



PRE-PIPED HORIZONTAL BLADDER TANKS

The Chemguard Pre-Piped Horizontal Bladder Tank is one component in a balanced pressure foam proportioning system. It requires no external power, other than the water pressure to ensure correct operation. The pre-piped horizontal bladder tanks are designed and constructed in accordance with the latest revisions to ASME code, Section VIII for unfired pressure vessels with a working pressure of 175 psi and tested to 1.3 times this pressure.

SPECIFICATIONS

The tank shell is constructed of SA 516 Grade 70 steel, complying with ASME specifications, possessing a tensile strength of not less than 70,000 psi. The circumferential, as well as the longitudinal body seam, are machine welded. The tank interior welds and edges are ground smooth.

The tank shell water inlet and tank shell water drain is screened to prevent bladder blow out or the entrapment of debris between the tank shell and the bladder.

The pre-piped horizontal tank assembly is supported on two saddles welded to the tank, and fitted with anchoring holes, allowing easy access to the bladder drain/fill valve and the tank shell drain/fill valve.

FEATURES

- UL Listed*.
- FM Approved*.
- Chemguard Bladder Tanks comply with the requirements of the Pressure Equipment Directive 97/23/EC.
- The bladder is manufactured of a vinyl based polymer. Bladder material shall have an ASTM D-412 Tensile Strength of at least 3000 psi and an ASTM D-624 Graves Tear Strength of at least 420 lbs./in.

* **Note:** Listings, Approvals and/or Certifications for Chemguard foam concentrate and/or equipment are valid only when used with other Chemguard foam concentrates or equipment in a manner as outlined in the applicable Listing, Approval and/or Certification.

- Tanks are supplied with foam concentrate discharge located at the top of the tank.
- Standard piping material for prepiped tanks:
Foam Concentrate Lines Brass/Bronze
Water Pressurization Lines Brass/Bronze
Vent/Drain Lines Brass/Bronze
Fire Water/Foam Solution Lines ... Carbon Steel
- All valves are labeled showing normal working position and function.
- Lifting lugs are permanently welded to the tank with eyes of approximately 2" diameter.
- Tanks contain a perforated PVC center tube that assures maximum agent discharge.
- All tanks are oversized to allow for any thermal expansion of the foam concentrate.
- All tanks are supplied with a label, which identifies the type of foam concentrate the system is designed for, the percentage ratio and the tank size.
- Tanks are painted red enamel.

OPTIONS

- Coal tar epoxy for coating the interior shell of the tank (for use in salt-water environment).
- Sight Glass.
- Red epoxy finish.
- Custom fabrication of specialty materials, dimensions, and capacities.
- Actuated valves for water/concentrate.
- Stainless steel or carbon steel for prepiped tanks.
- Insulation and heat tracing packages.
- Seismic designed tanks available.

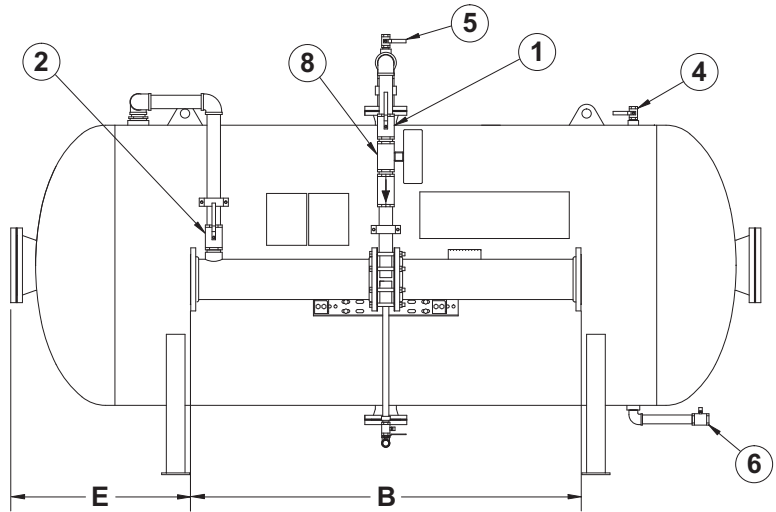
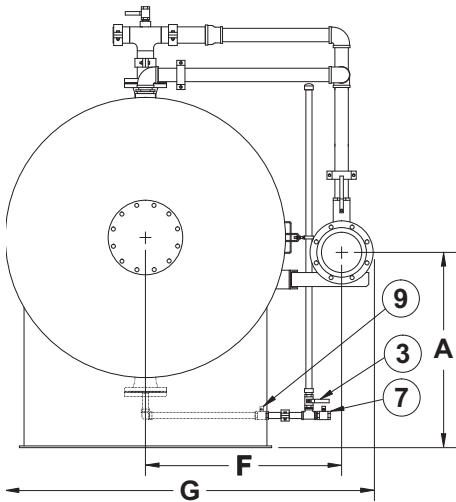
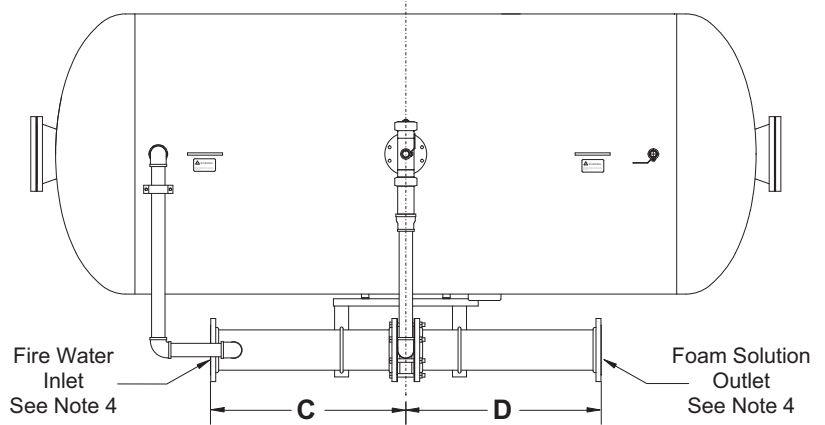
PRE-PIPED HORIZONTAL BLADDER TANKS

OUTLINE DRAWING AND NORMAL VALVE POSITION CHART

<p>B</p> <p>2.5" CR = 33.8" (585.5mm) 3" RC = 32.6" (828.7mm) 4" RC = 42.9" (1089.0mm) 6" RC = 63.4" (1609.7mm) 8" RC = 83.8" (2127.3mm) 6" UW = 72.3 (1835.2mm)</p>	<p>C</p> <p>2.5" CR = 14.5" (368.3mm) 3" RC = 16.3" (414.3mm) 4" RC = 21.4" (544.5mm) 6" RC = 31.7" (804.9mm) 8" RC = 41.9" (1063.6mm) 6" UW = 37.8" (958.9mm)</p>
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2.5" CR = 19.3" (490.2mm)
 3" RC = 16.3" (414.3mm)
 4" RC = 21.5" (546.1mm)
 6" RC = 31.7" (804.9mm)
 8" RC = 41.9" (1063.6mm)
 6" UW = 34.5" (876.3mm)



VALVE DESCRIPTION		NORMAL VALVE POSITION	
Valve No.	Description	Manual System	Automatic System
1	Manual Foam Concentrate Shut-Off	N.C.	N.O.
2	Water Supply Shut-Off	N.C.	N.O.
3	Sight Gauge Shut-Off	N.C.	N.C.
4	Tank Shell Vent	N.C.	N.C.
5	Bladder Vent	N.C.	N.C.
6	Tank Shell Drain/Fill	N.C.	N.C.
7	Bladder Drain/Fill	N.C.	N.C.
8	Automatic Foam Concentrate Isolation	-	N.C.
9	Fill Line Master Shut-Off	N.C.	N.C.

N.O. - Normally Open; N.C. - Normally Closed

NOTES:

- Dimensions are approximate and subject to change without notice.
- Dimensions marked with * under column E extend beyond the edge of the tank by the negative indicated.
- Refer to standard horizontal bladder tank chart for overall and anchor dimensions.
- Fire water inlet and foam solution discharge supplied with ANSI Class 150 Raised Face Flanges sized to match corresponding ratio flow controller.
- When designing a building to store bladder tanks, steps shall be taken to allow for removal of the internal center tube(s). Center tubes are the full length and/or height of the bladder tank.

ORDERING INFORMATION

Please specify the following:

- Type of tank required - Horizontal or Vertical
- Size of tank
- Exterior finish of tank
- Whether required for salt water environment
- Any other options required

Below is the format for Pre-Piped Chemguard Bladder Tanks:

Model: CHBT-TDP

Size: 50 to 4500 Gallon (Horizontal Tanks)

Exterior Coating (Option 1):

- | | |
|--|--|
| 01 - Red Enamel Exterior/No Internal Coating | 06 - Red Epoxy Exterior/Custom Internal Coating |
| 02 - Red Enamel Exterior/Coal Tar Epoxy Internal Coating | 07 - Custom Exterior/No Internal Coating |
| 03 - Red Enamel Exterior/Custom Internal Coating | 08 - Custom Exterior/Coal Tar Epoxy Internal Coating |
| 04 - Red Epoxy Exterior/No Internal Coating | 09 - Custom Exterior/Custom Internal Coating |
| 05 - Red Epoxy Exterior/Coal Tar Epoxy Internal Coating | |

Proportioner/Foam Type (Option 2):

- | | | | | |
|--------------------|------------------|------------------|------------------|------------------|
| 01 - 2.5" (C103) | 21 - 3" (C103) | 41 - 4" (C103) | 61 - 6" (C103) | 81 - 8" (C103) |
| 02 - 2.5" (C303) | 22 - 3" (C303) | 42 - 4" (C303) | 62 - 6" (C303) | 82 - 8" (C303) |
| 03 - 2.5" (CUG) | 23 - 3" (CUG) | 43 - 4" (CUG) | 63 - 6" (CUG) | 83 - 8" (CUG) |
| 04 - 2.5" (C603) | 24 - 3" (C603) | 44 - 4" (C603) | 64 - 6" (C603) | 84 - 8" (C603) |
| 05 - 2.5" (C363-3) | 25 - 3" (C363-3) | 45 - 4" (C363-3) | 65 - 6" (C363-3) | 85 - 8" (C363-3) |
| 06 - 2.5" (C363-6) | 26 - 3" (C363-6) | 46 - 4" (C363-6) | 66 - 6" (C363-6) | 86 - 8" (C363-6) |
| 07 - 2.5" (CX) | 27 - 3" (CX) | 47 - 4" (CX) | 67 - 6" (CX) | 87 - 8" (CX) |
| 08 - 2.5" (C2) | 28 - 3" (C2) | 48 - 4" (C2) | 68 - 6" (C2) | 88 - 8" (C2) |
| 09 - 2.5" (C3FP) | 29 - 3" (C3FP) | 49 - 4" (C3FP) | 69 - 6" (C3FP) | 89 - 8" (C3FP) |
| 10 - 2.5" (C301MS) | 30 - 3" (C301MS) | 50 - 4" (C301MS) | 70 - 6" (C301MS) | 90 - 8" (C301MS) |
| 11 - 2.5" (C302) | 31 - 3" (C302) | 51 - 4" (C302) | 71 - 6" (C302) | 91 - 8" (C302) |
| 12 - 2.5" (C361-3) | 32 - 3" (C361-3) | 52 - 4" (C361-3) | 72 - 6" (C361-3) | 92 - 8" (C361-3) |
| 13 - 2.5" (C361-6) | 33 - 3" (C361-6) | 53 - 4" (C361-6) | 73 - 6" (C361-6) | 93 - 8" (C361-6) |
| 14 - 2.5" (C601MS) | 34 - 3" (C601MS) | 54 - 4" (C601MS) | 74 - 6" (C601MS) | 94 - 8" (C601MS) |
| U1 - 6" UW (C302) | | | | |
| U2 - 6" UW (CUG) | | | | |

Foam Discharge Piping (Top)/Foam Trim Valves (Option 3):

- 01 - Brass Pipe/Brass Valves - 2.5" Proportioner
- 02 - Carbon Steel Pipe/Brass Valves - 2.5" Proportioner
- 03 - 316 Stainless Steel Pipe/Stainless Steel Valves - 2.5" Proportioner
- 11 - Brass Pipe/Brass Valves - 3" Proportioner
- 12 - Carbon Steel Pipe/Brass Valves - 3" Proportioner
- 13 - 316 Stainless Steel Pipe/Stainless Steel Valves - 3" Proportioner
- 21 - Brass Pipe/Brass Valves - 4" Proportioner
- 22 - Carbon Steel Pipe/Brass Valves - 4" Proportioner
- 23 - 316 Stainless Steel Pipe/Stainless Steel Valves - 4" Proportioner
- 31 - Brass Pipe/Brass Valves - 6" Proportioner

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- 32 - Carbon Steel Pipe/Brass Valves - 6" Proportioner
- 33 - 316 Stainless Steel Pipe/Stainless Steel Valves - 6" Proportioner
- 41 - Brass Pipe/Brass Valves - 8" Proportioner
- 42 - Carbon Steel Pipe/Brass Valves - 8" Proportioner
- 43 - 316 Stainless Steel Pipe/Stainless Steel Valves - 8" Proportioner
- 51 - Brass Pipe/Brass Valves - 6" UW Proportioner
- 52 - Carbon Steel Pipe/Brass Valves - 6" UW Proportioner
- 53 - 316 Stainless Steel Pipe/Stainless Steel Valves - 6" UW Proportioner

Water To Tank/Water Trim Valves (Option 4):

- 01 - Brass Pipe/Brass Valves - 2.5" Proportioner
- 02 - Carbon Steel Pipe/Brass Valves - 2.5" Proportioner
- 03 - 316 Stainless Steel Pipe/Stainless Steel Valves - 2.5" Proportioner
- 11 - Brass Pipe/Brass Valves - 3" Proportioner
- 12 - Carbon Steel Pipe/Brass Valves - 3" Proportioner
- 13 - 316 Stainless Steel Pipe/Stainless Steel Valves - 3" Proportioner
- 21 - Brass Pipe/Brass Valves - 4" Proportioner
- 22 - Carbon Steel Pipe/Brass Valves - 4" Proportioner
- 23 - 316 Stainless Steel Pipe/Stainless Steel Valves - 4" Proportioner
- 31 - Brass Pipe/Brass Valves - 6" Proportioner
- 32 - Carbon Steel Pipe/Brass Valves - 6" Proportioner
- 33 - 316 Stainless Steel Pipe/Stainless Steel Valves - 6" Proportioner
- 41 - Brass Pipe/Brass Valves - 8" Proportioner
- 42 - Carbon Steel Pipe/Brass Valves - 8" Proportioner
- 43 - 316 Stainless Steel Pipe/Stainless Steel Valves - 8" Proportioner
- 51 - Brass Pipe/Brass Valves - 6" UW Proportioner
- 52 - Carbon Steel Pipe/Brass Valves - 6" UW Proportioner
- 53 - 316 Stainless Steel Pipe/Stainless Steel Valves - 6" UW Proportioner

Fire Water/Foam Solution Piping (Option 5):

- 01 – Carbon Steel Pipe - 2.5" Proportioner
- 02 – Carbon Steel/Galvanized Pipe - 2.5" Proportioner
- 03 – 316 Stainless Steel Pipe - 2.5" Proportioner
- 11 – Carbon Steel Pipe - 3" Proportioner
- 12 – Carbon Steel/Galvanized Pipe - 3" Proportioner
- 13 – 316 Stainless Steel Pipe - 3" Proportioner
- 21 – Carbon Steel Pipe - 4" Proportioner
- 22 – Carbon Steel/Galvanized Pipe - 4" Proportioner
- 23 – 316 Stainless Steel Pipe - 4" Proportioner
- 31 – Carbon Steel Pipe - 6" Proportioner
- 32 – Carbon Steel/Galvanized Pipe - 6" Proportioner
- 33 – 316 Stainless Steel Pipe - 6" Proportioner
- 41 – Carbon Steel Pipe - 8" Proportioner
- 42 – Carbon Steel/Galvanized Pipe - 8" Proportioner
- 43 – 316 Stainless Steel Pipe - 8" Proportioner
- 51 – Carbon Steel Pipe – 6" UW Proportioner
- 52 – Carbon Steel/Galvanized Pipe - 6" UW Proportioner
- 53 – 316 Stainless Steel Pipe - 6" UW Proportioner

Sight Glass (Option 6):

- 01 – None (Brass Trim Piping)
- 02 – None (Carbon Steel Trim Piping)
- 03 – None (316 SS Trim Piping)
- 04 – PVC/Brass Valve
- 05 – PVC/Stainless Steel Valve

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Hydraulic Operated Ball Valve (Option 7):

- 01 - Brass Thd. HOV/Brass Pipe/Brass Valves - 2.5" Proportioner
- 02 - Brass Thd. HOV/Carbon Steel Pipe/Brass Valves - 2.5" Proportioner
- 03 - Stainless Steel Flg. HOV/316 Stainless Steel Pipe/Stainless Steel Valves - 2.5" Proportioner
- 11 - Brass Thd. HOV/Pipe/Brass Valves - 3" Proportioner
- 12 - Brass Thd. HOV/Carbon Steel Pipe/Brass Valves - 3" Proportioner
- 13 - Stainless Steel Flg. HOV/316 Stainless Steel Pipe/Stainless Steel Valves - 3" Proportioner
- 21 - Brass Thd. HOV/Brass Pipe/Brass Valves - 4" Proportioner
- 22 - Brass Thd. HOV/Carbon Steel Pipe/Brass Valves - 4" Proportioner
- 23 - Stainless Steel Flg. HOV/316 Stainless Steel Pipe/Stainless Steel Valves - 4" Proportioner
- 31 - Brass Thd. HOV/Brass Pipe/Brass Valves - 6" Proportioner
- 32 - Brass Thd. HOV/Carbon Steel Pipe/Brass Valves - 6" Proportioner
- 33 - Stainless Steel Flg. HOV/316 Stainless Steel Pipe/Stainless Steel Valves - 6" Proportioner
- 41 - Brass Thd. HOV/Brass Pipe/Brass Valves - 8" Proportioner
- 42 - Brass Thd. HOV/Carbon Steel Pipe/Brass Valves - 8" Proportioner
- 43 - Stainless Steel Flg. HOV/316 Stainless Steel Pipe/Stainless Steel Valves - 8" Proportioner
- 51 - Brass Thd. HOV/Brass Pipe/Brass Valves - 6" UW Proportioner
- 52 - Brass Thd. HOV/Carbon Steel Pipe/Brass Valves - 6" UW Proportioner
- 53 - Stainless Steel Flg. HOV/316 Stainless Steel Pipe/Stainless Steel Valves - 6" UW Proportioner

Solenoid/Water Regulator For Hydraulic Operated Ball Valve (Option 8):

- 01 - No Solenoid or Water Regulator
- 02 - Water Regulator Only
- 03 - 24 VDC Solenoid Only
- 04 - 24 VDC Solenoid and Water Regulator
- 05 - 120 VAC Solenoid Only
- 06 - 120 VAC Solenoid and Water Regulator

Relief Valve (Option 9):

- 01 - None (Brass Foam Discharge Piping)
- 02 - None (Carbon Steel Foam Discharge Piping)
- 03 - None (316 Stainless Steel Foam Discharge Piping)
- 04 - Thermal Relief Valve
- 05 - ASME (Full Flow), Brass Foam Discharge Piping
- 06 - ASME (Full Flow), Carbon Steel Foam Discharge Piping
- 07 - ASME (Full Flow), 316 Stainless Steel Foam Discharge Piping

Sample Part Number: CHBT-TDP-200-01-22-11-11-11-04-11-01-01



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