

Install a Rainwater Tank



Project Cost Estimator

Materials Description	Quantity	Cost
Rainwater Tank		
Rain Head		
PVC Pipes		
PVC Bends/Connectors		
First Flush System		
Pump		
Ball Cock Tap		
PVC Adhesives		
Gutterguard Mesh		
Equipment		
Rake & Shovel		
Adjustable Wrench		
Drill/Driver		
Spirit Level		
Total		

All the above materials and equipment are available at all Magnet Mart Stores.

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- Easy to follow step-by-step guide
- Important and handy tips
- Materials check list
- Project Cost Estimator

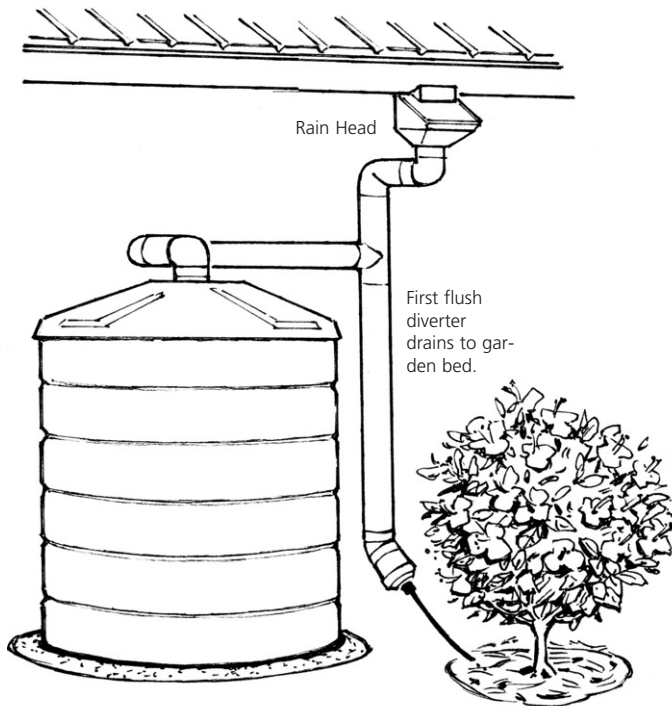
Before you start, please read through this pamphlet carefully and estimate and assemble all the materials you will need for the project and gather your tools and equipment together. Refer to the checklist and estimating form on the back panel of the pamphlet to assist in this preparation.

You Can Install a Rainwater Tank

Common Poly Tanks

Rainwater tanks can be made from galvanised steel, concrete or polyethylene (plastic). At Magnet Mart you will find a wide range of poly tanks that will suit most applications from large rural sizes through to under-eave tanks for the urban backyard.

This *Home Project* brochure will deal with installing the most common type of rainwater tank – the round poly tank. Please note that if you wish to connect your tank to internal plumbing such as a washing machine or toilet cistern, you will need to have the work performed by a licensed plumber.



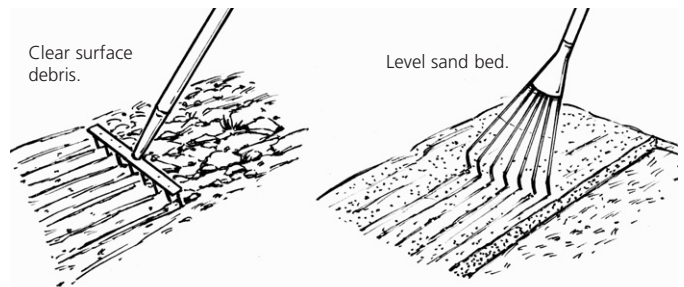
A typical rainwater tank installation.

Tank & Site Selection

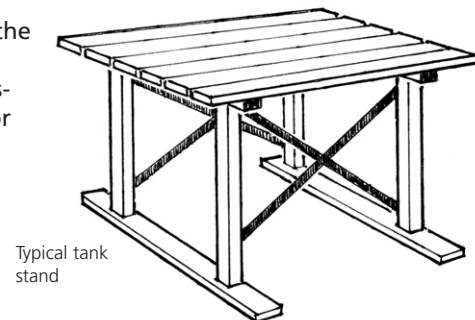
Selecting the right size tank depends on how you intend to use the collected water. For example, if you wish to use the water for outdoor gardens and washing the car a 2,000 litre tank would be adequate. If you intend connecting the tank to the household plumbing for toilet flushing or use in a washing machine, the minimum size recommended in urban areas is 5,000 litres.

When siting the tank aim to place it on the southern side of the building as this will limit the amount of direct sunlight on the tank. Choose a site near an existing downpipe to make connecting the tank easier.

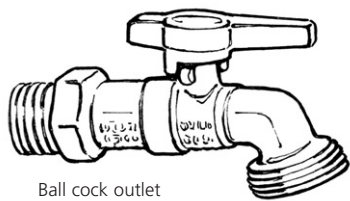
Site preparation for poly tanks is simply a matter of levelling an area and ensuring that no sharp rocks or projections remain near the surface immediately under the tank. Lay a 50mm thick bed of sand to ensure that the tank settles in level and the risk of rocks is decreased.



As an alternative, smaller tanks may be mounted on a tank stand. Magnet Mart can special order tank stands to suit a range of poly tanks or you can build one yourself from treated timber. A tank stand gives extra height for the outlet tap, providing higher water flow pressure and also allows for some garden storage space underneath.



Typical tank stand



Ball cock outlet

Get help to manoeuvre the tank into position, ensuring the outlet is in a convenient location. Use a ball cock outlet tap so that you do not have the worry of replacing a worn

tap washer on a full tank some time in the future. When fitting the outlet tap use thread tape to make a good seal. Now you are ready to connect to the guttering.

Roof & Guttering

Check the condition of your roof surface and guttering before connecting the tank. Replace any damaged roofing material, check the gutters for damage and clean out any leaves or debris.

Consider installing a good quality gutter guard system to reduce the amount of leaves entering the gutters. Magnet Mart stocks a number of different products that suit most guttering types, for long term protection consider metal gutter guards.

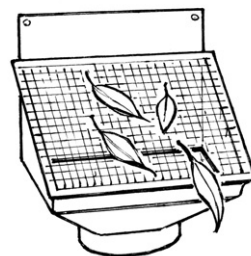


Now is the time to decide if you wish to connect more than one downpipe to the tank. The average sized house will have three or four downpipes and in most cases at least two may be close enough to your tank location to be easily connected.

Essentially, each downpipe will require a rain head and the first flush diverter will need to be sized appropriately to handle the water flow. Some suitable lengths of PVC pipe and fittings for bends will allow connection to the tank. Allow for a sloping run of PVC pipe when planning the connection to the tank so the rainwater drains quickly from the guttering. Check the range of PVC pipe fittings available at Magnet Mart when planning your connection.

Install a Rain Head

A rain head is your first line of defence, removing leaves and debris from rainwater as it drains from the guttering. The design of the rain head is simple – a self-cleaning primary screen of 6mm mesh keeps out leaves and debris as the water falls from the gutter outlet. A secondary screen inside

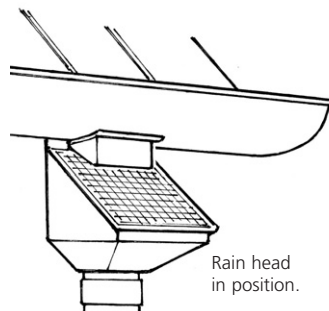
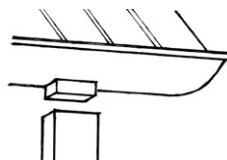
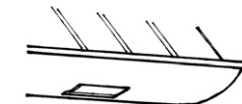


Rain head.

the rain head (less than 1mm mesh) filters the water and ensures that mosquitoes and vermin are kept out of the tank.

To install a rain head:

1. Remove the downpipe and outlet from the guttering.
2. Fit the supplied outlet by cutting a new hole and fixing with pop rivets.

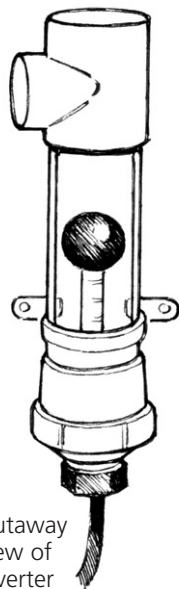


Rain head in position.

Now screw the rain head body to the fascia and insert the mesh filters in their respective holders. Attach a PVC downpipe to the rain head using a suitable sized adapter as necessary – do not glue this joint, fasten with screws for easy removal.

Install a First Flush Diverter

A first flush diverter is a simple way to ensure that any dirt or sediment from the roof does not go into the tank as the first rush of water is collected during a rain storm. The diverter is fitted between the rain head and the tank in a convenient location using supplied PVC fittings, as the first rain water washes off the roof, it fills the diverter instead of going straight to the tank.



Cutaway view of diverter

The ball rises as water enters, sealing the diverter once it reaches the top.

The diverter automatically releases the first flush water over time through a slow release valve and can be easily connected to a drip hose to irrigate a nearby garden bed.

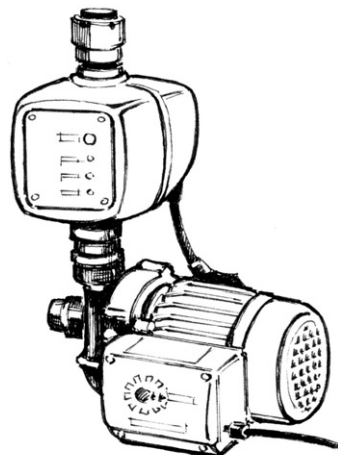
Various size diverters can be purchased at Magnet Mart to handle single or multiple downpipe flows. Once the diverter is installed simply connect the tank inlet to the downpipe and your rainwater harvesting system is

ready to go.

Connecting a Garden Pump

Once you have started to collect rainwater, you will find that your tank will provide best value if you regularly use the water so that there is always room to catch the next rainstorm.

It's easy to connect a garden pump with some flexible hose and fittings, but you will need to ensure that the power cord is protected and uses a weather-proof external power outlet. (A licensed electrician must be used to connect power outlets.)



Magnet Mart stock a range of garden pumps that automatically switch on and off as you operate the trigger nozzle on your hose. We can also provide pump covers to protect your garden pump from the elements.

Maintaining Your System

Here are some simple tips for keeping your rain harvesting system in top condition:

- Check your roof and gutters regularly to remove leaves and debris
- Clear overhanging trees and shrubs from the roof every year
- Check the inlet and overflow screens on your tank for damage
- Check the rain head screens for damage at least annually
- Every couple of years, drain and clean your tank to remove sludge build up

Alternative Tanks

If you have limited space, consider using an under-eave tank system that can fit neatly into a confined space at the side of the house or garage.

An under-deck tank will save space if you are adding a deck, of course this type of tank must be installed when the deck is under construction.

If space is at a premium or if you have major building works in mind, consider an underground tank. Installed during the initial construction stages, underground tanks can be placed under driveways or paved areas. Poly tanks are available in a range of colours and sizes from 330 litres to 45,000 litres. Magnet Mart can arrange special ordering of all types of water tanks. Chat to our friendly staff about your water harvesting needs.