

94406 Vertical Inline Deflagration Flame Arrester

The Shand & Jurs 94406 Vertical Inline Deflagration Flame Arresters are designed to provide a positive flame stop on low pressure tanks or piping systems containing flammable liquids or solvents having a low flash point. The 94406 not only provides exceptional protection against propagation of flame from external source, but also offers maximum flow capacity.

Shand & Jurs Vertical Inline Deflagration Flame Arresters are generally installed with pressure-vacuum vents, or in-line low pressure piping systems. The tube bank design consisting of a spiral-wound crimped ribbon around a solid core, maximizes flow capacity with minimum pressure drop. The standard flame arrester is Factory Mutual (FM) approved to meet the ATEX application requirements per EN 12874 and ISO 16852.

Periodic inspection, maintenance and replacement of the tube bank is easily accomplished by simply removing tie-bolts and minimally expanding the remaining jack screws. Once the upper and lower body sections are expanded, the tube bank is easily removed with the aid of a handle.

Standard body construction includes light weight cast aluminum, cast steel and 316 stainless steel body materials suitable for most environments. Tube bank is available in 316 stainless steel as standard. A complete range of sizes from 2" [50 mm] through 12" [300 mm] are available with flat face or raised face flanges to match ANSI or EN1092-1 connections.

Temperature monitor device to be installed on unprotected side of Tube Bank.

Temperature monitor device available. Consult Factory.



Features

- ISO 16852 Approved
- ATEX EN 12874 Approved
- Unitized tube bank design
- Maximum protection and efficiency with minimum pressure drop
- Wide range of standard construction materials
- Easy inspection and maintenance, due to simple removal of tube bank
- Complete range of flange sizes from 2" (50 mm) to 12" (300 mm) ANSI, EN1092-1

94406

Vertical Inline Deflagration Flame Arrester

SHAND & JURS

Specifications

Sizes:

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

Max. Static Pressure:

3.45 BARG (50 PSIG)

Max. Operating Pressure:

Sizes 2"-6" 1.1 BARA (16.20 PSIA)

8"-12" 1.09 BARA (15.95 PSIA)

Max. Operating Temperature:

60°C (140°F)

Materials of Construction

Body:

Carbon Steel, 316 Stainless Steel, Aluminum

Tube Bank:

Carbon Steel, 316 Stainless Steel

Flange Rating:

To match drilling of ANSI 125/150 lb. FF or RF, EN1092-1 PN10/16, FF or RF options.

Approval:

ATEX 94/4/EC and EN 12874, ISO 16852 (Short Term Burn)

NOTE: Aluminum and Cast Iron bodies are only approved for ISO 16852.

Gas Application:

IIA (NEC Group D)

Hardware:

316 Stainless Steel

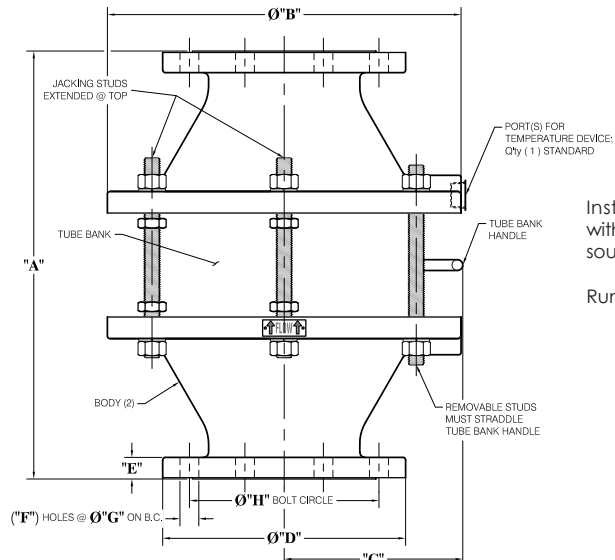
Gaskets:

High Temperature Synthetic Composition

Outline Dimensions

Dimensions in Inches								
Vent Size	"A"	Diameter "B"	"C"	Diameter "D"	"E"	Holes "F"	Diameter "G"	Diameter "H"
2"	13 $\frac{3}{8}$	8 $\frac{1}{2}$	7 $\frac{9}{32}$	6	$\frac{5}{8}$	4	$\frac{3}{4}$	4 $\frac{3}{4}$
3"	15 $\frac{3}{8}$	10 $\frac{1}{2}$	8 $\frac{5}{16}$	7 $\frac{1}{2}$	$\frac{3}{4}$	4	$\frac{3}{4}$	6
4"	17 $\frac{7}{8}$	12 $\frac{3}{8}$	6 $\frac{21}{32}$	9	$1\frac{1}{16}$	8	$\frac{3}{4}$	7 $\frac{1}{2}$
6"	19 $\frac{7}{8}$	16 $\frac{3}{8}$	8 $\frac{9}{32}$	11	1	8	$\frac{7}{8}$	9 $\frac{1}{2}$
8"	24 $\frac{1}{2}$	20 $\frac{1}{2}$	10 $\frac{13}{32}$	13 $\frac{1}{2}$	1 $\frac{1}{8}$	8	$\frac{7}{8}$	11 $\frac{3}{4}$
10"	28 $\frac{7}{8}$	24 $\frac{1}{2}$	12 $\frac{11}{32}$	16	1 $\frac{3}{16}$	12	1	14 $\frac{1}{4}$
12"	32 $\frac{7}{8}$	28 $\frac{3}{4}$	14 $\frac{9}{32}$	19	1 $\frac{1}{4}$	12	1	17

ANSI Connection Dimensions shown. Other Flange Types available.



Installation Note: Locate flame arrester within "x" pipe diameters of potential ignition source.

Run up length "x" =

2"-4" size- 50 pipe diameters.

6" size- 20 pipe diameters.

8"-12" size- 10 pipe diameters.

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

SHAND & JURS

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Rev: 94406-4A

94406 Ordering Guide

Model Number Selection

The model number will consist of a base number **94406** followed by 6 digit numbers. These digits will represent 3 option tables.

94406 - AB - CD - EF

Ordering Information

Specify:

1. Model 94406 Vertical Inline Deflagration Flame Arrester
2. Size and Body Material
3. Tube Bank and Hardware Material
4. Type of Flange and Auxiliary Connection
5. Special Materials or Coatings, If Required



Table AB - Size & Body* Table CD - Tube Bank and Hardware*

Option AB	Size (Inches)	Body Material	Option CD	Tube Bank Material Shell/Element	Hardware Material	Shipping Wt. (lbs)
23	2	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	15
33	3	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	25
43	4	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	45
63	6	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	69
83	8	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	93
03	10	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	165
13	12	Cast Aluminum	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	200

NOTE: Aluminum and Cast Iron bodies are only ISO 16852 approved.

* Other material combinations available. Raised Face not available in Aluminum body.

94406**Vertical Inline Deflagration Flame Arrester****SHAND & JURS****Table AB - Size & Body* Table CD - Tube Bank and Hardware***

Option AB	Size (Inches)	Body Material	Option CD	Tube Bank Material Shell/Element	Hardware Material	Shipping Wt. (lbs)
20	2	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	43
22	2	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
30	3	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	65
32	3	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
40	4	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	120
42	4	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
60	6	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	207
62	6	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
80	8	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	280
82	8	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	

Table AB - Size & Body* Table CD - Tube Bank and Hardware*

Option AB	Size (Inches)	Body Material	Option CD	Tube Bank Material Shell/Element	Hardware Material	Shipping Wt. (lbs)
00	10	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	480
02	10	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
10	12	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	610
12	12	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	

* Other Material Combinations Available

Table E - Flange Type*

Option E	Description
0	ANSI 125/150 lb. FF
1	ANSI 125/150 lb. RF*
2	EN1092-1 PN10 FF
3	EN1092-1 PN10 RF*
4	EN1092-1 PN16 FF
5	EN1092-1 PN16 RF*

*Raised Face Flanges Not Available with Aluminum.

Note: Raised faced flanges with smooth finish are standard.

For optional serrated raised faced flanges, consult factory.

Tube Banks Only*

Part Number	Size (In.)	Tube Bank Material Shell/Element	Shipping Wt. (lbs.)
9440-10010	2	316 SS./ 316 SS	25
9440-10011	3	316 SS / 316 SS	35
9440-10012	4	316 SS / 316 SS	60
9440-10013	6	316 SS / 316 SS	100
9440-10014	8	316 SS / 316 SS	160
9440-10015	10	316 SS / 316 SS	240
9440-10016	12	316 SS / 316 SS	325

*NOTE: Other Material Combinations Available.

Table F - Auxillary Connections

Option F	Description	Quantity
0 ⁽¹⁾	¾" NPT (Uni-Directional)	1
1	¾" NPT (Bi-Directional)	2

⁽¹⁾ Flow Direction Label Affixed to Cast Body.**SHAND & JURS**5911 Butterfield Road Hillside, IL 60162 • tel: (708) 236-6000 • fax: (708) 236-6006
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