

tank accessories

water quality first

PRODUCTS THAT IMPROVE WATER QUALITY AND REDUCE TANK MAINTENANCE



tank accessories

A COMPLETE RANGE FOR YOUR RAIN HARVESTING SYSTEM

tank accessories

- Insect Proofing your system
- Tank Overflow Outlets
- Tank 'Top-Up' System
- Auto Tank Vacuum System
- Stormwater Detention and Retention
- Fire Plugs™ and Sliding Gate Valves
- Safety Hatches



In some states of Australia it is law that rain heads, first flush water diverters and insect proof screens are installed when rainwater is captured and stored in tanks. These products improve water quality and reduce tank maintenance.

Insect proof screens improve water quality by keeping pests out of the tank and allowing the tank water to breathe.

INSECT PROOFING

Insect Proofing your Rain Harvesting system

Mosquitoes are carriers of disease, including Ross River and Dengue Fever, and all breeding habitats must be eliminated. Other pests and vermin must also be kept out of the rain harvesting system, including pipes to and from the tank and the tank itself. This can be achieved by incorporating the following components into your rain harvesting system.

Insect Proof Screens and Flap Valves

Insect Proof Screens or hi-flow Flap Valves **must be fitted at all openings to and from the tank**. These screens must have a maximum of 1mm aperture screening **to keep mosquitoes, insects and vermin out of the tank**. Rain Harvesting makes Flap Valves and Mozzie Stoppa™ screens that can be fitted to the end of all pipes that lead to the tank and all tank overflow outlets. They keep pests out of the tank whilst allowing the tank water to breathe.

Mozzie Stoppa™ screens

Mozzie Stoppa™ Screens incorporate a 0.955mm stainless steel screen moulded into a 90mm Male & Female PVC fitting and provide a **versatile solution to insect proof the tank**. Mozzie Stoppa™ screens can adapt to fit to PVC pipes and adaptors leading to the tank and to all tank overflow outlets.



mozzie stoppa

The Mozzie Stoppa™ screen is versatile and fits PVC pipes, adaptors and tank overflow outlets.

Hi-Flow Flap Valves

The best kind of Flap Valves have a **double seal**, are **self cleaning**, and have **flaps that cannot be over-rotated** and left open. Vented Flap Valves



allow a flow of air over the surface of the water which improves water quality and prevents a vacuum forming when large quantities of water are quickly drawn from the tank. It is recommended that they be fitted with silicone and not glued. Rain Harvesting has a range of flap valves to suit 50mm, 90mm and 100mm pipe and/or tank outlets.

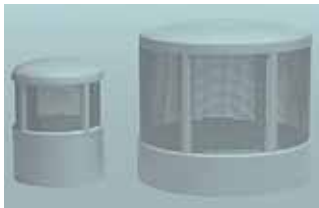
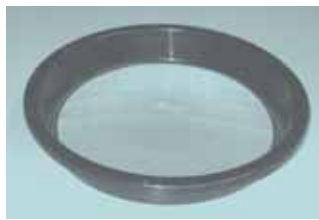


Rain Harvesting's Flap Valves have a double seal, are self cleaning and cannot be over-rotated and left open.



Tank Screens

Unless rainwater enters the tank through pipes that are connected directly to the top or side of the tank, you must ensure all water passes through a tank screen at tank entry point. Not only will tank screens keep mosquitoes and pests out, they will further filter out leaves and debris, and allow a flow of air over the surface of the water.



Vent cowls

Vent cowls include an insect proof stainless steel screen of 0.955mm aperture and can be fitted to the top of rainwater tanks to help vent them properly. They are an ideal method for providing air circulation through tanks where rainwater is piped directly into the top or side of the tank, rather than passing through a tank screen. They are available in 50mm and 100mm sizes.

Vent cowls can be fitted to the top of rainwater tanks to help vent them properly.



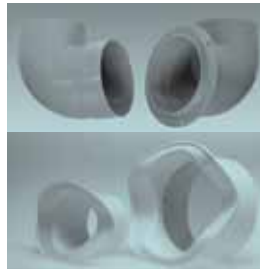
Vent cowl fitted to the top of a concrete tank to ensure air can enter the tank allowing the water to breathe.

The vent cowls from Rain Harvesting are also designed to fit to the top of toilet vent pipes and REDUCE THE POSSIBILITY OF PAN SYPHONING where two toilets are connected to the one line. They feature an open space area of the screen is at least 1.5 times larger than the open area of the pipe which guarantees a full flow of air when the down stream toilet is flushed eliminating vacuum within the line. They fit 50 & 100mm PVC & Copper (with the use of a standard 3mm nitrile "O" ring).



Tank Overflow Outlets

Rain Harvesting has a complete range of tank outlets available for flat wall and corrugated tanks including 50mm, 80mm, 90mm diameter fittings. The 90° bended heavy duty tank overflow outlets are ideal for flat wall tanks (especially poly tanks) and will add 120mm of water to the tank before overflowing. This increases the volume of water that can be captured in the tank and stored for use.



To fit tank outlets, simply rivet or screw on to the tank wall. If using screws drill a hole in the fitting first. Rain Harvesting's Flap Valves and Mozzie Stoppa™ screens can fit directly into these outlets to insect proof the tank.



Rain Heads

The secondary screens included with Leaf Eater®, Leaf Beater® and Leaf Catcha® rain heads incorporate a 1mm aperture (holes) stainless steel screen which ensures mosquitoes and other vermin cannot enter the pipe system to the tank. It is critical that this screen remains in place in rain heads fitted to a "wet" system. "Wet" systems are systems where the pipes from the gutter go down the wall and underground and then up into the tank. Because the pipes are underground and below the entry point to the tank, water remains in the pipes even during periods without rainfall. Mosquitoes will breed in this water unless the insect proof screen of the rain head is in place.



TANK 'TOP-UP' SYSTEM

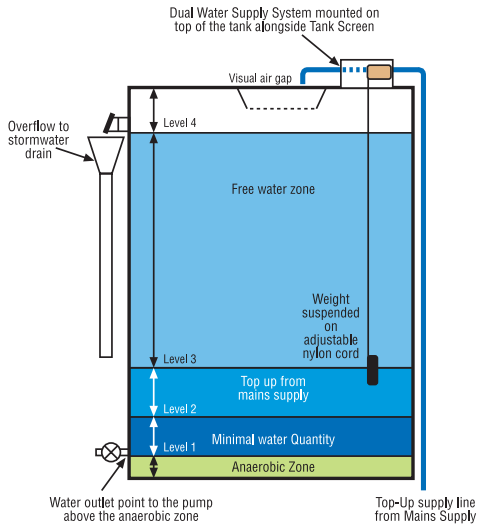
Tank 'top-up' systems are important when rainwater from the tank is the source of water for internal purposes, such as toilet flushing or laundry use, or even when the tank supplies water for automated irrigation systems. The Rain Harvesting Dual Water Supply System

automatically 'tops-up' the tank with mains water (where available) when the tank water level falls to a designated minimum level.

This minimum water level can be set at any height, however typically will be just above the tank outlet point, so that as much of the tank volume is available for rainwater capture when it rains.

The Dual Water Supply System utilises a valve that when activated will introduce mains water to the tank. When the tank water level reaches a designated minimum level, the weight (suspended by an adjustable nylon cord) pulls on the cord to trigger the valve. The length of the cord can be varied depending on the minimum water level at which you require the tank to be 'topped-up'. The system is a **simple and effective solution and is easily maintained.**

The system is installed on top of the tank and is configured to provide a 40mm **visible air gap** between the system outlet point and the water level in the tank when it is full to overflowing, to prevent backflow of water from the tank to the mains supply network and potential contamination. The valve in the Rain Harvesting system is Watermark® approved. Mains water 'top up' systems must be installed by a licensed plumber.



AUTO TANK VACUUM SYSTEM

Fine sediment, which can contain harmful bacteria and heavy metals, eventually builds up in the bottom of rainwater tanks. It is important to maintain the tank to prevent this sediment being drawn out through the outtake pipe for use.

The Rain Harvesting Tank Vacuum System **automatically vacuums the sediment off the bottom of the tank in the area of the outtake pipe every time the tank overflows.** The systems are supplied in kit form and fit all types of tanks, including metal, plastic, concrete and fibreglass.

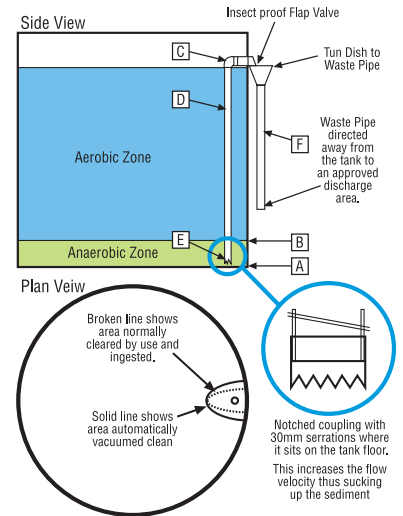
When water flows into the tank and the tank fills the excess water escapes via the tank overflow outlet, but with this patented system the water enters the interior siphon pipe "D" at the bottom at point "E".

A Tank Vacuum System helps prevent sediment, which can build up on the bottom of the tank, being drawn through the outtake point for use.

As the excess water rushes up "D" it draws the sediment off the bottom of the tank like a vacuum cleaner. The water that is siphoned to waste is from the Anaerobic Zone which is the worst quality water. With a standard overflow outlet, water from the top of the tank (the best quality water) goes to waste.

An anti-siphon device in the elbow at the top of the tank "C" prevents the exterior overflow pipe "F" from siphoning water out of the tank. "F" is best fitted with a Tun Dish (a Leaf Catcha® rain head is ideal) under the tank overflow outlet. The outlet can be fitted with an insect proof Flap Valve that also prevents siphoning.

Normally tanks have an outtake point at "A" which draws the water from the Anaerobic Zone which is the poorest quality water in the tank. Where possible fit another outtake point 250-300mm above the bottom of the tank "B" so that better quality water is drawn for use from the Aerobic Zone.



dual water  supply system

tank  vacuum

STORMWATER RETENTION AND DETENTION

Urban development has dramatically changed the natural system of stormwater runoff when it rains. Rainfall is directed rapidly by roofs, roads, driveways and car parks into pipes and channels. Instead of being absorbed by vegetation and soil and slowly discharging into creeks, **stormwater runoff erodes creeks, and deposits sediments and destroys water habitats and organisms.** Many local Councils require stormwater catchment tanks as part of commercial buildings and plans are in place to incorporate stormwater retention and detention in residential developments, with rainwater tanks playing an important role.

Rain Harvesting manufactures a slow release Stormwater Attenuation valve which gradually releases excess water requirements into the stormwater system. These valves are required by some Councils as part of their overall stormwater management programs.

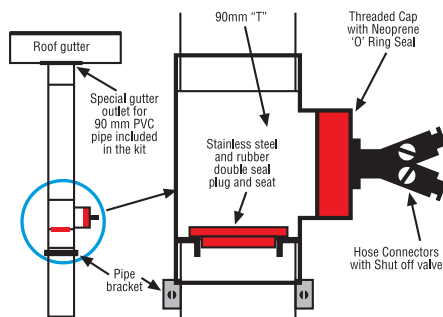
stormwater  attenuation

GUTTER DOWNPIPE DEVICES

Fire Plugs™

Rain Harvesting is the manufacturer of Fire Plugs™ - innovative fire safety devices which **allow roof gutters to be filled with water when bushfires threaten.** Fitted into downpipes around the home at waist height, Fire Plugs™ are easily converted to block off the downpipe. No ladder climbing - simply connect the hose to the water supply and turn on to fill roof gutters and prevent wind blown embers igniting leaves or debris in the roof gutters. Fire Plugs™ come in kit form and are easily fitted to PVC downpipes, which withstand exceptionally high heat and flame when filled with water.

They **can also be used throughout the year to redirect rainwater** to the swimming pool, pond or garden.



fire  plug

Fire Plugs™ allow roof gutters to be filled with water when bushfires threaten and can also be used throughout the year to redirect rainwater to the swimming pool, pond or garden.

Sliding Gate Valves

Sliding Gate Valves available from Rain Harvesting fit at the downpipe and allow the downpipe to be shut off.

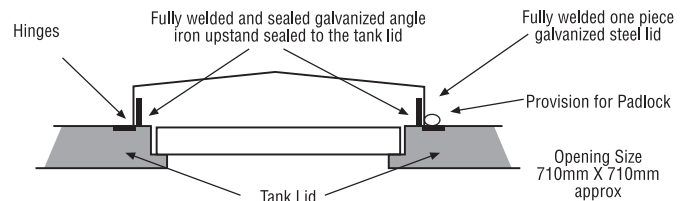


OTHER TANK ACCESSORIES

Safety Hatches

Many water tank tops do not drain the water away from the access hole and onto the ground. It is very common for bacteria and harmful pollutants from the top of a tank to find its way into the water storage system.

Harmful bacteria present on the lid of a tank can wash into the tank when it rains and pollute the water.



Rain Harvesting's Safety Hatches prevent tainting of water and are a one size fits all solution made from galvanized steel that:

- Fit OVER the existing tank access entry
- Are double hinged for security, child proof & lockable
- Are mosquito & vermin proof
- Come complete with an upstand & mounting kit.

safety  hatch

Install the complete Rain Harvesting system

In addition to its range of rainwater tank accessories, Rain Harvesting Pty Ltd manufactures:

Blue Mountain Mesh™ an all steel and fire proof gutter solution.

The Leaf Eater®, Leaf Beater® and Leaf Catcha® rain heads – the ultimate high performance rain heads.

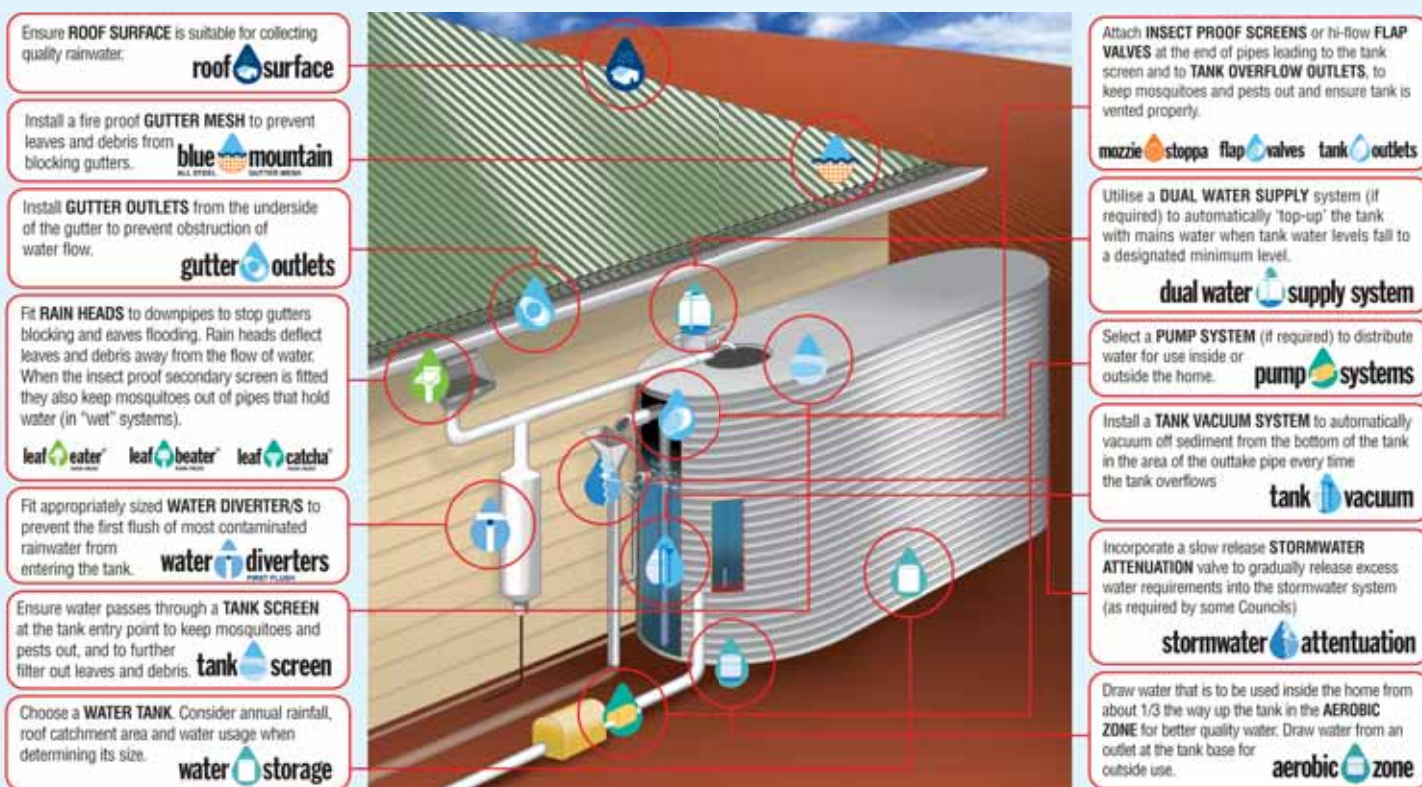
A complete range of First Flush Water Diverters, including downpipe, post/stand/wall mounted, in-ground and commercial diverters.

If you are considering purchasing a rainwater tank, we recommend installing a complete system to improve water quality and reduce tank maintenance. Please feel free to visit www.rainharvesting.com.au or call TOLL FREE 1800 06 77 44 for more information.



Rain Harvesting

www.rainharvesting.com.au





Tank 'Top-Up' system



Tank overflow outlets



Hi-flow flap valves



Insect proof screens

*Consider local Council requirements and have a plumber complete installation where required.

Available from:



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