

REVERSE BULGED SCORED TYPE SR-H

DESCRIPTION

The Fike SR-H series bursting discs are reverse bulged, perimeter scored and specially designed for use in hygienic applications. The pre-weakened perimeter score line facilitates the full opening of the bursting disc.

The SR-H bursting discs have many high-performance characteristics, which make them ideal for demanding applications in hygienic environments.

APPLICATIONS

The Fike SR-H bursting disc is ideal for a wide range of hygienic applications:

- Food processing
- Beverage processing
- Pharmaceutical manufacturing
- Biotechnology
- Any process with a Clean-In-Place / Steam-In-Place (CIP / SIP) regime

FEATURES AND BENEFITS

- Due to the reverse-buckling design, excellent service life in pulsating and cycling duty are offered
- Will sustain cycling and pulsating pressures as high as 95% of the minimum burst pressure
- Can be used for gas, vapour, liquid and two-phase flow
- Clean-in-Place with integral high quality gasket – EU 1935/2004 and 2023/2006
- Designed to be non-fragmenting
- Can be directly installed between standard Tri-Clamp, DIN 32676, ISO 2852 and NA-Connect sanitary fittings



APPROVALS:

- CE
- UD
- 3A



SPECIFICATIONS

Type of Disc		SR-H / SR-H-BI								
Action		Reverse Bulged Scored								
Sizes ^{1 2}		1.5", DN38, DN40, 2", DN50, DN51, 3", DN76, 4"								
Disc Material		1.4401 / 1.4404 (316 / 316L SST)								
Operating Ratio		95%								
Burst Pressure (barg) ^{1 2}	DN/Inch	1.5"	DN38	DN40	2"	DN50	DN51	3"	DN76	4"
	MIN	1.65	1.65	1.65	1.38	1.65	1.65	1.03	1.03	0.83
	MAX	9.65	9.65	9.65	6.89	6.89	6.89	5.51	5.51	3.79
Ferrules		ASME BPE	ISO 2852	DIN 32676	ASME BPE	DIN 32676	ISO 2852	ASME BPE	ISO 2852	ASME BPE
Gaskets ⁴ (USP Class VI FDA Approved) (EU 1935/2004 and 2023/2006 compliant)		<i>Material</i> Viton (black) EPDM (grey) Silicone (white) PTFE fluoropolymer (white) J-1500				<i>Temperature Range</i> -28°C up to 232°C -40°C up to 149°C -40°C up to 232°C -28°C up to 232°C -40°C up to 232°C				
Burst Indicator (Optional: BCH (separate) or –BI (integrated))		0.05Amp & 24VDC/AC maximum, 1 Ohm maximum before activation - including 0.3m cable								

(1) Consult Fike for discs larger than DN100 (4").

(2) For other sizes or for use in clamps according to ISO 2852: consult factory.

(3) For burst pressure less than 1.03 barg and for back pressure service: consult factory.

(4) All gaskets are USP Class VI, 3-A approved and compliant with EU 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 fluoropolymer is subject to cold flow in gasketed connections and may result in leakage and/or the need for frequent retightening.

J-1500 is a 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 SR-H bursting disc can be supplied with an integrated (break-wire type) burst indicator (Type SR-H-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 SR-H can be combined with a separate burst indicator (type BCH) which can be installed downstream of the SR-H 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

Size		ISO 2852	38	51	76	N/A ²
		DIN 32676	40	50	N/A ²	N/A ²
		Tri-Clamp	1 ½"	2"	3"	4"
Burst Pressure (barg)	1.4401 / 1.4404 (316 / 316L SST) ¹	MIN	1.65	1.35	1.03	0.83
		MAX	9.65	6.89	5.51	3.79

(1) Specify when ordering.

(2) Consult Fike.

PERFORMANCE TOLERANCES ¹

Burst Pressure in barg at 22°C	Performance Tolerance at 22°C
≤ 1.5	± 0.15 barg
1.5 < burst pressure < 2.76	stand. ± 10% / red. ± 0.15 barg
≥ 2.76	stand. ± 10% / red. ± 5%

(1) Consult Fike for possibility to reduce tolerances.

Performance tolerance as specified by ISO/EN is a total tolerance which includes both manufacturing and bursting tolerance.

As per ISO/EN the bursting discs can be marked with:

- Specified burst pressure with a performance tolerance (in % or a value)
E.g.: 10 barg at 22°C ± 10% (± 1 barg).
- Maximum and minimum burst pressure.
E.g.: Max 11 barg at 22°C - min 9 barg at 22°C

On request bursting discs can be marked as per ASME code section VIII with the average burst test result and the bursting tolerance of ± 5% for burst pressures ≥ 2.76 barg. (0.15 barg for burst pressures < 2.76 barg).

Performance Attributes				Process Media		HOLDERS
Operating Ratio	Non-Fragmenting	Vacuum Resistance	Sanitary	Vapour / Gas	Liquid	Ferrule
95%	Yes	Yes ¹	Yes	Yes	Yes	Yes

(1) Consult Fike if full vacuum is required and specified burst pressure is below 1.03 barg.