



# Model 5500 PILOT OPERATED Pressure Vent with Pipe-Away

### **OBJECTIVE**

The Pilot Operated Model 5500 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.

#### **TECHNIQUE**

A pallet in the vent housing opens and closes permitting relief necessary, under working conditions, to avoid tank damage. A flanged side connection is provided for easy pipe-away of vapors, eliminating their emission into the atmosphere, and allowing compliance with applicable regulations.

### CONSTRUCTION

**Body Material:** Available in Aluminum, Carbon Steel or 316 SST.

**Numerous Sizes.** Available in Sizes 2" through 12". CS & SST vents have Raised Face Flange, Aluminum vents have Flat Face Flange to mate with ASME150# flange connections.

**Diaphragm Case Material:** Available in Carbon Steel or Stainless Steel.

**Diaphragm Material:** FKM - Standard; also available Buna-N, EPDM or FEP-TFE.

Pilot Body Material: 316SST.

**Pilot Seat & Seals (o-rings):** FKM - Standard; also available Buna-N, EPDM, FFKM 1 or FFKM 2.

Pilot (Sensing) Diaphragm: FEP-TFE.

## **SPECIAL FEATURES**

**Easy Inspection.** The Model 5500 incorporates the same rugged design found in all Valve Concepts venting devices - they're made to last. The main valve seat can easily be inspected without affecting the set point. The pilot assembly uses standard o-rings. No special seal diaphragm or proprietary molded elastomers. Maintenance is easy and less expensive.

**Maintains Accurate Settings.** The standard minimum setting is 1.2 inches WC on all sizes. Maximum pressure setting is 15 psig. A certified test certificate is included with each vent verifying the accuracy.

**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.

MATERIALS OF CONSTRUCTION					
Series Housing Trim Diaphragm Cases Tube & Fittings					
5500CS	CS	316 SST	CS	CS	
5500SST	316 SST	316 SST	SST	SST	
5500A	Aluminum	Aluminum	CS	CS	

# STANDARD/GENERAL SPECIFICATIONS

# Spring Ranges:

PRESSURE RANGE				
in WC	(mbar)			
1.2" to 2.0" *	(2.9 to 4.9) *			
2.1" to 12.0"	(4.9 to 29.9)			
12.1" to 18.0"	(30.0 to 44.8)			
18.1" to 36.0"	(44.9 to 89.4)			
36.1" to 41.7"	(89.5 to 103.5)			
41.8" to 86.0"	(103.6 to 214)			
PSIG (Barg)				
3.2 to 15.0 psig	(0.22 to 1.03 bar)			
* Proceure renge 1.2" to 4.0" MC require				

Pressure range 1.2" to 4.0" WC require external air assist to the pilot.

Diaphragm FEP-TFE:

> Temperature -400° to 400° F (-240° to 204°C) Limits: FKM (Fluorocarbon Elastomer):

-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)

Seat & Seal **Materials** 

FKM (Fluorocarbon Elastomer): -15° to 300° F (-26° to 149° C)

Temperature Buna-N (Nitrile-NBR): Limits:

-40° F to 212° F (-40° C to 100° C)

EPDM (Ethylenepropylene):

-55° F to 212° F (-48° C to 100° C)

FFKM 1 (Perfluoroelastomer):

-22° F to 400° F (-30° C to 204° C)

FFKM 2 (Perfluoroelastomer):

-40° F to 400° F (-40° C to 204° C)

Painting:

Standard: Exterior coating will be a combination of Cashco Paint Specs #S-1777 epoxy and #S-1743 powder coated. Tubing, fasteners, seat surfaces - corrosion resistant

parts excluded.

Alternate Paint: See Opt-95OS.

### OPTION SPECIFICATIONS

**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.

**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.

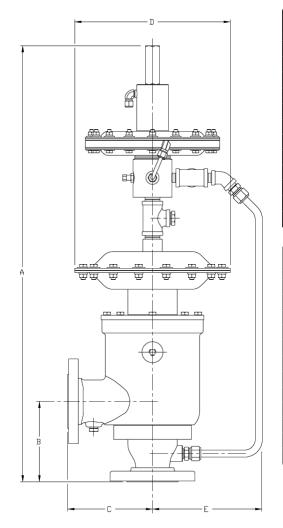
Option -40:

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 -950S: OFFSHORE installations. Coating of all exterior surfaces will be per Cashco Paint Specs #S-1777 epoxy. Tubing, fasteners, seat surfaces - corrosion resistant parts excluded. Painting of tubing and fasteners optional upon special request.

2 5500-TB

# **DIMENSIONS**



ENGLISH Units - in Aluminum, Carbon Steel & Stainless Steel						Weigh	t - Ibs.
SIZE In	Α	В	С	D (diam)	E	Alum	CS / SST
2" x 2"	31.00	5.70	6.00	11.00	7.75	44	88
2" x 3"	31.00	6.25	6.19	11.00	7.75	46	92
3" x 3"	33.12	6.91	6.50	11.00	7.75	52	105
3" x 4"	33.12	7.41	6.50	11.00	7.75	54	108
4" x 4"	39.88	8.78	8.00	16.50	9.25	80	160
4" x 6"	39.88	9.78	8.00	16.50	9.25	82	164
6" x 6"	41.50	10.34	9.00	16.50	9.25	103	207
6" x 8"	41.50	11.53	9.00	16.50	9.25	109	218
8" x 10"	45.88	13.72	11.00	23.81	12.94	179	358
10" x 12"	48.50	15.59	12.25	23.81	13.25	221	441
12" x 14"	54.75	21.18	14.00	23.81	13.38	268	536

Alu	I minum,	Weigh	nt - kg.				
SIZE (DN)	Α	В	С	D (diam)	E	Alum	CS / SST
(50) x (50)	787	145	152	279	197	20	40
(50) x (80)	787	159	157	279	197	21	42
(80) x (80)	841	175	165	279	197	24	47
(80) x (100)	841	188	165	279	197	25	49
(100) x (100)	1013	223	203	419	235	36	73
(100)x (150)	1013	248	203	419	235	37	75
(150) x (150)	1054	263	229	419	235	47	94
(150) x (200)	1054	293	229	419	235	49	99
(200) x (250)	1165	348	279	605	329	81	163
(250) x (300)	1232	396	311	605	336	100	200
(300) x (350)	1391	538	356	605	340	122	243

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. We reserve the right to modify or improve the designs or specifications of such product at any time without notice.

Cashco, Inc. does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Cashco, Inc. product remains solely with the purchaser.

5500-TB 3

# 5500 Series PRODUCT CODE

02/15/16

Last 6 Characters reserved for SPQ drawing numbers assigned by Cashco Inc.

(Format as - # # # # #)





POS 4

POS 5

















0









	POSITION 3 - INLET SIZE				
INCH	CODE	CODE DIN FLANGE DN (rating)			
2"	2	50 (PN16)	Н		
3"	3	80 (PN16)	J		
4"	4	100 (PN16)	K		
6"	6	150 (PN16)	L		
8" *	8	200 * (PN10)	М		
0		200 * (PN16)	Т		
10" *	۸	250 * (PN10)	N		
10	Α	250 * (PN16)	V		
12" *	В	300 * (PN10)	Р		
12	В	300 * (PN16)	W		

*	8"	inlet	only	available	w/10"	outlet.
*	10'	' inlo	t only	, available	W/10	' outlot

<sup>\*10&</sup>quot; inlet only available w/12" outlet. \* 12" inlet only available w/14" outlet.

POSITION 4 - OUTLET SIZE					
INCH	NCH CODE DIN FLANGE DN (rating)		CODE		
2"	2	50 (PN16)	Н		
3"	3	80 (PN16)	J		
4"	4	100 (PN16)	K		
6"	6	150 (PN16)	L		
8"	8	200 (PN10)	М		
0		200 (PN16)	Т		
10" *	۸	250 * (PN10)	N		
10	Α	250 * (PN16)	V		
12" *	В	300 * (PN10)	Р		
12 "	В	300 * (PN16)	W		
14" *	_	350 * (PN10)	R		
14	С	350 * (PN16)	Y		

POSITION 5 - BODY / TRIM MATERIALS					
Material	W/O Flame- screen	W/Flamescreen			
	CODE	CODE			
ALUM/ALUM *	Α	В			
ALUM/SST * K		L			
CS/SST	D				
SST/SST S T					
* Alum vents have Flat Face flange					

POSITION 8 - PRESSURE RANGES	Std. Constr.	W/ AIR ASSIST
Spring Range	CODE	CODE
1.2" - 2.0" WC (2.9 - 4.9 mbar)		L
2.1" - 12.0" WC (4.9- 29.9 mbar)	3	С
12.1" - 18.0" WC (30.0 - 44.8 mbar)	6	D
18.1" - 36" WC (44.9 - 89.4 mbar)	7	E
36.1" - 41.7" WC (89.5 - 103.5 mbar)	8	F
41.8" - 86.0" WC (103.6 - 214 mbar)	9	J
3.2 - 15.0 psig (0.22 - 1.03 bar)	Н	K

<sup>\*</sup> Pressure range 1.2" to 4.0" WC require external air assist to the pilot.

POSITION 9 - PILOT SEAT / MAIN VALVE SEALS / DIAPHRAGM				
Materials CODE				
Buna-N / Buna-N / Buna-N	В			
FFKM 1 / FEP / FEP	С			
EPDM / EPDM / EPDM *	E			
Buna-N / FEP / FEP	J			
FFKM 2 / FEP / FEP	К			
FKM / FKM / FKM	V			
* Not recommended for NACE	Service			

	POSITION 11 - OPTIONS (Opt. 2 - 6 Pilot Exhaust to Main Valve Outlet)	Std Paint	Offshore Paint Opt-95OS
	Sensing Configuration & Accessory Options		CODE
Standard:	Internal Sensing, Exhaust to Main Valve Outlet	0	W
OPT 1:	Internal Sensing, Exhaust to Atmosphere	1	V
OPT 2:	Remote Sensing	2	Т
OPT 3:	Internal Sensing, with Manual Blowdown Valve	3	S
OPT 4:	Internal Sensing, with Backflow Preventer	4	N
OPT 5:	Internal Sensing, with Backflow Preventer & Field Test Connection	5	R
OPT 6:	Internal Sensing, with Rotometer to Purge Pilot Sense & Discharge Lines	6	Р
OPT 7:	Internal Sensing, Exhaust to Atmosphere with Rotometer to Purge Pilot Sense Line	7	М
OPT 8:	Internal Sensing, Exhaust to Atmosphere with Backflow Preveter & Field Test Connection	8	9
OPT A:	Internal Sensing, Exhaust to Atmosphere with Manual Blowdown Valve	Α	В
OPT 10:	Internal Sensing, Exhaust to Atmosphere with Backflow Preventer	D	J

Cashco, Inc.
P.O. Box 6
Ellsworth, KS 67439-0006
PH (785) 472-4461
Fax. # (785) 472-3539
www.cashco.com
email: sales@cashco.com
Printed in U.S.A. 5500-TB

Cashco GmbH Handwerkerstrasse 15 15366 Hoppegarten, Germany PH +49 3342 30968 0 Fax. No. +49 3342 30968 29 www.cashco.com email: germany@cashco.com Cashco do Brasil, Ltda. Al.Venus, 340 Indaiatuba - Sao Paulo, Brazil PH +55 11 99677 7177 Fax. No. www.cashco.com email: brazil@cashco.com

POSITION 12 - ACCESSORY / CERTS						
		Certification				
OPTION	Std	ATEX *	PED *	NACE		
	CODE	CODE	CODE	CODE		
None	0	Α	Е	1		
Electric Trace	Н	В	F			
Steam Trace	S	D	K			

<sup>\*</sup> Forward Completed "EU" Application Recorder prior to quotation. (Without Recorder- Processing of Purchase Order will be delayed). **PED** includes both ("SEP" & "CE") Compliance - Ref to Directive 2014/68/EU. Contact Cashco for Assistance.