Sanitary Applications
Type Axius SC

Description

The Fike Axius SC® bursting disc was specifically designed for the stringent sanitary and aseptic requirements of the Biotech and Pharmaceutical industries. As a result, its design also satisfies the needs of the food and beverage industries.

The design has been optimized to provide the ultimate pressure relief product. The Axius SC® uses 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.

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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 high quality gaskets – EU 1935/2004 and 2023/2006 compliant
- Operates up to 95% of 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
- Optional integral burst indicator or a separate BCH assembly may be specified

Specifications

Type of disc		**Axius SC ®**									
Action		Reverse Acting									
Available size range		1", 1.5", DN38, DN40, 2", DN50, DN51, 3", DN76, 4"									
Disc material		1.4401 (316 SST) / 1.4404 (316L SST)									
Operating ratio		95%									
Burst pressure (barg) (1) (2)	**DN/Inch**	1"	1.5"	DN38	DN40	2"	DN50	DN51	3"	DN76	4"
	Min	1.72	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	Max	18.96	13.79	13.79	11.72	9.65	9.65	9.65	5.52	5.52	4.14
Ferrules		ASME BPE	ASME BPE	ISO 2852	DIN 32676	ASME BPE	DIN 32676	ISO 2852	ASME BPE	ISO 2852	ASME BPE
Gaskets (3) **(USP Class VI FDA Approved) (EU 1935/2004 and 2023/2006 compliant)**		*Material*						*Temperature Range*			
		Viton (black)						-28°C up to 232°C			
		EPDM (grey)						-40°C up to 149°C			
		Silicone (white)						-40°C up to 232°C			
		PTFE Teflon (white)						-28°C up to 232°C			
		J-1500						-40°C up to 232°C			
Packaging		Sanitary packaging standard									
Surface finish		Standard				Ra < 0.63 µm			12-25 µInch		
		Electro-Polished				0.25 < Ra < 0.38 µm			8-16 µInch		

(1) Consult factory for other burst pressures.
(2) 1", 1.5", and DN40 size not suitable for liquid systems at burst pressures less than 4.48 barg with an inlet piping length greater than 250 mm.
(3) All gaskets are USP Class VI and 3-A approved and compliant with EU Regulations 1935/2004 and 2023/2006. Where necessary, gaskets may be replaced with virgin-quality gaskets pending condition of bursting disc. Replacement gaskets are available from Fike, consult factory for details.
Note: PTFE Teflon is subject to cold flow in gasketed connections and may result in leakage and/or the need for frequent re-tightening.
J-1500 is a filled PTFE composite that is highly resistant to cold flow and is a preferable alternative to PTFE in most applications.

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All above data are subject to change without notice. They must not be used unless confirmed in writing.

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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.

BCH ™

Burst pressures in barg at 22°C

Size		ISO 2852	38	51	76	N/A (2)
		DIN 32676	40	50	N/A (2)	N/A (2)
		Tri-Clamp	1 1/2”	2”	3”	4”
Burst Pressure (barg)	1.4401 SST (316) or 1.4404 SST (316L) (1)	MIN	1.65	1.35	1.03	0.83
		MAX	13.79	9.65	5.52	4.14

(1) Specify when ordering.
(2) Consult Fike

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	Polymerization	Vapour / Gas	Ferrules
95%	Yes	Yes	Yes	Yes	Yes (1)	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.

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