



This is an Important Document.

Please Install and Maintain your Big Water Tank correctly to ensure you do not void your Warranty.



Table of Contents

Contents

Table of Contents	2
Ordering your Big Water Tank	3
Water Tank Delivery and Handling Instructions	4
Site Preparation Requirements	5
Plumbing Requirements	6
Water Tank Maintenance Plan	8
Warranty Policy	10

Ordering your Big Water Tank

Big Water Tanks Limited (BWT) prides itself on manufacturing top quality, highly consistent water tanks that are designed to withstand the harsh New Zealand sun and elements.

BWT has custom built rotational moulding machines specially designed to form large water tanks with constant logged oven and moulding internal temperatures on every tank (over 1000l). After every tank is moulded, we have a strict quality control program that measures thicknesses of the tank to confirm correct powder distribution, they are also samples cut from the manhole that are frozen to minus 40°C then impact tested with a heavy steel dart to ensure the water tank's sintering process was correct and the material has formed correctly.

BWT has a range of Sizes of water tanks and have some of the highest industry standard Water tank Shot weights, meaning that we have a thicker wall section creating more strength, most plastic tank manufactures (manufacturers that make tanks over 10,000l) use almost identical materials all manufactured to the high AS NZS 4766:2020 Polyethylene Water Tank Standard, meaning the UV stabilisation and Polymer Quality is monitored and certified to meet these standards.

Capacity	Diameter	Height	Mass	Outlet Size
30,000	3.8m	3.1m	500kg	50mm
25,000	3.5m	3.1m	375kg	50mm
10,000	2.25m	2.90m	225kg	50mm
5,000	1.75m	2.40m	125kg	50mm
4,000	1.75m	1.95m	100kg	50mm
3,000	1.75m	1.45m	80kg	50mm
2,000	1.2m	2.1m	50kg	50mm
1,000	1.2m	1.1m	30kg	50mm
500	0.75m	1.4m	18kg	25mm
1200L Slimline	1.76m Wide 0.44m Depth	1.9m	75kg	32mm x 2



Water Tank Delivery and Handling Instructions

Big Water Tanks Limited (BWT) tanks, are delivered to the road entrance of your property providing there is suitable public road access without limiting structures or obstructions that are impassable or dangerous, however our driver at his/her discretion may deliver the tank onto your property and place the tank on the desired site providing access is suitable, this will be at the purchaser's risk including but not limited to injury, damage and/or recovery costs if the vehicle gets stuck. If access to the property is obstructed or the contact person is not available, the driver will deliver the tank as close as possible (on or off the property) at BWT drivers' discretion and it is the purchases responsibility and expense to relocate the tank to the final location.

We deliver with a truck and trailer or a 4x4 Ute and trailer depending upon other deliveries in the region / route, below is a picture of our Ute and Trailer as an indication of size.



For Health and Safety, we require **Able Bodied** persons to be onsite for offloading tanks this person or people are required to assist the driver push the tank off the trailer. We would prefer to have 3 people or more (driver + 2 supplied by the purchaser) on site for tanks larger than 25,000l and 2 people or more (driver + 1 supplied by the purchaser) for tanks less than 25,000l. It is the purchaser's responsibility to secure the tank from wind once delivered.

30,000l water tanks weigh 500kg and are extremely large, it is expected that the BWT driver controls the delivery process as he has the most experience delivering tanks of this size.

The delivery driver will make contact prior to delivery, often the night before or the morning of delivery to confirm he is on his way and an expected ETA, as many factors like weather, traffic etc change the ETA's we cannot generally confirm these too far in advance.

Tanks can be lifted using the 4 lifting lugs with a spreader bar or at least 4m steps, to prevent tank from pulling inwards, lifting lugs are not suitable for lifting if the tank has any water in it.

DO NOT LIFT A TANK WITH ANY WATER IN IT

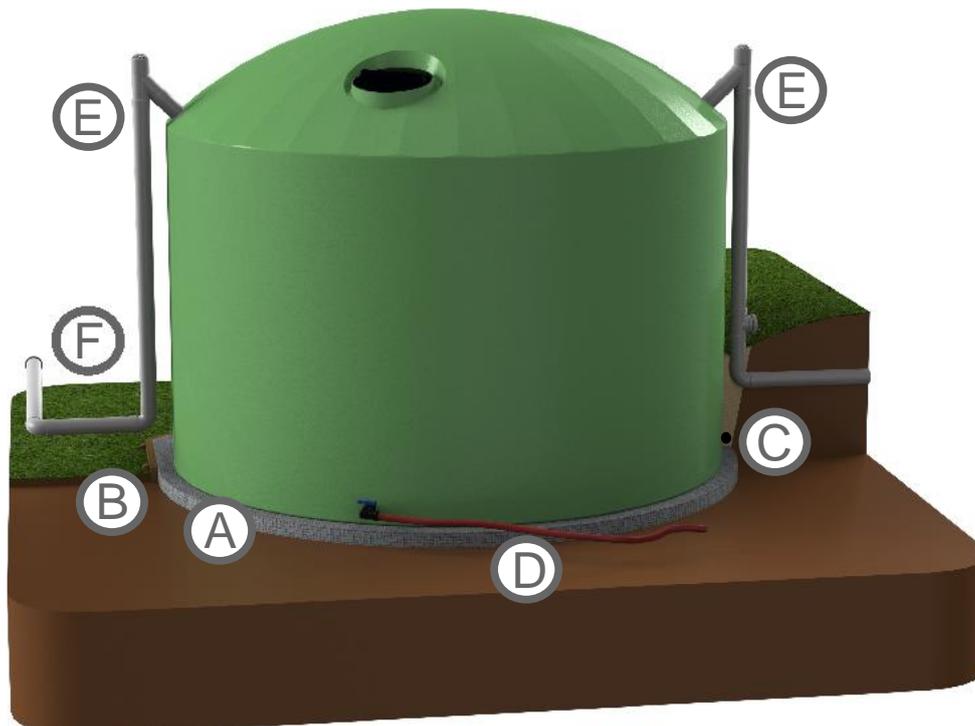
Site Preparation Requirements

Big Water Tanks Limited (BWT) are only for ambient storage of potable water, any other uses may void the 20-year warranty. If you would like to use your tank for anything else, please inform us before ordering and we can confirm if the tank is suitable and how that use could affect your warranty.

Site preparation is the responsibility of the purchaser BWT does not prepare the site or install the tank except when specifically quoting the installation work.

Site Preparation:

- The site needs to be level and cleared with no rocks or materials that can damage the base of the tank.
- The site needs to be suitably compacted and stable to support up to 30,500 kg of weight for a large tank if the site is filled it should be compacted to support the weight of the tank plus the weight of the water.
- The finished site should be at least 200mm larger than the base (inside any retaining) of the tank however we recommend that should be a minimum of 500mm bigger than the Diameter of the tank.
- Install a layer of (A) Gap 7, “crusher” or sand must be compacted level at least 100mm thick for tanks larger than 3000l alternatively tanks can be sat on a level concrete pad suitable to hold the weight without cracking, refer to your engineer for design requirements.
- Retain (B) the Base Layer either by timber retaining or dug below ground level.
- Tanks can be buried,
 - 25,000l to 30,000l can be partially buried up to 700mm from the bottom.
 - 3,000l to 10,000l can be partially buried up to 500mm from the bottom.
 - smaller tanks cannot be buried with a warranty.
- Buried tanks require a drainage coil (C) around the base of the tank, drained to a lower area.
- Buried tanks must be buried with a 100mm + layer of bark against the tank wall to allow for expansion.
- Only install your water tank where it would not affect other buried items (pipes, septic’s...) or too close to foundations of buildings. Livestock access to tank should be limited by a fence.
- Climbing on the tanks roof is prohibited.



Estimated required amounts of base layer materials:

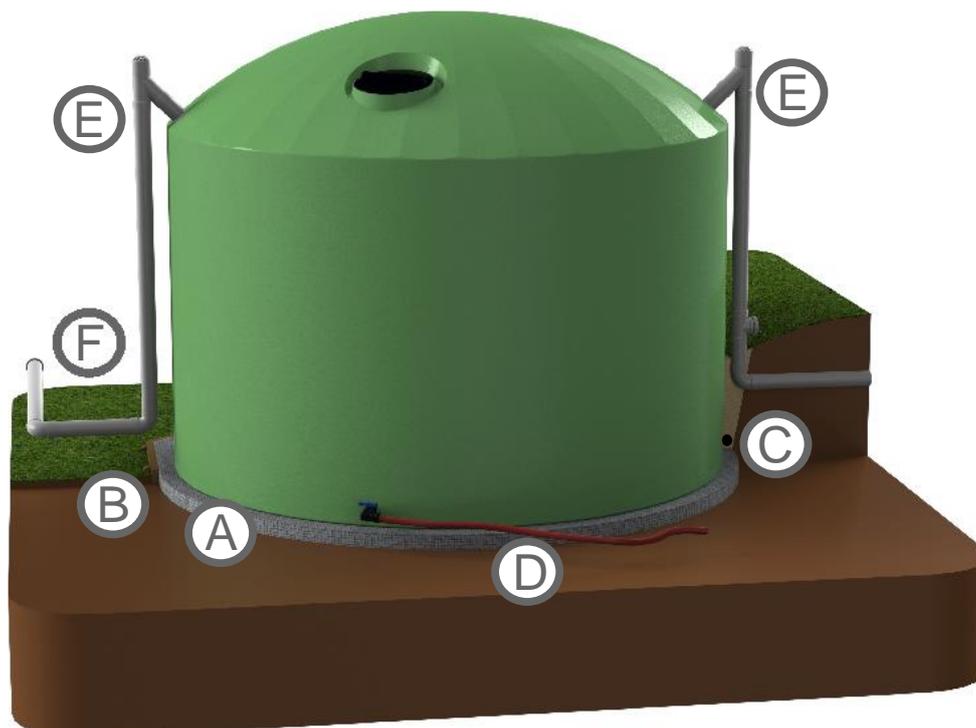
Capacity	Base Materials Square	Base Materials Round
30,000	1.70m ³	1.40m ³
25,000	1.60m ³	1.25m ³
10,000	0.75m ³	0.60m ³
5,000	0.50m ³	0.40m ³
4,000	0.50m ³	0.40m ³
3,000	0.50m ³	0.40m ³

Plumbing Requirements

When plumbing the connections to your water tank we recommend you use a Registered Plumber / Drainlayer and that you supply them a copy of this to ensure that the pipework is flexible and done correctly and will meet the requirements for the warranty.

Requirements for Plumbing Connections:

- A flexible hose (D) must be used to connect to the tank, flexible mean hose or bendable pipe to allow for expansion and contraction of the tank. MDPE blue pipe and Alkathene LDPE are not flexible pipes, we have flexible hose kits available please get in contact with BWT should you require us to supply these.
- Stormwater pipework should be installed into the dome of the tank (E) we recommend an inverted Y junction with a vent on the top, BWT has kits made up with mosquito traps.
- All Stormwater pipework should be installed with a rubber tank seal.
- Stormwater pipe must not be larger than 150mm entering the tank.
- Stormwater overflow pipes diameter must be greater than or equal to the incoming stormwater pipework and must be diverted away from the base of the tank (F) to prevent erosion of the base materials. Overflow pipes are required even if the tank is filled with a float valve in case of failure of the valve.



Stormwater Detention, attenuation, or large diameter outlets:

- Rubber tank seals are not to be installed into the side wall or base of the tank except for just under the dome as they are not considered flexible.
- Additional 50mm Tank fittings can be installed into the side wall providing they are no close than 500mm to another tank fitting and are installed correctly.
- Larger 75mm Tank fittings are available for a 10,000l, 25,000l and 30,000l Water Tank and cannot be installed closer than 1000mm to another fitting but do require flexible hose connections and effect the warranty.
- Large 100mm Fittings for fire tanks can only be installed in 25,000l and 30,000l tank with a low use application I.e., Fire water only. A Big water tanks fire kit must me used with the galvanised bracket mounded to a concrete pad, the mounting of the support place must be done with the tank full of water and be installed in the middle of its travel to allow for further expansion and contraction when empty, installed correctly this does not affect the warranty.
- Bulk water installations it is recommended to use a manifold of required size with 50mm Flexible pipes connecting the larger manifold to each tank.
- Tanks with 50mm pipe connections or larger require an additional 100mm vent to be installed on the tank, either on the overflow or into the dome of the tank

Estimated manifold requirements to be confirmed with hydraulics engineer based on low suction pressure and average pressure.

Capacity	Estimated Gravity Pressure Flow 6ft/s	Tanks with 50mm Hoses	Estimated Average Pressure Flow 12ft/s	Tanks with 50mm Hose
200mm Manifold	3500 l/ min	16	7200 l/ min	15
150mm Manifold	2000 l/ min	10	4100 l/ min	9
125mm Manifold	1440 l/ min	7	2840 l/ min	6
100mm Manifold	900 l/ min	5	1800 l/ min	4
75mm Manifold	530 l/ min	3	1000 l/ min	2
50mm Pipe	208 l/ min	1	480 l/ min	1

Rain Harvesting and Clean Water

It is recommended to install leaf diverters and first flush devices to your downpipes and/or pipework into the tank, keeping debris from entering the tank is best method of keeping your tank clean and drinking water safer.

Water Tank Maintenance Plan

Maintenance of your Rainwater Tank and System is crucial to keep your water in premium condition. Every situation requires different attention as there are several factors that need to be accounted for. This check is only relating to the physical water tanks, please ensure that the whole system is checked regularly especially if this rainwater system is for household use.

Maintenance of Plastic Water Tanks every 6 to 12 Months water tanks should be visually checked as follows.

Check	Action Required
Check water tank for any undermining of base materials, this can be caused by overflows not being installed correctly or natural water paths flowing through the tanks base area.	Ensure base materials are “boxed in” and that there is an even base all the way around the tanks, normally Gap 7 or sand, in the event of significant undermining the base may need to be repaired.
Check inlet and overflow pipe for brakes, damage, or blockages, also check that rubber tank seals are correctly installed.	Have a plumber or drainlayer repair any damages.
Check the overflow pipe is not blocked.	Clean the overflow pipe or outlet of the overflow pipe.
Carefully open the lid of the tank and check internally with a torch to see how much sediment is at the bottom of the tank.	If the silt is greater than about 200mm, the tank should be professionally cleaned by a tank cleaning company.
Check lids firmly attached and prevent wildlife or children from entering the tank.	If lid is damaged, please contact Big Water Tanks Ltd to purchase a replacement lid, please photograph your lid and email an order to sales@bigwatertanks.co.nz and we can arrange a replacement lid.
Check tank exterior is clean and free from debris, remove debris around the manhole and/or pipework.	Remove debris (leaves, twigs etc.) from tank, hose off tank or scrub with soapy water if required.

A ladder may be required to access higher areas of tanks and as plastic tanks walls are “slippery” please ensure that someone is supporting the ladder to prevent any injury.

It is not recommended to clean the inside of your water tank, there are many companies that have specially developed suction pumps and are suitably trained to work in confined spaces if they need to enter the tank.

Additionally, you should setup a household rainwater maintenance plan for the entire rainwater harvesting system:

Check Roof, Gutters, Gutter Filters, Pre-Tank Filters, Water Strainers, Water Filters, Ultraviolet Systems and Water Quality Testing.

Important Safety Notice

While it is not recommended to enter your water tank never do so without the correct safety gear or having a safety person in case of emergency

Warranty Policy

Big Water Tanks Ltd (BWT) fully warrants to the original purchaser that the product will be free from material defects arising from the manufacturing process for a period of time as stipulated in below table from the date of purchase and BWT may, at its sole discretion repair or replace a defective product during that period subject to the following conditions.

Product	Warranty Period
Residential Water Tanks	20 Years
Commercial Water Tanks	10 Years
Static Fire Holding Water Tank with 100mm outlet	20 Years
Water Tanks with 75mm Outlets	5 Years
Water Tanks with 100mm outlets	1 Year
Pump Covers	2 Years
Water Filter Components and Rain Harvesting	1 Year
Grundfos Water Pumps	2 Years
Other Water Pumps	1 Year
Other 3rd Party Components	1 Year

Water Tank Warranty Details

The warranty is void if it is not registered within 90days of delivery or if the tank:

- is not installed correctly.
- is not used for ambient temperature, (potable water storage only).
- base support degrades or washes out.
- is moved or handled incorrectly e.g. with any water in it.
- degrades due to bad weather, earth movement, trees, roots, fire, vermin abnormal operating conditions.
- if the original purchase invoice/receipt or order confirmation is not kept.

The following are excluded from the warranty (except where otherwise stated by law): inlet and outlet fittings; colour changes over time; removable lids; reasonable weathering; consequential losses or damages including but not limited to any damage to buildings, production, or the like; transport or freight costs; and any damage to the dome of the tank.

BWT must be given a reasonable opportunity to inspect any faults or failures before works begin to repair, the warranty does not cover reinstatement costs of the tank.

Tanks under 3000l must be returned to BWT for inspection and replacement if necessary.

Any defect must be reported to BWT within 5 days of occurrence with photographs showing the defect.

The tank warranty must be registered by the submission of photographs to BWT within 90 days of delivery, clearly showing the that the tank has been installed correctly in accordance with the instructions provided. Include detail of all pipework, vents, base material, flexible outlet hose, backfilling, drainage, etc. Photographs must be submitted on the warranty page of the BWT website <https://www.bigwatertanks.co.nz/>, or by email.