

# **MILLI-GARD**

ULTRA LOW PRESSURE REVERSE ACTING RUPTURE DISC

# Composite reverse acting disc for gas or vapour applications operating at very low pressures



Milli-Gard's composite construction is specifically designed for accuracy at ultra-low burst pressures.

Unlike other manufacturers' designs, it can act as a single disc solution for either positive pressure or vacuum protection, depending on the application and method of installation.

Milli-Gard offers non-fragmenting opening. All Milli-Gard discs are fitted with a Flo-Tel actuator as standard. As Flo-Tel is non-invasive to the process, it offers accurate functionality even at the lowest end of the burst pressure range.

Install Milli-Gard in our reverse acting disc holder, which is suitable for use within flat and raised-face flanges.

Size	50mm - 300mm
Burst Pressure	3 mbarg - 500 mbarg
Operating Ratio	60%
Performance Tolerance	+/- 25%
Manufacturing Range	0%

Let us help you with all your pressure relief questions.

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## TECHNICAL SPECIFICATIONS



Size range	50-300mm (2"-12")
Burst pressure range	3 mbarg to 500 mbarg (0.044 psig to 7.25 psig)
Temperature range	-40°C to 150°C (-40°F to 302°F)
Standard materials	316 Stainless Steel (others available on request)
Max. Operating Ratio	60% of minimum burst pressure (45% of nominal burst pressure)
Performance Tolerance	+/-25%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Gas service, vapour service
Torque requirements	Not torque sensitive
Cycling or static service	Cycling service
Relief Valve Isolation	Suitable for safety relief valve isolation
Design Standards	Designed to meet ISO 4126-2:2019

## **Certifications**

SIL

### **Related Products**

Sensors

Flo-Tel XD

**Rupture Discs** 

Opti-Gard
Opti-Gard SoLo

**Accessories** 

Test-Tel System Loc

Holders

Reverse holders

**Burst Pressure Ranges**Milli-Gard Min/Max Burst Pressure @ 15-30°C (59-86°F)



SIZE		MATERIAL	MIN	MAX
DN (mm)	inches		mbarg (psig)	mbarg (psig)
50	2	316 Stainless Steel	50 (0.72)	500 (7.25)
80	3	316 Stainless Steel	25 (0.36)	400 (5.80)
100	4	316 Stainless Steel	18 (0.26)	250 (3.63)
150	6	316 Stainless Steel	10 (0.15)	200 (2.90)
200	8	316 Stainless Steel	5 (0.07)	150 (2.18)
250	10	316 Stainless Steel	5 (0.07)	150 (2.18)
300	12	316 Stainless Steel	3 (0.044)	150 (2.18)

### Free Flow Area / Minimum Net Flow Area (MNFA)



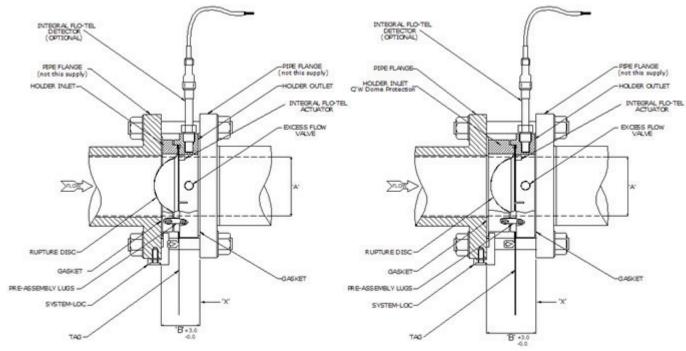
NOMINAL BORE		MNFA	
DN (mm)	inches	mm²	Sq. Inch
50	2	1,023	1.59
80	3	2,665	4.15
100	4	4,264	6.64
150	6	9,230	14.38
200	8	16,802	26.18
250	10	26,955	42.01
300	12	38,961	60.72

#### **Burst Tolerance**

+/- 3.5 mbarg < 14 mbarg +/-25% > 14 mbarg +/- 0.05 psig < 0.2 psig +/-25% > 0.2 psig

### **Schematic Drawing**





Without Dome Protection

NOMINAL BORE (A) FACE-TO-FACE (B) With dome No dome DN (mm) protection protection inches (mm) 2 44.4 (Std) 50 65 2.5 50 (Std) 80 3 55 (Std) 58 (Std) 100 4 150 6 74.5 (Std) 200 8 90.5 51.5 (Std) 250 10 105.5 51.5 (Std) 300 12 120.5 51.5 (Std)

Face-to-face dimensions account for the disc and holder assembly only. They do not account for gasket thickness.

With Dome Protection

FLANGE SPECIFICATIONS			
EN 1092-1 PN DESIGNATED	BS EN 1759-1 ANSI DESIGNATED		
PN 6	ANSI 150		
PN 10	ANSI 300		
PN 16	ANSI 600		
PN 20	ANSI 900		
PN 25	ANSI 1500		
PN 40	ANSI 2500		
PN 50	-		
PN 63	-		
PN 100	-		