TECHNICAL DATASHEET

SCR Rupture Discs High Performance Protection for Industrial Plants

DESCRIPTION

DonadonSDD SCR reverse acting rupture discs are essential safety devices that prevent sudden pressure variations from damaging industrial plants. Reverse acting rupture discs have a convex disc camber that remains unaltered under operating pressure until reverse pressure is reached and this can ensure long service life. DonadonSDD SCR rupture discs uses advanced sector technology and provide improved performance and reliability to offer precise protection in the most high-risk applications, making DonadonSDD SCR rupture discs the best choice for your plant's safety.

Keyfeatures & technical benefits

High Certification Standards:

Our SCR rupture discs have achieved the highest certifications, including ASME XIII (UD STAMP), PED 2014/68/UE (CE STAMP), ATEX EX II 2 GD (CE STAMP), PER 2016 UK Statutory Instruments 2016 No 1105 (UKCA STAMP), and CU TR 032 (EAC STAMP).

Advanced Technology:

SCR rupture discs obtained using our patented Laser NS NanoScored technology are reverse-acting discs with micro-scored calibrated sections opening in petals, reducing the risk of petal detachment.

Reliable Performance:

Withstands thousands of cycles without compromising their reliability, with ratios up to 95% between operating and rupture pressure.

Rapid Rupture:

Disc ruptures in a few milliseconds and with full opening along scoring petals lines on the downstream side of the disc.

Versatile Design:

Suitable for both high and low bursting pressure; can be used with gas and liquids (with the presence of a minimum free vapor volume), in cycling and pulsating conditions without reduction of safety margins.

Pressure Safety Valves isolation / Non-Fragmenting:

Useful for Pressure Safety Valves isolation due to ruptures along the scored line without generating any fragments.

Corrosion-Resistant:

Wide range of materials and thickness options; PTFE lining available for added protection.

Temperature Resistance:

Ideal for applications with significant temperature variances due to reduced sensitivity to temperature fluctuations.

High Pressure/Vacuum Resistance:

Does not require vacuum support, avoiding restrictions in the discharge area; capable of resisting high backpressures. O-Ring seal available on holders for reduced fugitive emissions.

Why Choose DonadonSDD SCR Rupture Discs?

- Certified to highest industry standards for maximum safety.
- Manufacturing Range = ZERO (included with ASME)
- Krg (ASME-Certified velocity head loss) = 0.48, one of the lowest in the market
- Can be used in double-disc holder configurations.
- Commitment to corrosion resistance and high-pressure resistance ensures longevity and reliability.

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TECHNICAL DATA

MODEL	SCR
MATERIALS	Stainless steel, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium
DIMENSIONS	From DN15 (½ inch) to DN900 (36 inches)
RUPTURE PRESSURE	0.1 - 450 bar g (Depending on size and material)
KR G	0.48
TOLERANCE	from +/- 5 % to +/- 20%
OPERATING TEMPERATURE	From – 196°C up to 600°C
FRAGMENTATION	No
USE IN COMBINATION WITH PSV	Suitable
OPERATING MARGIN	90% - Can reach up to 95% depending on service conditions.
RESISTANCE TO VACUUM PRESSURE	Yes, self-supporting under vacuum conditions
CORROSION RESISTANCE	Very good
LININGS	Available in PTFE and PFA
HOLDER	HRA, HRP, HRF
RUPTURE SENSOR	Electrical, Magnetic, Inductive

Performance Attributes

Operation Ratio	Non Fragmenting	Vacuum Resistant	Sanitary
up to 95%	yes	yes	no

Process Media

Liquid	Vapor/Gas
yes, with the presence of a minimum free vapor volume	yes

CERTIFICATIONS

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