DATA SHEET

AXIUS® SC HYGIENIC RUPTURE DISC

DESCRIPTION

The Fike Axius® SC rupture disc is 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 high-cycling capability reverse-acting rupture disc is free of 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," designed to be cleaned through CIP (Clean-In-Place) or Steam-In-Place (SIP) methods without removal and reinstallation, necessary to maintain 3-A compliance.

Axius SC Rupture Disc

Performance Attributes					Process Media		Rupture Disc Holder	
Operating Ratio	Non-Fragmenting	Vacuum Resistant	Pulsating / Cyclic	Hygienic	Liquid	Vapor / Gas	Ferrules	NA Connect
100% CE 95% ASME	yes	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.*

APPROVALS:

- ASME
- CE
- CRN
- EAC
- KOSHA
- SELO
- 3-A

FEATURES AND BENEFITS

- 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 tolerance for burst pressures over 40 PSIG (2.76 BARG) (ISO 4126-2)
- Zero manufacturing range
- Damage ratio ≤ 1
- Withstands full vacuum
- K_{RGL} flow value for liquid and vapor = 1.88
- Integral gaskets come in a variety of 3-A, FDA 21CFR177.2600, Food Contact Materials-Regulation (EC) 1935/2004, and USP Class VI approved materials
- Average surface finish of wetted surfaces: 12-25 Ra (<0.63 µm)
- Free of animal derived ingredients
- Standard packaging includes Cleanroom safe packaging

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

		316/316L SST (1.4401/1.4404)		Hastelloy® C276 (2.4819)	
Size	**Ferrules**	**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)
DN33.7	DIN 32676 Row B	20 (1.38)	200 (13.79)	20 (1.38)	250 (17.24)
DN40	DIN 32676 Row A	10 (.69)	175 (12.07)	10 (.69)	175 (12.07)
DN42.4	DIN 32676 Row B	10 (.69)	165 (11.38)	10 (.69)	180 (12.41)
DN50	DIN 32676 Row A	10 (.69)	140 (9.65)	10 (.69)	140 (9.65)
DN38	ISO 2852 Table 2	10 (.69)	200 (13.79)	10 (.69)	200 (13.79)
DN51	ISO 2852 Table 2	10 (.69)	140 (9.65)	10 (.69)	140 (9.65)
DN76	ISO 2852 Table 2	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”, 1.5”, DN33.7, DN38, DN40 and DN42.4 sizes not recommended for liquid systems 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	.48-1.03	±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)[1,4]	-40°F (-40°C)	275°F (135°C)
White EPDM (Sulphur Cured)[1,2,4]	-40°F (-40°C)	300°F (149°C)
Black EPDM (Sulphur Cured)[1,4]	-40°F (-40°C)	300°F (149°C)
PTFE	-20°F (-28°C)	450°F (232°C)
Silicon (Platinum Cured)[1,4]	-40°F (-40°C)	450°F (232°C)
Viton®[1,4]	-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 gasket 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.*

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.
- Default ring material is 316/316L; Hastelloy C276 alloy optional
- Integral burst indicator or 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 (0.25- 0.38 µm)
  (*Not available for the 1" size under 53 PSIG (3.65 BARG).*
- Passivation
- Paint-free SST tag

Axius SC Rupture Disc with optional integral burst indicator

ORDERING INFORMATION

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