

IMPORTANT INFORMATION - FOLLOW ALL INSTRUCTIONS

948A Pressure Vacuum Vent Installation & Maintenance Instructions

The 948A is a fully mechanical pressure/vacuum vent for new and existing fuel dispensing storage tanks. This P/V vent meets the pressure settings and leak rate requirements set forth by TP-201.1E CERT (Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valve) according to California Environmental Protection Agency Air Resource Board. The unit attaches to a 2" threaded vent pipe. Underwriters Laboratories has rated this for Automotive Fuels.



Failure to follow any or all of the warnings and instructions in this document could result in a hazardous liquid spill, which could result in property damage, environmental contamination, fire, explosion, serious injury or death.

Installation



WARNINGS

- **Fire Hazard** – Death or serious injury could result from spilled liquids.
- Install only on shop fabricated atmospheric tanks built and tested in accordance to industry standards such as UL142, UL 58, NFPA 30 & 30A, and API 650.
- Install in accordance with all applicable local, state, and federal laws.
- Pressure/vacuum vent must be properly sized and selected for each specific tank application.
- For your safety, it is important to follow local, state, federal and/or OSHA rules that apply to working inside, above, or around the storage tank and piping area. Use all personal protective equipment required for working in the specific environment.
- Tanks could be under pressure. Vapors could be expelled from tank vents, piping, valves, or fittings while performing installation. Vapors could catch fire or cause an explosion. Avoid sparks, open flame, or hot tools when working on vents.
- Do not paint or cover vent. This will inhibit proper vent operation and may lead to personal injury/property damage.

Inspection and Storage

This vent is not intended for extended storage in excessive temperatures, and rough handling (drops, impacts, crushing, dragging, etc.) during transit may cause damage or malfunction during use. Verify contents of box. You should have received: installation instructions, vent unit, pressure poppet, vacuum poppet, two gaskets, warning tag, cable tie. Inspect unit for shipping damage. Do not use if damage is found.

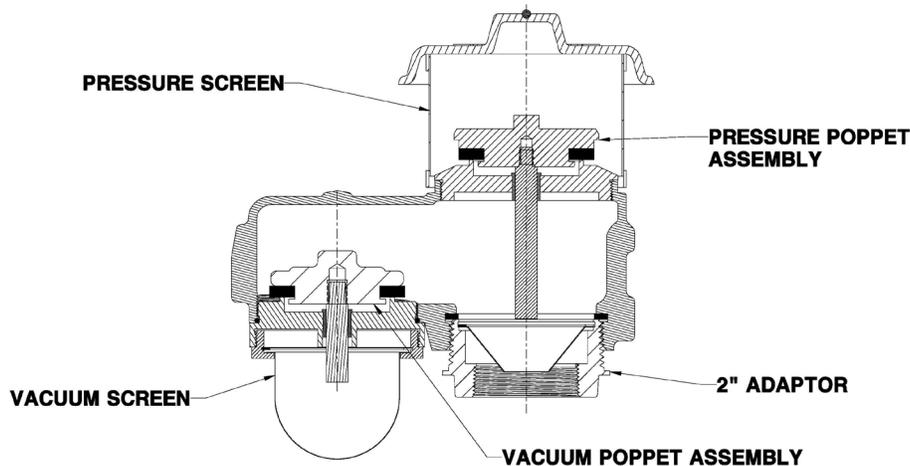
Steps

1. Check vent openings and interior of vent body for foreign matter such as packaging material.
2. To ensure this vent operates properly it requires a small amount of sub-assembly to the pressure and vacuum poppets.
3. The first step is to locate the foam gaskets; these will be located inside the large screen in a bag. See left photo below. Fold back the wire bale and remove white cap. Remove the gaskets from the bag and inspect for damage (a small crease, scratch, bump, or indentation can cause the vent to fail the leakage test).



4. Next locate the poppets inside the cardboard insert. See right photo above. Place a gasket on each of the poppets (the gaskets are both the same and will fit either poppet). Gaskets should be free of any foreign particles such as cardboard dust. Wipe clean if necessary.

5. With the gaskets located on the poppets they can now be placed in their proper locations. The vacuum poppet is the heavier one with a shorter stem and is to be located in the vacuum poppet sub assembly which is already assembled in the body. After unthreading the vacuum screen and poppet assembly from the body, place the vacuum poppet in its seat on the vacuum poppet assembly and tighten the vacuum poppet assembly back into place (hand tight only). Thread vacuum screen into vacuum poppet assembly (hand tight only).
6. The pressure poppet is the lighter poppet with the longer stem and is to be placed on the seat inside the large screen.
7. The white cap and bale can now be placed back in their proper location and the vent is now ready to be installed on the tank
8. Remove the 2" adaptor from the assembly. Apply a fuel resistant, non-hardening, anti-seize sealant (non-adhesive) to the 2" threads of the vent pipe. Morrison recommends thread sealant rather than Teflon® tape. Tighten the adaptor on the riser pipe using a wrench, then hand tighten the pressure/vacuum vent to the adaptor. No sealant is recommended between the pressure/vacuum vent and the adaptor. When tightening the vent-to-pipe joint the vent should be wrenched from the flats of the adaptor only. (Wrenching the body of the vent may damage the adaptor/body seat).



This is a pressure vacuum vent. Proper function will only occur if system is airtight, installed correctly and maintained regularly. All emergency vents, fill connections, tank openings, and piping connections must be airtight.

Important: Install the included warning tag where it will be visible to the operator filling or unloading the tank that is fitted with this vent.



Failure to follow any or all of the warnings or instructions in this document could result in a hazardous product spill, which could result in property damage, environmental contamination, fire explosion, serious injury, or death.

Maintenance

Annual inspection, and immediate inspection during freezing conditions, by someone familiar with the proper operation of the storage tank vents, is required to insure venting devices are functioning properly before filling or unloading a tank.

Steps

1. Carefully remove vent from the riser pipe.
2. To insure that the poppets are moving freely, turn unit upside down and right side up and listen for poppet movement.
3. Inspect the vacuum, pressure, and adaptor screens for debris, if any is found clean or replace.
4. Inspect all vent components and surfaces for damage, corrosion or excessive wear. If any is found, replace the vent.

5. Replaceable components include vacuum screen, vacuum gasket, pressure screen, and pressure gasket.
6. Inspect the vent warning tag located near the tank fill and offloading area. If the tag is damaged or difficult to read, contact Morrison Bros. Co. at (800) 553-4840 for a free replacement tag.

WARNING: DO NOT Paint or Cover Vent. This will inhibit proper vent operation and may lead to personal injury/property damage.

Operation

The vent requires no assistance during operation. Only experienced operators familiar with tank filling procedures should be allowed to fill or transfer product in this system. It is the responsibility of the operator to continuously monitor the tank filling process and take all necessary precautions to prevent any spill. The operator should be aware of adverse conditions that could affect the performance of the vent during a fill or product transfer.

The operating parameters of the P/V Vent are as follows:

Positive pressure setting 2.5 to 6.0 inches H₂O

Negative pressure setting 6.0 to 10.0 inches H₂O

Positive leak rate 0.05 CFH at 2.0 inches H₂O

Negative leak rate 0.21 CFH at -4.0 inches H₂O

TROUBLE SHOOTING: If vent fails the testing criteria per TP201.1E CERT (Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valve) according to California Environmental Protection Agency Air Resource Board, follow the maintenance steps above. . Poppet gaskets and mating metal seats must be free of all cuts, scratches, creases, bumps, indentations, dirt, or particles. The vacuum or pressure gasket may need to be cleaned or replaced.



Failure to follow any or all of the warnings or instructions in this document could result in a hazardous product spill, which could result in property damage, environmental contamination, fire explosion, serious injury, or death.



WARNINGS

- **Fire Hazard**—Death or serious injury could result from spilled liquids.
- Clogged or restricted vents could cause damage to tanks and piping releasing liquids which could catch fire.
- Dust, debris, freezing rain, freezing condensation or other contaminants could clog or restrict the vents.
- In freezing conditions, inspect the vents immediately before filling or unloading a tank.
- Follow your employer's instructions for making sure vents are not clogged or restricted.
- You must be trained to inspect the vents. Stop now if you have not been trained.
- Do not fill or unload from a tank unless you are certain that the tank vents will operate correctly.
- For your safety, it is important to follow local, state, federal and/or OSHA rules that apply to working inside, above, or around the storage tank and piping area. Use all personal protective equipment required for working in the specific environment.
- Tanks could be under pressure. Vapors could be expelled from tank vents, piping, valves or fittings while performing maintenance. Vapors could catch fire or cause an explosion. Avoid sparks, open flame, or hot tools when working on vents.

If you need any further information on applications, special configurations, approvals, etc. please consult Morrison's catalog, contact Morrison, or visit our website at www.morbros.com.

WARRANTY: If you believe this vent has a defect due to material or workmanship, please contact Morrison for a return authorization. All products are thoroughly tested before shipment. Material found to be defective in manufacture will be replaced or repaired at our discretion. Claims must be made within one year from the date of installation. Morrison will not allow claims for labor or consequential damage resulting from purchase, installation or misapplication of the product.