

EVA Series



End of Line Deflagration Arrester with Replaceable Element

Application:

The **Elmac Technologies**® EVA 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

The EVA series incorporates Elmac's E-Flow™ enhanced crimped ribbon technology in the flame arresting element, the matrix of which has been optimised using CFD to ensure industry leading flow and pressure drop characteristics. During a deflagration the combustion products are cooled at the element surface by heat dissipation, which prevents continuation of the combustion process through the arrester and into the protected vent line.

Benefits

- Exceptional flow capacities with minimal pressure drop
- Easy-clean, replaceable, crimped-ribbon elements
- Unique element design is less susceptible to fouling/clogging
- Sizes and materials to suit a wide range of applications
- End connections include flanged or threaded options
- Light weight for ease of installation
- Bird screen fitted as standard
- The Elmac technical team can advise on specific location queries

Explosion Groups

Elmac end-of-line deflagration arresters in the EVA series are ATEX approved for gases in Explosion Groups IIA1 and IIA.

Standards Compliance

EVA 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.



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FM535423



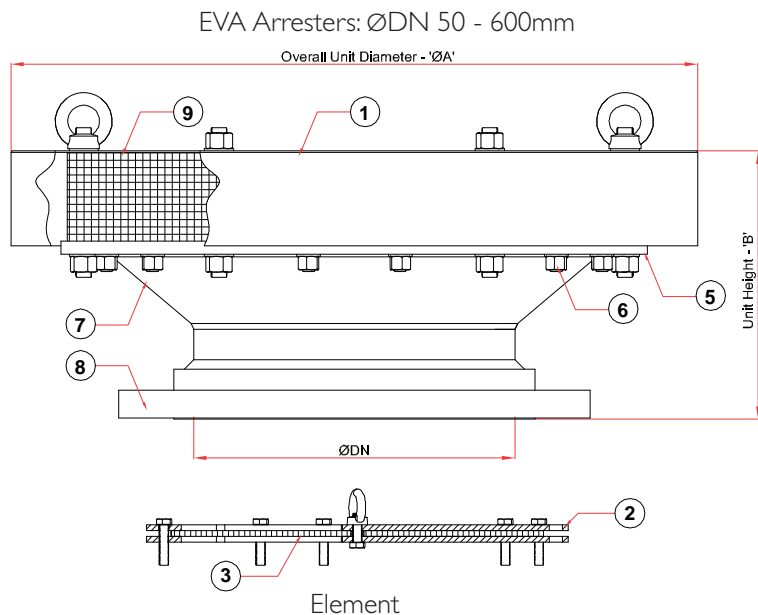
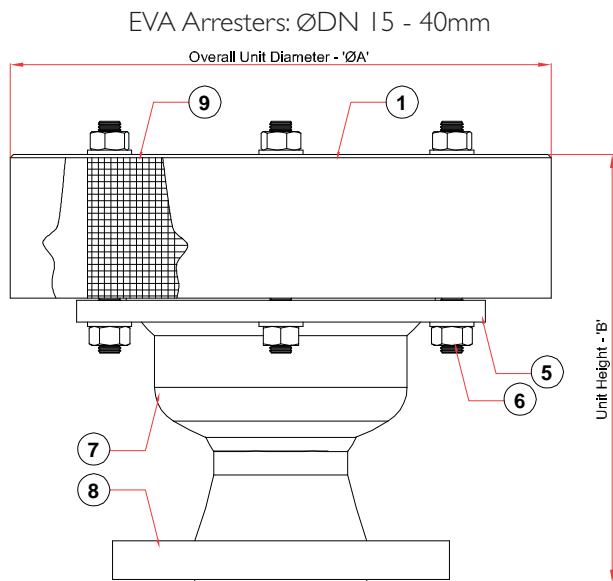
Elmac Expertise

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

EVA Series

End-of-Line Deflagration Arrester with Replaceable Element

General Arrangements:



Standard Material Specifications

Ref	Description	Carbon Steel	Stainless Steel
1	Weatherhood	316 Stainless Steel	316 Stainless Steel
2	Element Housing	Carbon Steel	316 Stainless Steel
3	Element Core	316L Stainless Steel	316L Stainless Steel
4*	Gasket	PTFE	PTFE
5	Element Flange	Carbon Steel	316 Stainless Steel
6	Fasteners	Carbon Steel BZP	316 Stainless Steel
7	Reducer	Carbon Steel	316 Stainless Steel
8	Fixing Flange	Carbon Steel	316 Stainless Steel
9	Bird Screen	316 Stainless Steel	316 Stainless Steel

* Not shown in General Arrangement drawings above

Dimensions*

NB (mm)	15	20	25	32	40	50	65	80	100
ØA (mm)	245	245	245	245	245	245	300	300	360
B (mm)	182	187	189	190	195	185	220	220	236
Approx Wt (kg)	6.6	6.8	7.1	7.4	7.8	8.2	13.8	14.5	19.1

NB (mm)	125	150	200	250	300	350	400	450	500	600
ØA (mm)	420	500	500	600	660	790	870	950	1030	1200
B (mm)	269	315	315	482	518	332	340	380	393	451
Approx Wt (kg)	25.0	39.2	44.0	76.6	99.4	108.5	128.6	150.0	173.6	219.0

* Some arresters are available with differently sized elements for enhanced flow capabilities. Please contact Customer Support for details.

Variations:

Feature	Standard Fitting	Options*
Arrester Materials	Carbon or Stainless Steel	Low Temperature Carbon Steel, Duplex Steel, Hastelloy
Element Material	316L Stainless Steel	Hastelloy
Connections	ANSI 150 Flange	PN16 Flange, Female BSP/NPT, Male BSP/NPT
Arrester Finish	Painted (Carbon Steel Arresters)	Offshore Paint, PTFE Coated, Others on Request
Bird Screen	316 Stainless Steel	304 Stainless Steel, PTFE Coated

* May be limited according to arrester size

Operating Conditions

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

EVA Flow Curves

Pressure drop performance varies according to a particular 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.