

## 94142 Spring Loaded Pressure Relief Vent

The Shand & Jurs Model 94142 Spring Loaded Pressure Relief Vent reduces excessive venting of product in liquid storage tanks. Available for open or closed vent systems, this vent provides pressure relief by either venting vapor into the atmosphere or piping emissions in a closed loop system.

Available in 2"- 12" sizes, this vent is all weather for all materials and services. Higher pressure settings are accommodated using a unique method of spring loading which ensures highly reliable operation and reduces excessive venting of product at a relatively low cost. Pressure settings range from 1 psig through 15 psig for all sizes except 12" which has a maximum of 12 psig. Flange connections match ANSI 150 lb. raised face or flat face for cast iron, steel and stainless steel construction. Aluminum construction comes in ANSI 150 lb. flat face flange only.

Standard materials offered are aluminum, cast steel and 316 stainless steel. Standard seats are aluminum and 316 stainless steel.

The pallet to seat diaphragm is air cushion seated FEP for long service life and optimum reliability. This diaphragm helps to ensure a high resistance to any ice and gum formations, prevents the pallet from sticking to the seat. The carefully engineered body, seat and pallet offers a superior combination of tight sealing and high capacity at lower over-pressure.

An Expanda-Seal is available on the pressure pallet to assure minimal leakage up to 95% of set pressure.

One of the most important features which should be noted in the Model 94142 design is the variety of construction materials available. A wide range of highly corrosive and toxic products common to the petroleum, petro-chemical and chemical industries, require that a pressure vent be able to withstand this environment and still function reliably. For few instances where our standard materials may not be suitable, optional materials are readily available.



### Features

- Aluminum, cast iron, steel or stainless steel
- Pressure range between 1 and 15 PSIG, 12 PSIG Max. for 12" size
- All-Weather Teflon Coating available
- Guided pressure pallet assures smooth lift and closure
- Unique diaphragm construction assures positive seal and minimal blowdown
- Easy inspection of internal components
- Withstands variety of materials including highly corrosive and toxic products
- Pallet lip design contributes to high flow characteristics

# 94142

## Spring Loaded Pressure Relief Vent

# SHAND & JURS

### Specifications

#### Standard Pressure Setting Range:

1-15 psig for 2"-10" sizes

1-12 psig for 12" size

#### Flanges:

Matches valve size 150 lb. ANSI compatible.

EN1092-1 PN16

Aluminum available in Flat Face only.

#### Temperature Range:

Process Temperature ranges for body material:

-65°F to 250°F (Aluminum)

-65°F to 350°F (316 Stainless Steel)

-20°F to 350°F (Carbon Steel)

#### Sizes:

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

### Materials of Construction

#### Body:

Aluminum, Steel or 316 Stainless Steel available

#### Seat:

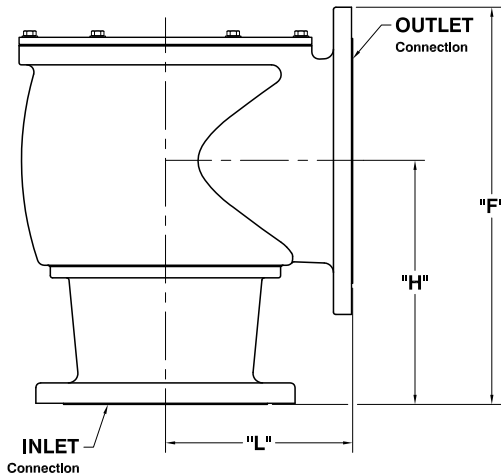
Aluminum or 316 Stainless Steel

#### Diaphragm:

FEP (Fluorinated Ethylene Propylene), FKM (Fluoroelastomer),

NBR (Nitrile-Butadiene), PFA (Fluoroplastic Film)

### Closed Vent Outline Dimensions



Vent Size*	"F"	"H"	"L"
2" x 2"	8	5	4 1/4
3" x 3"	9 5/16	5 9/16	5 1/4
4" x 4"	11 1/2	7	6 1/2
6" x 6"	14 7/8	9 3/8	8 3/8
8" x 8"	18 7/16	11 1/16	9 3/4
10" x 10"	21 7/8	13 7/8	11 19/32
12" x 12"	25 3/4	16 1/4	12 13/16

Tolerances:  $\pm \frac{1}{16}$

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

# SHAND & JURS

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Rev: 94142-4A

## 94142 Ordering Guide

### Model Number Selection

The model number will consist of a base number **94142** followed by 8 digit numbers. These digits will represent 6 option tables.

**94142 - AB - CD - EF - GH**

### Ordering Information

Specify:

1. Model 94142 Spring Loaded Pressure Only Relief Vent
2. Size, Body Material, and Service
3. Type of Vent
4. Pressure Setting and process Temperature
5. Seal Type
6. To Specify CE for Ordinary EU Locations
7. ATEX Certification for II 1 G Ex h II B T1...T6 Ga EU Locations



**Table A - Size (Body & Flange)**

Option A/C/E	Description
2	2" x 2"
3	3" x 3"
4	4" x 4"
6	6" x 6"
8	8" x 8"
0	10" x 10"
1	12" x 12"

**Table B - Body (Casting) Material & Flange Type**

Option 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-FF 150#
D	316SS I-ST	ANSI-FF 150#
E	316SS I-ST	ANSI-FF 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 FF
I	316SS I-ST	EN1092-1 PN16 FF
J	316SS I-ST	EN1092-1 PN16 FF

**Table C/E - Size (Size of Pallets)**

Option C/E	Description
2	2"
3	3"
4	4"
6	6"
8	8"
0	10"
1	12"

**Table D - Pallet Type & Material**

Option D	Description
A	Standard Aluminum
B	Standard 316SS
C	Expanda Seal Aluminum
D	Expanda Seal 316SS

**Table F - Spring Ranges**

Option F	Description
A	1.0 PSIG - 2.0 PSIG
B	2.1 PSIG - 3.0 PSIG
C	3.1 PSIG - 4.0 PSIG
D	4.1 PSIG - 5.0 PSI
E	5.1 PSIG - 6.0 PSIG
F	6.1 PSIG - 7.0 PSIG
G	7.1 PSIG - 8.0 PSIG
H	8.1 PSIG - 9.0 PSIG
I	9.1 PSIG - 10.0 PSIG
J	10.1 PSIG - 11.0 PSIG
K	11.1 PSIG - 12.0 PSIG
L	12.1 PSIG - 13.0 PSIG
M	13.1 PSIG - 14.0 PSIG
N	14.1 PSIG - 15.0 PSIG

**Table GH - Options**

Option GH	Description
10	None
20	ATEX*