

# 9,000 Litre Duracrete Standard Water Tank

Suitable applications, specifications and installation requirements

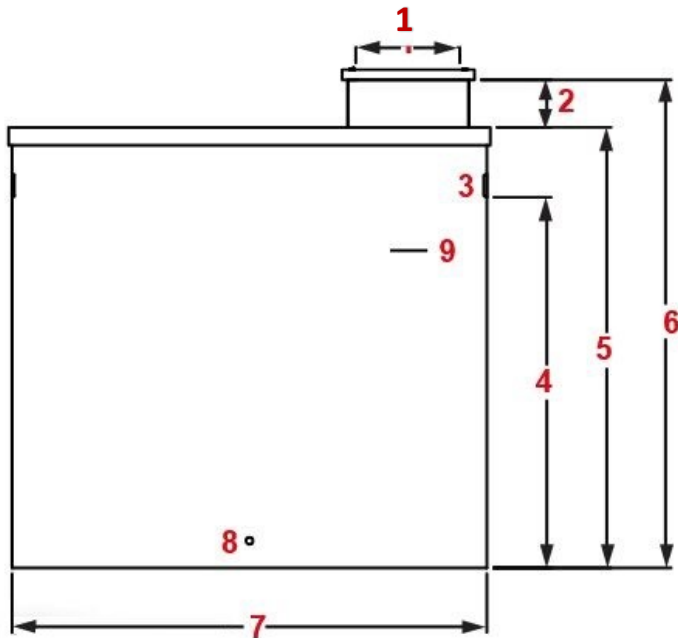
The 9,000 Litre tank is the smallest of the Duracrete range. This can be placed above ground or partially buried to 1.65m maximum

- 4.3 Tonne Weight
- 65mm Average Wall Thickness
- 100mm Floor Thickness
- 80 MPA Concrete Strength
- Manhole lid maximum load capacity 150kg
- Roof loading of 300kg. Foot traffic only.
- Side surcharge of 1,200 kg/m<sup>2</sup>



1. Hatch Opening.	550mm
Manhole lid maximum load capacity	150kg
2. Height of Riser	150mm
3. Overflow/inlet, 2 positions	110mm
4. Water Level Height	1.95m
5. Total Wall Height	2.32m
6. Overall Height	2.47m
7. Outside diameter	2.50m
8. Lower Tank Outlet	40mm
9. Maximum Ground level	1.65m

All dimensions are subject to manufacturing tolerances



**Standard 9,000L Tank  
Buried to 1.65m Max**

No Roof Loading Permitted  
300kg foot traffic only





37 Saleyards Road, Kauri, Whangarei, PO Box 4194 Kamo 0141, 0800 387 227

### Importance of correct site preparation

The site loading of a full 9 000 litre water tank is 14 tonnes across a 2.5m diameter. This extreme loading requires our base preparation steps to be carefully followed by the purchaser/chosen contractor for the tank to be covered by the manufacturer's warranty.

The excavated site must be free from all solid objects such as rocks, tree stumps, tree roots etc and be flat and level. Do not reintroduce the excavated material as a way of forming a level platform.

Correct site preparation (steps 2&3 below) is critical to distribute the downward loading evenly across the site. It will also allow some ground movement or settlement to be taken up in the prepared foundation and not allow it to be transferred directly to the base of the tank.

Uneven weight transfer will result in the failure of the tank.

Tanks should be backfilled as soon as possible after they are sited to seal in the ground. The backfilling material should be clean, rock free soil or similar.

### Site preparation steps

A tolerance of 15mm is permitted across the entire site at the conclusion of following steps 1-3.

1. Excavate & level the ground which will form the base for the tank. Ground shall be "good ground" in accordance with NZBC Clause B1. Do not reintroduce excavated material to achieve a level platform. The excavated hole should be square. The final hole size should be 2.8m x 2.8m and to the required depth. (maximum buried depth is 1.65m for the standard model and 300mm of soil cover/2.5 tonne of light vehicle loading for underground models).
2. Add hard fill and compact to a depth of 100mm to a tolerance of 15mm across the site
3. Add 7mm granular fines as the bedding material to allow the tank to evenly settle onto the site. This course should be 75mm thick and remain uncompacted. Evenly screed to a tolerance of 5mm over the entire site.



75mm uncompacted layer 7mm uncompacted Granular fines to a tolerance of 5mm. "Scoria fines" or similar is suitable. Do not use sand.



100mm layer of compact hardfill to a tolerance of 15mm. Blue Brown 40 or similar is suitable.



4.2m square excavated foundation. Levelled in all directions to a tolerance of 40mm. NZBC Clause B1.



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### Important notes & purchaser responsibilities

- It is the purchaser's responsibility to ensure access is clear, site preparations are complete and to the required standard when the tanks arrive. This will avoid any delays and extra time on site and potential cost overruns. Duracrete and the chosen Transport Contractor takes no responsibility for site readiness or unforeseen delays on site
- Site suitable access is the responsibility of the purchaser. Check that there are no overhead power lines, tree branches, buildings, gate posts or other obstacles blocking access to the loaded delivery truck
- It is the purchaser's responsibility to ensure that the path required from the road to the tank site does not have drains, septic tanks, bridges or irrigation lines that the truck could either fall into or damage
- Duracrete and the chosen Transport Contractors are not responsible or liable for the site preparation standards
- On the day of installation, it is essential to install and pipe the overflow away from the tank base to prevent undermining of the site
- On the day of installation of fully or partially buried tanks (up to 1.65m), it is critical that the tanks are filled completely with water not exceeding the overflow point.
- To prevent floatation (hydraulic uplift) issues, the tanks should remain full until connected to the water catchment
- When purchasing multiple tanks, ensure that there is an accessible isolation valve between the tanks to be able to isolate one tank from the other for future maintenance purposes
- For buried applications, tanks buried 300mm or more into the ground may require a specific design. Please refer to an engineer to decide if your site requires this
- Buried tanks with less than 300mm of topsoil cover may require an anti-floatation sill to avoid hydraulic uplift occurring. Please refer to an engineer to determine if your site requires this
- For partially buried tank application, anti-floatation sill may still be required if the maximum ground water table (indicated in the relevant tank model data sheet) is exceeded. Please refer to an engineer if your site requires this
- Determining the location of your tanks on your site may require an engineer's assessment and specific foundation design
- It is the purchaser's responsibility to ensure that their site access and tanks sites are ready to take delivery on the agreed date with our Production/Dispatch Manager. If there is a delay, you may move to the back of the queue depending on product and transport contractor availability. Product may then need to be allocated to the next customer who is ready to take delivery as we cannot store tanks due to storage space limitations
- It is the purchaser's responsibility to pass this document on to any relevant contractors or end users





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## Warranty terms and conditions

All Duracrete Products are warranted to be free of defects caused by poor workmanship or non-compliance with industry standards for a period of 10 years from the date of dispatch.

### Conditions of Warranty

- Duracrete Products accepts no liability for damage caused due to improper site preparation and incorrect site situations that are outside our requirements (refer to site preparation steps 1-3 on previous page)
- Liability of Duracrete Products is limited to the repair, or if necessary, replacement of the concrete tank concerned. The decision to repair or replace the tank lies exclusively with Duracrete Products

### This warranty does not cover

- Damage caused after delivery resulting from poor, inadequate or incorrect site foundations
- Tanks that are not placed directly on to a prepared tank site at the time of delivery
- Damage caused during transportation
- Negligent or accidental damage that occurs after delivery and during installation
- Moving the tank from its original location
- Filling of the tank with water past the overflow point before the overflow pipe is fitted
- Blocked or incorrectly installed overflow pipe. This includes backlog of groundwater from full soakage pits and the overflow pipe not being installed to drain away from the tank base
- Installation of the partially buried tanks exceeding the maximum ground level as per the specifications
- Tanks that are unequally buried that have a greater differential of more than 1m from highest to lowest point
- Hydraulic Uplift (Floatation)
- Normal aging, wear and tear
- Failure resulting from natural causes (earthquakes, flooding, ground settlement/subsidence, land slips)
- Undermining of the ground supporting the tank
- Tanks that are painted a dark colour that attracts heat, causing the temperature differential between the inside and outside of the tank to increase
- Damaged caused to the roof of the tank due to the exceeding of the load limitations
- Exceeding of the specified load capacity on the manhole lid
- Failure of any plumbing or drainage connections installed by others after delivery
- Repairs carried out by unauthorised persons
- Use of a tank for purposes other than water storage unless consented by Duracrete
- Quality of water entering the tank from the roof catchment and the effect this water has on the concrete inside the tank

