

AXIUS® SC SANITARY RUPTURE DISC

DESCRIPTION

The Fike Axis SC rupture disc was specifically designed for the stringent sanitary and aseptic requirements of the biotech and pharmaceutical industries and the hygienic needs of the food and beverage industries. The design has been optimized to provide the ultimate pressure relief product. The Axis SC was developed with Fike's revolutionary G2 technology to provide superior cycling capability. It is free of any and all indentations, crevices, or other design features that may trap process contaminants. 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.



Axis SC Rupture Disc



Axis SC Rupture Disc with optional integral burst indicator

FEATURES AND BENEFITS

- The Axis SC rupture disc design provides the smoothest, indentation-free surface of any low-pressure rupture disc available in the market place
- The extraction scored, non-fragmenting, reverse-acting, circular "line of weakness" design provides excellent opening characteristics, in both liquid and vapor service conditions
- Integral gaskets create ease of installation; offered in a variety of 3-A, FDA 21CFR177.2600 and USP Class VI approved materials
- High Operating Ratio
 - 95% of marked burst pressures 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)
- Standard with a zero manufacturing range
- Damage ratio of ≤ 1
- Withstands full vacuum at all catalog pressures
- Standard sanitary packaging includes sanitary discs poly-bagged, nitrogen purged and sealed.
- K_{RGL} flow value for liquid and vapor = 1.88
- Average surface finish of wetted surfaces: 12-25 Ra
- Standard 3 Year Warranty
- Free of animal derived ingredients





OPTIONS and ACCESSORIES

- Axius SC rupture discs are designed for use in ASME BPE ferrules, DIN32676 ferrules, ISO 2582 ferrules, and corresponding sizes of NovAseptic® NA Connect fittings. Other sizes and/or ferrule standards can be satisfied by using Axius SC rupture discs in combination with appropriate transition ferrules.
- Gaskets *(see table)*
- Disc materials *(see table)*. Default ring material is 316/316L; Hastelloy C276 alloy optional
- Integral burst indicator and BCH (refer to Fike Data Sheet R.1.02.01 for more information)
- Electro-polishing to an average wetted surface finish of 8-16 Ra *(Not available for the 1" size under 53 PSIG (3.65 BARG))*.
- Passivation
- Paint-free SST tag

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

Size	Ferrules	316/316L SST (1.4401/1.4404)		Hastelloy® C276 (2.4819)	
		Min. BP	Max. BP	Min BP	Max BP
1"	ASME BPE	25 (1.7)	275 (18.96)	30 (2.07)	275 (18.96)
1.5"	ASME BPE	10 (.69)	200 (13.79)	10 (.69)	200 (13.79)
2"	ASME BPE	10 (.69)	140 (9.65)	10 (.69)	140 (9.65)
3"	ASME BPE	10 (.69)	80 (5.52)	10 (.69)	80 (5.52)
4"	ASME BPE	10 (.69)	60 (4.14)	10 (.69)	60 (4.14)
DN40	DIN 32676	10 (.69)	175 (12.07)	10 (.69)	175 (12.07)
DN50	DIN 32676	10 (.69)	140 (9.65)	10 (.69)	140 (9.65)
DN38	ISO 2852	10 (.69)	200 (13.79)	10 (.69)	200 (13.79)
DN51	ISO 2852	10 (.69)	140 (9.65)	10 (.69)	140 (9.65)
DN76	ISO 2852	10 (.69)	80 (5.52)	10 (.69)	80 (5.52)

1. Hastelloy® C276 rings will be supplied as standard for burst pressures above 60 PSIG (4.14 BARG) only on size DN50
2. 1.5", DN38, DN40, and 1" size not suitable for liquid systems at burst pressures less than 65 PSIG (4.48 BARG) with an inlet piping length greater than 10" (25 cm)
3. Other burst pressures and materials may be available. Please consult factory for more information.



RUPTURE TOLERANCE

Marked Burst Pressures		Tolerance	
PSIG	BARG	PSIG	BARG
7-14.99	.48-1.02	±1	±.07
15-40	1.03-2.76	±2	±.14
>40	> 2.76	±5%	±5%

GASKET INFORMATION

Gasket	Minimum Service Temperature	Maximum Service Temperature
White EPDM (Peroxide Cured) ¹	-40°F (-40°C)	275°F (135°C)
White EPDM (Sulphur Cured) ^{1,2}	-40°F (-40°C)	300°F (149°C)
Black EPDM (Sulphur Cured)	-40°F (-40°C)	300°F (149°C)
PTFE	-20°F (-28°C)	450°F (232°C)
Silicon (Platinum Cured)	-40°F (-40°C)	450°F (232°C)
Viton®	-20°F (-28°C)	450°F (232°C)
J-1500 (SST Filled PTFE)	-40°F (-40°C)	450°F (232°C)

1. Not available in all sizes
2. 3-A approval applies to all gaskets except white EPDM (sulphur cured).
3. All gaskets are FDA 21CFR177.2600 and USP Class VI approved.
4. For best sealing results, choose more elastomeric gasket materials such as Silicone, Viton®, or EPDM.
5. PTFE is subject to cold flow in gasketed connections and may result in leakage and the need for frequent re-tightening. J1500 is a SST filled PTFE composite that is highly resistant to cold flow and is a preferable alternative to PTFE in most applications.

ORDERING INFORMATION

Previous Lot Number:	
OR	
Burst Pressure	@ (Temperature)
Material	Disc / Ring
Gasket Material	
Burst Indicator	None / Integral / BCH
Surface Treatment	None / Electropolish / Passivation
Tag	Std / Paint Free
Certifications	ASME / CE / 3A

Performance Attributes					Process Media		Rupture Disc Holder
Operating Ratio	Non-Fragmenting	Vacuum Resistant	Pulsating / Cyclic	Sanitary	Liquid	Vapor / Gas	Ferrules
95%/100%	yes	yes	yes	yes	yes	yes	yes

* Consult factory for liquid full, hydraulic applications.

* Consult factory for applications where viscous liquid is against the disc at the time of disc opening.