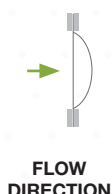


DOMED COMPOSITE

FORWARD ACTING COMPOSITE DISC

A versatile, forward acting disc with a tri-membrane construction for improved protection and reliability at low to medium pressures



The forward acting Domed Composite disc features a non-fragmenting design with a unique tri-membrane construction. The sealing membrane, along with a choice of metals for the disc, provides improved protection and reliability for low to medium pressure applications.

We pre-form the disc to a specific dome height and use a variety of slotting arrangements to achieve accurate burst pressure capability tailored specifically to your application.

We fit our Domed Composite discs with a Flo-Tel actuator as standard to enable use with our non-invasive, reusable burst detection system.

Size	25 - 800 mm
Burst Pressure	0.3 - 20 barg
K_R Value (K_{RGL})	3.94
Operating Ratio	85%
Performance Tolerance	+/-5%
Manufacturing Range	0%

**Let us help you with all
your pressure relief questions.**

UK office | North Shields

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US office | Broken Arrow

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osecoelfab.com

**REQUEST A QUOTE FOR
DOMED COMPOSITE**



TECHNICAL SPECIFICATIONS



Size range	25-800mm (1" - 32")
Burst pressure range	0.3-20 barg (5-290 psig)
Standard materials	Stainless Steel as standard, others available on request
K _R Value	3.94
Max. Operating Ratio	85% of minimum burst pressure (81% of nominal burst pressure)
Performance Tolerance	+/-5%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Opening or non-opening vacuum support available for full vacuum capability
Fluid compatibility	Gas service, liquid service, vapour service
Torque requirements	Not torque sensitive
Cycling or static service	Cycling service
Protective linings	Fluoropolymer liner available on process side
Relief Valve Isolation	Suitable for relief valve isolation
Design Standards	Designed to meet ISO 4126-2:2019 or ASME Section XIII standards

Certifications

ASME UD
CE
SIL

Related Products

HOLDERS

STANDARD (FORWARD) HOLDER

SENSORS

FLO-TEL

FLO-TEL XD

Burst Pressure Ranges

Domed Composite Min/Max Burst Pressure @ 15-30°C (59-86°F)



SIZE		MATERIAL*	MIN barg (psig)	MAX barg (psig)
DN (mm)	inches			
25	1	Nickel 316 Stainless Steel/Inconel	1.04 (15) 2.1 (30)	6.9 (100) 13.8 (200)
40	1.5	Nickel 316 Stainless Steel/Inconel	0.7 (10) 1.4 (20)	6.9 (100) 13.8 (200)
50	2	Nickel 316 Stainless Steel/Inconel	0.7 (10) 1.4 (20)	6.9 (100) 13.8 (200)
65	2.5	Nickel 316 Stainless Steel/Inconel	0.7 (10) 1.4 (20)	6.9 (100) 13.8 (200)
80	3	Nickel 316 Stainless Steel/Inconel	0.7 (10) 1.4 (20)	5.2 (75) 18 (261)
100	4	Nickel 316 Stainless Steel/Inconel	0.7 (10) 1.4 (20)	5.2 (75) 17 (247)
150	6	Nickel 316 Stainless Steel/Inconel	0.35 (5) 0.7 (10)	5.2 (75) 13 (189)
200	8	Nickel 316 Stainless Steel/Inconel	0.35 (5) 0.7 (10)	5.2 (75) 10 (145)
250	10	Nickel 316 Stainless Steel/Inconel	0.35 (5) 0.7 (10)	3.45 (50) 8.5 (123)
300	12	Nickel 316 Stainless Steel/Inconel	0.35 (5) 0.7 (10)	3.45 (50) 5.5 (80)
350	14	Nickel 316 Stainless Steel/Inconel	0.35 (5) 0.7 (10)	4.0 (58) 5.5 (80)
400	16	Nickel 316 Stainless Steel/Inconel	0.3 (4.4) 0.55 (8)	3.8 (55) 5.5 (80)
450	18	Nickel 316 Stainless Steel/Inconel	0.3 (4.4) 0.55 (8)	3.8 (55) 5.5 (80)
500	20	Nickel 316 Stainless Steel/Inconel	0.3 (4.4) 0.55 (8)	3.8 (55) 5.5 (80)
600	24	Nickel 316 Stainless Steel/Inconel	0.3 (4.4) 0.55 (8)	3.0 (44) 5.5 (80)
700	28	Nickel 316 Stainless Steel/Inconel	0.3 (4.4) 0.55 (8)	2.7 (39) 4.7 (68)
800	32	Nickel 316 Stainless Steel/Inconel	0.3 (4.4) 0.55 (8)	2.5 (36) 4.3 (62)

* Top section material. Data assumes a fluoropolymer seal is present.

Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		MNFA with no vacuum support (XXX)		MNFA with non-opening vacuum support (NVS)		MNFA with opening vacuum support (OVS)	
DN (mm)	inches	mm ²	Sq. Inch	mm ²	Sq. Inch	mm ²	Sq. Inch
25	1	448	0.69	270	0.42	376	0.58
40	1.5	1,164	1.80	721	1.12	1,046	1.62
50	2	1,908	2.96	1,199	1.86	1,611	2.49
65	2.5	3,166	4.91	1,912	2.96	2,780	4.31
80	3	4,839	7.50	3,412	5.29	4,359	6.76
100	4	7,869	12.20	4,736	7.34	7,253	11.24
150	6	17,319	26.85	9,253	14.34	16,399	25.42
200	8	30,946	47.97	17,182	26.63	29,711	46.05
250	10	48,500	75.18	28,084	43.53	46,951	72.77
300	12	69,980	108.47	-	-	68,118	105.58
350	14	94,569	146.58	-	-	91,863	142.39
400	16	123,785	191.87	-	-	120,687	187.07
450	18	156,929	243.24	-	-	153,438	237.83
500	20	188,574	292.29	-	-	184,745	286.36
600	24	273,397	423.77	-	-	268,782	416.61
700	28	373,928	579.59	-	-	368,528	571.22
800	32	490,167	759.76	-	-	483,982	750.17

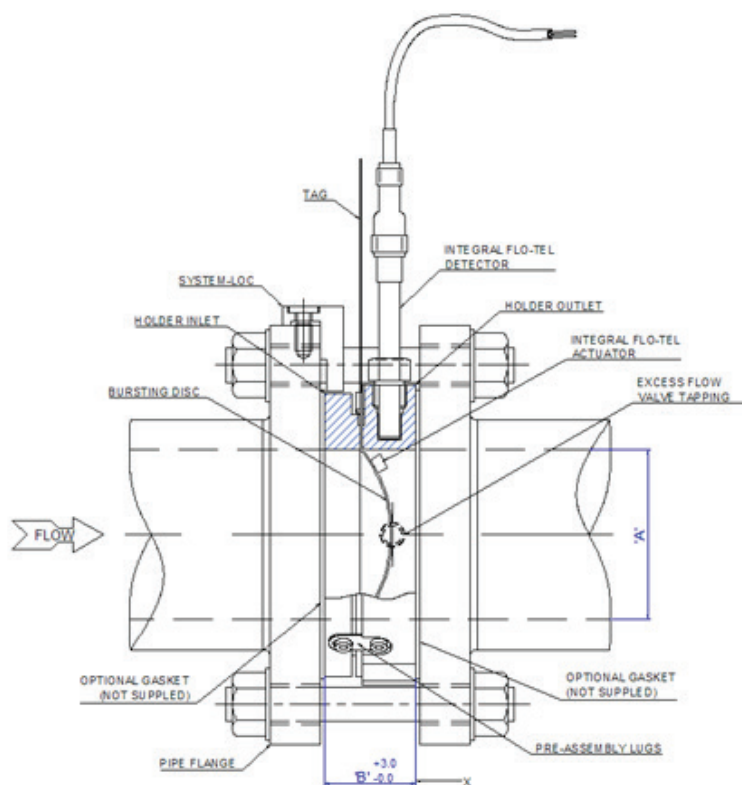
Burst Tolerance

+/- 0.1 barg ≤ 2 barg
+/-5% > 2 barg

+/- 1.45 psig ≤ 29 psig
+/-5% > 29 psig

K_R Value (Frictional Loss Factor)

K _R	Domed Composite
K _{RGL}	3.94



NOMINAL BORE (A)		FACE-TO-FACE (B)	
DN (mm)	inches	(mm)	(inches)
25	1	37.9	1.49
40	1.5	37.9	1.49
50	2	37.9	1.49
65	2.5	40	1.58
80	3	42	1.65
100	4	46.5	1.83
150	6	62	2.44
200	8	58	2.28
250	10	58	2.28
300	12	58	2.28
350	14	50	1.97
400	16	50	1.97
450	18	50	1.97
500	20	50	1.97
600	24	50	1.97

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.