

# MODEL 3400

## PRESSURE ONLY VENT TO ATMOSPHERE

### OVERVIEW

The Model 3400 pressure vents are designed for use on atmospheric and low-pressure storage tanks where pressure relief is required.

### SPECIAL FEATURES

- Easy Inspection:** Easy Inspection: It is light weight for easy handling, inspection and maintenance. Coarse mesh screen prevents entry of foreign matter into seating area.
- Maintains Accurate Settings:** The minimum setting available is down to 0.25 oz/in<sup>2</sup>. Maximum pressure setting 2" - 12" upwards to 2 psig, for 16" - 24" upwards to .5 psig. See Vent Weight Table. If higher settings are required see Valve Concepts Series 4400 Spring Loaded Vent or 5400 Pilot Operated Vent.
- Air-Cushioned Seating:** Vent pallet assembly incorporates a flat, smooth film of FEP Teflon to form a floating air seal. All units are tested to Valve Concepts, Inc. high standards to insure low leakage rates. Seat leakage meets or exceeds API Standard 2000. As with all vents supplied by Valve Concepts, Inc. a certified test report is provided.
- Sizes-Connections:** CS and SST available in sizes 2" through 12" Raised Face Flange; sizes 16" through 24" Flat Face Flange. Aluminum and FRP vents have Flat Face Flange. Both mate with standard ASME 150# flange. Ref to position 4 on coder for selection of DIN or API flange specification.

### TECHNIQUE

Under normal operating conditions, the pallet assembly is closed providing a vapor-tight seal. In the event the tank pressure increases to the set point of the Model 3400, the pallet lifts to vent excess vapors thereby protecting tank from dangerous over-pressurization. Pallet automatically closes and reseals when the pressure is reduced.



MODEL 3400



### LINE SIZES AVAILABLE

2" (DN50), 3" (DN80), 4" (DN100),  
6" (DN150), 8" (DN200), 10" (DN250),  
12" (DN300), 16" (DN400), 18" (DN450),  
20" (DN500), 24" (DN600)



### END CONNECTIONS

FLANGED



### COMMON APPLICATIONS

ATMOSPHERIC & LOW-PRESSURE  
STORAGE TANKS



### DESIGN PRESSURE

MULTIPLE SET PRESSURE  
RANGES AVAILABLE

## CONSTRUCTION

**Flange and Weather Hood Material:** The Model 3400 is a rugged design made to last. Available in Aluminum, Carbon Steel, Stainless Steel or Corrosion Resistance Fiberglass.

**Trim Material:** Aluminum or 316 SST on 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	Flange Housing	Pallet *
3400CS	CS	316 SST
3400SST	304SST or 316 SST	316 SST
3400D	Derakane® 470	Derakane® 470
3400F	Hetron® 800	Hetron® 800
3400A	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 Paste

**Painting:**                      Standard: Exterior coating will be a combination of Cashco Paint Specs #S-1777 epoxy and #S-1743 powder coated. Fasteners, seat surfaces and 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)

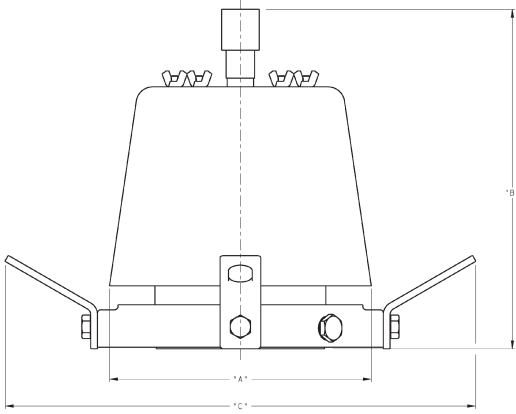
Buna-N (Nitrile-NBR):  
-30° to 200° F (-34° to 93°C)

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

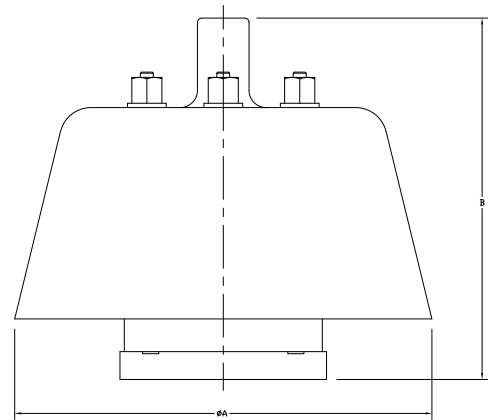
Size	VENT WEIGHT Set Point Limits oz/in <sup>2</sup>			
	Standard Material		SST Material	
	Min	Max	Min	Max
2"	0.25	30.50	0.25	28.50
3"	0.25	31.50	0.25	32.00
4"	0.25	32.50	0.25	33.00
6"	0.25	30.50	0.25	31.00
8"	0.25	30.00	0.25	30.50
10"	0.25	32.00	0.25	31.50
12"	0.25	29.50	0.25	30.50
16"	N/A	N/A	1.00	7.00
18"	N/A	N/A	1.00	7.00
20"	N/A	N/A	1.00	7.00
24"	N/A	N/A	1.00	7.00

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## DIMENSIONS & WEIGHTS

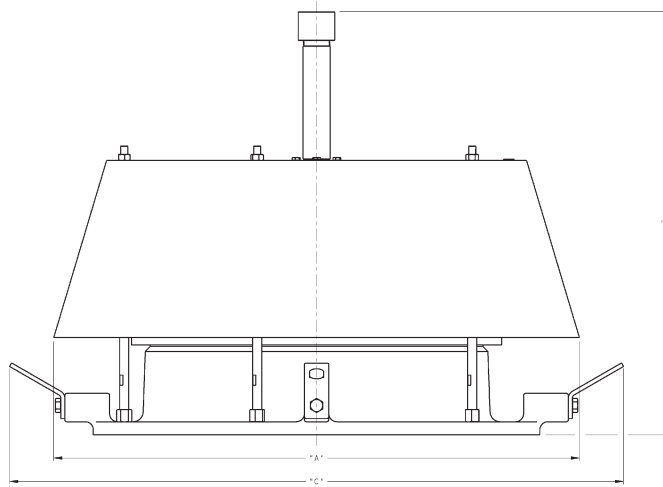


**Standard Construction for Alum, CS & SST**



**Standard Construction for FRP**

Aluminum, Carbon Steel & Stainless Steel Flange & Weather Hood in. (mm)							Weight lbs (kg)	
Size In (DN)	A (diam.)		B		C		Aluminum	CS / SST
2" (50)	7.50"	(191)	9.54"	(242)	N/A	N/A	7 (3)	14 (6)
3" (80)	9.20"	(234)	10.56"	(271)	N/A	N/A	11 (5)	22 (10)
4" (100)	9.62"	(244)	12.50"	(317)	17.29	(439)	16 (7)	32 (14)
6" (150)	13.00"	(330)	14.61"	(371)	19.29	(490)	21 (9)	42 (19)
8" (200)	16.00"	(406)	16.25"	(413)	21.73	(554)	28 (13)	56 (26)
10" (250)	19.06"	(484)	16.92"	(430)	24.29	(617)	36 (16)	75 (34)
12" (300)	24.00"	(610)	19.88"	(505)	27.30	(694)	50 (23)	106 (48)
Corrosion Resistant Fiberglass (FRP) Flange & Weather Hood							Weight lbs (kg)	
2" (50)	12.12"	(308)	10.50"	(267)	N/A	N/A	C/F	C/F
3" (80)	12.12"	(308)	10.50"	(267)	N/A	N/A	C/F	C/F
4" (100)	15.91"	(404)	11.55"	(293)	N/A	N/A	C/F	C/F
6" (150)	16.32"	(414)	13.34"	(339)	N/A	N/A	C/F	C/F
8" (200)	22.35"	(568)	16.16"	(410)	N/A	N/A	C/F	C/F
10" (250)	23.04"	(585)	17.46"	(443)	N/A	N/A	C/F	C/F
12" (300)	26.59"	(675)	18.83"	(478)	N/A	N/A	C/F	C/F



**Standard Construction for Alum & SST**

Aluminum & Stainless Steel Flange & Weather Hood in. (mm)							Weight lbs (kg)	
Size In (DN)	A (diam.)		B		C		Aluminum	SST
16" (400)	30.13"	(765)	18.56"	(472)	N/A	N/A	60 (27)	136 (62)
18" (450)	33.13"	(842)	21.06"	(535)	N/A	N/A	68 (31)	153 (70)
20" (500)	32.38"	(822)	26.00"	(660)	37.79	(953)	94 (43)	243 (111)
24" (600)	39.61"	(1006)	26.00"	(660)	42.79	(1087)	131 (60)	223 (101)

# 3400 Series PRODUCT CODE

10/09/20

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



POSITION 3 - PALLET DESIGN	
Material	CODE
STD	0
No Pallet (Free Vent)	B

POSITION 4 - FLANGE - SIZE			
ASME INCH	CODE	DIN FLANGES PN (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
		250 (PN10)	N
10"	A	250 (PN16)	V
		300 (PN10)	P
12"	B	300 (PN16)	W
		400 (PN16)	1
16"	F	450 (PN16)	5
18"	C	500 (PN16)	7
20"	D	600 (PN16)	9
24"	E		
API 650 Flange Specification			
20"	S	----	----
24"	Z	----	----

FLANGE SIZES	POSITION 5 - FLANGE / TRIM / WEATHERHOOD MATERIALS	
	MATERIAL	Standard CODE
2 - 12"	ALUM/ALUM/SST	A
	CS/SST/CS RF	C
	316SST/SST/SST RF	S
16 - 24"	ALUM/SST/CS	M
	304SST/SST/Alum FF	D
	304SST/SST/CS FF	B
	304SST/SST/SST FF	R
	316SST/SST/SST FF	V
All	ALUM/SST/ALUM	E
	ALUM/SST/SST	K
	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 & FRP vents have Flat Face Flange  
**RF** = Raise Face. **FF** = Flat Face

POSITION 7 - DIAPHRAGM MATERIALS	
DIAPHRAGM	CODE
FEP TFE (Std)	A
Buna-N	B
EPDM	D
FKM	F
No Diaphragm (Free Vent)	0

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

POSITION 10 - WEIGHT MATERIAL	
Material	CODE
STD	0
ALL SST	S
No weight (Free Vent)	P
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 10 & 11 on the IOM.**

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