

SGE-IB Def. Series

In-Line Deflagration Arrester with Replaceable Elements



Protecting People, Property and our Planet.

Application

The Elmac Technologies®, SGE-IB Def. in-line deflagration arresters are designed to prevent propagation of flames in gas or vapour mixtures. By locating the arrester in close proximity to the potential source of ignition, any flame or explosion is confined to the immediate area. SGE-IB Def. arresters are supplied as complete units ready for direct installation into piping systems.



Principle of Operation

In the event of explosion, the combustion products are cooled at the element surface by heat dissipation, preventing continuation of the combustion process through the flame arrester and into the protected line. Accordingly, the flame cannot pass through the flame arrester, and is subsequently contained or extinguished.

Explosion Gas Groups

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

Standards Compliance

Elmac Technologies® Flame Arresters have been type -tested to EN ISO 16852 and certified according to ATEX Directive 2014/34/EU. Actual device performance is verified in the Elmac Technologies® state-of-the-art in-house test facility.



Elmac Expertise

Elmac Technologies® has been manufacturing protection equipment since 1948 and brings enhanced levels of flame and explosion protection to a diverse range of applications.

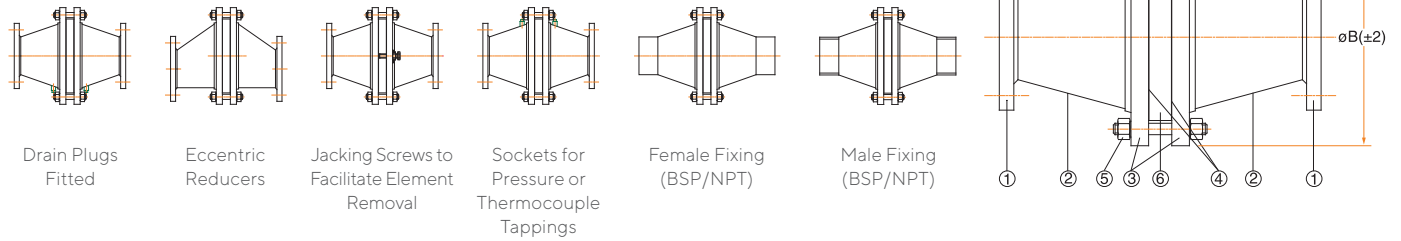
Elmac offers considerable technical leadership and, using test facilities along with Computational Fluid Dynamics (CFD) capabilities, employs research teams renowned for developing solutions for the most challenging of industrial applications.

Features and 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
- Replaceable elements
- Bi-directional
- The Elmac technical team can advise on specific location queries

Variations:

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



Materials Specifications

Ref	Description	Carbon Steel Models	Low Temp Carbon Steel Models	Stainless Steel Models	Hastelloy Models
1	Fixing flanges	Carbon Steel	LowTemp Carbon Steel	Stainless Steel	Hastelloy
2	Body	Carbon Steel	LowTemp Carbon Steel	Stainless Steel	Hastelloy
3	Element flanges	Carbon Steel	LowTemp Carbon Steel	Stainless Steel	Hastelloy
4	Gaskets	Klingersil C4400	Klingersil C4400	Klingersil C4400	Klingersil C4400
5	Fasteners	Carbon Steel	Stainless Steel	Stainless Steel	Hastelloy
6	Element - housing	Carbon Steel	LowTemp Carbon Steel	Stainless Steel	Hastelloy
7	Element - core	Stainless Steel	Stainless Steel	Stainless Steel	Hastelloy
8	Element - periphery	Stainless Steel	Stainless Steel	Stainless Steel	Hastelloy

Dimensions

NB (mm)	15	20	25	32	40	50	65	80
ø Element (mm)	93	93	93	124	124	156	189	215
A mm	242	246	234	268	268	300	378	390
øB mm	152	152	152	190	190	229	254	279
Approx Wt (kg)	9	10	11	16	18	23	29	38

NB (mm)	100	125	150	200	250	300	350	400
ø Element (mm)	270	326	381	490	599	709	799	906
A mm	426	486	546	879	1197	1225	1347	1455
øB mm	343	406	483	597	698	813	927	1060
Approx Wt (kg)	55	86	108	196	374	442	540	690

SGE-IB Def. Flow Curves

Pressure drop performance varies according to a particular flame arrester configuration. Further information is available on request from the Elmac Customer Support team.

Customer Support

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All specifications are correct at time of print, are for guidance purposes only and subject to change without prior notice.