TECHNICAL DATASHEET

SCD Rupture Discs
Precision Pressure Protection for Industrial Plants

DESCRIPTION

DonadonSDD's SCD forward acting rupture discs are vital safety devices that prevent sudden pressure variations from damaging industrial plants. Forward acting rupture discs have a concave disc camber that remains unaltered under operating pressure until set pressure is reached and this can ensure long service life. DonadonSDD's SCD rupture discs provide reliable and precise protection in the most various and demanding applications, making DonadonSDD SCD rupture discs the best choice for your plant's safety. SCD forward acting rupture discs are one of the most versatile discs: usable for every type of fluid flow, ideal for polymerization process, able to reach a wide range of pressures.

Keyfeatures & technical benefits

High Certification Standards:

Our SCD 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:

SCD rupture discs obtained using our patented Laser NS NanoScored technology is a compression-loaded forward-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 85% between operating and rupture pressure.

Rapid Rupture:

Discs react to excessive pressure in a few milliseconds with full opening along petals lines scored on the downstream side of the disc.

High Bursting Pressure:

Especially suitable for high bursting pressure; can be used with both gas and liquids, in various industrial processes, in cycling and pulsating conditions without reduction of safety margins.

Pressure Safety Valves isolation / Non-Fragmenting:

Especially suited for protection of Pressure Relief Valves due to ruptures along the scored line without generating fragments.

Corrosion-Resistant:

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

High Vacuum Resistance:

Can, in many cases, be subject to absolute vacuum conditions without the need for supports, avoiding restrictions in the discharge area. O-Ring seal available for reduced fugitive emissions

Why Choose DonadonSDD SCD Rupture Discs?

- Certified to the highest industry standards for maximum safety.
- Manufacturing Range = ZERO (included with ASME)
- Krgl (ASME-Certified velocity head loss) = 1.33
- Can be used in double-holder configurations.
- Advanced technology and precision design ensure dependable pressure protection for industrial applications.
- Rapid rupture and pressure relief capabilities ensure maximum safety for industrial applications.
- Corrosion-resistant design and PTFE lining options ensure longevity and reliability.

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TECHNICAL DATA

MODEL	SCD
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	1 - 600 bar g (Depending on size and material)
KR GL	1.33
TOLERANCE	from +/- 5 % to +/- 20%
OPERATING TEMPERATURE	From – 196°C up to 600°C
FRAGMENTATION	No
USE IN COMBINATION WITH PSV	Suitable
OPERATING MARGIN	Can reach up to 85% 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 85%	yes	yes	no

Process Media

Liquid	Vapor/Gas
yes	yes

CERTIFICATIONS

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