



## DESIGN DATA

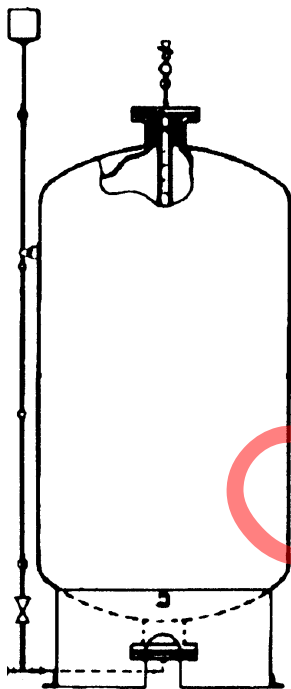
## BLADDER TANK ASSEMBLIES

### 1. PRODUCT NAME

Viking Bladder Tanks  
See vertical and horizontal bladder tank data pages for available sizes

### 2. MANUFACTURER

THE VIKING CORPORATION  
210 North Industrial Park Road  
Hastings, MI 49058 USA  
Telephone: (616) 945-9501  
(800) 968-9501  
Fax Number: (616)  
945-9599  
Email:



techsvcs@vikingcorp.com

### 3. PRODUCT DESCRIPTION

The Viking bladder tank consists of an inner tank (bladder) fabricated of a flexible material (Buna-N<sup>®</sup> over nylon) and an outer tank fabricated from carbon steel. A sight gauge is located on the side of the tank to

indicate the level of the foam in the bladder. The bladder is equipped with vent valves, a fill cup, water and concentrate drain/fill valves, vessel support mounts, channel drain/fill, discharge pipe and a thermal relief valve.

### 4. TECHNICAL DATA

The Viking bladder tanks are constructed to, and in conformance with the ASME codes. Viking bladder tanks are U.L. Listed and F.M. Approved.

### 5. OPERATION

The Viking bladder tank stores foam concentrate and when used in conjunction with a Viking concentrate control system (CCS), proportions the foam concentrate into the water stream. The foam concentrate is stored in the bladder tank. The water supply is used to pressurize the area between the bladder tank and the steel tank, forcing the foam concentrate out of the bladder tank and to the concentrate controller.

### 6. APPLICATION

The Viking bladder tank can be used to proportion aqueous film forming foams (AFFF/ARC), fluoroprotein foams and protein foams. The bladder tank is part of a foam system. In addition to the bladder tank, the main components of the foam system are foam concentrate, the concentrate controller, the water supply, piping, and discharge devices. The most commonly used discharge devices are sprinklers, nozzles, and foam chambers.

### 7. AVAILABILITY AND SERVICE

The Viking bladder tanks are available through a network of domestic, Canadian and international distributors. See the Yellow Pages of the telephone directory for a distributor near you (listed under "Sprinkler Automatic Fire"), or contact The Viking Corporation.

### 8. GUARANTEES

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.

### 9. INSTALLATION

Pages **200a-u** detail the initial concentrate filling instructions. CAUTION: FOLLOW THE FILLING INSTRUCTIONS TO AVOID RUPTURE OF THE BLADDER TANK. DO NOT WELD ON THE TANK, AS HIGH TEMPERATURES CAN DAMAGE THE BLADDER.

The design pressure and maximum working pressure of the Viking bladder tank is 175 psi (12 bar). It is the responsibility of the owner or design engineer to provide a primary relief valve to protect the tank from over-pressurization.

### 10. INSPECTIONS AND TESTS

Refer to the applicable Viking foam system technical data pages for instructions on inspections and testing of the complete foam system.

### 11. MAINTENANCE

Refer to the applicable Viking foam system technical data pages for instructions on maintenance of the complete system.



## DESIGN DATA

VERTICAL BLADDER  
TANK ASSEMBLY  
SIZES 36 - 1000 GALLONS

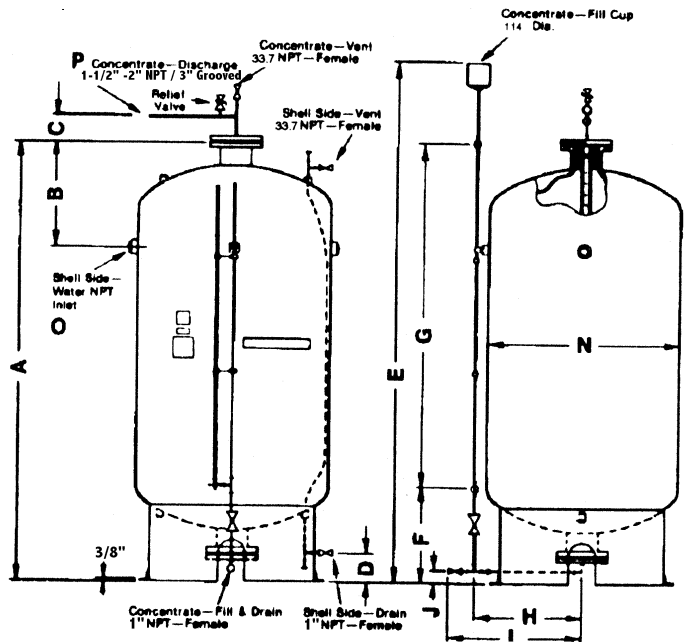
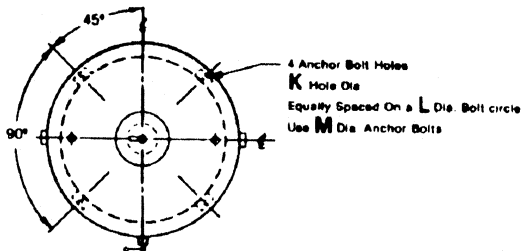
**VIKING VERTICAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	36	50	75	100	150	200	250	300	400	500	600	700	750	800	900	1000
	136	189	284	379	568	757	946	1136	1514	1893	2271	2650	2839	3028	3407	3785
A	41	48	64	77	76	95	89	100	98	117	110	131	138	105	114	123
B	16	16	16	16	17	17	18	5 5/16	19	19	20	20	20	24	24	24
C	5 5/16	5 5/16	5 5/16	5 5/16	5 5/16	5 5/16	5 5/16	5 5/16	5 5/16	5 5/16	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8
D	6	6	6	6	6	6	6	6	6	6	6	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
E	51	58	73	87	86	105	98	110	108	127	120	135	142	109	118	127
F	7 3/8	7 3/8	7 3/8	7 3/8	7 3/8	20 1/4	--	25 1/4	23 1/4	42 1/4	35 1/4	50 1/4	57 1/4	24 1/4	33 1/4	42 1/4
G	29 7/8	37 7/8	56 3/4	66 7/8	65 7/8	72	72	72	72	72	72	72	72	72	72	72
H	15 1/2	15 1/2	15 1/2	15 1/2	18 1/2	18 1/2	21 1/2	21 1/2	24 1/2	24 1/2	27 1/2	27 1/2	27 1/2	33 1/2	33 1/2	33 1/2
I	21	21	21	21	24	24	24	27	30	30	33	33	33	39	39	39
J	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4
K	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8
L	26 3/4	26 3/4	26 3/4	26 3/4	32 3/4	32 3/4	38 3/4	38 3/4	44 3/4	44 3/4	50 3/4	50 3/4	50 3/4	63 1/4	63 1/4	63 1/4
M	9/16	9/16	9/16	9/16	9/16	9/16	9/16	9/16	11/16	11/16	11/16	11/16	13/16	13/16	13/16	13/16
N	24	24	24	24	30	30	36	36	42	42	48	48	72	60	60	60
O	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
P	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
W	575	640	750	800	940	1070	1475	1475	1625	1850	2050	2250	2910	2800	3150	3160
T																

- Materials of Construction
- Tank
- Flanges and Couplings
- Pipe
- Trim pipe and Fittings
- Trim Valves
- Bladder
- Internal Pipe
- Fill Cup
- Sight Tube
- Exterior Finish
- Interior Finish

- SA-516-70 Carbon steel
- SA-105
- SA-53B Sch. 40
- SA-106,304 SS, M.I.,D.I., EPDM
- Bronze
- Buna-N over Nylon
- Sch. 40 PVC
- PVC (Optional)
- Clear PVC (Optional)
- Rust Resistant Primer
- Red Polyurethane
- None (Ground Smooth)

All dimensions given in inches.  
All weights given in pounds.  
Actual weights and dimensions may vary.  
Weight does not include foam concentrate (8.5 lbs./gal)



VIKING<sup>®</sup>

DESIGN DATA

VERTICAL BLADDER  
TANK ASSEMBLY  
SIZES 1100 - 2400 GALLONS

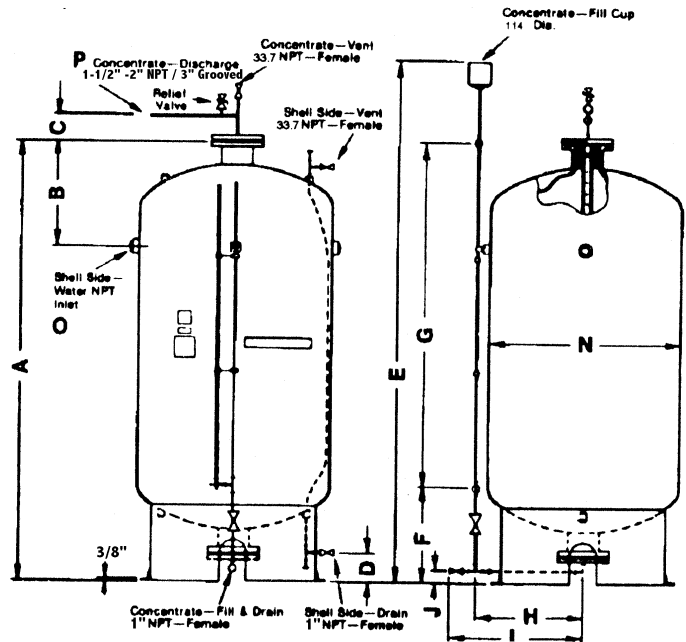
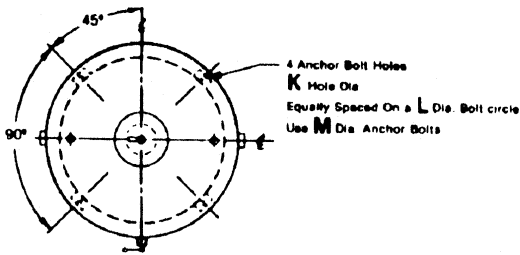
**VIKING VERTICAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
	4164	4562	4920	5299	5677	6056	6435	6813	7192	7570	7949	8327	8705	9084
A	133	143	150	160	170	133	139	145	151	157	163	169	175	181
B	24	24	24	24	24	27	27	27	27	27	27	27	27	27
C	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8	9 3/8
D	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
E	145	155	162	172	182	145	151	157	163	169	175	181	187	193
F	52 1/4	62 1/4	69 1/4	79 1/4	89 1/4	52 1/4	58 1/4	64 1/4	70 1/4	76 1/4	82 1/4	88 1/4	94 1/4	100 1/4
G	72	72	72	72	72	72	72	72	72	72	72	72	72	72
H	33 1/2	33 1/2	33 1/2	33 1/2	33 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2
I	39	39	39	39	39	45	45	45	45	45	45	45	45	45
J	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4
K	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
L	63 1/4	64	64	64	64	75 1/4	75 1/4	75 1/4	75 1/4	75 1/4	75 1/4	75 1/4	75 1/4	75 1/4
M	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
N	60	60	60	60	60	72	72	72	72	72	72	72	72	72
O	3	3	3	3	3	3	3	3	3	3	3	3	3	3
P	3	3	3	3	3	3	3	3	3	3	3	3	3	3
W	3350	3550	3700	3900	4100	5520	5710	5900	6090	6280	6470	6660	6850	7040
T.														

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106,304 SS, M.I.,D.I., EPDM
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in inches.  
All weights given in pounds.  
Actual weights and dimensions may vary.  
Weight does not include foam concentrate (8.5 lbs./gal)





## DESIGN DATA

HORIZONTAL BLADDER TANK  
ASSEMBLY  
SIZES 100 - 1300 GALLONS

**VIKING HORIZONTAL BLADDER TANKS**

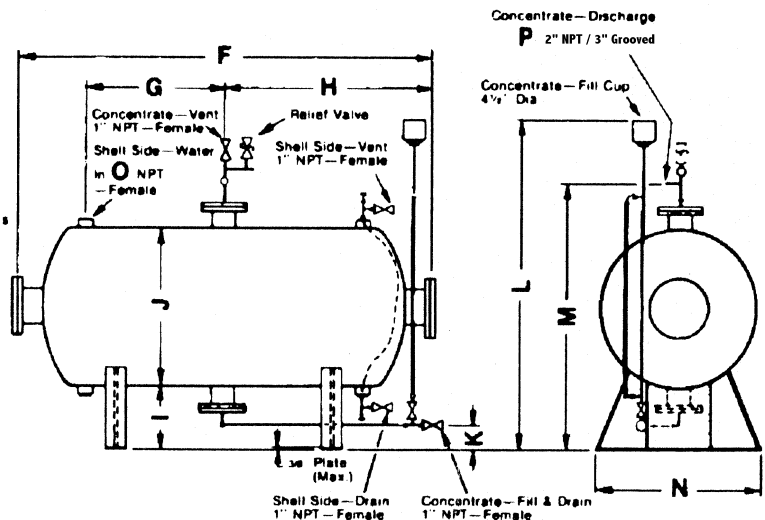
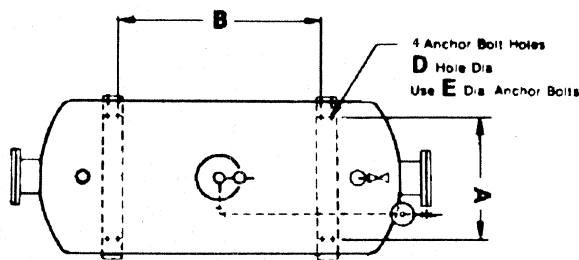
Vessel size in Gallons/Liters

	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300
	397	568	757	1135	1514	1892	2271	2650	3028	3406	3785	4164	4542	4920
A	18	24	24	26	30	30	30	34	34	34	34	44	44	44
B	34 1/2	32 1/2	42 1/2	46 1/2	42 1/2	66 1/2	72 1/2	66 1/2	72 1/2	72 1/2	96 1/2	59 1/4	68 1/2	78
C														
D	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
E	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
F	71	70	89	94	92	111	130	119	133	149 1/2	160	120 5/16	129 1/2	139
G	20 1/2	19 1/2	25	27	25	37	42	39	45	50	60	37 7/8	42 1/2	47 1/4
H	35 1/2	35	44 1/2	47	46	55 1/2	65	59 1/2	66 1/2	74 3/4	80	60 1/5	64 3/4	69 1/2
I	12	12	12	12	12	12	12	12	12	12	12	12	12	12
J	24	30	30	36	42	42	42	48	48	48	48	60	60	60
K	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
L	50 7/8	56 1/2	56 1/2	67 1/2	68 1/2	67	67	76	76	76	76	88	88	88
M	45 3/4	51	51	57	63	63	64	70	70	70	70	82	82	82
N	21	26	26	31 1/2	36 5/8	36 5/8	36 5/8	41 3/4	41 3/4	41 3/4	41 3/4	52	52	52
O	2	2	2	2	2	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	3	3
P	2	2	2	2	2	2	3	3	3	3	3	3	3	3
W	880	1135	1291	1720	1956	2218	2480	3159	3450	3800	4020	3823	4014	4202
T.														

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106, 304 SS, M.I., D.I., EPDM
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in inches.  
 All weights given in pounds.  
 Actual weights and dimensions may vary.  
 Weight does not include foam concentrate (8.5 lbs./gal)



	<h2 style="margin: 0;">DESIGN DATA</h2>	<h3 style="margin: 0;">HORIZONTAL BLADDER TANK ASSEMBLY</h3> <p style="margin: 0;">SIZES 1400 - 2600 GALLONS</p>
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**VIKING HORIZONTAL BLADDER TANKS**

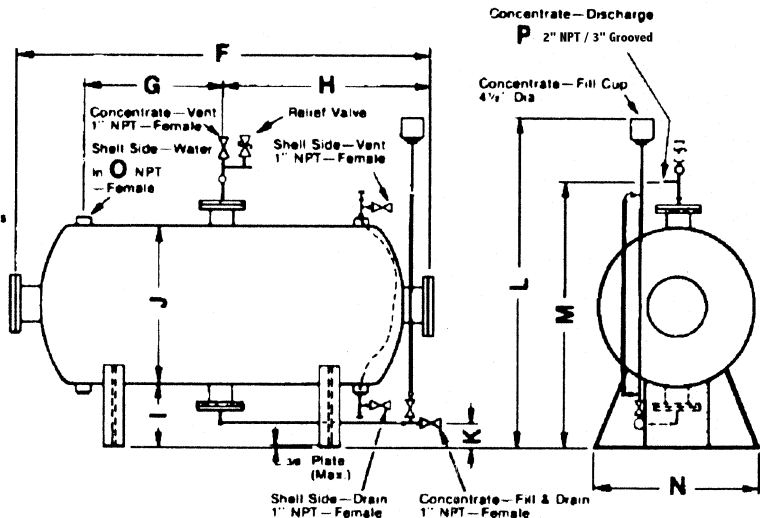
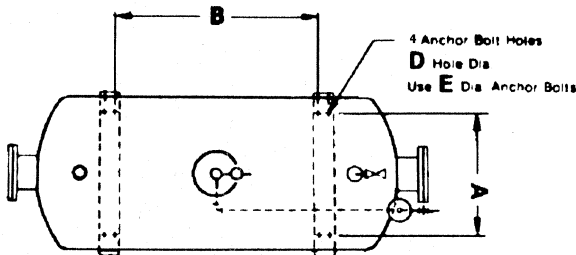
Vessel size in **Gallons/Liters**

	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600
	5299	5677	6056	6435	6813	7192	7570	7949	8327	8705	9084	9463	9841
A	44	44	44	44	44	44	44	56	56	56	56	56	56
B	87 1/4	96 1/2	96 1/2	115	120 1/2	133 3/8	144 1/2	64 1/2	72 1/4	75 1/2	80 1/2	85 1/2	90 1/2
C													
D	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
E	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
F	148 1/4	157 1/2	167	176	185 1/2	194 3/5	203 1/2	130	134 7/8	141	146	151	156
G	51 7/8	56 1/2	60	65 3/4	70 1/2	74 15/16	80	40	43 1/2	45 1/2	48	50 1/2	53
H	74 1/8	78 3/4	83 1/2	88	92 3/4	97 1/8	101 3/4	74 1/2	77 1/2	81	84	87	90
I	12	12	12	12	12	12	12	12	12	12	12	12	12
J	60	60	60	60	60	60	60	78	78	78	78	78	78
K	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
L	88	88	88	88	88	88	88	100	100	100	100	100	100
M	82	82	82	82	82	82	82	100	100	100	100	100	100
N	52	52	52	52	52	52	52	63 3/8	63 3/8	63 3/8	63 3/8	63 3/8	63 3/8
O	3	3	3	3	3	3	3	3	3	3	3	3	3
P	3	3	3	3	3	3	3	3	3	3	3	3	3
W	4385	4570	4755	4935	5120	5300	5480	6195	6360	6570	6740	6910	7085
T.													

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106,304 SS, M.I.,D.I., EPDM
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in inches.  
 All weights given in pounds.  
 Actual weights and dimensions may vary.  
 Weight does not include foam concentrate (8.5 lbs./gal)





## DESIGN DATA

HORIZONTAL BLADDER TANK  
ASSEMBLY  
SIZES 2700 - 4000 GALLONS

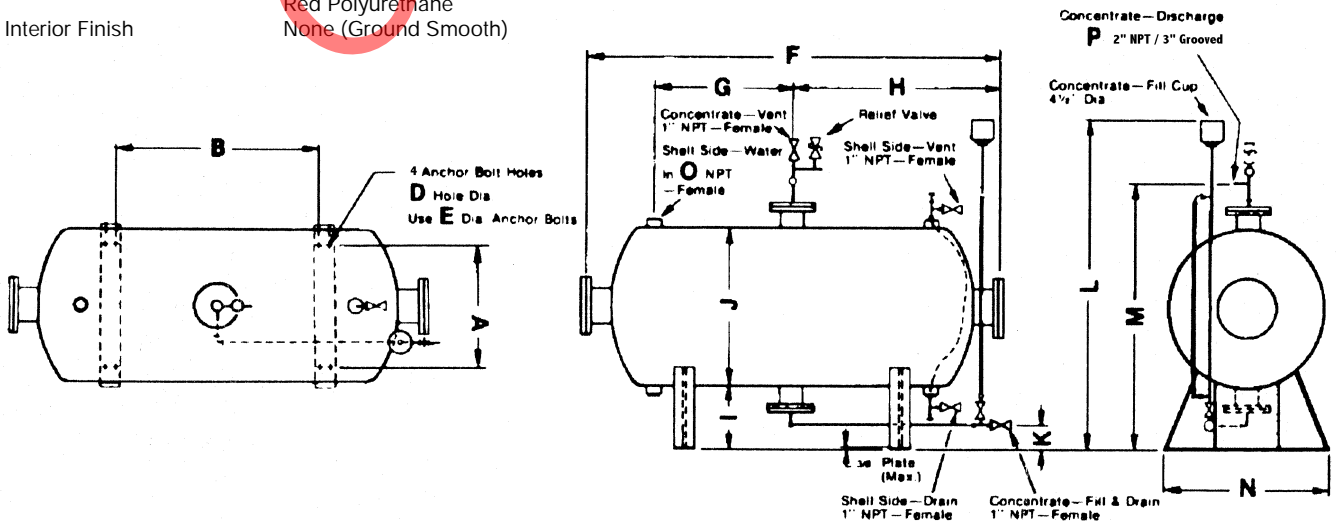
**VIKING HORIZONTAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000
	10219	10598	10976	11355	11735	12112	12492	12869	13249	13626	14006	14383	14763	15140
A	60	60	60	60	60	60	60	60	60	60	60	60	60	60
B	95 1/2	100 1/2	105 1/2	110 1/2	115 1/2	120 1/2	125 1/2	130 1/2	135 1/5	140 1/2	145 1/2	150 1/2	155 1/2	160 1/2
C														
D	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
E	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
F	161	166	171	176	181	186	191	196	201	206	211	216	221	226
G	55 1/2	58	60 1/2	63	65 1/2	68	70 1/2	73	75 1/2	78	80 1/2	83	85 1/2	88
H	80 1/2	83	85 1/2	88	90 1/2	93	95 1/2	98	100 1/2	103	105 1/2	108	110 1/2	113
I	12	12	12	12	12	12	12	12	12	12	12	12	12	12
J	78	78	78	78	78	78	78	78	78	78	78	78	78	78
K	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
L	97 1/4	97 1/4	97 1/4	97 1/4	103 1/4	103 1/4	103 1/4	103 1/4	103 1/4	103 1/4	103 1/4	103 1/4	103 1/4	103 1/4
M	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8	68 7/8
O	3	3	3	3	3	3	3	3	3	3	3	3	3	3
P	3	3	3	3	3	3	3	3	3	3	3	3	3	3
W T.	7250	7425	7600	7760	7940	8110	8280	8450	8620	8790	8960	9130	9300	9470

**Materials of Construction**

- Tank SA-516-70 Carbon steel
- Flanges and Couplings SA-105
- Pipe SA-53B Sch. 40
- Trim pipe and Fittings SA-106,304 SS, M.I.,D.I., EPDM
- Trim Valves Bronze
- Bladder Buna-N over Nylon
- Internal Pipe Sch. 40 PVC
- Fill Cup PVC (Optional)
- Sight Tube Clear PVC (Optional)
- Exterior Finish Rust Resistant Primer  
Red Polyurethane
- Interior Finish None (Ground Smooth)

All dimensions given in inches.  
All weights given in pounds.  
Actual weights and dimensions may vary.  
Weight does not include foam concentrate (8.5 lbs./gal)





## DESIGN DATA

VERTICAL BLADDER  
TANK ASSEMBLY  
SIZES 136 - 3785 LITERS

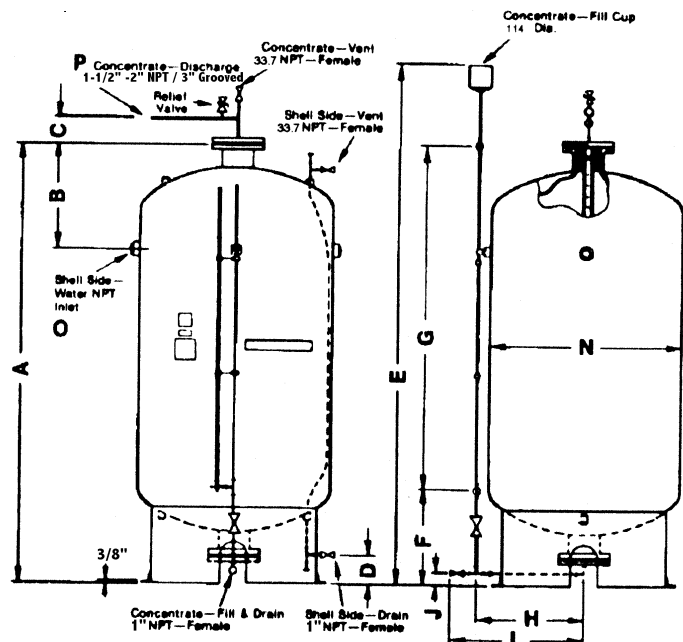
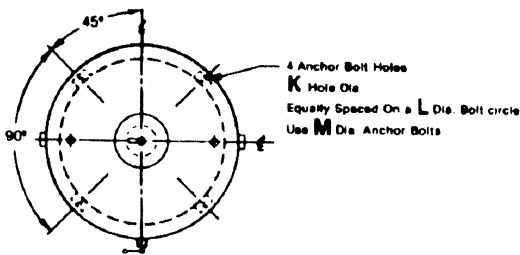
**VIKING VERTICAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	36	50	75	100	150	200	250	300	400	500	600	700	750	800	900	1000
	<b>136</b>	<b>189</b>	<b>284</b>	<b>379</b>	<b>568</b>	<b>757</b>	<b>946</b>	<b>1136</b>	<b>1514</b>	<b>1893</b>	<b>2271</b>	<b>2650</b>	<b>2839</b>	<b>3028</b>	<b>3407</b>	<b>3785</b>
A	1041	1219	1626	1956	1930	2413	2260	2540	2489	2972	2794	3327	3505	2667	2896	3124
B	406	406	406	406	432	432	457	457	482	482	508	508	508	610	610	610
C	135	135	135	135	135	135	135	135	135	135	238	238	238	238	238	238
D	152	152	152	152	152	152	152	152	152	152	152	190	190	190	190	190
E	1295	1473	1854	2210	2184	2667	2489	2794	2743	3226	3048	3429	3607	2769	2997	3226
F	187	187	187	187	187	514	--	641	591	1073	895	1276	1454	616	845	1073
G	759	962	1441	1699	1673	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828
H	394	394	394	394	470	470	546	546	622	622	698	851	851	851	851	851
I	533	533	533	533	610	610	610	610	762	762	838	838	991	991	991	991
J	70	70	70	70	70	70	70	70	70	70	70	222	222	222	222	222
K	16	16	16	16	16	16	16	16	19	19	19	22	22	22	22	22
L	679	679	679	679	832	832	984	984	1137	1137	1289	1289	1289	1607	1607	1607
M	14	14	14	14	14	14	14	14	17	17	17	17	21	21	21	21
N	610	610	610	610	762	762	914	914	1067	1067	1219	1219	1219	1524	1524	1524
O	51	51	51	51	51	51	51	51	51	51	76	76	76	76	76	76
P	51	51	51	51	51	51	51	51	51	51	76	76	76	76	76	76
W	261	290	340	363	426	485	669	669	737	839	930	1021	1320	1270	1429	1433
T.																

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106,304 SS, M.I.,D.I., EPDM
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer
	Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in millimeters.  
All weights given in kilograms.  
Actual weights and dimensions may vary.  
Weight does not include foam concentrate (1.02 kgs./l)







## DESIGN DATA

VERTICAL BLADDER  
TANK ASSEMBLY  
SIZES 4164 - 9084 LITERS

**VIKING VERTICAL BLADDER TANKS**

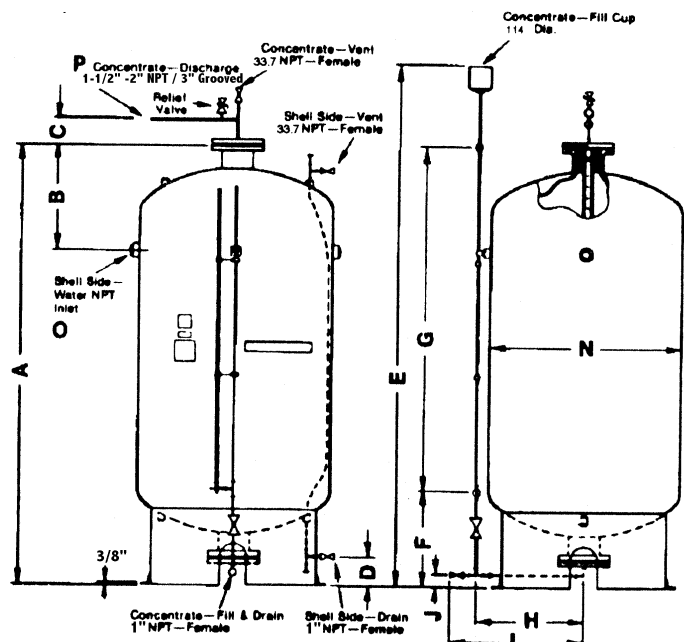
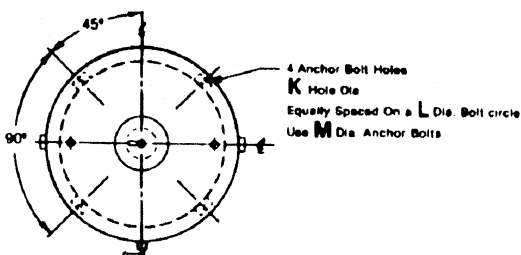
Vessel size in Gallons/Liters

	1100 <b>4164</b>	1200 <b>4542</b>	1300 <b>4921</b>	1400 <b>5299</b>	1500 <b>5678</b>	1600 <b>6056</b>	1700 <b>6435</b>	1800 <b>6813</b>	1900 <b>7192</b>	2000 <b>7570</b>	2100 <b>7949</b>	2200 <b>8327</b>	2300 <b>8706</b>	2400 <b>9084</b>
A	3378	3632	3810	4064	4318	3378	3531	3683	3835	3988	4140	4293	4445	4597
B	610	610	610	610	610	686	686	686	686	686	686	686	686	686
C	238	238	238	238	238	238	238	238	238	238	238	238	238	238
D	191	191	191	191	191	191	191	191	191	191	191	191	191	191
E	3683	3937	4115	4369	4263	3683	3835	3988	4140	4293	4445	4597	4750	4902
F	1327	1581	1759	2013	2267	1327	1480	1632	1784	1937	2089	2242	2394	2546
G	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829
H	851	851	851	851	851	1003	1003	1003	1003	1003	1003	1003	1003	1003
I	991	991	991	991	991	1143	1143	1143	1143	1143	1143	1143	1143	1143
J	222	222	222	222	222	222	222	222	222	222	222	222	222	222
K	22	22	22	22	22	22	22	22	22	22	22	22	22	22
L	1626	1626	1626	1626	1626	1911	1911	1911	1911	1911	1911	1911	1911	1911
M	19	19	19	19	19	19	19	19	19	19	19	19	19	19
N	1524	1524	1524	1524	1524	1829	1829	1829	1829	1829	1829	1829	1829	1829
O	76	76	76	76	76	76	76	76	76	76	76	76	76	76
P	76	76	76	76	76	76	76	76	76	76	76	76	76	76
W	1520	1610	1678	1769	1860	2509	2595	2682	2768	2855	2941	3027	3114	3200
T.														

**Materials of Construction**

- Tank SA-516-70 Carbon steel
- Flanges and Couplings SA-105
- Pipe SA-53B Sch. 40
- Trim pipe and Fittings SA-106, 304 SS, M.I., D.I., EPDM
- Trim Valves Bronze
- Bladder Buna-N over Nylon
- Internal Pipe Sch. 40 PVC
- Fill Cup PVC (Optional)
- Sight Tube Clear PVC (Optional)
- Exterior Finish Rust Resistant Primer
- Red Polyurethane
- Interior Finish None (Ground Smooth)

All dimensions given in millimeters.  
 All weights given in kilograms.  
 Actual weights and dimensions may vary.  
 Weight does not include foam concentrate (1.02 kgs./l)







## DESIGN DATA

HORIZONTAL BLADDER TANK  
ASSEMBLY  
SIZES 397 - 4920 LITERS

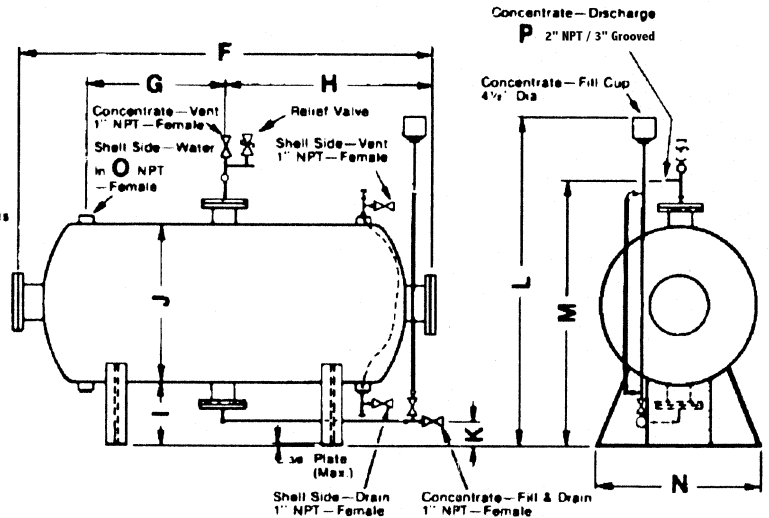
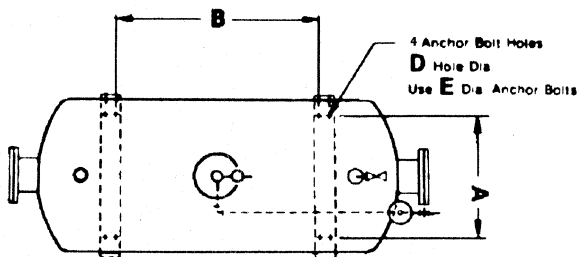
**VIKING HORIZONTAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	100 397	150 568	200 757	300 1135	400 1514	500 1892	600 2271	700 2650	800 3028	900 3406	1000 3785	1100 4164	1200 4542	1300 4920
A	457	610	610	660	762	762	762	864	864	864	864	1118	1118	1118
B	876	826	1080	1181	1080	1689	1842	1689	1842	1842	2451	1505	1740	1981
C														
D	22	22	22	22	22	22	22	22	22	22	22	22	22	22
E	19	19	19	19	19	19	19	19	19	19	19	19	19	19
F	1803	1778	2261	2388	2337	2819	3302	3023	3378	3797	4064	3056	3289	3531
G	521	495	635	686	635	940	1067	991	1143	1270	1524	962	1080	1200
H	902	889	1130	1194	1168	1410	1651	1511	1689	1899	2032	1527	1645	1765
I	305	305	305	305	305	305	305	305	305	305	305	305	305	305
J	610	762	762	914	1067	1067	1067	1219	1219	1219	1219	1524	1524	1524
K	121	121	121	121	121	121	121	121	121	121	121	121	121	121
L	1292	1435	1435	1715	1740	1702	1702	1930	1930	1930	1930	2235	2235	2235
M	1162	1295	1295	1448	1600	1600	1626	1778	1778	1778	1778	2083	2083	2083
N	533	660	660	800	930	930	930	1060	1060	1060	1060	1321	1321	1321
O	51	51	51	51	51	51	64	64	64	64	64	64	64	76
P	51	51	51	51	51	51	76	76	76	76	76	76	76	76
W	400	516	586	782	887	1006	1127	1433	1568	1727	1827	1734	1825	1910
T.														

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106,304 SS, M.I.,D.I.,
EPDM	
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in millimeters.  
All weights given in kilograms.  
Actual weights and dimensions may vary.  
Weight does not include foam concentrate (1.02 kgs./l)



	<h2 style="margin: 0;">DESIGN DATA</h2>	<h3 style="margin: 0;">HORIZONTAL BLADDER TANK ASSEMBLY SIZES 5299 - 9841 LITERS</h3>
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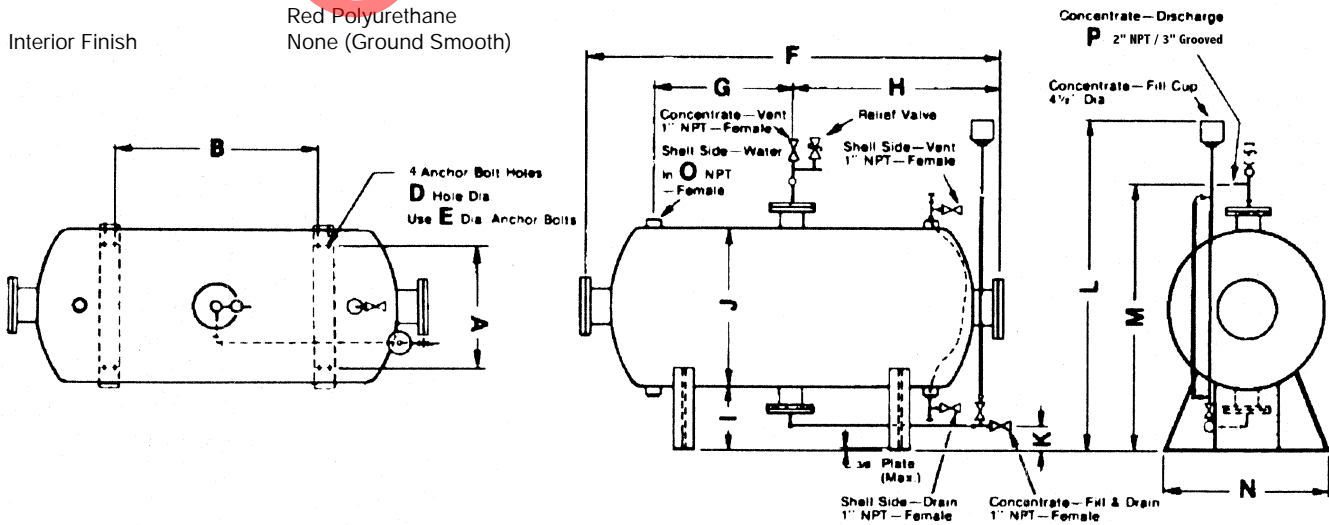
**VIKING HORIZONTAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600
	<b>5299</b>	<b>5678</b>	<b>6056</b>	<b>6435</b>	<b>6813</b>	<b>7192</b>	<b>7570</b>	<b>7949</b>	<b>8327</b>	<b>8706</b>	<b>9084</b>	<b>9463</b>	<b>9841</b>
A	1118	1118	1118	1118	1118	1118	1118	1422	1422	1422	1422	1422	1422
B	2216	2451	2451	2921	3061	3388	3670	1638	1835	1918	2045	2172	2299
C	89	89	89	89	89	89	89	89	89	89	89	89	89
D	22	22	22	22	22	22	22	22	22	22	22	22	22
E	19	19	19	19	19	19	19	19	19	19	19	19	19
F	3766	4001	4242	4470	4712	4937	5169	3302	3426	3581	3708	3835	3962
G	1318	1435	1524	1670	1791	1903	2032	1016	1105	1156	1219	1283	1346
H	1883	2000	2121	2235	2356	2467	2584	1892	1969	2057	2134	2210	2286
I	305	305	305	305	305	305	305	305	305	305	305	305	305
J	1524	1524	1524	1524	1524	1524	1524	1981	1981	1981	1981	1981	1981
K	121	121	121	121	121	121	121	121	121	121	121	121	121
L	2235	2235	2235	2235	2235	2235	2235	2540	2540	2540	2540	2540	2540
M	2083	2083	2083	2083	2083	2083	2083	2540	2540	2540	2540	2540	2540
N	1321	1321	1321	1321	1321	1321	1321	1610	1610	1610	1610	1610	1610
O	76	76	76	76	76	76	76	76	76	76	76	76	76
P	76	76	76	76	76	76	76	76	76	76	76	76	76
W	1996	2077	2157	2243	2322	2409	2491	2810	2885	2980	3057	3134	3214
T.													

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106, 304 SS, M.I., D.I., EPDM
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in millimeters.  
 All weights given in kilograms.  
 Actual weights and dimensions may vary.  
 Weight does not include foam concentrate (1.02 kgs./l)



VIKING

DESIGN DATA

HORIZONTAL BLADDER  
TANK ASSEMBLY  
SIZES 10220 - 15140 LITERS

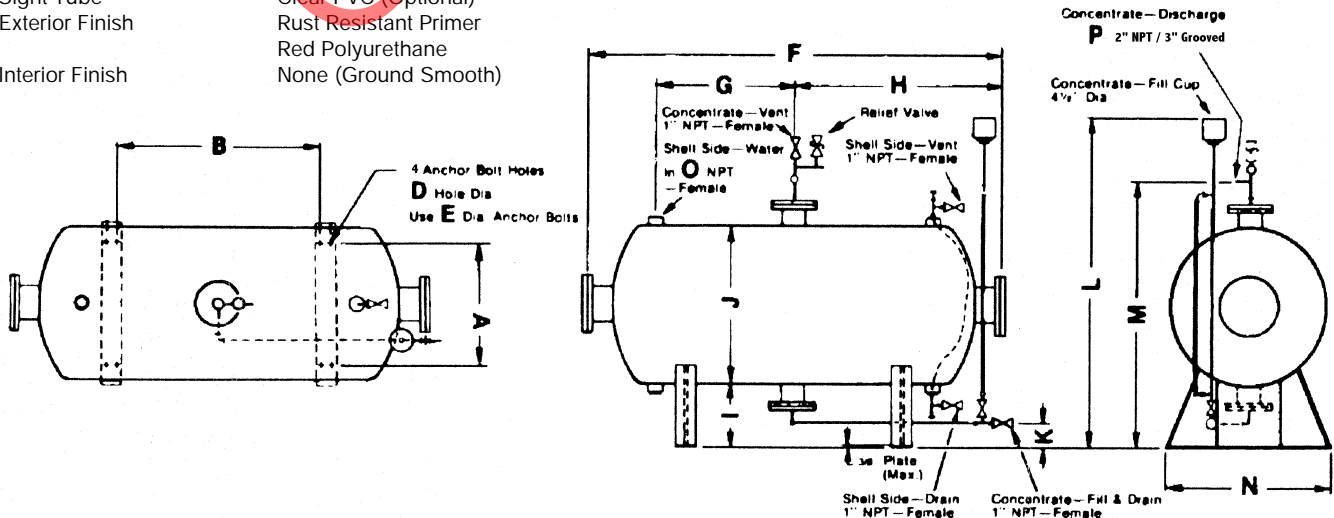
**VIKING HORIZONTAL BLADDER TANKS**  
Vessel size in Gallons/Liters

	2700 10220	2800 10598	2900 10977	3000 11355	3100 11735	3200 12112	3300 12492	3400 12869	3500 13249	3600 13626	3700 14006	3800 14383	3900 14763	4000 15140
A	1524	1524	1524	1524	1524	1524	1524	1524	1524	1524	1524	1524	1524	1524
B	2426	2553	2680	2807	2934	3061	3188	3315	3442	3569	3696	3823	3950	4077
C														
D	22	22	22	22	22	22	22	22	22	22	22	22	22	22
E	19	19	19	19	19	19	19	19	19	19	19	19	19	19
F	4699	4839	4978	4470	4597	4724	4851	4978	5105	5232	5359	5486	5613	5740
G	1676	1753	1829	1905	1664	1727	1791	1854	1918	1981	2045	2102	2178	2235
H	2045	2108	2172	2235	2299	2362	2426	2489	2553	2616	2680	2743	2807	2870
I	305	305	305	305	305	305	305	305	305	305	305	305	305	305
J	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981
K	121	121	121	121	121	121	121	121	121	121	121	121	121	121
L	2470	2470	2470	2470	2622	2622	2622	2622	2622	2622	2622	2622	2622	2622
M	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
N	1724	1724	1724	1724	1724	1724	1724	1724	1724	1724	1724	1724	1724	1724
O	76	76	76	76	76	76	76	76	76	76	76	76	76	76
P	77	77	77	77	77	77	77	77	77	77	77	77	77	77
W T.	3289	3368	3447	3520	3602	3679	3756	3841	3910	3995	4064	4150	4218	4305

**Materials of Construction**

Tank	SA-516-70 Carbon steel
Flanges and Couplings	SA-105
Pipe	SA-53B Sch. 40
Trim pipe and Fittings	SA-106,304 SS, M.I.,D.I., EPDM
Trim Valves	Bronze
Bladder	Buna-N over Nylon
Internal Pipe	Sch. 40 PVC
Fill Cup	PVC (Optional)
Sight Tube	Clear PVC (Optional)
Exterior Finish	Rust Resistant Primer Red Polyurethane
Interior Finish	None (Ground Smooth)

All dimensions given in millimeters.  
All weights given in kilograms.  
Actual weights and dimensions may vary.  
Weight does not include foam concentrate (1.02 kgs./l)



	<b>DESIGN DATA</b>	<b>BLADDER TANKS</b>
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NOMINAL CAPACITY VERTICAL GALLON	VIKING MODEL NUMBER	NOMINAL CAPACITY HORIZONTAL GALLON	VIKING MODEL NUMBER
36	VB36V	100	VB100H
50	VB50V	150	VB150H
75	VB75V	200	VB200H
100	VB100V	300	VB300H
150	VB150V	400	VB400H
200	VB200V	500	VB500H
250	VB250V	600	VB600H
300	VB300V	700	VB700H
400	VB400V	800	VB800H
500	VB500V	900	VB900H
600	VB600V	1000	VB1000H
700	VB700V	1100	VB1100H
750	VB750V	1200	VB1200H
800	VB800V	1300	VB1300H
900	VB900V	1400	VB1400H
1000	VB1000V	1500	VB1500H
1100	VB1100V	1600	VB1600H
1200	VB1200V	1700	VB1700H
1300	VB1300V	1800	VB1800H
1400	VB1400V	1900	VB1900H
1500	VB1500V	2000	VB2000H
1600	VB1600V	2100	VB2100H
1700	VB1700V	2200	VB2200H
1800	VB1800V	2300	VB2300H
1900	VB1900V	2400	VB2400H
2000	VB2000V	2500	VB2500H
2100	VB2100V	2600	VB2600H
2200	VB2200V	2700	VB2700H
2300	VB2300V	2800	VB2800H
2400	VB2400V	2900	VB2900H
		3000	VB3000H
		3100	VB3100H
		3200	VB3200H
		3300	VB3300H
		3400	VB3400H
		3500	VB3500H
		3600	VB3600H
		3700	VB3700H
		3800	VB3800H
		3900	VB3900H
		4000	VB4000H