

End-of-Line Combination
Conservation Vent & Flame Arrester**CAUTION:**

If any questions arise concerning the proper installation or maintenance of our products, please contact Protectoseal or one of our Authorized Representatives.

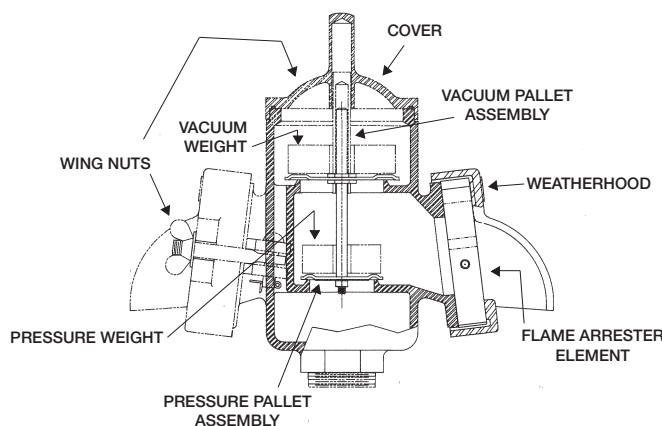
When installing any Protectoseal device, the legal, corporate and advisory safety regulations and procedures appropriate for the specific installation site must be fully understood and followed.

Installation
Maintenance

NOTE 1: When pressure or vacuum weights (packed separately if heavy) are included with a unit, the weights should be inspected, properly identified and set aside for later installation. Weights will be stamped with a serial number matching the number on the vent, identification as pressure or vacuum weights, and a statement as to the contribution that each weight provides to the total pressure or vacuum setting.

NOTE 2: The pressure and vacuum pallet assemblies on the No. 830 Series Vents are stacked vertically inside the vent housing. Note: The vacuum pallet assembly is larger in diameter than the pressure pallet assembly and the vacuum pallet assembly is positioned above the pressure pallet assembly.

NOTE 3: The cover on top of the vent housing provides access to the pressure and vacuum pallet assemblies. The weatherhood(s) on the side of the vent housing provide access to the flame arrester element(s).

**INSTALLATION PROCEDURE:**

1. Loosen wing nuts and remove cover.
 2. Withdraw pressure/vacuum pallet assemblies and remove protective cardboard and tape from each assembly.
 3. Remove any protective flange covers.
 4. Check carefully to insure that no packing materials remain on or inside the vent housings.
 5. Mount the vent to the appropriate inlet and/or outlet flange using gaskets or sealant compatible with service conditions. For best performance, the vent should be mounted level so that the seating surfaces are no more than 1° off horizontal.
 6. Reinstall the pressure pallet assembly. Setting weights (if required) should be installed by engaging the hole in the weight on the pressure pallet assembly stem. Reinstall the vacuum pallet assembly. **Caution: The stem of the pressure pallet assembly must engage the hole in the bottom of the hollow vacuum pallet assembly stem.** Setting weights (if required) should be installed by engaging the hole in the weight on the vacuum pallet assembly stem.
- Note:** Heavy weights may be provided with tapped holes to temporarily attach lifting hardware to facilitate installation. Any such threaded fasteners used during installation must be removed from the weights. Foreign objects will limit the lift capacity of the pallet assemblies and will reduce rated flow capacity of the vent.
7. Replace the cover. **Caution: Make sure that the vacuum pallet assembly stem positively engages the stem guide hole in the cover.** Each pallet assembly must be free to move upwards, with the pallet stem traveling into their respective stem guide.
 8. Replace wing nuts and tighten to secure cover in position.

MAINTENANCE:

Protectoseal recommends that our products be inspected and maintained according to the normal maintenance schedule of the facility. At a minimum, maintenance should be conducted annually. More frequent maintenance may be required, and should be scheduled, for unusual service conditions.

CAUTION: When maintaining any Protectoseal device, the legal, corporate and advisory safety regulations and procedures appropriate for the specific installation site must be fully understood and followed.

CAUTION: Tank vapor space pressure or vacuum should be relieved before any maintenance operations are undertaken.

MAINTENANCE PROCEDURE:

1. Loosen cover wing nuts and remove cover.
2. Inspect the gasket on the covers. Replace if deteriorated or damaged.
3. Remove any loose dirt or foreign material from the housing interior and exterior. Check inside the stem guide hole of the cover and the vacuum pallet stem and remove any dirt or accumulation of foreign material from these holes.
4. Withdraw pressure/vacuum pallet assemblies and set aside for inspection. Note: Identify any weights on the pressure/vacuum pallet assemblies for later reinstallation.
5. Inspect and clean the machined seating surfaces in the vent housings with a suitable cleaning fluid. Seats should be free of nicks, marks or accumulations of foreign material.

CAUTION: Do not use a file or other sharp tool to clean the seating surface.

6. Inspect the pallet assemblies. If pallets are deteriorated or bent, they must be replaced. Inspect the diaphragm material in the pallet assemblies. The diaphragms must be clean, flat and smooth. If the diaphragm material is deteriorated, it must be replaced. Make sure that all nuts and screws on the pallet assemblies are tightened securely.
7. Reinstall the pressure pallet assembly. Setting weights (if required) should be installed by engaging the hole in the weight on the pressure pallet assembly stem. Reinstall the vacuum pallet assembly. **Caution: The stem of the pressure pallet assembly must engage the hole in the bottom of the hollow vacuum pallet assembly stem.** Setting weights (if required) should be installed by engaging the hole in the weight on the vacuum pallet assembly stem.

8. Replace the cover. Caution: Make sure that the vacuum pallet assembly stem positively engages the stem guide hole in the cover. Each pallet assembly must be free to move upwards, with the pallet stem traveling into their respective stem guide.

Note: Heavy weights may be provided with tapped holes to temporarily attach lifting hardware to facilitate installation. Any such threaded fasteners used during installation must be removed from the weights. Foreign objects will limit the lift capacity of the pallet assemblies and will reduce rated flow capacity of the vent.

9. Replace wing nuts and tighten to secure cover in position.
10. Loosen the wing nuts on the weatherhood(s). Remove the weatherhood(s) to expose the flame arrester element.
11. Remove the complete arrester element by sliding it off the support studs.
12. Inspect the arrester assembly. The passages between the individual plates should be clear. Blow out any loose dirt or foreign material. If necessary, the element may be immersed in a suitable solvent to remove gums and deposits.
13. If accumulations cannot be removed in this manner, the plate assembly can be removed from its frame by loosening the screws that hold the plate assembly into the frame. The plates can then be rotated about the off-center stud and cleaned individually, before reassembly into the frame. Caution: Do not remove plates from stud. Do not bend plates. Contact Protectoseal if any questions arise. Replace plate assembly in frame and secure with screws.
14. Reposition flame arrester elements on the housing by aligning holes in frame with the studs on the housing. Frames should fit flush against housing surface.
15. Replace weatherhood(s) and secure in place by tightening wing nuts.