BURSTING DISCS

High pressure applications
Type SCRD-FSR

Description

Extremely versatile and adaptable to a large variety of conditions, the SCRD-FSR bursting disc is the high pressure solution in either liquid or vapour applications. The ring attached to the perimeter of the disc interlocks with a groove in the holder to prevent disc slippage at high operating and burst pressures.

The SCRD-FSR bursting disc is well suited for minimising leakage and corrosion in pressure relief valves, isolating them from process contaminants.

Data Sheet

Features and Benefits

- Can be used in liquid or vapour applications
- Can be operated as high as 95% of its rated burst pressure
- Withstands full vacuum in all pressure ratings
- Can be manufactured to be non-fragmenting (specify when ordering)
- Ideal for pressure relief valve isolation when non-fragmenting
- Available in a wide range of materials
- Fail-safe / damage ratio ≤ 1

Specifications

Type of Disc	SCRD-FSR				
Action	Forward-Acting Scored				
Sizes (1)	DN15 – DN600 / 1/2" - 24"				
Disc Material	1.4401 / 1.4404 (316/316L SST)	Inconel 600	Monel 400	Nickel 200/201	Hastelloy C276
Max. Operating Temperature	482°C	593°	482°C	427°C	482°C
Protective Coatings	No				
Ratio of Operating Pressure to Minimum Burst Pressure	95%				
Cycling Duty	MC				
Pulsating Duty (light)	MC				
Pulsating Duty (heavy)	MC				
Full or Partial Vacuum	R	R	R	R	R
Polymerisation Processes	NR	NR	NR	NR	NR
Hydraulic Service	R	R	R	R	R
Non-Fragmenting (2)	R	R	R	R	R
Seat Configuration	FSR				
Use in Flanged Holders Type BT (2)	Yes				
Use in Union Type Holders Type UT	NR	NR	NR	NR	NR
Use in Screw Type Holders Type ST	NR	NR	NR	NR	NR

R = RECOMMENDED MC = MARGINAL CONDITIONS NR = NOT RECOMMENDED

(1) For other sizes: consult factory.
(2) Specify when ordering.

Accessories and holders

The SCRD-FSR bursting disc is mounted in a unique FSR insert style holder that fits between standard flanges. Carbon steel, 316/316L SST (1.4401/1.4404) and other materials with serrated, RTJ, tongue and groove, and other flange facings are available.

Burst pressures in barg at 22°C

	Size	DN	25	40	50	80	100	150	200	250	300	350	400	450	500	600
		ANSI	1	1.5	2	3	4	6	8	10	12	14	16	18	20	24
Minimum Burst Pressure	1.4401 / 1.4404 (316/316L SST) 482°C		155.13	124.10	110.31	89.63	75.84	34.47	31.03	27.58	24.13	20.68	17.24	13.79	10.34	7.93
	Inconel 600 593°C		155.13	124.10	110.31	89.63	75.84	34.47	31.03	27.58	24.13	20.68	17.24	13.79	10.34	7.58
	Monel 400 482°C		155.13	124.10	110.31	89.63	75.84	34.47	31.03	27.58	24.13	20.68	17.24	13.79	10.34	6.89
	Nickel 200/201 427°C		155.13	124.10	110.31	89.63	75.84	34.47	31.03	27.58	24.13	20.68	17.24	13.79	10.34	6.89
	Hastelloy C276 482°C		155.13	124.10	110.31	89.63	75.84	34.47	-	-	-	-	-	-	-	-
Maximum Burst Pressure	Non-fragmenting	(1)	241.32	189.61	155.13	120.66	89.63	68.95	51.71	41.37	34.47	27.58	24.13	20.68	17.24	10.34
	Maximum		413.69	413.69	413.69	413.69	413.69	413.69	413.69	102.04	68.95	66.88	55.16	48.26	41.37	37.23

(1) Consult Fike for higher burst pressures without fragmentation.

Tolerances (1)

Performance Tolerance at 22°C
stand. ± 10% / red. ± 5%

(1) Consult Fike for possibility for reduced 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 ± 10% (± 1 barg) at 22°C
- 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 ≥ 2.76barg (0.15 barg for burst pressures < 2.76 barg).

Performance Attributes			Process Media		Bursting Disc Holders
Operating ratio	Non-fragmenting	Vacuum resistance	Liquid	Vapour / gas	Bolted type
					
95%	Yes	Yes	Yes	Yes	Yes

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Data Sheet