

# SOLBERG® BLADDER TANKS – HORIZONTAL & VERTICAL



## FEATURES

- **UL Listed with SOLBERG foam concentrates**
- **FM Approved with SOLBERG® RE-HEALING™ RF3, 3% and ARCTIC 3x3% ATC™ Foam Concentrates**
- **Accurate concentrate proportioning permits operation over a wide range of flow rates**
- **Design simplicity minimizes system failure due to mechanical issues**
- **Ease of operation, requires no outside source of power**
- **Ease of retrofit into existing water based extinguishing systems**
- **Fully automatic or manual systems available**
- **Minimized installation costs compared to other proportioning methods**
- **Uses existing water pressure for delivery of foam solution to the discharge devices**

## DESCRIPTION

SOLBERG® Bladder Tanks are the main component in a balanced pressure proportioning bladder tank system, which require no outside power source other than an adequate water supply.

The SOLBERG Bladder Tank is a carbon steel pressure vessel with a nylon reinforced neoprene rubber bladder that stores the foam concentrate. During operation the foam concentrate is discharged from the tank by the water supply, collapsing the bladder around the perforated center tube until the concentrate is depleted. SOLBERG Bladder Tanks are available in both vertical and horizontal versions in multiple sizes.

## APPLICATION

SOLBERG Bladder Tanks can be used in multiple high-hazard, high-risk, applications including aircraft hangars, foam-water sprinkler systems, helipads, and truck loading racks.

## SPECIFICATIONS

Vertical and horizontal bladder tanks are manufactured in compliance with ASME Code Section VIII Division 1 with a designed working pressure of 175 psi (12 bar) and tested to 263 psi (18 bar) — 1.5 times 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" (9 mm) 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" (25 mm) will be divided to prevent bladder damage.

Vertical bladder tank construction shall be mounted on a full skirt with four tabs drilled for anchoring.

Horizontal bladder tank construction shall be supported by two saddles with four mounting holes per saddle. Refer to dimensional drawings for mounting hole spacing in this data sheet.

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All bladder tanks are furnished with lifting lugs, an ASME welded nameplate, and 1.0" (25 mm) bronze trim locking handle valves, to be in accordance with NFPA Standard 11, and the Solberg Operation and Maintenance Manual.

The exterior of all bladder tanks will be prepared and finished with Solberg standard blue or red enamel finish.

## OPTIONS

- 100% X-Ray design
- Carbon or stainless steel construction
- Custom tank size and dimensions
- Epoxy or coal tar inner liner

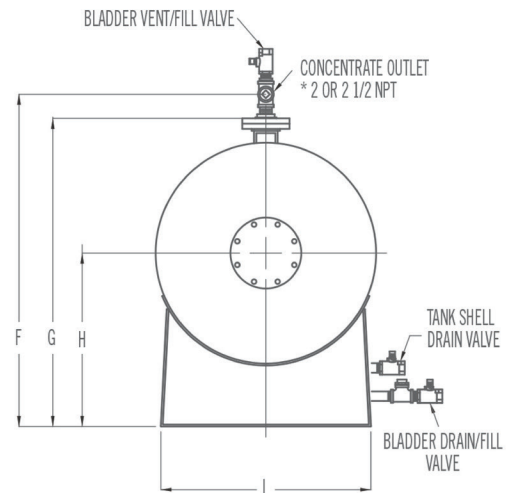
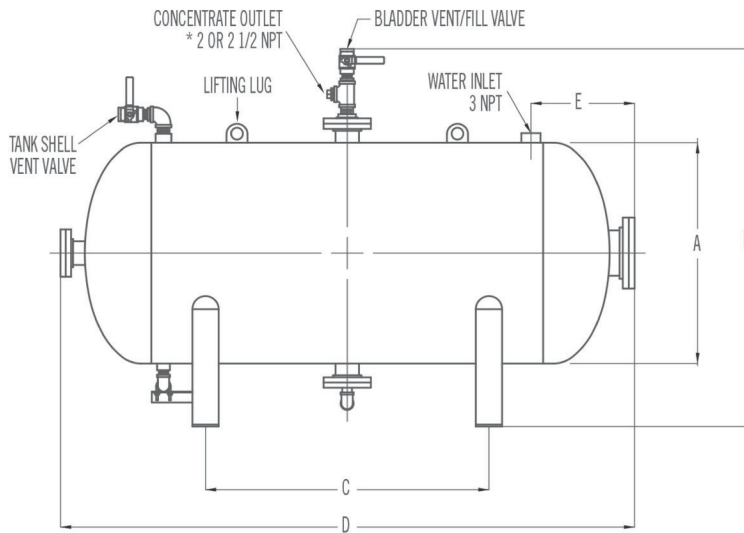
- Inspection service
- National board registration
- Pressure relief valve\*
- Seismic calculations
- Sight gage assembly
- Start-up and commission service

## CERTIFICATIONS

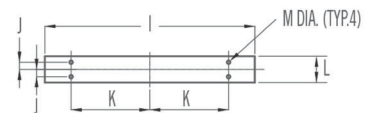
American Society of Mechanical Engineers (ASME), Underwriters Laboratories, Inc. (UL) Listed – Standard 162, FM Approved per Approval Standard 5130.

\*Not Part of FM Approval

## DIMENSIONAL INFORMATION - HORIZONTAL



\* 2 NPT ON TANKS 200 GALLONS OR LESS  
 \* 2 1/2 NPT ON TANKS OVER 200 GALLONS



# BLADDER TANKS – HORIZONTAL & VERTICAL

## DIMENSIONAL INFORMATION - HORIZONTAL

APPROXIMATE DIMENSIONS Inches (Millimeters)

CAPACITY gallon (litre)	A	B	C	D	E	F	G
50 (189)	20 (508)	47 (1194)	14 (356)	55.5 (1410)	19.1875 (488)	41.5 (1055)	36 (915)
100 (379)	24 (610)	51 (1296)	22 (559)	72 (1829)	20.1875 (513)	45.5 (1156)	40 (1016)
150 (568)	30 (762)	57 (1448)	36 (915)	71 (1804)	21.6875 (551)	51.5 (1309)	46 (1169)
200 (757)	30 (762)	57 (1448)	34 (864)	89 (2261)	21.6875 (551)	51.5 (1309)	46 (1169)
300 (1136)	36 (915)	64 (1626)	36 (915)	93 (2363)	23.1875 (589)	58 (1474)	52 (1321)
400 (1514)	42 (1067)	70 (1778)	50 (1270)	93 (2363)	24.6875 (628)	64 (1626)	58 (1474)
500 (1893)	42 (1067)	70 (1778)	48 (1220)	112 (2845)	24.6875 (628)	64 (1626)	58 (1474)
600 (2271)	42 (1067)	70 (1778)	60 (1524)	131 (3328)	24.6875 (628)	64 (1626)	58 (1474)
700 (2650)	48 (1220)	80 (2032)	50 (1270)	119 (3023)	26.1875 (666)	74 (1880)	68 (1728)
800 (3028)	48 (1220)	80 (2032)	60 (1524)	134 (3404)	26.1875 (666)	74 (1880)	68 (1728)
900 (3407)	48 (1220)	80 (2032)	70 (1778)	148 (3760)	26.1875 (666)	74 (1880)	68 (1728)
1000 (3785)	48 (1220)	80 (2032)	94 (2388)	163 (4141)	26.1875 (666)	74 (1880)	68 (1728)
1100 (4164)	48 (1220)	80 (2032)	100 (2540)	177 (4496)	26.1875 (666)	74 (1880)	68 (1728)
1200 (4542)	60 (1524)	92 (2337)	58 (1474)	131 (3328)	29.25 (743)	86 (2185)	80 (2032)
1300 (4921)	60 (1524)	92 (2337)	60 (1524)	141 (3582)	29.25 (743)	86 (2185)	80 (2032)
1400 (5299)	60 (1524)	92 (2337)	76 (1931)	151 (3836)	29.25 (743)	86 (2185)	80 (2032)
1500 (5678)	60 (1524)	92 (2337)	80 (2032)	159 (4039)	29.25 (743)	86 (2185)	80 (2032)
1600 (6056)	72 (1829)	102 (2591)	44 (1118)	125 (3175)	32.25 (820)	96 (2439)	90 (2286)
1800 (6813)	72 (1829)	102 (2591)	56 (1423)	138 (3506)	32.25 (820)	96 (2439)	90 (2286)
1900 (7192)	72 (1829)	102 (2591)	60 (1524)	144 (3658)	32.25 (820)	96 (2439)	90 (2286)
2000 (7570)	72 (1829)	102 (2591)	70 (1778)	151 (3836)	32.25 (820)	96 (2439)	90 (2286)
2200 (8327)	72 (1829)	102 (2591)	80 (2032)	164 (4166)	32.25 (820)	96 (2439)	90 (2286)
2400 (9084)	72 (1829)	102 (2591)	80 (2032)	177 (4496)	32.25 (820)	96 (2439)	90 (2286)
2600 (9841)	72 (1829)	102 (2591)	100 (2540)	189 (4801)	32.25 (820)	96 (2439)	90 (2286)
2800 (10598)	72 (1829)	102 (2591)	100 (2540)	202 (5131)	32.25 (820)	96 (2439)	90 (2286)
3000 (11355)	72 (1829)	102 (2591)	120 (3048)	215 (5461)	32.25 (820)	96 (2439)	90 (2286)
3200 (12112)	72 (1829)	102 (2591)	120 (3048)	228 (5792)	32.25 (820)	96 (2439)	90 (2286)
3300 (12491)	72 (1829)	102 (2591)	120 (3048)	234 (5944)	32.25 (820)	96 (2439)	90 (2286)

# BLADDER TANKS – HORIZONTAL & VERTICAL

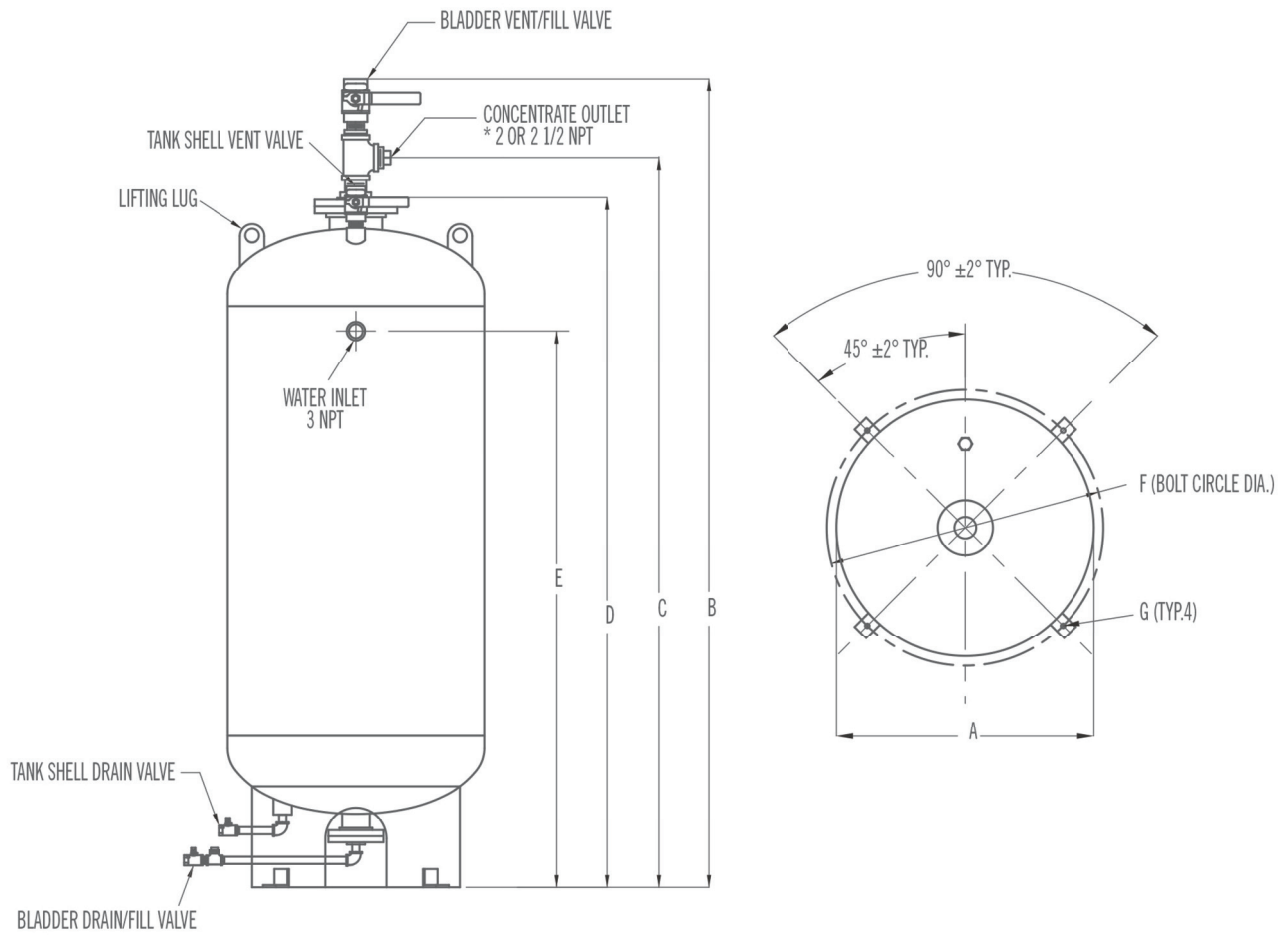
## DIMENSIONAL INFORMATION - HORIZONTAL

APPROXIMATE DIMENSIONS Inches (Millimeters)

CAPACITY gallon (litre)	H	I	J	K	L	M
50 (189)	22 (559)	20 (508)	0.875 (23)	7 (178)	3 (77)	0.5625 (15)
100 (379)	24 (610)	24 (610)	0.875 (23)	9 (229)	3 (77)	0.5625 (15)
150 (568)	27 (686)	30 (762)	1.125 (29)	11 (280)	4 (102)	0.5625 (15)
200 (757)	27 (686)	30 (762)	1.125 (29)	11 (280)	4 (102)	0.5625 (15)
300 (1136)	30 (762)	34 (864)	1.125 (29)	13 (331)	4 (102)	0.5625 (15)
400 (1514)	33 (839)	40 (1016)	1.375 (35)	15 (381)	5 (127)	0.6875 (18)
500 (1893)	33 (839)	40 (1016)	1.375 (35)	15 (381)	5 (127)	0.6875 (18)
600 (2271)	33 (839)	40 (1016)	1.375 (35)	15 (381)	5 (127)	0.6875 (18)
700 (2650)	40 (1016)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
800 (3028)	40 (1016)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
900 (3407)	40 (1016)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
1000 (3785)	40 (1016)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
1100 (4164)	40 (1016)	44 (1118)	1.375 (35)	17 (432)	5 (127)	0.6875 (18)
1200 (4542)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1300 (4921)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1400 (5299)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1500 (5678)	46 (1169)	54 (1372)	1.75 (45)	22 (559)	6 (153)	0.6875 (18)
1600 (6056)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
1800 (6813)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
1900 (7192)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2000 (7570)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2200 (8327)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2400 (9084)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2600 (9841)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
2800 (10598)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
3000 (11355)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
3200 (12112)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)
3300 (12491)	50 (1270)	64 (1626)	2.75 (70)	28 (712)	8 (204)	1.0625 (27)

# BLADDER TANKS – HORIZONTAL & VERTICAL

## DIMENSIONAL INFORMATION - VERTICAL



\* 2 NPT ON TANKS 200 GALLONS OR LESS  
\* 2 1/2 NPT ON TANKS OVER 200 GALLONS

# BLADDER TANKS – HORIZONTAL & VERTICAL

## DIMENSIONAL INFORMATION - HORIZONTAL

APPROXIMATE DIMENSIONS Inches (Millimeters)

CAPACITY gallon (litre)	A	B	C	D	E	F	G
36 (136)	24 (610)	52 (1321)	46.5 (1182)	41 (1042)	27 (686)	26.75 (680)	0.5625 (15)
50 (189)	24 (610)	60 (1524)	54.5 (1385)	49 (1245)	35 (889)	26.75 (680)	0.5625 (15)
100 (379)	24 (610)	89 (2261)	83.5 (2121)	78 (1982)	64 (1626)	26.75 (680)	0.5625 (15)
150 (568)	30 (762)	88 (2236)	82.5 (2096)	77 (1956)	59 (1499)	27.75 (705)	0.5625 (15)
200 (757)	30 (762)	107 (2718)	101 (2566)	95 (2413)	77 (1956)	27.75 (705)	0.5625 (15)
300 (1136)	36 (915)	111 (2820)	105 (2667)	99 (2515)	80 (2032)	32.75 (832)	0.5625 (15)
400 (1514)	42 (1067)	105 (2667)	99 (2515)	82 (2083)	70 (1778)	41.5 (1055)	0.6875 (18)
500 (1893)	42 (1067)	130 (3302)	124 (3150)	96 (2439)	95 (2413)	41.5 (1055)	0.6875 (18)
600 (2271)	48 (1220)	123 (3125)	117 (2972)	111 (2820)	88 (2236)	41.5 (1055)	0.6875 (18)
700 (2650)	48 (1220)	137 (3480)	131 (3328)	125 (3175)	102 (2591)	41.5 (1055)	0.6875 (18)
800 (3028)	48 (1220)	155 (3937)	149 (3785)	143 (3633)	117 (2972)	51.5 (1309)	0.6875 (18)
900 (3407)	60 (1524)	125 (3175)	119 (3023)	113 (2871)	87 (2210)	51.5 (1309)	0.6875 (18)
1000 (3785)	60 (1524)	135 (3429)	129 (3277)	123 (3125)	97 (2464)	51.5 (1309)	0.8125 (21)
1100 (4164)	60 (1524)	144 (3658)	138 (3506)	132 (3353)	106 (2693)	51.5 (1309)	0.8125 (21)
1200 (4542)	60 (1524)	153 (3887)	147 (3734)	141 (3582)	115 (2921)	51.5 (1309)	0.8125 (21)
1300 (4921)	60 (1524)	163 (4141)	157 (3988)	151 (3836)	125 (3175)	51.5 (1309)	0.8125 (21)
1400 (5299)	60 (1524)	172 (4369)	166 (4217)	160 (4064)	134 (3404)	51.5 (1309)	0.8125 (21)
1500 (5678)	60 (1524)	181 (4598)	175 (4445)	169 (4293)	143 (3633)	51.5 (1309)	0.8125 (21)
1600 (6056)	72 (1829)	147 (3734)	141 (3582)	135 (3429)	106 (2693)	57.5 (1461)	0.8125 (21)
1700 (6435)	72 (1829)	153 (3887)	147 (3734)	141 (3582)	112 (2845)	57.5 (1461)	0.8125 (21)

# BLADDER TANKS – HORIZONTAL & VERTICAL

## ORDERING INFORMATION

HORIZONTAL BLADDER TANKS		APPROXIMATE SHIPPING WEIGHT	
		lb	kg
PART NO.	DESCRIPTION		
22001	Bladder Tank - Horizontal, 50 gallon (189 litre), Blue Enamel Finish	360	164
22002	Bladder Tank - Horizontal, 100 gallon (379 litre), Blue Enamel Finish	651	296
22003	Bladder Tank - Horizontal, 150 gallon (568 litre), Blue Enamel Finish	940	427
22004	Bladder Tank - Horizontal, 200 gallon (757 litre), Blue Enamel Finish	1137	516
22005	Bladder Tank - Horizontal, 300 gallon (1136 litre), Blue Enamel Finish	1554	705
22006	Bladder Tank - Horizontal, 400 gallon (1514 litre), Blue Enamel Finish	1870	849
22007	Bladder Tank - Horizontal, 500 gallon (1893 litre), Blue Enamel Finish	2130	967
22008	Bladder Tank - Horizontal, 600 gallon (2271 litre), Blue Enamel Finish	2237	1015
22009	Bladder Tank - Horizontal, 700 gallon (2650 litre), Blue Enamel Finish	2644	1200
22010	Bladder Tank - Horizontal, 800 gallon (3028 litre), Blue Enamel Finish	3298	1496
22011	Bladder Tank - Horizontal, 900 gallon (3407 litre), Blue Enamel Finish	3655	1658
22012	Bladder Tank - Horizontal, 1000 gallon (3785 litre), Blue Enamel Finish	3872	1757
22013	Bladder Tank - Horizontal, 1100 gallon (4164 litre), Blue Enamel Finish	4256	1931
22014	Bladder Tank - Horizontal, 1200 gallon (4542 litre), Blue Enamel Finish	4323	1961
22015	Bladder Tank - Horizontal, 1300 gallon (4921 litre), Blue Enamel Finish	4626	2099
22016	Bladder Tank - Horizontal, 1400 gallon (5300 litre), Blue Enamel Finish	4913	2229
22017	Bladder Tank - Horizontal, 1500 gallon (5678 litre), Blue Enamel Finish	5294	2402
22018	Bladder Tank - Horizontal, 1600 gallon (6057 litre), Blue Enamel Finish	4691	2128
22019	Bladder Tank - Horizontal, 1800 gallon (6814 litre), Blue Enamel Finish	5054	2293
22020	Bladder Tank - Horizontal, 1900 gallon (7192 litre), Blue Enamel Finish	5279	2395
22021	Bladder Tank - Horizontal, 2000 gallon (7571 litre), Blue Enamel Finish	5504	2497
22022	Bladder Tank - Horizontal, 2200 gallon (8328 litre), Blue Enamel Finish	5887	2671
22023	Bladder Tank - Horizontal, 2400 gallon (9085 litre), Blue Enamel Finish	6299	2858
22024	Bladder Tank - Horizontal, 2600 gallon (9842 litre), Blue Enamel Finish	6699	3039
22025	Bladder Tank - Horizontal, 2800 gallon (10599 litre), Blue Enamel Finish	7078	3211
22026	Bladder Tank - Horizontal, 3000 gallon (11356 litre), Blue Enamel Finish	7478	3392
22027	Bladder Tank - Horizontal, 3200 gallon (12113 litre), Blue Enamel Finish	7880	3575
22028	Bladder Tank - Horizontal, 3300 gallon (12492 litre), Blue Enamel Finish	8100	3675

# BLADDER TANKS – HORIZONTAL & VERTICAL

## ORDERING INFORMATION

VERTICAL BLADDER TANKS		APPROXIMATE SHIPPING WEIGHT	
		lb	kg
PART NO.	DESCRIPTION		
22400	Bladder Tank - Vertical, 36 Gallon (136 litre), Blue Enamel Finish	230	105
22401	Bladder Tank - Vertical, 50 Gallon (189 litre), Blue Enamel Finish	235	107
22402	Bladder Tank - Vertical, 100 Gallon (379 litre), Blue Enamel Finish	385	175
22403	Bladder Tank - Vertical, 150 Gallon (568 litre), Blue Enamel Finish	540	245
22404	Bladder Tank - Vertical, 200 Gallon (757 litre), Blue Enamel Finish	665	302
22405	Bladder Tank - Vertical, 300 Gallon (1136 litre), Blue Enamel Finish	1005	456
22406	Bladder Tank - Vertical, 400 Gallon (1514 litre), Blue Enamel Finish	1405	638
22407	Bladder Tank - Vertical, 500 Gallon (1893 litre), Blue Enamel Finish	1455	660
22408	Bladder Tank - Vertical, 600 Gallon (2271 litre), Blue Enamel Finish	1550	704
22409	Bladder Tank - Vertical, 700 Gallon (2650 litre), Blue Enamel Finish	1680	763
22410	Bladder Tank - Vertical, 800 Gallon (3028 litre), Blue Enamel Finish	1880	853
22411	Bladder Tank - Vertical, 900 Gallon (3407 litre), Blue Enamel Finish	2200	998
22412	Bladder Tank - Vertical, 1000 Gallon (3785 litre), Blue Enamel Finish	2600	1180
22413	Bladder Tank - Vertical, 1100 Gallon (4164 litre), Blue Enamel Finish	2960	1343
22414	Bladder Tank - Vertical, 1200 Gallon (4542 litre), Blue Enamel Finish	3075	1395
22415	Bladder Tank - Vertical, 1300 Gallon (4921 litre), Blue Enamel Finish	3175	1441
22416	Bladder Tank - Vertical, 1400 Gallon (5300 litre), Blue Enamel Finish	3310	1502
22417	Bladder Tank - Vertical, 1500 Gallon (5678 litre), Blue Enamel Finish	3350	1520
22418	Bladder Tank - Vertical, 1600 Gallon (6057 litre), Blue Enamel Finish	3500	1588
22419	Bladder Tank - Vertical, 1700 Gallon (6435 litre), Blue Enamel Finish	3625	1645



**Solutions That Save.**

### FOR MORE INFORMATION

Contact any of our worldwide Perimeter Solutions Fire Safety offices or visit:

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