



749 Series Pressure/Vacuum Vents

Installation & Maintenance Instructions

The 749 Series Pressure/Vacuum Vent is designed for use on underground and low volume aboveground storage tanks for motor fueling. If properly sized, installed and maintained the vent allows the tank to “breathe” during filling and dispensing operations. Poppets seal vapors in the tank when pressure and vacuum is equalized.



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, NFPA 30 & 30A, and API 650.
- Install in accordance with all applicable local, state, and federal laws.
- 749 Series vents **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.

Steps

1. Inspect unit for shipping damage. Do not use if damage is found.
2. Check vent openings for foreign matter such as packaging material. Remove any that is found.
3. Insure mounting pipe (riser) is in the vertical (plumb) position.
4. Do not paint or cover the vent in any manner. This will inhibit proper vent operation.
5. Follow appropriate mounting instructions below.

Threaded Connection

1. Apply a thin layer of grease to the seal gasket in the vent body. Grease should be compatible with fuel and the Buna N seal gasket.
2. Thread vent onto riser pipe until seal gasket contacts the flat end of the vent pipe. Hand tighten only, do not use a wrench.
3. Do not use pipe sealant or Teflon ® tape. Vent is designed to seal on gasket not on threads.

Slip On Connection

1. Apply a thin layer of grease to the seal gasket in the vent body. Grease should be compatible with fuel and the Buna N seal gasket.
2. Slip vent onto riser pipe until the seal gasket contacts the flat end of the vent pipe.
3. While holding the vent body down onto the flat pipe end, with moderate force necessary to compress the seal gasket between the body and the pipe, slowly screw the set screws, two (2) on 749S/749T and three (3) on 749CRBS, until they are tight.
4. If installing over threaded pipe end, be careful that tightening the set screws into threads does not lift the seal gasket off of the pipe end.
5. Do not use pipe sealant or Teflon ® tape. Vent is designed to seal on seal gasket not on threads.

Note: There should be no reduction of pipe size between the storage tank and the Fig. 749 Series Pressure/Vacuum Vent.

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.



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Maintenance

Monthly 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.



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.

Steps

1. Remove the vent from the riser pipe.
2. Remove the diffuser vent from the Pressure/Vacuum (P/V) vent by backing out the screws (2) holding it onto the P/V vent body and sliding it up off the P/V vent body.
3. Remove the screws (3) holding the diffuser top cover and remove the cover from the diffuser body.
4. Remove screen carefully and clean. Compressed air can be used to clean screen.
5. Replace the screen if it cannot be cleaned. Replacement screen available from Morrison Bros. Co.
6. Inspect diffuser body and drain holes (2) for dust, debris, snow, and ice. Remove all such matter.
7. Reinstall screen into diffuser and attach cover being careful not to strip cover screw threads.
8. Follow the appropriate P/V vent body maintenance instruction below.

For 749 / 749S / 749T

1. Lift up on P/V vent poppet assembly and push brass vacuum poppet down to inspect seat for dust, debris, snow and ice. Remove all such matter,
2. Release vacuum poppet. Vacuum poppet should return to seated position.
3. Lift poppet assembly up off metal body seat and inspect/clean pressure seat area.
4. Lift poppet assembly up to top of its travel and release. Poppet assembly should return and seat itself on body metal pressure seat.
5. Re-install clean diffuser vent onto clean P/V vent body by placing diffuser vent down over P/V vent.
6. Tighten screws (2) on side of diffuser vent into groove on P/V vent body.
7. Re-install the vent onto the riser pipe following the installation instructions above.
8. Inspect the vent **warning tag** 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.

For 749CRB and 749CRBS

1. Lift up on P/V vent poppet assembly and push brass vacuum poppet down to inspect seat for dust, debris, snow and ice. Remove all such matter.

2. Release vacuum poppet. Vacuum poppet should return to its seated position.
3. Lift poppet assembly up off o-ring body seat and inspect/clean pressure seat area and o-ring.
4. Lift poppet assembly up to top of its travel and release. Poppet assembly should return and seat itself on o-ring seat.
5. Re-install clean diffuser vent onto clean P/V vent body by placing diffuser vent down over P/V vent.
6. Tighten screws (2) on side of diffuser vent into groove on P/V vent body.
7. Re-install the vent onto the riser pipe following the installation instructions above.
8. 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.

During maintenance procedure inspect all vent components and surfaces for damage, corrosion or excessive wear. If any is found, replace the vent.



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