

TWO-WAY ARMA-GARD

GRAPHITE RUPTURE DISC

A single graphite disc that protects against both positive and negative pressures



We have engineered the Two-way Arma-Gard disc to prevent vessel damage from both unwanted vacuum and overpressure conditions.

Unlike standard rupture discs, this bursting disc acts in both directions and is designed to be installed directly between industry-standard flanges.

It requires no holder and is non-torque sensitive due to its stainless steel armoured ring. This disc provides excellent corrosion resistance and is suitable for very low burst pressure applications.

We supply the Two-way Arma-Gard with the Elfab Flo-Tel actuator as standard to allow for the use of our ATEX-approved, reusable and non-invasive burst detection system Flo-Tel. Detection in one direction is standard. Detection for both directions is subject to process conditions, and requires a special holder and two Flo-Tel sensors.

Size	25mm - 300mm
Burst Pressure	0.07 barg to 35 barg
K_R Value (K_{RGL})	0.6
Operating Ratio	85% of min. burst pressure
Performance Tolerance	+/- 10%
Manufacturing Range	0%

Let us help you with all your pressure relief questions.

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Size range	25mm to 300mm / 1" to 12"
Burst pressure range	0.07 barg to 35 barg / 1 psig to 507 psig
Standard materials	Impregnated graphite
K _R Value	0.6
Max. Operating Ratio	85% of minimum burst pressure (76.5% of marked burst pressure)
Performance Tolerance	+/-10%
Manufacturing Range	0%
Fragmentation	Fragmenting
Vacuum Service	Vacuum support not required above 1.7 barg (24.6 psig)
Fluid compatibility	Gas service, liquid service, vapour service
Torque requirements	Not torque sensitive
Protective linings	Protective linings are available
Relief Valve Isolation	Not suitable for safety relief valve isolation
Design Standards	Designed to meet ISO 4126 or ASME XIII standards

Certifications

SIL
PED 2014/68/EU

Related Products

Rupture Discs
Universal Arma-Gard
GraphiTech
Graphite G2 Disc

Burst Pressure Ranges

Two-Way Arma-Gard Min/Max Burst Pressure 15-30°C (59-86°F)



SIZE		GRAPHITE DISC	
DN (mm)	inches	MIN barg (psig)	MAX barg (psig)
25	1	0.7 (10)	35 (507)
40	1.5	0.48 (7)	25 (362)
50	2	0.28 (4.1)	20 (290)
65	2.5	0.21 (3)	13 (188)
80	3	0.21 (3)	6 (87)
100	4	0.14 (2)	4 (58)
150	6	0.1 (1.5)	3 (43.5)
200	8	0.07 (1)	2 (29)
250	10	0.07 (1)	2 (29)
300	12	0.07 (1)	2 (29)

Burst Tolerance < 65mm

+/-0.07 barg \leq 0.21 barg
+/- 0.17 barg > 0.21 – \leq 1.7 barg
+/- 10% > 1.7 barg

+/-1 psig \leq 3 psig
+/- 2.5 psig > 3 – \leq 24.7 psig
+/- 10% > 24.7 psig

Burst Tolerance \geq 65mm

+/-0.035 barg < 0.35 barg
+/- 10% \geq 0.35 barg

+/-0.51 psig < 5 psig
+/- 10% \geq 5 psig

Notes

1) For two-way discs with the same burst pressure in both directions (2WS), the disc burst pressure can be specified anywhere between the minimum and maximum burst pressure ranges shown above. For example, for a 50mm disc you can specify a burst pressure anywhere between 4.1 psig and 290.psig.

2) For two-way discs with different burst pressures for forward and reverse operation (2WD), the maximum burst pressure specified may not exceed twice the specified low burst pressure. For example, if you specify a low burst pressure of 20 psig for a 50mm disc, the maximum burst pressure you specify may not exceed 40 psig.

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		AGS (2WS)		AGS (2WS)	
DN (mm)	inches	mm ²	Sq. Inch	mm ²	Sq. Inch
25	1	507	0.79	223	0.35
40	1.5	1140	1.78	501	0.78
50	2	2027	3.16	892	1.39
65	2.5	3167	4.94	1393	2.17
80	3	4560	7.11	2006	3.12
100	4	8107	12.63	3567	5.56
150	6	18241	28.43	8026	12.51
200	8	32429	50.54	14268	22.23
250	10	50671	78.96	22295	34.74
300	12	72966	113.71	32105	50.03

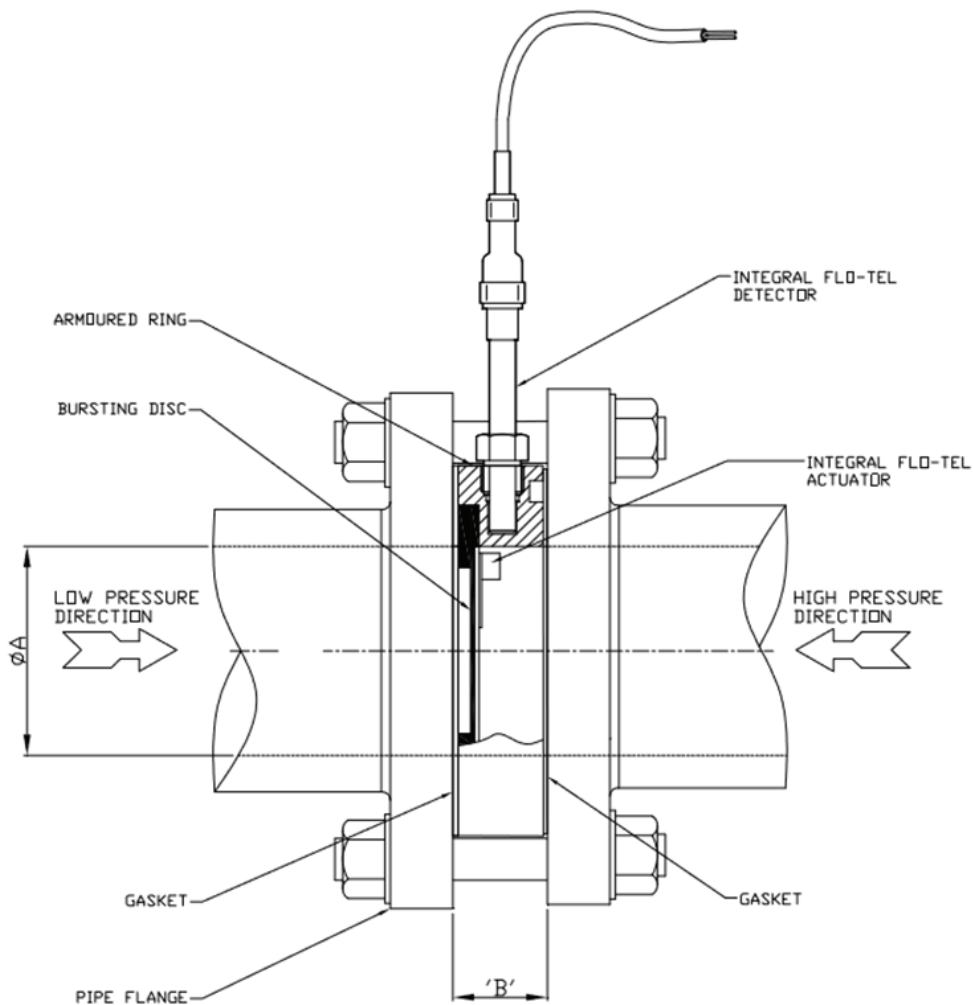
Notes

1) For two-way discs with the same burst pressure in both directions (2WS), please refer to the columns labelled AGS (2WS) for the relevant free flow area. The free flow area will be the same for both the forward and reverse operation of the rupture disc.

2) For two-way discs with different burst pressures for forward and reverse operation (2WD), please also refer to the column labelled AGS (2WD) for the relevant minimum free flow area. Depending on the ratio between the specified forward and reverse burst pressures, the disc free flow area will fall between the maximum free flow area, which is represented in the columns labelled AGS (2WS), and the minimum free flow area, which is represented in the columns labelled AGS (2WD).

K_R Value (Frictional Loss Factor)

K _R	Two-Way Arma-Gard
K _{RGL}	0.6



NOMINAL BORE (A)		FACE-TO-FACE (B)		
DN (mm)	inches	No gasket (mm)	Fibre gasket (mm)	Envelope gasket (mm)
25	1	20	23	25
40	1.5	20	23	25
50	2	20	23	25
65	2.5	20	23	25
80	3	20	23	25
100	4	23	26	28
150	6	25	28	30
200	8	32	35	37
250	10	35	38	40
300	12	38	41	43

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	-