

Water Quality First - Products that improve water quality and reduce tank maintenance



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

tank  accessories™

tank  accessories™

Available from:

PO019

**Rain  Harvesting™**  
[www.rainharvesting.com.au](http://www.rainharvesting.com.au)

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A complete range  
for your RAIN HARVESTING  
System

- Insect proofing your system
- Tank Overflow Outlets
- Auto Tank Vacuum System
- Fire Plugs and Sliding Gate Valves
- Safety Hatches

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### 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

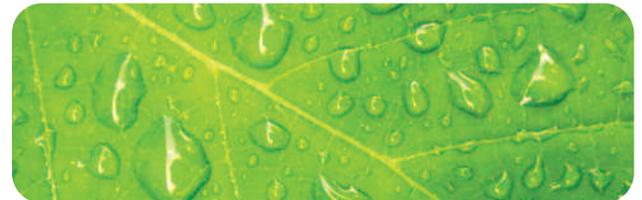
Mozzie Stoppa™ Screens incorporate a 0.955mm stainless steel screen moulded into a 90mm Male and Female PVC fitting and provide a **versatile solution to insect proof the tank**.

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.**



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.

## 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.



**flap valves™**



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

## 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.

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 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 and 100mm PVC & copper (with the use of a standard 3mm nitrile "O" ring).

**vent cowls™**

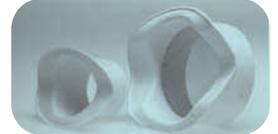
Vent Cowls can be fitted to the top of rainwater tanks to help vent them properly.

## Tank Overflow Outlets

Rain Harvesting has a complete range of Tank Outlets available for **flat wall** and **corrugated tanks** including 50mm, 80mm and 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 onto 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.



**tank outlets™**

## 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.



**rain heads™**

# 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

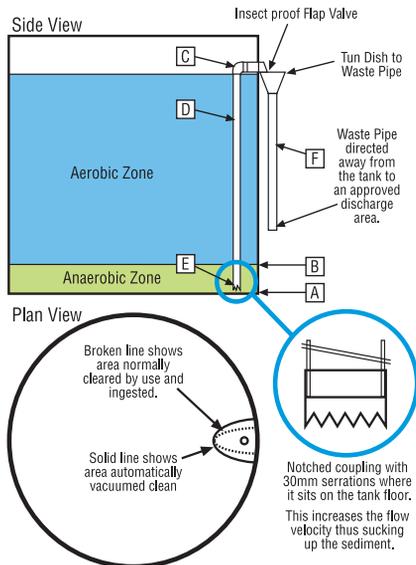
are supplied in kit form and fit all types of tanks, including metal, plastic, concrete and fibreglass.

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".

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.



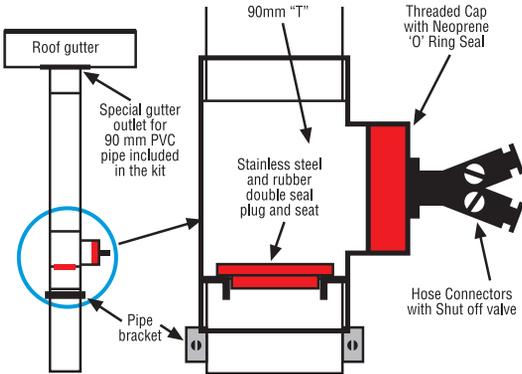
**A Tank Vacuum System helps prevent sediment, which can build up on the bottom of the tank in the area of the outtake pipe every time the tank overflows.**



# 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. Fire Plugs™ 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

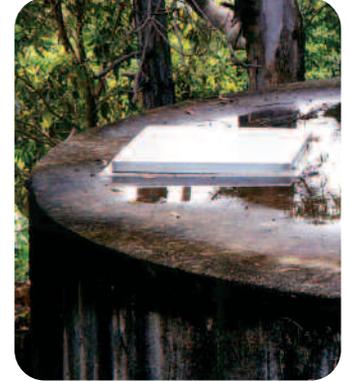
Sliding Gate Valves available from Rain Harvesting fit at the downpipe and allow the downpipe to be shut off.



## Other tank accessories

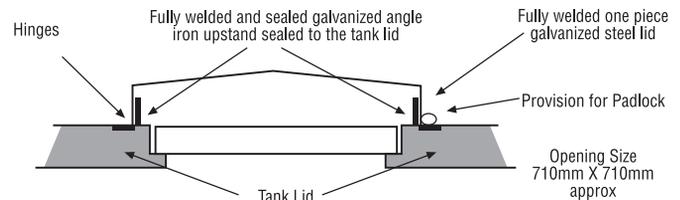
### Safety Hatches

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.**



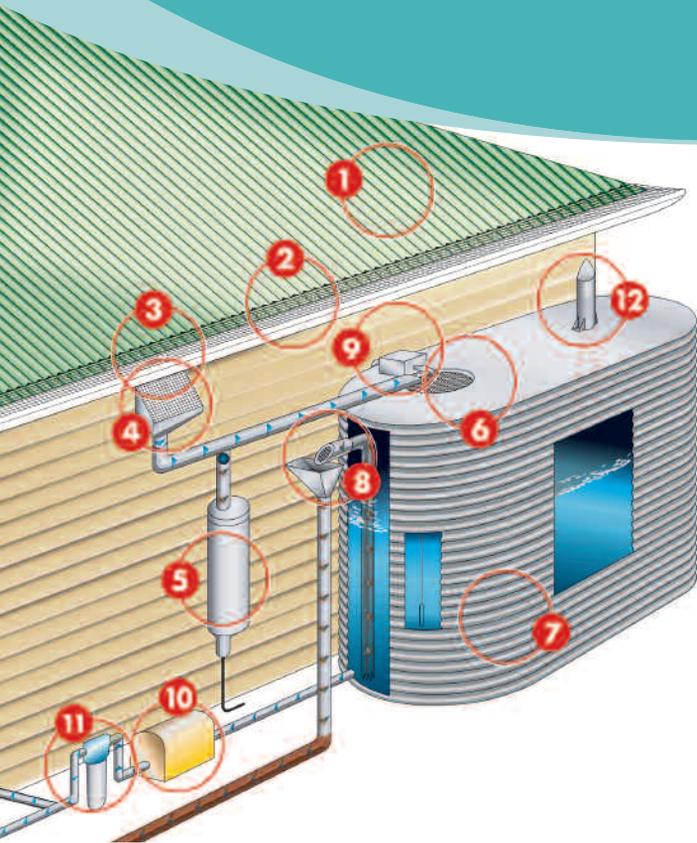
Rain Harvesting's Safety Hatches prevent the tainting of water and are a one-size-fits-all solution made from galvanized steel that:

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



**safety hatch™**

# How to Create the Complete Rain Harvesting System



1. Check **ROOF SURFACE** is suitable for collecting quality rainwater.
2. Install **GUTTER MESH** (such as Blue Mountain Mesh™) to prevent leaves and debris from blocking gutters.
3. Fit **GUTTER OUTLETS** from the underside of the gutter to prevent obstruction of water flow.
4. Fit Leaf Eater® or Leaf Beater® **RAIN HEADS** to downpipes to stop gutters blocking. Rain heads deflect leaves and debris and keep mosquitoes out of pipes that hold water ('wet' systems).

5. Install **WATER DIVERTER/S** to prevent the first flush of most contaminated rainwater from entering the tank.
6. Ensure a **TANK SCREEN** is installed at tank entry point to keep mosquitoes and pests out.
7. Choose a **WATER TANK**. Consider annual rainfall, roof catchment area and water usage when determining its size.
8. Attach **INSECT PROOF SCREENS** or **FLAP VALVES** to the end of all pipes to the tank screen (for 'wet' systems) and to **TANK OVERFLOW OUTLETS** to keep mosquitoes and pests out and ensure the tank is vented properly.
9. Utilise a **TANK 'TOP UP'** system (if required) to automatically top up the tank with mains water when levels fall to a designated minimum level.
10. Select a **PUMP SYSTEM** (if required) to distribute water for use inside or outside the home.
11. **RAINWATER FILTER**. Fit a purpose designed rainwater filter after the pump to help reduce residual sediment, colour and odour.
12. **WATER LEVEL MONITOR**. Install a level indicator to help monitor your water usage. Wireless systems are most convenient and display a reading inside the home.

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