



TECHNICAL DATASHEET

Y90 Rupture Discs Reliable Pressure Protection for Industrial Plants

DESCRIPTION

DonadonSDD Y90 reverse acting rupture discs are safety devices specifically designed to be set at very low burst pressure, to 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 Y90 rupture discs uses advanced sector technology and provide reliable and precise protection in the most demanding applications, making DonadonSDD Y90 rupture discs the best choice for your plant's safety.

Keyfeatures & technical benefits

High Certification Standards:

Our Y90 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:

Y90 rupture discs obtained using our patented Laser NS NanoScored technology are reverse-acting discs with micro-scored calibrated section 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:

Even if they are set at a very low pressure, 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 use with gas and liquids (with the presence of a minimum free vapour volume), cycling, and pulsating conditions without reducing 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.

Wide range of materials and thickness options:

PTFE or PFA lining (FDA approved) 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 Y90 Rupture Discs?

- Certified to the highest industry standards for maximum safety.
- The low burst pressure range makes the Y90 ideal to offer pressure limitation to equipment where compliance with the Pressure Equipment legislation is not requested.
- Advanced technology and reliable performance ensure precise and dependable pressure protection.
- Versatile design makes them suitable for a wide range of applications and conditions.

TECHNICAL DATA

MODEL	Y90
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 - 80 bar g (Depending on size and material)
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

<p>Operation Ratio</p>  <p>up to 95%</p>	<p>Non Fragmenting</p>  <p>yes</p>	<p>Vacuum Resistant</p>  <p>yes</p>	<p>Sanitary</p>  <p>no</p>
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Process Media

Liquid



yes, with the presence of a minimum free vapor volume

Vapor/Gas



yes