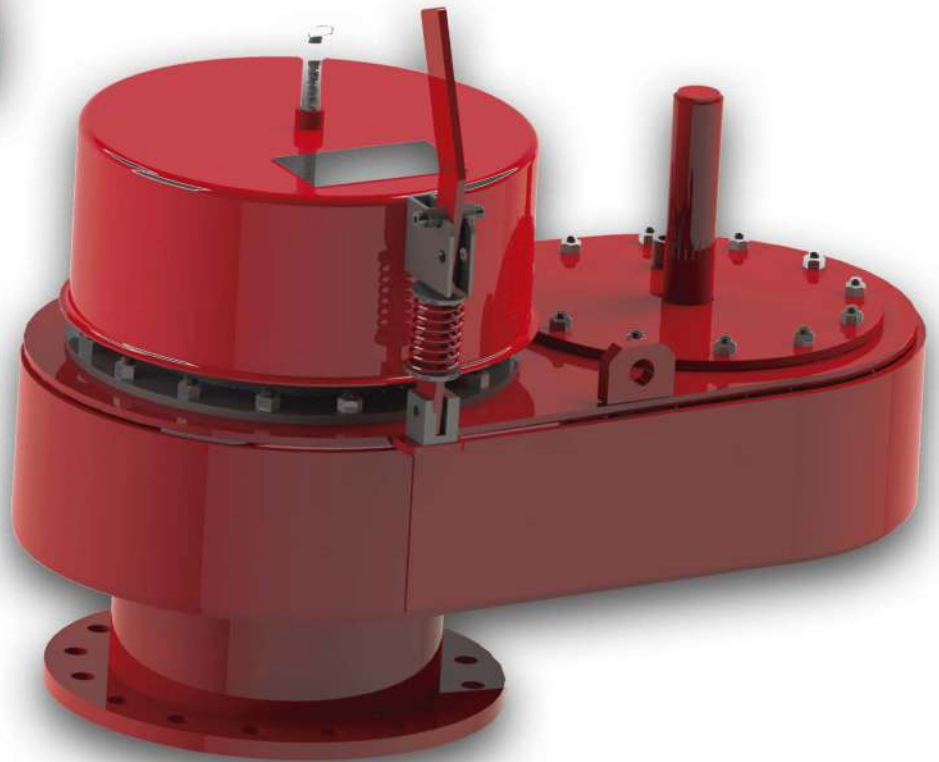




VAPOR TIGHT VENT
PRESSURE VACUUM THIEF HATCHES



PRESSURE VACUUM THIEF HATCHES



SPECIALIZED IN PREVENTING FUGITIVE EMISSIONS

Contact: 1 (956) 589 8832

www.favsystems.com



VAPOR TIGHT VENT PRESSURE VACUUM THIEF HATCHES



INTRODUCTION

Thank you for choosing Flare and Vapor Systems Corp. relief vent line. FAVS manufactures a wide range of tank relief vents and accessories; all guaranteed to deliver the industry's lowest leak rates, extremely accurate set points and extended life expectancy. At the heart of all FAVS relief vents is a unique patented technology, the center for pressure suspended pallet.

These relief vents are designed to relief both pressure and vacuum for tank systems.

Pressure relief caused by pump in of fluids/fluid expansion etc or vacuum caused by pump out of fluids/vapor condensation etc. FAVS relief vents are tested according to the requirements of API Standard 2000.

For information regarding any of your tank venting requirements, please contact Flare and Vapor Systems Corp.



SPECIFICATIONS

Description	PVTH (Spring)	PVTH (Dead Weight)
Bolt Pattern	API or ANSI	API or ANSI
Pressure Setting Range	3 oz/sq" to 24oz/sq"	1 oz/sq" to 24oz/sq"
Vacuum Setting Range	0.4 oz/sq" to 3.5 oz/sq"	0.4 oz/sq" to 3.5 oz/sq"
Construction Material		
Body	Carbon Steel	Carbon Steel or Aluminum
Pallet	Aluminum	Aluminum
Seat	Stainless Steel/Hastelloy	Stainless Steel/Hastelloy
Seals	Viton or Teflon (others available)	Viton or Teflon (others available)
Shipping Weight	28 Lbs	20 Lbs (without the weight)
Leaking Rate		
Viton (1/2 oz/sq" @90%)	0.3 SCFH	0.3 SCFH
Teflon (1/2 oz/sq" @90%)	0.5 SCFH	0.5 SCFH
Temperature Limits (F)	Viton Teflon	Viton Teflon
High	400 - 400	400 - 400
Low	0 - -100	0 - -100

SPECIALIZED IN PREVENTING FUGITIVE EMISSIONS

Contact: 1 (956) 589 8832

www.favsystems.com



VAPOR TIGHT VENT PRESSURE VACUUM THIEF HATCHES



SPECIFICATIONS

Chemical	Teflon	Viton	Buna-N
Amine	A	NA	NA
Butane	A	A	A
Crude Oil	A	A	B
Diesel Oil	A	A	A
Ethane	A	A	A
Gasoline	A	A	A
Glycol	A	A	A
Hexane	A	A	A
Iso Octane	A	A	A
Iso Pentane	A	A	A
Methane	A	A	A
Natural Gas	A	A	A
Hydrogen Sulfide (<200 ppm)	A	NA	NA
Hydrogen Sulfide (>200 ppm)	A	NA	NA
Mercaptans	A	A	A
Carbon Doioxide (CO2)	A	A	A
Paraffins (Alkanes)	A	A	A
Cyclohexane	A	A	A
Benzene	A	A	NA
Toluene	A	A	NA
Ethyl Benzene	A	A	NA
Xylene	A	A	NA
Pentane	A	A	A
Propane	A	A	A
Produced Water	A	B	A
Saturated Steam	A	NA	NA

A	Excellent	B	Acceptable	NA	Not Acceptable
----------	------------------	----------	-------------------	-----------	-----------------------

SPECIALIZED IN PREVENTING FUGITIVE EMISSIONS

Contact: 1 (956) 589 8832

www.favsystems.com



VAPOR TIGHT VENT PRESSURE VACUUM THIEF HATCHES



SAFETY PROCEDURES

Your relief vents have been sized and designed according to your operations. Taken into consideration were the MAWP/MAWV, inlet/outlet flows and what the relief vent is being exposed to. Sizing on these can be done through engineering firms or by FAVS.

Never alter the weight load on the pressure/vacuum pallets without first consulting FAVS. Adding additional weights could result in damage to the tank/system due to overpressure. Removing weights will result in early venting and lowered set points.

Always make sure that when the pressure/vacuum pallets are removed that they are replaced on the proper seats again. Failing to do so will result in the relief vent not operating properly. A pressure pallet will have the 4 relief holes closest to the inside of the diaphragm while the vacuum pallet will have the 4 breather holes close to the outside of the diaphragm.



Pressure Pallet (Viton Gasket) Vacuum Pallet (Viton Gasket)

INSPECTION/MAINTENANCE

Proper safety measures must be taken when servicing any relief vent. It is recommended that the system be depressurized prior to any service work being performed. The internal cavity of a relief vent is exposed to process vapors. Personal safety such as breathing air, personal gas monitors, eye protection and skin protection are examples of things to think about before any servicing begins



VAPOR TIGHT VENT PRESSURE VACUUM THIEF HATCHES



INSTALLATION

1. Inspect tank nozzle for any markings etc. Make sure the surface is clean.
2. Place the proper gasket on the tank flange and bolt down the relief vent according to the manufacture's specifications.
3. If applicable, connect the discharge (outlet) flange to appropriate piping while following numbers 1&2.
4. All relief vents are shipped with a protective cardboard underneath the pressure/vacuum pallets. Remove the applicable lids/weather hoods and remove the pallets and then discard the cardboard.
5. Re-assemble in the reverse order and add applicable weights to the pressure and vacuum pallets.
6. Each weight is stamped with the vent serial number and set point. If multiple weights are required, it will be stamped on each weight to show a series like 1-2, 2-2 etc. All the weights that are sent with the relief vents are required to reach the set point the vent was calibrated to as stated on the name plate.
7. Name plates are mounted on each relief vent and tell you the vent serial #, model #, size, and pressure/vacuum set points. Verify that the settings are correct for your operation prior to putting the relief vent into service.





MAINTENANCE

Regular maintenance will ensure that your FAVS Relief Vent operates properly with minimal vapor loss. Maintenance schedules will differ for every site as the timeline will be determined by a number of factors including plant operations and the vapors that the relief vents is being exposed to. While performing maintenance on any relief vent, follow the safety guidelines as listed in this manual.

To service the vent pallet/seats:

1. Remove applicable weather hoods and lids.
2. Remove applicable weights from the pressure/vacuum pallets. Never remove the pallets with the weights in place as this could damage the sealing capabilities of the relief pallets.
3. Remove applicable pallets and inspect them for distortion/wear. Clean them with a soft cloth and mild soap/glass cleaner. A pallet in working condition should appear to have a smooth sealing face on the diaphragm and be free of dents/wrinkles. If they appear otherwise, they should be replaced.
4. Inspect the vent seats. They have a machined sealing face which should be free of any build-up or markings. They can be cleaned in the same manner as the vent pallets.
5. Re-assemble the vent in reverse order. Ensure the pressure/vacuum pallets and weights are located on the proper seats.
6. Replace the gore-tex on the vents lids after each time they are opened to ensure 100% seal.
7. Never grease the pallets or seats. The cleanest possible seats/pallets will result in the best seal possible. Grease will trap dirt and debris and will increase leak rates and alter factory set points.





VAPOR TIGHT VENT
PRESSURE VACUUM THIEF HATCHES



SPARE PARTS

Part No.		8" PVTH (DW and SL)
PVTHDW	PVTHSL	
01		Lid
02		Lid Lock
03		Hinge
04		Pressure pallet, Teflon
05		Vacuum Pallet, Teflon
06		Pressure Pallet, Viton
07		Vacuum Pallet, Viton
08		Pressure Spring (+Set)
09		Spring Adjuster
10		Vacuum Spring
11		Handle Spring
12		SS Cable Set (Suspension)
13		Handle
14		Handle Pin
15		Vent Seat

WARRANTY

Flare and Vapor Systems Corp. guarantees all FAVS relief vents for a period of one year against defects in manufacturing and workmanship. Wear items such as pallets and seats are not covered.