

94309 Flame Arrester (Plate Element)

Operation

The Shand & Jurs 94309 quenches the flame front by cooling the flame to below its ignition temperature. The flame front enters the arrester and the flame is intercepted by the arrester element which is specifically designed to provide a precision path for the flame to follow. The flame front temperature is reduced to below the ignition point of the protected vapors. This is achieved by dissipating the heat of the flame through the arrester elements and body.

Design Features

The Shand & Jurs 94309 Flame Arrester is designed to provide maximum flow of vapor or gas with minimal pressure drop. The extensive arrester element surface area also provides for superior continuous burn capability. The 94309 incorporates an advanced design, which ensures precise manufacturing of the arrester components that are critical to providing superior safety products for industry.

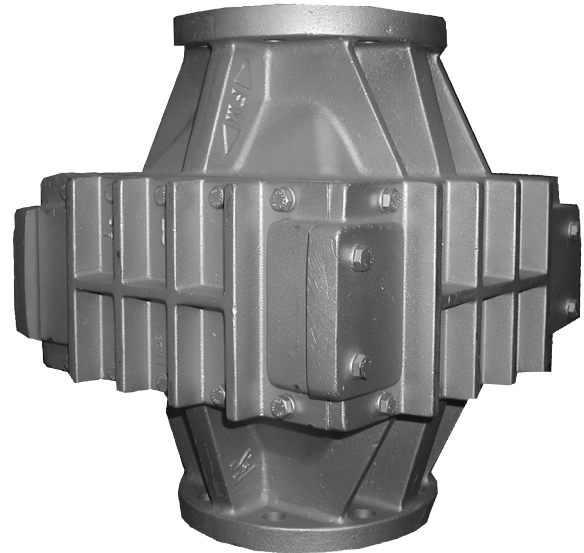
The 94309 design is completely passive which allows for flame quenching capabilities without any operational interfaces typical of active safety devices or systems. Model 94309 Flame Arresters are designed with ease of field maintenance, as proven by the unique extensible arrester element. The element may be inspected and cleaned in place without disruptive piping. No jacking bolts or piping separations are necessary. The element is easily removed from the flame arrester housing in place, facilitating cleaning or replacement with a spare element.

The 94309 can be fitted with low point drains for removal of any condensate accumulation. A drip trap is recommended for the safe removal of the condensate.

Application

The S&J 94309 Flame Arrester (Plate Element) is designed to stop flame propagation when applied properly in low pressure gas or vapor piping systems, or on storage tanks and digester covers. When NEC Group D vapors or gases are generated from product movement in storage tank or digester operations, the flame arrester effectively quenches a flame front that may develop from external ignition of flammable vapors.

The 94309 offers both vertical or horizontal configurations, dependent on specifications. Either configuration can be mounted without affect to flame arresting performance or capability.



Features

- Easy access to element/frame without affecting piping configuration
- Inspect on site
- High flow rates
- Vertical or horizontal configuration
- Industry standard dimensions
- Insulation Jackets available

Specifications

Sizes:

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

Max Static Pressure:

10 PSIG

Pressure Drop:

Should not exceed 1 PSIG

Body Materials:

Aluminum, Steel, 316 Stainless Steel

Bank Assembly Material:

Extensible: Aluminum with Aluminum or 316 Stainless Steel Plates

Fixed: 316 Stainless Steel Construction

Bank Net Free Area:

3 to 4 times the unit pipe size

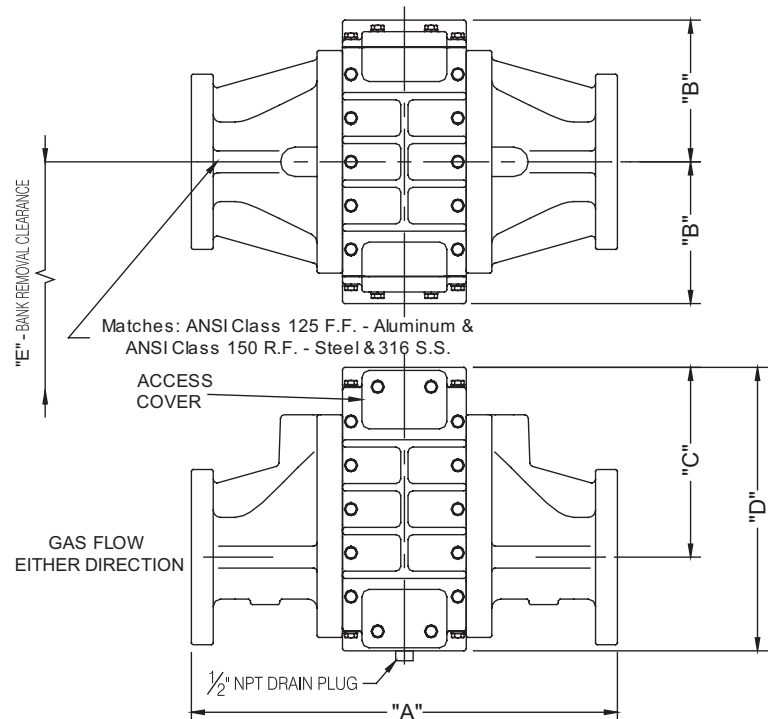
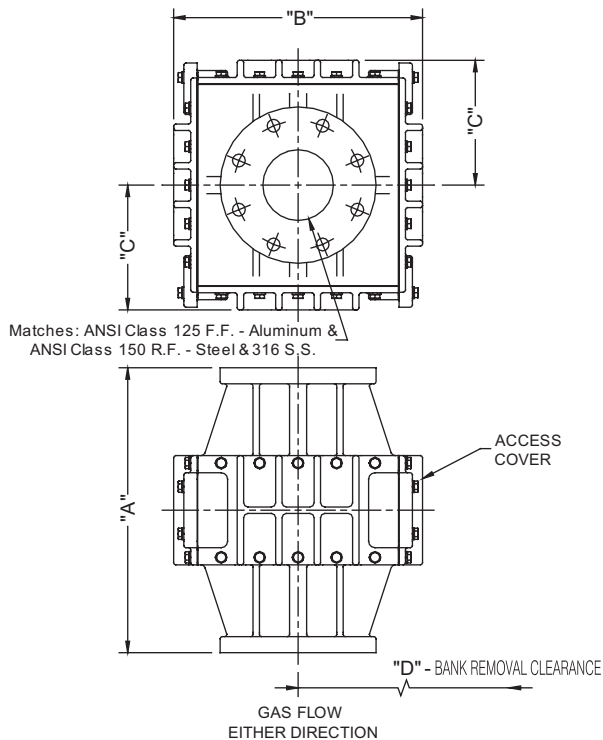
Gas Application:

NEC Group D

Approval:

Consult factory

Outline Dimensions



Dimensions (in Inches)				
Size	"A"	"B"	"C"	"D"
2"	12 5/8	9	5 1/16	19
3"	13 7/8	11 3/4	6	23 1/4
4"	16 5/8	14 1/2	7 1/4	28 1/8
6"	21 1/2	16 1/2	9 3/8	31 1/8
8"	27 1/4	21 5/8	11 1/8	38 5/8
10"	28 3/8	24	13	41 5/8
12"	34 3/8	31	14 11/16	50

Dimensions (in Inches)					
Size	"A"	"B"	"C"	"D"	"E"
2"	14 1/2	5 1/16	6 1/8	10 1/8	18 3/4
3"	16	6	7 5/8	12	22 7/8
4"	20	7 1/4	9 1/16	14 1/2	27
6"	24 3/8	9 3/8	11 7/8	18 3/4	30 3/4
8"	32 1/8	11 1/8	14 1/4	22 1/4	38 1/4
10"	35 1/2	13	16 7/8	26	41 5/8
12"	34 3/8	14 11/16	19 3/16	29 3/8	49 1/2

Installation Note: Locate this equipment within 10 pipe diameters of a potential atmospheric ignition source.

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

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94309 Ordering Guide

Model Number Selection

The model number will consist of a base number **94309** followed by 6 digit numbers. These digits will represent 6 option tables.

94309 - A - B - C - D - E - F**Table A - Size (Body & Flange)**

Option A	Description
2	2"
3	3"
4	4"
6	6"
8	8"
0	10"
1	12"

Table C - Size (Tube Bank)

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

Table B - Body (Casting Material & Flange)

Option B	Base Material	Flange Drilling	Config.
A	Aluminum	ANSI-FF 150#	Vertical
B	Cast Steel	ANSI-FF 150#	
C	Cast Steel	ANSI-RF 150#	
D	316SS	ANSI-FF 150#	
E	316SS	ANSI-RF 150#	
F	Aluminum	EN1092-1 PN16 FF	
G	Cast Steel	EN1092-1 PN16 FF	Horizontal
H	Cast Steel	EN1092-1 PN16 RF	
I	316SS	EN1092-1 PN16 FF	
J	316SS	EN1092-1 PN16 RF	
K	Aluminum	ANSI-FF 150#	
L	Cast Steel	ANSI-FF 150#	
M	Cast Steel	ANSI-RF 150#	
N	316SS	ANSI-FF 150#	
O	316SS	ANSI-RF 150#	
P	Aluminum	EN1092-1 PN16 FF	
Q	Cast Steel	EN1092-1 PN16 FF	
R	Cast Steel	EN1092-1 PN16 RF	
S	316SS	EN1092-1 PN16 FF	
T	316SS	EN1092-1 PN16 RF	

Table D - Tube Bank Material & Shell

Option D	Description
A	Aluminum Bank / Aluminum Shell
B	316SS Bank / 316SS Shell
C	Aluminum / 316SS Sheets

All Models Include 316SS Hardware

Vertical is selfdraining

Horizontal comes with 1/2"NPT drain plug

Table E - Certification

Option E	Description
1	Standard

Table F - Options

Option F	Description
0	None

SHAND & JURS

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