

Bladder Tank

Horizontal and Vertical



MARSOL

MARSOL Technologies Inc. design and manufacture a range of foam fire fighting systems especially for oil & gas, offshore and marine applications. MARSOL Pre-piped Bladder Tanks are the main component in a balanced pressure proportioning bladder tank system that requires no outside power source other than adequate water supply.

The MARSOL Pre-piped Bladder Tank is a carbon steel pressure vessel that uses a nylon reinforced neoprene rubber bladder to store the foam concentrate. During operation the foam concentrate is discharged from the tank by the water supply, which collapses the bladder around the perforated center tube until concentrate is depleted. MARSOL Pre-piped Bladder Tanks are available in both vertical and horizontal versions in multiple sizes.

Features

- UL Listed with SOLBERG foam concentrates
- FM Approved with Re-Healing™ RF3, 3% and ARCTIC 3x3% ATC™ Foam Concentrates
- Accurate concentrate proportioning permits operation over a wide range of flow rates
- All tanks have thermal expansion allowance for foam concentrates
- Design simplicity minimizes system failures due to mechanical issues
- Ease of operation, requires no outside source of power
- Easy to retrofit into existing water based extinguishing systems
- Manual system with automatic options available
- Minimized installation costs compared to other proportioning methods
- Uses existing water pressure for delivery of foam solution to the discharge devices

Application

MARSOL Pre-piped Bladder Tanks can be used in multiple high-hazard, high-risk applications including aircraft hangars, heliports, foam-water sprinkler systems and truck loading racks etc.

Specifications

Vertical and horizontal pre-piped bladder tanks are manufactured in compliance with ASME code section VIII Division 1 with a design working pressure of 175psi (12bar) and tested to 263psi (18bar) 1.5times the working pressure. The tank is constructed out of SA 516 Grade 70 carbon steel with a nylon reinforced neoprene rubber bladder. It has a perforated center tube, and a .37" (9mm) water channel between the water inlet and water drain valve, which creates a water path between the bladder and tank shell. Openings that are greater than 1.0" (25mm) will be divided to prevent bladder damage.

Pre-piped vertical bladder tank construction shall be mounted on a full skirt with four tabs drilled for anchoring.

Pre-piped horizontal bladder tank construction shall be mounted on four legs permanently welded and drilled for anchoring.

All pre-piped bladder tanks are furnished with lifting lugs, ASME welded nameplate, 1.0" (2.5cm) bronze trim valves with locking handle in accordance with NFPA standard 11, and MARSOL Operation and Maintenance Manual. The exterior of all pre-piped bladder tanks will be prepared and finished with maker standard red enamel finish.

Options

- 100% X-Ray design
- Carbon or stainless steel construction
- Custom tank size and dimensions
- Epoxy or coal tar inner liner
- Inspection service
- National board registration
- Pressure relief valve*
- Seismic calculations
- Sight gage assembly
- Start-up and commission service

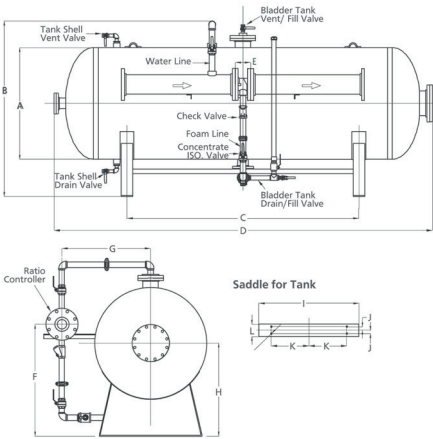
Certifications

- American Society of Mechanical Engineers (ASME)
- Underwriters Laboratories, Inc. (UL) – Standard 162
- FM Approved per Approval Standard 5130



Dimensional Information - Horizontal

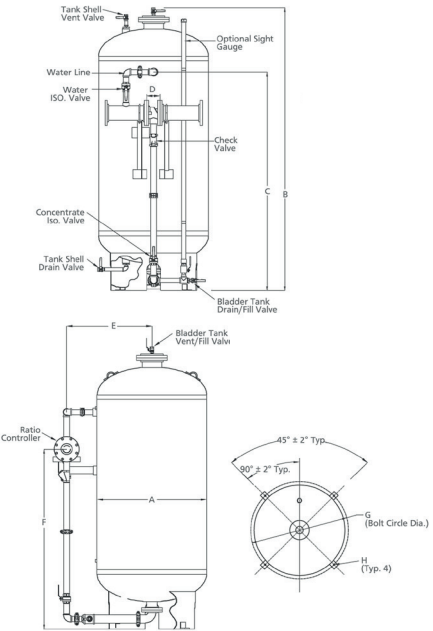
Nominal Tank Size	Dimensions Inches (Millimeters)											
Gallon (Liter)	A	B	C	D	F	G	H	I	J	K	L	M
50 (189)	20 (508)	41.5 (1055)	14 (356)	55.5 (1410)	35 (889)	24 (610)	22 (559)	20 (508)	0.875 (23)	7 (178)	3 (77)	0.5625 (15)
100 (379)	24 (610)	45.5 (1156)	22 (559)	72 (1829)	35 (889)	26 (661)	24 (610)	24 (610)	0.875 (23)	9 (229)	3 (77)	0.5625 (15)
150 (568)	30 (762)	51.5 (1309)	36 (915)	71 (1804)	38 (966)	29 (737)	27 (686)	30 (762)	1.125 (29)	11 (280)	4 (102)	0.5625 (15)
200 (757)	30 (762)	51.5 (1309)	34 (864)	89 (2261)	38 (966)	29 (737)	27 (686)	30 (762)	1.125 (29)	11 (280)	4 (102)	0.5625 (15)
300 (1136)	36 (915)	58 (1474)	36 (915)	93 (2363)	52 (1321)	32 (813)	30 (762)	34 (864)	1.125 (29)	13 (331)	4 (102)	0.5625 (15)
400 (1514)	42 (1067)	64 (1626)	50 (1270)	93 (2363)	52 (1321)	35 (889)	33 (839)	40 (1016)	1.375 (35)	15 (381)	5 (127)	0.6875 (18)
500 (1893)	42 (1067)	64 (1626)	48 (1220)	112 (2845)	52 (1321)	35 (889)	33 (839)	40 (1016)	1.375 (35)	15 (381)	5 (127)	0.6875 (18)
600 (2271)	42 (1067)	64 (1626)	60 (1524)	131 (3328)	52 (1321)	35 (889)	33 (839)	40 (1016)	1.375 (35)	15 (381)	5 (127)	0.6875 (18)
700 (2650)	48 (1220)	74 (1880)	50 (1270)	119 (3023)	60 (1524)	38 (966)	40 (1060)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
800 (3028)	48 (1220)	74 (1880)	60 (1524)	134 (3404)	60 (1524)	38 (966)	40 (1060)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
900 (3407)	48 (1220)	74 (1880)	70 (1778)	148 (3760)	60 (1524)	38 (966)	40 (1060)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
1000 (3785)	48 (1220)	74 (1880)	94 (2388)	163 (4141)	60 (1524)	38 (966)	40 (1060)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
1100 (4164)	48 (1220)	74 (1880)	100 (2540)	177 (4496)	60 (1524)	38 (966)	40 (1060)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
1200 (4542)	60 (1524)	86 (2185)	58 (1474)	131 (3328)	60 (1524)	44 (1118)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1300 (4921)	60 (1524)	86 (2185)	60 (1524)	141 (3582)	60 (1524)	44 (1118)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1400 (5299)	60 (1524)	86 (2185)	76 (1931)	131 (3336)	60 (1524)	44 (1118)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1500 (5678)	60 (1524)	86 (2185)	80 (2032)	159 (4039)	60 (1524)	44 (1118)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1600 (6056)	72 (1829)	96 (2439)	44 (1118)	125 (3175)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
1800 (6813)	72 (1829)	96 (2439)	56 (1423)	138 (3506)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
1900 (7192)	72 (1829)	96 (2439)	60 (1524)	144 (3658)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2000 (7570)	72 (1829)	96 (2439)	70 (1778)	151 (3836)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2200 (8327)	72 (1829)	96 (2439)	80 (2032)	164 (4166)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2400 (9084)	72 (1829)	96 (2439)	80 (2032)	177 (4496)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2600 (9841)	72 (1829)	96 (2439)	100 (2540)	189 (4801)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2800 (10598)	72 (1829)	96 (2439)	100 (2540)	202 (5131)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
3000 (11355)	72 (1829)	96 (2439)	120 (3048)	215 (5461)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
3200 (12112)	72 (1829)	96 (2439)	120 (3048)	227 (5972)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
3300 (12491)	72 (1829)	96 (2439)	120 (3048)	234 (5944)	70 (1778)	50 (1270)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)



Prop. Diameter	E		Up- & Downstream min. Length	
	inch	mm	inch	mm
2	7	178	10	254
2.5	7	178	12.5	318
3	2.38	61	15	381
4	2.63	67	20	508
6	3.25	83	30	762
6 VRP	2.75	70	30	762
8	3.5	89	40	1016

Dimensional Information - Vertical

Nominal Tank Size	Dimensions Inches (Millimeters)						
Gallon (Liter)	A	B	C	E	F	G	H
36 (136)	24 (610)	46.5 (1182)	46.5 (1182)	26 (661)	35 (889)	26.75 (680)	0.5625 (15)
50 (189)	24 (610)	54.5 (1385)	54.5 (1385)	26 (661)	42 (1067)	26.75 (680)	0.5625 (15)
100 (379)	24 (610)	83.5 (2121)	83.5 (2121)	26 (661)	45 (1143)	26.75 (680)	0.5625 (15)
150 (568)	30 (762)	82.5 (2096)	82.5 (2096)	29 (737)	48 (1220)	27.75 (705)	0.5625 (15)
200 (757)	30 (762)	101 (2566)	101 (2566)	29 (737)	48 (1220)	27.75 (705)	0.5625 (15)
300 (1136)	36 (915)	105 (2667)	105 (2667)	32 (813)	60 (1524)	32.75 (832)	0.5625 (15)
400 (1514)	42 (1067)	99 (2515)	99 (2515)	35 (889)	65 (1651)	41.5 (1055)	0.6875 (18)
500 (1893)	42 (1067)	124 (3150)	124 (3150)	35 (889)	65 (1651)	41.5 (1055)	0.6875 (18)
600 (2271)	48 (1220)	117 (2972)	117 (2972)	38 (966)	65 (1651)	41.5 (1055)	0.6875 (18)
700 (2650)	48 (1220)	131 (3328)	131 (3328)	38 (966)	65 (1651)	41.5 (1055)	0.6875 (18)
800 (3028)	48 (1220)	149 (3785)	149 (3785)	38 (966)	65 (1651)	51.5 (1309)	0.6875 (18)
900 (3407)	60 (1524)	119 (3023)	119 (3023)	44 (1118)	75 (1905)	51.5 (1309)	0.6875 (18)
1000 (3785)	60 (1524)	129 (3277)	129 (3277)	44 (1118)	75 (1905)	51.5 (1309)	0.8125 (21)
1100 (4164)	60 (1524)	138 (3506)	138 (3506)	44 (1118)	75 (1905)	51.5 (1309)	0.8125 (21)
1200 (4542)	60 (1524)	147 (3734)	147 (3734)	44 (1118)	75 (1905)	51.5 (1309)	0.8125 (21)
1300 (4921)	60 (1524)	157 (3988)	157 (3988)	44 (1118)	75 (1905)	51.5 (1309)	0.8125 (21)
1400 (5299)	60 (1524)	166 (4217)	166 (4217)	44 (1118)	75 (1905)	51.5 (1309)	0.8125 (21)
1500 (5678)	60 (1524)	175 (4445)	175 (4445)	44 (1118)	75 (1905)	51.5 (1309)	0.8125 (21)
1600 (6056)	72 (1829)	141 (3582)	141 (3582)	50 (1270)	80 (2032)	57.5 (1461)	0.8125 (21)
1700 (6435)	72 (1829)	147 (3734)	147 (3734)	50 (1270)	80 (2032)	57.5 (1461)	0.8125 (21)





Marsol Technologies Inc.

14331, Spencer Rd. (FM-529), Houston,
Texas, 77095, USA

Tel: +1 346 701 8268 | Fax : +1 346 701 8261
info@marsoltech.com | www.marsoltech.com

Marsol Technologies FZE.

Hamriyah Free Zone, P1
P.O. Box 50481 Sharjah, UAE
Tel: +971 06 52 69 230