

'Cowhorn' Arrangement



Flame Arresters & Pressure/ Vacuum Relief Valves in the 'Cowhorn' Arrangement

Application:

The **Elmac Technologies**® 'Cowhorn' arrangement of selector valve and twin sets of pressure relief valves and/or flame arresters, is intended for use on digesters where overpressure and explosion protection is required. By utilising a selector valve, one set of arrester and valve combination can be maintained whilst the other is in service.

Principle of Operation

Flame arresters are fitted to storage tanks to provide explosion protection, whilst pressure/vacuum relief valves prevent damage to a tank due to internal over/under pressure of the vapour space inside it. If flame arresters and relief valves are attached in pairs to a 3-way valve, which in turn is connected to an open vent on a storage tank roof, then the operator is able to switch between sets when operational or maintenance demands require. This is commonly known as a 'cowhorn' arrangement.

Benefits

- Sizes and materials to suit a wide range of applications
- 3-way selector valve allows switch-over function
- Optional isolator valve set-up allows parallel operation
- Flame arresters can protect contents up to gas group IIC
- Pressure/Vacuum relief valves can be set up to 0.5bara
- High flow capacity with minimal pressure drop
- Easy inspection and maintenance
- ATEX approved

Customer Support

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Issue No 03 (10/11)

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

Materials & Options

Item	Options
Sizes (Nominal Bore)	2" to 12" (DN50 to DN300)
Process Connection	ANSI 150# (Standard) PN10 / PN16 Special (on request)
Materials	Aluminium Carbon Steel Stainless Steel Special (on request)
Valve Types	3-Way Valves (Lockable) Butterfly/Gate for Twin Isolation Special (on request)
Flame Arrester Gas Groups	IIA IIB3 IIC
Pressure Relief Valve Ratings	2.15 to 500 mbarg
Ancillary Equipment	Proximity Switches Special Pipework Pressure Transducers Thermocouples Special (on request)