

Suitable Applications For Duracrete Underground Attenuation Tanks 25,000 Litre

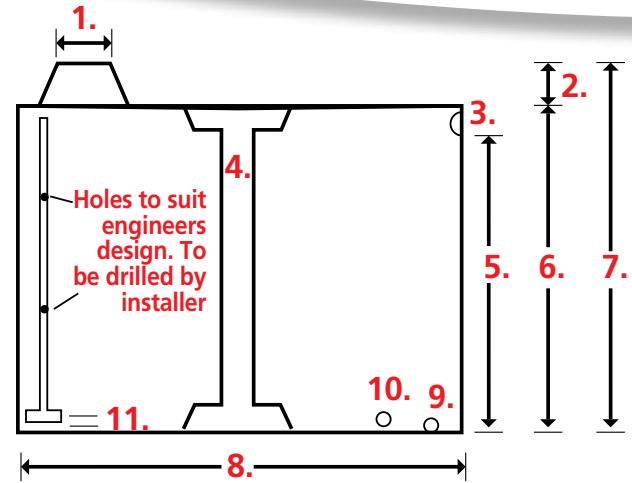
Attenuation tanks are often required as part of building consents by local authorities.

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	3.730m
9.	Drain	50mm
10.	Outlet	40mm
11.	Height of 100mm PVC pipe off tank floor	100mm

Light Vehicle Loading Roof Only
(<2500kg gross weight)

*Please note the manhole riser and lid are not designed for vehicles

Manhole lid maximum load capacity 500kg



300mm max topsoil cover



Weight of soil 1800 kg/m³

Ground water level

1.2m max

Backfill with rock free material

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

Duracrete recommends using an Authorised Installer for site preparation & installation of tanks to safeguard your tank warranty.

INSTALLATION STEPS:



1 Level the ground which will form the base for your tank.

The base needs to be level in all directions.



2 The excavated hole should be square. The final hole size should be 4m x 4m x depth required. No deeper than 2.275m deep.



3 Add hard fill and compact with a compactor.

Compact to a depth of 100mm thick.



4 Add 7mm Granular Fines as bedding material - this should be 75mm thick and be levelled in all directions with a straight edge and level.

The base fines (cushion course) and base course, should be back-filled and contained around the base of the tank, (or higher where appropriate), to ensure all site preparation material stays firmly in place.

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. Our truck driver 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 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 to prevent floatation from occurring. The tanks should remain full until connected to the water catchment.
8. It is essential to install and pipe the overflow away from the tank base to prevent undermining of the site. This must be carried out on the day of installation.

WARRANTY:

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 purchase. This warranty is offered only to the original purchaser.

CONDITIONS OF WARRANTY:

1. 10 years to original owner / purchaser.
2. 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)
3. 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.
4. Preparation of the tank site is the responsibility of the purchaser or their agent, unless Duracrete agrees to undertake the work in writing.

THIS WARRANTY DOES NOT COVER:

- Damage caused after delivery resulting from poor or inadequate site preparations
- Moving the tank from its original location.
- Undermining of the ground supporting the tank in any way.
- Filling of tank with water past the overflow point before the overflow pipe is fitted.
- Installation of the partially buried tanks exceeding the recommended appropriate maximum ground level.
- Exceeding of the load capacity on manhole lid.
- Hydraulic Uplift (Floatation)
- Normal wear and tear.
- Negligent and accidental damage.
- Failure resulting from natural causes (earthquakes, flooding etc.)
- Repairs carried out by unauthorised persons.
- Use of a tank for purposes other than for which it was originally intended.

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.