TECHNICAL BULLETIN



Valve Concepts, Inc. ISO Registered Company



Model 4300 Spring Loaded Vacuum Vent End-of-Line

OBJECTIVE

The Model 4300 end-of-line spring loaded vacuum vent is intended for use on storage tanks, vapor recovery systems and process systems where higher vacuum relief settings are required.

TECHNIQUE

A spring loaded vacuum pallet assembly in the vent housing remains closed until the set point is reached during normal inbreathing due to product movement out of the tank and/or temperature chances. When the set point of the vent is reached, the spring loaded pallet opens to permit the intake of air to prevent tank damage. Once the vacuum is satisfied the pallet closes providing a tight seal.

CONSTRUCTION

Housing Material: The Model 4300 vent is a rugged design made to last. Available in Aluminum,Carbon Steel, or 316 SST

Sizes - Connections. Available in Sizes 2" thru 6". CS and SST vents have Raised Face Flange, Aluminum vents have Flat Face Flange to mate with standard ASME 150# flange connections.

Pallet Diaphragm Material: FEP TFE is standard. Also available Buna-N, EPDM or Fluorocarbon Elastomer (FKM).

SPECIAL FEATURES

Modular: The Model 4300 spring loaded end-of-line vacuum vent is part of Valve Concepts, Inc. modular vent product line. The vacuum vent can easily be converted to a pressure / vacuum vent, venting to atmosphere or with a pipeaway, which can either be weight loaded, spring loaded or pilot operated depending on the application requirements.

Maintains Accurate Vacuum Settings. The minimum vacuum setting is 1.0 psig and the maximum vacuum setting is 15 psig. As with every vent supplied by Valve Concepts, Inc. a certified test report is provided verifying vent setting and leakage. All spring loaded vacuum vents are suitable for intermittent back pressures of 50 psig. Higher back pressure ratings available on request.

Condensate Drainage. Self-draining housing body and drip rings keep condensate away from seating surfaces, preventing freezing, binding and clogging.

Air-Cushioned Seating. Air-cushion seating provides tight sealing to reduce the unnecessary intake of air into the tank and loss of vapors to the atmosphere.

MATERIALS OF CONSTRUCTION				
Series	Housing	Pallet		
4300CS	CS	316 SST		
4300SST	316 SST	316 SST		
4300A	Aluminum	316 SST		

STANDARD/GENERAL SPECIFICATIONS

Gaskets:	Standard: TFE/TFE Rope	Painting:	Standard: Exterior coating will be a combination of Cashco Paint Specs #S-1777 epoxy and #S-1743 powder
Diaphragm Temperature Limits:	FEP-TFE: -400° to 400° F (-240° to 204°C) Fluorocarbon Elastomer – (FKM): 0° to 400° F (0° to 204°C) Buna-N (Nitrile-NBR): -30° to 200° F (-34° to 93°C) EPDM (Ethylenepropylene): -40° to 225° F (-40° to 107°C)		 Alternate Paint: See Opt-95OS.

OPTION SPECIFICATIONS

BUG SCREEN - 304 stainless steel, 4x4 welded mesh.

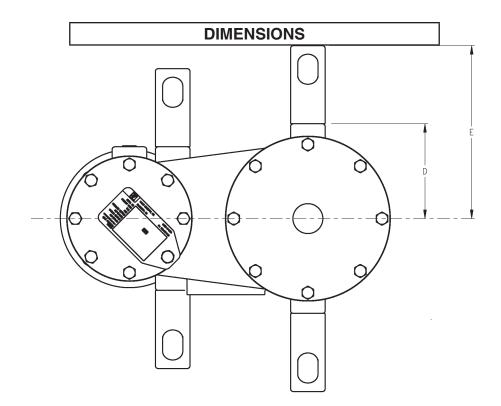
FLAME SCREEN - 304 stainless steel, 30x30 woven mesh

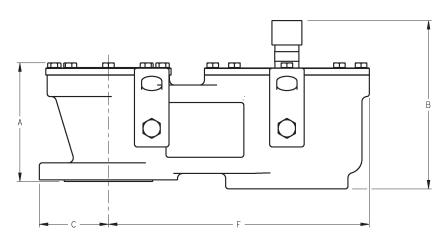
ELECTRIC TRACE - Electric heat tape is wrapped around external surface of the vent body. A thermal insulation jacket is secured over the tape and vent body to minimize heat loss. Commonly used to prevent the formation of ice during freezing conditions. See STEAM JACKETING if elevated process temperatures are desired.

STEAM TRACE - Copper tubing is wrapped around the external surface of the vent body. A thermal insulation jacket is secured over the tubing and vent body to minimize heat loss. Commonly used to prevent the formation of ice during freezing conditions. See STEAM JACKETING if elevated process temperatures are desired.

STEAM JACKETING - Cast aluminum jacket with integrated carbon steel steam chambers are bolted around the vent body. Vent valve and jacket are shipped unassembled as vent valve must first be installed. Commonly used to prevent stored media vapors from crystallizing at ambient temperatures.

- Option -40: NACE CONSTRUCTION. Internal wetted portions meet NACE standard MR0175, when exterior of the vent is not directly exposed to a sour gas environment, buried, insulated or otherwise denied direct atmospheric exposure.
- Option -95OS: OFFSHORE installations. Coating of all exterior surfaces will be per Cashco Paint Specs #S-1777 epoxy. fasteners, seat surfaces and corrosion resistant parts excluded. Painting of fasteners optional upon special request.





ENGLISH Units - in Aluminum, Carbon Steel & Stainless Steel Body						Weigh	nt Ibs.	
SIZE In	Α	В	С	D	E	F	Alum	CS/SST
2"	5.24	6.69	3.00	4.18	7.51	9.48	16	47
3"	6.34	7.60	3.75	4.55	7.89	12.31	20	65
4"	7.27	9.68	4.50	5.84	9.23	16.38	32	95
6"	7.85	8.94	5.50	7.91	11.27	20.00	45	141
METRIC Units - mm Aluminum, Carbon Steel & Stainless Steel Body					Weig	ht kg.		
2"	132	170	77	106	191	241	8	21
3"	161	193	96	115	200	313	9	28
4"	184	245	115	148	234	416	14	41
6"	199	227	140	201	286	508	20	61

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4300 Series PRODUCT CODE

04/06/16

POS 11 POS 12

POS 8 Last 6 Characters reserved for SPQ drawing numbers assigned by Cashco Inc. (Format as - # # # # #)

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POSITION 3 -PALLET DESIGN

Material STD

Intermittent Back Pressure

50 psig Max.

POS 4 POS 5 B

POSITION	4 - FLANGE - SIZE	-		
CODE	DIN FLANGES DN (rating)	CODE		
2	50 (PN16)	Н		
3	80 (PN16)	J		
4	100 (PN16)	К		
6	150 (PN16)	L		
	CODE	CODE DN (rating) 2 50 (PN16) 3 80 (PN16) 4 100 (PN16)		

POS 7

POSITION 5 - BODY / TRIM MATERIALS				
MATERIAL	Std. W/O W/ Flam Flamescreen Screen		W/ Bug Screen	
	CODE	CODE	CODE	
ALUM/SST	A	В	N	
CS/SST *	С	D	Р	
SST/SST *	S	Т	R	
* Select for NACE Construction.				

 POSITION 7 -DIAPHRAGM MATERIALS

 Diaphragm
 CODE

 FEP TFE (Std) *
 A

 Buna-N
 B

 EPDM
 D

 FKM *
 F

 * Select for NACE Construction.

CODE

0

в

POSITION 8 - VACUUM SET POINT			
Spring Loa	ded Range	CODE	
psig	barg	CODE	
1 - 4	.0627	2	
> 4 - 6	> .2741	3	
> 6 - 8	> .4155	4	
> 8 - 10	> .5568	5	
> 10 - 12	> .6883	6	
> 12 - 13	> .8389	7	
> 13 - 15	> .89 - 1.03	8	

POSITION 11 - OPTION				
DESCRIPTION OPTION COD				
No Option	-	0		
NACE Constr.	-40	N		
Offshore Paint	-95OS	Y		

POSITION 12 - ACCESSORY / CERTS						
	Certification					
OPTION	Std	ATEX *	PED *			
	CODE	CODE	CODE			
None	0 A E					
Electric Trace	H B F					
Steam Jacket	J C G					
Steam Trace	S D K					
* Forward Completed "EU" Application Recorder prior to quotation. (Without Recorder- Processing of Purchase Order will be delayed). "PED" Compliance - Ref to Directive 97/23/EC. Contact Cashco for Assistance						

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