

# MODEL 3500

## PRESSURE VENT WITH PIPE-AWAY

### OVERVIEW

The Model 3500 conservation pressure vent with pipe-away is intended for use where pressure relief is required and the relieving vapors must be piped away and not emitted into the atmosphere. May also be used for in-line vacuum relief.

### SPECIAL FEATURES

- Modular:** The Model 3500 pressure only vent with pipe-away is part of the Valve Concepts, Inc. modular vent product line. The Model 3500 is used in the 3200, 4200, and 5200 pressure/vacuum vents with pipeaway and the Model 3600 side mounted vacuum vent.
- Maintains Accurate Settings:** The minimum setting available is down to 0.25 oz/in<sup>2</sup>. Maximum pressure setting upwards to 2 psig. See Vent Weight Table (pg.2). If higher settings are required see Valve Concepts Series 4500 Spring Loaded Vent or Valve Concepts Series 5500 Pilot Operated Vent. All vents are tested to Valve Concepts, Inc. high standard for leakage and set point prior to shipment. A certified test certificate is included with each vent verifying the accuracy. Seat leakage meets or exceeds API Standard 2000.
- 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 evaporation losses. The pallets have outer guiding and center stabilizing stem to provide self alignment and tight seating.
- Sizes-Connections:** Available in Sizes 2" through 12". CS and SST vents mate with standard ASME150# RF flange connections. Aluminum and FRP vents are flat face and mate with standard ASME 150# RF flange connections. On sizes 2" through 6", connections are available with the same size inlet and outlet to reduce outlet piping cost. Ref to positions 3 & 4 on coder for selection of DIN flanges.

### TECHNIQUE

A weight loaded pallet opens and closes allowing the discharge of vapors to the outlet piping to maintain the tank pressure within permissible limits to avoid damage to the tank. A flanged side outlet connection is provided for easy pipe-away of vapors, eliminating their emission into the atmosphere, and allowing compliance with applicable regulations.



MODEL 3500



### LINE SIZES AVAILABLE

2" (DN50), 3" (DN80), 4" (DN100),  
6" (DN150), 8" (DN200), 10" (DN250),  
12" (DN300), 14" (DN350)



### END CONNECTIONS FLANGED



### COMMON APPLICATIONS

WHERE PRESSURE RELIEF IS  
REQUIRED & RELIEVING VAPORS MUST  
BE PIPED AWAY AND NOT EMITTED  
INTO THE ATMOSPHERE



### DESIGN PRESSURE

MULTIPLE SET PRESSURE RANGES  
AVAILABLE

## CONSTRUCTION

**Housing Material:** The Model 3500 is a rugged design made to last. Available in Aluminum, Carbon Steel, 316 Stainless Steel or Corrosion Resistant Fiberglass.

**Trim Material:** 316 SST - Standard on all metal vents. Fiberglass - Standard on all FRP vents.

**Pallet Diaphragm Material:** FEP TFE - Standard. Also available in FKM, EPDM and Buna-N.

MATERIALS OF CONSTRUCTION		
Series	Housing	Pallet *
3500CS	CS	316 SST
3500SST	316 SST	316 SST
3500D	Derakane® 470	Derakane® 470
3500F	Hetron® 800	Hetron® 800
3500A	Aluminum	Alum or 316 SST
* For settings below 0.5 oz/in <sup>2</sup> requires Polycarbonate Pallets; only with CS, SST, and Alum. Derakane, Furan and Hetron are Registered trademarks of Ashland Inc. Hetron is now offered as an equal replacement to Furan.		

## 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 coated. Fasteners, seat surfaces - corrosion resistant parts excluded.

**Diaphragm Temperature Limits:**

FEP-TFE:  
-400° to 400° F (-240° to 204°C)

Fluorocarbon Elastomer – (FKM):  
-20° to 400° F (-28° to 204°C)

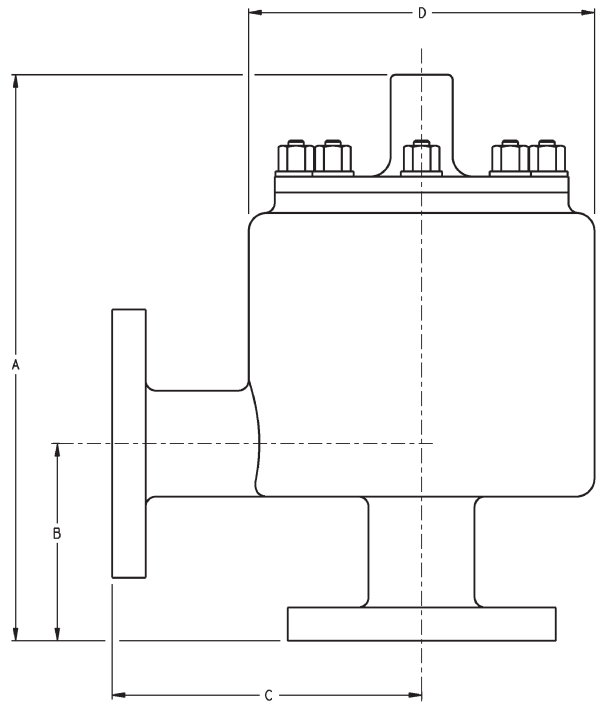
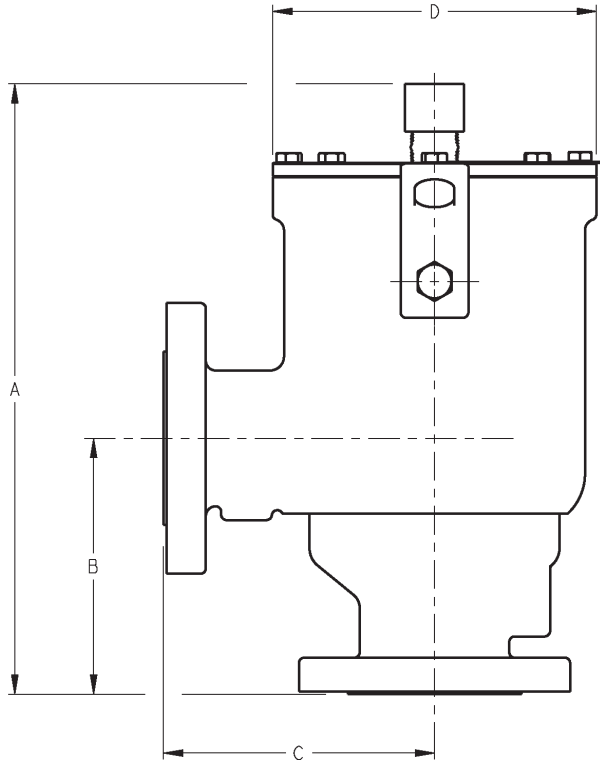
Buna-N (Nitrile-NBR):  
-30° to 200° F (-34° to 93°C)

EPDM (Ethylenepropylene):  
-40° to 225° F (-40° to 107°C)

Size	VENT WEIGHT Set Point Limits oz/in <sup>2</sup>			
	Standard Material		SST Material	
	Min	Max	Min	Max
2"	0.25	30.50	0.25	28.50
3"	0.25	31.50	0.25	32.00
4"	0.25	32.50	0.25	33.00
6"	0.25	30.50	0.25	31.00
8"	0.25	30.00	0.25	30.50
10"	0.25	31.00	0.25	31.50
12"	0.25	29.50	0.25	30.50

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## DIMENSIONS



ENGLISH Units - in Aluminum, Carbon Steel & Stainless Steel Body					Weight lbs.	
SIZE In	A	B	C	D (diam.)	Alum	CS/SST
2" x 2"	13.53"	5.71"	6.00"	7.28"	21	55
2" x 3"	13.53"	6.26"	6.19"	7.28"	22	60
3" x 3"	15.67"	6.91"	6.50"	8.12"	28	76
3" x 4"	15.67"	7.41"	6.50"	8.12"	29	80
4" x 4"	19.34"	8.78"	8.00"	10.88"	44	123
4" x 6"	19.34"	9.78"	8.00"	10.88"	46	128
6" x 6"	21.05"	10.34"	9.00"	12.51"	64	178
6" x 8"	21.46"	11.53"	9.00"	12.51"	68	191
8" x 10"	25.74."	13.72"	11.00"	15.25"	86	241
10" x 12"	28.74"	15.59"	12.25"	18.38"	116	324
12" x 14"	35.62"	21.18"	14.00"	19.12"	148	421

ENGLISH Units - in Corrosion Resistant Fiberglass (FRP) Body				
SIZE In	A	B	C	D (diam.)
2" x 2"	13.73"	4.79"	7.50"	8.38"
2" x 3"	13.73"	5.29"	7.50"	8.38"
3" x 3"	13.79"	5.29"	7.50"	8.38"
3" x 4"	13.79"	5.78"	7.50"	8.38"
4" x 4"	16.61"	5.78"	9.00"	12.75"
4" x 6"	16.61"	6.79"	9.00"	12.75"
6" x 6"	17.27"	6.79"	9.50"	12.75"
6" x 8"	17.27"	7.75"	9.50"	12.75"
8" x 10"	21.75"	9.51"	12.00"	16.75"
10" x 12"	23.13"	10.25"	12.00"	16.38"
12" x 14"	25.81"	11.13"	13.00"	18.50"

METRIC Units - (mm) Aluminum, Carbon Steel & Stainless Steel Body					Weight kg.	
SIZE (DN)	A	B	C	D (diam.)	Alum	CS/SST
(50) x (50)	344	145	152	185	10	25
(50) x (80)	344	159	157	185	10	27
(80) x (80)	398	176	165	206	13	34
(80) x (100)	398	188	165	206	13	36
(100) x (100)	491	223	203	276	20	56
(100) x (150)	491	248	203	276	21	58
(150) x (150)	535	263	229	318	29	81
(150) x (200)	545	293	229	318	31	87
(200) x (250)	654	349	279	387	39	109
(250) x (300)	733	396	311	467	53	147
(300) x (350)	905	538	356	486	67	191

METRIC Units - (mm) Corrosion Resistant Fiberglass (FRP) Body				
SIZE (DN)	A	B	C	D (diam.)
(50) x (50)	349	122	190	213
(50) x (80)	349	134	190	213
(80) x (80)	350	134	190	213
(80) x (100)	350	147	190	213
(100) x (100)	422	147	229	324
(100) x (150)	422	172	229	324
(150) x (150)	439	172	241	324
(150) x (200)	439	197	241	324
(200) x (250)	552	241	305	425
(250) x (300)	588	260	305	416
(300) x (350)	656	283	330	470

# 3500 Series PRODUCT CODE

10/09/20

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

**3 5** POS 3 POS 4 POS 5 **B** POS 7 **0** POS 9 POS 10 **0 0 0 0 0 0 0 0**

POSITION 3 - FLANGE - INLET SIZE			
ASME INCH	CODE	DIN FLANGE DN (rating)	CODE
2"	2	50 (PN16)	H
3"	3	80 (PN16)	J
4"	4	100 (PN16)	K
6"	6	150 (PN16)	L
8" *	8	200 * (PN10)	M
		200 * (PN16)	T
10" *	A	250 * (PN10)	N
		250 * (PN16)	V
12" *	B	300 * (PN10)	P
		300 * (PN16)	W

\* 8" inlet only available w/10" outlet.  
\* 10" inlet only available w/12" outlet.  
\* 12" inlet only available w/14" outlet.

POSITION 4 - FLANGE - OUTLET SIZE			
ASME INCH	CODE	DIN FLANGE DN(rating)	CODE
2"	2	50 (PN16)	H
3"	3	80 (PN16)	J
4"	4	100 (PN16)	K
6"	6	150 (PN16)	L
8"	8	200 (PN10)	M
		200 (PN16)	T
10" *	A	250 * (PN10)	N
		250 * (PN16)	V
12" *	B	300 * (PN10)	P
		300 * (PN16)	W
14" *	C	350 * (PN10)	R
		350 * (PN16)	Y

POSITION 5 - BODY / TRIM MATERIALS		
MATERIAL	Standard	W/ Flame-screen
	CODE	CODE
CS/SST	C	D
SST/SST	S	T
Derakane 470 w/SST Studs	F	-
Derakane 470 w/Hast C Studs	H	-
Hetron 800 w/SST Studs	G	-
Hetron 800 w/Hast C Studs	J	-
ALUM/ALUM	A	B
ALUM/SST	K	L

POSITION 7 - DIAPHRAGM MATERIALS	
DIAPHRAGM	CODE
FEP TFE (Std)	A
Buna-N	B
EPDM	D
FKM	F

POSITION 9 - SIGHT GLASS	
	CODE
None (Std)	0
Sight Glass	1

POSITION 10 - WEIGHT MATERIAL	
Material	CODE
STD	0
ALL SST	S
Encapsulated weight Option For FRP Body Material ONLY	E

See Vent Weight Table (pg.2) for set point limits.

**\* For information on ATEX see pages 12 & 13 on the IOM.**

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