

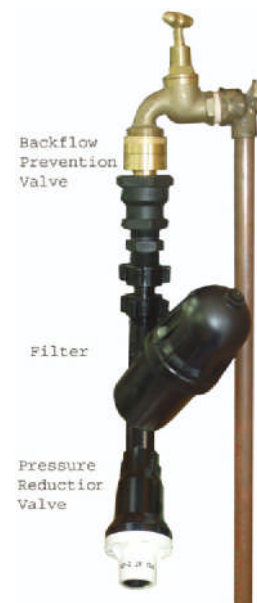
What Accessories do I need for a drip system?

It is worth noting that with drip systems the accessories can be viewed as insurance for the system. If you plan on irrigating a complete residence with drip then filters, pressure reduction valves, air release and flush valves are essential. However, if it is only being used to irrigate a small garden bed then its overkill to outlay \$120 on protection for \$30 worth of product in this case a cheaper filter/pressure reduction valve (as pictured) and an air release valve might be all you need.



Backflow Prevention Valve

A Backflow Prevention Valve prevents back siphoning of non-potable water into the water supply and come in a range of varieties. All water authorities require backflow prevention devices to be used on all fixed irrigation systems. You should consult your local water authority to find out which one is required for your proposed system. Generally, most domestic watering systems require a Dual Check valve but if you are installing a Techfilter or applying fertiliser through your irrigation lines then you will probably be required to install a Reduced Pressure Zone device. Backflow Prevention valves are the first item in your line after your tap.



Filter

You must use a filter. Drip emitters have very small openings that can become clogged. City water is **not** free from particles that will clog your drip emitters! There are two basic filter options (disc and basket) and which filter used depends on how much Drip line is being protected.

A basket filter can be used for small gardens with up to 50 metres of Drip line however any more Drip line it is recommended that a disc filter is used. For larger areas use at least a 120 mesh disc filter which should be installed after the backflow valve and before the pressure reduction valve.

There is also a [Techfilter](#) available that is used in sub-surface dripline installations. This filter has a root retardant in it to protect your drip emitters from root intrusion and the cartridge needs to be replaced every 2 years.

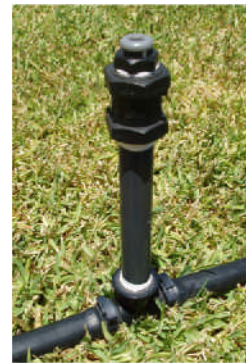
Pressure Reduction Valve

If you are coming off a mains water supply you must use a Pressure Reduction Valve (PRV). Dripline is intentionally made from weak walled poly pipe so that is extremely flexible for ease of installation. A PRV must be installed to reduce the pressure inside the Dripline. This pressure needs to be between 10 and 30 psi. There are a few options but this time it is the flow rate and the amount of drip line being used that dictates which unit should be used. The PRV is installed after the filter, and after the solenoid valves in an automatic system.

Air Release Valves

These valves are essential protection for the system. An air valve should be installed at the highest point of the system, this is to allow air into the system once it is turned off.

This prevents the drippers from sucking in air and possibly soil particles when the system is turned off and the water in the system drains out through the lowest point.



Flush Valves



A flush valve should be installed at the lowest point of the system, this is to allow any rubbish that may have made its way into the system out without blocking up the drippers. Its worth noting that the flush valve lets about 2 litres of water out each time the system turns on and so a gravel pit installed under it is advisable.

Wire Pegs

All of the different types of Drip line should be staked at least every 2 metres to prevent the pipe from rising up through your mulch. The pipe will expand and contract with changing temperature which will push it up through the mulch if it is not staked down.



Adapters and Fittings

These fittings are used to connect the Dripline to the lateral lines. It is important to make sure the fittings are the right



size! Using fittings made for a different tubing size will result in the fitting blowing out of the tube.

You can now go ahead and design and install an efficient drip irrigation system and more importantly gain maximum enjoyment from your garden.