

Thin Skin Tank**Below-Ground Tank Installation Guidelines**

December 2017

The information provided herein is informative only and it applies to the below-ground installation of 'Thin-Skin' fabricated Trade Waste Pre-Treatment Tanks manufactured by Viking Plastics Engineering P/L. As rules and regulations differ from region to region, prior to proceeding we recommend the installer verify the procedures mentioned in this document satisfy the requirements of Water Corporation and any other local Authorities and you follow appropriate and approved excavation practices.

Siting Considerations

1. The tank should be located as close as practical to source of contaminated water.
2. Ease of accessibility for maintenance.
3. Water tap for the purpose of wash-down must be located nearby and must be fitted with backflow prevention device.
4. The access cover must suit the tank application and be adequate for the expected traffic conditions.
5. For some excavations you may require a geotechnical report for ground stability and off-sets from buildings. Also determine the location of underground services before you dig.

Excavation & Preparation

6. The ideal excavation size will leave at least a 100mm cavity on all four sides and underneath the tank.
7. In the event that the sub-surface earth is particularly wet or soft, the earth under the tank should be compacted and, if necessary, filled with 20mm crushed rock to 100mm below base of tank.
8. Verify that inlet, outlet and vent pipe levels match the level of the pipe spigots on the tank.
9. Concrete to be poured around the tank should be a minimum of 38mpa.

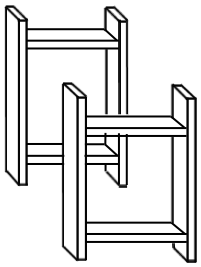
Bracing and Pouring Concrete

10. Pour 100mm concrete pad, (mesh-reinforced if local conditions require it).
11. Insert Y12 reinforcing bars through holes in the tank keying strips.
12. Place tank on top of concrete pad.
13. Install temporary internal bracing (required to prevent collapse of the tank walls under the weight of wet concrete).
We suggest using Timber Flooring or Structural Plywood and timber nogginns at maximum 500mm centres for this purpose (see diagrams overleaf).
Alternatively use stud and noggin frames spaced at maximum 500mm centres – vertical and horizontal.
14. We recommend installing end wall bracing for tank widths exceeding 600mm.
15. Ensure walls are well supported, plumb and that bracing will not move or dislodge during concrete pour.
16. Pour concrete in at least two stages.
Stage 1 to a low level to set the tank in position and to ensure it will not float.
17. Pour concrete evenly all around to prevent tank lateral movement.
The tank may be progressively filled with water during the concrete pour to maintain equal pressures and to help prevent the tank from floating.
18. Temporary bracing must be removed after the concrete has adequately cured.

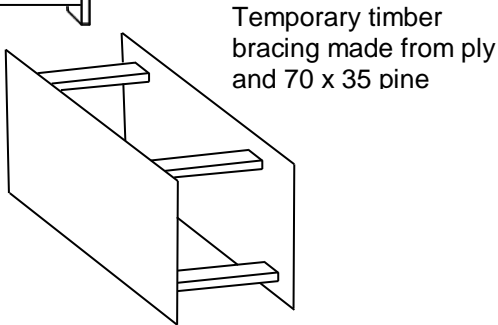
Cover – AS3996

19. The load-rating of the access cover must be adequate for the expected traffic conditions.
20. The access lids will only fit into the frame one way – ensure the frame is orientated correctly to provide easy access to the inside of the tank when the covers are removed.
21. Place the frame on top of the tank flange and concrete-in to required surface level.
22. Apply 'Denso' grease to the 'mating' surfaces of the lid sections. This helps to prevent corrosion, assists lid removal and helps create a gas tight seal.
23. If the cover is a concrete infill type, pour concrete into the cover and trowel off to the required level.

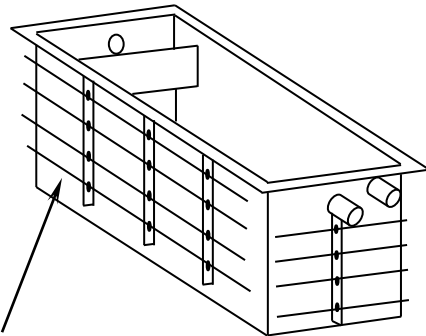
Installation and approval conditions may vary from region to region. This information is provided as a guide only for a typical below-ground tank installation. Viking Plastics reserves the right to alter or change information at any time and without notice.



Temporary timber bracing made from 70 x 35 pine



Temporary timber bracing made from ply and 70 x 35 pine



Y12 reinforcing bars through holes in keying strips



A well braced tank

Bracing to fit between outlet pipe and baffle.

Also brace tank end walls as shown in photo above.

Stud and noggins to be at 500mm centres.

Must vent to atmosphere at high level in accordance with Plumbing licensing guidelines and AS/NZS 3500.2, and must not be combined. (check with local regulations)

Sealed Disconnecter Gully
(supplied and fitted by installer)

Finished Ground Level

Access Cover – AS 3996
(supplied separately - load rating to suit expected traffic conditions)

Connection device - threaded, ringed socket, rubber sleeved connector or electro-fusion (check with local authorities)

*Tank details indicative only
*Tank details are purely for installation example
*All external pipe-work, fittings and connections supplied and fitted by installer

TWSP
(supplied by others)

300mm min

SECTION

Concrete (min 100mm thick)

Excavation

Note: Baffle and internal pipe configurations vary according to tank type, capacity and/or customer requirements.