

AXIUS® SC, REVERSE ACTING, HYGIENIC RUPTURE DISC

The AXIUS SC rupture disc specifically is designed for the stringent hygienic and aseptic requirements of the biotech and pharmaceutical industries, and the hygienic needs of the food and beverage industries. The high-cycling capability reverse-acting rupture disc is free of indentations, crevices, or other design features that may trap process contaminant. The Axius SC is designed for installation in hygienic ferrules and NA-Connect fittings.



AXIUS SC Rupture Disc

Fike sanitary rupture discs are in compliance with 3-A standard 60-01. As a result, certified rupture discs are designated as “One Time Installation” and are designed to be easily cleaned through CIP (Clean-In-Place) methods and not intended for removal and reinstallation in order to maintain 3-A compliance.

SPECIFICATIONS

SIZES	1 – 4 in	DN25 – DN100
DISC MATERIALS	316 / 316L SST Hastelloy® C276	1.4401 / 1.4404 2.4819
RING MATERIALS	316 / 316L SST	1.4401 / 1.4404
BURST PRESSURE RANGE	10 – 275 psig	0.69 – 18.96 barg
BURST PRESSURE TOLERANCE	See table on page 2	
OPERATING RATIO	For standard applications 95%	For CE or KOSHA applications < 2.76 barg = 95% > 2.76 barg = 100%
STANDARD MANUFACTURING RANGE	Zero	N/A
MAX OPERATING TEMP	See Gasket Information Table	
K_{RG} / K_{RL} / K_{RGL} & MNFA⁽¹⁾	K _{RGL} = 1.88	
CYCLING / PULSATING DUTY	Up to 100,000 cycles depending on cycling conditions	
VACUUM RESISTANCE	Full	
PROCESS MEDIA	Gas / Vapor, Liquid, & two phase	
FRAGMENTATION	Non-fragmenting	
APPROVALS		

(1) More information on Kr-values and MNFA can be found [here \(TB8104\)](#).

OPTIONS

BURST INDICATOR⁽¹⁾	Integral / BCH	
ELECTRO-POLISH⁽²⁾ (AVERAGE WETTED SURFACE FINISH)	8 – 16 Ra	0.2 – 0.4 μm
PASSIVATION	Yes	
PAINT-FREE SST TAG	Yes	
ALTERNATE RING MATERIAL	Hastelloy® C276	2.4819

- (1) More information on burst indicators can be found [here \(Burst Indicators Data Sheet\)](#).
- (2) Not available for 1” size under 53 psig / 3.65 barg.

MINIMUM / MAXIMUM BURST PRESSURE IN PSIG/BARG @ 72°F/22°C⁽¹⁾

MATERIAL			316/316L SST 1.4401/1.4404				HASTELLOY® C276 2.4819			
SIZE ⁽²⁾		FERRULE	PSIG		BARG		PSIG		BARG	
In	DN		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1	25	ASME BPE	25	275	1.7	18.96	30	275	2.07	18.96
1.5	40	ASME BPE	10	200	0.69	13.79	10	200	0.69	13.79
2	50	ASME BPE	10	140	0.69	9.65	10	140	0.69	9.65
3	80	ASME BPE	10	80	0.69	5.52	10	80	0.69	5.52
4	100	ASME BPE	10	60	0.69	4.14	10	60	0.69	4.14
-	33.7	DIN 32676 Row B	20	200	1.38	13.79	20	250	1.38	17.24
-	40	DIN 32676 Row A	10	175	0.69	12.07	10	175	0.69	12.07
-	42.4	DIN 32676 Row B	10	165	0.69	11.38	10	180	0.69	12.41
-	50 ⁽³⁾	DIN 32676 Row A	10	140	0.69	9.65	10	140	0.69	9.65
-	38	ISO 2852 Table 2	10	200	0.69	13.79	10	200	0.69	13.79
-	51	ISO 2852 Table 2	10	140	0.69	9.65	10	140	0.69	9.65
-	76	ISO 2852 Table 2	10	80	0.69	5.52	10	80	0.69	5.52

- (1) Other burst pressures and materials may be available. Please consult factory for more information.
- (2) 1 in / DN25, 1.5 in / DN40, DN33.7, DN38, DN40 and DN42.4 sizes not recommended for liquid systems with an inlet piping length greater than 10 in or 25 cm.
- (3) Hastelloy® C276 / EN 2.4819 rings will be supplied as standard for burst pressures above 60 PSIG / 4.14 BARG only on size

BURST / PERFORMANCE TOLERANCES

BURST PRESSURE		TOLERANCE	
PSIG @ 72°F	BARG @ 22°C	PSI	BAR
≤ 15	≤ 1.03	± 1	± 0.07
> 15 to 40	> 1.03 to 2.76	± 2	± 0.14
> 40	> 2.76	± 5%	± 5%

GASKET INFORMATION

GASKET MATERIAL ⁽³⁾	SERVICE TEMPERATURE (°F)		SERVICE TEMPERATURE (°C)	
	MIN	MAX	MIN	MAX
White EPDM (Peroxide Cured) ⁽¹⁾⁽³⁾⁽⁵⁾	-40	275	-40	135
White EPDM (Sulfur Cured) ⁽¹⁾⁽²⁾⁽³⁾⁽⁵⁾	-40	300	-40	149
Black EPDM (Sulphur Cured) ⁽¹⁾⁽³⁾⁽⁵⁾	-40	300	-40	149
PTFE ⁽⁴⁾⁽⁶⁾	-20	450	-28	232
Silicon (Platinum Cured) ⁽¹⁾⁽³⁾⁽⁵⁾	-40	450	-40	232
Viton ^{®(1)(3)(5)}	-20	450	-28	232
SST Filled PTFE ⁽⁴⁾⁽⁶⁾	-40	450	-40	232

- (1) Not available in all sizes.
- (2) 3-A approval applies to all gaskets except white EPDM (Sulphur Cured).
- (3) Rubber gaskets are FDA 21CFR177.2600, USP Class VI, and EC 1935/2004 approved.
- (4) Fluoropolymer gaskets are FDA 21CFR177.1550, USP Class VI, and EC 1935/2004 approved.
- (5) For best sealing results, choose more elastomeric gasket materials such as Silicon, Viton[®], or EPDM.
- (6) PTFE is subject to cold flow in gasketed connections and may result in leakage and the need for frequent re-tightening. SST Filled PTFE is highly resistant to cold flow and is a preferable alternative to PTFE in most applications.