

Leaf Eater® range of Rain Heads – Ultimate High performance



Screened Gutter Downpipe Rain Heads.....	2
The original rain heads.....	2
New multiple screen rain heads	2
Legislative requirements.....	2
Choosing the right rain head.....	2
The Leaf Eater®.....	3
<i>The ultimate high performance rain head.....</i>	3
<i>As seen on TV.....</i>	3
<i>How it Works.....</i>	3
<i>How it is Installed.....</i>	3
The Leaf Beater®.....	4
<i>The compact high performance rain head.....</i>	4
<i>How it Works.....</i>	4
<i>How it is Installed.....</i>	5
The Leaf Catcha® and Rain Catcher®	5
<i>The versatile multi-screen rain head.....</i>	5
<i>How it Works.....</i>	5
<i>How it is Installed.....</i>	6
Mid-Mounting to a Wall	6
'Wet' and 'Dry' systems	7
<i>Depends on the pipework system to the tank.....</i>	7
<i>'DRY' SYSTEMS.....</i>	7
<i>'WET' SYSTEMS.....</i>	7
<i>Insect Proofing 'wet' systems.....</i>	8
<i>Better water quality.....</i>	8
<i>Save water.....</i>	8
Preferable Rain Harvesting Systems	9
Protecting the Home	9
<i>General stormwater application.....</i>	9
<i>Reduced fire risk.....</i>	9
Maintenance.....	9
How to Create a Complete Rain Harvesting System	9
About Rain Harvesting Pty Ltd	10
Our vision	10
Development of the product range	10
Contact Us	11

Screened Gutter Downpipe Rain Heads

The Leaf Eater® and Leaf Beater® downpipe rain heads are **self cleaning, multiple screen rain heads** that fit to downpipes and deflect leaves and debris away from the flow of water.

- ✓ Prevent blocked gutters or flooded eaves
- ✓ Deflect leaves and debris away from the flow of water
- ✓ Eliminate a fire hazard
- ✓ Prevent debris, mosquitoes and vermin entering the water system
- ✓ Improve rainwater quality and catchment efficiency

The original rain heads

Rain heads were first developed to create a break between the downpipe and the gutter so that if the downpipe became blocked the water would flow out over the top of the rain head and onto the ground and not back up into the gutter and flood the building. Early rain heads were simple box shaped funnels that were fixed onto the wall below the gutter.

New multiple screen rain heads

The Leaf Eater® range of rain heads from Rain Harvesting Pty Ltd are the first to incorporate significant changes to these early designs and make the rain heads practically self cleaning. They feature multiple screens to deflect leaves and debris away from the flow of water and keep mosquitoes and vermin out of the pipe system. Not only do they protect the home, they are ideal for fitting to each downpipe that is connected to water storage tanks.

Legislative requirements

Many Local Councils have developed guidelines for the installation of rainwater tanks, and **in some states of Australia it is law that rain heads, first flush devices and insect proof screens are fitted when rainwater is captured and stored in tanks.**

Before installing a rainwater tank, you should check whether your Local Council has such guidelines in place. Health Officers will confirm that it is most important to keep the catchment system free of bacteria at all times to harvest good quality water.

Mosquitoes must be kept out of pipe systems and the tank to prevent breeding and the spread of disease. Ensure that all plumbing work that is carried out complies with all regulations. If in doubt, seek professional advice.

Choosing the right rain head

The type of rain head required will depend on a variety of factors including:

1. The type of pipe system you have (either "wet" or "dry"). In "wet" systems, a mosquito proof screen of no more than 1mm must be fitted to prevent mosquitoes breeding in water in the pipes.
2. The space you have to work with. It is important to install the rain head and still maintain adequate fall of the pipes to the tank. This will ensure that water flows freely to the tank and does not 'back up' in the pipes
3. The amount of rainfall for the area and the extent of leaf and debris build up in the gutters
4. Personal preference for the a particular rain head design

The Leaf Eater®



The ultimate high performance rain head

The Leaf Eater® is the ultimate high performance rain head for use in heavy rainfall areas. Not only does it protect the home by preventing gutters from blocking and flooding of eaves, the Leaf Eater® also improves water quality and reduces tank maintenance



Leaves and debris that build up in gutters can be flammable and represent a significant fire risk. By screening leaves onto the ground, the Leaf Eater® prevents gutters from blocking and eliminates a fire hazard

A secondary stainless steel screen is included to keep mosquitoes and vermin out of downpipes in a "wet" system. With the removal of the secondary screen, the Leaf Eater® is ideal for use purely as a debris removing device even when rainwater is not being collected

As seen on TV

The Leaf Eater® has been featured on TV as the "lazy man's way of keeping gutters clean" due to its low maintenance operation and the fact that they are so easy to install



How it Works

As water flows from the gutters it carries leaves and small pieces of debris. The Leaf Eater® incorporates a flow directional gutter outlet which allows an increased flow of water through the outlet **making rainwater catchment even more efficient.**

This increased volume of water is directed onto the face of the **primary screen**. This screen has a 6mm aperture and is set at an angle to the horizontal of around 45°. This angled screen is self-cleaning and forces the leaves and debris away allowing the water to continue through towards the **secondary screen**.



The secondary stainless steel screen of 0.995mm aperture further filters the water and prevents mosquitoes and vermin from entering the pipe system to the water tank. Once the water passes through this insect proof screen it flows into the downpipes

How it is Installed

The Leaf Eater® is usually mounted directly under the roof gutter. A 170mm x 75mm rectangular gutter outlet comes with each rain head and provides an increased flow of water that is directed onto the angled primary screen



The Leaf Eater® can also be mid-mounted on a wall at a convenient height to make it easier to access for cleaning. When mid-mounting, the gutter outlet is discarded and the entry downpipe is cut at 45°, allowing 50mm clearance between the pipe and the primary screen

The Leaf Eater® is a 80/90mm round dual fit rain head, and if 100mm round or 100x50mm rectangular downpipes are in place, standard adaptors can be used. If the Leaf Eater® is to be fitted to 100x75mm rectangular downpipes, please download instructions for our suggested installation method



The main body of the all rain heads manufactured by Rain Harvesting Pty Ltd are made from lead-free PVC and **can be painted to colour match and complement the home**. For best results wash down with methylated/white spirit and spray paint the desired colour.

Space required

Height: 250mm
Width: 270mm



The Leaf Beater®



The compact high performance rain head

The Leaf Beater® works like the Leaf Eater® and is more compact making it ideal for use with under eaves tanks. It features an integrated flow directional gutter

outlet which directs the flow of water from the gutters onto an adjustable elliptical primary screen of 6mm aperture. This screen is **virtually vertical enabling the action of the water to wash the screen and minimise maintenance.**

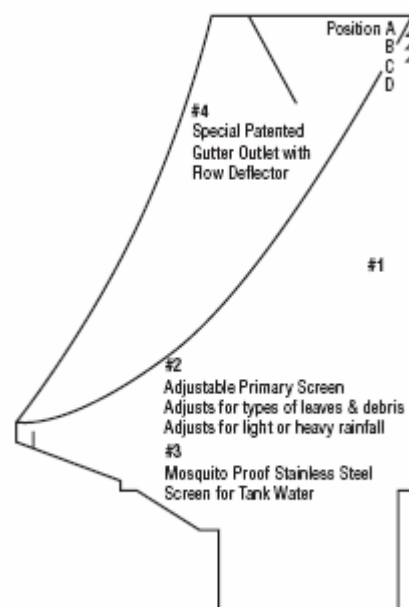


A secondary stainless steel screen is also included to keep mosquitoes and vermin out of downpipes in a "wet" system. With the removal of the secondary screen, the Leaf Beater® is ideal for use purely as a debris removing device even when rainwater is not being collected.



How it Works

An ingenious feature has been incorporated into the operation of the primary screen. Four settings can be applied to vary the angle at which the elliptical primary screen faces to **adjust for various intensities of rainfall and amounts of debris.**



After observing the performance of the Leaf Beater®, the screen can be adjusted until the best operating setting is achieved.



How it is Installed

The Leaf Beater® is usually mounted directly under the roof gutter, however can be mid-mounted on a wall to make it easier to access for cleaning.

The Leaf Beater® range includes four variants and connects with PVC and metal downpipes:

1. For **round** downpipes – **80/90mm dual fit** and **100mm** sizes,
2. For **rectangular** downpipes – **100mm x 50mm** and **100mm x 75mm** sizes

Space required

Height: 245mm
Width: 195mm



The Leaf Catcha® and Rain Catcher®



The versatile multi-screen rain head

The Leaf Catcha® is a versatile leaf and debris catcher with two horizontal internal screens. One is 6mm and the other stainless steel screen is 0.955mm to keep mosquitoes out. The Leaf Catcha® is **ideal for low rainfall and low leaf areas**. It can also be used as a 'tun' dish for **collecting water tank overflow**.



Professionally plumbed (see above). Tank Overflow inspection point incorporating Leaf Catcha® rain heads and Mozzie Stoppa™ insect proof Hi-Flow Flap Valve (foreground); Leaf Eater® rain head and First Flush device (background)

How it Works

Rather than deflect leaves and debris away from the downpipe and onto the ground, the Leaf Catcha® collects material from the gutter in the main body of the rain head. The two horizontal screens prevent leaves and debris from entering the downpipe system to the tank. To clean, simply lift out and empty and replace the rain head.

How it is Installed

The Leaf Catcha® can be mounted directly under the roof gutter (pictured above) or mid-mounted (pictured below).



The Leaf Catcha® fits both 90mm and 100mm round downpipes and standard plumbing adaptors can be used to fit to other downpipes

Space required

Height: 215mm (rain head is 165mm in height)
Width: 290mm



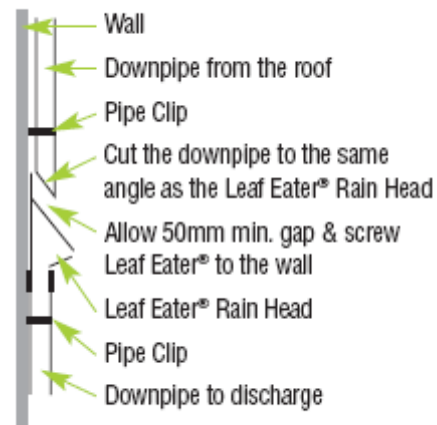
A Leaf Catcha® is an ideal catchment device for directing tank overflow water to stormwater pipes (pictured above - used as a 'tun' dish for two overflow outlet pipes)

Mid-Mounting to a Wall

Rain Heads are usually mounted directly under the roof gutter, however can be mid-mounted on a wall to make it easier to access for cleaning.

To improve access for cleaning Leaf Beater® rain heads can be mounted down the wall at a convenient height. When "pushing water" over long runs and depending on the volume of water required to be moved, the rain head may need to be mid-mounted more that 1.2m above the discharge point. It is important to note that when mid-mounting the flow directional benefits of the rectangular gutter outlet supplied with the Leaf Beater® will be lost. However this is to be balanced with the benefits gained from easier access for maintenance.

Wall or 'Mid' Mounting



Important: When mounting this unit, make sure that it is mounted 1.2m min. above the discharge point when pushing water underground and then up into a tank. Long runs may require more than a 1.2m head depending on the pipe length & size of the pipe & the volume required to be moved.

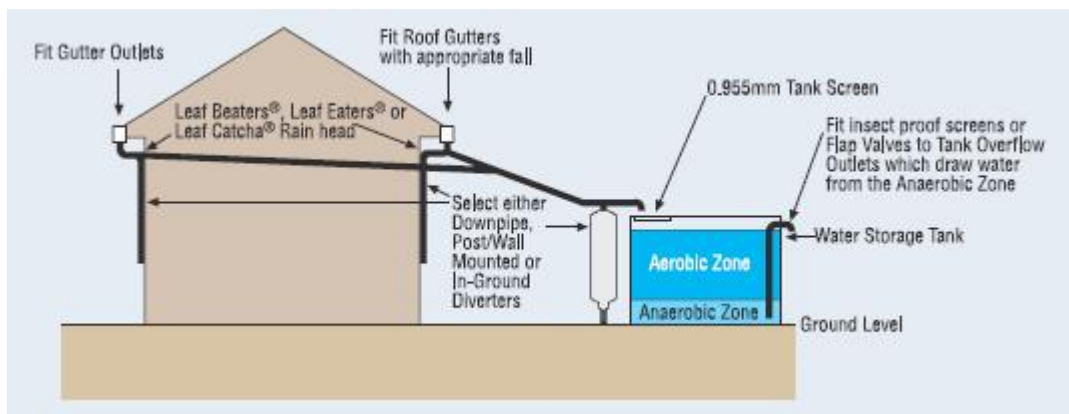
'Wet' and 'Dry' systems

Depends on the pipework system to the tank

Rain Harvesting systems require rainwater from the roof to be directed to the water storage vessel through gutters and pipes. These pipework systems will be different at every location, however are classified as either 'wet' or 'dry' systems. Both systems have strengths and weaknesses, and with a little planning, you can optimise your water quality and install a system that looks good.

'DRY' SYSTEMS

Are systems where the pipe system is designed to run **direct from the gutter into the tank**. The pipes drain out after rain and do not hold water when the rain stops. **"Dry" systems are best** because water sitting idle in pipes can become stagnant and provide a potential breeding ground for mosquitoes.



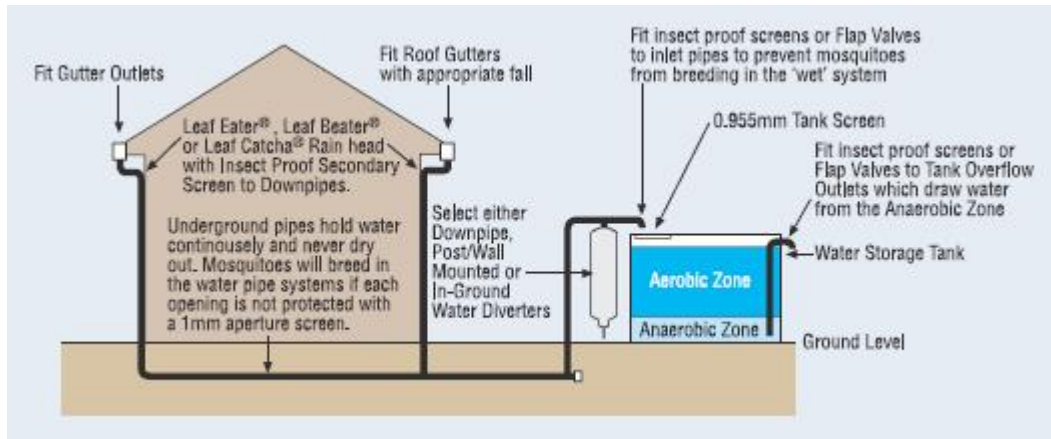
Typical 'dry' systems (below) – tanks with rainwater directed to the tank directly from two downpipes, fitted with Leaf Eater® rain heads to screen leaves and debris, and a First Flush Water Diverter at each downpipe to screen finer pollutants before the tank.



'WET' SYSTEMS

Are systems where the pipes from the gutter go down the wall and **underground and then up into the tank**. Many systems are "wet" because the size of buildings and the placement of tanks away from the buildings mean that there are long runs of pipe underground leading to a riser at the tank. Because the pipes are underground and below the entry point to the tank, even during periods without rainfall **water remains in the pipes**. "Wet" systems can be converted to 'dry' using In-Ground Water Diverters, improving water quality and saving water in the process

"Wet" systems are also referred to as "charged" or "flooded" systems.



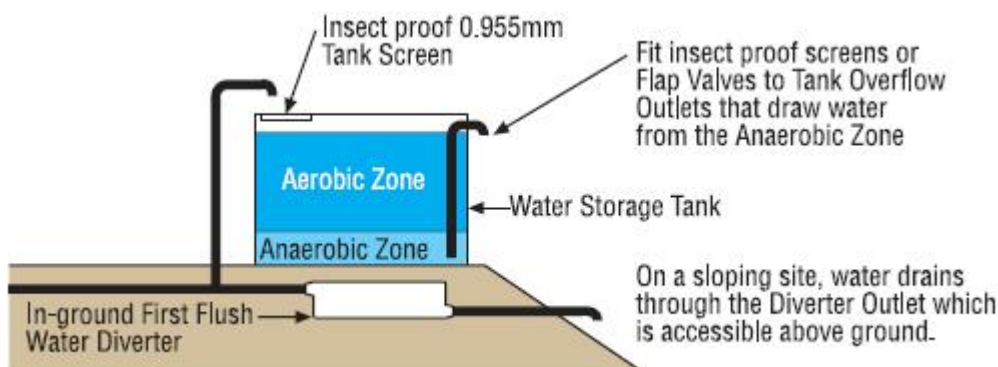
Insect Proofing 'wet' systems

Because the water that sits in underground pipes has a tendency to become stagnant and provides a potential breeding habitat for mosquitoes, it is critical to insect proof the pipes in a 'wet' system. Legislation broadly says that where pipes hold water they must be screened with a non-corrosive screen of not more than 1mm aperture to **prevent the entry of mosquitoes and vermin**. Mosquitoes are known to be responsible for many diseases including Dengue Fever and Ross River Fever.

Rain Harvesting has developed a range of products to insect proof water tanks and these have been designed to meet all legislative guidelines. Products include rain heads, insect proof screens and flap valves, tank screens and vent cowls.

Better water quality

The water that sits in underground pipes has a tendency to become stagnant and provides a potential breeding habitat for mosquitoes. When it rains a "head" of pressure will force this poor quality water towards the tank. Not only can an In-Ground Water Diverter prevent this water from polluting the tank, it will also ensure that after rainfall the water in the pipes drains out through the diverter chamber.



Save water

By draining the water normally held in pipes after rain, an In-Ground Diverter **SAVES WATER**, because the next time it rains, the only water that has to be diverted is the amount of water required to flush the roof.

Preferable Rain Harvesting Systems

A rain harvesting system that incorporates rain heads together with a gutter mesh system (such as Blue Mountain Mesh™) to deflect leaves and debris and keep gutters dry, a first flush water diverter, and insect proof screens will deliver optimum results.

Protecting the Home

General stormwater application

Blocked gutters can cause flooding to the eaves into the wall cavity of the home. Even when rainwater is not being collected in tanks, it is advisable to fit the Leaf Eater® rain head to ensure gutters and downpipes do not block up with leaves and debris. This will also help prevent eaves from flooding. In this application the secondary stainless steel screen (Mozzie Screen) can be removed, however the plastic screen frame must be refitted for the primary screen to rest on.

Reduced fire risk

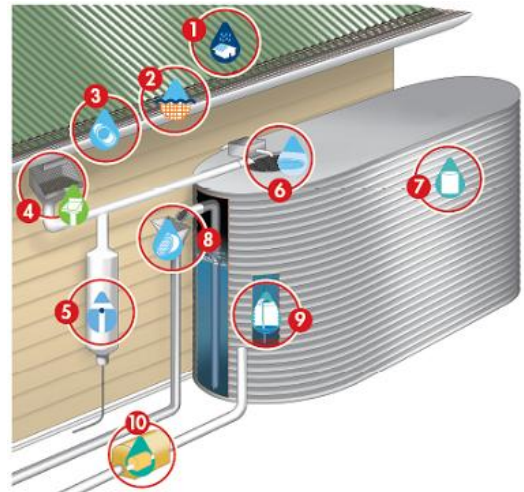
Leaves and debris that build up in gutters can be flammable and represent a significant fire risk. By screening leaves onto the ground, Leaf Eater® rain heads prevent gutters from blocking and eliminate a fire hazard.

Maintenance



The primary screen of the Leaf Eater® is mostly self-cleaning, but from time to time, leaves may become jammed. Check the Mozzie Screen periodically to ensure it is clear, and hose or brush off if necessary.

How to Create a 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 & 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 the **TANK SCREEN** is installed at tank entry point to filter water and 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 tank is vented properly.

9. Utilise a **TANK TOP UP** system (if required) to automatically top-up the tank with mains water when water levels fall to a designated minimum level.
10. Select a **PUMP SYSTEM** (if required) to distribute water for use inside or outside the home.

About Rain Harvesting Pty Ltd

Our vision

Rain Harvesting Pty Ltd is a new company, established in March 2005 following the acquisition of a portfolio of **unique products that form a complete water catchment and storage system.**

Rain Harvesting is a manufacturer and wholesaler of sustainable water products intent on **helping people build sustainable futures.** Our specialty is water catchment, storage, insect/pest control, and leaf and debris removal systems used in both rainwater harvesting and home protection. Our vision is to be a leader in **sustainable water systems**, not only providing complete rainwater solutions, but to develop new sustainable water markets, both in Australia and internationally.

We are **committed to driving innovation** and aim to provide a complete system – a **one-stop for sustainable water products.**

We value our stockists as strategic partners in our business. Whether it is product training for store staff, our comprehensive product brochures or retail point-of sale materials, we **make it easy for our stockists to sell the benefits of rainwater harvesting** to the end-user.

When you need us, we'll deliver. 98% of our orders are delivered to our stockists within 3-5 days.

We're **easy to deal with** because we believe in building relationships for mutual benefit. We're **driven by your success** and are active partners in **fuelling category growth.**

Development of the product range

The **Leaf Eater**® gutter downpipe rain head was first manufactured in 1992 to prevent the build up of leaves and debris in roof gutters which is the most frequent cause of poor quality tank water. It was the first

multiple screen rain head developed, working as both an insect proof water catchment device and a hassle free leaf and debris exclusion system for roof gutters.

leaf eater®
RAIN HEAD



After three years of development trials, production began in 1997 of an all steel gutter mesh system now known as **Blue Mountain Mesh**™.

blue mountain
ALL STEEL GUTTER MESH



A complete range of **insect proof** screens and flap valves, tank overflow outlets and other accessories were added to the range through the 1990's, prior to the invention of the range of **First Flush Water Diverters.**

water diverters
FIRST FLUSH



In 2006, the **Rain Alert™** was the first wireless tank level monitor launched into the Australian and New Zealand markets.



Contact Us

Rain Harvesting Pty Ltd

28-34 Reginald Street, Rocklea, Brisbane QLD 4106,
Australia

PO Box 311, Archerfield QLD 4108, Australia

Tel: +61 7 3248 9600

Fax: +61 7 3248 9699

Website: www.rainharvesting.com.au

Email: info@rainharvesting.com.au

