

## **SERIES 54000**

### **Spring Loaded Pressure Vent**



#### **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 PROCEDURE:**

- 1. Unpack unit. Inspect carefully to make sure that all packing material, protective cardboard, tape and flange protectors are removed.
- The vent should be lifted by the multiple lifting lugs only. Do not lift by attachment to weatherhood or flange. Care should be taken to avoid damage to unit as it is being positioned in its mounting location.
- 3. The vent setting is established at the factory per order specifications. No modifications or adjustments are required prior to vent installation.
- Mount vent to the appropriate flange using gaskets compatible with service conditions. For best performance, the vent should be mounted level so that the seating surface is no more than 1° off horizontal.



#### **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:**

- Remove the lifting lugs from the studs. Remove hood nuts and weatherhood from vent. Remove the screen. NOTE: No spring forces are involved during these processes.
- 2. Inspect vent and remove any loose dirt or foreign material from the unit or the hood. Inspect the screen and replace if damaged.
- 3. The vent is designed so that all spring forces are contained by the spring package. The springs are compressed between the flange plate and upper spring guides (see Detail A).

WARNING: If it is necessary to disassemble the spring package, extreme caution must be exercised due to the high spring forces that may be present within the spring package assembly.

#### Spring Package Disassembly & Reassembly

Measure the compressed height of the springs in the spring package (See Detail A) and record this dimension for later use.

## NOTE: This compressed spring height is critical in that it establishes the set point of the vent.

- 1. The studs on the vent are long enough so that all compressive force of the springs can be relieved as spring nuts are loosened. As the nuts are loosened, the spring guides will move upwards, relieving spring forces. The spring nuts should be loosened alternately and evenly so that each of the springs are allowed to expand evenly until the free length of the springs is reached.
- 2. Once the spring forces have been relieved, the spring nuts, spring guides, springs and pallet assembly may be removed for inspection.
- 3. Inspect the diaphragm. If the diaphragm is deteriorated it should be replaced. Make sure that the nut securing the diaphragm is fastened securely.

4. Inspect the seating surface. It should be smooth and free of dirt or nicks. If necessary, clean the seating surface with an appropriate cleaner or solvent.

## CAUTION: Do not use a file or sharp tool that may damage the seat surface.

5. Reassemble the spring package assembly in the reverse order to above. Install pallet assembly, lower spring guides, springs, upper spring guides and spring nuts. Slowly compress the springs by tightening the spring nuts evenly and alternately until the springs are at their compressed height that was measured in Step 1 of this process.

# NOTE: This compressed spring height is critical in that it establishes the set point of the vent.

- 6. Tighten spring nuts to secure position of spring plate.
- 7. Reinstall the screen, weatherhood, hood nuts and lifting lugs.

Distributed by:



ADDITIONAL PRODUCTS FROM PROTECTOSEAL



Pipe-Away Pressure Vacuum Relief Vent for applications that require hazardous vapors be processed into manifolded piping and not released into the atmosphere

#### 0 : -----



against rupture or explosion resulting from excessive internal pressure caused by exposure to fires.

#### Series 4950



Vent Line / In-Line Parallel Plate Flame Arrester is designed for installation in open vent pipe or bleed lines from storage or processing tanks. Suitable for NEC Group D (IEC Group IIA) vapors



Combination Pressure / Vacuum Relief Vent & Flame Arrester provides pressure and vacuum relief as well as protection from propagation of externally introduced flames. Suitable for NEC Group D (IEC Group IIA) vapors.



225 Foster Ave., Bensenville, IL 60106-1690 P 630.595.0800 F 630.595.8059 info@protectoseal.com www.protectoseal.com