



TECHNICAL DATASHEET

# SCD Sanitary Rupture Discs

## Advanced Pressure Protection for Hygienic Industries

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

#### Hygienic Applications:

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

#### Smooth Surface:

Smooth surface finish ( $0,2 < Ra < 0,4$  micron) on the process side makes it particularly suitable for C.I.P. and S.I.P. treatments to maintain aseptic conditions.

#### 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).

#### High Certification Standards:

Our SCD rupture discs have achieved the highest certifications, including 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 Nanoscored Technology is a compression-loaded disc with a micro-scored calibrated section opening in petals, featuring 6 radial scoring.

#### Reliable Performance:

Withstands thousands of cycles without compromising their reliability, with ratios up to 85% between operating and rupture pressure.

#### Rapid Non-Fragmenting Rupture:

The SCD disc reacts to overpressures in just a few milliseconds with full opening along petals lines scored on the downstream side of the disc without fragmentation.

#### High Pressure/Vacuum Resistant:

In many cases, it can be subject to absolute vacuum conditions without the need for supports, avoiding restrictions in the discharge area.

### Why Choose DonadonSDD SCD Rupture Discs?

- State-of-the-art Design: Particularly suitable for the Pharmaceutical, Food, and Biotechnology industries.
- Stainless steel construction, smooth surface, and FDA-certified gaskets ensure high levels of hygiene and aseptic conditions.
- Rapid rupture capabilities prevent fragmentation and ensure maximum safety for industrial applications.
- Wide range of materials and thickness options; PTFE or PFA lining (FDA approved) available for added protection.
- Can be subject to vacuum conditions without the need for supports.

### TECHNICAL DATA

MODEL	SCD
MATERIALS	Stainless steel, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium
GASKET MATERIALS	PTFE

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DIMENSIONS	From DN25 (1 inch) to DN150 (6 inches)
RUPTURE PRESSURE	1 - 10 bar g (Depending on size and material)
KR GL	1.33
TOLERANCE	from +/- 5 % to +/- 20%
OPERATING TEMPERATURE	Max 260°C (Gaskets in PTFE)
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	<a href="#">HTC</a>
RUPTURE SENSOR	<a href="#">Electrical</a>

PERFORMANCE ATTRIBUTES

Operation Ratio	Non Fragmenting	Vacuum Resistant	Sanitary	Liquid	Vapor/Gas
					
up to 85%	yes	yes	yes	yes	yes

PROCESS MEDIA

CERTIFICATIONS

