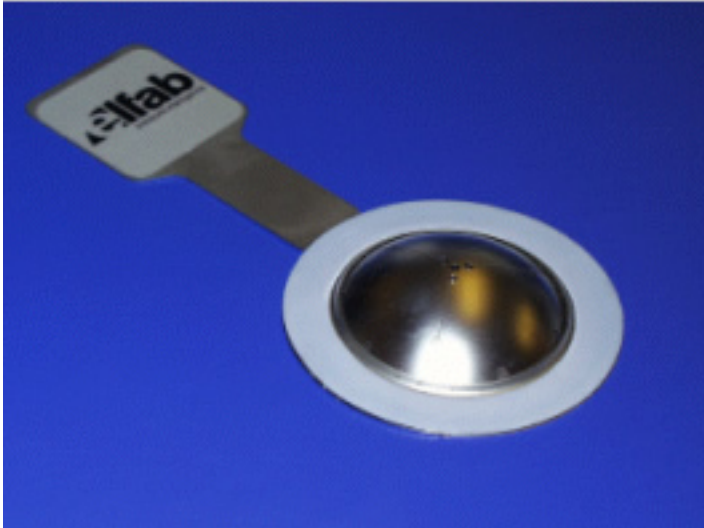


## Tank-Safe (TS)



Tank-Safe is designed for use on intermodel tank containers to meet the requirements of the various international standards relating to transportation of dangerous goods.

The disc is of composite construction and does not require a holder. It is mounted directly below the relief valve. The construction comprises of three main components, a slotted top section, seal membrane and vacuum support. At the set pressure the disc bursts and petals open to give full bore relief.

- Available in three standard sizes
- Available in three standard pressures
- Available from stock

| Specifications          |  |
|-------------------------|--|
| SIZE RANGE              | 50mm, 65mm and 80mm (2, 2 ½" and 3")                         |
| BURST PRESSURE RANGE    | 3.75 bar g to 4.4 bar g (54.4 psig to 63.8 psig)             |
| TEMPERATURE RANGE       | 20 to 60C (68 to 140F)                                       |
| MAXIMUM OPERATING RATIO | 85% of minimum burst pressure(81% of nominal burst pressure) |
| FRAGMENTATION ON BURST  | non-fragmenting design                                       |
| RELIEF VALVE ISOLATION  | excellent  |
| VACUUM SERVICE          | suitable for full vacuum                                     |
| FLUID COMPATIBILITY     | liquid, gas or vapour  |
| K <sub>R</sub> VALUES   | not available  |
| TORQUE-SENSITIVE        | No   |
| CYCLE LIFE              | very good  |
| MATERIAL RANGE          | Inconel and Stainless Steel as standard, others available.   |
| REVERSAL RATIO          | dependant on support   |
| DAMAGE RATIO            | <1 (fail-safe)   |
| LEAK TIGHTNESS          | good   |
| PERFORMANCE TOLERANCE   | +/- 5% (zero manufacturing design range)                     |
| PROTECTIVE LININGS      | not available  |

## Specifications and Performance

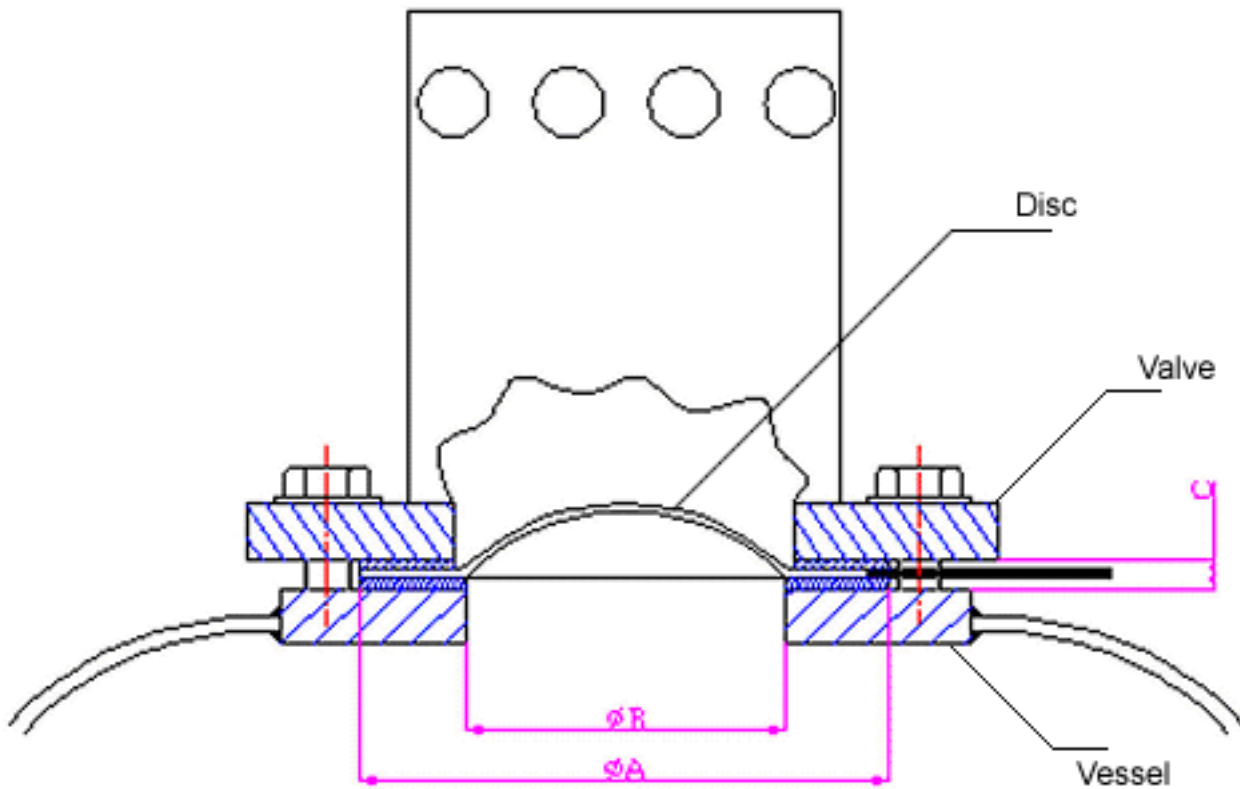
| STANDARD PRESSURES in barg (psig) at 60 C (140F) |      |             |              |             |
|--|------|-------------|--------------|-------------|
| Nominal Bore                                     |      | 3.75 (54.4) | 4.125 (59.8) | 4.40 (63.8) |
| mm   | inch |             |              |             |
| 50   | 2    | Yes         | Yes          | Yes         |
| 65   | 2 ½  | Yes         | Yes          | Yes         |
| 80   | 3    | Yes         | Yes          | Yes         |

| PERFORMANCE TOLERANCE (ZERO MANUFACTURING DESIGN RANGE) |  |           |                |           |
|---|--|-----------|----------------|-----------|
| Burst Pressure  |  | Tolerance | Burst Pressure | Tolerance |
| Above 2.76 barg   |  | +/- 5%    | Above 40 psig  | +/- 5%    |

| STANDARD TEMPERATURE RANGE °C (°F) |          |          |
|------------------------------------|----------|----------|
| Material                           | Minimum  | Maximum  |
| Stainless Steel                    | -20 (-4) | 60 (140) |
| Inconel                            | -20 (-4) | 60 (140) |
| Fluoropolymer Liner                | -20 (-4) | 60 (140) |

| FREE FLOW AREA / MINIMUM NET FLOW AREA (MNFA) |      |                 |                 |
|---|------|-----------------|-----------------|
| Nominal Bore                                  |      | Value           |                 |
| mm  | inch | mm <sup>2</sup> | in <sup>2</sup> |
| 50  | 2    | 2027            | 3.14            |
| 65  | 2 ½  | 3318            | 5.14            |
| 80  | 3    | 5027            | 7.79            |

| DIMENSIONS       |      |                |      |                      |      |
|------------------|------|----------------|------|----------------------|------|
| Nominal Bore (B) |      | Disc Thickness |      | Outside Diameter (A) |      |
| mm               | inch | mm             | inch | mm                   | inch |
| 50               | 2    | 1.5            | 0.06 | 79                   | 3.11 |
| 65               | 2 ½  | 1.5            | 0.06 | 94                   | 3.70 |
| 80               | 3    | 1.5            | 0.06 | 120                  | 4.72 |



### Pressure Intelligence

The data shown on these sheets represents the standard offering from Elfab. Depending upon the requirements of your application, Elfab maybe able to provide a solution based on this product but outside the standard operating parameters. In addition, Elfab produces an extensive range of alternative products which maybe more suitable for your requirements.

As a result of extensive testing, Elfab can advise on these choices, or on other technical matters, such as discharge requirements, temperature testing, material selection and corrosion resistance, customised designs and burst detection.

**To discuss your specific product or service requirements please contact your Elfab representative.**



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