Product Specifications

first flush™
IN-GROUND WATER DIVERTER

Product: In-Ground First Flush Water Diverter

Code: WDIG99

Prevents the first flush of rainwater, which may contain contaminants from the roof, from entering the tank.

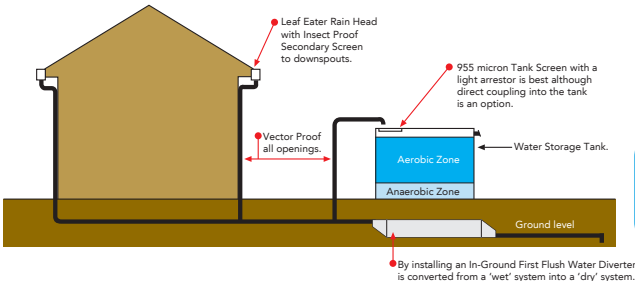
Product Description

Buried and out of sight, In-Ground Water Diverters are perfect for sloping allotments. On a site that provides the opportunity for the end cap of the diverter to be positioned above ground (to drain out and be accessible for maintenance), an In-Ground Diverter allows a 'wet' system to be converted into a 'dry' system.

Most systems are 'wet' due to 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. On a sloping site this diverter ensures the diverted water and the water that would normally remain in the pipes empties out. The result – a 'dry' system that improves water quality.

Features and Benefits

- Prevents sediment, bird droppings, spiders, insects, mosquito eggs and debris from entering the rainwater tank/cistern.
- Improves water quality, protects pumps and internal appliances.



- Ideal to use in conjunction with a rain head.
- Perfect for sloping allotments.
- No mechanical parts.
- Inlet fits 3" Schedule 40 pipe or 4" Schedule 40 female coupling.
- Easy installation – just add pipe and glue.
- Low maintenance.
- Converts a 'wet' system in to a 'dry' system.

A "dry" system is a system where the pipes drain out and dry out after rain. It is a system where pipes do not hold water after the rain stops.

Product Specifications

Installation

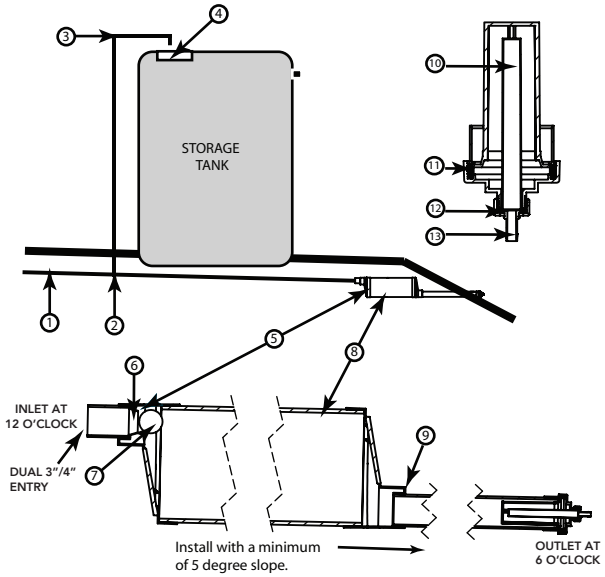
Determine the length of 12" pipe required using the table.

Inlet End: The ball seat #6 is inserted into the top of the end cap as shown.

For 3" Schedule 40 PVC pipe infeed – insert the ball seat #6 and attach the infeed pipe hard down on top of ball seat #6.

For 4" Schedule 40 PVC Pipe infeed – insert the ball seat #6 and glue the 3" keeper ring (1.1" long) hard down on top of the ball seat #6 to keep it firmly in place.

Outlet End: The outlet requires only 3" pipe. Assemble as shown in the attached drawing making sure to insert ball #7 before attaching cap #11. Select one of the four control valves #12 and fit into hose connector #13. Save the remaining valves for possible later use.



The following factors can be used as a guide to determining the volume of water to be diverted.

POLLUTION FACTOR FOR THE ROOF

Minimal Pollution – divert 0.0125 gallon per square feet of roof area
Open field, no trees, no bird droppings, clean environment.

Substantial Pollution – divert 0.05 gallon per square feet of roof area
Leaves and debris, bird droppings, various animal matter, e.g. dead insects, skinks etc.

The above quantum are the results of preliminary testing. Individual site analysis and field testing is required to more accurately assess the quantum to be diverted in each individual case.

DIVERSION FACTOR FOR A FIRST FLUSH WATER DIVERTER

Square Foot Roof Area X Pollution Factor = Gallons to be diverted.

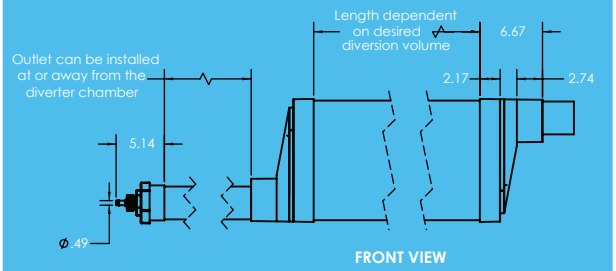
Example for a minimal polluted roof of 1000 square feet
1000 square feet x 0.0125 = 12.5 gallons to be diverted.

Example for a heavily polluted roof of 1000 square feet
1000 square feet x 0.5 = 50 gallons to be diverted.

NOTE: Before gluing the end caps into place be sure they are in line at 12 O'clock and 6 O'clock.

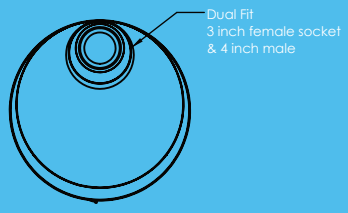
SIZES (12" DIAM. PIPE)		
Length Feet	**Volume in US Gallons Contained (approx)**	
2	12	Add the volume of water held in the pipe section downstream of the Diverter, between the Chamber and the Flow Control Valve/Outlet For every 3 feet of 4" PVC pipe add 2 gallons.
4	23	
6	35	
8	47	
10	59	
12	70	
14	82	
16	94	
18	106	
20	117	

REFERENCE CHART					
1	In-feed from the roof	6	Ball seat	11	Screw Cap with O'Ring Seal
2	Tee Junction	7	Sealing Ball		
3	To the tank	8	Diverter Chamber	12	Flow Control Valve
4	Tank Screen	9	Chamber Outlet	13	Hose Connection
5	Chamber Inlet	10	Filter Screen		



FRONT VIEW

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE STATED



SIDE VIEW

Maintenance

Ensure the outlet of the diverter is clear of any debris. If the outlet is blocked, the chamber will not empty and the first flush of water when it rains will not be diverted.

Periodically unscrew the End Cap #11 of the water diverter to allow debris to fall out. Hose or wash the Filter Screen #10 if required and clean the Flow Control Valve #12.