DATA SHEET

SANITARY APPLICATONS
TYPE AXIUS SC®

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 SIP (Steam-In-Place) methods without removal and reinstallation, necessary to maintain 3-A compliance.

APPROVALS:

- CE
- UD
- 3-A

FEATURES AND BENEFITS

- Superior design for CIP / SIP requirements
- Excellent opening characteristics in liquid and vapour service conditions
- Low-profile promotes easy installation in fixed piping installations
- 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
- Operates up to 95% of the minimum burst pressure
- Used directly between standard TriClover, ASME BPE , DIN 32676, ISO 2852 and NA-Connect sanitary fittings
- Damage ratio of ≤ 1
- Withstands full vacuum
- Standard packaging includes Cleanroom safe packaging
- Optional: paint-free SST tag
- Optional integral burst indicator or a separate BCH assembly may be specified

SPECIFICATIONS

Type of Disc	Axius SC®	
Action	Reverse Acting	
Sizes	1”, 1.5”, DN38, DN40, 2”, DN50, DN51, 3”, DN76, 4”, DN33.7 and DN42.4	
Disc Material	316 / 316L SST (1.4401 / 1.4404)	Hastelloy C276 (2.4819)
Operating Ratio	95%	
Packaging	Cleanroom Safe Packaging	
Surface Finish	Standard: Ra < 0.63µm / 12-25 µInch Electro-polished: 0.25 < Ra < 0.38 µm / 8 – 16 µInch	

GASKET INFORMATION

Gasket	Min. Service Temperature	Max. Service Temperature
White EPDM (Peroxide Cured)[1,4]	-40°C	135°C
White EPDM (Sulphur Cured)[1,2,4]	-40°C	149°C
Black EPDM (Sulphur Cured)[1,4]	-40°C	149°C
PTFE	-28°C	232°C
Silicon (Platinum Cured)[1,4]	-40°C	232°C
Viton®[1,4]	-28°C	232°C
J-1500 (SST Filled PTFE)	-40°C	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.

OPTIONAL BURST INDICATOR

As an added feature the Axius SC bursting disc can be supplied with an integrated (break-wire type) burst indicator (type Axius SC-BI). The integration of the burst indicator with the bursting disc requires no need for additional ferrules or clamp, keeping the piping configuration simple. Alternatively, the Axius SC can be combined with a separate burst indicator (type BCH) which can be installed downstream of the Axius SC bursting disc.

The use of these devices will provide immediate notification of an overpressure event to the process operators or a process control system if used as an interlock signal; this will allow the appropriate safety measures to be initiated.

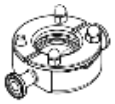
BURST PRESSURES IN BARG AT 22°C [1,2,3]

		316 / 316L SST (1.4401 / 1.4404)		Hastelloy C276 (2.4819)	
Size	**Ferrules**	**Min BP**	**Max BP**	**Min BP**	**Max BP**
1”	ASME BPE	1.7	18.96	2.07	18.96
1.5”	ASME BPE	0.69	13.79	0.69	13.79
2”	ASME BPE	0.69	9.65	0.69	9.65
3”	ASME BPE	0.69	5.52	0.69	5.52
4”	ASME BPE	0.69	4.14	0.69	4.14
DN33.7	DIN 32676 Row B	1.38	13.79	1.38	17.24
DN40	DIN 32676 Row A	0.69	12.07	0.69	12.07
DN42.4	DIN 32676 Row B	0.69	11.38	0.69	12.41
DN50	DIN 32676 Row A	0.69	9.65	0.69	9.65
DN38	ISO 2852 Table 2	0.69	13.79	0.69	13.79
DN51	ISO 2852 Table 2	0.69	9.65	0.69	9.65
DN76	ISO 2852 Table 2	0.69	5.52	0.69	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 suitable for liquid systems at burst pressures less than 4.48 barg with an inlet piping length greater than 250 mm.
(3) Other burst pressures and materials may be available; Please consult factory for more information.

PERFORMANCE TOLERANCES

Burst Pressure at 22°C	Performance Tolerance at 22°C
< 1.03 barg	± 0.07 barg
1.03 barg < burst pressure < 2.76 barg	± 0.14 barg
> 2.76 barg	± 5%

Performance Attributes					Process Media			Holders	
Operating Ratio	Non-fragmenting	Vacuum Resistance	Pulsating / Cycling	Sanitary	Liquid	Vapour / Gas	Polymerisation	Ferrules	NA Connect
									
95%	Yes	Yes	Yes	Yes	Yes [1]	Yes	No	Yes	Yes

(1) Consult Fike for liquid full, hydraulic applications. Consult Fike for applications where viscous liquid is against the disc at the time of disc opening.

U.S. Patents 7,600,527 and 6,945,420 and Foreign Patents. U.S. and Foreign Patents Pending.