

# SECTION 1

## Water Tanks and Fittings

### Water Storage Packs:

T11	11,000 litre Tank Steel, Liner Roof and Accessories Kit
T45S	45,000 Litre Tank Steel Kit
T45L	45,000 Litre Tank Liner Kit
T45R	45,000 Litre Tank Roof Kit
T70S	70,000 Litre Tank Steel Kit
T70L	70,000 Litre Tank Liner Kit
T70R	70,000 Litre Tank Roof Kit
T95S	95,000 Litre Tank Steel Kit
T95L	95,000 Litre Tank Liner Kit
T95R	95,000 Litre Tank Roof Kit

### Fittings Kits:

TF	Tank Fittings Kit
TC	Chlorination Kit

### Shipping Specifications:

T11	1.63 x 0.94 x 0.63m - GW: 378kgs
T45S	2.90 x 0.84 x 0.52m - GW: 240kgs
T45L	1.35 x 0.92 x 0.87m - GW: 231kgs
T45R	1.35 x 0.64 x 0.48m - GW: 95kgs
T70S	2.90 x 0.84 x 0.54m - GW: 402kgs
T70L	1.35 x 0.92 x 0.87m -GW: 264kgs
T70R	1.35 x 0.64 x 0.48m - GW: 97kgs
T95S	2.90 x 0.90 x 0.60m - GW: 480kgs
T95L	1.35 x 0.92 x 0.87m - GW: 321kgs
T95R	1.35 x 0.64 x 0.48m - GW: 100kgs
TF	1.23 x 1.23 x 0.40m - GW: 159kgs
TC	0.53 x 0.34 x 0.29m - GW: 17kgs

## **Water Tanks and Fittings**

These packs are designed to provide semi-permanent water storage within refugee camps, relief centres etc. They are designed using pre-packed, easily transportable kits that may be rapidly assembled with the use of local labour.

A range of sizes are available although the kits specified have been selected as standard capacities.

The steel kits consist of 0.8mm thick curved corrugated sheets, hot dipped galvanised with 12mm punched bolt holes.

The liner is fabricated from 1.5mm scrim reinforced butyl rubber sheeting. It is tailored to suit appropriate tank sizes and has full international potable water approval.

The roof kits consist of circular reinforced conical shaped PVC roof sheet with central locating eye and eyelets around the circumference. A central PVC tubular support structure is included within the kit, together with 6mm rope and holding down brackets.

## Tank Installation Recommendations

A site firm enough to support a full tank should be located clear of trees to avoid root problems and falling debris. Ideally the site should be higher than the proposed draw off points.

Mark out circle of 3.5m radius and clear the inside of the circle of all vegetation and stones.

Mark out circle of 3.2m radius and dig out a trench about 50mm deep around the outline.

If available spread 50mm of sand inside the circle to act as a cushion for the tank liner.

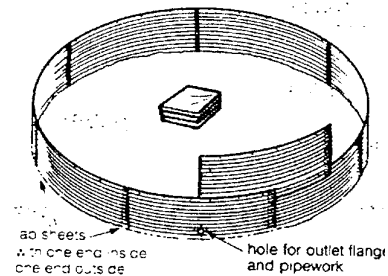
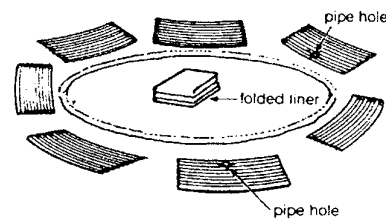
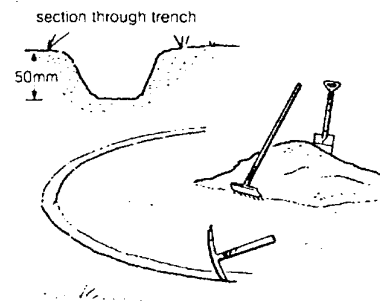
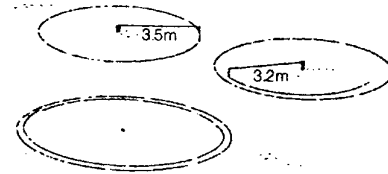
Place folded liner in the centre of the circle and lay first ring of corrugated sheets around the outside of the circle ensuring that the pipe holes point in the correct direction.

Sheets with blanked off holes are normally used in the second ring.

With one person inside the circle and one person outside the circle stand the first sheet in the shallow trench and bolt the next one to it overlapping one end inside, the other end outside.

Holes may be aligned by using the podger. Bolts should be inserted in the top and bottom holes initially, no bolts should be fully tightened at this stage.

Complete the first ring of sheets and then erect the remaining rings, staggering the overlaps.



Fit self adhesive tape over joints to protect the liner and fit small size split PVC capping around circumference of tank, taping in place if necessary. Tank a 3" threaded flange and screw 4 studs into the threaded holes, then pass the assembly through the holes in the tank wall, tightening the nuts and washers.

Place rubber gasket over projecting studs.

The shallow trench in which the steel panels are sitting may be back-filled adding a fillet on the inside to support the liner.

Carefully unfold the liner and fit the base as accurately as possible. The seam should lie against the fillet of soil.

Lift the liner of the rim of the tank using ropes attached to eyelets where necessary.

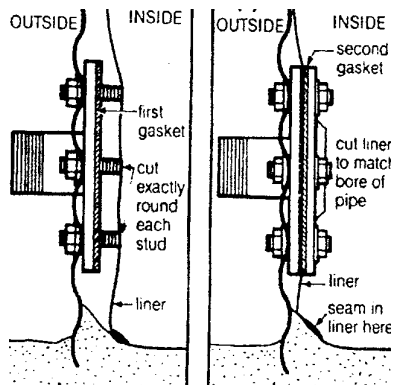
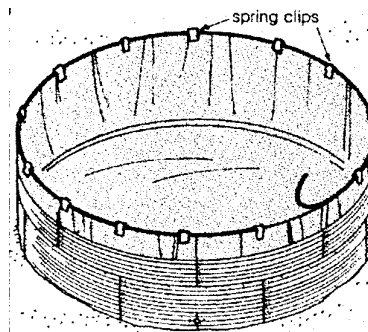
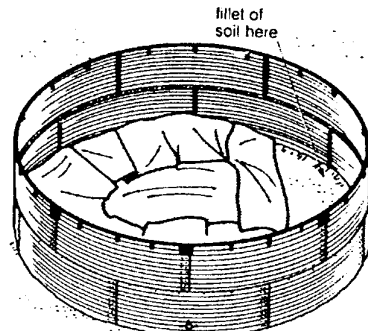
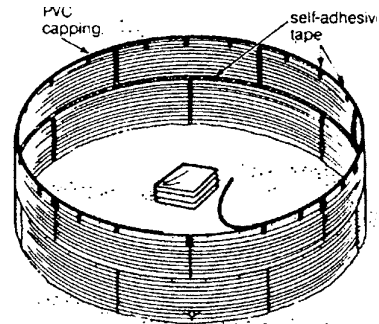
Once in position the liner may be secured by snapping the larger split PVC capping around the circumference of the tank and clipping in place with the stainless steel clips provided.

The flanged outlets may now be completed by cutting 4 small holes in the liner against each of the studs and pressing the liner against the first gasket and the wall of the tank.

The second gasket should be passed over the studs and PTFE tape wound around the studs to prevent leakage.

The counter flange may then be fitted and the nuts tightened down.

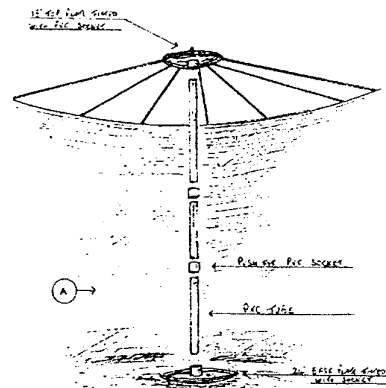
Finally cut the liner around the inside of the counter flange to leave a 3" diameter hole.



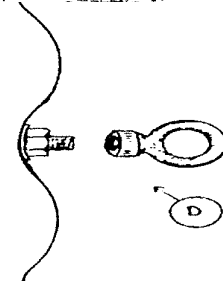
## Roof Installation Recommendations

Assemble centre pole ensuring tubes are pushed fully into the sockets.

Correctly determine the exact centre point of the tank floor and carefully position the centre pole assembly.



Fit an eyescrew to every third bolt as per illustration.



The ropes which are attached to the centre pole top plate, over the side of the tank and pass down through the eyescrew. Tie off each of the ropes using a tensioning hitch knot whilst at the same time ensuring that the centre pole assembly does not move from its central position and is held perfectly vertical by the supporting rope.

**IMPORTANT:** Do not cut off the spare rope, this is required to secure the roof cover.

Carefully unfold the PVC cover and pull into position over the support structure locating the eyelet in the centre of the cover, over the pin in the centre of the top plate. When the cover is evenly spread over the support structure align the eyelets on the edge of the cover directly between the eyescrews. Take the rope remaining below the hitch knot, pass it through the eyescrew, then up through the eyelet to the right on the PVC cover and back down to the next eyescrew, where it can then be securely tied off. Continue to follow this procedure around the remainder of the tank. Tie the remainder of the rope (loose coil) around the circumference of the tank to secure the bottom edge of the PVC tank cover against the wall of the tank.

