

TECHNICAL DATA Flame Arresters

FE-EXH Series



End of Line Deflagration Arrester with Replaceable Element

Application:

The Elmac Technologies Limited, FE-EXH series end-of-line deflagration arresters are designed to be installed at the end of a pipeline or exit vent from a vessel, where the ignition source is external, to provide protection against atmospheric deflagration.

Principle of Operation

A flame arrester uses an element with small apertures which allows gas or vapour to pass. If the apertures are smaller than the maximum experimental safe gap (MESG) for the gas or vapour then a flame cannot pass through the arrester, and is subsequently contained or extinguished.

Benefits

- Large variety of sizes and materials to suit a wide range of applications
- Variants available for different operating temperature ranges
- Options available for sour environments
- Optional weatherhood
- Replaceable elements
- The Elmac technical team can advise on specific location queries

Gas Groups

Elmac flame arresters in the FE-EXH range are for use with gases in Groups I, IIA, IIB1, IIB2 and IIB3.

Standards Compliance

All flame arresters have been tested and certified in accordance with national or international standards.

Actual device performance is verified in the Elmac Technologies "state of the art" in-house test facility.



Elmac Expertise

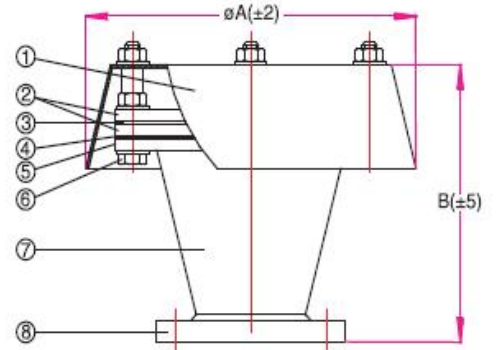
Elmac have been manufacturing flame arresters since 1948, and bring enhanced levels of flame and explosion protection to a diverse range of applications. Elmac Technologies offers considerable technical leadership and using test facilities along with CFD capabilities, employs research teams renowned for developing solutions for the most challenging of industrial applications.

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Variations:

Flange fixing (ANSI 150, or PN16), Female fixing (BSP/NPT), Male fixing (BSP/NPT), Optional weatherhood.



Material Specifications

Ref	Description	Carbon Steel Models	Low Temp Carbon Steel Models	Stainless Steel Models	Hastelloy Models
1	Weatherhood	Stainless or Mild Steel	Stainless Steel	Stainless Steel	Hastelloy
2	Element - housing	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy
3	Element - core	Stainless Steel	Stainless Steel	Stainless Steel	Hastelloy
4	Gasket	Klingsil C4400	Klingsil C4400	Klingsil C4400	Klingsil C4400
5	Body ring	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy
6	Fasteners	Carbon Steel	Stainless Steel	Stainless Steel	Hastelloy
7	Reducer	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy
8	Fixing flange	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy

Dimensions

NB (mm)	15	20	25	32	40	50	65	80
\varnothing Element (mm)	50	50	50	80	80	100	125	150
$\varnothing A (\pm 2)$ mm	178	178	178	223	223	255	255	300
B (± 5) mm	137	139	133	156	156	175	219	223
Approx Wt (kg)	2.6	2.6	3.5	4.1	5.0	6.6	9.5	14

NB (mm)	100	125	150	200	250	300	350	400
\varnothing Element (mm)	200	250	300	400	500	600	700	800
$\varnothing A (\pm 2)$ mm	370	450	510	650	800	950	1100	1240
B (± 5) mm	259	306	337	544	726	767	852	927
Approx Wt (kg)	23	32	43	120	170	285	393	445

FE-EXH Flow Curves

Air flow at 1 atmosphere (101.325kPa) and 0°C

