



TECHNICAL DATASHEET

KRD Rupture Discs Reliable Protection for Industrial Plant

DonadonSDD's KRD reverse acting rupture discs are critical safety devices that protect your industrial plant by preventing sudden pressure build-ups. 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 KRD rupture discs incorporates state-of-the-art sector technology and provide reliable and precise protection in the most demanding applications, making DonadonSDD KRD rupture discs the best choice for your plant's safety.

It's specific design makes the KRD ideal to offer pressure protection to equipment where Full Liquid fluid is present.

Keyfeatures & technical benefits

High Certification Standards:

Our KRD discs have achieved the highest certifications, including ASME XIII (UD STAMP), PED 2014/68/UE (CE STAMP), PER 2016 UK Statutory Instruments 2016 No 1105 (UKCA STAMP), CU TR 032 (EAC STAMP).

Advanced Technology:

KRD rupture discs obtained using our patented Laser NS Nanoscored technology are reverse-acting discs with micro-scored calibrated sections opening around the circumference, 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 a circumferential line scored on the downstream side of the disc.

Versatile Design:

Suitable for presence of 100% liquid, cycling, and pulsating conditions without reducing safety margins.

Pressure Safety Valves isolation / Non-Fragmenting:

Ideal for PSV 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.

High 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 back-pressures. O-Ring seal available for reduced fugitive emissions

Features:

- Manufacturing Range = ZERO (included with ASME)
- Burst / performance tolerance = +/- 5%
- Krl (ASME-Certified velocity head loss) = 0,48, one of the lowest in the market
- Can be used in double-disc configurations

Why Choose DonadonSDD KRD Rupture Discs?

- Certified to highest industry standards for maximum safety.
- Manufacturing Range = ZERO (included with ASME)
- Krl (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.

TECHNICAL DATA

MODEL	KRD
MATERIALS	Stainless steel, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium
DIMENSIONS	DN 1/2"(15) – DN 36"(900)
RUPTURE PRESSURE	0.1 - 137 bar g (Depending on size and material)
KR L	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 , HRE
RUPTURE SENSOR	Electrical , Magnetic , Inductive

PERFORMANCE ATTRIBUTES

Operation Ratio	Non Fragmenting	Vacuum Resistant	Sanitary	Liquid	Vapor/Gas
					
up to 95%	yes	yes	no	yes	yes

PROCESS MEDIA

CERTIFICATIONS

