

# EVA Series

## End-of-Line Arresters

### End-of-Line Deflagration Arrester with Replaceable Element for Gas Explosion Groups IIAI & IIA

The Elmac Technologies® EVA series end-of-line flame arresters are designed to protect against atmospheric deflagration where the ignition source originates outside of the system.



#### 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 to ensure industry leading flow vs 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.

#### Features and 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

#### Operating conditions

Elmac EVA end-of-line arresters are ATEX certified for gas explosion groups IIAI & IIA with a maximum operating temperature of +60°C.

#### 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.

#### Standards compliance

EVA flame arresters have been type-tested to EN ISO 16852 and approved according to ATEX Directive 2014/34/EU.

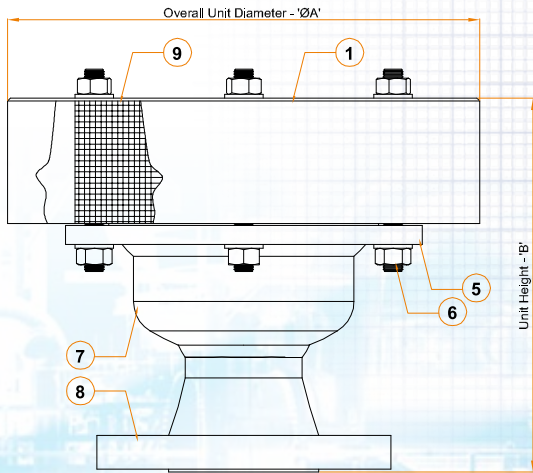
Actual device performance is verified in the Elmac Technologies state-of-the-art in-house test facility.



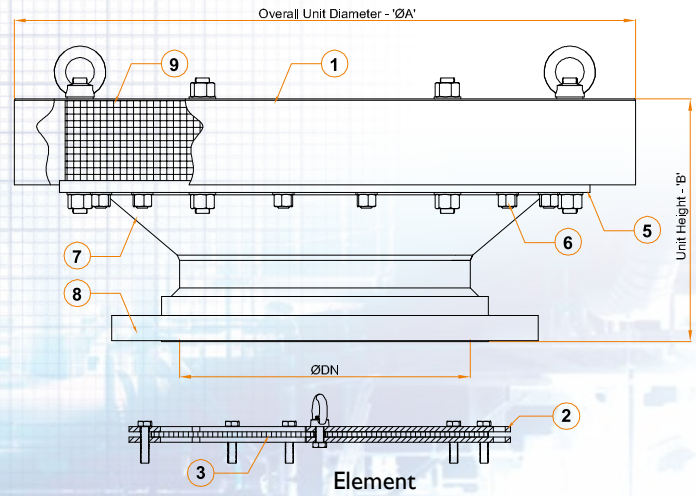
# EVA Series End-of-Line Deflagration Arrester with Replaceable Element

## General Arrangements:

EVA Arresters: DN 15-40mm



EVA Arresters: DN 50-600mm



## Standard Material Specifications

| Ref | Description     | Carbon Steel Models  | Stainless Steel Models |
|-----|-----------------|----------------------|------------------------|
| 1   | Weatherhood     | 316 Stainless Steel  | 316 Stainless Steel    |
| 2   | Element Housing | Carbon Steel         | 316 Stainless Steel    |
| 3   | Element Core    | 316L Stainless Steel | 316 Stainless Steel    |
| 4*  | Gasket          | PTFE                 | PTFE                   |
| 5   | Element Flange  | Carbon Steel         | 316 Stainless Steel    |
| 6   | Fasteners       | 316 Stainless Steel  | 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   | 343    |       |
| 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 | 173.60 | 219.0 |

\*Larger element configurations are available for higher flow applications. Please contact Customer Support for details.

## Variations

| Feature            | Standard Fitting                 | Options*  |
|--------------------|----------------------------------|---|
| Arrester Materials | Carbon Steel 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

## 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.

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