

# Free Vent Flame Arrester

Free Vent Flame Arresters (FVFA) are designed to allow free venting in combination with flame protection for vertical vent applications. This type product is installed at the top of an atmospheric vent line or storage tank. They prevent flame propagation by absorbing and dissipating heat using spiral wound crimped ribbon flame cells. These cells allow maximum flow with maximum protection. The FVFA is used to stop the propagation of confined and unconfined low pressure deflagrations. It prevents an ignited atmospheric vapor cloud from propagating beyond the Flame Arrester into the vent line or tank.

FVFA's are typically used for the end of line applications when the system operating pressure is near atmospheric levels and when there is minimal probability of a flame stabilizing on the Flame Arrester element for an extended period.

Free Vent Flame Arresters allow free venting and flame protection for vertical vent applications. Designed with flanged connections, this arrester allows removal of the flame cell element without their removal of the venting assembly. Standard housing construc-



tion is aluminum, carbon steel, and stainless steel element is available in aluminum or stainless steel. Special material and protective coatings are available on request.

## Features and Benefits

Large crimp opening provide:

- Maximum flow
- Less pressure Drop
- Easy Cleaning
- Less Clogging
- Less Maintenance

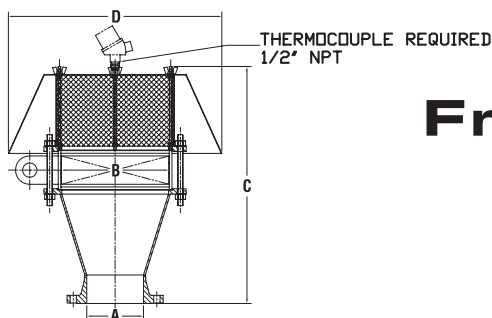
- Single Element Design.
- Fluoropolymer coated hardware provides outstanding corrosion and chemical resistance.
- Easy accessible and removable flame cell for easy inspection and service.
- Standard temperature probe on EN models.
- Flanged design available in ANSI, DIN and JIS flanges.

## Flame Arresters Specifications

Model	Sizes Available
Free Vent Flame Arrester (FVFA)	3/4" through 36"

## Materials of Construction

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



# EN Model Free Vent Flame Arrester

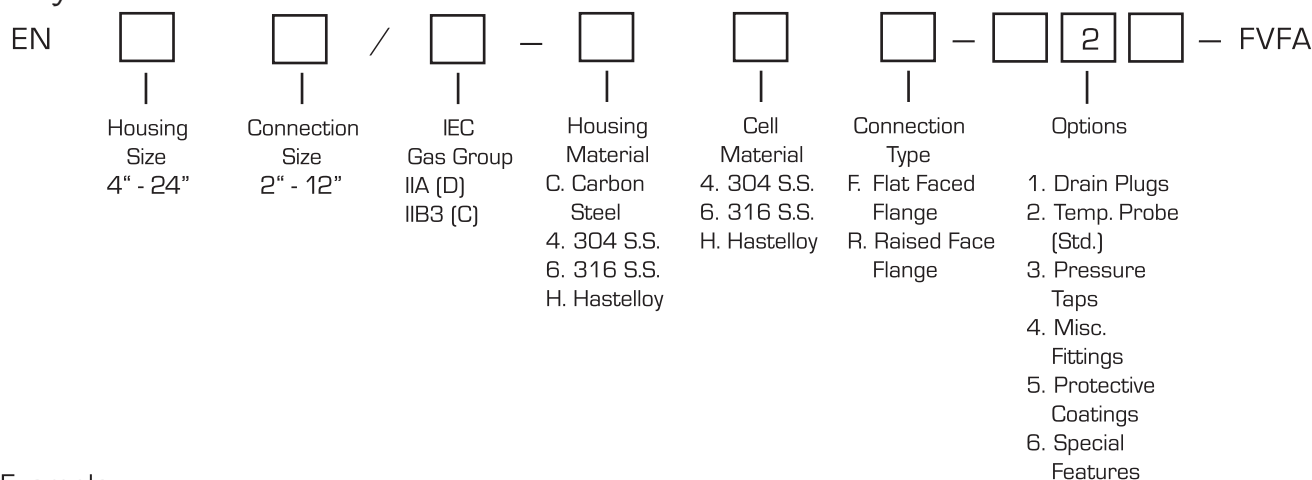


EN Model Free Vent Flame Arrester Dimensions

Model	A Nominal Conn. Size In. (mm)	B Housing Size mm	C Height mm	D Outside Diameter mm	Weight Kg
0402	2 (50)	100	430	305	27
0602	2 (50)	150	457	406	28.5
0603	3 (75)	150	457	406	30
0803	3 (75)	200	455	406	36.3
0804	4 (100)	200	460	406	41
1204	4 (100)	300	622	559	64.4
1206	6 (150)	300	635	559	68
1606	6 (150)	400	822	762	130
1608	8 (200)	400	848	762	135
2008	8 (200)	500	908	914	197
2010	10 (250)	500	908	914	201
2410	10 (250)	600	990	1118	296
2412	12 (300)	600	1005	1118	306

Dimensions may vary somewhat from those given above. Allow for a tolerance of ± 25 mm.  
Specific dimensions available on request.

## Key to EN Model Free Vent Flame Arrester Model Number

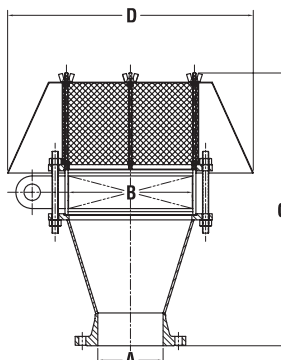


Example:



Indicates a Free Vent Flame Arrester with a 20" carbon steel housing and 10" raised faced flange connection and a 304 stainless steel IEC Group "IIA" flame cell element. It also has an additional option of a protective coating for corrosive service and standard temperature probe.

# Standard Model Free Vent Flame Arrester



Standard Model Free Vent Flame Arrester Dimensions

Model	A Nominal Conn. Size In. (mm)	B Housing Size mm	C Height mm	D Outside Diameter mm	Weight Kg
401	1 (25)	100	422	305	23
402	2 (50)	100	432	305	23.5
602	2 (50)	150	457	406	24.5
802	2 (50)	200	457	406	34.9
803	3 (75)	200	457	406	36.7
804	4 (100)	200	457	406	39.0
1206	6 (150)	300	635	559	67.6
1608	8 (200)	400	848	762	110.2
2010	10 (250)	500	908	914	163.3
2412	12 (300)	600	1003	1118	249.0

14 in. - 36 in. and over - Dimensions available on request. Dimensions may vary somewhat from those given above. Allow for a tolerance of  $\pm 25$  mm. Specific dimensions available on request.

## Key to Free Vent Flame Arrester Model Number

□	□ /	□ -	□	□	□ -	□ -	FVFA
Housing Size 4" - 60"	Connection Size 1" - 36"	NEC Gas Group B. Group "B" (IIC) C. Group "C" (IIB3) D. Group "D" (IIA)	Housing Material A. Aluminum C. Carbon Steel 4. 304 S.S. 6. 316 S.S. H. Hastelloy	Cell Material A. Aluminum 4. 304 S.S. 6. 316 S.S. H. Hastelloy	Connection Type F. Flat Faced Flange R. Raised Face Flange	Options 1. Drain Plugs 2. Temp. Probe Taps 3. Pressure Taps 4. Misc. Fittings 5. Protective Coatings 6. Special Features	

Example:

20   
 10 /   
 D -   
 A   
 4   
 F -   
 5 - FVFA

Indicates a Free Vent Flame Arrester with a 20" aluminum housing and 10" flat faced flange connection and a 304 stainless steel NEC Group "D" flame cell element. It also has an additional option of a protective coating for corrosive service.