

2 Way Same Flat Composite (2WS) 2 Way Different Flat Composite (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 Flat Composite 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.