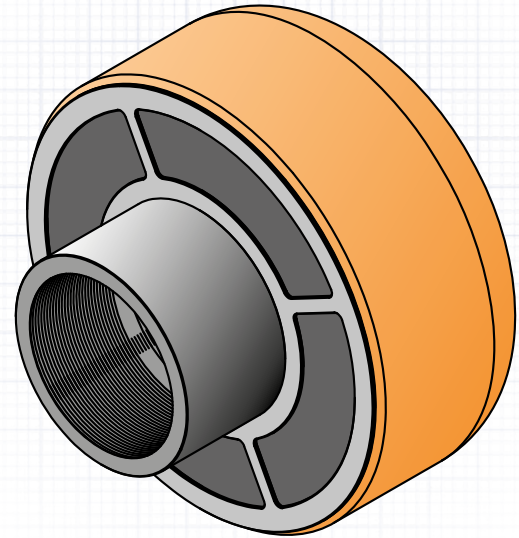


ERB Series

RE-Flow™ End-of-Line Deflagration Arresters

Elmac Technologies ERB series of end-of-line deflagration arresters are designed to prevent atmospheric deflagrations from entering into a gas or vapour piping system, or a storage tank when installed at the end of a vent pipe.



Principle of operation

Elmac ERB flame arresters (patent pending) incorporate Elmac's E-Flow™ enhanced crimped ribbon technology in the flame arresting element. The channel dimensions of the element are optimised for deflagration protection; whilst ensuring minimal maintenance requirements and maximising flow performance.

During a deflagration, the flame and combustion products are cooled down by the element and a continuation of the combustion process is prevented or the flame is extinguished, thereby preventing flame propagation through the flame arrester and into the vent line and/or storage tanks. ERB series flame arresters' unique operating mode allows downward venting (RE-Flow™) and self draining of the arrester element. This ensures minimal plugging or clogging of the element under normal operating conditions.

Features and benefits

Simple, compact, robust and light

Up to 5x lighter than standard flanged arresters

Self-draining element prevents rain, dirt or other foreign matter entering the piping system

Easy visual in-situ inspection of the element

E-Flow™ element provides optimum flow performance with minimal maintenance

Quick and easy to install and maintain

BSP/NPT connection easily modified with adapters

Gas groups

Elmac ERB series deflagration arresters are ATEX approved for gases in Explosion Groups IIA1, IIA and IIB3.

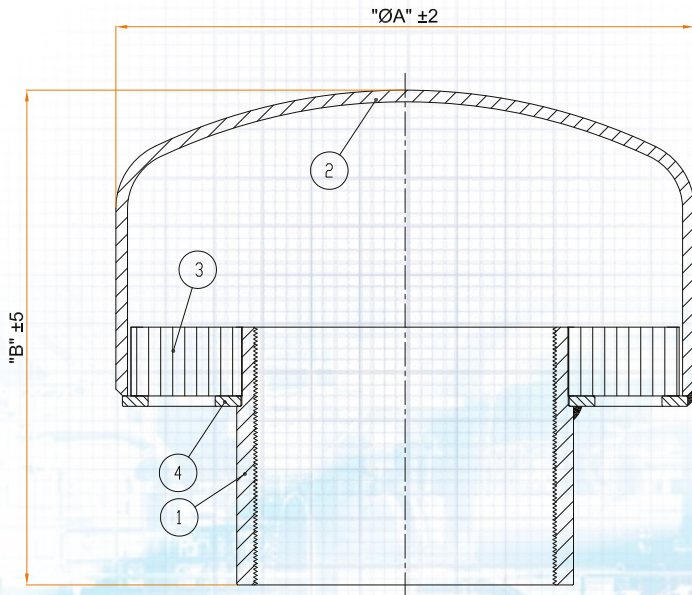
Elmac expertise

Elmac have been manufacturing protection equipment since 1948 and bring enhanced levels of flame and explosion protection to a diverse range of applications.

Elmac 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.

ERB Series RE-Flow™ End of Line Deflagration Arrester

General Arrangements:



Standard Material Specifications

Ref	Description	Material
1	Female Socket	Stainless Steel
2	End Cap	Stainless Steel
3	Crimped Ribbon Element	Stainless Steel
4	Element Ring	Stainless Steel

Dimensions

Nominal Bore (mm)	ØA (mm)	B (mm)	Approx Wt (kg)
10	89	69	0.7
15	89	79	0.7
20	89	82	0.7
25	89	77	0.7
32	141	107	1.8
40	141	107	1.9
50	141	116	1.9
65	168	138	2.9
80	168	144	3.0

Variations:

Feature	Standard Fitting	Options*
Arrester Materials	Stainless Steel	On Request
Element Material	Stainless Steel	On Request
Connections	BSP / NPT Female	Adapters for Other Connection Types

*May be limited according to arrester size

Operating conditions

The operating temperature range for ERB arresters is -20°C to +60°C.

ERB flow curves

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

Standards compliance

ERB flame arresters have been type-tested to EN ISO 16852 and approved according to ATEX Directive 94/9/EC.

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

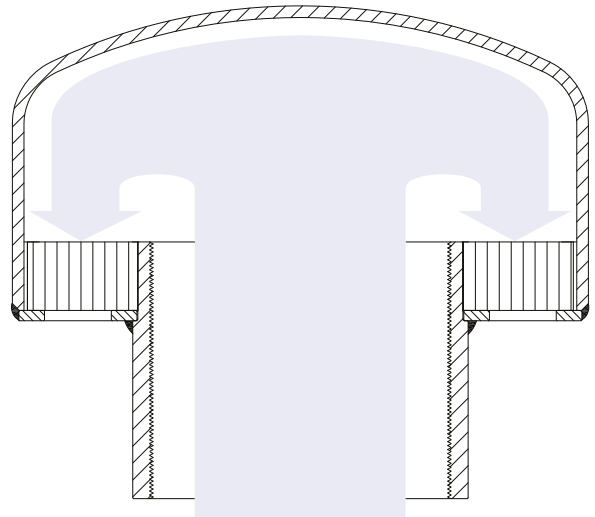


EMS535425

FM535423

RE-Flow™

The diagram below demonstrates the out-breathing of gases and/or vapours through the ERB housing and element to vent to atmosphere.



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

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