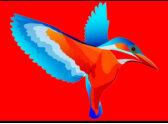


# DELIVERY & INSTALLATION



Delivery of the complete Fire Tank will be made on standard pallets and will include steel panels, liner, capping, outlets, valves, fixings and accessories. All tanks are supplied with clear instructions to show which tools are required and diagrams show stage-by-stage installation methods. Separate instructions show liner instructions.

## **Delivery of goods to site**

Delivery of the goods will be made by an independent haulage company of our choosing. Normal procedure is for the tank kit to be delivered not less than 24 hours in advance of the scheduled installation time. The responsibility for the safe off loading of the goods being with the main contractor/client. This procedure is a cost effective way of maximising site build time that may otherwise be delayed by transporting the goods on the day of installation.

Although the tank kit is delivered on pallets for easy off loading, in the absence of the correct lifting equipment (forklift truck, etc.), the kit can be unpacked and carefully man handled by two persons adjacent to the prepared base. The heaviest single item weighs no more than 50 kg's. The goods should be stored safely and kept dry at all times prior to installation.

## **Handling**

Some individual tank components may weigh up to 50 kg's and should not be man handled by a single person. Due care and attention should be taken if manual handling is required and in addition to basic Personal Protection Equipment (PPE), the use of protective gloves is recommended.

## **Storage**

If the tank kit is to be kept wrapped and stored for a prolonged period of time prior to installation, the galvanised steel panels may sweat. This may generate a white powdery deposit on the panel surface known as 'white rust'.

This 'white rust' deposit can be minimised or even prevented by storing the tank in a dry location and by inverting the stacked steel panels and sheets, therefore preventing condensation from forming between any surfaces.

## **Site preparation prior to the tank installation (responsibility of the client/main contractor)**

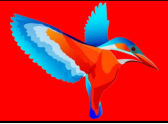
1. A concrete base slab should be erected in advance of delivery of the tank kit and should be in accordance with our recommended requirements. The structural base should be relatively flat and the area around the base should also be flat and level.
2. The client/main contractor should also source the required amount of stone free, washed soft sand for cushioning the tank liner. This should be placed in a mound in the centre of the tank slab and protected from rainfall.
3. A supply of clean water is required, enough to provide sufficient ballast to anchor the liner the moment the liner is installed. - we recommend a minimum of 150mm water depth be used. In addition to this, a permanent water supply, terminating at the pre-determined tank inlet should be made available.
4. For the most part, installation of the tank is carried out using hand tools and battery powered tools. Occasionally however, mains electrical power may be required (for example, when drilling the holding down anchors).
5. A clear, hazard free, secure and safe working area is required around the tank. The working space should be no less than 2.0 metres wide and should be level, firm and stable and suitable for ladder/stepladder or scaffold tower use.

## **Installation of the water tank**

The tanks can be installed on site by just two trained engineers and the tank must only be installed on pre-prepared ground.

Tank installations should be accordance with accepted codes of building practice and to the specific methods set out in the installation manuals.

# DELIVERY & INSTALLATION



## Maintenance

The fire tanks are manufactured from corrosion resistant and protected materials and as a result they require little or no specialised maintenance other than periodic inspection, general cleaning and good housekeeping practices.

## Routine maintenance requirements

Site inspection - Vegetation and soil which can hold moisture against concrete and steel should be removed from the area close to the base of the tank. Also, trees and bushes should be trimmed back from the tank shell to prevent scratches and damage to the steel or coating finish.

In addition to examining the surrounding area, the site should be surveyed for signs of unauthorised access or vandalism. Unauthorised access is a potential liability for the tank owner and also produces a risk to the water system security and the tank itself. Man holes and access doors to the tank interior should be regularly inspected to ensure they are secure.

Tank foundations should be checked and evaluated on a regular basis as deterioration of the foundations can lead to major problems with the tanks structural rigidity. The presence of any of the following factors may signal the need for immediate action;

- Signs of leakage
- Abnormal vegetation growth
- Ponding or pooling
- Settlement, cracking or exposed reinforced steel
- Water marks/calcium deposits
- Insect infestation, rodent or bird nesting
- Suction/delivery pipework damage or leakage

## Concrete slab foundation

Some foundation repair work can be carried out without specialist skills, however more severe deterioration may require professional assistance.

- Annually examine foundation to make sure that no fractures have developed as these could lead to structural damage to the tank.
- Make thorough checks at the base of the tank to ensure that there are no gaps between the tank bottom and foundations due to ground settlement. Also check that all anchor bolts are tight to the hoop and to the slab.

Leaks may not be visible but instead may be detected through the presence of rust or mineral streaks/dischouration. Ponding or soil saturation may also indicate tank leakage.

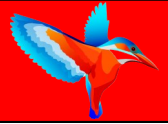
## Tank shell inspection

- Assessment of the foundations should be followed by examining the tank itself. Inspect the tank for signs of:
- Corrosion and general surface condition
- Structural damage or deformation of the tank hoops
- Leaking or calcium staining
- Assess the condition of all inlet/outlet connections
- Secure and uniform fitting of the liner to tank protective capping extrusions
- Liner retaining wire and tensioner

Examine the condition and performance of ancillary items such as overflow pipework, water supply ball valve and float assembly.

Exercise caution when inspecting tank roof/covers at height. Climbing on to a steel roof should be avoided at all costs..

# DELIVERY & INSTALLATION



## Tank interior/liner

Visually inspect the interior of the tank via the roof top access hatch. If excessive mineral, silt/sediment build up in the base of the tank is apparent, carry out the following:

Drain the tank and remove the sediment using a soft bristle brush, sponge and plastic bucket arrangement and a specialist vacuum.

All tanks are supplied with a DIY repair kit.

Thoroughly inspect and re-fit where necessary any tank liner or capping material that may have become detached from the tank edge.

## Tank Covers

Tank covers are designed to minimise sunlight (UV) penetration within the water tank and also to suppress the consequential growth of single cell organisms such as algae. Water contamination from insects, dust and debris ingress will also be substantially reduced by fitment of a tank cover. Covers can be checked from the outside of the tank, however working at height is necessary so the correct safety measures should be implicated.

- Inspect the galvanised steel cover for corrosion, impact damage or evidence of sheet steel member distortion which may have been caused by excessive loads applied to the cover during heavy snow fall or damaged by unauthorised human activity.
- Roof to tank tie straps should be closely inspected and re-aligned where necessary. Any missing or loose fittings should be replaced or tightened.
- The central supporting column is manufactured from mild steel for additional strength. The galvanised finish offers sufficient corrosion protection against immersion in fresh water. However, calcification in hard water areas and accelerated corrosion caused by chemically treated water may necessitate a more elaborate inspection annually to determine the integrity of the steel and finish.