

GR

GRAPHITE REPLACEMENT

The GR series (GR, GRO and GRR) provides an **economical, high-performance and non-fragmenting alternative to graphite rupture discs**



The GR series offers superior pressure relief protection for corrosive applications in the chemical and pharmaceutical industries. The non-fragmenting design makes these discs an excellent alternative to graphite in applications where fragmentation is a problem.

The fluoropolymer-encapsulated stainless steel disc is highly resistant to corrosion and breakage. The non-torque-sensitive rupture disc does not require a holder and can be installed directly between industry-standard flanges.

We precision-cut every disc to exacting standards using our advanced, five-axis laser. The result is a high-performance yet economical solution for accurate bursting even at low pressures.

Size	1" - 10"
Burst Pressure	2.5 - 150 psig
K_R Value (K_{RGL})	1.22
Operating Ratio	60% of marked burst pressure
Performance Tolerance	+/- 5%
Manufacturing Range	0%

Let us help you with all your pressure relief questions.

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TECHNICAL SPECIFICATIONS



Size range	1"-10" / 25-250mm
Burst pressure range	2.5 psig to 150 psig / 0.2 barg to 10.3 barg
Temperature range	Up to max. 500°F/260°C (GR and GRR) Up to max. 420°F/215°C (GRO)
Standard materials	316 Series Stainless Steel
K _R Value	1.22
Max. Operating Ratio	60% of marked burst pressure
Burst Tolerance	+/-5% above 40 psig +/-2 psig 15 - 40 psig +/-1 psig below 15 psig
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Fully opening vacuum supports available
Fluid compatibility	Gas service, liquid service
Torque requirements	Non-torque sensitive
Cycling or static service	Static
Protective linings	The metal disc is fluoropolymer-encapsulated
Design Standards	Designed to meet ASME Section XIII and PED 2014/68/EU standards

Certifications

ASME UD
CRN
CE

Related Products

Sensors
AMS
SVT

Burst Pressure Ranges

GRO Min/Max Burst Pressure @ 72° F (psig) / 22° C (barg)



PIPE SIZE		MIN psig (barg)	MAX psig (barg)
inches	DN (mm)		
1	25	20 (1.4)	150 (10.3)
1.5	40	13 (0.9)	150 (10.3)
2	50	10 (0.7)	150 (10.3)
3	80	7 (0.5)	150 (10.3)
4	100	5 (0.3)	150 (10.3)
6	150	3 (0.2)	100 (6.9)
8	200	2.5 (0.17)	100 (6.9)
10	250	2.5 (0.17)	100 (6.9)

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		MNFA	
inches	DN (mm)	Sq. Inch	mm ²
1	25	0.714	460
1.5	40	1.606	1,036
2	50	2.856	1,842
3	80	6.426	4,145
4	100	11.42	7,367
6	150	25.7	16,580
8	200	45.7	29,483
10	250	71.4	46,064

Burst Tolerance

+/-5% above 40 psig
 +/-2 psig 15 - 40 psig
 +/-1 psig below 15 psig

+/-5% above 2.8 barg
 +/-0.14 barg ≤ 1.03 - 2.8 barg
 +/-0.07 barg below 1.03 barg

K_R Value (Frictional Loss Factor)

K _R	GR	GRO
K _{RGL}	1.22	1.22