

STD

STANDARD RUPTURE DISC

Oseco's STD rupture disc is a pressure-relieving safety device that is used in many applications. It has a 30° angular seating area and is used primarily to vent to controlled areas or vent to the atmosphere.

The STD is designed for operation in applications where normal system pressures do not exceed 70% of the stamped burst pressure. This will ensure excellent and long service life.

The STD is a solid metal crowned or pre-bulged disc and excels in gas or liquid applications.

The STD is Oseco's original economical and tension-loaded rupture disc.

- Suitable for liquid or gas applications
- If subjected to vacuum conditions, it may be necessary to use a vacuum support
- Wide range of sizes and pressures
- PFA-grade Fluoropolymer liners available for atmospheric and/or process sides
- Standard materials of construction: 316 Series Stainless Steel, Nickel, Inconel® 600, Monel® and Hastelloy® C
- Designed to meet ASME Section VIII standards



Sizes
1/4" - 24"

Operating Ratio
70%

K_R Value

STD - K_{RGL}: 0.88

STDV - K_{RGL}: 1.98

Manufacturing Range
10%



Oseco STD Technical Specifications

STD Min/Max Burst Pressure @ 72° F (psig) / 22° C (barg)

SIZE inches (metric)	MATERIAL	MIN psig (barg)	MAX psig (barg)	FLUOROPOLYMER LINER ON ONE SIDE		FLUOROPOLYMER LINER ON TWO SIDES	
				MIN psig (barg)	MAX psig (barg)	MIN psig (barg)	MAX psig (barg)
0.5" DN 15	316	625 (43.1)	30000 (2068.4)	820 (56.5)	10000 (689.5)	910 (62.7)	10000 (689.5)
	NI	280 (19.3)	20000 (1378.9)	500 (34.5)	6000 (413.7)	600 (41.4)	6000 (413.7)
	Inc	440 (30.3)	30000 (2068.4)	790 (54.5)	10000 (689.5)	790 (54.4)	10000 (689.5)
	Mon	340 (23.4)	25000 (1723.7)	500 (34.5)	6000 (413.7)	600 (41.4)	6000 (413.7)
	Al Hast C	80 (5.5) 1100 (75.8)	1500 (103.4) 30000 (2068.4)	235 (16.2) 1245 (85.9)	1500 (103.4) 30000 (2068.4)	380 (26.2) 1315 (90.7)	1500 (103.4) 30000 (2068.4)
0.75" DN 20	316	455 (31.4)	1000 (68.9)	650 (44.8)	1000 (68.9)	740 (51.0)	1000 (68.9)
	NI	200 (13.8)	1000 (68.9)	370 (25.5)	1000 (68.9)	460 (31.7)	1000 (68.9)
	Inc	325 (22.4)	1000 (68.9)	500 (34.5)	1000 (68.9)	590 (40.7)	1000 (68.9)
	Mon	250 (17.2)	1000 (68.9)	420 (29.0)	1000 (68.9)	510 (35.2)	1000 (68.9)
	Al Hast C	55 (3.8) 750 (51.7)	650 (44.8) 30000 (2068.4)	225 (15.5) 844 (58.2)	650 (44.8) 30000 (2068.4)	315 (21.7) 890 (61.4)	650 (44.8) 30000 (2068.4)
1" DN 25	316	320 (22.1)	12000 (827.4)	370 (25.5)	5000 (344.7)	420 (29.0)	5000 (344.7)
	NI	145 (10.0)	8000 (551.6)	195 (13.4)	3000 (206.8)	245 (16.9)	3000 (206.8)
	Inc	225 (15.5)	12000 (827.4)	275 (19.0)	5000 (344.7)	325 (22.4)	5000 (344.7)
	Mon	175 (12.1)	10000 (689.5)	225 (15.5)	3000 (206.8)	275 (19.0)	3000 (206.8)
	Al Hast C	40 (2.8) 500 (34.5)	1000 (68.9) 30000 (2068.4)	90 (6.2) 592 (40.8)	1000 (68.9) 30000 (2068.4)	140 (9.7) 627 (43.2)	1000 (68.9) 30000 (2068.4)
1.5" DN 40	316	210 (14.5)	6000 (413.7)	245 (16.9)	3400 (234.4)	280 (19.3)	3400 (234.4)
	NI	95 (6.5)	6000 (413.7)	130 (9.0)	2000 (137.9)	165 (11.4)	2000 (137.9)
	Inc	150 (10.3)	6000 (413.7)	185 (12.8)	3400 (234.4)	220 (15.2)	3400 (234.4)
	Mon	115 (7.9)	6000 (413.7)	150 (10.3)	2000 (137.9)	185 (12.8)	2000 (137.9)
	Al Hast C	26 (1.8) 375 (25.9)	750 (51.7) 12000 (827.6)	60 (4.1) 431 (29.7)	700 (48.3) 12000 (827.6)	95 (6.5) 454 (31.3)	700 (48.3) 12000 (827.6)
2" DN 50	316	120 (8.3)	6000 (413.7)	145 (10.0)	1800 (124.1)	170 (11.7)	1800 (124.1)
	NI	55 (3.8)	4000 (275.8)	79 (5.4)	1300 (89.6)	105 (7.2)	1300 (89.6)
	Inc	87 (6.0)	6000 (314.7)	110 (7.6)	1800 (124.1)	135 (9.3)	1800 (124.1)
	Mon	67 (4.6)	4500 (310.3)	91 (6.3)	1300 (89.6)	115 (7.9)	1300 (89.6)
	Al Hast C	16 (1.1) 250 (17.2)	570 (39.3) 6000 (413.8)	40 (2.8) 289 (19.9)	500 (34.5) 6000 (413.8)	64 (4.4) 306 (21.1)	500 (34.5) 6000 (413.8)
3" DN 80	316	90 (6.2)	6000 (413.7)	105 (7.2)	1500 (103.4)	120 (8.3)	1500 (103.4)
	NI	41 (2.8)	2500 (172.4)	55 (93.8)	900 (62.1)	69 (4.8)	900 (62.1)
	Inc	63 (4.3)	4000 (275.8)	77 (5.3)	1500 (103.4)	91 (6.3)	1500 (103.4)
	Mon	49 (3.4)	3200 (220.6)	63 (4.3)	900 (62.1)	77 (5.3)	900 (62.1)
	Al Hast C	12 (0.8) 175 (12.1)	460 (31.7) 6000 (413.8)	26 (1.8) 205 (14.1)	400 (27.6) 6000 (413.8)	40 (2.8) 217 (15)	400 (27.6) 6000 (413.8)
4" DN 100	316	68 (4.7)	6000 (413.7)	79 (5.4)	1100 (75.8)	90 (6.2)	1100 (75.8)
	NI	31 (2.1)	1900 (131.0)	42 (2.9)	650 (44.8)	53 (3.7)	650 (44.8)
	Inc	48 (3.3)	3000 (206.8)	59 (4.1)	1100 (75.8)	70 (4.8)	1100 (75.8)
	Mon	37 (2.6)	2400 (165.5)	48 (3.3)	650 (44.8)	59 (4.1)	650 (44.8)
	Al Hast C	9 (0.6) 140 (9.7)	360 (24.8) 6000 (413.8)	20 (1.4) 161 (11.1)	325 (22.4) 6000 (413.8)	31 (2.1) 170 (11.7)	325 (22.4) 6000 (413.8)
6" DN 150	316	51 (3.5)	3600 (248.2)	59 (4.1)	800 (55.2)	67 (4.6)	800 (55.2)
	NI	23 (1.6)	1400 (96.5)	31 (2.1)	500 (34.5)	39 (2.7)	500 (34.5)
	Inc	36 (2.5)	2200 (151.7)	44 (3.0)	800 (55.2)	52 (3.6)	800 (55.2)
	Mon	28 (1.9)	1800 (124.1)	36 (2.5)	500 (34.5)	44 (3.0)	500 (34.5)
	Al Hast C	7 (0.5) 95 (6.6)	275 (19.0) 3600 (248.3)	15 (1.0) 110 (7.6)	240 (16.5) 3600 (248.3)	23 (1.6) 115 (7.9)	240 (16.5) 3600 (248.3)
8" DN 200	316	40 (2.8)	2100 (144.8)	46 (3.2)	600 (41.4)	52 (3.6)	600 (41.4)
	NI	18 (1.2)	1100 (75.8)	24 (1.7)	375 (25.9)	30 (2.1)	375 (25.9)
	Inc	28 (1.9)	1700 (117.2)	34 (2.3)	600 (41.4)	40 (2.8)	600 (41.4)
	Mon	22 (1.5)	1450 (100.0)	28 (1.9)	375 (25.9)	34 (2.3)	375 (25.9)
	Al Hast C	5 (0.3) 70 (4.8)	205 (14.1) 2100 (144.8)	11 (0.8) 79 (5.4)	180 (12.4) 2100 (144.8)	17 (1.2) 84 (5.8)	180 (12.4) 2100 (144.8)
10" DN 250	316	30 (2.1)	1400 (96.5)	35 (2.4)	500 (34.5)	40 (2.8)	500 (34.5)
	NI	14 (1.0)	800 (55.2)	19 (1.3)	300 (20.7)	24 (1.7)	300 (20.7)
	Inc	22 (1.5)	1400 (96.5)	27 (1.9)	500 (34.5)	32 (2.2)	500 (34.5)
	Mon	17 (1.2)	1150 (79.3)	22 (1.5)	300 (20.7)	27 (1.9)	300 (20.7)
	Al Hast C	4 (0.3) 55 (3.8)	165 (11.4) 1400 (96.6)	9 (0.6) 63 (4.3)	135 (9.3) 1400 (96.6)	14 (1.0) 66 (4.6)	135 (9.3) 1400 (96.6)
12" DN 300	316	27 (1.9)	1000 (68.9)	31 (2.1)	400 (27.6)	35 (2.4)	400 (27.6)
	NI	12 (0.8)	670 (46.2)	16 (1.1)	250 (17.2)	20 (1.4)	250 (17.2)
	Inc	19 (1.3)	1000 (68.9)	23 (1.6)	400 (27.6)	27 (1.9)	400 (27.6)
	Mon	15 (1.0)	960 (66.2)	19 (1.3)	250 (17.2)	23 (1.6)	250 (17.2)
	Al Hast C	4 (0.3) 45 (3.1)	140 (9.7) 1000 (69.0)	8 (0.6) 51 (3.5)	110 (7.6) 1000 (69.0)	12 (0.8) 54 (3.7)	110 (7.6) 1000 (69.0)
14" DN 350	316	23 (1.6)	750 (51.7)				
	NI	11 (0.8)	570 (39.3)				
	Inc	17 (1.2)	725 (50.0)				
	Mon	13 (0.9)	750 (51.7)				
	Al Hast C	3 (0.2) 40 (2.8)	125 (8.6) 750 (51.7)				

Related Products

SENSORS

AMS
SVT
CMS

HOLDERS

RDI
RDI-P
RDH
UNION

Certifications

ASME UD
CRN
PED 2014/68/EU
China SELO

Oseco STD Technical Specifications

SIZE inches (metric)	MATERIAL	MIN psig (barg)	MAX psig (barg)	FLUOROPOLYMER LINER ON ONE SIDE		FLUOROPOLYMER LINER ON TWO SIDES	
				MIN psig (barg)	MAX psig (barg)	MIN psig (barg)	MAX psig (barg)
16" DN 400	316 NI	20 (1.4)	500 (34.5)	Consult Factory	Consult Factory	Consult Factory	Consult Factory
	Inc	9 (0.6)	410 (28.3)				
	Mon	15 (1.0)	500 (34.5)				
	Al	11 (0.8)	500 (34.5)				
	Hast C	3 (0.2)	105 (7.2)				
18" DN 450	316 NI	18 (1.2)	475 (32.7)	Consult Factory	Consult Factory	Consult Factory	Consult Factory
	Inc	8 (0.60)	445 (30.7)				
	Mon	13 (0.9)	475 (32.7)				
	Al	10 (0.7)	475 (32.7)				
	Hast C	3 (0.2)	95 (6.5)				
20" DN 500	316 NI	16 (1.1)	450 (31.0)	Consult Factory	Consult Factory	Consult Factory	Consult Factory
	Inc	8 (0.6)	400 (27.6)				
	Mon	12 (0.8)	450 (31.0)				
	Al	9 (0.6)	450 (31.0)				
	Hast C	2 (0.1)	85 (5.9)				
24" DN 600	316 NI	44 (3.0)	230 (15.9)	Consult Factory	Consult Factory	Consult Factory	Consult Factory
	Inc	37 (2.6)	145 (10.0)				
	Mon	45 (3.1)	230 (15.9)				
	Al	55 (3.8)	450 (31.0)				
	Hast C	2 (0.1)	71 (4.9)				

Burst Tolerance

+/-5% above 40 psig

+/-2 psig at or below 40 psig

Free Flow Area Minimum Net Flow Area (MNFA)

DISC SIZE (Inch)	NET FLOW AREA (Sq. Inch)
0.25	0.049
0.5	0.19
0.75	0.44
1	0.6
1.5	1.48
2	2.85
3	5.41
4	10.3
6	22.3
8	45.6
10	72.7
12	101
14	135
16	176
18	230
20	279
24	415

K_R Values *(Frictional Loss Factor)

K _R	STD	STDV
K _{RGL}	0.88	1.98

Angular Seat STD Vacuum Support Requirements

MATERIAL	FULL VACUUM	2/3 VACUUM	1/2 VACUUM
316 STAINLESS STEEL	1200 psig	975 psig	725 psig
NICKEL	1200 psig	975 psig	725 psig
INCONEL 600	1200 psig	975 psig	725 psig
MONEL	1200 psig	975 psig	725 psig
ALUMINUM	450 psig	360 psig	270 psig
HASTELLOY C	1200 psig	975 psig	725 psig

If the burst pressure of a rupture disc at operating temperature is below these minimum pressure, a vacuum support is required. For back pressures greater than 14.7 psig and other disc materials consult factory.

Let us help you with all
your pressure relief questions.
Call us at (800) 395-3475
or email us at info@oseco.com.

www.oseco.com

