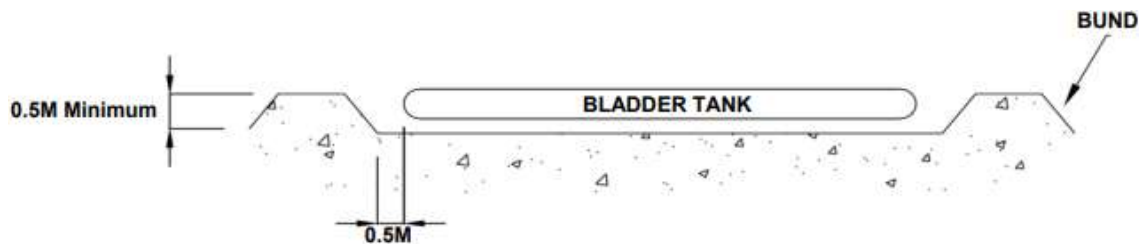


For Ground Use:

Site Selection and Preparation

1. Position the water bladder tank as close to final resting position as possible— mechanical handling may be used to achieve this.
2. Where further movement is required then a suitable valise bag is to be used and an assessment of manpower will be required taking product weight & distance of movement into account.
3. Select a site that is level and free from sharp objects, roots and vegetation
4. When using a groundsheet. Carefully remove from box, unroll and position where tank is to be located.
5. When using a bund liner (suggested on larger bladders in particular) Dig an excavation 0.5m bigger all round than the tank in layflat mode. The depth of the bund must be at least 0.5m. This can be achieved by either digging a hole or making up earth banks to suit.



6. Carefully remove the bladder tank from box, roll out to present the main fill/empty port at the correct side for filling/emptying. Ensure the tank is free to fill without restriction. Tie ropes to the corners of the bladder to assist in pulling bladder flat (if bladder handles not fitted).

Warning: The bladder is folded from the centre for ease of positioning. Do not `drag` the bladder as this could cause mechanical damage to the bladder skin.

7. Where handles are fitted to the bladder these are to be used for unfolding & laying flat of bladder only
8. After checking compatibility of bladder fill point and hose assembly, connect the hose assembly to the fill point. For thread connections it is recommended that a strap wrench is used to hold the bladder skin fitting in position.

Warning: Using Stillson`s or pump pliers to hold the bladder skin fitting could result in mechanical damage to the bladder skin.

Pre-fill checks

- I. Check all surfaces for damage.
- II. Check connector is closed if not to be used for filling.
- III. Check that the tank is located in the correct position for filling/discharging.
- IV. Check that all loose items are repacked and stowed adjacent to tank (repair kit, etc.).
- V. Check vent valve is fitted to top fitting.

For On Vehicle or Platform Use - Only for use with special transport bladders up to 6m³ (upto max 5000L)

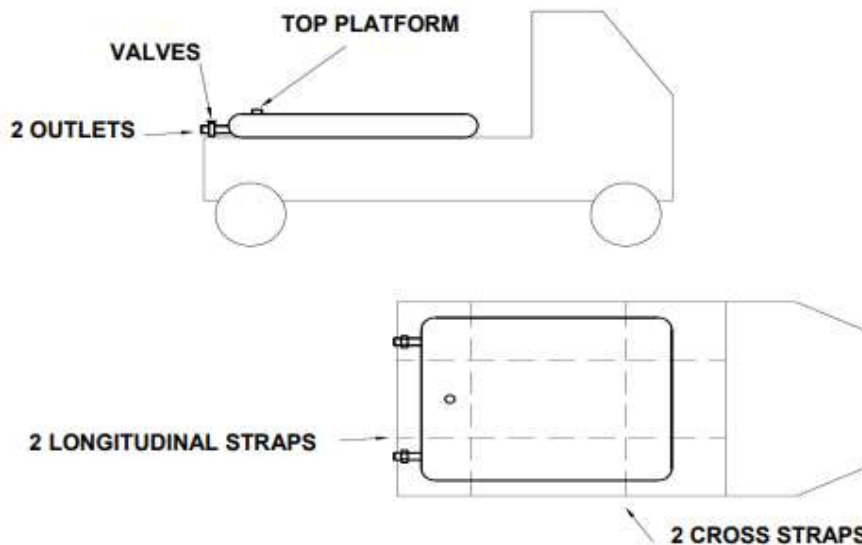
Vehicle Selection

1. The vehicle must have a carrying capacity of 2 tonne for every 1 tonne of water to be transported.
2. The vehicle body must be able to accommodate the bladder laying flat and empty without overhang. If the empty bladder overhangs the platform it cannot be used unless the vehicle has loadbearing side walls.
3. As trucking water can cause load surging, special attention should be made to the vehicles stability.

Fitting the Bladder

1. Check the vehicle body for any nails, sharp edges, etc., that could damage the bladder and remove.
2. Lay out the groundsheet on the vehicle bed positioning as near as possible in the centre of the vehicle. Then tie down using the corner eyelets.
3. Unroll the bladder on to the groundsheet with fittings as shown.

Locate suitable positions for the straps and fit as shown.



4. Loosely fit holding straps (like Ratchets as shown below) across bladder, securing to vehicle body. The hook (see photograph) to be fixed to a secure part of the vehicle.
5. Fill bladder (see filling section below).
6. Tighten straps as tight as possible to prevent any bladder movement.



NOTE:

- I. Bladder should only be transported totally full or totally empty.
- II. Bladder should only be filled or emptied under full supervision.
- III. Only bladders up to 5,000 litres should be used for transportation.

Filling the Bladder

Ensure top vent is in position and open before filling.

If a valve is being used, ensure it is in the open position.

Pump water into the tank at a reasonable pressure, checking that no items become entangled during the pumping process, putting localised stress on the tank.

Support hose if necessary. Continue pumping until nominal volume has been metered in or until the surface of the tank becomes hard or water spills from the vent valve. Stop pumping, close valve and remove hose.

Tighten down restraints where appropriate making sure they are taut but without putting additional pressure on the tank. Conduct an inspection of the tank for leaks. If the tank is to be left full for a long period, replace vent valve with plug.

Warning: *It is strongly suggested that a plug is screwed into a ball valve to prevent ease of accidental or malicious opening when hose is disconnected*

Emptying the Bladder

1. Ensure top vent is in position before emptying.
2. Remove plug, reconnect the hose, open ball valve and commence pumping.

Re-Packing

1. Ensure that the tank is empty and perfectly dry and that all fittings are secure.
2. Carefully roll the ends of the tank into the centre ensuring that all debris is removed from the tank surface during the folding operation.
3. Place the tank in the case.
4. Clean groundsheet, roll up and place in case.

Tank Cleaning

The following notes should be observed concerning cleaning the tanks:-

1. A mild water soluble cleaner and hot air can be used where appropriate. Neither should exceed 70 degrees Celsius.
2. Cleaning by abrasion rather than wiping should be avoided.
3. After cleaning, the tank must be left to fully dry before re-packing or re-filling.

Maintenance Procedure

NOT IN USE- In Storage

Attention should be given to tanks as soon as they are received in the stores. Inspect the tank for obvious damage and note for future attention:

- i) Punctures
- ii) Major abrasions/damage
- iii) Insecure and damaged fittings

Either hang up the tank or place the tank on a convenient table or trolley.

Wash the tank out with a mild solution and then clean water.

Use air flow to dry out the tank thoroughly.

Do not put the tank into storage with any faults but investigate immediately any repair work necessary.

If the tank is satisfactory, fold up lightly and pack into a clean dry case.

IN USE- Filled

For ground mounted bladders:-

- Periodically check ground for subsidence, vegetation growth, etc.

For truck mounted bladders:-

- Before every journey check bladder security and strap fixings.
- Periodically check all parts for mechanical damage, wear and decline. Order new parts as necessary.