



## TECHNICAL DATASHEET

# KRD Sanitary Rupture Discs Advanced Pressure Protection for Hygienic Industries

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 uses advanced sector technology and provide targeted and precise protection in the most demanding applications making DonadonSDD KRD rupture discs an optimal safety choice for plants dealing with extreme conditions. Its specific design makes the KRD ideal to offer pressure protection to equipment where Full Liquid fluid is present.

## Keyfeatures & technical benefits

### State-of-the-art Design:

Particularly suitable for the Pharmaceutical, Food, and Biotechnology industries, and represents the advanced for these sectors.

### FDA-Certified Gaskets:

PTFE gaskets, which are certified in compliance with FDA and USP class VI, 3-A, and Eu 10/2011 regulations, facilitate installation in Clamp fittings (sanitary, Tri-Clamp, Tank Connection).

### Hygienic Applications:

Designed to meet the high-quality standards required by 3-A SSI, GMP and MOCA to ensure public health through hygienic equipment.

### High Certification Standards:

Our KRD 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:

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 Non-Fragmenting Rupture:

The disc opens completely in a few milliseconds along a circumferential line scored on the downstream side of the disc, thus preventing fragmentation from forming.

### Versatile Design:

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

### Corrosion-Resistant:

Wide range of materials and thickness options; PTFE or PFA lining (FDA Approved) available for added protection.

### High Pressure/Vacuum Resistance:

Does not require vacuum support, avoiding restrictions in the discharge area; capable of resisting high backpressures.

## Why Choose DonadonSDD?

- Advanced technology and advanced design ensure precise and dependable pressure protection for hygienic industries.
- Stainless steel construction, smooth surface, and FDA-certified gaskets ensure high levels of hygiene and aseptic conditions.
- Smooth Surface: Smooth surface finish ( $0,2 < Ra < 0,4$  micron) makes it particularly suitable for C.I.P. and S.I.P. treatments to maintain aseptic conditions. Roughness Test available for even lower values.
- Can be used with full liquid applications and can resist both vacuum and high operative pressure.

## TECHNICAL DATA

DonadonSDD is now part of **Baker Hughes**

MODEL	KRD
MATERIALS	Stainless steel, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium
GASKET MATERIALS	PTFE
DIMENSIONS	From DN15 (½ inch) to DN900 (36 inches)
RUPTURE PRESSURE	0.1 - 8 bar g (Depending on size and material)
KR L	0.48
TOLERANCE	from +/- 5 % to +/- 20%
OPERATING TEMPERATURE	Max 260°C (Gaskets in PTFE)
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	<a href="#">HTC</a>
RUPTURE SENSOR	<a href="#">Electrical</a>

PERFORMANCE ATTRIBUTES

Operation Ratio	Non Fragmenting	Vacuum Resistant	Sanitary	Liquid	Vapor/Gas
up to 95%	yes	yes	yes	yes	yes

PROCESS MEDIA

CERTIFICATIONS

