

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	 UKCA	 ASME	 CE Mark	 KOSHA	 SELO	 CRN	 3-A

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

R.1.43.01-C, FEB 2025

1 of 3

OPTIONS

BURST INDICATOR ⁽¹⁾	Integral / BCH	
ELECTRO-POLISH (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 \(Burst Indicators Data Sheet\)](#).

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 DN50.

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 AND CLAMP INFORMATION

Type	GASKET MATERIAL	SERVICE TEMPERATURE (°F)		SERVICE TEMPERATURE (°C)	
		MIN	MAX	MIN	MAX
Rubber	White EPDM (Peroxide Cured)	-40	275	-40	135
	White EPDM (Sulfur Cured) ⁽¹⁾	-40	300	-40	149
	Black EPDM (Sulfur Cured)	-40	300	-40	149
	Silicon (Platinum Cured)	-40	450	-40	232
	Viton®	-4	450	-20	232
Fluoro polymer (2,3,4)	PTFE	-20	450	-28	232
	SST Filled PTFE	-40	450	-40	232

- (1) 3-A approval applies to all gaskets except white EPDM (Sulfur Cured).
- (2) 3-A approval for PTFE and SST filled PTFE gaskets requires the use of the A8647-100-X bolted clamp, modified 13MHP high pressure clamp for 3-A required leak tightness. The 13MHMM wingnut clamp and NA connect with PTFE and SST filled PTFE gaskets may be used when 3-A compliance is not required, and the customer has acceptable experience with these gasket materials and clamps.
- (3) 1" PTFE and 1" SST Filled PTFE gaskets are not 3-A approved.
- (4) 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.

ALL GASKETS:

- For DN sizes consult factory for material availability.
- FDA 21CFR177.2600, USP Class VI, and EC1935/2004 approved.
- Free of Animal Derived Ingredients.
- For best sealing results, choose rubber gasket material types.

CLAMPS:

- The 1" size Axis SC is currently only validated for installation using the 13MHMM wingnut clamp and NA connect.



13MHMM Clamp

Fike A8647-100
modified 13MHP ClampNovAseptic
NA Connect Flange
Flush Mount

SANITARY CLAMPS AND FLANGE MOUNTS