

94450 Combination Deflagration Flame Arrester & Free Vent

The Shand & Jurs 94450 Combination Deflagration Flame Arrester/Free Vent provides both positive fire stop and maximum venting in a compact fitting.

This Shand & Jurs fitting features an easily accessible, unitized tube bank. It's completely removable for quick inspection and servicing, even under severe conditions of unpredictable corrosion or neglect.

The tube bank consists of passages formed by spirally winding alternate flat and corrugated sheet stock around a solid core. To insure maximum flow, constant tension control is maintained during winding.

The tube bank is contained by its shell between the body and free vent adapter. The hood and adapter can be easily removed as a unit.

Standard body construction material choices include light weight cast aluminum, cast steel, 304 or 316 stainless steel, ductile iron, and cast iron. Raised face or flat face flange to match ANSI, EN1092, or JIS connections.

For highly corrosive applications, body and tube bank construction of Duplex Stainless Steel, Hastelloy C, or Alloy 20 are available.

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

Temperature monitor device available. Consult Factory.



Features

- ATEX EN 12874 Approved
- ISO 16852 Approved
- One compact fitting for positive flame arrest & maximum flow venting
- Easily accessible, unitized tube bank
- Available in sizes 2'' (50 mm) through 12'' (300 mm) ANSI, EN1092, JIS sizes available
- Wide range of standard construction materials

Specifications

Sizes:

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

Max. Operating Pressure:

2"-6" Size - 1.12 BARA (16.2 PSIA)
8"-12" Size - 1.10 BARA (15.95 PSIA)

Max. Operating Temp:

60°C (140°F)

Flange Rating:

To match drilling of ANSI 125/150 lb. flat face, raised face, EN1092 PN 10/16, and JIS 10K 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)

Materials of Construction

Body:

Carbon Steel, 304 Stainless Steel, 316 Stainless Steel, Aluminum, Cast Iron, Ductile Iron, Duplex Stainless Steel, Hastelloy C, Alloy 20

Tube Bank:

Carbon Steel, 304 Stainless Steel, 316 Stainless Steel, Carbon Steel, Duplex Stainless Steel, Hastelloy C, Alloy 20

Hardware:

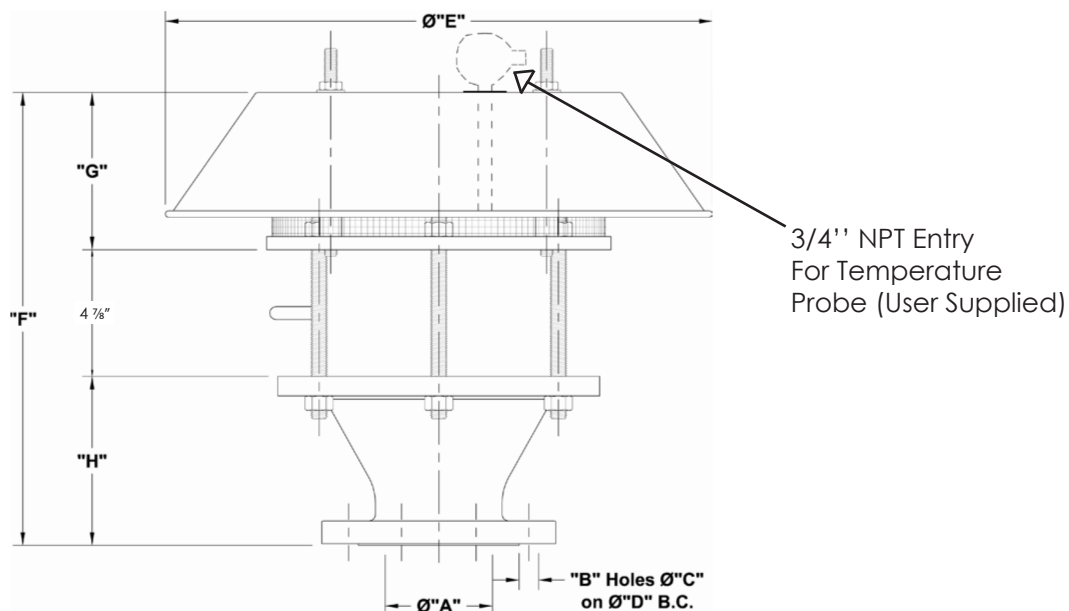
18-8 Stainless Steel, 304 Stainless Steel, 316 Stainless Steel, Duplex Stainless Steel, Hastelloy C, Alloy 20

Gaskets:

High Temperature Synthetic Composition

Outline Dimensions

Dimensions in Inches								
Vent Size	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
2"	2 ¼	4	¾	4 ¾	16	17 ¾	7	4 ¼
3"	3 ⅜	4	⅝	6	18 ⅝	17 ¾	7	5 ⅜
4"	4 ⅛	8	¾	7 ½	20 ⅛	17 ⅞	6 ⅜	6 ½
6"	6 ⅝	8	⅞	9 ½	27 ⅞	19 ⅞	7 ⅜	7 ½
8"	8 ⅞	8	⅞	11 ¾	29 ¼	24 ⅞	9 ⅝	9 ⅜
10"	10 ¼	12	1	14 ¼	45 ½	30 ¼	13 ¼	12
12"	12 ¾	12	1	17	45 ½	32 ¼	13 ¼	14



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

94450 Ordering Guide

Model Number Selection

The model number will consist of a base number **94450** followed by 6 digit numbers. These digits will represent 2 option tables.

94450 - AB - CD - EF

Ordering Information

Specify:

1. Model 94450 Combination Deflagration Flame Arrester & Free Vent
2. Size
3. Body Material
4. Tube Bank Material
5. Hardware Material
6. Flange Type



Table AB - Size and Body*

Table CD - Tube Bank and Hardware*

Option AB	Size (Inches)	Body Material	Option CD	Tube Bank Material Shell/Element	Hardware Material	
23	2	Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
23		Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
25 / 24		Cast Iron / Ductile Iron	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
25 / 24		Cast Iron / Ductile Iron	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
20		Cast Steel	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
20		Cast Steel	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
22	3	316 Stainless Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
33		Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
33		Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
35 / 34		Cast Iron / Ductile Iron	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
35 / 34		Cast Iron / Ductile Iron	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
30		Cast Steel	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
30		Cast Steel	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
32		316 Stainless Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	
43		4	Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
43			Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
45 / 44	Cast Iron / Ductile Iron		00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
45 / 44	Cast Iron / Ductile Iron		01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
40	Cast Steel		00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel	
40	Cast Steel		01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel	
42	316 Stainless Steel		22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel	

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

Other Material Combinations are available.

Raised Face Flanges are not available with Aluminum Body.

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

Option AB	Size (Inches)	Body Material	Option CD	Tube Bank Material Shell/Element	Hardware Material
63	6	Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
63	6	Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
65 / 64	6	Cast Iron / Ductile Iron	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
65 / 64	6	Cast Iron / Ductile Iron	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
60	6	Cast Steel	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
60	6	Cast Steel	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
62	6	316 Stainless Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel
83	8	Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
83	8	Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
85 / 84	8	Cast Iron / Ductile Iron	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
85 / 84	8	Cast Iron / Ductile Iron	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
80	8	Cast Steel	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
80	8	Cast Steel	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
82	8	316 Stainless Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel
03	10	Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
03	10	Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
05 / 04	10	Cast Iron / Ductile Iron	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
05 / 04	10	Cast Iron / Ductile Iron	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
00	10	Cast Steel	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
00	10	Cast Steel	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
02	10	316 Stainless Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel
13	12	Cast Aluminum	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
13	12	Cast Aluminum	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
15 / 14	12	Cast Iron / Ductile Iron	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
15 / 14	12	Cast Iron / Ductile Iron	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
10	12	Cast Steel	00	Carbon Steel / 304 Stainless Steel	18-8 Stainless Steel
10	12	Cast Steel	01	Carbon Steel / 304 Stainless Steel	304 Stainless Steel
12	12	316 Stainless Steel	22	316 Stainless Steel / 316 Stainless Steel	316 Stainless Steel

*NOTE: Aluminum and Cast Iron Bodies are only approved for ISO 14852.
Other Material Combinations are available.
Raised Face Flanges are not available with Aluminum Body.

Table EF - Flange Type

Option EF	Description	Option EF	Description
00	ANSI 125 lb./150lb. FF	50	EN1092 PN16 RF*
10	ANSI 125lb./150lb. RF*	60	JIS 10K FF
20	EN1092 PN10 FF	70	JIS 10K RF*
30	EN1092 PN10 RF*	80	Special Drilling
40	EN1092 PN16 FF	*Raised Face Flanges Not Available with Aluminum.	

TUBE BANKS ONLY
Same as 94406. Refer to chart in 94406.