

Tank Base Preparation

This guide for base preparation should be followed to ensure a correct foundation is laid for your AQUAPLATE® tank. Damage to your tank due to failure or movement of the tank base is not covered by the warranty. Please keep in mind that 1000L of water weighs 1000kg, and this is a significant force. Soft ground may subside under the weight of a full tank.

The base of your tank is made with double sided AQUAPLATE® i.e. the inside and outside of the tank base is coated with a polymer film to prevent corrosion. The tank may be in direct contact with the tank base and the tank will not corrode. Hence there is no reason to elevate the tank above ground level. All tank bases need to be flat and level. Pad level needs to be in range of +/- 1.0 degree.

This base preparation guide should be taken as a guide only. Specific details on the construction of a tank base should be referred to an engineer for formal advice. Tanksalot® accepts no responsibility for the failure of a tank base.

Please note that the warranty for our product will be void if the base preparations outlined are not in place.

CONCRETE BASE - **RECOMMENDED CHOICE**

A concrete slab base is the most suitable base for your AQUAPLATE® water tank.

Construction of a concrete base needs a minimum of 150mm thick reinforced concrete, on a flat level area. If the tank is to be positioned in an area that is on a slope, then the thickness of the slab is to be increased – seek formal advice from an engineer.

The slab must be flat, smooth, and level, with no more than a 1° slope. Finish with a metal trowel is advisable. Slabs must be large enough to support all edges of the tank and should be at least 65mm longer and wider than the tank. Concrete slabs must be allowed to cure prior to placing tank on slab.

If intending to utilise our Tanksalot® manufacturer's tank bracing system, full details for the concrete slab design requirements can be found in the current version of the "A23113 - Stormwater Tank Lateral Restraint Product Manual - Structural drawings" technical specification document. Please consult an engineer for tank sizes or applications not covered by the scope of the associated "Design Statement" technical documentation.

CONCRETE PAVER BASE

To use a concrete paver base, the area must be cleared down to firm earth. A paver base installed on soft ground (i.e. a bare earth bed) will subside over time and is not advisable.

To achieve the best paver base then follow the proven steps.

1. Dig down to a firm surface
2. Apply some formwork that is 100mm larger than the tank size.

Note - Formwork should be environmentally sustainable, H2F (Termite Treated) treated pine 90 x 45mm.

3. Spread sand and cement mix 75mm thick over the entire base.
4. Screed the sand mix and check that the material is level and flat. Excess slope/gradient can lead to an unstable tank.

5. Compact the base with a plate compactor. Ensure there is adequate compaction (minimum allowable bearing pressure of 50kPa) to avoid subsidence.

6. Lay the concrete pavers flat on top of the compacted base with a maximum gap of 25mm between the pavers.

7. Once laid, shower the pavers with water to set the sand and cement off.

The paver base is to be large enough to support all edges of the tank. The tank may be placed on to paver base straight away. Do not fill tank above 2 corrugations for at least 48 hours to allow the pavers to 'bed in' under the load of the partially full tank.

CRUSHER DUST BASE - LARGE ROUND TANKS

Crusher dust bases are only suitable for larger diameter round tanks. The crusher dust must have no particles larger than 5mm diameter.

To achieve the best crusher dust base, follow the below proven steps:

1. Dig down to a firm surface
2. A retaining border must be placed around the crusher dust to ensure it does not erode over time or is undermined by heavy rain or burrowing animals.

3. Apply some formwork that is 100mm larger than the tank size.

Note - Formwork should be environmentally sustainable, H2F (Termite Treated) treated pine 140 x 45mm.

4. Spread the crusher dust 100mm thick over the entire base.
5. Screed the crusher dust and check that the material is level and flat with no more than 10mm variation across the base. Excess slope / gradient can lead to an unstable tank.

6. Compact the base with a plate compactor. Ensure there is adequate compaction (minimum allowable bearing pressure of 50kPa) to avoid subsidence.

7. Place the tank into position ensuring that the base is not damaged during placement. The tank can be filled immediately upon placement.

8. Coarse aggregate should be spread over any exposed crusher dust, after the tank is positioned, to prevent erosion.