

## TECHNICAL DATA **Flame Arresters**

# SGE-IB Def. Series



## **In-Line Deflagration Arrester with Replaceable Element**

### **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. In the context of the Pressure Equipment Directive (PED), Elmac flame arresters are classified as a piping assembly.

### **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
- Replaceable elements
- Bi-directional
- The Elmac technical team can advise on specific location queries

### **Gas Groups**

Elmac flame arresters in the SGE-IB 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**

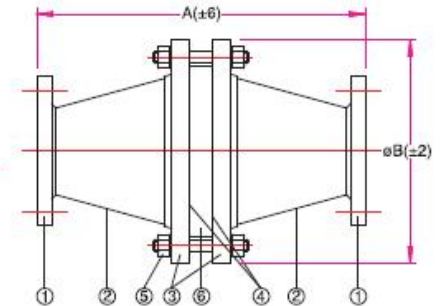
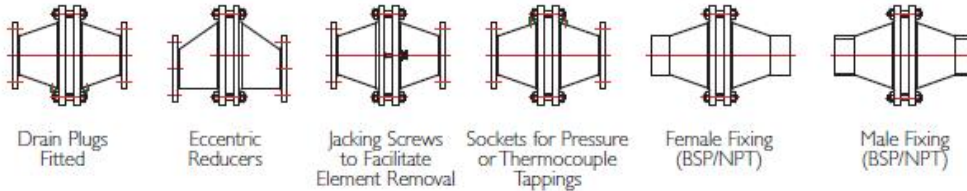
Elmac have been manufacturing flame arresters since 1948, and bring enhanced levels of flame and explosion protection to a diverse range of applications. Elmac Technologies offers considerable technical leadership and using test facilities along with CFD capabilities, employs research teams renowned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

# SGE-IB Def. Series

## In-Line Deflagration Arrester with Replaceable Element

### Variations:

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



### Material Specifications

Ref	Description	Carbon Steel Models	Low Temp Carbon Steel Models	Stainless Steel Models	Hastelloy Models
1	Fixing flanges	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy
2	Body	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy
3	Element flanges	Carbon Steel	Low Temp Carbon Steel	Stainless Steel	Hastelloy
4	Gaskets	Klingsil C4400	Klingsil C4400	Klingsil C4400	Klingsil C4400
5	Fasteners	Carbon Steel	Stainless Steel	Stainless Steel	Hastelloy
6	Element - housing	Carbon Steel	Low Temp 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

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

