



TECHNICAL DATA

**VERTICAL AND HORIZONTAL
BLADDER TANKS MODEL VFT
EN13445 & ASME Sec. VIII Div. 1**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
Visit the Viking website for the latest edition of this technical data page.

1. GENERAL DESCRIPTION

The bladder tank is a carbon steel pressure vessel containing an elastomeric bladder between the water and foam concentrate. The bladder permits water pressure to be transferred to the foam concentrate without the two fluids mixing together.

This Technical Data Page is intended for trained experts. It contains basic information needed to use the product described. Legally binding is the product operation and maintenance manual which must be observed.

For further information, please contact the appropriate sales office in Section 5 Availability or refer to the technical documentation.

The contents of this publication are subject to modifications without notice.

2. LISTINGS AND APPROVALS

The bladder tank is FM Approved and/or UL Listed as part of a fire extinguishing system combining designated foam concentrates, Model VRC ratio controllers, Model VLF ILBP's and discharge devices. Approved and Listed system components can be found at www.approvalguide.com and <https://iq.ulprospector.com>



FM Approved – Low Expansion Foam Systems (FM5130)



UL Listed – GFGV.EX27255 & GHXV.EX5002 (UL162)

Manufactured according to ASME Sec. VIII Div.1 or EN13445.



CE marked according to the PED Directive 2014/68/EU (Europe Only)

ASME U-1A (“U”Stamp) certification process available on request with additional charge.

See data page F_042817 | TD1.3.1.3/en for ordering information.

“SFFF compatible” refers to this product as being part of a SFFF Foam system that has been tested to recognized standards. Not all configurations are available. Please consult technical data and/or the Approval/Listing for usage requirements.

NOTE: Other international approval certificates may be available upon request.





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3. TECHNICAL DATA

3.1 Construction Features

- Vertical tanks on legs or horizontal tanks on saddles
- Legs and saddles are provided with ground fixing holes
- Approved system design pressure of 175PSI (12.1bar) or 232PSI (16.0bar)
- 100% pressure tested according to the applied design code
- Shell and heads in ASTM A516 Gr. 70 or EN10028-3 P275NH/P355NH
- Lockable corrosion resistant brass tank trim/service ball valves (UL Listed / FM Approved)
- Inspection flange available on left or right side of horizontal tanks (left as standard)
- Machine welded circumferential and longitudinal seams for maximum quality and durability
- Welded lifting lugs to facilitate safe handling operations
- Earth lug for electrical safety
- Safety thermal valve on water side of bladder to prevent slow overpressure and relieve thermal fluctuations
- Bladder equipped with cast rubber caps to ensure water & foam integrity under constant pressure
- Bladder specifically tested for compatibility with foams shown in FM Approval and UL Listing
- Oversized to permit concentrate thermal expansion (volume expansion allowance)
- Tank equipped with inside protection at any opening to ensure no damage to the bladder
- Internal PVC foam concentrate distribution pipe ensures optimal foam concentrate usage
- Internal water distribution channel to equalize the water pressure everywhere avoiding damage to the bladder and to drain the tank during service and maintenance
- Nameplate holder to avoid undetected corrosion on the tank's shell behind the plate
- Analog level indicator or classic sight tube (specify at point of order).
- External epoxy zinc rich primer with aliphatic polyurethane finish tested by FM and UL for corrosive atmosphere (salt fog)

3.2 Standard Materials

Table 3.2.1 - Standard Materials	
Tank shell and heads:	ASTM A516 Gr. 70 or P275NH to EN10028-3 or P355NH to EN10028-3
Bladder:	Reinforced Hypalon, Polyurethane or NBR and EPDM (material used depends on tank size and foam concentrate)
Trim valves:	brass
Safety thermal relief valve:	brass
Pressure gauges:	stainless steel
Level indicator:	Hydrometer: Stainless Steel or Sight Tube: PVC
Paint:	epoxy zinc rich primer with aliphatic polyurethane finish
Standard colour:	Flame Red RAL3000
Flange material:	ASTM A105
Flange connection:	ANSI B16.5 Class 150

3.3 Standard Design Specifications

Table 3.3.1 - Standard Design Specifications	
Design pressure:	175PSI / 12.1bar (1.2MPa) or 232PSI /16.0bar (1.6MPa)
Operating temperature range:	35°F to 120°F (1.7°C to 49°C)
Capacity:	see tables
Empty weight:	see tables
Proportioning range:	see ratio controller data sheet
(*) Further temperature limitations come from foam concentrate and water.	

INFORMATION

Some of the available options may be not covered by the UL Listing or FM Approval. Please always make reference to the appropriate approval directory or guides or contact us for further assistance.



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3.4 Ordering Information

The following information is provided to ensure that the correct design requirements are provided during the order and manufacturing process. Mandatory information is required in every case. Optional information is required in case of special project or specification requirements. Pre-assembled Bladder Tank information is required when the bladder tank will be supplied pre-piped including the Ratio Controller.

Table 3.4.1: Ordering Information			
	Ref	Criterion	Option
Mandatory Information (required for quote order processing)	1a	Configuration	a) Vertical b) Horizontal c) Twin Vertical
	1b	Capacity	a) 25 to 4000 US Gallons Vertical b) 50 to 5250 US Gallons Horizontal (see tables for available sizes)
	1c	Design Code	a) EN13445, b) ASME Sec. VIII Div.1**
	1d	Standby Pressure Rating	a) 175PSI / 12.1bar (1.2MPa) b) 232PSI /16.0bar (1.6MPa)
	1e	Inspection Flange	a) Left b) Right (required for Horizontal Tanks only)
	1f	Level Indicator	a) Sight Tube b) Level gauge
	1g	Language	Select Bladder Tank Manual Language (see Table 12.1.2)
Optional	2a	Design Temperature	Contact technical department
	2b	Corrosion Allowance	Contact technical department
	2c	Radiographic test report (*)	Contact technical department
	2d	Liquid penetrant test report (*)	Contact technical department
Pre-Assembled with Ratio Controller (*)	3a	Ratio Controller Size(s)	2", 2.5", 3", 4", 6", 8"
	3b	Direction of flow	a) Left to right b) Right to left (direction of flow as you face the tank)
	3c	Water Line Piping	a) Carbon Steel
	3d	Foam Line Piping	a) Carbon Steel b) Stainless Steel
	3e	Foam Concentrate Type***	a) AFFF 1%S C6 b) AFFF 3%S C6 c) ARC 3X3S C6 d) FP 3% C6 e) AFFF 3%M C6 f) AFFF 6% Ultra g) 3% XMAX h) Viking ARK, 3% i) Viking USP, 3%
	3f	Concentrate Control Valve	Viking Halar CCV (FM UL) or Hydraulic Ball Valve
(*) With additional cost.			
(**) Tank manufactured in accordance with ASME Sec. VIII Div.1 only. IF U-1A Certification process is desired, refer to data page F_042817 TD1.3.1.3			
(***) These foam concentrates have been tested for bladder compatibility as per UL162 and/or FM5130. The long term compatibility of other foam concentrates cannot be verified.			

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4. SCOPE OF DELIVERY

Ensure that all components are complete and in good condition.
The Bladder Tank is supplied in or on a suitable wooden pallet skid or shipping crate in the horizontal position.
All Bladder Tanks have lifting lugs to allow safe maneuverability on site.
Tank is supplied empty with pre-installed bladder.
Small trim valves and contents level device are supplied pre-assembled to the tank as standard.
Safety thermal relief valve supplied as standard according to design code selected.
Anchor fixing bolts are not part of our supply scope.

Table 4.1.1 - Documentation

Standard Documentation	Optional Documentation *
Warranty Certificate	Dimensional Drawings
PED Declaration or Conformity	Material Certificates Type 3.1 to EN10204
Safety Thermal Relief Valve Declaration of Conformity	Certificate of Conformity Type 2.1 to EN10204
Hydrostatic Pressure Test Certificate	Design Structural Calculations
Bladder Pneumatic Test Certificate	Spot or Full Radiographic Examination with Report (when not mandatorily required by design parameters)
Painting Inspection Certificate	Spare Parts List
Final Inspection Certificate	Copy of Procedure Qualification Record (PQR) and Welding Procedure Specification (WPS) according to tank construction code
Operating, Filling and Maintenance Manual (English)	Operating, Filling and Maintenance Manual (Language)
(*) Contact the sales office shown in section 5 for further information and price.	

5. AVAILABILITY

Please contact your local Viking sales office for further information. The product is available directly from Viking and official distributors only.

EMEA:

Viking S.A.
21, Z.I. Haneboesch
L-4562 Differdange / Niederkorn
Tel.: +352 58 37 37 – 1
Fax: +352 58 37 36
vikinglux@viking-emea.com

Asia Pacific (APAC) Main Office:

The Viking Corporation (Far East) Pte. Ltd.
69 Tuas View Square
Westlink Techpark, Singapore 637621
Tel: (+65) 6 278 4061
Fax: (+65) 6 278 4609
vikingAPAC@vikingcorp.com

6. PRODUCT VARIANTS

6.1 Options

- Pre-Assembled with Ratio Controller and water/foam pipe work
- Twin tank configurations
- Special coatings for salt-water applications or harsh environmental conditions
- Nameplate in corrosion resistant material
- Increased wall thickness for corrosion allowance
- Internal coatings such as epoxy tar
- 232PSI /16.0bar (1.6MPa) design pressure rating with UL Listing and FM Approval
- Other design pressure and seismic ratings
- Ladders | Work Platform | Sunshield
- Full bladder tank stainless steel construction
- Heat tracing and/or insulation
- Bladder tank pre-installed on base frame or containerized to customer requirements
- Various colors and painting cycles with UL Listing and FM Approval (120-300 microns)
- Nondestructive examinations
- Factory acceptance test, notified body or third party inspections
- Special sea freight and fumigated packaging

Please contact us for further details, pricing and availability



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6.2 General bladder tank layout and P&ID

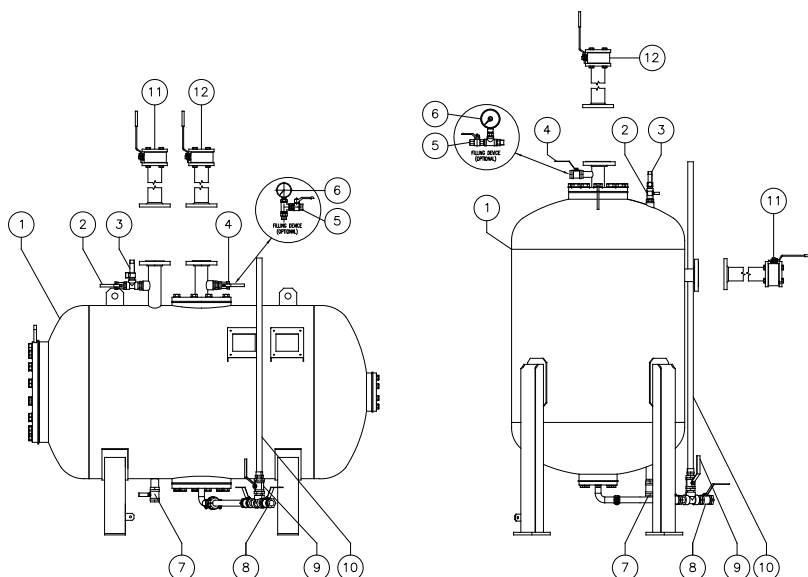


Figure 6.2.1
Vertical and Horizontal Bladder Tanks

Table 6.2.2 - General Bladder Tank Layout and P&ID

Item	Description	Item	Description
1	Bladder Tank	7	Water Filling/Drain Valve (NPT)
2	Water Vent Valve (NPT)	8	Foam Concentrate Filling/Drain Valve (NPT)
3	Safety Thermal Relief Valve	9	Concentrate Level Indicator Drain Valve
4	Foam Concentrate Vent Valve (NPT)	10	Concentrate Level Indicator (alternative: sight tube)
5	Filling Vent Valve (Optional)	11	Water Shut Off Valve (to be ordered separately)
6	Filling Pressure Gauge 1-10 kpa (Optional)	12	Foam Concentrate Shut Off Valve (to be ordered separately)

Note: Item 10 shown with Sight Tube. Level Gauge also available and connected at position 10.

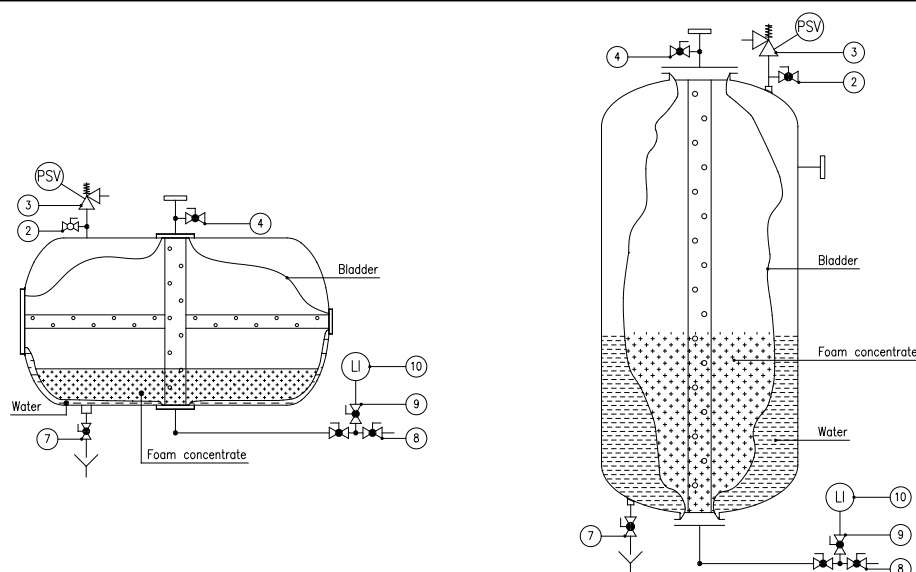


Figure 6.2.3



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6.3 Dimensions

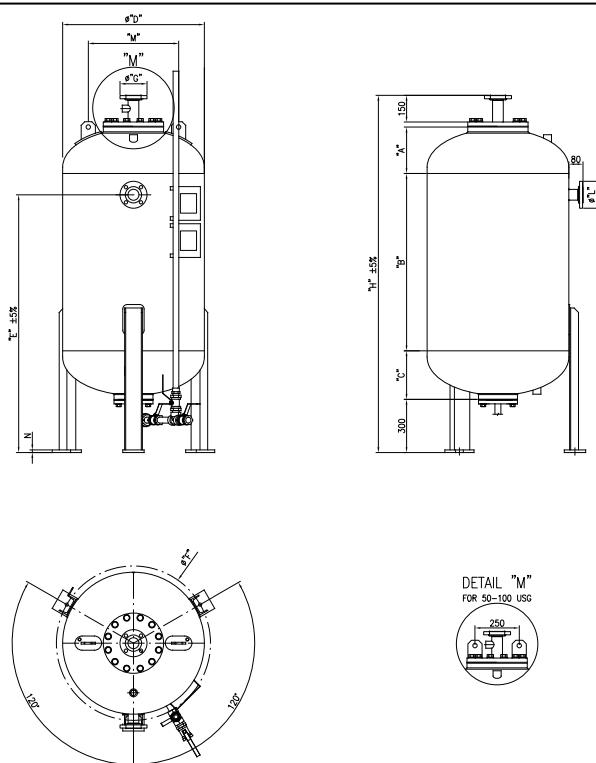


Figure 6.3.1
Vertical Bladder Tank: 25 to 200 US gallons

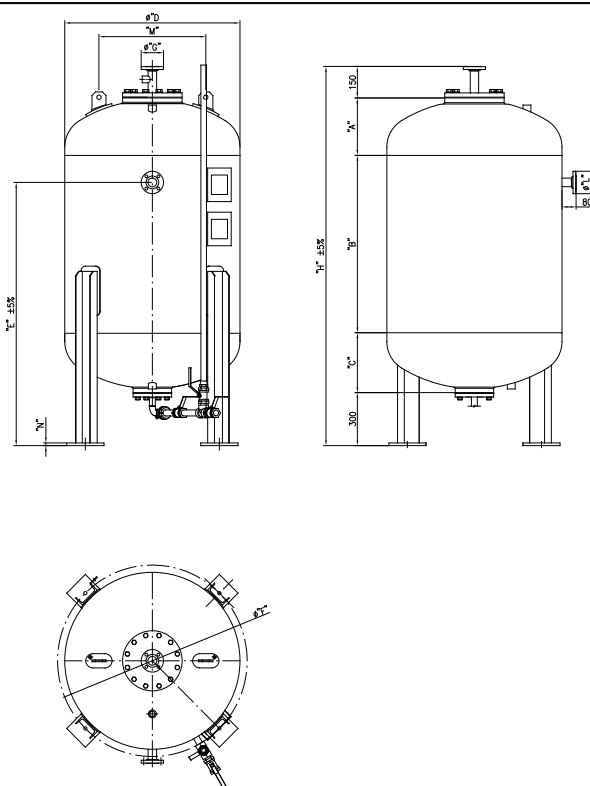


Figure 6.3.2
Vertical Bladder Tank: 250 to 4000 US gallons



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Table 6.3.3 - Vertical Bladder Tank Dimensions (EN13445 Design Code)

Part Number EN13445 Design Code		Capacity		Weight		A	B	C	ØD	E	ØF	ØG	H	ØL	M	N
175PSI / 12.1bar	232PSI / 16.0bar	USG	Litres	LBS	KG	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm
VFTV0025GF	VFTV0025GF-16	25	94	199	90	6.4 163	15.7 400	7.0 178	19.7 500	30.2 768	22.4 570	2 50	48.1 1221	2 50	9.8 250	0.6 15
VFTV0036GF	VFTV0036GF-16	36	136	287	130	6.4 163	23.6 600	7.0 178	19.7 500	38.1 968	22.4 570	2 50	55.9 1421	2 50	9.8 250	0.6 15
VFTV0050GF	VFTV0050GF-16	50	189	375	170	7.4 187	27.6 700	8.0 203	23.6 600	44.5 1130	26.4 670	2 50	61.8 1570	2 50	9.8 250	0.6 15
VFTV0075GF	VFTV0075GF-16	75	283	408	185	7.4 187	35.4 900	8.0 203	23.6 600	44.5 1130	26.4 670	2 50	69.7 1770	2 50	9.8 250	0.6 15
VFTV0100GF	VFTV0100GF-16	100	378	475	215	7.4 187	49.2 1250	8.0 203	23.6 600	64.6 1640	26.4 670	2 50	83.4 2120	2 50	9.8 250	0.59 15
VFTV0150GF	VFTV0150GF-16	150	567	784	355	10.3 262	39.4 1000	10.8 274	31.5 800	57.1 1450	34.3 870	2 50	79.4 2016	2 50	9.8 510	0.6 15
VFTV0200GF	VFTV0200GF-16	200	757	861	390	10.3 262	51.2 1300	10.8 274	31.5 800	57.1 1450	34.3 870	2 50	91.2 2316	2 50	9.8 510	0.6 15
VFTV0250GF	VFTV0250GF-16	250	946	905	410	12.9 327	39.4 1000	13.2 336	39.4 1000	59.7 1516	42.6 1082	2.5 65	84.3 2142	2.5 65	24.0 610	0.6 15
VFTV0300GF	VFTV0300GF-16	300	1135	1033	468	12.9 327	51.2 1300	13.2 336	39.4 1000	71.5 1816	42.6 1082	2.5 65	96.1 2442	2.5 65	24.0 610	0.6 15
VFTV0350GF	VFTV0350GF-16	350	1324	1077	488	12.9 327	55.1 1400	13.2 336	39.4 1000	75.4 1916	42.6 1082	2.5 65	100.1 2542	2.5 65	24.0 610	0.6 15
VFTV0400GF	VFTV0400GF-16	400	1514	1115	505	12.9 327	65.0 1650	13.2 336	39.4 1000	85.3 2166	42.6 1082	2.5 65	109.9 2792	2.5 65	24.0 610	0.6 15
VFTV0450GF	VFTV0450GF-16	450	1703	1435	650	13.0 329	59.1 1500	13.3 337	43.3 1100	79.4 2017	46.5 1181	2.5 65	104.1 2645	2.5 65	24.0 610	0.6 15
VFTV0500GF	VFTV0500GF-16	500	1892	1578	715	13.0 329	70.9 1800	13.3 337	43.3 1100	91.2 2317	46.5 1181	2.5 65	115.9 2945	2.5 65	24.0 610	0.6 15
VFTV0600GF	VFTV0600GF-16	600	2271	1943	880	13.0 330	65.0 1650	14.5 368	47.2 1200	84.6 2148	51.2 1300	3 80	110.5 2807	3 80	37.4 950	0.6 15
VFTV0700GF	VFTV0700GF-16	700	2649	2141	970	14.1 358	65.0 1650	15.5 394	51.2 1300	86.4 2194	55.3 1405	3 80	113.4 2881	3 80	33.5 850	0.6 15
VFTV0800GF	VFTV0800GF-16	800	3028	2274	1030	14.1 358	78.7 2000	15.5 394	51.2 1300	100.2 2544	55.3 1405	3 80	127.2 3231	3 80	33.5 850	0.6 15
VFTV0900GF	VFTV0900GF-16	900	3406	2947	1335	15.3 388	78.7 2000	16.5 420	55.1 1400	100.0 2540	59.3 1505	3 80	129.4 3287	3 80	36.6 930	0.6 15
VFTV1000GF	VFTV1000GF-16	1000	3785	2837	1285	15.8 402	74.8 1900	17.1 434	57.1 1450	96.6 2454	61.2 1555	3 80	126.6 3215	3 80	36.6 930	0.6 15
VFTV1100GF	VFTV1100GF-16	1100	4163	2991	1355	15.8 402	82.7 2100	17.1 434	57.1 1450	104.5 2654	61.2 1555	3 80	134.4 3415	3 80	36.6 930	0.6 15
VFTV1200GF	VFTV1200GF-16	1200	4542	3223	1460	16.4 416	82.7 2100	17.6 447	59.1 1500	105.0 2667	63.2 1605	3 80	135.5 3442	3 80	37.4 950	0.6 15
VFTV1300GF	VFTV1300GF-16	1300	4921	3709	1680	17.4 443	78.7 2000	18.5 471	63.0 1600	102.0 2591	67.1 1705	3 80	133.6 3393	3 80	41.3 1050	0.6 15
VFTV1400GF	VFTV1400GF-16	1400	5299	3929	1780	17.4 443	88.6 2250	18.5 471	63.0 1600	111.9 2841	67.1 1705	3 80	143.4 3643	3 80	41.3 1050	0.6 15
VFTV1500GF	VFTV1500GF-16	1500	5678	4437	2010	19.6 497	74.8 1900	20.6 522	68.9 1750	100.1 2542	73.2 1860	3 80	133.8 3398	3 80	45.3 1150	0.6 15
VFTV1600GF	VFTV1600GF-16	1600	6056	4547	2060	19.6 497	78.7 2000	20.6 522	68.9 1750	104.0 2642	73.2 1860	3 80	137.7 3498	3 80	45.3 1150	0.6 15
VFTV1700GF	VFTV1700GF-16	1700	6435	4614	2090	20.5 521	78.7 2000	21.5 547	70.9 1800	103.4 2627	75.2 1910	3 80	139.6 3547	3 80	45.3 1150	0.6 15
VFTV1800GF	VFTV1800GF-16	1800	6813	4669	2115	22.6 575	59.1 1500	23.5 598	78.7 2000	88.5 2248	83.5 2120	3 80	121.3 3082	3 80	51.2 1300	0.8 20
VFTV1900GF	VFTV1900GF-16	1900	7192	4801	2175	22.6 575	63.0 1600	23.5 598	78.7 2000	92.4 2348	83.5 2120	3 80	125.3 3182	3 80	51.2 1300	0.8 20
VFTV2000GF	VFTV2000GF-16	2000	7570	4989	2260	22.6 575	68.9 1750	23.5 598	78.7 2000	98.3 2498	83.5 2120	3 80	131.2 3332	3 80	51.2 1300	0.8 20
VFTV2200GF	VFTV2200GF-16	2200	8327	5651	2560	22.6 575	82.7 2100	23.5 598	78.7 2000	112.1 2848	83.5 2120	3 80	145.0 3682	3 80	51.2 1300	0.8 20
VFTV2400GF	VFTV2400GF-16	2400	9084	5850	2650	22.6 575	88.6 2250	23.5 598	78.7 2000	119.2 3028	83.5 2120	3 80	150.9 3832	3 80	51.2 1300	0.8 20
VFTV2600GF	VFTV2600GF-16	2600	9842	6038	2735	22.6 575	102.4 2600	23.5 598	78.7 2000	131.8 3348	83.5 2120	3 80	164.6 4182	3 80	51.2 1300	0.8 20
VFTV2800GF	VFTV2800GF-16	2800	10599	6623	3000	22.6 575	114.2 2900	23.5 598	78.7 2000	143.6 3648	83.5 2120	3 80	176.5 4482	3 80	51.2 1300	0.8 20
VFTV3000GF	VFTV3000GF-16	3000	11356	6876	3115	22.6 575	122.0 3100	23.5 598	78.7 2000	151.5 3848	83.5 2120	3 80	184.3 4682	3 80	51.2 1300	0.8 20
VFTV3200GF	VFTV3200GF-16	3200	12113	7351	3330	22.6 575	133.9 3400	23.5 598	78.7 2000	163.3 4148	83.5 2120	3 80	196.1 4982	3 80	51.2 1300	0.8 20
VFTV3400GF	VFTV3400GF-16	3400	12870	7726	3500	22.6 575	145.7 3700	23.5 598	78.7 2000	175.1 4448	83.5 2120	3 80	208.0 5282	3 80	51.2 1300	0.8 20
VFTV3600GF	VFTV3600GF-16	3600	13627	7925	3590	22.6 575	151.6 3850	23.5 598	78.7 2000	181.0 4598	83.5 2120	3 80	213.9 5432	3 80	51.2 1300	0.8 20
VFTV3800GF	VFTV3800GF-16	3800	14384	8366	3790	22.6 575	165.4 4200	23.5 598	78.7 2000	194.8 4948	83.5 2120	3 80	227.6 5782	3 80	51.2 1300	0.8 20
VFTV4000GF	VFTV4000GF-16	4000	15141	8609	3900	22.6 575	173.2 4400	23.5 598	78.7 2000	202.7 5148	83.5 2120	3 80	235.5 5982	3 80	51.2 1300	0.8 20



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Table 6.3.4 - Vertical Bladder Tank Dimensions (ASME Sec VIII Design Code)

Bladder Tank : ASME Sec VIII Design Code		Capacity		Weight		A	B	C	ØD	E	ØF	ØG	H	ØL	M	N
175PSI / 12.1bar	232PSI / 16.0bar	USG	Litres	LBS	KG	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm
VFTV0025GAF	VFTV0025GAF-16	25	94	221	100	6.4 163	15.7 400	7.0 178	19.7 500	30.2 768	22.4 570	2 50	48.1 1221	2 50	9.8 250	0.6 15
VFTV0036GAF	VFTV0036GAF-16	36	136	309	140	6.4 163	23.6 600	7.0 178	19.7 500	38.1 968	22.4 570	2 50	55.9 1421	2 50	9.8 250	0.6 15
VFTV0050GAF	VFTV0050GAF-16	50	189	411	186	7.4 187	27.6 700	8.0 203	23.6 600	44.5 1130	26.4 670	2 50	61.8 1570	2 50	9.8 250	0.6 15
VFTV0075GAF	VFTV0075GAF-16	75	283	450	204	7.4 187	35.4 900	8.0 203	23.6 600	44.5 1130	26.4 670	2 50	69.7 1770	2 50	9.8 250	0.6 15
VFTV0100GAF	VFTV0100GAF-16	100	378	528	239	7.4 187	49.2 1250	8.0 203	23.6 600	64.6 1640	26.4 670	2 50	83.4 2120	2 50	9.8 250	0.59 15
VFTV0150GAF	VFTV0150GAF-16	150	567	850	385	10.3 262	39.4 1000	10.8 274	31.5 800	57.1 1450	34.3 870	2 50	79.4 2016	2 50	9.8 510	0.6 15
VFTV0200GAF	VFTV0200GAF-16	200	757	938	425	10.3 262	51.2 1300	10.8 274	31.5 800	57.1 1450	34.3 870	2 50	91.2 2316	2 50	9.8 510	0.6 15
VFTV0250GAF	VFTV0250GAF-16	250	946	940	426	12.9 327	39.4 1000	13.2 336	39.4 1000	59.7 1516	42.6 1082	2.5 65	84.3 2142	2.5 65	24.0 610	0.6 15
VFTV0300GAF	VFTV0300GAF-16	300	1135	1091	494	12.9 327	51.2 1300	13.2 336	39.4 1000	71.5 1816	42.6 1082	2.5 65	96.1 2442	2.5 65	24.0 610	0.6 15
VFTV0350GAF	VFTV0350GAF-16	350	1324	1113	504	12.9 327	55.1 1400	13.2 336	39.4 1000	75.4 1916	42.6 1082	2.5 65	100.1 2542	2.5 65	24.0 610	0.6 15
VFTV0400GAF	VFTV0400GAF-16	400	1514	1150	521	12.9 327	65.0 1650	13.2 336	39.4 1000	85.3 2166	42.6 1082	2.5 65	109.9 2792	2.5 65	24.0 610	0.6 15
VFTV0450GAF	VFTV0450GAF-16	450	1703	1823	826	13.0 329	59.1 1500	13.3 337	43.3 1100	79.4 2017	46.5 1181	2.5 65	104.1 2645	2.5 65	24.0 610	0.6 15
VFTV0500GAF	VFTV0500GAF-16	500	1892	2004	908	13.0 329	70.9 1800	13.3 337	43.3 1100	91.2 2317	46.5 1181	2.5 65	115.9 2945	2.5 65	24.0 610	0.6 15
VFTV0600GAF	VFTV0600GAF-16	600	2271	2267	1027	13.0 330	65.0 1650	14.5 368	47.2 1200	84.6 2148	51.2 1300	3 80	110.5 2807	3 80	37.4 950	0.6 15
VFTV0700GAF	VFTV0700GAF-16	700	2649	2514	1139	14.1 358	65.0 1650	15.5 394	51.2 1300	86.4 2194	55.3 1405	3 80	113.4 2881	3 80	33.5 850	0.6 15
VFTV0800GAF	VFTV0800GAF-16	800	3028	2695	1221	14.1 358	78.7 2000	15.5 394	51.2 1300	100.2 2544	55.3 1405	3 80	127.2 3231	3 80	33.5 850	0.6 15
VFTV0900GAF	VFTV0900GAF-16	900	3406	3907	1770	15.3 388	78.7 2000	16.5 420	55.1 1400	100.0 2540	59.3 1505	3 80	129.4 3287	3 80	36.6 930	0.6 15
VFTV1000GAF	VFTV1000GAF-16	1000	3785	3583	1623	15.8 402	74.8 1900	17.1 434	57.1 1450	96.6 2454	61.2 1555	3 80	126.6 3215	3 80	36.6 930	0.6 15
VFTV1100GAF	VFTV1100GAF-16	1100	4163	3764	1705	15.8 402	82.7 2100	17.1 434	57.1 1450	104.5 2654	61.2 1555	3 80	134.4 3415	3 80	36.6 930	0.6 15
VFTV1200GAF	VFTV1200GAF-16	1200	4542	3817	1729	16.4 416	82.7 2100	17.6 447	59.1 1500	105.0 2667	63.2 1605	3 80	135.5 3442	3 80	37.4 950	0.6 15
VFTV1300GAF	VFTV1300GAF-16	1300	4921	4276	1937	17.4 443	78.7 2000	18.5 471	63.0 1600	102.0 2591	67.1 1705	3 80	133.6 3393	3 80	41.3 1050	0.6 15
VFTV1400GAF	VFTV1400GAF-16	1400	5299	4358	1974	17.4 443	88.6 2250	18.5 471	63.0 1600	111.9 2841	67.1 1705	3 80	143.4 3643	3 80	41.3 1050	0.6 15
VFTV1500GAF	VFTV1500GAF-16	1500	5678	4525	2050	19.6 497	74.8 1900	20.6 522	68.9 1750	100.1 2542	73.2 1860	3 80	133.8 3398	3 80	45.3 1150	0.6 15
VFTV1600GAF	VFTV1600GAF-16	1600	6056	4636	2100	19.6 497	78.7 2000	20.6 522	68.9 1750	104.0 2642	73.2 1860	3 80	137.7 3498	3 80	45.3 1150	0.6 15
VFTV1700GAF	VFTV1700GAF-16	1700	6435	4724	2140	20.5 521	78.7 2000	21.5 547	70.9 1800	103.4 2627	75.2 1910	3 80	139.6 3547	3 80	45.3 1150	0.6 15
VFTV1800GAF	VFTV1800GAF-16	1800	6813	5347	2422	22.6 575	59.1 1500	23.5 598	78.7 2000	88.5 2248	83.5 2120	3 80	121.3 3082	3 80	51.2 1300	0.8 20
VFTV1900GAF	VFTV1900GAF-16	1900	7192	5501	2492	22.6 575	63.0 1600	23.5 598	78.7 2000	92.4 2348	83.5 2120	3 80	125.3 3182	3 80	51.2 1300	0.8 20
VFTV2000GAF	VFTV2000GAF-16	2000	7570	5722	2592	22.6 575	68.9 1750	23.5 598	78.7 2000	98.3 2498	83.5 2120	3 80	131.2 3332	3 80	51.2 1300	0.8 20
VFTV2200GAF	VFTV2200GAF-16	2200	8327	6459	2926	22.6 575	82.7 2100	23.5 598	78.7 2000	112.1 2848	83.5 2120	3 80	145.0 3682	3 80	51.2 1300	0.8 20
VFTV2400GAF	VFTV2400GAF-16	2400	9084	6691	3031	22.6 575	88.6 2250	23.5 598	78.7 2000	119.2 3028	83.5 2120	3 80	150.9 3832	3 80	51.2 1300	0.8 20
VFTV2600GAF	VFTV2600GAF-16	2600	9842	6954	3150	22.6 575	102.4 2600	23.5 598	78.7 2000	131.8 3348	83.5 2120	3 80	164.6 4182	3 80	51.2 1300	0.8 20
VFTV2800GAF	VFTV2800GAF-16	2800	10599	7605	3445	22.6 575	114.2 2900	23.5 598	78.7 2000	143.6 3648	83.5 2120	3 80	176.5 4482	3 80	51.2 1300	0.8 20
VFTV3000GAF	VFTV3000GAF-16	3000	11356	7901	3579	22.6 575	122.0 3100	23.5 598	78.7 2000	151.5 3848	83.5 2120	3 80	184.3 4682	3 80	51.2 1300	0.8 20
VFTV3200GAF	VFTV3200GAF-16	3200	12113	8442	3824	22.6 575	133.9 3400	23.5 598	78.7 2000	163.3 4148	83.5 2120	3 80	196.1 4982	3 80	51.2 1300	0.8 20
VFTV3400GAF	VFTV3400GAF-16	3400	12870	8881	4023	22.6 575	145.7 3700	23.5 598	78.7 2000	175.1 4448	83.5 2120	3 80	208.0 5282	3 80	51.2 1300	0.8 20
VFTV3600GAF	VFTV3600GAF-16	3600	13627	9113	4128	22.6 575	151.6 3850	23.5 598	78.7 2000	181.0 4598	83.5 2120	3 80	213.9 5432	3 80	51.2 1300	0.8 20
VFTV3800GAF	VFTV3800GAF-16	3800	14384	9629	4362	22.6 575	165.4 4200	23.5 598	78.7 2000	194.8 4948	83.5 2120	3 80	227.6 5782	3 80	51.2 1300	0.8 20
VFTV4000GAF	VFTV4000GAF-16	4000	15141	9916	4492	22.6 575	173.2 4400	23.5 598	78.7 2000	202.7 5148	83.5 2120	3 80	235.5 5982	3 80	51.2 1300	0.8 20



TECHNICAL DATA

**VERTICAL AND HORIZONTAL
BLADDER TANKS MODEL VFT
EN13445 & ASME Sec. VIII Div. 1**

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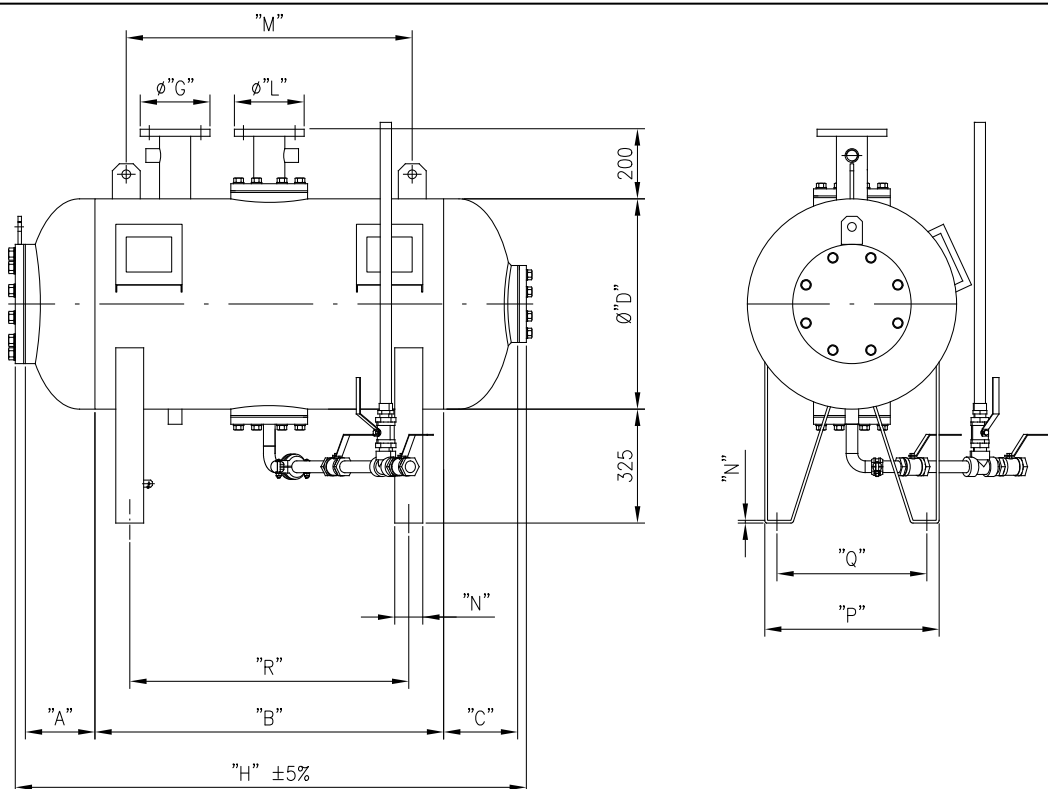


Figure 6.3.5
Horizontal Bladder Tank: 50 to 100 US Gallons

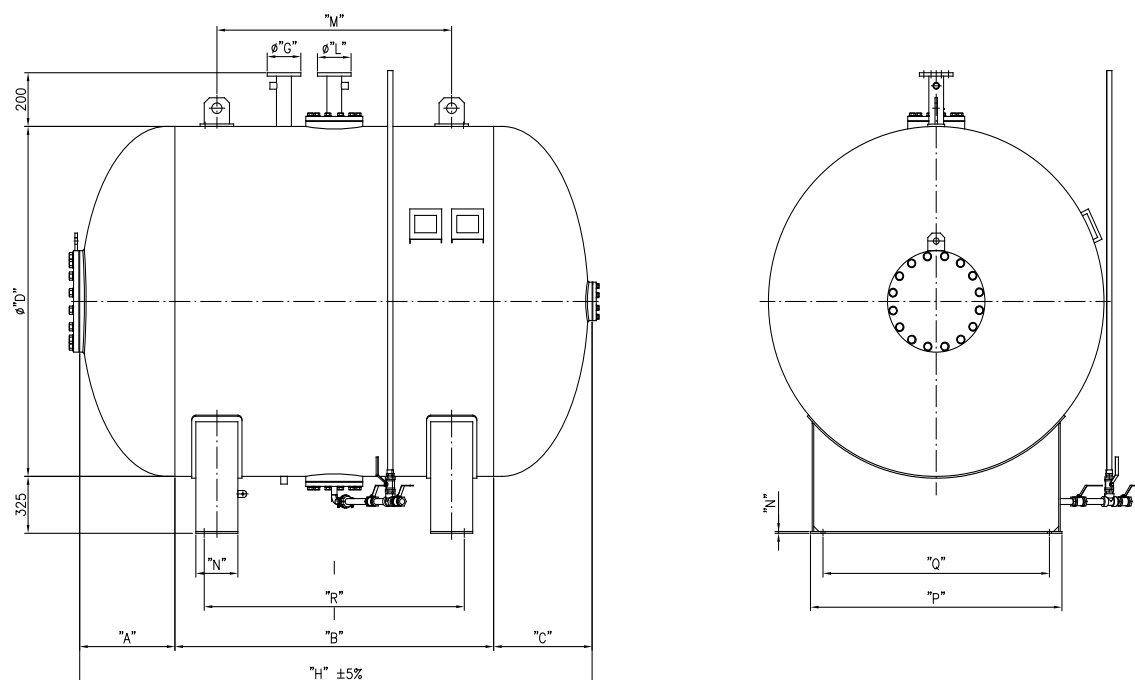


Figure 6.3.6
Horizontal Bladder Tank: 150 to 5250 US Gallons



TECHNICAL DATA

VERTICAL AND HORIZONTAL BLADDER TANKS MODEL VFT EN13445 & ASME Sec. VIII Div. 1

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Table 6.3.7 - Horizontal Bladder Tank Dimensions (EN13445 Design Code)

Bladder Tank Part Number EN13445 Design Code		Capacity		Weight		A	B	C	ØD	ØG	H	ØL	M	N	O	P	Q	R
175PSI / 12.1bar	232PSI / 16.0bar	USG	Litres	LBS	KG	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm
VFTH0050GF	VFTH0050GF-16	50	189	541	245	8.0 203	39.4 1000	8.0 203	19.7 500	2 50	55.4 1406	2 50	32.3 820	0.3 8	7.9 200	16.7 425	13.8 350	32.3 820
VFTH0075GF	VFTH0075GF-16	75	283	607	275	9.0 228	39.4 1000	9.0 228	23.6 600	2 50	57.3 1456	2 50	32.3 820	0.3 8	7.9 200	19.7 500	16.9 430	32.3 820
VFTH0100GF	VFTH0100GF-16	100	378	651	295	9.0 228	49.2 1250	9.0 228	23.6 600	2 50	67.2 1706	2 50	42.1 1070	0.3 8	7.9 200	19.7 500	16.9 430	40.2 1020
VFTH0150GF	VFTH0150GF-16	150	567	784	355	10.3 262	39.4 1000	10.8 274	31.5 800	2 50	60.5 1536	2 50	51.0 1295	0.3 8	7.9 200	19.7 500	15.7 400	32.3 820
VFTH0200GF	VFTH0200GF-16	200	757	839	380	10.3 262	51.2 1300	10.8 274	31.5 800	2 50	72.3 1836	2 50	62.8 1595	0.3 8	7.9 200	19.7 500	15.7 400	42.1 1070
VFTH0250GF	VFTH0250GF-16	250	946	1214	550	11.3 288	39.4 1000	13.2 336	39.4 1000	2.5 65	63.9 1624	2.5 65	51.0 1295	0.3 8	7.9 200	27.6 700	23.6 600	32.3 820
VFTH0300GF	VFTH0300GF-16	300	1135	1347	610	11.3 288	51.2 1300	13.2 336	39.4 1000	2.5 65	75.7 1924	2.5 65	39.4 1000	0.3 8	7.9 200	27.6 700	23.6 600	42.1 1070
VFTH0350GF	VFTH0350GF-16	350	1324	1369	620	11.3 288	55.1 1400	13.2 336	39.4 1000	2.5 65	79.7 2024	2.5 65	39.4 1000	0.3 8	7.9 200	27.6 700	23.6 600	42.1 1070
VFTH0400GF	VFTH0400GF-16	400	1514	1435	650	11.3 288	65.0 1650	13.2 336	39.4 1000	2.5 65	89.5 2274	2.5 65	51.2 1300	0.3 8	5.9 150	27.6 700	23.6 600	53.5 1360
VFTH0450GF	VFTH0450GF-16	450	1703	1854	840	11.6 294	59.1 1500	13.2 336	43.3 1100	2.5 65	83.9 2130	2.5 65	45.3 1150	0.3 8	5.9 150	31.5 800	27.6 700	48.0 1220
VFTH0500GF	VFTH0500GF-16	500	1892	1998	905	11.6 294	70.9 1800	13.2 336	43.3 1100	2.5 65	95.7 2430	2.5 65	57.1 1450	0.3 8	5.9 150	31.5 800	27.6 700	59.8 1520
VFTH0600GF	VFTH0600GF-16	600	2271	2053	930	12.7 322	65.0 1650	14.2 361	47.2 1200	3 80	91.9 2333	3 80	53.5 1360	0.3 8	5.9 150	35.4 900	31.5 800	56.7 1440
VFTH0700GF	VFTH0700GF-16	700	2649	2274	1030	13.8 351	65.0 1650	15.2 386	51.2 1300	3 80	94.0 2387	3 80	58.3 1480	0.3 8	5.9 150	35.4 900	31.5 800	56.7 1440
VFTH0800GF	VFTH0800GF-16	800	3028	2472	1120	13.8 351	78.7 2000	15.2 386	51.2 1300	3 80	107.8 2737	3 80	63.0 1600	0.3 8	5.9 150	35.4 900	31.5 800	66.1 1680
VFTH0900GF	VFTH0900GF-16	900	3406	3201	1450	15.3 389	78.7 2000	16.3 413	55.1 1400	3 80	110.3 2801	3 80	63.0 1600	0.3 8	5.9 150	39.4 1000	33.5 850	66.1 1680
VFTH1000GF	VFTH1000GF-16	1000	3785	3091	1400	15.8 402	74.8 1900	16.8 426	57.1 1450	3 80	107.4 2728	3 80	63.0 1600	0.4 10	5.9 150	39.4 1000	33.5 850	62.2 1580
VFTH1100GF	VFTH1100GF-16	1100	4163	3245	1470	15.8 402	82.7 2100	16.8 426	57.1 1450	3 80	115.3 2928	3 80	63.0 1600	0.4 10	5.9 150	39.4 1000	33.5 850	66.1 1680
VFTH1200GF	VFTH1200GF-16	1200	4542	3642	1650	16.5 418	82.7 2100	17.3 439	59.1 1500	3 80	116.4 2957	3 80	66.9 1700	0.4 10	5.9 150	39.4 1000	33.5 850	70.1 1780
VFTH1300GF	VFTH1300GF-16	1300	4921	3797	1720	17.5 445	78.7 2000	18.3 465	63.0 1600	3 80	114.6 2910	3 80	63.0 1600	0.4 10	5.9 150	43.3 1100	37.4 950	68.1 1730
VFTH1400GF	VFTH1400GF-16	1400	5299	4029	1825	17.5 445	88.6 2250	18.3 465	63.0 1600	3 80	124.4 3160	3 80	70.9 1800	0.4 10	5.9 150	43.3 1100	37.4 950	76.0 1930
VFTH1500GF	VFTH1500GF-16	1500	5678	4415	2000	19.6 498	74.8 1900	20.6 522	68.9 1750	3 80	115.0 2920	3 80	61.0 1550	0.4 10	5.9 150	47.2 1200	41.3 1050	63.4 1610
VFTH1600GF	VFTH1600GF-16	1600	6056	4636	2100	19.6 498	78.7 2000	20.6 522	68.9 1750	3 80	118.9 3020	3 80	61.0 1550	0.4 10	5.9 150	47.2 1200	41.3 1050	65.4 1660
VFTH1700GF	VFTH1700GF-16	1700	6435	4857	2200	20.2 513	78.7 2000	21.1 535	70.9 1800	3 80	120.0 3047	3 80	61.0 1550	0.4 10	5.9 150	47.2 1200	41.3 1050	66.1 1680
VFTH1800GF	VFTH1800GF-16	1800	6813	5199	2355	22.3 566	59.1 1500	23.1 586	78.7 2000	3 80	104.4 2652	3 80	47.2 1200	0.4 10	5.9 150	59.1 1500	53.1 1350	49.2 1250
VFTH1900GF	VFTH1900GF-16	1900	7192	5331	2415	22.3 566	63.0 1600	23.1 586	78.7 2000	3 80	108.3 2752	3 80	52.4 1330	0.4 10	5.9 150	59.1 1500	53.1 1350	49.2 1250
VFTH2000GF	VFTH2000GF-16	2000	7570	5530	2505	22.3 566	68.9 1750	23.1 586	78.7 2000	3 80	114.3 2902	3 80	52.4 1330	0.4 10	5.9 150	59.1 1500	53.1 1350	55.1 1400
VFTH2200GF	VFTH2200GF-16	2200	8327	5982	2710	22.3 566	82.7 2100	23.1 586	78.7 2000	3 80	128.0 3252	3 80	63.0 1600	0.4 10	5.9 150	59.1 1500	53.1 1350	68.9 1750
VFTH2400GF	VFTH2400GF-16	2400	9084	6159	2790	22.3 566	88.6 2250	23.1 586	78.7 2000	3 80	133.9 3402	3 80	68.9 1750	0.4 10	5.9 150	59.1 1500	53.1 1350	74.8 1900
VFTH2600GF	VFTH2600GF-16	2600	9842	6623	3000	22.3 566	102.4 2600	23.1 586	78.7 2000	3 80	147.7 3752	3 80	82.7 2100	0.4 10	5.9 150	59.1 1500	53.1 1350	88.6 2250
VFTH2800GF	VFTH2800GF-16	2800	10599	7064	3200	22.3 566	114.2 2900	23.1 586	78.7 2000	3 80	159.5 4052	3 80	94.5 2400	0.4 10	5.9 150	59.1 1500	53.1 1350	100.4 2550
VFTH3000GF	VFTH3000GF-16	3000	11356	7329	3320	22.3 566	122.0 3100	23.1 586	78.7 2000	3 80	167.4 4252	3 80	102.4 2600	0.4 10	5.9 150	59.1 1500	53.1 1350	108.3 2750
VFTH3200GF	VFTH3200GF-16	3200	12113	7704	3490	22.3 566	133.9 3400	23.1 586	78.7 2000	3 80	179.2 4552	3 80	114.2 2900	0.4 10	5.9 150	59.1 1500	53.1 1350	120.1 3050
VFTH3400GF	VFTH3400GF-16	3400	12870	7969	3610	22.3 566	141.7 3600	23.1 586	78.7 2000	3 80	187.1 4752	3 80	126.0 3200	0.4 10	5.9 150	59.1 1500	53.1 1350	131.9 3350



TECHNICAL DATA

VERTICAL AND HORIZONTAL BLADDER TANKS MODEL VFT EN13445 & ASME Sec. VIII Div. 1

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Table 6.3.7 - Horizontal Bladder Tank Dimensions (EN13445 Design Code) (cont.)

Bladder Tank Part Number EN13445 Design Code		Capacity		Weight		A	B	C	ØD	ØG	H	ØL	M	N	O	P	Q	R
175PSI / 12.1bar	232PSI / 16.0bar	USG	Litres	LBS	KG	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm
VFTH3600GF	VFTH3600GF-16	3600	13627	8300	3760	22.3 566	151.6 3850	23.1 586	78.7 2000	3 80	196.9 5002	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	145.7 3700
VFTH3800GF	VFTH3800GF-16	3800	14384	8576	3885	22.3 566	159.4 4050	23.1 586	78.7 2000	3 80	204.8 5202	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	145.7 3700
VFTH4000GF	VFTH4000GF-16	4000	15141	9040	4095	22.3 566	173.2 4400	23.1 586	78.7 2000	3 80	218.6 5552	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	145.7 3700
VFTH4250GF	VFTH4250GF-16	4250	16088	9437	4275	22.3 566	185.0 4700	23.1 586	78.7 2000	3 80	230.4 5852	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	145.7 3700
VFTH4500GF	VFTH4500GF-16	4500	17034	9834	4455	22.3 566	196.9 5000	23.1 586	78.7 2000	3 80	242.2 6152	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	151.6 3850
VFTH4750GF	VFTH4750GF-16	4750	17980	10298	4665	22.3 566	210.6 5350	23.1 586	78.7 2000	3 80	256.0 6502	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	151.6 3850
VFTH5000GF	VFTH5000GF-16	5000	18927	10695	4845	22.3 566	222.4 5650	23.1 586	78.7 2000	3 80	267.8 6802	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	159.4 4050
VFTH5250GF	VFTH5250GF-16	5250	19873	11159	5055	22.3 566	236.2 6000	23.1 586	78.7 2000	3 80	281.6 7152	3 80	139.8 3550	0.4 10	5.9 150	59.1 1500	53.1 1350	159.4 4050

Table 6.3.8 - Horizontal Bladder Tank Dimensions (ASME Sec VIII Design Code)

Bladder Tank : ASME Sec VIII Design Code		Capacity		Weight		A	B	C	ØD	ØG	H	ØL	M	N	O	P	Q	R
175PSI / 12.1bar	232PSI / 16.0bar	USG	Litres	LBS	KG	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm
VFTH0050GAF	VFTH0050GAF-16	50	189	574	260	8.0 203	39.4 1000	8.0 203	19.7 500	2 50	55.4 1406	2 50	32.3 820	0.3 8	7.9 200	16.7 425	13.8 350	32.3 820
VFTH0075GAF	VFTH0075GAF-16	75	283	640	290	9.0 228	39.4 1000	9.0 228	23.6 600	2 50	57.3 1456	2 50	32.3 820	0.3 8	7.9 200	19.7 500	16.9 430	32.3 820
VFTH0100GAF	VFTH0100GAF-16	100	378	684	310	9.0 228	49.2 1250	9.0 228	23.6 600	2 50	67.2 1706	2 50	42.1 1070	0.3 8	7.9 200	19.7 500	16.9 430	40.2 1020
VFTH0150GAF	VFTH0150GAF-16	150	567	828	375	10.3 262	39.4 1000	10.8 274	31.5 800	2 50	60.5 1536	2 50	51.0 1295	0.3 8	7.9 200	19.7 500	15.7 400	32.3 820
VFTH0200GAF	VFTH0200GAF-16	200	757	883	400	10.3 262	51.2 1300	10.8 274	31.5 800	2 50	72.3 1836	2 50	62.8 1595	0.3 8	7.9 200	19.7 500	15.7 400	42.1 1070
VFTH0250GAF	VFTH0250GAF-16	250	946	1258	570	11.3 288	39.4 1000	13.2 336	39.4 1000	2.5 65	63.9 1624	2.5 65	51.0 1295	0.3 8	7.9 200	27.6 700	23.6 600	32.3 820
VFTH0300GAF	VFTH0300GAF-16	300	1135	1391	630	11.3 288	51.2 1300	13.2 336	39.4 1000	2.5 65	75.7 1924	2.5 65	39.4 1000	0.3 8	7.9 200	27.6 700	23.6 600	42.1 1070
VFTH0350GAF	VFTH0350GAF-16	350	1324	1453	650	11.3 288	55.1 1400	13.2 336	39.4 1000	2.5 65	79.7 2024	2.5 65	39.4 1000	0.3 8	7.9 200	27.6 700	23.6 600	42.1 1070
VFTH0400GAF	VFTH0400GAF-16	400	1514	1479	670	11.3 288	65.0 1650	13.2 336	39.4 1000	2.5 65	89.5 2274	2.5 65	51.2 1300	0.3 8	5.9 150	27.6 700	23.6 600	53.5 1360
VFTH0450GAF	VFTH0450GAF-16	450	1703	2137	968	11.6 294	59.1 1500	13.2 336	43.3 1100	2.5 65	83.9 2130	2.5 65	45.3 1150	0.3 8	5.9 150	31.5 800	27.6 700	48.0 1220
VFTH0500GAF	VFTH0500GAF-16	500	1892	2318	1050	11.6 294	70.9 1800	13.2 336	43.3 1100	2.5 65	95.7 2430	2.5 65	57.1 1450	0.3 8	5.9 150	31.5 800	27.6 700	59.8 1520
VFTH0600GAF	VFTH0600GAFF-16	600	2271	2377	1077	12.7 322	65.0 1650	14.2 361	47.2 1200	3 80	91.9 2333	3 80	53.5 1360	0.3 8	5.9 150	35.4 900	31.5 800	56.7 1440
VFTH0700GAF	VFTH0700GAF-16	700	2649	2651	1201	13.8 351	65.0 1650	15.2 386	51.2 1300	3 80	94.0 2387	3 80	58.3 1480	0.3 8	5.9 150	35.4 900	31.5 800	56.7 1440
VFTH0800GAF	VFTH0800GAF-16	800	3028	2898	1313	13.8 351	78.7 2000	15.2 386	51.2 1300	3 80	107.8 2737	3 80	63.0 1600	0.3 8	5.9 150	35.4 900	31.5 800	66.1 1680
VFTH0900GAF	VFTH0900GAF-16	900	3406	3680	1667	15.3 389	78.7 2000	16.3 413	55.1 1400	3 80	110.3 2801	3 80	63.0 1600	0.3 8	5.9 150	39.4 1000	33.5 850	66.1 1680
VFTH1000GAF	VFTH1000GAF-16	1000	3785	3592	1627	15.8 402	74.8 1900	16.8 426	57.1 1450	3 80	107.4 2728	3 80	63.0 1600	0.4 10	5.9 150	39.4 1000	33.5 850	62.2 1580
VFTH1100GAF	VFTH1100GAF-16	1100	4163	3777	1711	15.8 402	82.7 2100	16.8 426	57.1 1450	3 80	115.3 2928	3 80	63.0 1600	0.4 10	5.9 150	39.4 1000	33.5 850	66.1 1680
VFTH1200GAF	VFTH1200GAF-16	1200	4542	4159	1884	16.5 418	82.7 2100	17.3 439	59.1 1500	3 80	116.4 2957	3 80	66.9 1700	0.4 10	5.9 150	39.4 1000	33.5 850	70.1 1780
VFTH1300GAF	VFTH1300GAF-16	1300	4921	4355	1973	17.5 445	78.7 2000	18.3 465	63.0 1600	3 80	114.6 2910	3 80	63.0 1600	0.4 10	5.9 150	43.3 1100	37.4 950	68.1 1730
VFTH1400GAF	VFTH1400GAF-16	1400	5299	4629	2097	17.5 445	88.6 2250	18.3 465	63.0 1600	3 80	124.4 3160	3 80	70.9 1800	0.4 10	5.9 150	43.3 1100	37.4 950	76.0 1930
VFTH1500GAF	VFTH1500GAF-16	1500	5678	4525	2050	19.6 498	74.8 1900	20.6 522	68.9 1750	3 80	115.0 2920	3 80	61.0 1550	0.4 10	5.9 150	47.2 1200	41.3 1050	63.4 1610



TECHNICAL DATA

VERTICAL AND HORIZONTAL BLADDER TANKS MODEL VFT EN13445 & ASME Sec. VIII Div. 1

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Table 6.3.8 - Horizontal Bladder Tank Dimensions (ASME Sec VIII Design Code) (cont.)

Bladder Tank : ASME Sec VIII Design Code		Capacity		Weight		A	B	C	ØD	ØG	H	ØL	M	N	O	P	Q	R
175PSI / 12.1bar	232PSI / 16.0bar	USG	Litres	LBS	KG	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm	inch mm
VFTH1600GAF	VFTH1600GAF-16	1600	6056	4746	2150	19.6	78.7	20.6	68.9	3	118.9	3	61.0	0.4	5.9	47.2	41.3	66.1
						498	2000	522	1750	80	3020	80	1550	10	150	1200	1050	1660
VFTH1700GAF	VFTH1700GAF-16	1700	6435	4967	2250	20.2	78.7	21.1	70.9	3	120.0	3	61.0	0.4	5.9	47.2	41.3	66.1
						513	2000	535	1800	80	3047	80	1550	10	150	1200	1050	1680
VFTH1800GAF	VFTH1800GAF-16	1800	6813	5700	2582	22.3	59.1	23.1	78.7	3	104.4	3	47.2	0.4	5.9	59.1	53.1	49.2
						566	1500	586	2000	80	2652	80	1200	10	150	1500	1350	1250
VFTH1900GAF	VFTH1900GAF-16	1900	7192	5854	2652	22.3	63.0	23.1	78.7	3	108.3	3	52.4	0.4	5.9	59.1	53.1	49.2
						566	1600	586	2000	80	2752	80	1330	10	150	1500	1350	1250
VFTH2000GAF	VFTH2000GAF-16	2000	7570	6086	2757	22.3	68.9	23.1	78.7	3	114.3	3	52.4	0.4	5.9	59.1	53.1	55.1
						566	1750	586	2000	80	2902	80	1330	10	150	1500	1350	1400
VFTH2200GAF	VFTH2200GAF-16	2200	8327	6581	2981	22.3	82.7	23.1	78.7	3	128.0	3	63.0	0.4	5.9	59.1	53.1	68.9
						566	2100	586	2000	80	3252	80	1600	10	150	1500	1350	1750
VFTH2400GAF	VFTH2400GAF-16	2400	9084	6823	3091	22.3	88.6	23.1	78.7	3	133.9	3	68.9	0.4	5.9	59.1	53.1	74.8
						566	2250	586	2000	80	3402	80	1750	10	150	1500	1350	1900
VFTH2600GAF	VFTH2600GAF-16	2600	9842	7362	3335	22.3	102.4	23.1	78.7	3	147.7	3	82.7	0.4	5.9	59.1	53.1	88.6
						566	2600	586	2000	80	3752	80	2100	10	150	1500	1350	2250
VFTH2800GAF	VFTH2800GAF-16	2800	10599	7870	3565	22.3	114.2	23.1	78.7	3	159.5	3	94.5	0.4	5.9	59.1	53.1	100.4
						566	2900	586	2000	80	4052	80	2400	10	150	1500	1350	2550
VFTH3000GAF	VFTH3000GAF-16	3000	11356	8177	3704	22.3	122.0	23.1	78.7	3	167.4	3	102.4	0.4	5.9	59.1	53.1	108.3
						566	3100	586	2000	80	4252	80	2600	10	150	1500	1350	2750
VFTH3200GAF	VFTH3200GAF-16	3200	12113	8618	3904	22.3	133.9	23.1	78.7	3	179.2	3	114.2	0.4	5.9	59.1	53.1	120.1
						566	3400	586	2000	80	4552	80	2900	10	150	1500	1350	3050
VFTH3400GAF	VFTH3400GAF-16	3400	12870	8925	4043	22.3	141.7	23.1	78.7	3	187.1	3	126.0	0.4	5.9	59.1	53.1	131.9
						566	3600	586	2000	80	4752	80	3200	10	150	1500	1350	3350
VFTH3600GAF	VFTH3600GAF-16	3600	13627	9311	4218	22.3	151.6	23.1	78.7	3	196.9	3	139.8	0.4	5.9	59.1	53.1	145.7
						566	3850	586	2000	80	5002	80	3550	10	150	1500	1350	3700
VFTH3800GAF	VFTH3800GAF-16	3800	14384	9631	4363	22.3	159.4	23.1	78.7	3	204.8	3	139.8	0.4	5.9	59.1	53.1	145.7
						566	4050	586	2000	80	5202	80	3550	10	150	1500	1350	3700
VFTH4000GAF	VFTH4000GAF-16	4000	15141	10170	4607	22.3	173.2	23.1	78.7	3	218.6	3	139.8	0.4	5.9	59.1	53.1	145.7
						566	4400	586	2000	80	5552	80	3550	10	150	1500	1350	3700
VFTH4250GAF	VFTH4250GAF-16	4250	16088	10631	4816	22.3	185.0	23.1	78.7	3	230.4	3	139.8	0.4	5.9	59.1	53.1	145.7
						566	4700	586	2000	80	5852	80	3550	10	150	1500	1350	3700
VFTH4500GAF	VFTH4500GAF-16	4500	17034	11095	5026	22.3	196.9	23.1	78.7	3	242.2	3	139.8	0.4	5.9	59.1	53.1	151.6
						566	5000	586	2000	80	6152	80	3550	10	150	1500	1350	3850
VFTH4750GAF	VFTH4750GAF-16	4750	17980	11634	5270	22.3	210.6	23.1	78.7	3	256.0	3	139.8	0.4	5.9	59.1	53.1	151.6
						566	5350	586	2000	80	6502	80	3550	10	150	1500	1350	3850
VFTH5000GAF	VFTH5000GAF-16	5000	18927	12097	5480	22.3	222.4	23.1	78.7	3	267.8	3	139.8	0.4	5.9	59.1	53.1	159.4
						566	5650	586	2000	80	6802	80	3550	10	150	1500	1350	4050
VFTH5250GAF	VFTH5250GAF-16	5250	19873	12636	5724	22.3	236.2	23.1	78.7	3	281.6	3	139.8	0.4	5.9	59.1	53.1	159.4
						566	6000	586	2000	80	7152	80	3550	10	150	1500	1350	4050

7. INSTALLATION

Refer to appropriate Installation Standards (i.e. NFPA, VdS, LPCB, etc.) and / or FM applicable FM Global Property Loss Prevention Data Sheets such as 4-12, Foam-Water Sprinkler Systems.
 The Installation, Operation and Maintenance Bladder Tank Manual shall also be referenced.

NOTICE

When designing a bladder tank into your fire protection system, please give consideration to future maintenance activities. Ensure that adequate clearance above a vertical bladder tank or at the inspection flange end of a horizontal tank is allowed. For further guidance contact us.



TECHNICAL DATA

**VERTICAL AND HORIZONTAL
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EN13445 & ASME Sec. VIII Div. 1**

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8. OPERATION

1. Foam concentrate is stored inside the bladder. When used in conjunction with a Ratio Controller it proportions foam concentrate accurately into the water stream.
2. During system activation, the outer side of the bladder is pressurized by the system water supply which forces foam concentrate to the ratio controller.
3. Simultaneously, as water flows through the venturi area of the ratio controller, a metered pressure drop draws foam concentrate into the system water stream creating a foam solution mixed to the appropriate ratios.
4. The foam solution flows through the system pipework and out of any open sprinklers, nozzles or other discharge devices.
5. As the foam concentrate continues to flow from the inside of the bladder, system water enters the bladder tank on the outside of the bladder keeping a balanced pressure system.

9. GUARANTEE

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

10. INSPECTION, TESTS AND MAINTENANCE

⚠ WARNING

Any system maintenance or testing that involves placing a control valve or detection system out of service may eliminate the fire protection capabilities of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected area.

Refer to respective requirements, according to the relevant standards for Inspection, Testing and Maintenance.

If applicable, refer to FM Global Property Loss Prevention Datasheet 4-12 for specific test and commissioning criteria.

In addition, the "Authority Having Jurisdiction" (AHJ) may have additional maintenance, testing and inspection requirements that must be followed.

11. DISPOSAL



At end of use the product described here should be disposed of via the national recycling system.

Upon request the manufacturer can take back and properly dispose of the electrical equipment and electronic devices.

12. ACCESSORIES AND SPARE PARTS

Table 12.1.1 - Optional / Standard Spare Parts

Description	Material	Connection	Part Number	
			12 Bar Tanks	16 Bar Tanks
Standard Safety Valve	Brass	1/2"	B10C12.1	B10C16
Hydrometer Level Gauge	Stainless Steel 316	1/2"	HYDROMETER	
Filling Device with KPA Gauge	Carbon Steel	1"	FILLDEVICE	
Replacement Bladder	Hypalon-Neoprene	Contact us with tank serial number.		
Sight tube replacement kit	Various	Contact us with tank serial number		

Table 12.1.2 - Bladder Tank Manual

Language	Part Number	Language	Part Number
English	F032216-EN	Dutch	F032216-NL
German	F032216-DE	Polish	F032216-PL
Spanish	F032216-ES	Swedish	F032216-SV
French	F032216-FR	Turkish	F032216-TR
Italian	F032216-IT	--	--

13. DECLARATION OF CONFORMITY

If required

Contact the appropriate sales office in **Section 5 Availability** for further assistance.