elmactechnologies.com TECHNICAL DATA

# **Bursting Disc** and Safety/Relief Valve Combination



## Overpressure Protection

Using Bursting Discs in Combination with Safety/Relief Valves.



### **Application**

The ASME and other pressure vessel codes allow the use of bursting discs in series with safety valves thus providing a wide range of benefits.

#### **Bursting Disc Selection**

Not all bursting discs are suitable for installation below safety valves.

It is important that any bursting disc installed below a safety valve should be a non-fragmenting design as fragments from a bursting disc may:

- · Damage the valve and/or seat
- · Block the valve
- · Damage other downstream equipment









**Reverse Acting Discs** 

Modern reverse acting discs can be manufactured as non-fragmenting designs and their wide burst pressure range, tolerance of high and cycling operating pressures and vacuum resistance make them ideal for installation in series with a safety valve for low and medium/high pressures. Installation of a reverse acting disc will allow in-situ check of calibration of the safety valve without disturbing the process side of the disc or other pipework. This can allow savings in dismantling of equipment and reduced plant downtime.

#### Elmac Expertise

Elmac Technologies® has been manufacturing protection equipment since 1948 and brings enhanced levels of flame and explosion protection to a diverse range of applications.

Elmac offers considerable technical leadership and, utilising a range of testing facilities along with Computational Fluid Dynamics (CFD) studies, employs research teams renowned for developing solutions for the most challenging of industrial applications.

#### Features and Benefits

Bursting discs may be used in series with safety valves; the key benefits are:

- Protection of the valve from corrosive or viscous product, which can allow a simpler or cheaper valve to be installed, and a minimal servicing/maintenance regime for the valve
- · Very good isolation of the process so it eliminates the reliance on a perfect valve seal to prevent fugitive emissions
- increasingly important for environmental protection
- Isolates the valve (spring) from fluctuation/cycling process pressure conditions to assist in maintaining valve calibration

#### Customer Support

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