

Important Pointers for Using Corona's Vapor Barrier System

Set-up and preparation

- Secure the Booster unit on a suitable base (plywood or trolley)
- Confirm the preference of a vertical discharge position of the blower; if one of the other (seven) possible positions is desired undo the four bolts on the vertical mounting board behind the blower motor, position the fan as required and re-install the mounting bolts
- Place the male cam lock assembly on the blower discharge outlet - aligning the two mounting marks - and fasten with the self tap screws
- Fit the Smoke Supply Line as follows: female cam lock fitting, one length of tubing, barb unit, smoke shut-off Ball Valve, barb unit or dual connector and Pressure Gauge Assembly (if required), barb unit, second length of tubing, barb unit and outlet connector, applying soap liquid to the inside of the tube end for easy insertion of the barb ends and using the provided clamps for a tight fit.
- If a pressure gauge is used, fit one end of the supplied translucent tubing to the barb at the gauge and the other end to the barb at the top of the Gauge Assembly
- Undo the brass ring nut at the base of the Smoke Output Control valve on top of the generator
- Remove the two bolts on both sides of the generator cover
- Carefully lift the cover from the generator- and detach the ground wire from the cover before removing the cover altogether
- Place the generator on its stand, allowing the base to touch the guide rail in front of the blower outlet
- Refit the cover and re-attach the ground wire
- Use the cover bolts to attach the generator to the stand
- Replace the brass nut at the base of the Smoke Output Control valve

Operation

- Be certain that the Booster and generator are in a horizontal position
- Fill the smoke fluid reservoir
- Place the Smoke Supply Line outlet connector over the inlet to the membrane that is to be tested
- Use the cam lock to attach the Smoke Supply Line to the Booster unit

- Fully open the Ball Valve in the smoke supply line
- Fully open the brass Smoke Output Control valve on top of the generator
- Confirm that the Smoke Switch on the generator is in the OFF position
- Plug the electric cable from the generator into the socket at the Booster unit
- Connect the short length power lead to the Booster unit and connect the other end to a 110 volt (15 - 20 Amp) power source. (Be certain to recognize the suitable wire gauge and supply Amperage for long extension cords)
- Activate the Power Switch on the generator
- Wait until the green light on the generator signals the 'Ready' state.
- Switch on the blower (to avoid smoke back pressure ensure blower is always running before and as long as smoke is produced)
- Depress the Smoke Switch at the generator
- Allow the system to deliver smoke to the test membrane and read the Pressure Gauge
- Turn OFF the system as follows and in quick succession:
 - Turn off the Smoke Switch
 - Turn off the Booster
 - Close the Ball Valve
- Turn off the power at the generator
- Disconnect the power lead to the Booster unit
- Drain the fluid from the generator

VAPOR BARRIER TESTING SYSTEM

Testing using a Magnehelic Gauge

If testing using a Magnehelic Gauge (0" - 4" of water pressure) perform the following:

- Activate smoke generator / blower system @ nominal 150 cfm to 950 cfm flow rate and 2.0" H₂O duct pressure with vent riser outlets uncapped. (Minimum 2" H₂O duct pressure should be measured at or near blower outlet).
- Continue to purge system for 60 seconds after smoke begins to emerge from vent outlet(s).
- Cap vent outlet(s). Adjust smoke generator blower control valve to maintain 1" to 2" H₂O over-pressure in vent piping system. System should be capable of sufficient pressure and flow to induce slight lifting of membrane. Reduce pressure / flow rate if excessive lifting occurs.



NOTE:

Unit may not be exactly as shown. (e.g. the cone between the smoke generator and the booster fan is optional and required only if smoke fails to be fully captured by the blower under severe crosswind conditions)



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