

TANK BASE PREPARATION

URBAN STEEL TANKS

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 degrees.

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. Kingspan Water & Energy accepts no responsibility for the failure of a tank base.

Do not fill tank above 2 corrugations for at least 48 hours.

Please note that the warranty for our product will be void if the base preparations outlined in this two-page document are not in place. Please contact Kingspan or your reseller to confirm that the base you have selected will meet terms & conditions.

TANK STYLE v BASE TYPE

Tank Style	Base Type			
	Stand	Paver	Concrete Pad	Crusher Dust
Slimline	✓	✓	✓	✗
Modline	✓	✓	✓	✗
Square	✓	✓	✓	✗
Round (diameter):				
≤1900mm	✓	✓	✓	✗
≤2500mm	✗	✓	✓	✗
≥ 2600mm	✗	✓	✓	✓

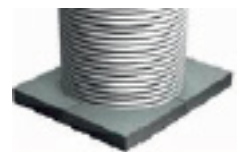
If during the delivery of your tank our team determines that your pad does not comply with these instructions, we reserve the right to return the tank to our yard and charge a re-delivery fee once the pad is rectified.

CONCRETE BASE - **RECOMMENDED CHOICE**

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

Construction of a concrete base for a water tank needs a minimum of 100mm thick concrete and F62 mesh, 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 and the mesh to be a higher grade.

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 100mm longer and wider than the tank.



Slabs must be allowed to cure for at least five days prior to placing tank on slab.

TANK STAND

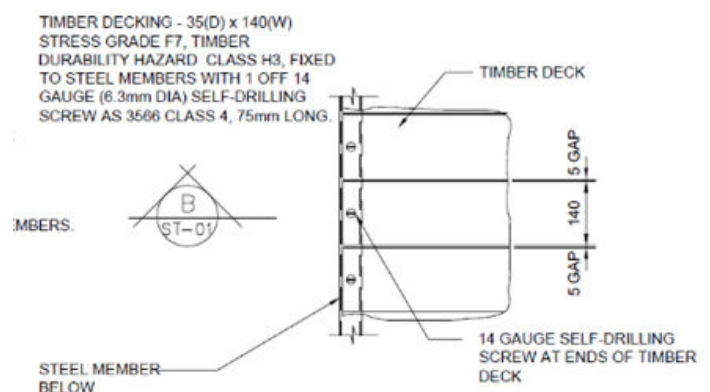
Stand construction must be certified as strong enough to support the tank's weight.

Kingspan can provide a tank stand that has been engineered to Australian Standards. Kingspan tank stands are available to suit a range of tanks.

If you are intending to supply your own tank stand, consult a structural engineer to ensure the construction and footing is sufficient for the tank.



The top of the stand must be flat, smooth, and level. Tank stands may be made with varying leg lengths to accommodate a sloping site.



The platform must be in contact with greater than 95% of the area of the base of the tank with gaps of 5 mm (preferred) but no greater than 25mm between supports.

The tank stand must be level with no more than a 1° slope. Tank stands must be large enough to support all edges of the tank.


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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 garden bed) will subside over time and is not advisable.

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

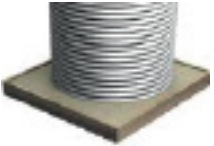
1. Dig down to a firm surface
 2. Apply some formwork that is 100mm larger than the tank size.
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- Note - Formwork should be environmentally sustainable, H2F (Termite Treated) treated pine 90 x 45mm.*
3. Spread sand and cement mix 75mm thick over the 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.

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.
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- 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.

Note: Care must be taken when positioning the tank on a crusher dust base to ensure it does not dig in and create an uneven surface.

IMPORTANT: Before your tank can be manufactured, a photo of the crusher dust base preparation must be emailed to: planning.au@kingspan.com.

SIGNATURE:

The pad for the tank must comply with Kingspan specifications. By signing this document you acknowledge that the tank product warranty is voided if the tank pad does not comply with the **Tank Base Preparation Guide**.

Reseller name:

Customer name
(if direct purchase):