DATASHEET /
TECHNICAL SPECIFICATIONS

OE for Pharma

OPTI-GARD FERRULE

SANITARY REVERSE ACTING RUPTURE DISC

Technically advanced solution for **aseptic and hygienic applications**



FDA
USP Class VI
3A STANDARD
ASME BPE

Meets bioprocessing requirements

Our Opti-Gard Ferrule is specially designed for the food and beverage, biotechnology and biopharmaceutical industries. It features a smooth, uninterrupted surface finish that meets FDA requirements.

Installation using ferrules and tri-clamps preserves the aseptic environment around the disc. Opti-Gard Ferrule is also available to fit within NovAseptic Connectors (NA-Connect) to radically reduce contamination build-up and allow for greater cleanliness and a sterile environment.

Opti-Gard Ferrule is the only rupture disc solution to combine NovAseptic fittings with the non-invasive burst detector, Flo-Tel. This ensures instantaneous notification of disc burst without direct contact to the process.

Size	1" - 4"
Burst Pressure	13 - 300 psig
K_R Value (K_{RGL})	1.74
Operating Ratio	95%
Performance Tolerance	+/- 3%
Manufacturing Range	0%

Let us help you with all your pressure relief questions.

US office | *Broken Arrow*
+1 (918) 258 5626 | info@osecoelfab.com

UK office | *North Shields*
+44 (0)191 293 1234 | uksales@osecoelfab.com

osecoelfab.com

TECHNICAL SPECIFICATIONS

Size range	1"-4" (25-100mm)
Burst pressure range	13 psig to 300 psig (0.9 barg to 20.7 barg)
Suitable for CIP/SIP processes	Yes. Suitable for temperatures up to 392°F (200°C)
Standard materials	316 Stainless Steel as standard. Others available on request
Max. Operating Ratio	95%
Performance Tolerance	+/-3%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Gas service, liquid service, vapour service, two-phase service
Torque requirements	Not torque sensitive
Design Standards	Manufactured to ASME XIII or ISO 4126-2:2019 standards

Certifications

Meets FDA requirements
Meets ASME BPE requirements
Meets USP Class VI requirements
CE
PED
SIL

Related Products

Rupture Discs
Pure-Gard
Opti-Gard SoLo
Ferrule
PRO-S

Sensors
Vent-Tel (Sanitary)

Accessories
Tri-Clamps
Spacers

Burst Pressure Ranges

Opti-Gard Ferrule Min/Max Burst Pressure @ 15-30°C (59-86°F)

SIZE		MATERIAL	MIN barg (psig)	MAX barg (psig)
DN (mm)	inches			
25	1	316 Stainless Steel/Inconel Nickel/Monel Hastelloy	4.8 (70)	20.7 (300)
40	1.5	316 Stainless Steel/Inconel Nickel/Monel Hastelloy	2.1 (30)	20.7 (300)
50	2	316 Stainless Steel/Inconel Nickel/Monel Hastelloy	0.9 (13)	10 (145)
65	2.5	316 Stainless Steel/Inconel Nickel/Monel Hastelloy	0.9 (13)	10 (145)
80	3	316 Stainless Steel/Inconel Nickel/Monel Hastelloy	0.9 (13)	10 (145)
100	4	316 Stainless Steel/Inconel Nickel/Monel Hastelloy	0.9 (13)	10 (145)

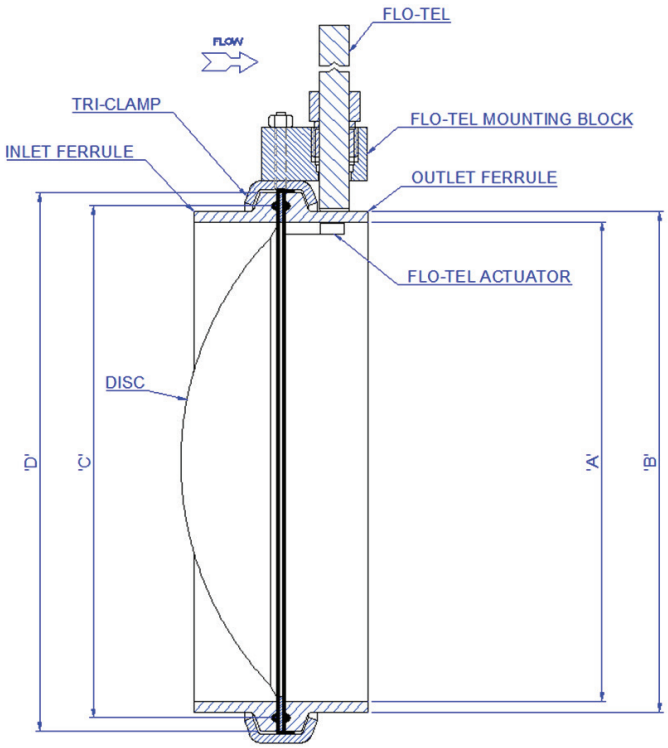
Free Flow Area / Minimum Net Flow Area (MNFA)

NOMINAL BORE		MNFA	
DN (mm)	inches	mm^2	Sq. Inch
25	1	297	0.461
40	1.5	739	1.146
50	2	1375	2.132
65	2.5	2247	3.484
80	3	3252	5.041
100	4	5757	8.923

Burst Tolerance

+/- 2.0 psig ≤65 psig +/-3% >65 psig	+/- 0.14 barg ≤4.48 barg +/- 3% >4.48 barg

Schematic Drawing



SIZE		Ferrule bore ID 'A' (mm)	Ferrule bore OD 'B' (mm)	Gasket pip 'C' (mm)	Ferrule face OD 'D' (mm)
DN (mm)	inches				
25	1	22.1	25.4	43.5	50.5
40	1.5	34.8	38.1	43.5	50.5
50	2	47.5	50.8	56.5	64
65	2.5	60.2	63.5	70.5	77.5
80	3	72.9	76.2	83.5	91
100	4	97.4	101.6	110	119

©OsecoElfab | Version 3.0
Last updated: January 27, 2023