

2 Way Same Tank-Safe (2WS) 2 Way Different Tank-Safe (2WD)

| Burst Pressure Range in barg(psig) at 15-30C(59-86F) | | | | | |
|---|------|---------------------------------------|----------|--|----------|
| Nominal Bore | | Nickel Top Section-Fluoropolymer Seal | | Stainless Steel/Inconel Top Section-Fluoropolymer Seal | |
| mm | inch | min | max | min | max |
| 25 | 1 | 0.21(3) | 1.04(15) | 0.42(6) | 2.07(30) |
| 40 | 1.5 | 0.14(2) | 0.7(10) | 0.28(4) | 1.38(20) |
| 50 | 2 | 0.14(2) | 0.7(10) | 0.28(4) | 1.38(20) |
| 65 | 2.5 | 0.14(2) | 0.7(10) | 0.28(4) | 1.38(20) |
| 80 | 3 | 0.14(2) | 0.7(10) | 0.28(4) | 1.38(20) |
| 100 | 4 | 0.14(2) | 0.7(10) | 0.28(4) | 1.38(20) |
| 150 | 6 | 0.07(1) | 0.35(5) | 0.14(2) | 0.7(10) |
| 200 | 8 | 0.07(1) | 0.35(5) | 0.14(2) | 0.7(10) |
| 250 | 10 | 0.07(1) | 0.35(5) | 0.14(2) | 0.7(10) |
| 300 | 12 | 0.07(1) | 0.35(5) | 0.14(2) | 0.7(10) |

| Performance Tolerance (Zero Manufacturing Design Range) | | | |
|--|----------------|----------------|----------------|
| Burst Pressure | Tolerance | Burst Pressure | Tolerance |
| ≤ 0.24 Barg | +/- 0.026 Barg | ≤ 3.5 Psig | +/- 0.375 Psig |
| >0.24 - < 0.5 | +/- 0.053 Barg | >3.5 - ≤7.25 | +/- 0.75 Psig |
| ≥0.5 | +/- 5% | >7.25 | +/- 5% |

NOTES:

- 1) For 2 way discs with the same burst pressure in both directions (2WS) then the disc burst pressure can be specified anywhere between the minimum and maximum burst pressure ranges shown above. e.g. a 50mm disc burst pressure can be specified between 2 psig and 20 psig.
- 2) For 2 way different Tank-Safe discs (2WD), the high pressure burst cannot exceed 5 times the low pressure burst. i.e. If the low pressure burst is 3 psig then the high pressure burst must be greater than 3 psig but less 15 psig.

| Free Flow Area / Minimum Net Flow Area (MNFA) | | | | | |
|--|------|-------------------------------|-------------------|------------------------------|-------------------|
| Nominal Bore | | High Pressure Direction (2WS) | | Low Pressure Direction (2WD) | |
| mm | inch | mm ² | inch ² | mm ² | inch ² |
| 25 | 1 | 491 | 0.76 | 152 | 0.23 |
| 40 | 1.5 | 1018 | 1.58 | 418 | 0.64 |
| 50 | 2 | 1735 | 2.71 | 699 | 1.08 |
| 65 | 2.5 | 3117 | 4.86 | 1159 | 1.79 |
| 80 | 3 | 4657 | 7.26 | 1742 | 2.70 |
| 100 | 4 | 7088 | 11.05 | 2732 | 4.23 |
| 150 | 6 | 16513 | 25.75 | 6408 | 9.93 |
| 200 | 8 | 29865 | 46.58 | 11780 | 18.25 |
| 250 | 10 | 47144 | 73.53 | 18566 | 28.77 |
| 300 | 12 | 68349 | 106.6 | 26906 | 41.70 |

NOTES:

- 1) For 2 way discs with the same burst pressure in both directions (2WS) then refer to the column 'High Pressure Direction' for the free flow area. i.e. the free flow area will be the same for forward or reverse operation of the bursting disc.
- 2) For 2 way discs with different burst pressures for forward and reverse operation (2WD) then refer to the 'High Pressure' and 'Low Pressure' columns for the free flow area of the disc. i.e. the disc free flow area will be significantly lower in the low pressure direction.