

Preventing rainwater contamination – First-flush diverter

Rainwater is relatively free from impurities except those picked up by rain from the atmosphere, but the quality of rainwater may deteriorate during harvesting, storage and household use. Wind-blown dirt, leaves, faecal droppings from birds and animals, insects, and contaminated litter on the catchment areas can end up in the water, leading to health risks from the consumption of contaminated water from storage tanks.

Besides that, allowing build-up of leaves and dirt in the gutters can compromise the efficiency of your rainwater system. Blockages can prevent proper water flow through gutters, leading to substantial losses.

A useful device in the prevention of rainwater contamination and blockages is the first-flush diverter. These devices divert and capture the most contaminated, sediment-laden water that washes into your pipes from your roof during the first initial millimetres of rain. Once the contaminated water is captured, the diverters seal to allow the subsequent, cleaner water to flow past and into your tank.

The larger the roof area, the more rainwater initially has to be flushed away from the storage tank, so the larger the chamber must be. Most first-flush diverters are designed to slowly empty themselves, but they should be checked regularly and emptied/cleaned if necessary.

By keeping sediments and contaminants out of rainwater tanks, first flush diverters help to improve water quality and safety, extend the life of pumps and appliances, and reduce tank maintenance requirements.

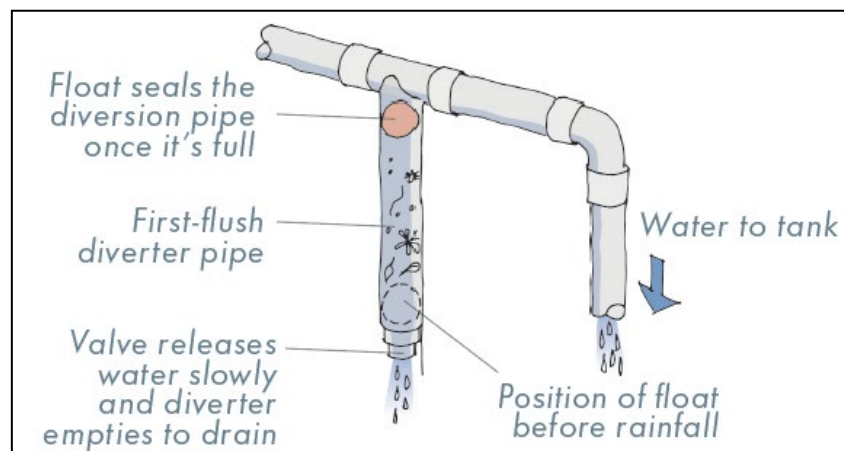


Figure: First-flush diverter

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