

94021 Conservation Vent (Pressure & Vacuum)

The Shand & Jurs Model 94021 Conservation Vent is designed utilizing over 90 years of experience in producing high quality and dependable conservation fittings. Continued design improvements provide these vents with high efficiency, maximum flow capacity and minimum leakage. The easily serviceable configuration and lightweight construction reduces maintenance and installation costs.

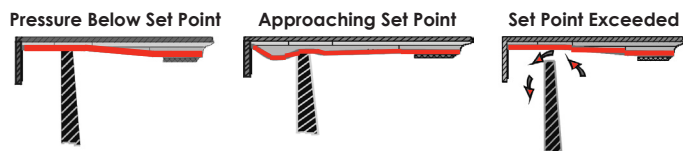
A variety of construction materials are available as part of the standard design which are ideally suited for highly corrosive and toxic product applications. Aluminum, 316 Stainless Steel or Carbon Steel body vents comes standard with integral seats.

The standard FEP diaphragm is "Air Cushion Seated" for high resistance to adhesion of ice and gum formation thus assuring protection against pallet sticking to the seating surface. The body is self-draining towards the inlet which keep condensates from the seating surfaces. The carefully engineered body, seat, and pallet assembly results in a superior combination of tight sealing and high capacity at low over-pressure with minimal blow down.

Expanda-Seal

Shand & Jurs "Expanda-Seal" option is available on all pressure pallet assemblies. This feature significantly reduces leakage. The ballooning effect of the FEP Diaphragm effectively seals the valve.

The "Expanda-Seal" feature ensures less than 0.5 SCFH of air at 95% of the set point.



Closed Vent

Features

- Suitable materials available for corrosive/extreme temperature service
- Palletreaction lip for smooth left and reseating
- Vertical lift pallets assure reliable operation and maximum flow
- Floating diaphragm results in a positive seal and minimal blow-down
- "All weather" coating, insulation jackets and steam jacketing options available
- Capacity certified to API Standards

Conservation Vent Specifications:

Sizes:

2" x 3", 3" x 4", 4" x 6", 6" x 8", 8" x 10", 10" x 12"

Settings:

Standard Pressure & Vacuum: 0.5 oz/in²
(.865 in. W.C.)

Expanda-Seal Pressure Setting:

1.5 oz/in² Minimum (Consult Factory for lower settings)

Temperature Range:

Process Temperature ranges for body material:
-50°F to 250°F (Aluminum)
-50°F to 350°F (316 Stainless Steel)
-20°F to 220°F (Carbon Steel)

Type of Flange Connection:

Flanged all sizes

Raised face flange available, except for aluminum body material.

Materials of Construction

Body:

Cast Aluminum, Cast Steel or 316 Stainless Steel

Closed Vent Cover:

Aluminum, Steel or Stainless Steel

Pallet/Retainer:

Aluminum or 316 Stainless Steel

Integral Seat:

Aluminum, Steel with 316 Stainless Steel Overlay or 316 Stainless Steel

Stem Guide:

Galvanized Steel or Stainless Steel

Screen:

Galvanized Steel or Stainless Steel

Diaphragm:

FEP (Fluorinated Ethylene Propylene), FKM (Fluoroelastomer), NBR (Nitrile-Butadiene), PFA (Fluoroplastic Film)

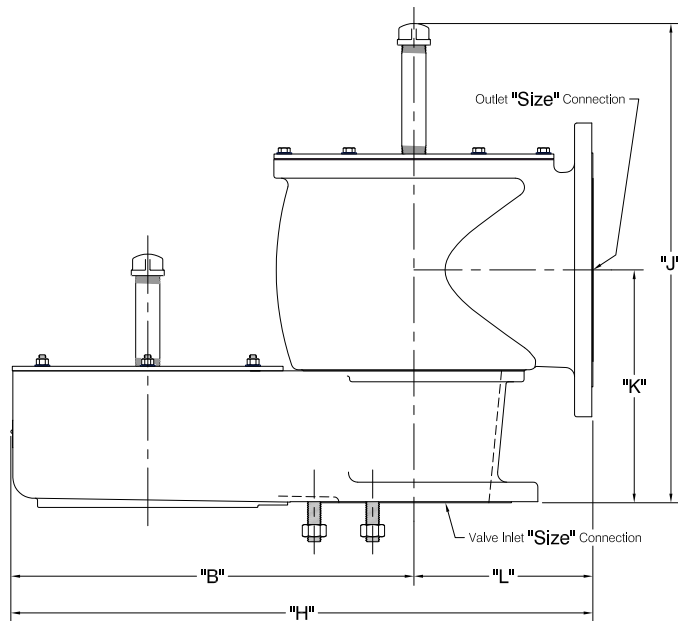
Back-up Disc:

Fiber, Glass Filled Teflon (GPTFE)

Closed Vent Cover Gasket:

Fiber, Glass Filled Teflon (GPTFE), FKM (Fluoroelastomer), NBR (Nitrile-Butadiene)

94021 Closed Vent



Valve Size	Outlet Size	"H"	"J"	"K"	"L"	"B"
2"	3"	13	11 1/8	5 1/32	4 1/4	8 3/4
3"	4"	16 3/16	13 3/4	5 31/32	5 1/4	10 15/16
4"	6"	19 1/4	15 3/4	7 1/32	5 15/16	13 5/16
6"	8"	26 3/16	21 1/4	10 11/32	8 1/4	17 15/16
8"	10"	31 5/8	26 3/16	12 23/32	9 3/4	21 7/8
10"	12"	37 7/8	30 1/4	14 29/32	11 19/32	26 9/32
12"	14"	43 3/8	33 7/8	16 29/32	12 13/16	30 9/16

NOTES:

1. Connection size matches ANSI, EN1092-1 & JIS.
2. **Mounting Holes straddle centerline except: 2" & 3" sizes; holes are on centerline.**
3. Dimensions expressed in inches within +/- 1/8.
4. Raised faced flanges with smooth finish are standard. For optional serrated raised faced flanges, consult factory.

All designs subject to change. Certified dimensions and specifications available upon request

94021 Ordering Guide

Conservation Vents provide tank venting and breathing with high efficiency, maximum flow capacity and minimum leakage. Standard materials of construction include low copper aluminum, cast iron, ductile iron, cast steel, and 316 Stainless Steel.

Benefits

- Low copper aluminum alloy construction reduces need for special materials in corrosive and extreme temperature service
- Capacity certified in accordance with API standards
- Expanda-Seal diaphragm for reduced leakage
- Unique floating diaphragm construction assures positive seal and minimal blowdown, thus conserving valuable tank content
- Peripheral and stem guided pressure pallet assures smooth lift and closure

Model Number Selection

The model number will have a base number 94020 followed by 8 digit numbers.

94021 - A - B - C - D - E - F - G - H

***NOTE:** If ATEX (A) Unit is required, please use 94021A A B C D E F G H.
If CE (C) Unit is required, please use 94021C A B C D E F G H.

Ordering Information

Specify:

1. Model 94021 Conservation Vent
2. Size and Body Material
3. Closed Vent or Vent to Atmosphere
4. Pressure and Vacuum Settings (if other than normal setting)
5. Optional Materials of Construction, as Required
6. To Specify ATEX Certification for II 1 G Ex h II B T1...T6 Ga EU Locations use 94021A A B C D E F G H. ATEX Certification includes CE Mark.

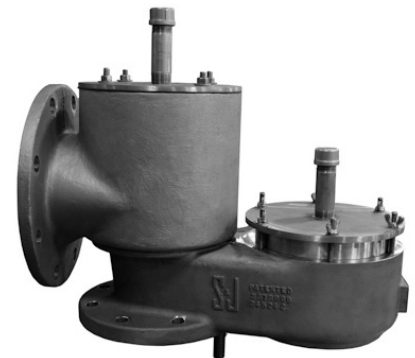


Table A - Size (Body & Flanges)

Table A	Size
2	2" x 3"
3	3" x 4"
4	4" x 6"
6	6" x 8"
8	8" x 10"
0	10" x 12"
1	12" x 14"

Table B - Body (Casting) Material & Flange Type

Table B	Body Material	Flange Type
A	Aluminum I-ST	ANSI-FF 150#
B	Cast Steel I-ST	ANSI-FF 150#
C	Cast Steel I-ST	ANSI-RF 150#
D	316SS I-ST	ANSI-FF 150#
E	316SS I-ST	ANSI-RF 150#
F	Aluminum I-ST	EN1092-1 PN16 FF
G	Cast Steel I-ST	EN1092-1 PN16 FF
H	Cast Steel I-ST	EN1092-1 PN16 RF
I	316SS I-ST	EN1092-1 PN16 FF
J	316SS I-ST	EN1092-1 PN16 RF
K	Aluminum R-ST / 316 Seat	ANSI-FF 150#
L	Aluminum R-ST / 316 Seat	EN1092-1 PN16 FF
M	Aluminum R-ST (Teflon Coat)	ANSI-FF 150#
N	Cast Steel I-ST (Teflon Coat)	ANSI-FF 150#
O	Cast Steel I-ST (Teflon Coat)	ANSI-RF 150#
P	316SS I-ST (Teflon Coat)	ANSI-FF 150#
Q	316SS I-ST (Teflon Coat)	ANSI-RF 150#
R	Aluminum I-ST (Teflon Coat)	EN1092-1 PN16 FF
S	Cast Steel I-ST (Teflon Coat)	EN1092-1 PN16 FF
T	Cast Steel I-ST (Teflon Coat)	EN1092-1 PN16 RF
U	316SS I-ST (Teflon Coat)	EN1092-1 PN16 FF
V	316SS I-ST (Teflon Coat)	EN1092-1 PN16 RF
W	Aluminum R-ST / 316 Seat (Teflon Coat)	ANSI-FF 150#
X	Aluminum R-ST / 316 Seat (Teflon Coat)	EN1092-1 PN16 FF

Table C - Size (Setting, Pallet & Wgt)

Table C	Pallet Type
2	2"
3	3"
4	4"
6	6"
7	8"
0	10"
1	12"

Table D - Setting & Pallet Type & Weight

Table D	Pallet Type
A	LOW / Standard / Lead
B	MED / Standard / Lead
C	HIGH / Standard / Lead
D	LOW / Standard / 316
E	MED / Standard / 316
F	HIGH / Standard / 316
G	LOW / Expanda/ Lead
H	MED / Expanda/ Lead
I	HIGH / Expanda/ Lead
J	LOW / Expanda / 316
K	MED / Expanda / 316
L	HIGH / Expanda/ 316
M	LOW / Standard / Lead (Teflon Coat)
N	MED / Standard / Lead (Teflon Coat)
O	HIGH / Standard / Lead (Teflon Coat)
P	LOW / Standard / 316 (Teflon Coat)
Q	MED / Standard / 316 (Teflon Coat)
R	HIGH / Standard / 316 (Teflon Coat)
S	LOW / Expanda/ Lead (Teflon Coat)
T	MED / Expanda/ Lead (Teflon Coat)
U	HIGH / Expanda/ Lead (Teflon Coat)
V	LOW / Expanda / 316 (Teflon Coat)
W	MED / Expanda / 316 (Teflon Coat)
X	HIGH / Expanda/ 316 (Teflon Coat)

LOW (Standard) = 0.5 oz/in2 to 3 oz/in2 MEDIUM = 3.01 oz/in2 to 8 oz/in2
 LOW (Expanda) = 1.5 oz/in2 to 3 oz/in2 HIGH = 8.01 oz/in2 to 16 oz/in2

Option "CD" kits come with FEP diaphragm
 and N8090 / Buna-N Softgoods as Standard

Table E - Certification

Table E	Description
1	Standard
2	ATEX

Table F - Size (Setting, Pallet & Wgt)

Table F	Description
0	None
1	Limit Switch - Pressure
2	Limit Switch - Vacuum
3	Steam Jacket
4	LOX Cleaning
5	Incremental Weights