

FLAME ARRESTORS



SERIES FA II

Flame Arrestors prevent the passage of flames in storage vessels and along associated pipework systems. They have applications in a wide range of industries including petroleum and petrochemicals, gas, marine and sewage treatment.

INSTALLATION

Flame Arrestors should be mounted with the axis vertical and as close as possible to the potential source of ignition.

The Flame Arrestors have been designed for fitting to the down-turned end of free vent pipes.

CONSTRUCTION

Flame Arrestor consists of a tube bank made up of spirally wound alternate layers of flat and corrugated stainless steel sheets, built around a solid core. The tube bank offers a multiplicity of small holes parallel to the line of flow.

The tube element is retained between two flanged end sections and contained within an outer shell. (See Fig.1)

Flame Arrestor can be fitted with a weather hood. (See Fig.2)

FEATURES

Crimped Ribbon Element Design

The corrugated *crimped ribbon* design of the Series II Flame Arrestor element enables it to be manufactured to very close tolerances and hence can be efficiently size selected to suit the widest range of applications and flow parameters. Pressure drop across the Flame Arrestor is very low and hence it is suitable for high gas flow rates.

OPTIONS AVAILABLE

Weather Hood

Weather hoods are available for fitting to all sizes of Flame Arrestors, for use where the arrestors are mounted in exposed position, e.g. on vessel roofs.

SIZING AND SELECTION

Due to varying degrees of hazard, it is necessary to assess the type and capacity of Flame Arrestor required for safe operation.



A detailed application form, as specified within this catalogue, should be completed for every proposed Flame Arrestor application and returned to us to assist in the correct sizing of the Flame Arrestor required to suit each application.

SPECIFICATIONS

Sizes : 50 mm (2") 80 mm (3")

100 mm (4") 150 mm (6") 200 mm (8") 250 mm (10")

300 mm (12")

End Connections : ASA 150 FF

: Specials on request

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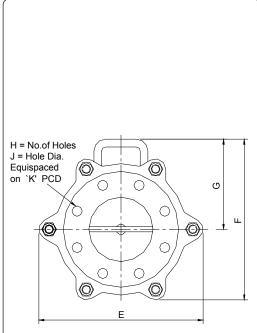
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FLAME ARRESTOR SERIES FA II

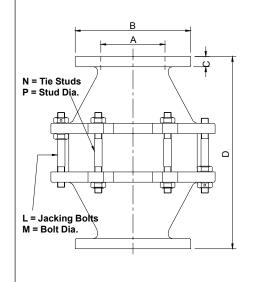
DIMENSIONS



NOMINAL SIZE		Α		В		С		D	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
50	2	57	2-1/4	165	6-1/2	22	7/8	333	13-1/8
80	3	79	3-1/8	200	7-7/8	22	7/8	406	16
100	4	105	4-1/8	229	9	22	7/8	470	18-1/2
150	6	159	6-1/4	286	11-1/4	25	1	521	20-1/2
200	8	210	8-1/4	340	13-3/8	25	1	641	25-1/4
250	10	260	10-1/4	432	17	35	1-3/8	772	30-7/8
300	12	305	12	486	19-1/8	35	1-3/8	940	37

PLAN VIEW FOR SIZES ABOVE 50 mm	(2")

NOMINAL SIZE		E		F		G		Н
mm	inch	mm	inch	mm	inch	mm	inch	No.of Holes
50	2	184	7-1/4	219	8-5/8	111	4-3/8	4
80	3	267	10-1/2	248	9-3/4	146	5-3/4	4
100	4	318	12-1/2	300	11-7/8	165	6-1/2	8
150	6	410	16-1/8	406	16	229	9	8
200	8	508	20	495	19-1/2	276	10-7/8	8
250	10	641	25-1/4	638	25-1/8	330	13	12
300	12	762	30	762	30	391	15-3/8	12



mm	inch	mm	inch	mm	inch	No.	mm	No.	mm
50	2	19	3/4	121	4-3/4	2	16	1	16
80	3	19	3/4	152	6	2	16	2	16
100	4	19	3/4	191	7-1/2	2	16	4	16
150	6	22	7/8	241	9-1/2	2	20	4	20
200	8	22	7/8	298	11-3/4	2	20	4	20
250	10	24	15/16	362	14-1/4	2	24	6	24
300	12	24	15/16	432	17	2	24	6	24

Figure 1

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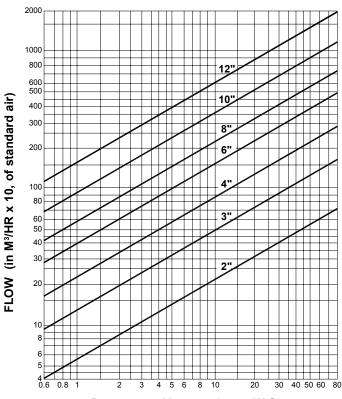
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NOMINAL SIZE



PERFORMANCE OF FLAME ARRESTOR FLOW CAPACITY



Pressure or Vacuum, in cm W.G.

(Above graph is applicable for clean Tube Banks only)

 $1 \text{ cm H}^2\text{O} = 0.1 \text{ KPa}$ | $1 \text{ KPa} = 10 \text{ cm H}^2\text{O}$ | $1 \text{ cm H}^2\text{O} = 1 \text{ mBar}$

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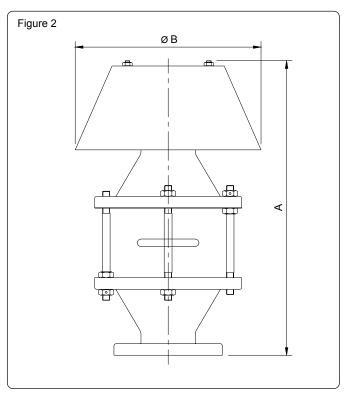
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FLAME ARRESTOR WITH HOOD

DIMENSIONS

NOMIN	IAL SIZE		Α	В		
mm	inch	mm	inch	mm	inch	
50	2	445	17-1/2	305	12	
80	3	534	21	343	13-1/2	
100	4	648	25-1/2	394	15-1/2	
150	6	700	27-1/2	394	15-1/2	
200	8	832	32-3/4	508	20	
250	10	1000	39-3/8	635	25	
300	12	1200	47	750	29-1/2	



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MATERIALS OF CONSTRUCTION

Body : Aluminium alloy LM-25

Stainless Steel 304 or 316 Cast or Carbon Steel

Core Tube : Aluminium, Stainless Steel 304 or 316

Tube Bank : Stainless Steel AISI 304 or 316

Hood : Aluminium

Hardware : Mild Steel

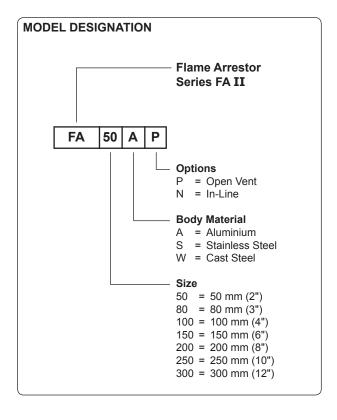
(Optional) (Zinc Plated / Yellow Passivated)

APPLICATION DATA IMPORTANT CRITERIA FOR SIZING SELECTION

Due to varying degrees of hazard, it is necessary to very carefully assess the type and capacity of Flame Arrestor required for safe operation.

A detailed application form, to include information as listed below, should be completed and returned to us for each and every proposed Flame Arrestor application to assist in the correct sizing of the Flame Arrestor required to suit each application.

- 1. Enquiry / order number
- 2. Analysis of gases and/or vapours % by volume or tank contents
- 3. Flash point
- 4. Storage tank capacity (if applicable)
- 5. Max. filling and emptying rates for storage tanks
- 6. Max. static pressure at Flame Arrestor
- 7. Max. temperature at Flame Arrestor
- 8. Min. temperature at Flame Arrester
- 9. Max. rate of flow (by volume)
- 10. Acceptable pressure drop
- 11. In-line or End-of-line type
- 12. If In-line type, distance of Flame Arrester from source of ignition
- 13. Type and size of flange or threads
- 14. Material for housing
- 15. Material for element
- 16. Advise if continuous burning on element possible
- 17. Special requirements (if any)



SPECIALS ON REQUEST

- Epoxy Coated
- · Customer specific paint requirements
- · Stainless Steel bolting



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u Specifications are subject to change without notice.

u All dimensions are in mm unless otherwise specified.