

94407 Horizontal Inline Deflagration Flame Arrester

The Shand & Jurs 94407 Horizontal Inline Deflagration Flame Arrester is designed to provide a positive flame stop in horizontal gas piping systems containing flammable vapors having a low flash point. The 94407 not only provides exceptional protection against propagation of flame from external source but also offers maximum flow capacity. It is specifically designed to prevent liquid accumulation in the tube bank assembly.

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, EN1092-1 connections.

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

Temperature monitor devices available. Consult Factory.



Features

- ATEX EN 12874 Approved
- ISO 16852 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, FN1092-1.





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 Temp:

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 flange. EN1092 PN 10/16, FF or RF options.

Approval:

ATEX Directive 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:

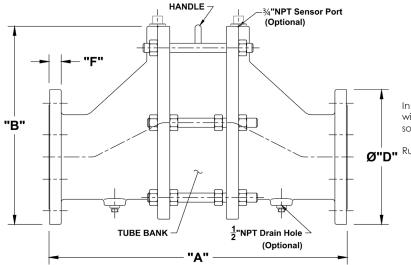
316 Stainless Steel

Gaskets:

High Temperature Synthetic Composition

Outline Dimensions

Dimensions in Inches					
Vent Size	"A"	"B"	Diameter "D"	"F"	
2"	14 ½	8 5/32	6	5/8	
3"	16	10 11/16	7 ½	3/4	
4"	20	12 ¾6	9	¹⁵ ⁄16	
6"	24 3/8	16 11/64	11	1	
8"	32 1/8	20 %	13 ½	1 1/8	
10''	33 ¾	24 ¾	16	1 3/16	
12''	34 3/8	29 5/16	19	1 1/4	



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.







94407 Ordering Guide

Model Number Selection

The model number will consist of a base number **94407** followed by 6 digit letters. These digits will represent 3 option tables.

94407 - AB - CD - EF

Ordering Information

Specify:

- 1. Model 94407 Horizontal Inline Deflagration Flame Arrester
- 2. Size and Body Material
- 3. Tube Bank and Hardware Material
- 4. Type of Flange and Auxillary 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
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	43
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	0.5
40	4	Cast Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	100
42	4	Cast 316 SS	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	120
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	207
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	200

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

Raised Face not available in Aluminum bodies. Other material combinations available.





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	400
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	010

^{*}NOTE: Aluminum and Cast Iron bodies are only ISO 16852 approved.

Raised Face not available in Aluminum bodies. Other material combinations available.

Table E - Flange Type

Option E	Description			
0	ANSI 125/150lb. FF			
1	ANSI 125/150lb. 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 in Aluminum.

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

Table F - Auxillary Connections

Option F	Description	Quan- tity
O (1)	3/4" NPT (Uni-Directional)	1
1	3/4" NPT (Bi-Directional)	2
4	3/4" NPT (U) ⁽²⁾ w/1/2" NPT (Drain)	3(3)

^{1.} Flow Direction Label Affixed to Cast Body.

Tube Banks Only*

Part Number	Size (Inches)	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

^{*}Other Material Combinations Available.

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^{2.} U = Uni-Directional; B = Bi-Directional. 3. Includes two drain connections - one per side.