

Milli-Gard (MIL)

Technical Information

Including specifications, performance data and schematic

General specifications

Size range	50mm to 300mm (2" to 12")
Burst pressure range	3 mbarg to 500 mbarg (0.044 psig to 7.25 psig)
Temperature range	-40°C to 150°C
Materials available	Stainless Steel as standard, others available on request
Maximum operating ratio	60% of minimum burst pressure (45% of nominal burst pressure)
Performance tolerance	+/- 25% (zero manufacturing design range)
Fragmenting / non-fragmenting	Non-fragmenting
Vacuum service	Full vacuum
Fluid compatibility	Gas, vapour
K _r value	n/a
Torque sensitive	No
Cycle life	Good
Reversal ratio	n/a with standard holder
Damage ratio	<1 fail-safe
Protective linings	n/a
Relief valve isolation	Suitable
Leak tightness	Good
Disc surface finish	n/a

Burst pressure range in mbarg (psig) at 15-30°C (59-86°F)

Nominal bore		Material	
		Stainless Steel	
mm	inch	min	max
50	2	50 (0.72)	500 (7.25)
80	3	25 (0.36)	400 (5.80)
100	4	18 (0.26)	250 (3.63)
150	6	10 (0.15)	200 (2.90)
200	8	5 (0.07)	150 (2.18)
250	10	5 (0.07)	150 (2.18)
300	12	3 (0.044)	150 (2.18)

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Free flow area / Minimum net flow area (MNFA)

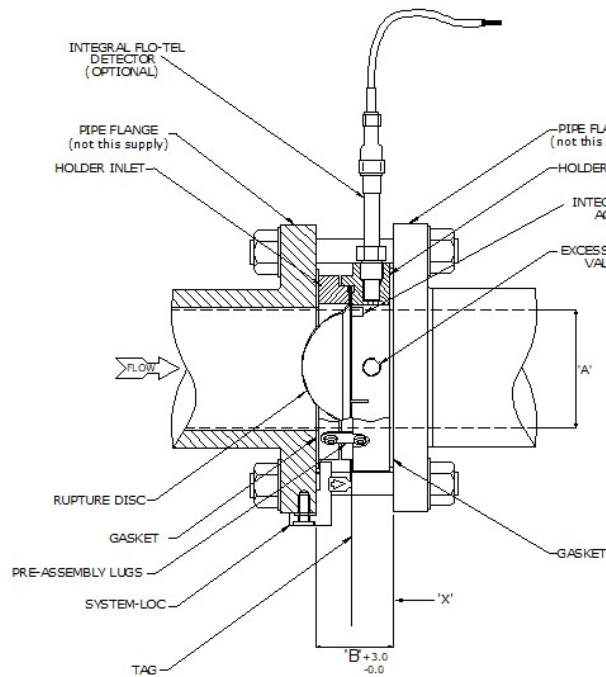
Nominal bore		MNFA	
mm	inch	mm ²	inch ²
50	2	1,023	1.59
80	3	2,665	4.15
100	4	4,264	6.64
150	6	9,230	14.38
200	8	16,802	26.18
250	10	26,955	42.01
300	12	38,961	60.72

Performance tolerance (Zero manufacturing design range)

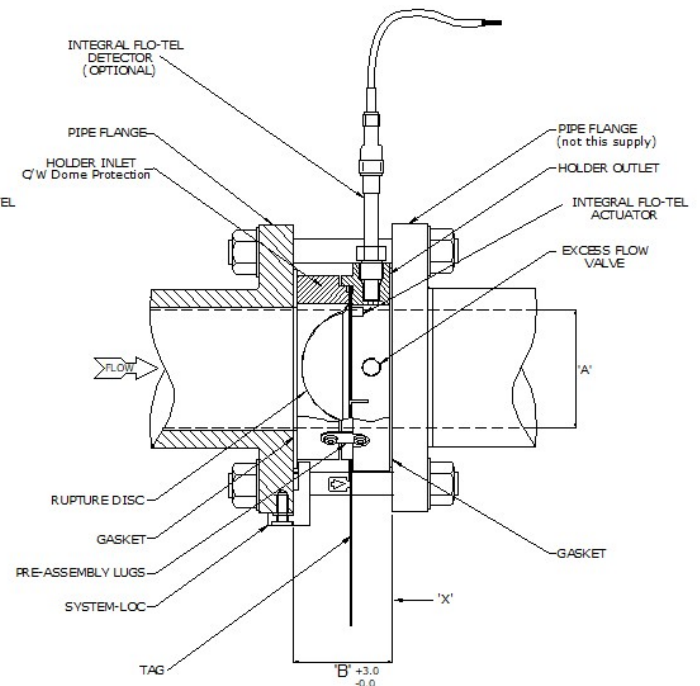
Burst Pressure	Tolerance	Burst Pressure	Tolerance
<14 mbarg (0.2 psig)	+/- 3.5 mbarg (0.05 psig)	>14 mbarg (0.2 psig)	+/- 25%

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Product Schematic



Without Dome Protection



With Dome Protection

Nominal Bore (A)		Face to face (B)	
mm	Inch	Dome Protection mm	No Dome Protection mm
50	2	44.4 (Std)	-
65	2.5	50 (Std)	-
80	3	55 (Std)	-
100	4	58 (Std)	-
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)

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	-

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