

# 94560 Combination Conservation Vent and Flame Arrester

The Shand & Jurs 94560 Combination Vent and Flame Arrester design provides for maximum flow capacity, minimum leakage and a positive flame stop on low pressure tanks containing flammable liquids or solvents having low flash points. This single piece of equipment provides pressure/vacuum venting and a flame arrester. Only one installation is required for both the venting and flame arrester functions.

The conservation vent portion of the unit features diaphragms that are cushion seated and constructed of FEP for reliability and extended service life. This contributes to high resistance to adhesion of ice and gum formations of the pallet and its seating surfaces. The body of the vent is self-draining and drip rings keep condensation from the seating surfaces.

FM approved, the flame arrester contains a unitized tube bank. The tube bank is formed by spirally winding alternate flat and corrugated sheet stock around a solid core, maximizing flow capacity and minimizing pressure drop. This proven design insures uniformity of free area flow and allows for years of dependable service.

Quick access to the flame arrester element is attained through use of swing bolts and a hinged conservation vent. Once the wing nuts are loosened, the bolts swing away and the vent lifts clear, the flame arrester element can be accessed for inspection and servicing.

The conservation vent is weight loaded for both vacuum and pressure venting. The conservation vent is located on top of the flame arrester body and is attached by using quick release bolts and hinge. This permits easy removal of the conservation vent for inspection and/or replacement of the flame arrester tube bank. The weather hood of the conservation vent is stainless steel.

Standard pressure and vacuum settings are 1/2 oz./in.<sup>2</sup> with maximum pressure settings of 24 oz./in.<sup>2</sup> and 5 oz./in.<sup>2</sup> for vacuum. Its flow capacity is certified in accordance with API standards.

Shand & Jurs 94560 Combination Conservation Vent and Flame Arrester is available in 2, 3 and 4 inch sizes with flat or raised face flanges to match drilling of ANSI 150lb. specifications. Standard construction includes lightweight cast aluminum, cast steel and 316 stainless steel as standard. For highly corrosive and severe conditions, special materials are available. Steam jacketing is available as an option.



# **Features**

- 2"-4" Sizes available
- Unitized tube bank design, FM Approved
- Maximum protection and efficiency with minimum pressure drop
- Weight loaded for both vacuum and pressure venting
- Attached with quick release bolts and hinae
- Wide range of standard construction materials available
- Three inlet types: screwed, flat face flange and raised face flange





## **Specifications**

#### Sizes:

2", 3", 4"

## Pressure & Vacuum Settings:

Standard Settings: 0.5 oz./in.<sup>2\*</sup>

Pressure: 24 oz./in.² (Maximum) Vacuum: 5 oz./in.² (Maximum)

### Flange Rating:

To match drilling of ANSI 150 lb. flat face or raised face (cast aluminum body option available with flat face only). NPT inlet options available.

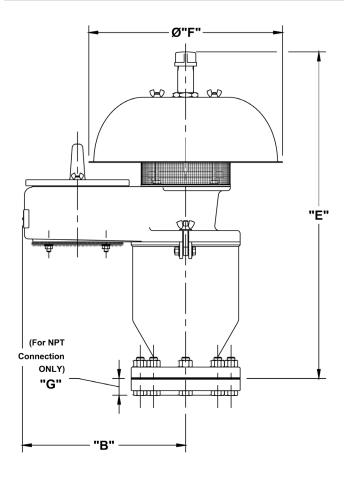
## Approval / Gas Application:

FM (Factory Mutual), NEC Group D

## **Materials of Construction**

- Aluminum body, Aluminum tube bank and vent internals\*
- Cast Steel body, 316 Stainless Steel tube bank and vent internals\*
- 3. 316 Stainless Steel Body, 316 Stainless Steel tube bank and vent internals\*
- 4. 316 Stainless Steel tube bank and vent internals\*

## **Outline Dimensions**



Vent Size	"B"	"E"	Diameter "F"	NPT Only: "G"
2"	8 3/4	19 15/16	12 %	1 1/16
3"	11 1/8	23 %	13 %6	1 1/4
4''	13 %	26 15/16	15 15/16	1 3/8

#### NOTES:

- 1. Flange Sizes to match 125lb. FF, 150lb. RF ANSI Flange.
- 2. Mounting Holes are on centerline.
- 3. Dimensions expressed in inches

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



<sup>\*</sup> Expanda-Seal Pressure Setting: 1.5 oz./sq. in. Minimum (Consult Factory for lower settings)

 $<sup>\</sup>mbox{\ensuremath{^{*}}\xspace}\xspace Vent Internals: Seats and Pallets Vertical Lift Vacuum Pallet (Cage Guided).$ 



# 94560 Ordering Guide

### **Model Number Selection**

The model number will consist of a base number 94560 followed by 4 digit numbers. These digits will represent 3 option tables.

94560 - AB - CD

## **Ordering Information**

#### Specify:

- 1. Model 94560 Combination Conservation Vent & Flame Arrester
- 2. Size
- 3. Material
- 4. Flange Type
- 5. Pressure Range



# Table AB - Size, Material & Inlet Flange Type

Option AB	Size	Type of Connection	Material
14	2"	Flat Face Flange	Aluminum
34	2"	Flat Face Flange	Cast Steel
44	2"	Flat Face Flange	316 Stainless Steel
37	2''	Raised Face Flange	Cast Steel
47	2''	Raised Face Flange	316 Stainless Steel
11	2''	Threaded	Aluminum
31	2''	Threaded	Cast Steel
41	2"	Threaded	316 Stainless Steel
15	3''	Flat Face Flange	Aluminum
35	3''	Flat Face Flange	Cast Steel
45	3"	Flat Face Flange	316 Stainless Steel
38	3"	Raised Face Flange	Cast Steel

Option AB	Size	Type of Connection	Material
48	3''	Raised Face Flange	316 Stainless Steel
12	3''	Threaded	Aluminum
32	3"	Threaded	Cast Steel
42	3"	Threaded	316 Stainless Steel
16	4''	Flat Face Flange	Aluminum
36	4''	Flat Face Flange	Cast Steel
46	4''	Flat Face Flange	316 Stainless Steel
39	4''	Raised Face Flange	Cast Steel
49	4''	Raised Face Flange	316 Stainless Steel
13	4''	Threaded	Aluminum
33	4''	Threaded	Cast Steel
43	4''	Threaded	316 Stainless Steel

Note: Raised faced flanges with smooth finish are standard. For optional serrated raised faced flanges, consult factory.





# Table C - Seal Type & Softgoods

Option C	Seal Type & Softgoods
0	Normal FEP
1	Expanda-Seal FEP
4	Normal FKM
5	Expanda-Seal FKM
А	Normal Low Blow Down FEP
В	Expanda-Seal Low Blow Down FKM

## **Temperature Limits**

Diaphragm Material	Temperature Range
FEP	-65 F to 400 F
FKM	-15 F to 400 F

FEP = Fluorinated Ethylene Propylene

FKM = Fluoroelastomer

Table D - Pressure Range

Option D	Description	Material
1	Standard Setting*	Lead
2	Over 2.9 oz./in. <sup>2</sup>	Lead
3	Standard to 2.9 oz./in. <sup>2</sup>	Lead
4	Standard Setting*	316 Stainless Steel
5	Over 2.9 oz./in. <sup>2</sup>	316 Stainless Steel
6	Standard to 2.9 oz./in. <sup>2</sup>	316 Stainless Steel

<sup>\*</sup> Standard Setting; Pressure and Vacuum: .5 oz./in.<sup>2</sup> Expanda-Seal Pressure Setting: 1.5 oz./in.<sup>2</sup> Minimum Consult Factory for lower settings.

L&J Technologies or any of it's subsidiaries assume no responsibility and shall not be liable for any damage, injury or death caused by the mis-application or improper installation of the products that it provides. Installation shall be per manufacturer's instructions in accordance to any applicable local, state or federal regulations. It is the responsibility of the purchaser to ensure these guidelines are followed and that the products are applied properly.

