Safe-Gard (SGD)

Burst Pressure Range in barg(psig) at 15-30C(59-86F)										
Nominal Bore		Stainless Steel		Inconel		Monel		Nickel		Withstand Vacuum w/out support
mm	inch	min	max	min	max	min	max	min	max	
15	0.5	38(551)	185(2683)	30(435)	175(2538)	25(363)	175(2538)	20(290)	170 (2466)	N/A
25	1	2.4(35)	185(2683)	2.4(35)	175(2538)	2.2(35)	160(2320)	2.1(30)	150 (2176)	5 (73)*
40	1.5	2.8(40)	140(2031)	2.8(40)	140(2031)	2.6(35)	125(1813)	2.4(35)	120 (1740)	6 (87)*
50	2	3.1(45)	125(1813)	3.1(45)	125(1813)	2.9(42)	110(1595)	2.8(40)	100 (1450	7 (102)*
65	2.5	3.1(45)	105(1523)	3.1(45)	105(1523)	2.9(47)	90(1309)	2.8(40)	85 (1233)	9 (131)*
80	3	3.1(45)	90(1309)	3.1(45)	90(1309)	2.9(42)	80(1160)	2.8(40)	70 (1015)	10 (145)*
100	4	3.1(45)	75(1088)	3.1(45)	75(1088)	2.9(42)	68(986)	2.8(40)	60 (870)	12 (174)*
150	6	3.5(51)	55(798)	3.5(51)	52(754)	3.1(45)	50(725)	3.0(44)	40 (580)	17 (247)*
200	8	3.5(51)	40(580)	3.5(51)	40(580)	3.2(46)	38(551)	3.1(45)	30 (435)	ASK
250	10	4.5(65)	33(479)	4.5(65)	33(479)	3.8(55)	30(435)	3.1(45)	24 (348)	ASK
300	12	5.0(73)	30(435)	5.0(73)	30(435)	4.5(65)	28(406)	3.1(45)	20 (290)	ASK
350	14	6(87)	28(406)	5.8(84)	28(406)	5(73)	24(348)	3.5(50)	18 (261)	ASK
400	16	6(87)	24(348)	5.8(84)	24(348)	5(73)	20(290)	3.5(50)	16 (232)	ASK
450	18	6(87)	20(290)	5.8(84)	20(290)	5(73)	18(261)	3.5(50)	14 (203)	ASK
500	20	6(87)	18(261)	5.8(84)	18(261)	5(73)	16(232)	3.5(50)	12 (174)	ASK

*Disc will withstand full vacuum without a support when burst pressure is equal or greater than the specified value.

Performance Tolerance (Zero Manufacturing Design Range)			
Burst Pressure	Tolerance	Burst Pressure	Tolerance
≤2.76	+/- 0.28 barg	<40 psig	+/- 4 psig
>2.76 barg	+/- 5%	>40 psig	+/- 5%

Free Flow Area / Minimum Net Flow Area (MNFA)							
Nominal Bore		Without Vacuum Support (XXX)		With Non-Opening Vacuum Support (NVS)		With Opening Vacuum Support (OVS)	
mm	inch	mm^2	$inch^2$	mm^2	$inch^2$	mm^2	$inch^2$
25	1	322	0.5	244	0.38	322	0.5
40	1.5	800	1.24	608	0.95	800	1.25
50	2	1290	2	943	1.47	1290	2.01
65	2.5	2112	3.27	1564	2.44	2112	3.29
80	3	3200	4.96	2421	3.77	3200	4.99
100	4	5161	8	3823	5.96	5161	8.05
150	6	11250	17.43	7091	11.06	11250	17.55
200	8	20000	31	12629	19.7	20000	31.19
250	10	31250	48.44	20036	31.25	31250	48.74
300	12	45000	69.75	-	-	45000	70.18
350	14	61250	94.94	-	-	61250	95.53
400	16	80000	124	-	-	80000	124.77
450	18	101250	156.94	-	-	101250	157.91
500	20	125000	193.75	-	-	125000	194.96