

Graphite G2 Disc (G2D)

Technical Information

Including specifications, performance data and schematic

General specifications

Size range	25mm to 300mm (1" to 12")
Burst pressure range	0.07 barg to 20 barg (1 psig to 290 psig)
Materials available	Graphite
Maximum operating ratio	85% of minimum burst pressure (76.5% of nominal burst pressure)
Performance tolerance	+/- 10% (zero manufacturing design range)
Fragmenting / non-fragmenting	Fragmenting
Vacuum service	Support not required above 1.7 barg (24.6 psig)
Fluid compatibility	Liquid, gas, vapour
K _r value	n/a
Torque sensitive	Yes
Cycle life	Average
Reversal ratio	n/a
Damage ratio	<1 fail-safe
Protective linings	Available on both faces
Relief valve isolation	No
Leak tightness	Average
Disc surface finish	n/a

Graphite G2 Disc (G2D)

Burst pressure range in barg (psig) at 15-30°C (59-86°F)

Nominal bore		Material	
		Graphite	
mm	inch	min	max
25	1	0.7 (10)	20 (290)
40	1.5	0.48 (7)	15 (217)
50	2	0.28 (4.1)	11 (159)
65	2.5	0.21 (3)	10 (145)
80	3	0.21 (3)	9 (130)
100	4	0.14 (2)	6.9 (100)
150	6	0.14 (2)	5.2 (75)
200	8	0.14 (2)	2.8 (41)
250	10	0.14 (2)	2.4 (35)
300	12	0.14 (2)	2.1 (30)

Free flow area / Minimum net flow area (MNFA)

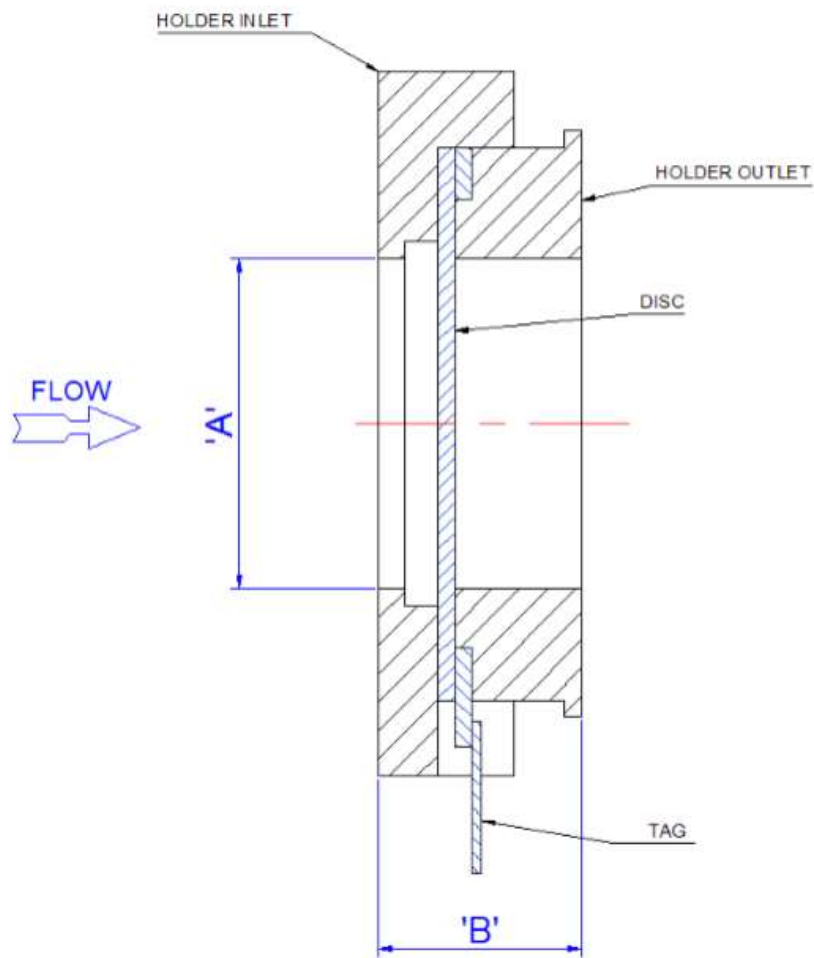
Nominal bore		MNFA without vacuum dial		MNFA with vacuum dial (NVS)	
mm	inch	mm ²	inch ²	mm ²	inch ²
25	1	507	0.79	270	0.42
40	1.5	1140	1.78	665	1.04
50	2	2027	3.16	1347	2.09
65	2.5	3167	4.94	2148	3.35
80	3	4560	7.11	2924	4.56
100	4	8107	12.63	4911	7.65
150	6	18241	28.43	10779	16.80
200	8	32429	50.54	17295	26.95
250	10	50671	78.96	29943	46.66
300	12	72966	113.71	43118	66.19

Performance tolerance (Zero manufacturing design range)

Burst Pressure	Tolerance	Burst Pressure	Tolerance
0.14 – 0.21 barg	+/- 0.07 barg	2 – 3 psig	+/- 1 psig
>0.21 – 1.7 barg	+/- 0.18 barg	>3 – 24.7 psig	+/- 2.5 psig
>1.7 barg	+/- 10%	>24.7 psig	+/- 10%

Graphite G2 Disc (G2D)

Product Schematic



Nominal Bore (A)		Face To Face (B) (without gaskets)
mm	Inch	mm
25	1	20.8-23.7
40	1.5	22.7-26.2
50	2	24-27.9
65	2.5	26.7-31.5
80	3	31.2 - 36.5
100	4	32.8 - 40.7
150	6	38.1 - 46
200	8	44.6 - 55.5
250	10	47.6 - 58.5
300	12	52.5 - 63

Flange Specifications	
EN 1092-1 PN Designated	BS EN 1759-1 ANSI Designated
PN 6	ANSI 150
PN 10	ANSI 300
PN 16	ANSI 600
PN 20	ANSI 900
PN 25	ANSI 1500
PN 40	ANSI 2500
PN 50	-
PN 63	-
PN 100	-