

# Rainwell RFD

## Rainwater Filter Diverter

***Better solutions for rainwater tanks and our environment.***

### **Safety & Maintenance**

The typical rainwater tank leaf-strainer, rainhead leaf diverter and screened overflow outlet can require a ladder and both hands to clean them, which can be difficult, time consuming and dangerous - factors that can discourage maintenance and lead them to block; subsequently, causing water loss, property damage and ponding for mosquito breeding sites.

The Rainwell RFD is more readily accessible, and the inlet filter and overflow screen easily lift out for occasional cleaning. Replacing the leaf-strainer allows a secure cover over it's opening to prevent accidental entry and drownings.

Unlike, leaf-strainers and rainhead leaf diverters the Rainwell RFD's inlet filter is self-cleaning and will only require occasional cleaning, and the overflow screen rarely needs cleaning as it is only in contact with filtered rainwater:

### **Water Quality**

Roof litter left in leaf-strainers will decay and pass through to increase sediment in the rainwater tank, and light entering through the leaf-strainer will promote algae growth, factors that will adversely affect the appearance and odour of the rainwater and increase rainwater tank maintenance

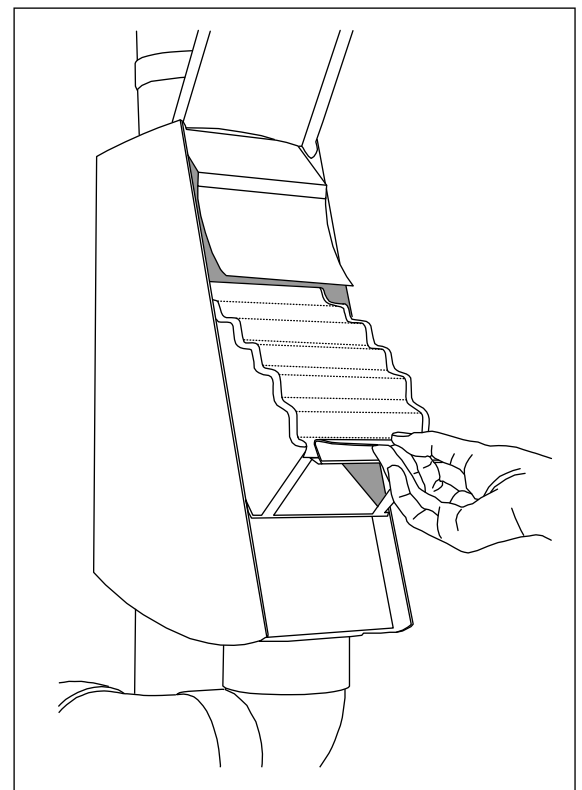
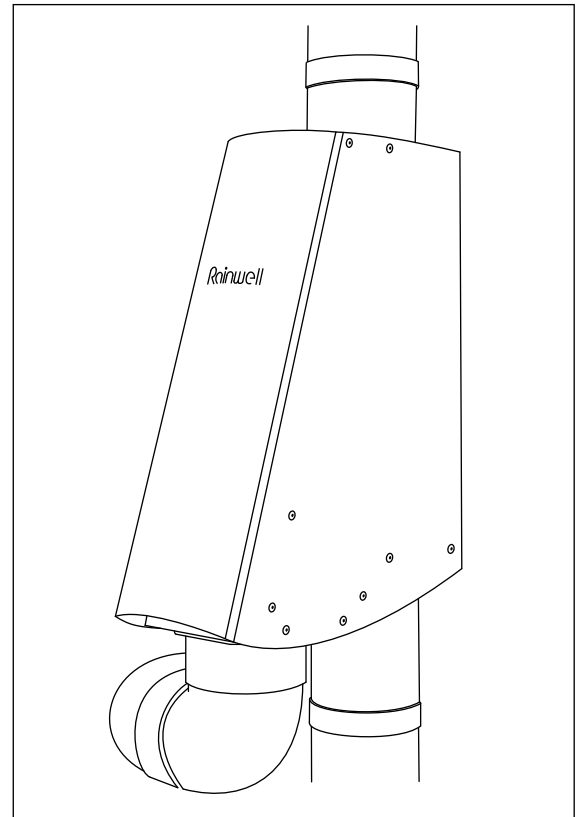
Self-cleaning filtration expels roof litter to prevent decay and minimise rainwater tank sediment, and a light-proof cover over the leaf-strainer opening will inhibit algae growth, which sustains rainwater health and reduce rainwater tank maintenance.

### **Mosquito Prevention**

Mosquitoes are a nuisance and serious health risk. Rainwater tanks and wet charged pipework require up to 4 mosquito-proof screens on inlet and outlet opening to prevent mosquito breeding, and release of storage developed mosquitoes from eggs washed in from guttering.

As mentioned in Safety & Maintenance, factors that discourage maintenance has seen the removal or modification of mosquito-proof screens, which will increase mosquito breeding - turning the rainwater tank into a serious hazard to our health and environment.

The Rainwell RFD's filter/screen system is mosquito-proof and its diversion system enables closed pipework (wet charged) without screening at both ends, limiting mosquito prevention to only two low maintenance screens at one readily accessible location.



**Rainwell**  
Rain Filter Diverter System

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### Operation & Installation

The Rainwell RFD simply inserts into a downpipe with a single pipe connection to the rainwater tank's overflow outlet or new flange. The height of the Rainwell RFD's overflow outlet on the downpipe determines the rainwater tank's capacity.

Rainwater passes through the inlet filter to expel roof litter, and the inlet diverter sends filtered rainwater to the rainwater tank. As the rainwater tank nears capacity, the leveling effect of gravity raises the water level to the Rainwell RFD's overflow outlet diverting filtered rainwater to the downpipe.

The Rainwell RFD system replaces the problematic mosquito-proof rainhead leaf diverter, leaf-strainer, and overflow outlet, and reduces the dual inlet & overflow pipework to a single pipe connection. Material and labour savings increase the further the rainwater tank is positioned away from the building.

Increasing water catchment by connecting additional downpipes to the rainwater tank is now easier and better. Plumbing regulations require the tank overflow capacity match the downpipe volume (2 downpipes = 2 overflows). The traditional system would require costly dual pipework between the downpipes and rainwater tank, or a larger overflow to a stormwater discharge point.

The multiple Rainwell RFD system provides overflow diversion at the downpipe, so when the rainwater tank is at capacity, rainwater continues as it was intended, through the downpipe to the existing stormwater system. Materials, excavation and labour are also minimised to allow installation savings.

### Our Environment

The Rainwell RFD system provides safer and fewer procedures to maintain healthy rainwater storage, prevent water loss and alleviate risks to property and human health.

Our natural waterways are protected to. When the rainwater tank is at capacity, the diversion system diverts filtered rainwater to the waterways, and isolates the rainwater tank to safeguard against contaminated water.

The Rainwell RFD is constructed locally using durable and recyclable materials, ensuring the Rainwell RFD's function and appearance are retained for decades in Australian climatic conditions with minimal care, maintenance and environmental impact.

