

## Installation Instructions - 4500, 5000 & 6000 Lt Water Treatment System

### 1. Handling

- Move the tank by lifting, using the lifting lugs in the top
- Do not drop the tank.
- Do not roll it into the hole
- Do not drag tank across rough surfaces

### 2. Site Selection

- Must conform to local & statutory regulations
- Tanks should be sited with due consideration for future de-sludging operations and the siting of either, any further effluent treatment unit, and or land application system.
- Where no regulations exist, the distance of the excavation from any structure must be equal to or greater than twice the depth of the excavation. (Zone of influence)
- Must be located so that tree roots will not interfere with the tank or its associated fittings & plumbing.
- Must not be installed where there is a possibility of the water table exceeding half the height of the tank
- Must not be installed where actual or potential garden beds exist.
- Must not be installed where it will be subject to surcharge loading within 2m of the perimeter of the tank. This includes driveways, storage areas, anywhere stacked materials are placed, above ground pools & spas, high level residential footings, and anywhere that it is likely that people may congregate
- Placement of the tank is permitted adjacent to footings of residential dwellings so long as the designer of such footings maintains vertical support to these footings below the zone of influence of the tank as per local council requirements.
- Note that the tank in this form does not have the ability to withstand significant surcharge loads placed above the tank (and within the zone of influence such as stacked / material and multiple human access.

### 3. Excavation

- Observe any local and statutory requirements for excavations (eg benching/battering/shoring)
- Hole must be 2880mm minimum deep (measured from the finished ground level, not necessarily the existing ground level).
- The installer shall take all reasonable precautions to ensure that the tank is not within the zone of influence of nearby existing structures, such as retaining walls, residential dwellings, commercial buildings, and the like. In such circumstances, advice from a suitably qualified structural engineer should be obtained.
- At the top, the hole must be a minimum of 9900mm Minimum in Sand Gravel soil and 7100mm minimum by 4 metres wide.
- The base of the hole must be a minimum of 1500mm in diameter.
- The Slope 1.5:1 for Sand Gravel soil and Slope of 1:1 for Clay soil

See attached Figure 1 . 6000 litre Water Treatment Tank Installation Guide.

#### 4. Placement of Tank

- Place the tank on a level bed of 100mm of sand bedding layer. This is to ensure that rocks & other debris in the excavation do not damage the tank.
- Ensure that the top of the tank the finished above ground level.
- Fit the lid ring to the tank:
- Ensure that the rim around the opening is clean and dry.
- Apply a 20mm bead of silicone to the groove in the rim around the opening.
- Place the lid ring in position with the bolt holes aligned with the threaded brass inserts.
- Secure the lid with stainless steel tek screws.
- Once the back fill reaches half the tank height fill tank with water up to 900mm below finished ground level.

#### 5. Backfilling

- Soil pressures based on a backfill/subgrade material with density maximum of 20kN/m<sup>3</sup> minimum density of 18N/m<sup>3</sup>
- Backfill material must have a minimum soil friction angle of 30°.
- Backfill material is to be compacted evenly around the perimeter of the tank to a minimum of 98% modified dry density  $\pm 2\%$  optimum moisture content in compacted layers not greater than 200mm evenly around the tank during installation.
- Place fill slowly and evenly from both sides, and ensure that there are no voids, particularly underneath the hold down wings.
- Only hand held vibrating plate compactors may be used in the compaction process.
- Backfill cover over tank must be 400mm (300mm of backfill material and 100mm of topsoil is acceptable)
- Recommended backfill or foundation material is 10mm Blue metal or 10mm recycled concrete
- Ensure all caps and overflows are sealed prior to backfilling the excavation.
- Excessive dirt in the tank will cause line blockages and possible early pump failure.
- Connection pipes and couplings should be supported over the whole length of the trench.

See attached Figure 1 6000L Septic Tank Installation Guide

#### 6. Tank Assembly

The tank comes fully assembled with 4 chambers. A registered plumber needs to connect the following connections.

1. The 100mm PVC pipe to the sewer inlet.
2. The 32mm poly pipe connect to the irrigation field (This is located at the top of the water treatment lid)

#### 7. General

- The stored liquid is to have a specific gravity of 1.0 only.
- The maximum surcharge loading for a person traversing across the lid of the tank is 110 kg.

**In addition to the above information we strongly recommend that the tank be kept at least 20% full of water in wet weather, or at any other time when the area around the tank may become waterlogged**

**Care must be taken when pumping out the water treatment system it must be undertaken by a licensed maintenance contractor.**

**Contact your local council for further information on your regions requirement.**

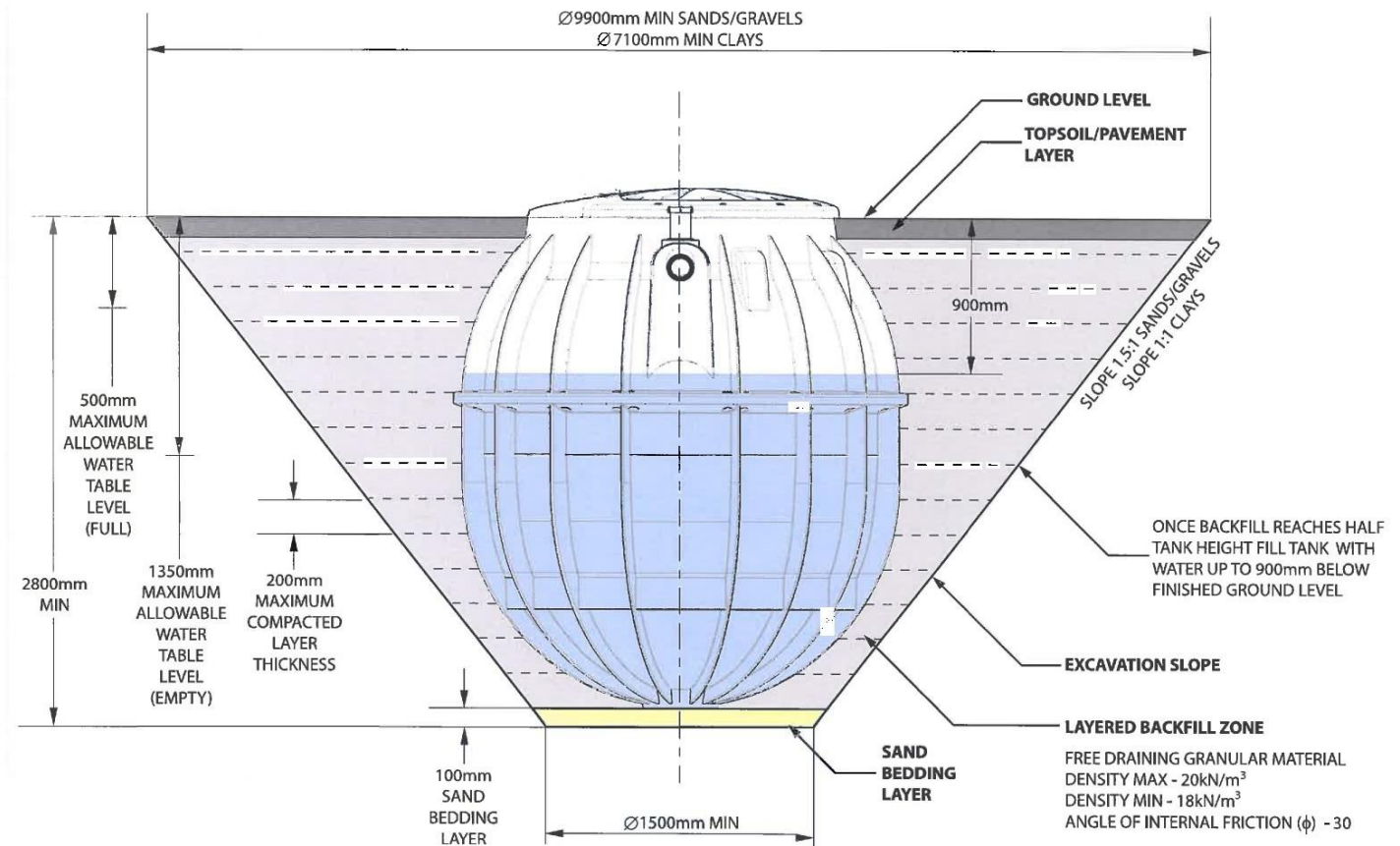
## 8. Confined Space

- Under Work Health and Safety Regulations those installing, operating and maintaining this Septic are obliged to follow "Confined Space" requirements.
- There should be NO need to enter the tank for installation, operation or maintenance purposes.

## 9. Safety

- At no time should this tank be left in the ground unattended without the lid secured.

Please see both local and state requirements for installations and worksafe requirements





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