

LARGE ATLAS RUPTURE DISC

DESCRIPTION

The Large ATLAS rupture disc range is an extension of Fike's current ATLAS rupture disc product offering. Large ATLAS utilizes the proven and patented G2 manufacturing technology to produce rupture discs with improved performance characteristics such as full vacuum resistance, up to 100% operating ratio, industry leading rupture tolerances, and a large standard burst pressure offering. The Large ATLAS is a ground breaking industry solution for the replacement of large diameter buckling pin relief valves and knife blade rupture disc devices. Large ATLAS is a perfect fit for markets including, but not limited to, chemical processing, petrochemical processing, pharmaceutical manufacturing, and oil/gas processing.

G2 – A FIKE TECHNOLOGY

All disc families in the G2 product line represent a clean break from traditional disc manufacturing processes. G2 consists of single element construction utilizing the extraction scoring method. The engineering methods used to develop and validate these products have provided industry leading performance characteristics across all pressure, material, and size configurations. The advanced automated processes defining the G2 technology significantly increase lot to lot consistency helping to provide fast, economical industry solutions.

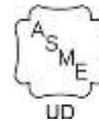
FEATURES AND BENEFITS

- High Operating Ratio
 - 95% of marked burst pressures over 40 PSIG (2.76 BARG)
 - 95% of minimum burst tolerance for burst pressures less than or equal to 40 PSIG (2.76 BARG)
 - 100% of minimum burst pressure for burst pressures over 40 PSIG (2.76 BARG) (ISO 4126-2)
- $K_{RG} = 0.65$
- Back pressure resistance: 105% of burst pressure for rupture discs above 18 PSIG (1.22 BARG)
- Withstands full vacuum at all catalog pressures
- Non-Fragmenting
- Zero manufacturing range standard
- ATLAS is capable of cycling from full vacuum to 95% operating ratio in excess of 100,000 times
- Standard 3 Year Warranty
- Lowest Maintenance Cost



APPROVALS:

- ASME
- CE Marked
- KOSHA
- CSL





MINIMUM/MAXIMUM BURST PRESSURES IN PSIG (BARG) @ 72°F (22°C)

Size		316/316L SST (1.4401 / 1.4404)		Inconel® 625 (2.4856)		Hastelloy® C276 (2.4819)		Max BP All Materials	
		Max Temp: 900°F (482°C)		Max Temp: 1100°F (593°C)		Max Temp: 900°F (482°C)			
Size		Min BP		Min BP		Min BP		Max BP	
in	DN	PSIG	BARG	PSIG	BARG	PSIG	BARG	PSIG	BARG
14	350	6.00	0.41	7.00	0.48	7.00	0.48	300	20.7
16	400	5.00	0.34	7.00	0.48	7.00	0.48	250	17.2
18	450	5.00	0.34	6.00	0.41	6.00	0.41	200	13.8
20	500	4.50	0.31	5.00	0.34	5.00	0.34	180	12.4
24	600	3.50	0.24	4.00	0.28	4.00	0.28	150	10.3
26	650	3.50	0.24	4.00	0.28	4.00	0.28	150	10.3
28	700	3.50	0.24	4.00	0.28	4.00	0.28	150	10.3
30	750	3.50	0.24	4.00	0.28	4.00	0.28	140	9.65
32	800	3.25	0.22	4.00	0.28	4.00	0.28	125	8.62
36	900	3.25	0.22	4.00	0.28	4.00	0.28	100	6.89
42	1050	3.25	0.22	4.00	0.28	4.00	0.28	75	5.17

*Consult factory for other sizes, materials, and pressures

BURST/PERFORMANCE TOLERANCE

Specified Burst Pressure		Tolerance	
PSIG	BARG	PSIG	BARG
< 20	< 1.36	± 1.0	± 0.07
≥ 20	≥ 1.36	± 5%	± 5%

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MINIMUM FREE VAPOR VOLUMES & RELIEF AREA

Size		Minimum Free Vapor Volume*		Relief Area	
in	DN	ft ³	m ³	in ²	cm ²
14	35	7	0.21	117	752
16	400	11	0.32	153	989
18	450	16	0.45	195	1258
20	500	22	0.62	239	1540
24	600	38	1.07	346	2234
26	650	48	1.36	408	2630
28	700	60	1.69	474	3058
30	750	74	2.08	541	3491
32	800	89	2.53	617	3978
36	900	127	3.60	784	5057
42	1050	202	5.72	1066	6878

*Suitable for use in liquid systems only with listed volume of compressible vapor against the disc at the time of opening

HOLDER AND ACCESSORIES

The Large ATLAS uses the Insert or Pretorqueable ATLAS series rupture disc holder. This holder is available in multiple materials and configurations. Holder accessories include eyebolts, pre-assembly hardware, and gauge taps for installation of pressure gauges or burst indication devices. See data sheet R.1.50.01 for more information.

Performance Attributes				Process Media		Rupture Disc Holders	
Operating Ratio	Non-Fragmenting	Vacuum Resistant	Pulsating/Cyclic	Vapor/Gas	Liquid	Bolted/Type	Pre-Torque
100% CE 95% ASME	Yes	Yes	Yes	Yes	Yes (with Minimum Vapor Volume)	Yes	Yes

U.S. Patents 6.945.420, 8.333.212, and Foreign Patents.