RAIN HARVESTING
by Blue Mountain Co

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First Flush Post/Wall

Installation and Specification Guide

PRODUCT DETAILS

The First Flush Post/Wall/Stand Diverter is a versatile unit that can be mounted on a wall, post or stand, and connects to both 90mm and 100mm downpipes. The 300mm chamber allows for larger first flush volumes from 20 to 150 litres to be easily collected.

WDPW01 300mm chamber size
(inlet fits 90mm pipe or 100mm socket)

FEATURES AND BENEFITS

- Prevents sediment, bird droppings, insects, mosquito eggs and debris from entering the rainwater tank
- Improves water quality, protects pumps and internal appliances
- Wall, post and stand mounting options
- 90mm/100mm dual fit inlet
- Easy installation, just add 300mm pipe length and glue
- Comes in kit form

Installation

WHAT'S IN THE BOX?

- Wall/post bracket
- Upper bracket
- 2 end caps
- Hose connecter
- 8 flow control washers
- Screw cap with O-ring seal
- Threaded coupling
- Plastic filter screen
- Primary Filter Screen
- Ball
- Ball seat
- 90mm length of 90mm pipe
  (for joining end cap and threaded coupling)
- 30mm length of 90mm pipe
  (Ball seat ring keeper)

NB: Stand available separately

TOOLS/MATERIALS YOU MAY REQUIRE

- 300mm/12" pipe (for diversion chamber)
- Tape measure
- Marker pen
- Saw
- Solvent weld glue
- Screws
- Screwdriver or drill
- 90mm pipe and T-junction
  (for connecting to 90mm installation)
- 100mm pipe and T-junction
  (for connecting to 100mm installation)
- Anchors x3 (for stand)

WALL & POST MOUNT

1. Screw your wall/post bracket to the wall at your chosen installation point. The outlet of your diverter must sit at least 150mm from the ground when fully assembled. The wall/post bracket supports the lowest end cap of your chamber so select your installation point and attach the wall/post bracket accordingly.
2. Determine the length of 300mm or pipe required for your first flush diversion chamber using the table below and cut accordingly. Ensure all cut edges are clean and smooth.
3. Attach the upper and lower end caps to your 300mm pipe by applying solvent weld glue to the socket and pipe before inserting the pipe into the end cap and holding until the glue sets. Repeat for the other end cap. Expect a tight fit.
4. Place your assembled diversion chamber in the wall/post bracket and support as you fit your upper bracket around the inlet on the upper end cap and screw it to the wall/post

   CAUTION: Failure to support the unit in the upright position while attaching the upper bracket could crack the bottom chamber cap.
5. Select the appropriate flow control washer and fit it into the hose connector with the side marked "TOP" showing. Start by using the Control Washer with the smallest gauge hole (lowest number). Try a larger gauge Washer if experiencing blockages. Save the remaining washers for possible future use.
6. Insert the plastic filter screen in through the base of the screw cap with O-ring seal and secure by attaching the hose connector and flow control washer.
7. Apply solvent weld glue to the socket of the threaded coupling and one end of the 90mm length of 90mm pipe. Insert the short section of pipe into the socket and hold until the glue sets. Insert opposite end of this short section inside the lower end cap outlet after applying solvent weld glue.
8. Insert your Primary Filter Screen in the lower end cap, then attached the screw cap with O-ring seal (and assembled components) to the threaded coupling.

   NOTE: For some end couplings you may be required to remove and discard the molded keeper ring from the bottom of the Primary Filter Screen.
9. Place the ball inside your first flush diverter chamber through the upper end cap inlet.
10. Measure your existing downpipe and cut to create space for a T-junction. Ensure all cut edges are clean and smooth.
11. Insert the ball seat into the top of the upper end cap inlet, with the narrow end of the seat facing down.
12. If you're fitting your diverter to a 90mm T-junction, cut a length of 90mm pipe to connect your diverter and T-Junction. Attach the pipe hard down on top of the ball seat, then attach the T-Junction hard down on top of the pipe.
13. If you're fitting your diverter to a 100mm T-junction, attach the 30mm length of 90mm pipe hard down on top of the ball seat and glue in place using solvent weld glue. Fit the T-junction around the upper end cap inlet or, if required, connect the T-junction and upper end cap inlet using an additional length of pipe.
14. Connect the T-junction to the existing downpipe using solvent weld glue.

STAND MOUNT

1. Determine the length of 300mm or pipe required for your first flush diversion chamber using the table below and cut accordingly. Ensure all cut edges are clean and smooth.
2. Attach the upper and lower end caps to your 300mm or pipe by applying solvent weld glue to the socket and pipe before inserting the pipe into the end cap and holding until the glue sets. Repeat for the other end cap. Expect a tight fit.
3. Place your assembled diversion chamber into the stand, being sure to line up the centre of the chamber outlet with the weld on the stand.
4. Select the appropriate flow control washer and fit it into the hose connector with the side marked "TOP" showing. Start by using the Control Washer with the smallest gauge hole (lowest number). Try a larger gauge Washer if experiencing blockages. Save the remaining washers for possible future use.
5. Insert the plastic filter screen in through the base of the screw cap with O-ring seal and secure by attaching the hose connector and flow control washer.

6. Apply solvent weld glue to the socket of the threaded coupling and one end of the 90mm length of 90mm pipe. Insert the short section of pipe into the socket and hold until the glue sets. Insert opposite end of this short section inside the lower end cap outlet after applying solvent weld glue.
7. Insert your Primary Filter Screen in the lower end cap, then attached the screw cap with O-ring seal (and assembled components) to the threaded coupling.

   NOTE: For some end couplings you may be required to remove and discard the molded keeper ring from the bottom of the Primary Filter Screen.
8. Place the ball inside your first flush diverter chamber through the upper end cap inlet.
9. Measure your existing downpipe and cut to create space for a T-junction.
10. Insert the ball seat into the top of the upper end cap inlet, with the narrow end of the seat facing down.
11. If you're fitting your diverter to a 90mm T-junction, cut an appropriate length of 90mm pipe to connect your diverter and T-Junction. Attach the pipe hard down on top of the ball seat, then attach the T-Junction hard down on top of the pipe.
12. If you're fitting your diverter to a 100mm T-junction, attach the 28mm length of 90mm pipe hard down on top of the ball seat and glue in place using solvent weld glue. Fit the T-junction around the upper end cap inlet or, if required, connect the T-junction and upper end cap inlet using an additional length of pipe.
13. Connect the T-junction to the existing downpipe using solvent weld glue.
14. Securely bolt the stand and check to ensure that the pipework connected to the top of your First Flush Post/Wall is stable and the unit is not stressed by misalignment.

MAINTENANCE

It's important to ensure that your first flush diverter outlet remains clear of any debris. If your outlet becomes blocked, the chamber will not empty and the first flush of water will not be diverted when it rains.

To ensure the flow of water out through your diverter's outlet, periodically unscrew the outlet to allow debris to fall out. If the diversion chamber is full of water, take care as it empties. Remove the flow control washer, hose connector, keeper ring and filter screens and hose down or wash the screens with clean water. Check the flow control washer for any blockages and remove and clean as necessary.

For best results and minimal maintenance, we recommend installing rain heads such as our Leaf Eater rain heads on all your downpipes to limit the volume and number of leaves and debris that reach your first flush diverter.

DIVERSION CHAMBER SIZE

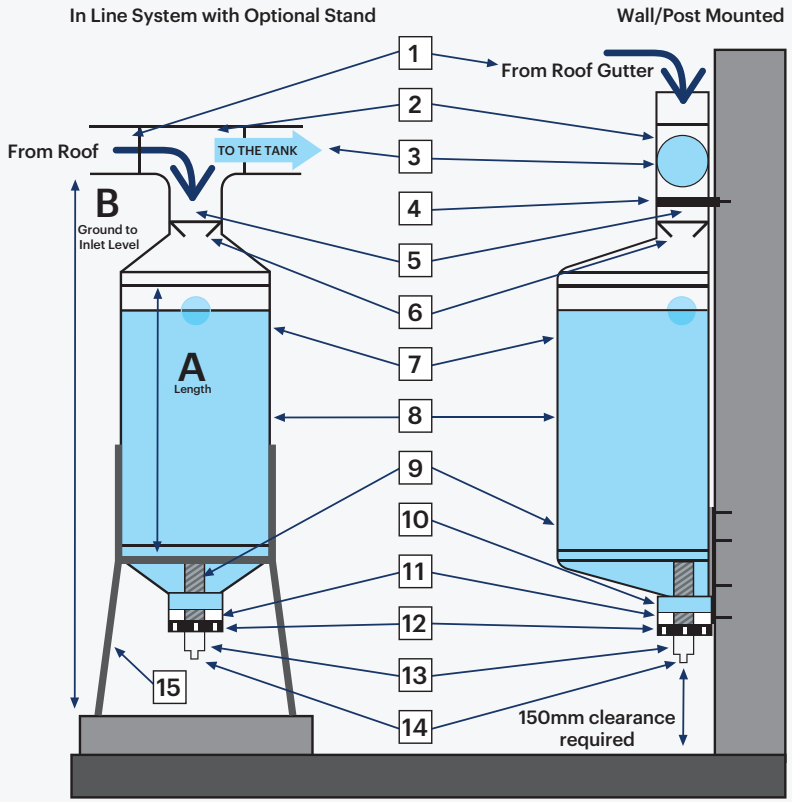
POLLUTION FACTOR FOR THE ROOF	
MINIMAL POLLUTION	SUBSTANTIAL POLLUTION
DIVERT 0.5L PER M² Open field, no trees, no bird droppings, clean environment	**DIVERT 2L PER M²** Leaves and debris, bird droppings, various animal matter, e.g. dead insects, skinks, etc.
The above quantum are the results of preliminary 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	
MINIMAL POLLUTION	SUBSTANTIAL POLLUTION
M² ROOF AREA X POLLUTION FACTOR = LITRES TO BE DIVERTED	
Example for a minimal polluted roof of 100m² 100 x 0.5 = 50 Litres to be diverted	**Example for a heavily polluted roof of 100m²** 100 x 2 = 200 Litres to be diverted

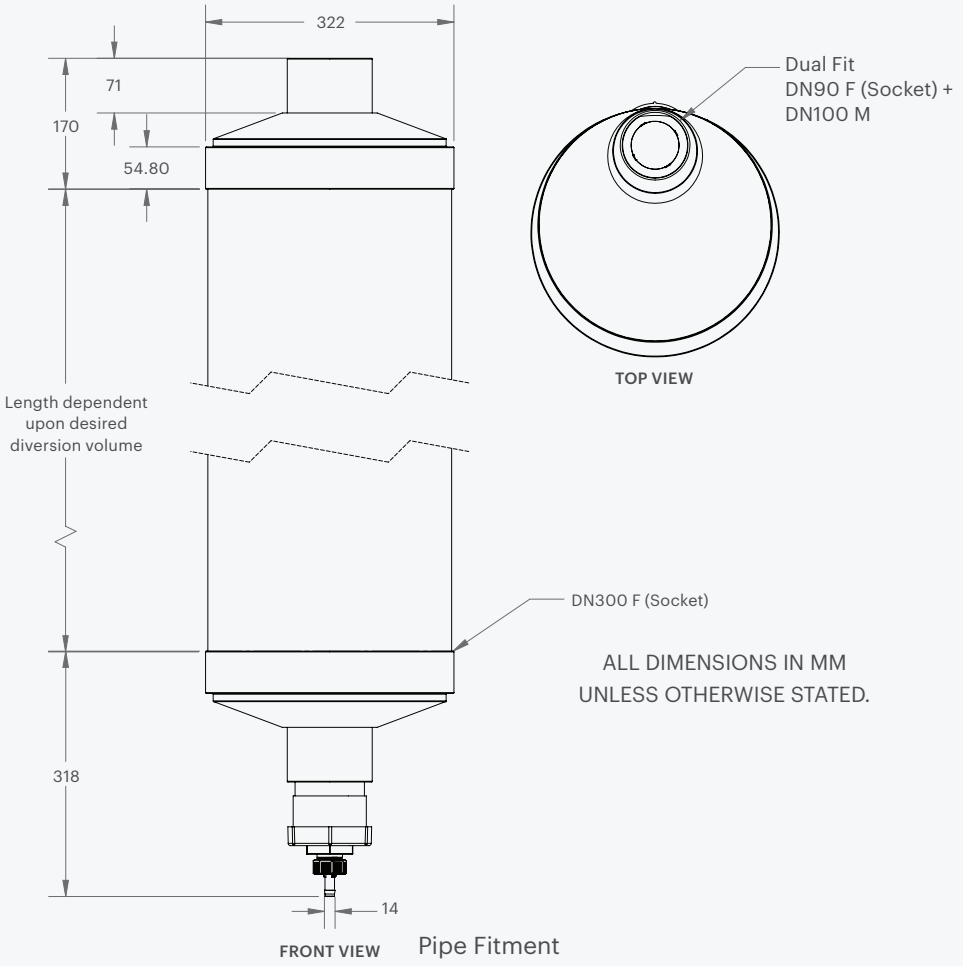
CHAMBER SIZES (300mm Diameter Pipe)		
Length Metres	Volume in Litres Contained (approx)	
1.0	72	Add the volume of water held in the pipe section downstream of the Diverter, between the Chamber and the Flow Control Valve/Outlet
1.5	108	
2.0	144	
2.5	180	
3.0	216	
3.5	252	
4.0	288	
4.5	324	
5.0	360	
5.5	396	
6.0	432	

REFERENCE CHART

REFERENCE CHART					
1	In-feed from the roof	6	Ball Seat	11	Chamber Outlet
2	Tee Junction	7	Sealing Ball	12	Screw Cap with O'Ring Seal
3	To the tank	8	Diverter Chamber	13	Flow Control Valve
4	Pipe Bracket	9	Filter Screen	14	Hose Connection
5	Chamber Inlet	10	Wall/Post Bracket	15	Optional Stand



PRODUCT DIMENSIONS



Pipe Fitment

Inlet	DN90 F (Socket)	90mm pipe fits inside
	DN100 M	Fits into 100mm socket
Chamber	DN300 F (Socket)	300mm pipe fits inside

COMPLIANCE

- AS/NZS 4020:2005 - Testing of products for use in contact with drinking water