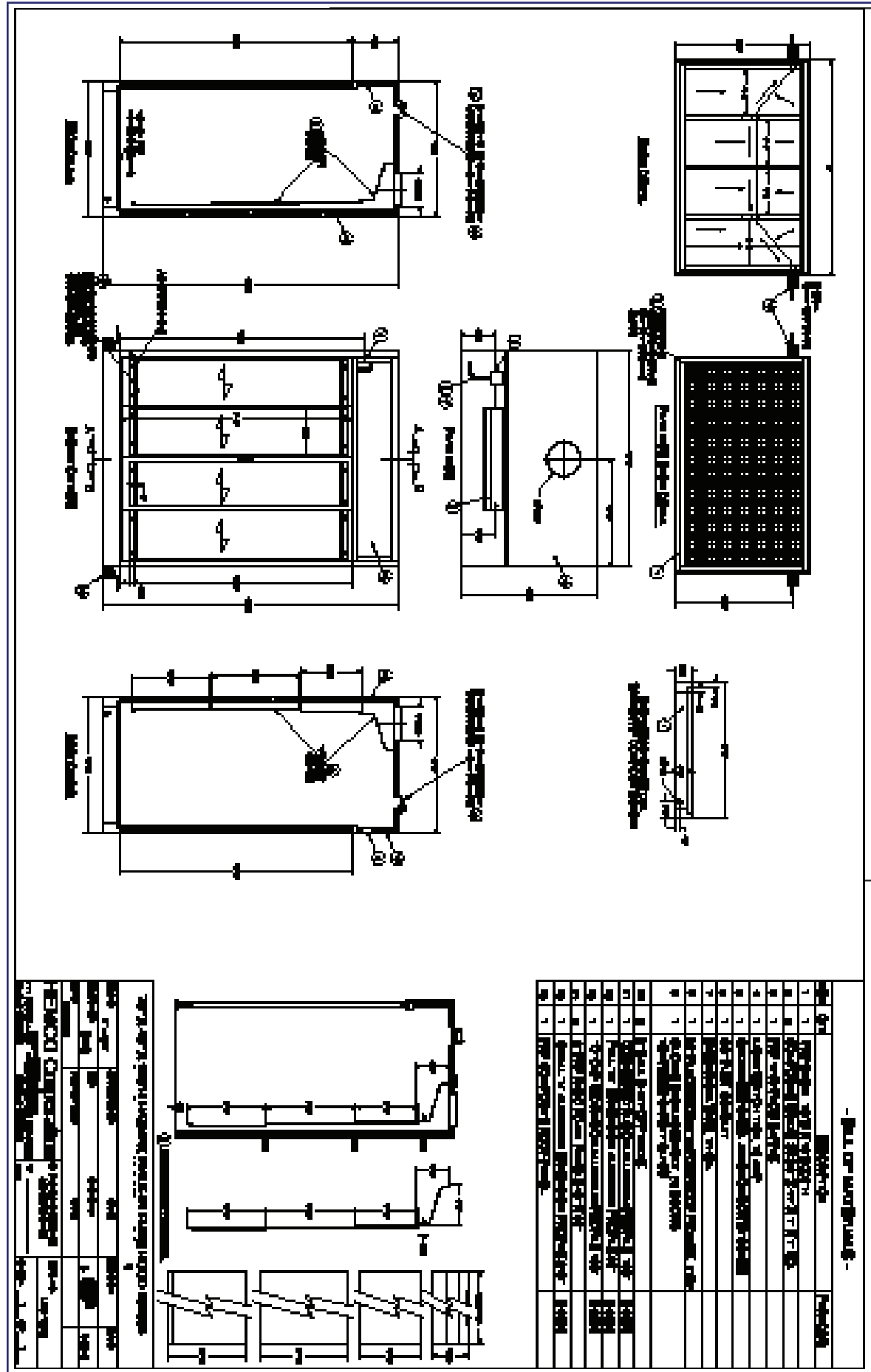
5. Install the Right Wall Panel fully into the Rear Wall Panel extrusion and the extrusion on the basin. Secure with provided #8 or #10 sheet metal screws.



Project Drawings



Project Drawings



6. Install the Left Wall Panel fully into the Rear Wall Panel extrusion and the extrusion on the basin. Secure with provided #8 or #10 sheet metal screws.



7. Install the Header Panel. Secure with provided #8 or #10 sheet metal screws. Quick bar clamps can be utilized to hold panel in place while securing.



8. Set the ceiling panel in place, on the seat of the “h” extrusions. Light fixtures are orientated to the front of the enclosure and the exhaust outlet is at the rear. Be careful of flexing the ceiling panel while setting it in place to avoid damage. Secure with provided #8 or #10 sheet metal screws.



9. Seal the wall to ceiling joint completely around the perimeter of the hood with 100% silicon sealant.

NOTE: Ceiling panel can be set on the tines of a fork truck and lifted to the proper height and (hand over head) into final position utilizing stepladders inside and outside the enclosure or can be passed (hand over head) from (2) persons on the floor to (2) persons on separate stepladders.

10. Angled top baffle is lifted into place.
Secure lower connection with provided #8 or #10 sheet metal screws.

CAUTION: Roof Structure is not designed to support more than 50-60 pounds of Load

Secure upper (ceiling) connections with #10 machine bolt (interior) and nylon nuts (exterior)
Cover screw heads with #10 PVC cover caps



11. Assemble the sliding door frame. Fit into front opening of hood face and secure with provided #8 or #10 sheet metal screws. Longer #8 screws are to secure the lower door frame to the basin, through pre drilled holes.



12. Install individual sliding doors into the unit and adjust the bottom roller wheels to level and plumb the doors in the frame.



13. Make final wiring, duct connections and plumbing connections by local codes and standards.

14. Seal any air gaps and joints of the enclosure not previously sealed with silicone sealant.
Typical air gaps would be walls to ceiling, floor perimeter, etc.

15. General clean up of site, installation of any other equipment, etc

Maintenance

General Tips:

- For all composite surfaces use a general purpose non-abrasive cleaner
- For glass surfaces use a formula glass cleaner. (Windex, etc.)
- For painted or powder coated metal surfaces use a general-purpose nonabrasive cleaner.
- For anodized surfaces use a general-purpose non-abrasive cleaner.
- For acrylic surfaces use a mild detergent and soft damp cloth