

# Obsolete Section

**Replacement Parts Only**

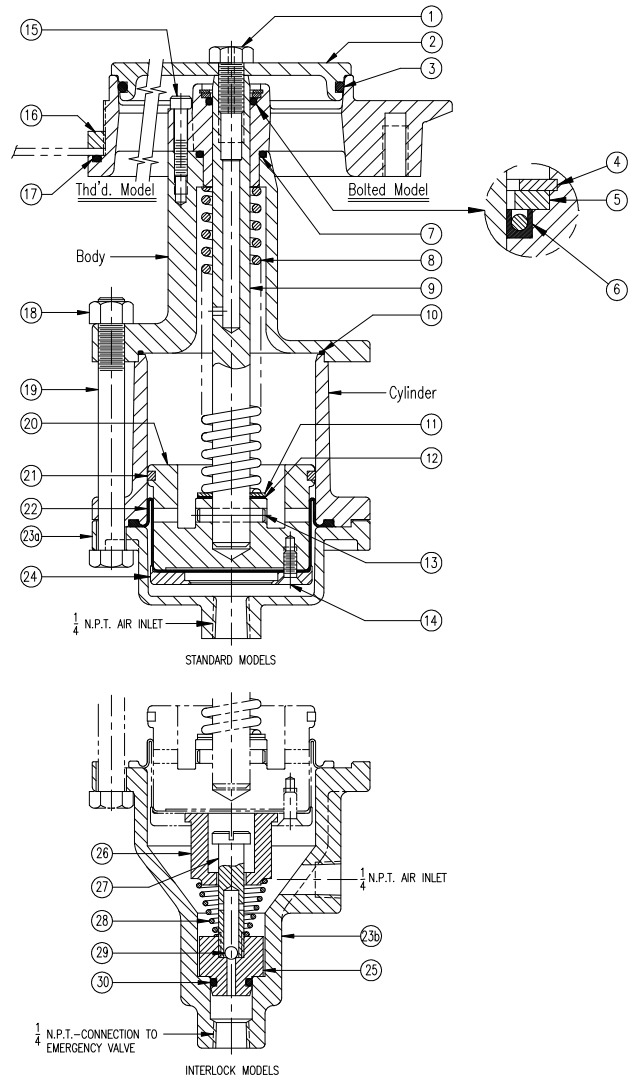
## Air Operated Vapor Valve

Replaced with New Designs (See Section 25)

**PLEASE NOTE: All parts may not be available do to limited supply and may be discontinued without notice.**

Size	Standard Model	Interlock Model	Seat O-Ring	Diaphragm
3 1/2" Bolted	AV46062ALHTS	AV46061ALHTS	Teflon/Silicone	Hydrin
	AV46062ALFTS	AV46061ALFTS		Flourosilicone
3 1/2" Thd'd.	AV46065ALHTS	AV46064ALHTS	Teflon/Silicone	Hydrin
	AV46065ALFTS	AV46064ALFTS		Flourosilicone
5"	AV46184ALHTS	AV46185ALHTS	Teflon/Silicone	Hydrin
	AV46184ALFTS	AV46185ALFTS		Flourosilicone

No.	Description	Req.	Material	3 1/2" Part No.	5" Part No.
1	Hex. Hd. Cap Screw	1	Aluminum	18088AL	18088AL
2	O-Ring Holder	1	Aluminum	17841AL	26909AL
3	O-Ring	1	Tef/Sil	18106TS	18250TS
4	Lock-Ring	1	Stainless	9Q4929	9Q4929
5	Washer	1	Aluminum	17928AL	17928AL
6	Seal-Stem	1	Teflon	19326TF	19326TF
7	O-Ring	1	Tef/Sil	16844TS	NA
8	Spring	1	"E" Coated Stil.	15956EY	17052SL
9	Stem	1	Aluminum	16971AL	16971AL
10	O-Ring	1	Viton	18108VT	18108VT
11	Washer	1	Aluminum	17419AL	17418AL
12	Washer	1	Teflon	17419TF	17418TF
13	3/16 x 1 Spirol Pin	1	Stainless	9Q5901	9Q5901
14	Machine Screw	3	Steel Zinc Plt.	9Q5892	9Q5892
15	#10-32UNF-2A x 1 Lg. SHCS	3	Stainless	9Q5049	NA
16	Mounting Ring	1	Aluminum	17567AL	NA
17	O-Ring	1	Viton	17657VT	NA
18	3/8-16UNC-2A Hex Nut	3	Stainless	9Q5809	9Q5809
19	3/8-16UNC-2A x 3 3/4 Hex. Hd. Bolt	3	Stainless	9Q5891	9Q5891
20	Piston	1	Aluminum	26376AL	26376AL
21	Wear Ring	1	Teflon	17213TF	17213TF
22	Diaphragm	1	Hydrin	17212HD	17212HD
			Flourosilicone	17212FS	17212FS
			Aluminum	26369AL	26369AL
23a	Std. End Cap	1	Aluminum	26369AL	26369AL
23b	Interlock End Cap	1	Aluminum	26370AL	26370AL
24	Retainer Plate	1	Aluminum	17196AL	17196AL
25	O-Ring Holder	1	Aluminum	18140AL	18140AL
26	Hub	1	Aluminum	17053AL	17053AL
27	Stem	1	Aluminum	15948AL	15948AL
28	Spring	1	Stainless	16041SL	16041SL
29	3/16" Dia. Ball	1	Stainless	9Z4853	9Z4853
30	O-Ring	1	Buna-N	18141BN	18141BN



### MAINTENANCE INSTRUCTIONS

- REPLACING O-RING SEAT:** The O-Ring can be replaced without removing the vent from tank. Open vent by applying 30 PSI (MIN.) air pressure to air inlet. For safety, insert a wooden stick between the disc holder No.2 and body. Attach vice-grip pliers to stem. Remove screw No.1 and O-Ring holder No.2. Replace O-Ring No.3. Re-assemble, then remove pliers and air pressure.
- REPLACING DIAPHRAGM NO.22:** Remove three (3) cap screws No.19 and nuts No.18. Then remove end cap No.23, cylinder and O-Ring No.10. Next, the three (3) screws No.14 and retainer plate No.24 should be removed freeing diaphragm No.22. Install a new diaphragm with the fabric side next to piston (marked piston side). Re-install retainer plate and three (3) screws. Torque screws evenly. Re-install O-Ring No.10 into body groove. Then install cylinder by squeezing diaphragm O.D. to permit diaphragm to slide thru cylinder bore. Lift cylinder until bead of diaphragm engages groove in cylinder. Hold the diaphragm bead in cylinder by placing both thumbs and index fingers on diaphragm flange. Gently push cylinder toward body to form convolution in diaphragm. Check to insure that cylinder lip is engaged in c'bore of body. Re-assemble end cap with three (3) cap screw No.19 and nuts No.18. Torque evenly.
- REPLACING SHAFT SEAL:** With stem No.9 removed from body, remove lock-ring No.4 and washer No.5, replace seal No.6, then re-install lock-ring and washer.
- LEAKAGE TEST:** Apply 80 PSIG air pressure to the air inlet port. Check for leakage at diaphragm bead flange and at O-Ring No.10 under cylinder. Also, check for leakage out hole in screw No.1.

# MAINTENANCE INSTRUCTIONS FOR AIR OPERATED VENTS

## FOR IDENTIFICATION OF PARTS REFERRED TO SEE RESPECTIVE PARTS LIST

### INSTRUCTIONS FOR REPLACING MAIN VALVE SEALS

#### VENTS WITH FLAT DISC SEAL

1. Disassemble disc holder assembly by removing cap screw from stem. Replace rubber disc and re-assemble.  
Torque hex head cap screw to 125 in. lbs.

#### VENTS WITH O-RING SEAL

2. Apply air pressure to open vent.  
Place wood block (approx.  $\frac{1}{2}$ " thick) between disc holder & body to prevent accidental closing.  
Replace O-Ring, then remove wood block and air pressure.

### INSTRUCTIONS FOR REPLACING WEAR RING AND DIAPHRAGM

3. The wear ring and diaphragm must be replaced with the vent valve removed from tank.  
Remove end cap by removing (3) nuts and cap screws.  
Remove cylinder by lifting diaphragm bead from groove.
4. Remove and replace split wear ring.
5. Dis-assemble retainer plate from piston by removing three (3) screws with a screwdriver.
6. Replace diaphragm with the fabric side next to piston (rubber-coated side out). Roll diaphragm down over piston as far as possible toward body. Re-assemble retainer plate using three (3) screws. It is important for screws to be evenly torqued.

## INSTRUCTIONS FOR REPLACING DIAPHRAGM (CONTINUED)

7. Pull diaphragm up away from piston as far as possible.
  
8. Re-install cylinder by squeezing diaphragm O.D. to permit diaphragm to slide through cylinder bore.
  
9. To properly position diaphragm in cylinder, lift cylinder until bead of diaphragm engages groove in cylinder, making certain that holes in cylinder flange line up with screw holes in body flange.
  
10. Hold diaphragm bead in cylinder groove by placing both thumbs and index fingers on diaphragm flange and gripping flange of cylinder firmly with remaining fingers. Gently push cylinder toward valve body to form the convolution in the diaphragm. Check to assure that the O-ring is in place and that the end of the cylinder is engaged in counterbore of the body flange.
  
11. Re-assemble end cap by re-installing (3) cap screws and nuts with proper torque to prevent leakage at diaphragm bead.

### LEAKAGE TEST PRIOR TO INSTALLING VENT IN TANK

12. Apply air pressure to "air inlet" port and check for leakage from diaphragm bead flange and from the vent hole in the disc holder cap screw. The interlock vent must have the  $\frac{1}{4}$  N.P.T. outlet plugged.