

## AXIUS® SC SANITARY RUPTURE DISC

### DESCRIPTION

The Fike Axius 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 Axius 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.

### FEATURES AND BENEFITS

- The Axius SC rupture disc design provides the smoothest, indentation-free surface of any low-pressure rupture disc available in the market place.
- Superior design for CIP/SIP requirements. The gasket design creates proper alignment with the inside diameter, or bore, of the ferrule/fittings. This prevents a "ledge" from forming in the seating area of the rupture disc.
- 5 day standard lead time.
- The reverse-acting, circular "line of weakness" design provides excellent opening characteristics, in both liquid and vapor service conditions.
- Low-profile promotes easy installation in fixed piping applications.
- Integral replaceable gaskets create ease of installation; offered in a variety of 3-A and USP Class VI approved materials: White silicone (Pt cured), Viton®, EPDM, Teflon® and J-1500.
- Standard with a zero manufacturing range.
- High operating ratio: 95% of marked burst pressure. At marked burst pressures below 40 PSIG (2.76 BARG) the recommended operating ratio is 95% less tolerance.
- Non-fragmenting, and provides an excellent means of isolating pressure relief valves.
- The rupture disc has a damage ratio of  $\leq 1$ .
- Withstands full vacuum at all catalog pressures.
- Constructed of 316/316L SST.
- Standard sanitary packaging includes sanitary discs poly-bagged, nitrogen purged and sealed.
- $K_{RG1}$  flow value for liquid and vapor = 1.88
- Average surface finish of wetted surfaces:
  - Standard: 12-25 Ra
  - Electro-polished: 8-16 Ra

### OPTIONS

- Electropolishing\*
- Integral Burst Indicator\*\*

#### Notes:

\* Not available for the 1" size under 53 PSIG (3.65 BARG). Chemical passivation only available.

\*\* Not currently available for the 1" size.

### ACCESSORIES

Axius SC rupture discs are designed for use in ASME BPE ferrules, DIN32676 ferrules and NovAseptic® NA Connect fittings (as specified in ASTM® A270). Other sizes and/or ferrule standards can be satisfied by using Axius SC rupture discs in combination with appropriate transition ferrules.

In addition to the integral burst indicator option, the BCH Burst Indicator is designed for use with the Axius SC disc utilizing ASME BPE ferrules and clamps. It provides instantaneous notification of rupture disc activation. Upon disc rupture, the BCH's thin Teflon® seal is bulged into a flexible circuit, causing the circuit to be physically broken. This open circuit condition can be used to activate alarms, bells, remote annunciators or interfaced with process control systems. For more information, see Fike Data Sheet R.1.02.01.



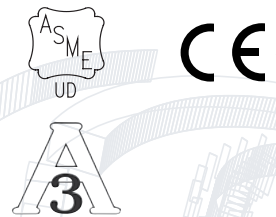
**Axius SC Rupture Disc**



**Axius SC Rupture Disc shown with optional integral BI**

#### APPROVALS:

- ASME
- CE Marked
- 3-A



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

Size	Ferrules	316/316L SST	
		Min. BP	Max. BP
1	ASME BPE	25 (1.72)	275 (18.96)
1.5	ASME BPE	10 (.69)	200 (13.79)
2	ASME BPE	10 (.69)	140 (9.65)
3	ASME BPE	10 (.69)	80 (5.52)
4	ASME BPE	10 (.69)	60 (4.14)
DN38	ISO 2852	10 (.69)	200 (13.79)
DN40	DIN 32676	10 (.69)	170 (11.72)
DN50*	DIN 32676	10 (.69)	140 (9.65)
DN51	ISO 2852	10 (.69)	140 (9.65)
DN76	ISO 2852	10 (.69)	80 (5.52)

\* Hastelloy® C276 rings will be supplied for burst pressures above 65 PSIG (4.48 BARG)

- 1.5", 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)
- Other burst pressures may be available. Please consult factory for more information.

**BURST/PERFORMANCE TOLERANCE**

Marked Burst Pressure		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 Material	Minimum Service Temperature	Maximum Service Temperature
White EPDM*	-40°F (-40°C)	300°F (149°C)
Black EPDM	-40°F (-40°C)	300°F (149°C)
PTFE (Teflon)	-20°F (-28°C)	450°F (232°C)
Silicone	-40°F (-40°C)	450°F (232°C)
Viton	-20°F (-28°C)	450°F (232°C)
J-1500 (Filled PTFE)	-40°F (-40°C)	450°F (232°C)









\* 3-A approval applies to all gaskets except white EPDM. All gaskets are USP Class VI approved.

Notes:

1. White EPDM is not available for the 1" size
2. For best sealing results, choose more elastomeric gasket materials such as silicone, viton, or EPDM.
3. PTFE Teflon is subject to cold flow in gasketed connections and may result in leakage and/or the need for frequent re-tightening. J1500 is a filled PTFE composite that is highly resistant to cold flow and is a preferable alternative to PTFE in most applications.

## HOW TO SPECIFY

Previous Lot Number:	
OR	
Burst Pressure:	@ (Temperature)
Gasket Material:	
Integral BI:	
Electropolishing:	Yes / No
Certifications:	ASME CE 3A

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