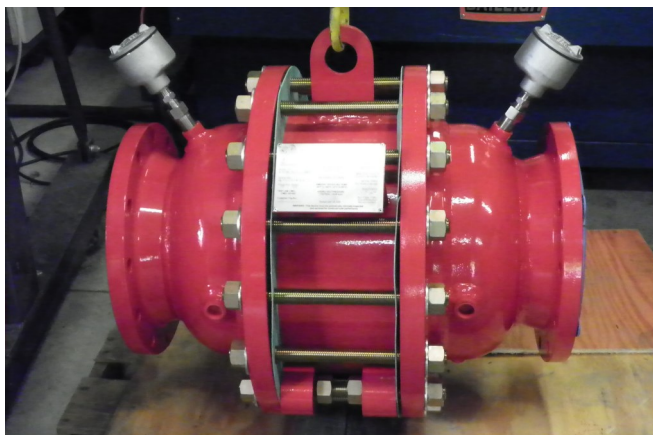




Inline/End Of Line Flame Arrestor Series-A



The Paradox In-Line Flame Arrestor; prevents flame propagation by acting as a heat sink, cooling the flame front to cause it to be extinguished. This heat sink is made from spiral wound crimped ribbon that allows gas to flow with a minimum pressure drop.

Flame Arresters are only used for pipe lengths of less than 10 to 20 feet with one pipe bend depending on model size. In addition, it stops confined and unconfined, low pressure deflagrations. All Paradox units are bi-directional and are proven to stop an ignited flammable vapor mixture approaching from either direction traveling at subsonic velocities.

Designed with flanged connections.

All of our arresters come with strong lifting points designed to lift the entire unit and then some.

The arrester provides the option of the removal of the flame cell (element) for easy cleaning and replacement without disconnection of the pipe connection flanges. Standard housing construction is carbon steel and stainless steel. The element is available in 304 S.S and 316 S.S.

Special material and protective coatings are available on request,

Gas Groups IIA (D)
IIB3 (C)
IIC (B)

with the exception of Aluminum.

- Tested for 2" (50mm) through 24" (600mm)

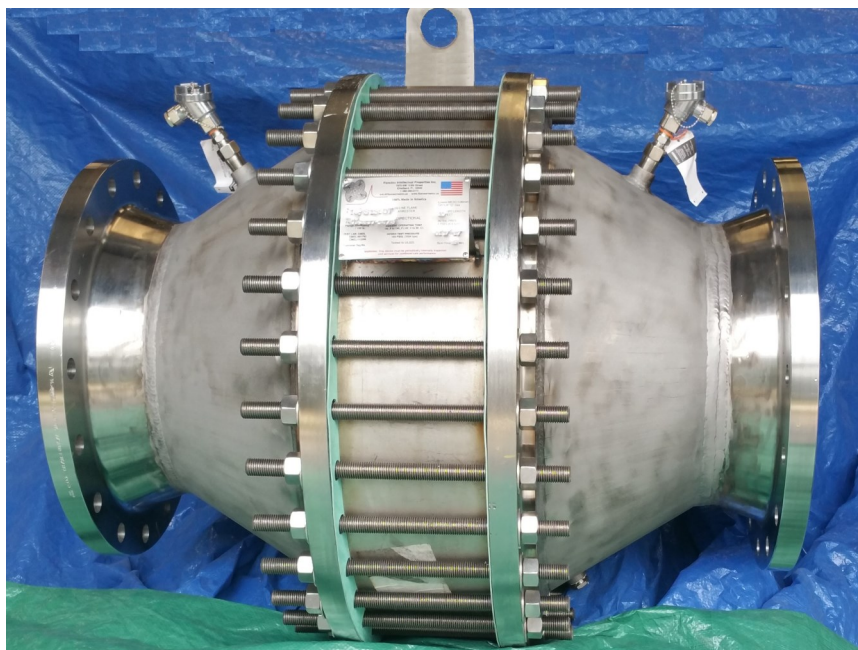




Series-A Flame Arrestors

Features and Benefits

- **All Paradox Detonation Arrestors** are designed for low pressure deflagrations.
- **Removable Element** design allows for easy replacement.
- **Large Inspection Ports** are **available** on most models and allows for easy inspection and cleaning.
- outstanding corrosion and chemical resistance.
- **Temperature ports optional in 1/2", 3/4" or 1" NPTF.**
- **Diff/pressure ports optional in 1/2", 3/4" or 1" NPTF**
- **Drains ports on optional in 1/2", 3/4" or 1" NPTF**
- Instrumentation can be supplied as well.



Paradox's Large Crimp Opening Provide:

- Maximum flow
- Less Pressure Drop
- Easy Cleaning
- Less Clogging
- Less Maintenance
- Bi-directional Design
- Available in ANSI, DIN and JIS flange and NPT.

Due to a potential failure, caused by melting of an aluminum element during a stabilized flame, we will not supply flame arrestors made with aluminum castings and /or elements.

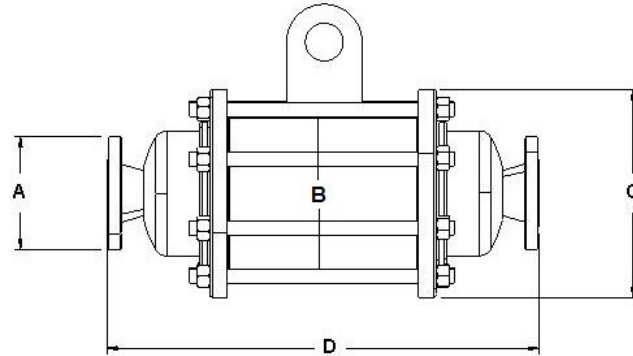
Material Specifications

Housing	Cell	Gas Group
Carbon Steel	304 SS	IIA (D)
304 SS	316 SS	IIB3 (C)
316L SS	Hastelloy	
Hastelloy		



Model A– Deflagration Arrester

SERIES-A Flame Arrester Specifications



Model	A 150# ANSI Conn. Size in. (mm) (Optional 125# FF)	B Housing Size In. (mm)	C Outside Diam- eter In. (mm)	D Overall Length In. (mm)	Approx. Weight Lb.(Kg.) Grp D
A-1C	1 (25)	4 (101)	7.75 (196)	15 (381)	60 (27.2)
A-2C	2 (50)	6 (152.4)	9.0 (229)	15.18 (401.32)	65 (29.48)
A-3C(6)	3 (75)	6 (152.4)	9.0 (229)	18 (457)	80(36)
A-3C(8)	3 (75)	8 (200)	11 (279)	19 (482.6)	100 (45.3)
A-4C	4 (100)	8 (200)	11 (279)	19 (482.6)	110(50)
A-6C(10)	6 (150)	10(254)	13.5 (343)	19.75 (502)	140 (63)
A-6C(12)	6 (150)	12(304)	16 (406)	23 (584)	280(127)
A-8C(14)	8 (200)	18 (457)	23.5 (596)	29(737)	280(127)
A-8C(16)	8 (200)	16 (400)	20 (509)	34 (863)	270 (123)
A-10C(20)	10 (254)	18 (457)	23.5 (596)	29(736)	330(149)
A-12C	12 (304)	22 (558)	27.5 (698)	31.7 (805)	450 (204)

Intermediate sizes may not be listed. & Sizes 14” through 36”and larger—
dimensions available on request.



Series “A” In-Line Flame Arrester for Group D, C, or B Gas Specification Data Sheet

Flame Arrester Type	In-line Bi- Directional Flame Arrester
Recommended installation /use	Vertically or Horizontally in Piping systems with a maximum 10’ to 20’ of pipe & one elbow from the ignition source depending on model size. UL525/Propane/Ethylene/Hydrogen
Design/Test Standard/Test Gas	
Connection sizes	2” through 24” Pipe sizes
Type of connection	Flanged or threaded connection available.
Flange ratings	Available in ASME 150/125# Flat Face or Raised Faced Flange
Housing Materials	Standard Model; Carbon Steel, also available in 304, 316L & most other Austenitic metal or hastelloy.
Element Type/Material	The element is crimped metal ribbon made from 304 Stainless Steel and is also available in 316L or hastelloy.
Maximum Initial pressure	15.7 Psia.
Operating temperature range	-20°F to 140°F or (1024°C for 5 minutes Stabilized Burn Condition)
Hydrostatic Test Pressure	150 Psig.
Gas Group Application Rating	NEC Group D,C, B(IEC Group IIA, IIB, IIC)



Figure 1. Flame Arrestor Available Constructions and Model Numbering System

The flame arrester below describes an 18", 150# RF concentric detonation arrester with a carbon steel housing and 304ss element matrix and includes 3/4" NPT drains, pressure and temp taps.

C	18	C	D	-	C	S	R	-	D	P	T	3/4
Flame Arrester Type	Connection Size	C= Concentric E= Eccentric	NEC Gas Group		Housing Material	Element Material	Connection Type		Options			
A = FA	0.5" through 48in.		D		C = Carbon steel	S = 304 SST	F = Flat face flange		D = Drain Tap & Plug			
B = HPFA			C		S = 304 SST	S1 = 316 SST			P = Pressure Tap			
C = DFA			B		S1 = 316 SST	H = Hastelloy®	R = Raised face flange		T = Temperature Probe Tap			
D = H2 DFA					H = Hastelloy®				1/2, 3/4, 1 = NPT tap size			
									Or			
									1/2F, 3/4F, 1F, etc; =			
									150# ANSI Flange			
									size.			