Suitable Applications For Duracrete Underground Attenuation Tanks 25,000 Litre

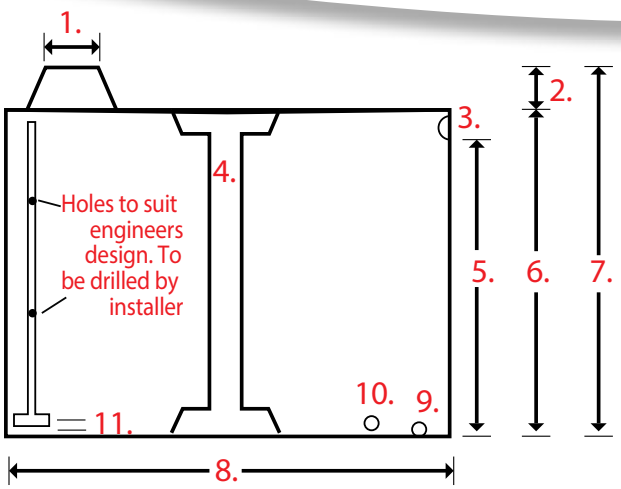
Attenuation tanks are often required as part of building consents by local authorities.

The tanks capture storm water run off, then slowly release the water into stormwater infrastructure. This saves the stormwater from being overwhelmed.

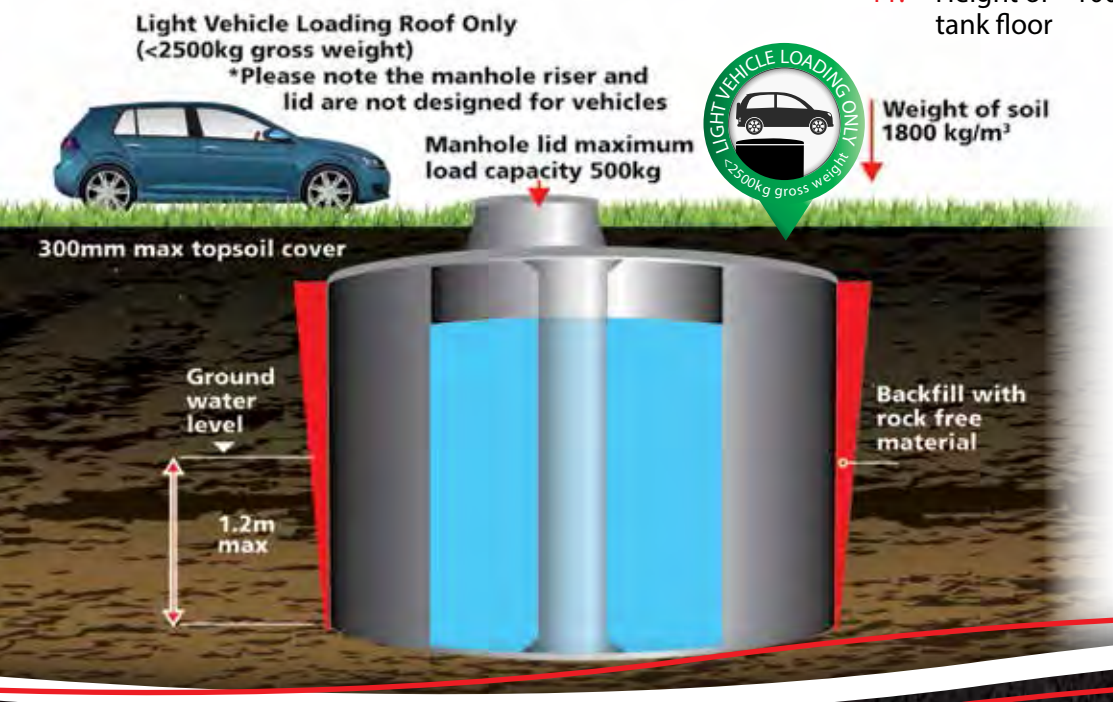
Duracrete Underground Tanks are suitable for buried applications with 300mm maximum ground cover.

The roof is designed for light vehicle loading <2500kg.

*Please note the manhole riser and lid are not designed for vehicles. Manhole lids are manufactured to take a maximum loading of 500kg.



1.	Hatch Opening	550mm
2.	Permitted Ground Cover	300mm
3.	Overflow/inlet, 4 positions	110mm
4.	Support Column (Diameter)	150mm
5.	Water Level Height	2.40m
6.	Total Wall Height	2.635m
7.	Overall Height	2.935m
8.	Outside Diameter	3.73m
9.	Drain	50mm
10.	Outlet	40mm
11.	Height of 100mm PVC pipe off tank floor	100mm



- 9.760 Tonne Weight
- 65mm Wall Thickness
- 100mm Floor Thickness
- 80 MPA Concrete Strength
- Manhole lid maximum load capacity 500kg

Tank Warranty will be voided unless site preparation is carried out by a Duracrete approved earthworks contractor, in accordance with Duracrete's site preparation document. Please contact us and advise us of your proposed contractor.

DURACRETE
PRECAST TO LAST

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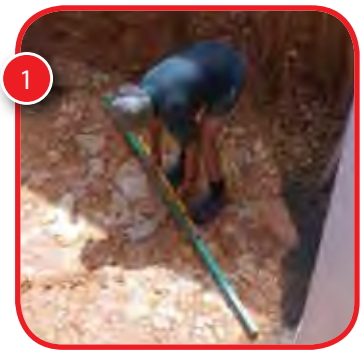
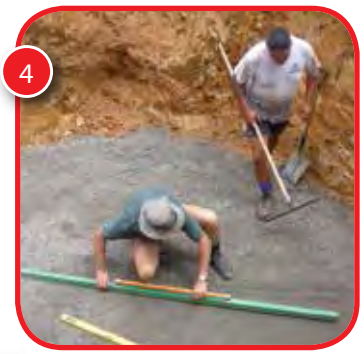
INSTALLATION STEPS:



1 Level the ground which will form the base for the tank. Excavate the virgin solid ground. Do not use excavated material to achieve a level platform. The tolerance allowed is 40mm.

2 The base should be a 4 meters x 4 meters square hole x 2.275m depth for 3.7m ø tanks.

3 Add hard fill and compact with a compactor. Compact to a depth of 100mm thick. The tolerance to be within 15mm.



4 Add 7mm GAP Granular Fines as bedding material - this should be 75mm thick. Do not compact, this should be screeded to within 5mm tolerance over the entire base.

SITE PREPARATION:

The site loading of a full 25,000 litre attenuation tank is approximately 33 tonnes. This extreme loading requires particular care to distribute the load evenly across the site. Foundations must be 'good ground' in accordance with NZS 3604.

The site for your tank must be free of all solid objects (rocks, tree stumps, roots, etc) and be flat, level and consistent across the tank base to allow the tank to sit evenly. A tolerance of 15mm is permitted over the entire site. This can be achieved by using a level and straight edge, laser level or similar method.

An uneven foundation base will result in the tank being 'Off Plumb'.

Correct site preparation is critical in order to transfer the total combined weight of the tank and water of approx 33 tonne to the prepared foundation.

Uneven weight transfer will result in failure of the tank base and therefore will not be covered by warranty.

75mm layer of 7mm granular fines "PAP 7", Scoria Fines or similar is suitable.

100mm layer of hard fill - compacted "Blue Brown 40" or similar is suitable

4m square base levelled in all directions "Good Ground" in accordance with NZS 3604

Aggregates are sold at Western Hills Quarry, Whangarei and other quarries throughout NZ

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IMPORTANT NOTES:

1. Ensure that the inlet to your tank is lower than your lowest stretch of spouting. An additional fall may be necessary depending on the distance between the source of the water (house roof) and your tank.
2. Suitable site access is the responsibility of the purchaser. Check that there are no overhead wires, branches, buildings, gate posts or other obstacles blocking access to the loaded delivery truck. The transport contractor will take every care not to damage property but will not be responsible for damage caused due to restricted access.
3. Make sure the ground is firm enough to take the weight of a loaded truck. If you have any doubts raise them with us before delivery.
4. Make sure there are no holes, drains or septic tanks etc that the truck could fall into when delivering your tank.
5. If you intend backfilling, partially burying your tank you should inform us of this when placing your order. The tank can then be manufactured to take the additional stresses placed on it.
6. Buried Applications - Any tanks installed 800mm below ground could require a specific design to avoid potential hydraulic uplift of the tank. Please refer to engineer for specific design criteria.
7. On the day of installation of partially buried tanks (Up to 2.1m) it is critical that the tanks are filled completely with water, not exceeding the overflow point until it is installed, to prevent floatation from occurring. The tanks should remain full until connected to the water catchment.
8. 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.

WARRANTY TERMS AND CONDITIONS

All Duracrete Products are warranted to be free of defects caused by poor workmanship or non-compliance with industry standards.

CONDITIONS OF WARRANTY:

- Tank warranty will be voided unless site preparation is carried out by a Duracrete approved earthworks contractor, in accordance with Duracrete's site preparation document. Please contact us and advise us of your proposed contractor.
- Duracrete Products accepts no liability for damage caused due to improper site preparation and incorrect site situations that are outside our requirements and recommendations. (Refer to site preparation .2)
- 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 or inadequate site preparations.
- Tanks that are not placed directly on to a prepared tank site at the time of delivery.
- Damage caused during transportation or installation.
- Moving the tank from it's original location.
- Undermining of the ground supporting the tank in any way.
- Filling of the tank with water past the overflow point before the overflow pipe is fitted.
- Blocked or incorrectly installed overflow pipe. This includes overflow pipe not being installed away from the tank base.
- Installation of the partially buried tanks exceeding the maximum ground level as per our specifications
- Exceeding of the load capacity on the manhole lid.
- Hydraulic Uplift (Floatation)
- Normal wear and tear. Aging.
- Negligent or accidental damage that occurs after delivery.
- Failure resulting from natural causes (earthquakes, flooding, ground settlement/subsidence and temperature differential).
- Repairs carried out by unauthorised or unqualified persons.
- Use of a tank for purposes other than for which it was originally intended.
- Site specific water chemistry and it's effect on concrete.

If you have any further queries regarding your site, delivery of your tank, or require further information on concrete water storage tanks, please feel free to contact us.

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