

MX-9T™

RUPTURE DISC

DESIGNED FOR FULL,
NON-FRAGMENTING,
FOUR PETAL OPENING
PATTERN

The MX-9T Rupture Disc is a flat seat cross-scored, tension-type rupture disc. The MX-9T Rupture Disc is designed to provide a full, non-fragmenting, four petal opening pattern. Because the MX-9T Rupture Disc is scored on the outlet (vent) side of the rupture disc, a smooth disc surface is provided on the inlet (process) side of the rupture disc. The result is an undisturbed inlet surface resistant to corrosion and the accumulation of process media.

The MX-9T Rupture Disc cross-scored pattern provides a clean, consistent opening pattern. When an overpressure situation initiates disc activation, the rupture disc opens in a non-fragmenting four petal design, resulting in an optimum flow.

FEATURES

- Sizes available: 1" (25 mm) through 36" (900 mm)
- 90% maximum recommended operating ratio
- Available manufacturing ranges: ZERO, -5% and -10%
- Ideal for liquid and gas/vapor applications
- Non-fragmenting design
- Withstand full vacuum¹ (See note on next page)
- Recommended for static operating condition² (See note on next page)
- Fluoropolymer coating is available for corrosion protection on the process and/or vent side of the rupture disc
- Fluoropolymer liner is available for corrosion protection on the process and/or vent side of the rupture disc
- Three dimensional stainless steel flow direction tag attached to all sizes
- Additional available options: protective rings, vacuum support, gaskets and cleaned for oxygen or chlorine service

BENEFITS

- Provides lower maintenance cost, greater reliability as compared to alternate rupture disc types and materials
- Compatible with MX-9T Insert, MX-9T-RH (reduced height) Insert and MX-9T Double Disc Holders
- Compatible with the BDI-FLX™ Sensor System, Universal B.D.I.® Alarm System
- Increased productivity of your system

TABLE 1 // MX-9T RUPTURE DISC MINIMUM/MAXIMUM BURST PRESSURE LIMITS

The following table shows burst pressures available at 72°F (22°C)

SIZE	Nickel		ALLOY 400		ALLOY 600		316 SS / 316L SS	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
	psig/barg	psig/barg	psig/barg	psig/barg	psig/barg	psig/barg	psig/barg	psig/barg
1"	1100	2650	1100	3150	1440	3600	1440	3600
25 mm	75,9	183	75,9	217	99,3	248	99,3	248
1-1/2"	990	1950	990	2300	1250	2700	1250	2800
40 mm	68,3	134	68,3	159	86,2	186	86,2	193
2"	935	1500	935	1800	1100	2050	1100	2150
50 mm	64,5	103	64,5	124	75,9	141	75,9	148
3"	925	1050	925	1250	1200	1440	1200	1440
80 mm	63,8	72,4	63,8	86,2	82,8	99,3	82,8	99,3
4"	715	850	715	1000	920	1150	920	1200
100 mm	49,3	58,6	49,3	68,9	63,4	79,3	63,4	82,7
6"	440	600	440	700	515	800	515	800
150 mm	30,3	41,4	30,3	48,3	35,5	55,2	35,5	55,2
8"	275	450	275	525	345	600	345	600
200 mm	19,0	31,0	19,0	36,2	23,8	41,4	23,8	41,4
10"	225	360	225	420	275	480	275	480
250 mm	15,5	24,8	15,5	29,0	18,9	33,1	18,9	33,1
12"	190	300	190	350	225	400	225	400
300 mm	13,1	20,7	13,1	24,1	15,5	27,6	15,5	27,6
14"	21	170	27	170	34	170	33	170
350 mm	1,45	11,7	1,86	11,7	2,34	11,7	2,28	11,7
16"	18	170	23	170	30	170	29	170
400 mm	1,24	11,7	1,59	11,7	2,07	11,7	2,00	11,7
18"	16	165	21	165	26	165	26	165
450 mm	1,10	11,4	1,45	11,4	1,79	11,4	1,79	11,4
20"	15	165	19	165	24	165	23	165
500 mm	1,03	11,4	1,31	11,4	1,65	11,4	1,59	11,4
24"	15	135	19	135	24	135	23	135
600 mm	1,03	9,31	1,31	9,31	1,65	9,31	1,59	9,31
28"	15	135	19	135	24	135	23	135
700 mm	1,03	9,31	1,31	9,31	1,65	9,31	1,59	9,31
30"	15	120	19	120	24	120	23	120
750 mm	1,03	8,27	1,31	8,27	1,65	8,27	1,59	8,27
32"	15	110	19	110	24	110	23	110
800 mm	1,03	7,58	1,31	7,58	1,65	7,58	1,59	7,58
36"	15	100	19	100	24	100	23	100
900 mm	1,03	6,89	1,31	6,89	1,65	6,89	1,59	6,89

Notes:

- Minimum and Maximum pressure limits are based upon the corresponding minimum and maximum of the manufacturing ranges at 72°F (22°C).
- Product parameters are based on United States customary units. Values in metric units are provided for reference only.
- Consult with your Continental Disc Representative or the factory for additional materials or pressure capabilities.

1 – Vacuum supports are required in order for rupture discs to withstand full vacuum for sizes 14" (350 mm) to 36" (900 mm).

2 – Operating the MX-9T Rupture Disc in pulsating or cyclic service may reduce the rupture disc service life.

TABLE 2 // MAXIMUM RECOMMENDED TEMPERATURE LIMITS

DISC MATERIAL	°F	°C
NICKEL	800	427
ALLOY 400	800	427
ALLOY 600	1000	482
316 SS/316 L SS	900	482
FLUOROPOLYMER LINER	500	260

MANUFACTURING RANGES

Manufacturing ranges are shown in Table 3 for the MX-9T Rupture Disc. Special manufacturing ranges are available upon request. For Burst Tolerances and Recommended Operating Pressure see Table 3A. Table 3 and Table 3A are based on the RATED Rating Type. Specified and MIN/MAX Rating Type are also available.



FOR MORE INFORMATION REGARDING RUPTURE DISC RATING, RANGE AND TOLERANCES, PLEASE SEE THE: [BURST RATING TYPES DATASHEET](#).

TABLE 3 // MANUFACTURING RANGES

PRODUCT	REQUESTED RATED BURST PRESSURE	STANDARD MANUFACTURING RANGE
MX-9T	above 50 psig above 3,45 barg	ZERO
		-5%
		-10%
	up to and including 50 psig up to and including 3,45 barg	ZERO
		-2.5 psig -0,173 barg
		-5 psig -0,345 barg

TABLE 3A // BURST TOLERANCES AND MAXIMUM RECOMMENDED OPERATING PRESSURES

PRODUCT	RATED (MARKED) BURST PRESSURE	BURST TOLERANCE AROUND RATED (MARKED) BURST PRESSURE	MAXIMUM RECOMMENDED OPERATING PRESSURE
MX-9T	above 40 psig above 2,76 barg	-5% / +5%	90% of Rated (Marked) Burst Pressure
	up to and including 40 psig up to and including 2,76 barg	-2 / +2 psig -0,138 barg / +0,138 barg	90% of [Rated (Marked) Burst Pressure - 2 psig] 90% of [Rated (Marked) Burst Pressure - 0,138 barg]

The MX-9T Rupture Disc is compatible with MX-9T Insert, MX-9T-RH (Reduce Height) Insert, and MX-9T Double Disc holders. The MX-9T assembly is a flat seat rupture disc holder which provides improved rupture disc sealing capabilities.

The MX-9T Rupture Disc Holders are designed to optimize flow, assure proper orientation of the rupture disc in your piping system, provide a tight seal, prevent fragmentation of the rupture disc and enable direct mounting underneath a safety relief valve.



FEATURES

- Sizes available: 1" (25 mm) through 36" (900 mm)
- Available in ASME, DIN or JIS class flanges
- Holder Assemblies are made from standard materials: Carbon Steel, 316 SS, Alloy 400 and Alloy C-276
- As a standard, the holder will come with a spiral groove facing per ASME B16.5, which provides a surface finish between 125 and 250 micro inches (3.2 to 6.3 micro meters).
- Available with optional 1/4", 3/8" or 1/2" gauge taps in the holder inlet, midflange and/or outlet.
- Proper orientation of the disc in the holder is assured by alignment pins and is provided for 1" (25 mm) through 12" (300 mm) sizes
- An optional J-Hook on the holder inlet is available for 1" (25 mm) through 12" (300 mm)
- Optional corrosion resistance can be enhanced by fluoropolymer or Tantalum coating of the holder inlet, midflange and/or outlet, or Tantalum lining of the holder inlet
 - Tantalum coating and lining is available for 1" (25 mm) through 12" (300 mm)
- Optional cleaning for oxygen or chlorine service
- Optional holder accessories include: studs and nuts, tell-tale indicator, jackscrews and eyebolts

TABLE 4 // MX-9T HOLDER // WEIGHTS AND DIMENSIONS

NOMINAL SIZE	ASME		DIN		JIS		MX-9T HOLDER HEIGHT (in/mm)	WEIGHT (lb/kg)
	CLASS	OUTSIDE DIAMETER (in/mm)	CLASS	OUTSIDE DIAMETER (in/mm)	CLASS	OUTSIDE DIAMETER (in/mm)		
1" 25 mm	300 / 600	2.75 / 69,9					1.75 / 44	2.5 / 1,1
	900 / 1500	3.00 / 76,2					2.25 / 57	3.5 / 1,6
			64 / 250	82,0			2.25 / 57	4.2 / 1,9
1-1/2" 40 mm	300 / 600	3.63 / 92,2					1.75 / 44	3.7 / 1,7
	900 / 1500	3.75 / 95,3					2.50 / 64	5.8 / 2,6
			64 / 160	102,0			2.50 / 64	6.9 / 3,0
			250	108,0			2.50 / 64	8.5 / 3,8
2" 50 mm	300 / 600	4.25 / 108,0					1.75 / 44	4.5 / 2,0
			100 / 160	118,0			3.00 / 76	10 / 4,5
	900 / 1500						3.00 / 76	16 / 7,3
3" 80 mm	300 / 600	5.75 / 146,1	64	146,1			2.25 / 57	11 / 5,0
			100 / 160	153,0			3.00 / 76	16 / 7,3
4" 100 mm			64	173,0			3.00 / 76	50 / 23
	300	7.00 / 177,8					2.75 / 70	18 / 8,2
			100 / 160	180,0	40	180,0	3.50 / 89	64 / 29
	600	7.50 / 190,5					3.00 / 76	24 / 11
6" 150 mm			25 / 40	223,0			3.75 / 95	29 / 13
			64	247,0			3.75 / 95	44 / 20
	300	9.75 / 247,7			30	247,7	3.75 / 95	44 / 20
8" 200 mm			25	283,0			3.63 / 92	42 / 19
			40	290,0			3.63 / 92	47 / 21
					30	293,0	3.63 / 92	49 / 22
	300	12.00 / 304,8					3.63 / 92	57 / 26
			64	309,0			4.56 / 116	77 / 35
10" 250 mm			10 / 16	327,0			2.50 / 64	35 / 16
	150	13.25 / 336,6					2.50 / 64	37 / 17
			25	340,0			3.92 / 100	76 / 34
			40	352,0			3.92 / 100	78 / 35
					16 / 20	353,0	2.50 / 64	41 / 19
	300	14.13 / 358,9			30	357,0	3.92 / 100	80 / 36
12" 300 mm			16	383,0			2.63 / 67	53 / 24
			25	400,0			4.12 / 105	104 / 47
	150	16.00 / 406,4			16 / 20	403,0	2.63 / 67	59 / 27
	300	16.50 / 419,1	40	417,0	30	417,0	4.12 / 105	109 / 49
14" 350 mm					10	420,0	2.25 / 57	41 / 19
			10	437,0			2.25 / 57	52 / 24
			16	443,0			2.25 / 57	56 / 25
	150	17.63 / 447,8			16 / 20	447,8	2.25 / 57	73 / 27

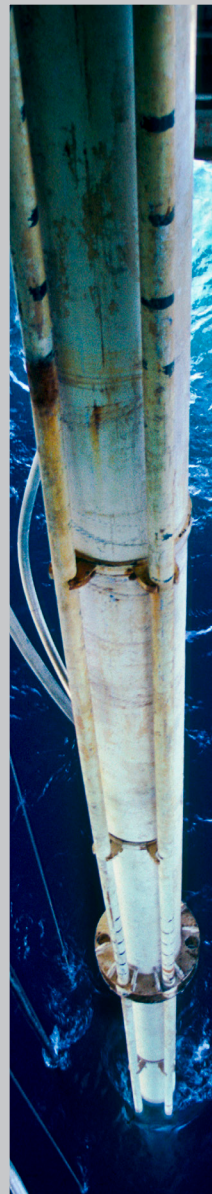
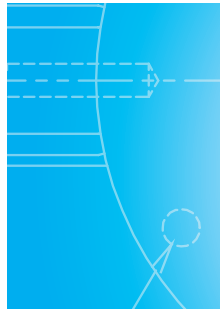


TABLE 4 // MX-9T HOLDER // WEIGHTS AND DIMENSIONS

NOMINAL SIZE	ASME		DIN		JIS		MX-9T HOLDER HEIGHT (in/mm)	WEIGHT (lb/kg)
	CLASS	OUTSIDE DIAMETER (in/mm)	CLASS	OUTSIDE DIAMETER (in/mm)	CLASS	OUTSIDE DIAMETER (in/mm)		
16" 400 mm					10	483,0	3.00 / 76	74 / 34
			10	488,0			3.00 / 76	79 / 36
			16	495,0			3.00 / 76	86 / 39
					16 / 20	507,0	3.00 / 76	98 / 44
	150	20.13 / 511,3					3.00 / 76	102 / 46
18" 450 mm					10	538,0	3.00 / 76	87 / 39
	150	21.50 / 546,0					3.00 / 76	96 / 44
					16 / 20	572,0	3.00 / 76	125 / 57
20" 500 mm			10	593,0	10	593,0	3.13 / 80	105 / 48
	150	23.75 / 603,3					3.13 / 80	118 / 54
			16	617,0			3.13 / 80	135 / 61
24" 600 mm			10	695,0			3.25 / 83	131 / 59
	150	28.13 / 714,5					3.25 / 83	161 / 73
					16 / 20	731,0	3.25 / 83	186 / 84
			16	734,0			3.25 / 83	191 / 87
28" 700 mm			16	804,0			4.00 / 102	206 / 93
	150	32.63 / 828,8					4.00 / 102	260 / 118
					16	833,0	4.00 / 102	269 / 122
30" 750 mm	150	34.63 / 828,8					4.00 / 102	275 / 125
					16	893,0	4.00 / 102	307 / 139
32" 800 mm			16	911,0			4.00 / 102	246 / 112
	150	36.88 / 938,8					4.00 / 102	308 / 140
					16	942,0	4.00 / 102	321 / 146
36" 900 mm			16	1011,0			4.00 / 102	269 / 122
	150	41.00 / 1041,4					4.00 / 102	352 / 160
					16	1042,0	4.00 / 102	353 / 160

The most advanced and preferred choice for rupture discs come from the HPX® Rupture Disc Product Family for sizes, 1" (25 mm) through 12" (300 mm), and the RCS Rupture Disc for sizes 14" (350 mm) through 32" (800 mm). The MX-9T Rupture Disc is available in sizes, pressures and operating service outside of the scope of the HPX® Rupture Disc Product Family and the RCS Rupture Disc.

HPX® Rupture Disc Product Family

Built on years of research and development, the HPX® and SANITRX HPX® Rupture Discs are high precision pressure relieving devices that protect personnel, equipment and the environment. The versatility of the HPX® Rupture Disc Product Family offers pressure protection for a wide range of applications in many processing industries, including: chemical, oil and gas, food, beverage, pharmaceutical, biotech, pulp and paper, power and more.

The HPX® Rupture Disc Product Family is the most advanced line of rupture discs available, incorporating proven performance in excess of five million cycles*, operating up to 95% of burst pressure and offered in a wide range of burst pressures, materials and sizes. These features support reduced down time and lower maintenance costs, increasing the productivity of your facility!

The **HPX® Rupture Disc Product Family** contains a wealth of reverse acting products:



HPX®



HPX-Ta™



SANITRX HPX®



SANITRX HPX® II



FOR MORE INFORMATION, PLEASE SEE THE **HPX® RUPTURE DISC PRODUCT FAMILY LITERATURE**.



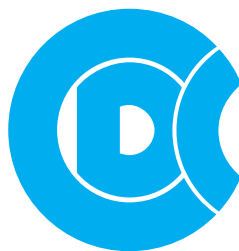
*Test performed on HPX-95 316 SS



ASME Code Symbol Stamp
Available When Specified



Pressure Equipment Directive
Available When Specified



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