

**NEWAGE**  
FIRE PROTECTION  
INDUSTRIES PVT.LTD.



# BLADDER TANK





## Technical Information

› Tank Mounting Type	Vertical or Horizontal
› Concentrate Storage Capacity	Vertical Bladder Tank : 37 to 2000 gallons Horizontal Bladder Tank : 37 to 4000 gallons
› Working Pressure	30 psi (2.1 bar) to 175 psi (12 bar)
› Factory Hydro Test Pressure	As Per ASME Code
› Flow Range of Ratio Controller (AFFF) Flow Range of Ratio Controller (AR-AFFF)	65NB : 170 - 1660 LPM, 80NB : 380 - 3240 LPM, 100NB : 910 - 6150 LPM, 150 NB : 1150 - 14500 LPM, 200NB : 3040 - 15800 LPM 65NB : 160 - 1680 LPM, 80NB : 385 - 3240 LPM, 100NB : 1050 - 5880 LPM, 150 NB : 1250 - 12500 LPM, 200NB : 4200 - 15800 LPM
› Vessel Construction	Carbon Steel as per ASME Code Section VIII Div. 1, for unfired pressure vessels
› Bladder	BUNA - N
› External Piping	Water side : Carbon Steel Seamless Pipe Sch.40, Foam Concentrate side : Stainless Steel Sch.40
› Ratio Controller	Wafer type & Flanged Type with Stainless Steel 304 / CF8M, Stainless Steel 316 / CF8M or Bronze
› Vent and Drain	Ball Valve (Brass Chrome Plated)
› Performance Standard	UL162
› Finish	RAL - 3000 / Shade No : 536 of IS:5

## Application

- ✦ The NEWAGE Bladder Tank is one component of a balanced pressure proportioning system.
- ✦ NEWAGE Bladder Tanks require only a pressurized water supply for operation. No other external power is required.
- ✦ This can be used with one or more NEWAGE Proportioner and any suitable discharge device to create a complete the foam system.
- ✦ NEWAGE Bladder Type Foam Proportioning Unit (Bladder Tank) is provided for accurate foam proportioning of the foam concentrate with the fire-water over a wide range of flow.
- ✦ NEWAGE bladder tanks have numerous applications at various locations including aircraft hangars, foam-water sprinkler systems, truck loading racks, and helipads.

## Specification

- ✦ The Bladder Tank Foam Proportioning Systems are available with vertical and horizontal bladder tanks.
- ✦ The carbon steel tanks / stainless steel tanks are designed and constructed in accordance with ASME Code Section VIII Div.1 for unfired pressure vessels.
- ✦ The maximum working pressure is 12 bar (175 psi).
- ✦ The vertical tank assembly is supported by legs welded to tank with provision for anchoring.
- ✦ The horizontal tanks are supported by two saddles welded to the tank and drilled for anchoring.
- ✦ Tank is provided with lifting lugs. The system is supplied with pressure vessel, bladder, fill and drain valve for water and foam concentrate, ratio controller and vent valve.
- ✦ Ladder and sight gauge assembly are supplied as optional items on request.



## Principle of Operation

- › The foam concentrate is stored within a reinforced BUNA-N rubber bladder which is fixed inside the steel pressure vessel.
- › When the system is operated, water at fire main pressure enters the tank between the vessel wall and the rubber bag.
- › Foam concentrate is then expelled from the bag into the Ratio Controller.
- › As water mains pressure is used as the power source, the foam concentrate will be always discharged at the same pressure and any variations in foam flow will be automatically compensated as per inlet water flow.
- › The water jet flowing through the ratio controller creates low pressure area and allows foam concentrate to inject into ratio controller and thus premix solution is supplied further to foam equipment.