

# 3.5" Aluminum Pneumatic Vapor Valve

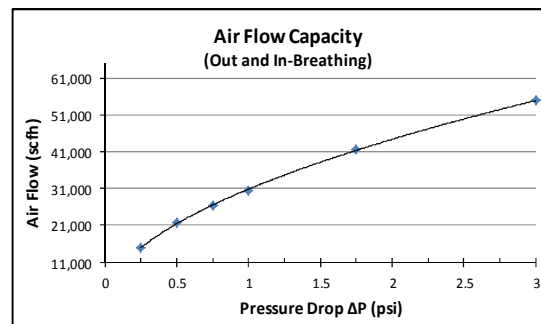
## Sequential Interlock Flange Mount

The aluminum 3.5" (89mm) pneumatically actuated interlock vapor valve is designed as a positive vapor recovery valve for use on DOT cargo tanks with markings per US DOT 49CFR§178.345-5(f). The sequential interlock design allows vapor valve to be plumbed in series with loading or unloading valve. Air supply to "IN" port of vapor valve will only exit to "OUT" port after vapor valve has positively opened. If an interlock feature is not required, outlet port can be plugged and valve will function as a basic non-interlock vapor valve.



The vapor valve features exceptional flow with an inward opening disk and a tapered seat to ensure a tight seal and prevent loss of lading due to surge or roll-over accident. An aluminum body with FEP Teflon® main seal, fluorosilicone air cylinder seals, and stainless trim offers compatibility with a wide variety of products.\*\*

A flanged mounting configuration is provided for mounting to a standard 20" offset manhole cover. The eight 3/8-16 bolts install from inside the tank for added security. Air connections are 1/8" NPT.



The vapor valve meets shell strength test of 73 psig (5.0 bar). Maximum operating pressure is defined as maximum tank pressure that valve can open against with given air-line pressure.

The maximum operating pressure of vapor valve is: 15 psi (1.0 bar) with 90 psi (6.2 bar) line pressure supplied. \*  
20 psi (1.4 bar) with 120 psi (8.3 bar) line pressure supplied.\*

See section 25 Page 16F for parts list.

Assembly Number	Description	Main Seat O-Ring	Mounting Gasket	Stem O-Ring	Temp. Range *	Weight
AVF3.5ALTS	3.5" Interlock Vapor Valve	FEP Teflon®	Cork/Buna	Fluorosilicone	-50°F to +250° F [-45°C to 121°C]	4.5 lbs. [2.0 kg]
AVF3.5ALVT		FKM-A	FKM-B	FKM-A	-15°F to +350° F [-26°C to 176°C]	
AVF3.5ALVB		FKM-BLT	FKM-B	FKM-BLT	-11°F to +350° F [-24°C to 176°C]	
AVF3.5AYTS	Valve with black e-coated body and o-ring holder	FEP Teflon®	Cork/Buna	Fluorosilicone	-50°F to +250° F [-45°C to 121°C]	
AVF3.5AL**022	Valve with stainless steel mounting bolts.	As Specified by Part Number			O-Ring Material Dependent	

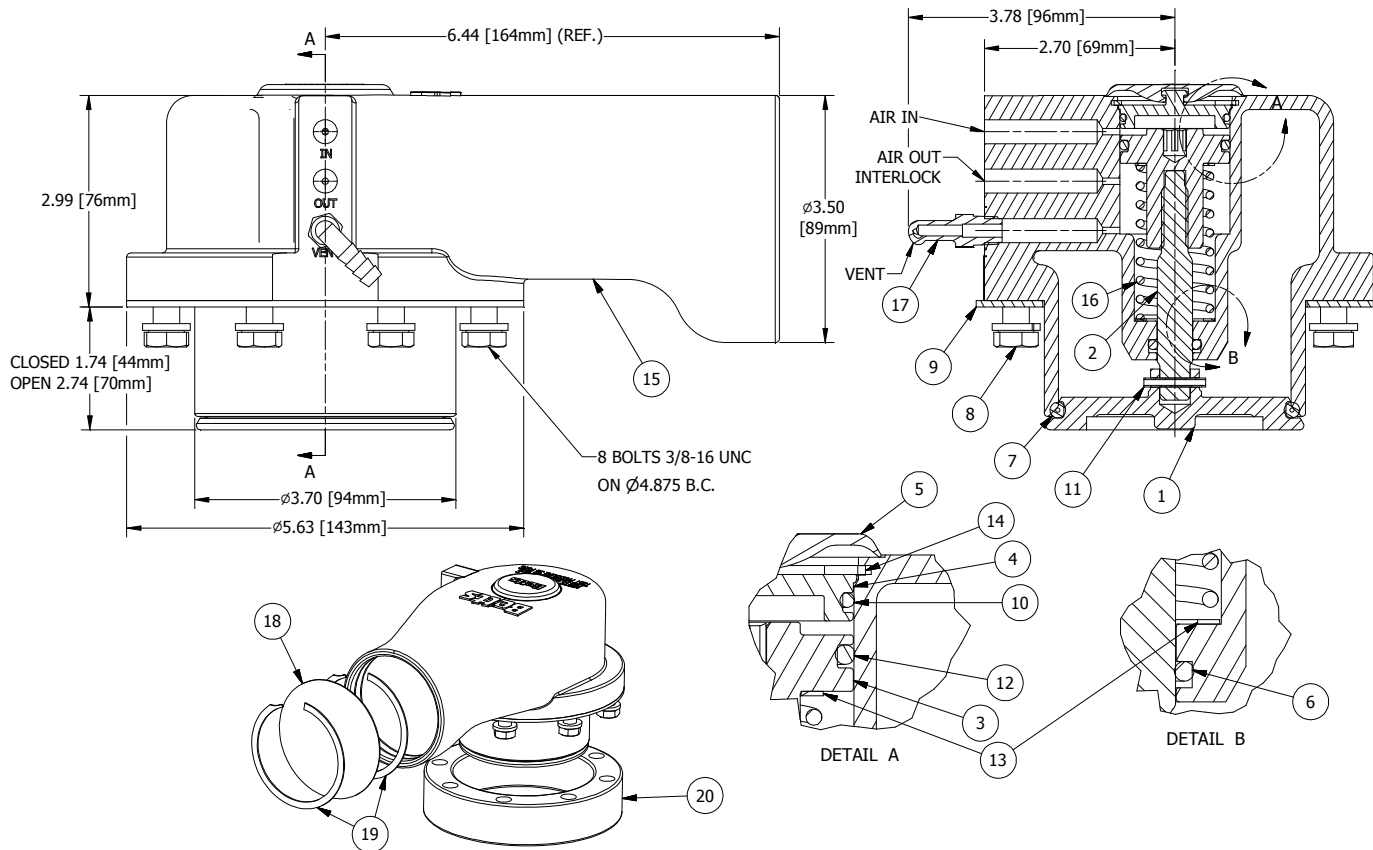
Note: Fluorosilicone seals standard for air cylinder unless three digit number suffix added to part number designating alternate material. Optional 1.25" thick mounting riser available as part number 75126AL and stainless steel screen installed in outlet is available as a special.

\* Values shown are test values. Actual values may vary due to service conditions.

\*\* Last two letters of part number designate seal material.

# Parts List

## 3.5" Flange Mount Interlock Vapor Valve (P/N: AVF3.5ALTS)



NO.	REQ.	DESCRIPTION	MATERIAL	PART NO.
1	1	O-ring Holder	Aluminum	28577AL
2	1	Stem	Stainless	75682SL
3	1	Piston	Aluminum	75636AL
4	1	Air Cylinder Cap	Aluminum	75635AL
5	1	Rain Cap	EPDM	75010EP
6	1	Stem O-ring	Fluorosilicone	19509FS
			Optional mat'l available.	
7	1	Main Seat O-ring	FEP Teflon®	19930TS
			FKM-A	17890VT
8	1	Hardware Kit (Set of 8 Bolts and Washers)	Steel Zc Plt.	75002ZC
			304 Stainless	75002SL
9	1	Mounting Gasket	Cork Buna	RGA301CB
			Other mat'l available (Sec. 40 Page 2A)	

NO.	REQ.	DESCRIPTION	MATERIAL	PART NO.
10	1	Cap O-ring	Fluorosilicone	4339FS
11	1	Roll Pin	Stainless	9Q5920
12	1	Piston O-ring	Fluorosilicone	19971FS
13	2	Red Fiber Washer	Hard Fiber	9Z6184
14	1	Retaining Ring	Stainless	9Q4980
15	1	Body	Aluminum	47259AL
16	1	Spring	Stainless	75634SL
17	1	1/8" NPT Barb Elbow	Nylon	9Z6203

### Available as Options

NO.	REQ.	DESCRIPTION	MATERIAL	PART NO.
18	1	Screen (30x30)	Stainless	18510SL
19	2	Snap Ring	Stainless	9Q4997
20	1	Riser (1.25")	Aluminum	75126AL

**PLUMBING INFORMATION:** Vapor valves may be plumbed separately, in sequence with other vapor valves, or they may be interlocked with air operated emergency valves so the vapor valve must open before the emergency valve opens. Refer to Engineering Bulletin 1-01 for more detailed instructions on suggested plumbing.

**SEAL KITS:** Items 5, 6, 7, 10, 12, and 17 available in seal kit part #'s: SK-AV3.5TS, SK-AV3.5VT, or SK-AV3.5VB. Mounting gasket sold separately.

**WARNING:** Use only genuine BETTS INDUSTRIES INC. replacement parts. Use of substitute parts can impair the proper function of this product and void all warranties.