

HANDY HINTS

Fitting Gutters

For best results, gutters should be fitted in accordance with the relevant Building Code with a sufficient number of downpipes provided. If fitting new gutters, ensure that the fall is away from the corners where possible. If the water has to flow around a corner leaves will invariably jam up at that point.

Painting your Leaf Beater®

The main body of the Leaf Beater® is made from lead-free PVC and can be painted to complement the building. For best results wash down with methylated/white spirit and spray paint.

Secondary Screen

The area of the fine secondary screen is insufficient to allow high volume flow rates. It should only be used as an insect proof screen in conjunction with 'wet' systems, or when connected to a downpipe that supplies a low volume of water or when a low flow rate is required. If higher flow rates or a larger area screen are required, use a Leaf Eater® rain head.

CLEANING

The primary screen of the Leaf Beater® is mostly self-cleaning, but from time to time, leaves may become jammed. Just remove leaves with a brush. Check the Mozzie Screen periodically to ensure it is clear, and hose or brush off if necessary. For high volume flow rates it will need to be cleaned more often.

PROTECTING THE HOME

General stormwater application

Blocked gutters can cause flooding to the eaves into the wall cavity of the home. Leaf Beater® rain heads help ensure gutters and downpipes do not block up with leaves and debris. If the Leaf Beater® is being used in this manner to protect the home, and rainwater is not being collected in tanks, the **secondary stainless steel screen (Mozzie Screen) can be removed.**

Reduced fire risk

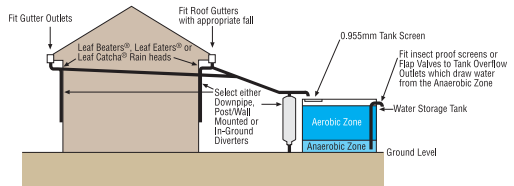
Leaves and debris that build up in gutters can be flammable and represent a significant fire risk. By screening leaves onto the ground, the Leaf Beater® prevents gutters from blocking and eliminates a fire hazard.

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.

“Dry” systems

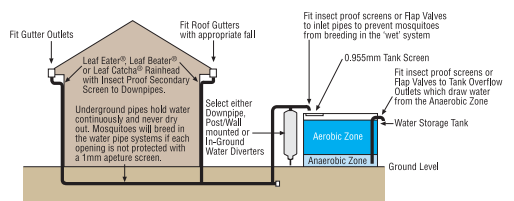
Where pipes run direct from the gutter into the tank (not underground) they will drain and dry out. “Dry” systems are best. Wherever possible and especially with multi-level buildings install “dry” systems and fit a standard tank screen with a maximum of 1mm aperture at the downpipe entry to the tank. This allows the removal of the secondary stainless steel screen included with the Leaf Beater® rain head to help the rain head perform better.



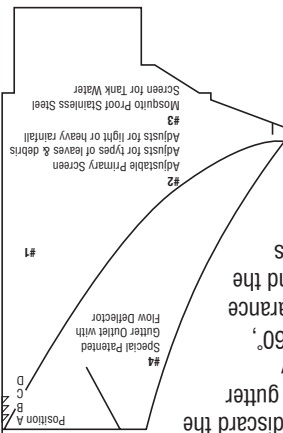
“Wet” systems

Where pipes go underground and then up to the tank they will hold water after rain. 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. The secondary stainless steel screen included with the Leaf Beater® rain head must remain in place in a “wet” system and is designed to meet all legislative guidelines.

“Wet” systems can be converted to “dry” by installing an in-ground water diverter that not only diverts the first flush of contaminated water from the roof, but also drains water from the underground pipe system on a sloping site. (Visit www.rainharvesting.com.au for more information).



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For mid-mounting, discard the top flow-directional gutter outlet. Cut the entry downpipe at about 60°, allowing 50mm clearance between the pipe and the primary screen. This ensures the end of the pipe is parallel to the screen and helps direct the water onto the face of the screen most effectively.

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 than 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.

MID-MOUNTED INSTALLATION

Installation at gutter:

- Remove the existing gutter outlet from the roof guttering system.
- Hold the new Gutter Outlet #4 against the fascia and against the bottom of the gutter where the new outlet hole is to be, and using the gutter outlet as a template draw around the inside of the outlet to mark the underside of the gutter for the new hole and cut out with tin snips.
- Refit the Gutter Outlet #4 to the main body #1 and place a small amount of sealant in the sealant groove in #4.
- Slide the Leaf Beater® up against the fascia and position the Outlet #4 over the gutter outlet hole and fasten the unit to the fascia with two rivets or screws through the back of the body #1 and into the fascia.
- The Leaf Beater® is now ready for connection to the downpipe. Do NOT glue the Leaf Beater® to the downpipe. SECURE with a screw for easy replacement.
- Refit the Secondary Screen #3 (for all “wet” systems), then refit the Primary Screen #2 and set on position ‘A’. Observe the performance of the Leaf Beater® during an average rainfall and adjust down notch by notch until the best operating setting is achieved.

Note: Where gutters are stretched out or out of square it may be necessary to refit the Outlet #4 to the gutter. Take care to ensure the Outlet #4 is sealed to the gutter in all situations.

- 1 Main body
 - 2 Primary Screen (6mm aperture stainless steel)
 - 3 Secondary Screen (Stainless Steel Mozzie Screen of 0.955mm aperture)
 - 4 Integrated directional Gutter Outlet (designed to improve the flow of water from the gutter)
- The Leaf Beater® consists of 4 main parts:

No more blocked gutters!

The compact high performance rain head

INSTALLATION INSTRUCTIONS ON BACK COVER



leaf beater®
 PATENT No. 687630

- ✓ NO MORE blocked gutters or flooded eaves!
- ✓ NO MORE vermin or mosquitoes in the water system
- ✓ Screen adjusts for various debris and rainfall
- ✓ Includes stainless steel mozzie screen and flow directional gutter outlet
- ✓ Ideal for use with under eaves water tanks
- ✓ Four variants available to suit popular downpipes — round and rectangular; PVC and metal
- ✓ Improves rainwater tank quality and reduces tank maintenance

RHH02/0

barcode

barcode

barcode

barcode

100mm x 50mm

100mm x 75mm

100mm

90mm and 80mm

Installing these products with your water tank will improve water quality and reduce maintenance.



Blue Mountain Mesh™ is an all steel gutter system that keeps leaves, debris and vermin out of gutters and avoids a fire hazard. Long lasting and FIRE PROOF. Eliminates

mosquito breeding habitats. Custom made and fits all roof types. Full range of colours. DIY or professional installation. Improves water quality when collecting rainwater.



Gutter outlets when fitted in the conventional way (from top side of gutter) are a major cause of rubbish build up and gutter rust, because a 'ridge' of 3-4mm or so is created obstructing water flow out of the gutter. The Rain Harvesting range of gutter outlets fit from the UNDERSIDE of the gutter – no obstruction,

so debris and fines wash out. Gutters drain out and dry out – no mosquito breeding habitat. Dry gutters last longer and stay cleaner. Outlets for round and rectangular downpipes, and half-round gutters available. Include a built in sealant groove.



In some instances it is not practical to fit rain heads under roof gutters or on a wall to pre-filter water headed for the water tank. **Filter Pits** enable screening to be done at a pit which can be safer and easier to

clean. Extremely beneficial when used in conjunction with underground tanks or where tanks are placed downhill from the building. Place in a spot in the garden part way between the building and the tank to form a 'junction' where the pipes from around the house meet, and from which the main pipe/s then connect to the storage tank. They handle large volumes of water and come standard with a 1mm stainless steel screen and an optional 6mm stainless steel junk basket. The internal screens are easy to access. Requires a fall between the building and the top of the tank of at least 750mm depending on the distance of the pipe run between where the pipe enters the ground at the building and the tank. Eliminates the need for a screen at the top of the tank and enables the pipe/s to be connected directly into the wall of the tank. Fitting a water diverter between the Filter Pit and the tank will further improve water quality.



Downpipe Water Diverters are simple and effective first flush devices requiring minimal maintenance. They are installed at the gutter downpipe or via a T-junction to a new or existing system of 90mm or 100mm diameter PVC downpipes, and are supplied in kit form. Add the appropriate length of pipe based on the

quantity of water you wish to divert. To calculate the length of the diverter chamber, consider as a guide that each metre of 90mm PVC pipe holds approximately 7L of water. It is preferable to fit the longest length chamber possible, from the roof to within 150mm above the ground (to allow easy access to the end cap), to ensure a better quality water. Downpipe Diverters should be installed at each downpipe that supplies water to the tank system and are ideal diverters for use with under eaves tanks.



Vent cowls include an insect proof stainless steel screen of 0.955mm. When fitted to the top of toilet vent pipes they REDUCE THE POSSIBILITY OF PAN SYPHONING where two toilets are connected to the one line. The 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. Fits 50 & 100mm PVC & Copper (with the use of a standard 3mm nitrile "O" ring). Can also be fitted to the top of rainwater tanks to help vent them properly.



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



The ultimate high performance rain head for use in heavy rainfall areas. The primary screen of the **Leaf Eater®** has a 6mm aperture and is set at an angle of around 45° to deflect leaves and debris. A secondary stainless steel screen of 0.995mm further filters the water and prevents mosquitoes from entering the pipe system to the water tank.



A compact high performance rain head which works like the Leaf Eater® but has a 6mm elliptical primary screen that can be adjusted to achieve the best operating setting depending on the intensity of rain fall and the amount of debris. The screen is virtually vertical as water washes the screen to reduce maintenance. The **Leaf Beater®** is ideal for under eaves tanks.



A versatile **leaf and debris catcher** with two horizontal internal screens. One is 6mm and the other stainless steel screen is 0.995mm to keep mosquitoes out. Ideal for low rainfall, low leaf areas. Available in popular

Colorbond® colours. Rather than deflect leaves and debris away from the downpipe and onto the ground, it 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, empty and replace the rain head.



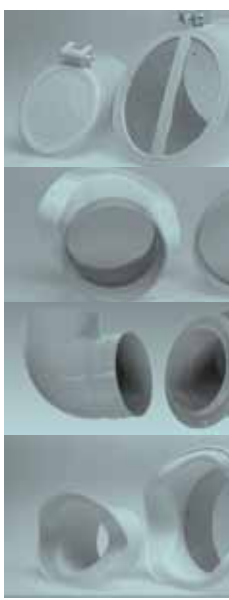
Post or Wall Mounted Water Diverters are versatile units that can be mounted on a wall, post or stand, to hold larger volumes. Can be adapted to suit a wide range of applications and will manage single or multiple pipes coming from the roof to divert up to 150L. Automatically empties and resets. Comes in kit form and includes a galvanised steel stand as an optional alternative to post or

wall mounting. Add the appropriate length of 300mm pipe based on the quantity of water you wish to divert. For example, a 2m length of 300mm diameter PVC pipe is required to hold 150L of diverted water. The kit is easy to freight, and the diverter volume can be made on site to match exact requirements.



Buried and out of site, an **In-Ground Water Diverter** is perfect for sloping allotments. On a site with a minimum 5° slope, an In-Ground Diverter allows a "wet" system to be converted into a "dry" system. 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. After rainfall when an In-Ground Diverter is installed, not only will the diverter chamber empty, the water held in these underground pipes will also drain out through the diverter. This converts it to a "dry" system and saves water because less water must be diverted in a "dry" system. In-Ground Diverters also come in kit form – add the appropriate length of 300mm pipe based on the quantity of water you wish to divert.



It is critical to fit **insect proof screens** 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. The 'Mozzie Stoppa' screens incorporate a 0.955mm stainless steel screen moulded into a PVC 90mm M&F fitting and provide a versatile solution to insect proof the tank. 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 suggested that they be fitted with silicone and not glued. Rain Harvesting has a complete range of tank outlets available for **flat wall** and **corrugated tanks**. 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. Flap Valves and 'Mozzie Stoppa' screens can fit directly into these outlets. To fit tank outlets, simply rivet or screw on to the tank wall. If using screws drill a hole in the fitting first.

