

Vertical & Horizontal Bladder Tank

Foam Storage Devices | Model MXC | EN13445 & ASME Sec. VIII Div. 1

1 General description

The bladder tank together with ratio controllers, form a balanced pressure proportioning system used to mix water and firefighting foam concentrate together to produce an effective extinguishing medium. The bladder tank technology is a dependable and precise mixing method that is widespread in the fixed fire protection market.

This method gives a stable water/foam ratio by adjusting automatically to the variable flow rate and pressure conditions that occur during system operation. This feature makes bladder tanks particularly suitable to fit multiple hazard systems, sprinkler systems and any other systems operating under variable, non-predictable flow and pressure conditions.

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 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.

Technical data can be found on the Fomtec website at <http://www.fomtec.com>. The website may include a more recent edition of this technical data sheet.

For further information, please contact Fomtec 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 KFP ratio controllers, Model KBP ILBP's and discharge devices. Approved and listed system components can be found at www.approvalguide.com and www.database.UL.com.

- FM Approved – Low Expansion Foam Systems (FM5130)
- UL Listed – Guide GHXV.EX26572 (UL162)
- Manufactured according to ASME Sec. VIII Div.1 or EN13445
- CE marked according to the PED Directive 2014/68/EU (Europe Only)
- Fire Safety Certified for Russian Federation territory CTP (formally GOST)
- ASME U-1A ("U" Stamp) certification process available on request with additional charge. See data page TD2.3.1.3 for ordering information.

NOTICE

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 175 PSI (12.1 bar) or 232 PSI (16.0 bar)
- 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

Tank shell and heads:	ASTM A516 Gr. 70 or P275NH to EN10028-3 or P355NH to EN10028-3
Bladder:	Polyester reinforced hypalon-neoprene polymers
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

Table 3.2.1 - Standard materials

3.3 Standard design specifications

Design pressure:	175 PSI / 12.1 bar (1.2MPa) or 232 PSI / 16.0 bar (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.	

Table 3.3.1 - Standard design specifications

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3.4 Ordering information

The following information is provided to ensure that the correct design requirements are provided to Fomtec 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 model KFP ratio controller.

	Ref	Criteria	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) 175 PSI / 12.1 bar (1.2MPa) b) 232 PSI / 16.0 bar (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%Ultra LT C6 b) AFFF 3%S C6 c) ARC 3X3S C6 d) FP 3% C6 e) AFFF 3%M C6 f) Enviro 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 TD2.3.1.3.			

Table 3.4.1 - Ordering information

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 Fomtec for further assistance.

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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.

Standard documentation	Optional documentation *
Warranty certificate	Dimensional drawings
PED Declaration of 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 Fomtec for further information and price.	

Table 4.1.1 - Documentation

5 Availability

Please contact Fomtec for further information.

The product is available directly from Fomtec and official distributors only.

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
- 233 PSI /16.1 bar (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 Fomtec for further details, pricing and availability

INFORMATION

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

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6.2 General bladder tank layout and P&ID

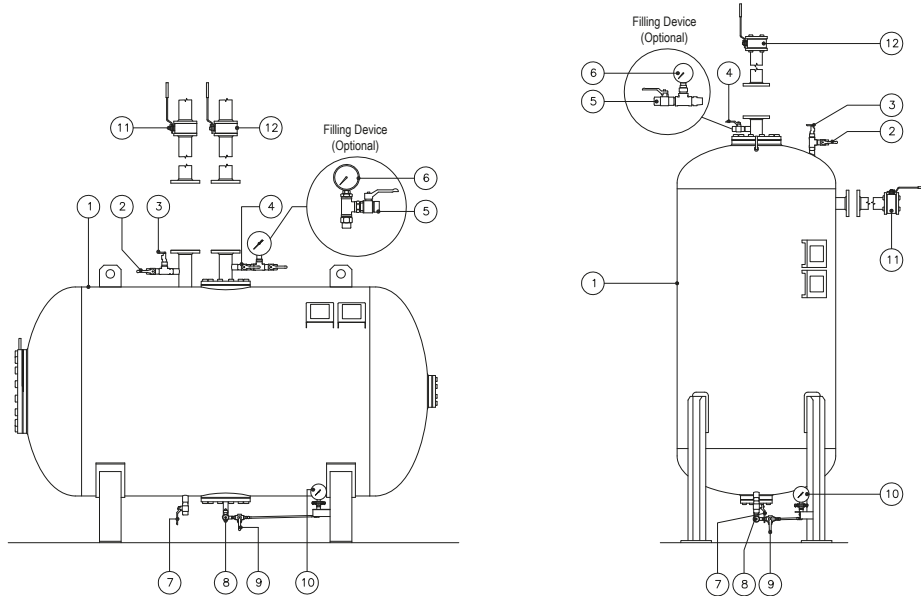


Figure 6.2.1 - Vertical and horizontal bladder tanks

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 Level Gauge. Sight Tube also available and connected at position 10.

Table 6.2.2 - General bladder tank layout & P&ID

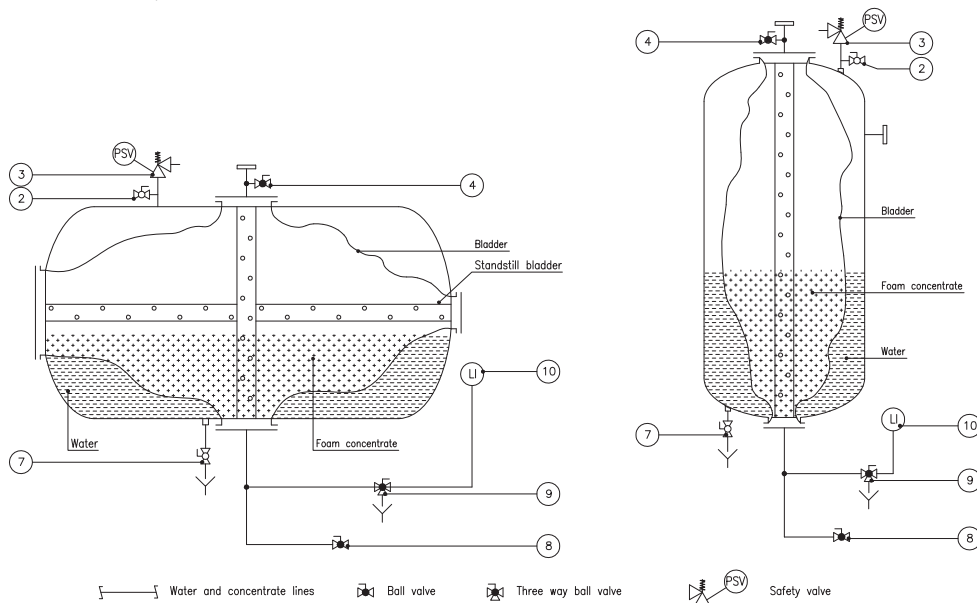


Figure 6.2.3 - P&ID

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6.3 Dimensions

Figure 6.3.1 - Vertical bladder tank:
25 to 200 US gallons

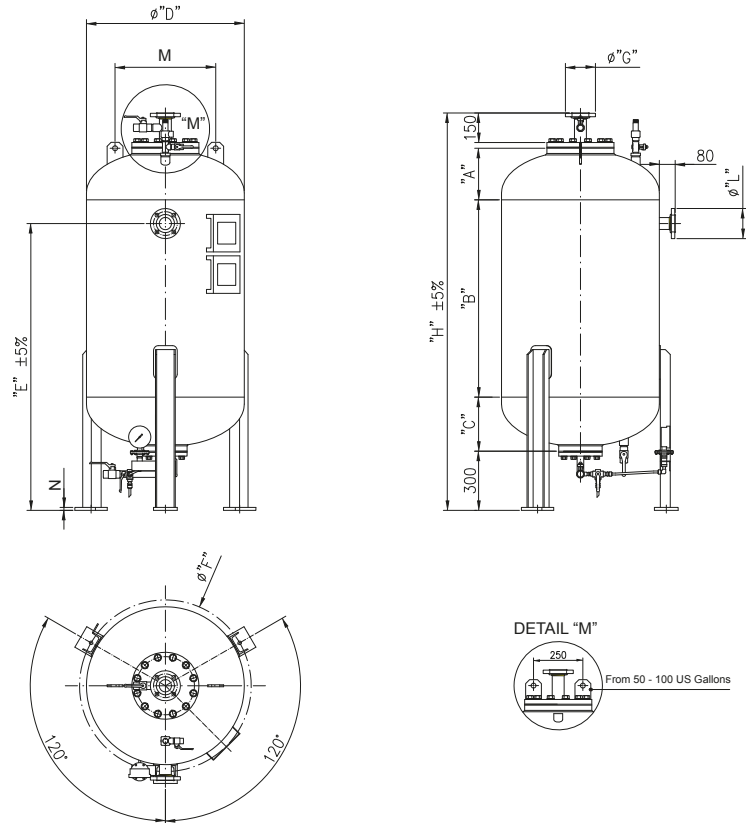
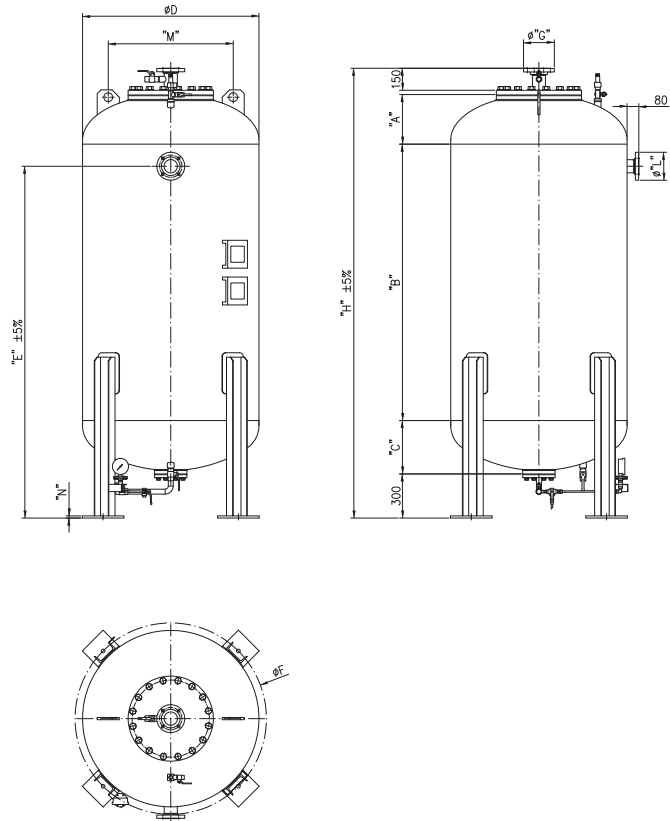


Figure 6.3.2 - Vertical bladder tank:
250 to 4,000 US gallons



Vertical & Horizontal Bladder Tank

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Part Number EN13445 Design Code		Capacity		Weight		A	B	C	ØD	E	ØF	ØG	H	ØL	M	N
175 PSI / 12.1 bar	232 PSI / 16.0 bar	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
MXCV0025GF	MXCV0025GF-16	25	94	199	90	6.4	15.7	7.0	19.7	30.2	22.4	2	48.1	2	9.8	0.6
MXCV0036GF	MXCV0036GF-16	36	136	287	130	6.4	23.6	7.0	19.7	38.1	22.4	2	55.9	2	9.8	0.6
MXCV0050GF	MXCV0050GF-16	50	189	375	170	7.4	27.6	8.0	23.6	44.5	26.4	2	61.8	2	9.8	0.6
MXCV0075GF	MXCV0075GF-16	75	283	408	185	7.4	35.4	8.0	23.6	44.5	26.4	2	69.7	2	9.8	0.6
MXCV0100GF	MXCV0100GF-16	100	378	475	215	7.4	49.2	8.0	23.6	64.6	26.4	2	83.4	2	9.8	0.6
MXCV0150GF	MXCV0150GF-16	150	567	784	355	10.3	39.4	10.8	31.5	57.1	34.3	2	79.4	2	20.1	0.6
MXCV0200GF	MXCV0200GF-16	200	757	861	390	10.3	51.2	10.8	31.5	57.1	34.3	2	91.2	2	20.1	0.6
MXCV0250GF	MXCV0250GF-16	250	946	905	410	12.9	39.4	13.2	39.4	59.7	42.6	2.5	84.3	2.5	24.0	0.6
MXCV0300GF	MXCV0300GF-16	300	1,135	1,033	468	12.9	51.2	13.2	39.4	71.5	42.6	2.5	96.1	2.5	24.0	0.6
MXCV0350GF	MXCV0350GF-16	350	1,324	1,077	488	12.9	55.1	13.2	39.4	75.4	42.6	2.5	100.1	2.5	24.0	0.6
MXCV0400GF	MXCV0400GF-16	400	1,514	1,115	505	12.9	65.0	13.2	39.4	85.3	42.6	2.5	109.9	2.5	24.0	0.6
MXCV0450GF	MXCV0450GF-16	450	1,703	1,435	650	13.0	59.1	13.3	43.3	79.4	46.5	2.5	104.1	2.5	24.0	0.6
MXCV0500GF	MXCV0500GF-16	500	1,892	1,578	715	13.0	70.9	13.3	43.3	91.2	46.5	2.5	115.9	2.5	24.0	0.6
MXCV0600GF	MXCV0600GF-16	600	2,271	1,943	880	13.0	65.0	14.5	47.2	84.6	51.2	3	110.5	3	33.5	0.6
MXCV0700GF	MXCV0700GF-16	700	2,649	2,141	970	14.1	65.0	15.5	51.2	86.4	55.3	3	113.4	3	33.5	0.6
MXCV0800GF	MXCV0800GF-16	800	3,028	2,274	1,030	14.1	78.7	15.5	51.2	100.2	55.3	3	127.2	3	33.5	0.6
MXCV0900GF	MXCV0900GF-16	900	3,406	2,947	1,335	15.3	78.7	16.5	55.1	100.0	59.3	3	129.4	3	36.6	0.6
MXCV1000GF	MXCV1000GF-16	1,000	3,785	2,837	1,285	15.8	82.7	17.1	57.1	104.5	61.2	3	134.4	3	36.6	0.6
MXCV1100GF	MXCV1100GF-16	1,100	4,163	2,991	1,355	16.4	82.7	17.6	59.1	105.0	63.2	3	135.5	3	37.4	0.6
MXCV1200GF	MXCV1200GF-16	1,200	4,542	3,223	1,460	17.4	88.6	18.5	63.0	111.9	67.1	3	143.4	3	41.3	0.6
MXCV1300GF	MXCV1300GF-16	1,300	4,921	3,709	1,680	17.4	88.6	18.5	63.0	111.9	67.1	3	143.4	3	41.3	0.6
MXCV1400GF	MXCV1400GF-16	1,400	5,299	3,929	1,780	19.6	74.8	20.6	68.9	100.1	73.2	3	133.8	3	45.3	0.6
MXCV1500GF	MXCV1500GF-16	1,500	5,678	4,437	2,010	19.6	74.8	20.6	68.9	104.0	73.2	3	137.7	3	45.3	0.6
MXCV1600GF	MXCV1600GF-16	1,600	6,056	4,547	2,060	20.5	78.7	21.5	70.9	103.4	75.2	3	139.6	3	45.3	0.6
MXCV1700GF	MXCV1700GF-16	1,700	6,435	4,614	2,090	22.6	59.1	23.5	78.7	88.5	83.5	3	121.3	3	51.2	0.8
MXCV1800GF	MXCV1800GF-16	1,800	6,813	4,669	2,115	22.6	63.0	23.5	78.7	92.4	83.5	3	125.3	3	51.2	0.8
MXCV1900GF	MXCV1900GF-16	1,900	7,192	4,801	2,175	22.6	68.9	23.5	78.7	98.3	83.5	3	131.2	3	51.2	0.8
MXCV2000GF	MXCV2000GF-16	2,000	7,570	4,989	2,260	22.6	82.7	23.5	78.7	112.1	83.5	3	145.0	3	51.2	0.8
MXCV2200GF	MXCV2200GF-16	2,200	8,327	5,651	2,560	22.6	88.6	23.5	78.7	119.2	83.5	3	150.9	3	51.2	0.8
MXCV2400GF	MXCV2400GF-16	2,400	9,084	5,850	2,650	22.6	102.4	23.5	78.7	131.8	83.5	3	164.6	3	51.2	0.8
MXCV2600GF	MXCV2600GF-16	2,600	9,842	6,038	2,735	22.6	114.2	23.5	78.7	143.6	83.5	3	176.5	3	51.2	0.8
MXCV2800GF	MXCV2800GF-16	2,800	10,599	6,623	3,000	22.6	122.0	23.5	78.7	151.5	83.5	3	184.3	3	51.2	0.8
MXCV3000GF	MXCV3000GF-16	3,000	11,356	6,876	3,115	22.6	133.9	23.5	78.7	163.3	83.5	3	196.1	3	51.2	0.8
MXCV3200GF	MXCV3200GF-16	3,200	12,113	7,351	3,330	22.6	145.7	23.5	78.7	175.1	83.5	3	208.0	3	51.2	0.8
MXCV3400GF	MXCV3400GF-16	3,400	12,870	7,726	3,500	22.6	151.6	23.5	78.7	181.0	83.5	3	213.9	3	51.2	0.8
MXCV3600GF	MXCV3600GF-16	3,600	13,627	7,925	3,590	22.6	165.4	23.5	78.7	194.8	83.5	3	227.6	3	51.2	0.8
MXCV3800GF	MXCV3800GF-16	3,800	14,384	8,366	3,790	22.6	173.2	23.5	78.7	202.7	83.5	3	235.5	3	51.2	0.8
MXCV4000GF	MXCV4000GF-16	4,000	15,141	8,609	3,900	22.6	187.0	23.5	78.7	214.6	83.5	3	243.4	3	51.2	0.8

Table 6.3.3 - Dimensions of vertical bladder tanks (EN13445 Design Code)

DOC ID: TD2.3.1.1/30112017/en | Rev 17.2

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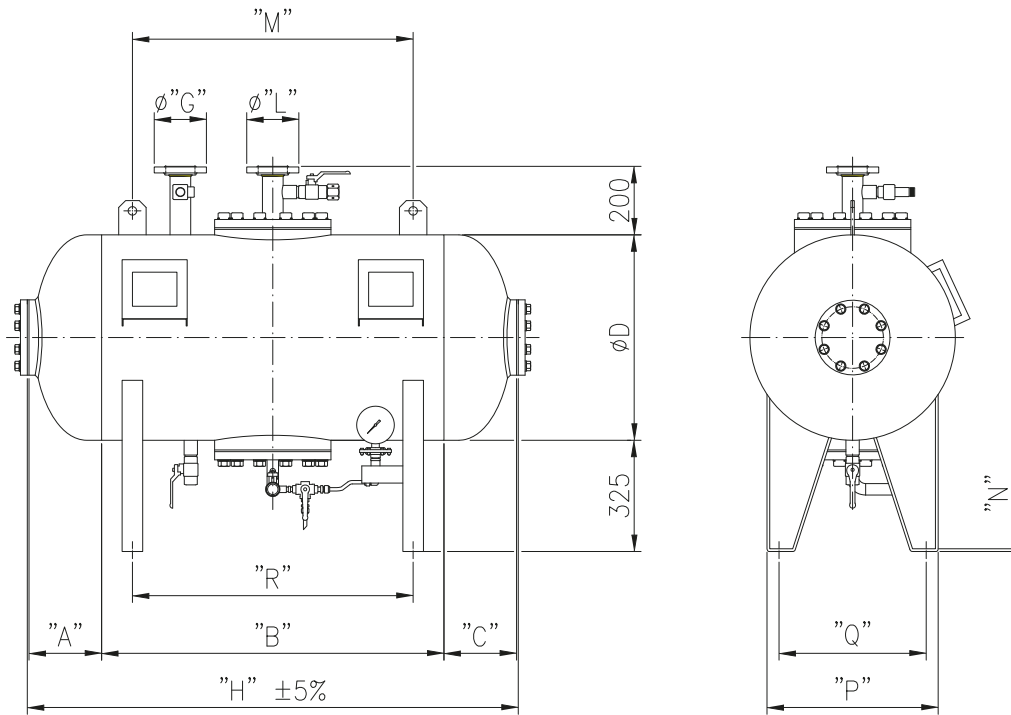


Figure 6.3.5 - Horizontal bladder tank: 50 to 100 US gallons

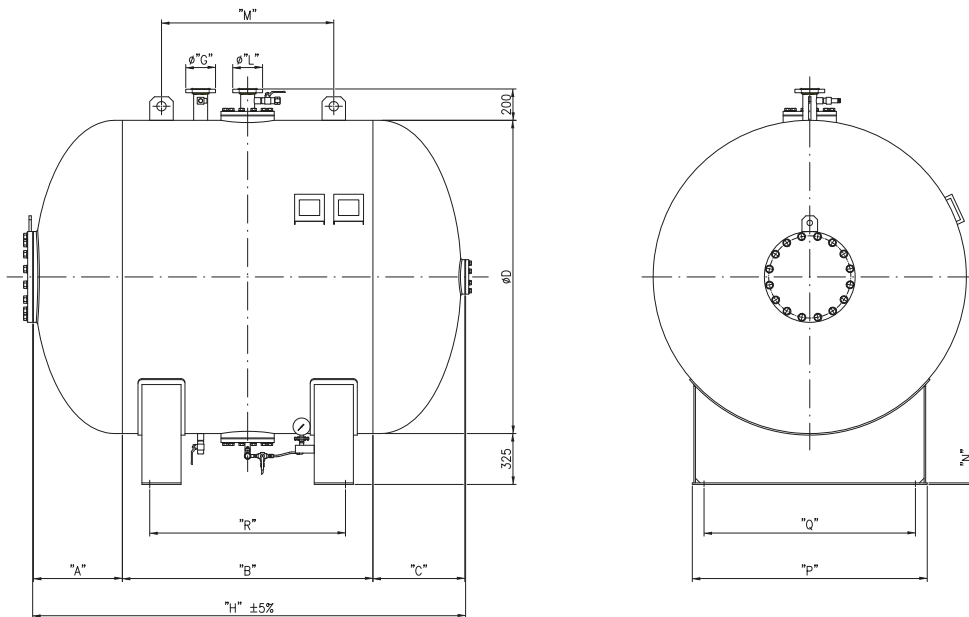


Figure 6.3.6 - Horizontal bladder tank: 150 to 5,250 US gallons

DOC ID: TD2.3.1.1/30112017/en | Rev 17.2

Vertical & Horizontal Bladder Tank

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Bladder Tank : ASME Sec VIII Design Code		Capacity		Weight		A	B	C	ØD	ØG	H	ØL	M	N	O	P	Q	R
175 PSI / 12.1 bar	232 PSI / 16.0 bar	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
MXCH1600GAF	MXCH1600GAF-16	1,600	6,056	4,646	2,150	19.6 498	78.7 2,000	20.6 522	68.9 1,750	3 80	118.9 3,020	3 80	61.0 1,550	0.4 10	5.9 150	47.2 1,200	41.3 1,050	66.1 1,680
MXCH1700GAF	MXCH1700GAF-16	1,700	6,435	4,967	2,250	20.2 513	78.7 2,000	21.1 535	70.9 1,800	3 80	120.0 3,047	3 80	61.0 1,550	0.4 10	5.9 150	47.2 1,200	41.3 1,050	66.1 1,680
MXCH1800GAF	MXCH1800GAF-16	1,800	6,813	5,700	2,582	22.3 566	59.1 1,500	23.1 586	78.7 2,000	3 80	104.4 2,652	3 80	52.4 1,330	0.4 10	5.9 150	59.1 1,500	53.1 1,350	49.2 1,250
MXCH1900GAF	MXCH1900GAF-16	1,900	7,192	5,854	2,652	22.3 566	63.0 1,600	23.1 586	78.7 2,000	3 80	108.3 2,752	3 80	52.4 1,330	0.4 10	5.9 150	59.1 1,500	53.1 1,350	49.2 1,250
MXCH2000GAF	MXCH2000GAF-16	2,000	7,570	6,086	2,757	22.3 566	68.9 1,750	23.1 586	78.7 2,000	3 80	114.3 2,902	3 80	52.4 1,330	0.4 10	5.9 150	59.1 1,500	53.1 1,350	55.1 1,400
MXCH2200GAF	MXCH2200GAF-16	2,200	8,327	6,581	2,981	22.3 566	82.7 2,100	23.1 586	78.7 2,000	3 80	128.0 3,252	3 80	63.0 1,600	0.4 10	5.9 150	59.1 1,500	53.1 1,350	68.9 1,750
MXCH2400GAF	MXCH2400GAF-16	2,400	9,084	6,823	3,091	22.3 566	88.6 2,250	23.1 586	78.7 2,000	3 80	133.9 3,402	3 80	68.9 1,750	0.4 10	5.9 150	59.1 1,500	53.1 1,350	74.8 1,900
MXCH2600GAF	MXCH2600GAF-16	2,600	9,842	7,362	3,335	22.3 566	102.4 2,600	23.1 586	78.7 2,000	3 80	147.7 3,752	3 80	82.7 2,100	0.4 10	5.9 150	59.1 1,500	53.1 1,350	88.6 2,250
MXCH2800GAF	MXCH2800GAF-16	2,800	10,599	7,870	3,565	22.3 566	114.2 2,900	23.1 586	78.7 2,000	3 80	159.5 4,052	3 80	94.5 2,400	0.4 10	5.9 150	59.1 1,500	53.1 1,350	100.4 2,550
MXCH3000GAF	MXCH3000GAF-16	3,000	11,356	8,177	3,704	22.3 566	122.0 3,100	23.1 586	78.7 2,000	3 80	167.4 4,252	3 80	102.4 2,600	0.4 10	5.9 150	59.1 1,500	53.1 1,350	108.3 2,750
MXCH3200GAF	MXCH3200GAF-16	3,200	12,113	8,618	3,904	22.3 566	133.9 3,400	23.1 586	78.7 2,000	3 80	179.2 4,552	3 80	114.2 2,900	0.4 10	5.9 150	59.1 1,500	53.1 1,350	120.1 3,050
MXCH3400GAF	MXCH3400GAF-16	3,400	12,870	8,925	4,043	22.3 566	141.7 3,600	23.1 586	78.7 2,000	3 80	187.1 4,752	3 80	126.0 3,200	0.4 10	5.9 150	59.1 1,500	53.1 1,350	131.9 3,350
MXCH3600GAF	MXCH3600GAF-16	3,600	13,627	9,311	4,218	22.3 566	151.6 3,850	23.1 586	78.7 2,000	3 80	196.9 5,002	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	145.7 3,700
MXCH3800GAF	MXCH3800GAF-16	3,800	14,384	9,631	4,636	22.3 566	159.4 4,050	23.1 586	78.7 2,000	3 80	204.8 5,202	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	145.7 3,700
MXCH4000GAF	MXCH4000GAF-16	4,000	15,141	10,170	4,607	22.3 566	173.2 4,400	23.1 586	78.7 2,000	3 80	218.6 5,552	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	159.4 4,050
MXCH4250GAF	MXCH4250GAF-16	4,250	16,088	10,631	4,816	22.3 566	185.0 4,700	23.1 586	78.7 2,000	3 80	230.4 5,852	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	159.4 4,050
MXCH4500GAF	MXCH4500GAF-16	4,500	17,034	11,095	5,026	22.3 566	196.9 5,000	23.1 586	78.7 2,000	3 80	242.2 6,152	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	159.4 4,050
MXCH4750GAF	MXCH4750GAF-16	4,750	17,980	11,634	5,270	22.3 566	210.6 5,350	23.1 586	78.7 2,000	3 80	256.0 6,502	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	159.4 4,050
MXCH5000GAF	MXCH5000GAF-16	5,000	18,927	12,097	5,480	22.3 566	222.4 5,650	23.1 586	78.7 2,000	3 80	267.8 6,802	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	159.4 4,050
MXCH5250GAF	MXCH5250GAF-16	5,250	19,873	12,636	5,724	22.3 566	236.2 6,000	23.1 586	78.7 2,000	3 80	281.6 7,152	3 80	139.8 3,550	0.4 10	5.9 150	59.1 1,500	53.1 1,350	159.4 4,050

Table 6.3.8 - Dimensions of horizontal bladder tanks (ASME Sec VIII Design Code) (continued)

Vertical & Horizontal Bladder Tank

Foam Storage Devices | Model MXC | EN13445 & ASME Sec. VIII Div. 1

7 Installation

Refer to appropriate installation standards (i.e. NFPA, VdS, LPCB, etc.) and / or applicable FM Global Property Loss Prevention Data Sheets such as 4-12, Foam-Water Sprinkler Systems.

The Fomtec 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 Fomtec.

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 Fomtec's current list price schedule or contact Fomtec directly.

10 Inspections, 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.

Vertical & Horizontal Bladder Tank

Foam Storage Devices | Model MXC | EN13445 & ASME Sec. VIII Div. 1

12 Accessories and spares

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	Carbon Steel	1"	FILLDEVICE	
Replacement Bladder	Hypalon-Neoprene	Contact us		

Table 12.1.1 - Optional / Standard spare parts

Language	Part number
English	TM2.3.1.1_en
German	TM2.3.1.1_de
Italian	TM2.3.1.1_it

Table 12.1.2 - Bladder tank manual

13 Declaration of conformity

If required. Contact Fomtec for further information.