

INSTALLATION INSTRUCTIONS FOR GLASS-IN MEMBRANE VENT INSERT

1. The position of the vent is on the deck, directly on the stringer (or centerline) about 3/4 the length of the board from the tail. Do not locate mid-board or in the tail area.
2. Lightly centerpunch the hole location. Drill using a 1-1/4" diameter Forster bit (preferred), a hole saw with a very short pilot bit (like for FCS plugs), or a 1-1/4" plunge router. The depth of the hole should allow the insert to be set in until 1/2 of the angled portion is above the glass.
3. Note that there are two different lengths of glass-in inserts; 1" and 7/8". The 7/8" version is shown on the installation drawing with the accompanying drilling dimensions. Measure which type you have and adjust the depth accordingly.
4. The specified hole diameter allows very little clearance between the insert and the foam, so no filler is needed with the epoxy. If the fit is very loose after drilling, add Q-cell, cabosil, etc to the epoxy. 5 minute epoxy is recommended to minimize exothermal heating as the epoxy cures.
5. Apply the round label to the recess in the insert. Apply the mixed epoxy to the sides of the insert and install in the hole. Wipe any excess that oozes up around the top of the insert creating a fillet around the outside. Put a weight on top of the insert to hold it down until the epoxy cures.
6. Sand the top of the insert down flush with the deck. Leave the label in place until after glossing and polishing.
7. Drill the venting holes into the EPS core per the drawing as applicable.
8. The black vent element (plastic bolt) must be very carefully installed as it is easily broken. Only install using a 16mm socket and extension (no handle). Make certain that the socket is fully over the entire head of the element and not just the cap; if not the cap will break off. Tighten to 1/2 ft-lb only, just slightly more than hand tight, just enough to compress the O-ring.

MAINTENANCE:

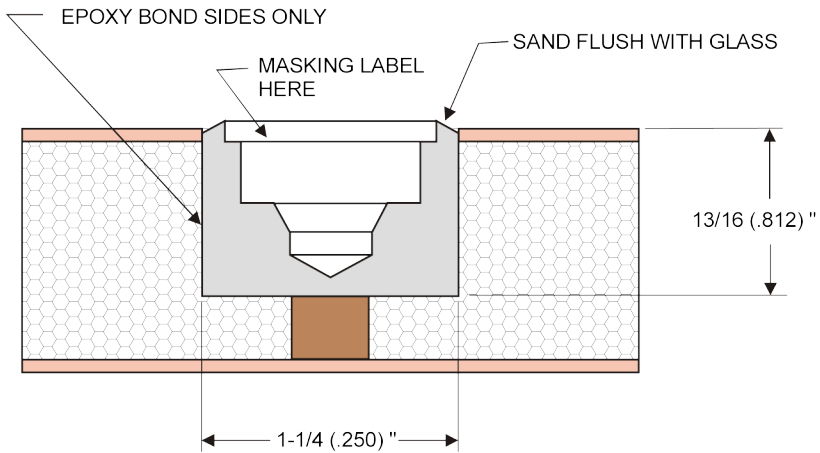
- Do not wax over the vent. Keep wax away from the recessed area.
- Rinse the vent after use with fresh water using low pressure to remove any salt crystals, sand, etc from the recessed area.
- Venting the board will greatly reduce problems with EPS/hollow-core heat expansion, but it is not an immunization. Keep the board out of direct sun exposure, and use a reflective bag. Do not keep the board in a closed vehicle during high temperatures.

INSTALLATION INSTRUCTIONS FOR RETRO-FIT MEMBRANE VENT INSERT

1. The position of the vent is on the deck, directly on the stringer (or centerline) about 3/4 the length of the board from the tail. Do not locate mid-board or in the tail area.
2. Lightly centerpunch the hole location. Drill using a 1" diameter Forster bit (preferred), a hole saw with a very short pilot bit (like for FCS plugs), or a 1" plunge router. The depth of the hole can be 5/8 – 3/4".
3. Prep sand 1-1/2" diameter using 100 grit paper at the center mark.
4. The specified hole diameter allows very little clearance between the insert and the foam, so no filler is needed with the epoxy. If the fit is very loose after drilling, add Q-cell, cabosil, etc to the epoxy. 5 minute epoxy is recommended to minimize exothermal heating as the epoxy cures.
5. Apply the mixed epoxy halfway up sides of the insert and the underside of the flange. Install in the hole. Wipe any excess epoxy that oozes up around the top of the insert creating a fillet around the flange. Put some wax paper and a weight on top of the insert to hold it down until the epoxy cures.
6. The black vent element (plastic bolt) must be very carefully installed as it is easily broken. Only install using a 16mm socket and extension (no handle). Make certain that the socket is fully over the entire head of the element and not just the cap; if not the cap will break off. Tighten to 1/2 ft-lb only, just slightly more than hand tight, just enough to compress the O-ring.

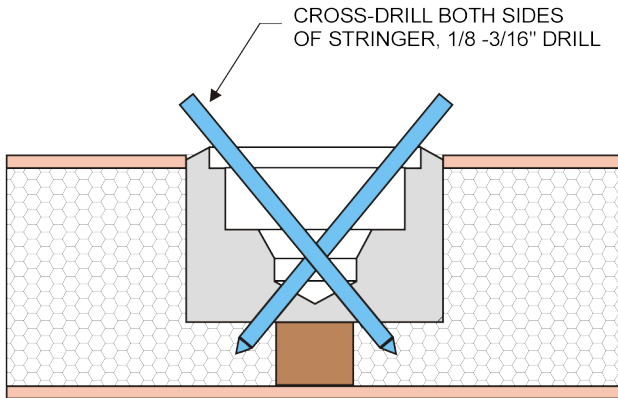
MAINTENANCE:

- Do not wax over the vent. Keep wax away from the recessed area.
- Rinse the vent after use with fresh water using low pressure to remove any salt crystals, sand, etc from the recessed area. The vent element should be replaced every two years if constantly used, or if it is damaged in any way. Contact us for replacement elements.
- Venting the board will greatly reduce problems with EPS/hollow-core heat expansion, but it is not an immunization. Keep the board out of direct sun exposure, and use a reflective bag. Do not keep the board in a closed vehicle during high temperatures.

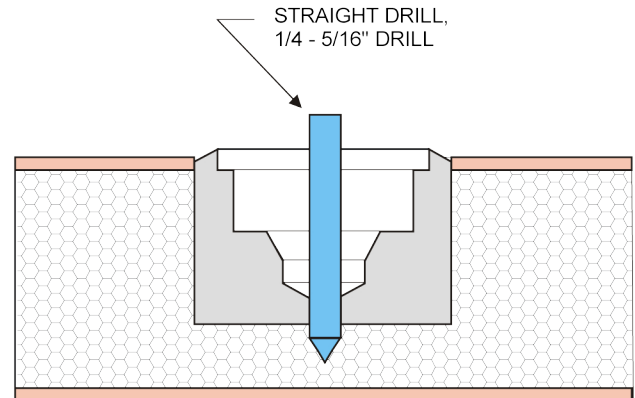


INSTALLING INSERT

INSTALLATION: GLASS-IN VENT INSERT

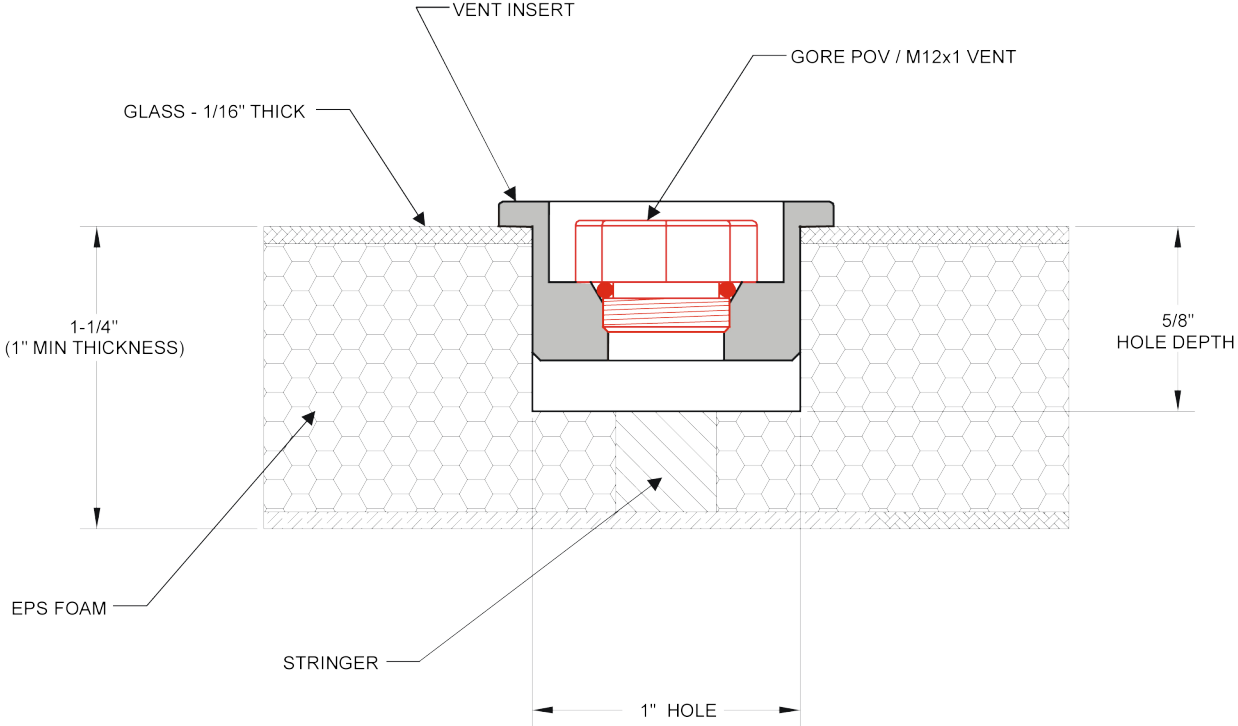


STRINGER BOARDS

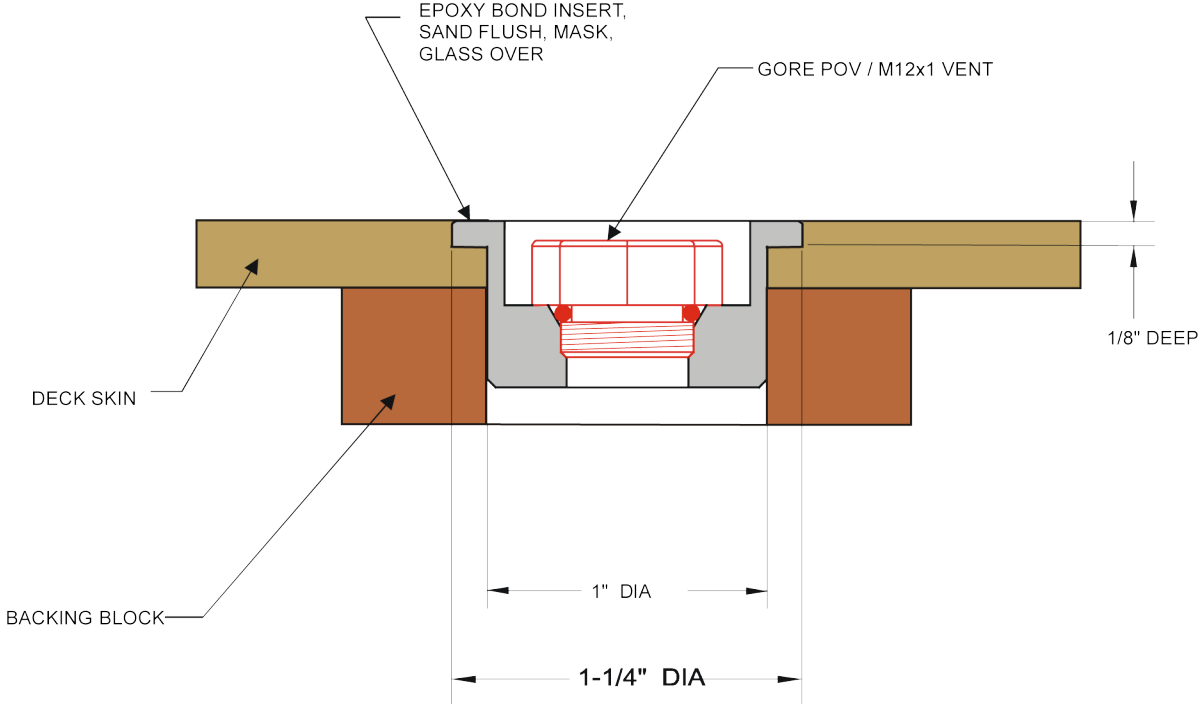


NON-STRINGER BOARDS

DRILLING TO VENT EPS CORE



INSTALLATION: RETRO-FIT VENT INSERT



HOLLOW-WOOD INSTALLATION: RETRO-FIT VENT INSERT

VENT INSERT STYLES

GLASS-IN STYLE



VENT ELEMENT

RETRO-FIT STYLE



GLASS-IN STYLE INSTALLED

W.L. GORE MEMBRANE VENT SPECIFICATIONS

Membrane Characteristic

Hydrophobic and Oleophobic

Oil Rating 3 (AATCC 118-1997ASTM)

Water entry pressure of the membrane ≥ 0.6 bar/60 sec

Ingress Protection class of the installed POV/M12x1

IP65 - Water jets

IP67 - 1 meter water submersion for 30 minutes

IP69K - High pressure spray

Temperature Resistance (DIN IEC 68-2-14, Na)

Cycle test Cycles 400

$T_{\text{dwell}}=20$ min, $t_{\text{change}}<10$ sec.

POV/M12x1 vents are designed for service temperature range of -40°C to 125°C .

UV and Climate Resistance

Industrial climate test (DIN 50-0-18) Test criteria SFW 2.0 S Cycle 9

UV and climate resistance: other than a little yellowing of the top surface, no significant change in mechanical characteristics.

Salt Spray Test (DIN 50-0-21)

No penetration of salt crystals through the membrane into the housing.

85/85 Storage Test (DIN IEC 60068-2-3: 85°C , 85% r.H. dwell time 1000 hours)

No significant change in mechanical characteristics.

Typical Airflow @ $\text{dp}=70\text{mbar}$: 400 ml/min

