



Model AV-End of line/vent type flame arrester



The Paradox End of Line Flame Arrestors, are designed for free venting while simultaneously preventing flame propagation of confined and unconfined low pressure deflagrations. They prevent an ignited atmospheric vapor cloud from propagating beyond the Flame Arrestor into the line or tank.

For installation on the top of an atmospheric vent line or storage tank (end of line), with an operating pressure which is near atmospheric and there is little chance of flame stabilizing on the Flame Arrestor element face.

Flame Arrestors prevent 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 and are only used for pipe lengths of up to 10 feet with no pipe bend, stopping 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.

All of our arrester come with **strong lifting points designed to lift the entire unit.**

The arrester provides the option of the removing the flame cell (element) for easy cleaning and replacement without disconnection of the pipe flanges.

- Tested for 2" (50mm) through 24" (600mm)
Gas Groups IIA (D)
IIB3 (C)
IIC (B)

Standard housing construction is carbon steel and stainless steel. The element is available in 304 S.S and 316 S.S.



Features and Benefits

- ***All Paradox Flame Arrestors*** are designed to arrest deflagrations.
- ***Removable Element*** design allows for easy replacement.
- outstanding corrosion and chemical resistance.
- ***Temperature ports*** are optional.

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.



Material Specifications

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



Series “AV” End of Line Flame Arrester Spec Sheet

Model	A 150# ANSI Conn. Size in. (mm) (Optional 125# FF)	B Housing Size In. (mm)	C Outside Diameter In. (mm)	Approx. Weight Lb. (Kg.) Grp D
AV-1/4	1 (25)	4 (101)	12 (304)	60 (27.2)
AV-2/4	2 (50)	4 (101)	12 (304)	65 (29.48)
AV-2/6	2 (50)	6 (152.4)	18 (547)	65 (29.48)
AV-2/8	2 (50)	8 (200)	18 (547)	77 (35)
AV-3/8	3 (75)	8 (200)	18 (547)	81 (36)
AV-4/8	4 (100)	8 (200)	18 (547)	86 (39)
AV-6/12	6 (150)	12 (300)	23.5 (596)	149 (67.6)
AV-8/16	8 (200)	16 (400)	30 (762)	243 (111)
AV-10/20	10 (254)	20 (500)	36 (914)	360 (164)
AV-12/24	12 (304)	24 (600)	44(1118)	550 (250)





Series “AV” End of Line Flame Arrester for Group D, Gas Specification Data Sheet

Flame Arrester Type	End of Line Flame Arrester
Recommended installation /use	Vertically in Piping systems with a maximum 10' of pipe from the ignition source or directly onto storage tanks.
Design/Test Standard/Test Gas	ASTM F-1273 /UL525/ Test gas: Propane
Connection sizes	2” through 12” 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	14.7 Psia.
Operating temperature range	-17°C to +60°C or (1024°C for 5 minutes Stabilized Burn Condition)
Hydrostatic Test Pressure	350 Psig.
Gas Group Application Rating	NEC Group D,(IEC Group IIA,)



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