

## The Constant Volume Roof Washer Assy. by THE RAIN WELL



The benefit of a first flush device is to improve rainwater quality, reduce cistern maintenance, and extend life of the pump. The first flush of rainwater coming from the roof at the beginning of a rainstorm carries all of the particles and debris from the rooftop such as bird feces, air pollution particulates, and organic debris. This simple and effective



roof washer assembly diverts the first flush into a constant volume container or PVC standpipe. Once the standpipe is full, a float valve closes the standpipe inlet and diverts the cleaner water to the cistern. The float valve

maintains separation of the first flush water in the standpipe and the “clean” rainwater being diverted into the cistern.

A small valve is required that is slightly open that allows the standpipe to drain after the rain has subsided. If the valve is open too much, the rainwater will drain from the standpipe before it fills up and no rainwater will reach the cistern. After the rain subsides, the standpipe will drain over time and then be empty and ready for the next rainfall.

The assembly has two retaining rings that keep the float inside the tee. The diameter of the ring opening is 2.75 inches. The 2.75 inch diameter has the flow capacity 62 gallons per minute. This equates to one inch of rainfall in

ten minutes for a 1000 sq. ft. roof area. A 2.75 inch diameter throughput is adequate 99% of all rainfalls. If more flow capacity is desired, a 4 inch diameter PVC flow capacity can be achieved by placing two of these roof washers on the same down spouts in parallel increasing the flow capacity to 124 gallons per minute. This first flush float valve can be adapted to 3" PVC down spouts using a 4" to 3" flush adapter on both sides of the tee. A single assembly can be used with a 3 inch PVC downspout.

The recommended standpipe capacity is one gallon per 100 square feet of roof collection area. A 4" PVC pipe will hold 1.3 gallons of water per two feet of length. A 6" PVC pipe will hold 1.5 gallons of water per one foot of length. A 3/4" garden drain valve can be used for the stand pipe drain, available at The Rain Well. The first flush float valve assembly is sold without the constant volume standpipe or container. An optional 21-gallon container is also available for a constant volume storage container. It is recommended to install Gutter Filter gutter protection to limit the amount of large debris entering the assembly and to keep mosquitoes from entering the cistern.

Included in the assembly is the float valve, 4 inch PVC tee with threaded cap, two retaining rings to keep the float valve within the tee. The threaded cap allows access to the ball valve during installation and maintenance.

Rainwater storage usages include **rainwater harvesting, fire suppression, water conservation, irrigation, livestock water, toilet, and clothes washers.**

Order online at [www.therainwell.com](http://www.therainwell.com).

### Specifications

Housing	Flow Rate	PVC
4" PVC Tee	62 gal/min	Schedule 40