

Drip Systems & Emitters

Low Volume Irrigation: Drip Irrigation Systems consist mainly of a valve, pressure regulator, filter, poly tubing, fittings, and emitters that release water slowly.

Low volume irrigation systems (bubblers, micro and drip) are generally the most efficient method of irrigating non-turf areas because they deliver precise amounts of water slowly and evenly at the plant's roots, eliminating water waste, run-off and overspray on to roads, sidewalks, streets, waterways or drains. The slow, consistent application of water at or near the plants' roots reduces weeds and plant disease and helps plants and crops thrive. In landscaping, low volume irrigation is often best for trees, shrubs, flowers and other non-turf areas.

Pressure Regulators:

A Drip Irrigation Pressure Regulator reduces household water pressure to a lower set pressure for use with drip irrigation systems. All drip irrigation components are designed to operate between 10 to 30 psi. Without a Drip Irrigation Pressure Regulator, drip emitters, sprayers and tubing may be damaged due to excess water pressure in the drip irrigation system. Drip Irrigation Pressure Regulators need to be installed after the drip irrigation filter.

Filters:

Drip Irrigation Filters protect drip emitters, drip line, sprayers and bubblers from rust, sand, silt and other impurities that may clog them over time. Drip irrigation filters have removable and replaceable screens that come in 120, 150 and 200 meshes. Most household water source connections will need either a 120 or 150 mesh filters. Drip irrigation systems that draw water from a well will need either a 150 or 200 mesh filter.

Drip Irrigation Filters and Pressure Regulators are not designed to operate under static pressure and must be installed after any valves or faucets to operate properly

Drip Tubing:

Brown drip line tubing is extruded with 1/2 gph or 1 gph in-line pressure compensating emitters molded into the tubing at 12", 18', & 24' inch spacing's. Pressure compensating emitters are best with changes in elevation and pressure fluctuations. This drip line irrigation system is useful in row crops, vegetable gardens and evenly-spaced tree and shrub plantings.

Black, flexible irrigation tubing hose used for both drip irrigation main and lateral drip irrigation or low volume irrigation systems. The poly drip irrigation tubing hose comes in 1/2" and 3/4" sizes and also has a carbon black additive for UV Resistance.



Drip Systems & Emitters

Drip Fittings:

Compression fittings are among the most common connection style fittings used in Drip Irrigation systems to connect sections of either 1/2" or 3/4" solid drip irrigation tubing or soaker hose drip line. Drip Irrigation Compression fittings are more of a permanent connection and are not recommended for reuse.



Barbed fittings are used to connect sections of drip line to make a secure fit and are easy to install without glue or tools. Simply place the end of the drip line over the barbed fitting and press inward, gently rocking the tubing on to the barb.



Drip Emitters:

Drip irrigation emitters come in a variety of sizes, styles, and flow rates. Drip irrigation emitters have barbed or threaded bases. Drip Emitters with barbed ends are either poked directly into 1/2" drip tubing or inserted into the end of 1/4" tubing. Drip Emitters with threaded bases are screwed into micro tubing stakes and risers.



Low Flow drip emitters for watering plants, trees, and container plants, come in a variety of flow rates, typically .50, 1, 2.0, 4.0, and 6.0 GPH (gallons per hour).

Medium Flow drip emitters for watering large shrubs and trees come in flow rates from 5 to 24 GPH (gallons per hour)

Pressure Compensating Drip Emitters:

Pressure compensating drip irrigation emitters (PC Emitters) deliver a consistent output of water, even with increase changes in elevation or pressure due to long drip runs. These drip emitters are best used in landscapes and gardens that have drops in elevation that would cause an increase in pressure.



Non Pressure Compensating Drip Emitters:

Non pressure compensating drip irrigation emitters output will vary with changes in elevation and pressure. These drip emitters are best used where the area is flat with very little elevation changes in the landscape.



Sprayers:

Micro Sprays & Jets: Micro spray covers a category of spray caps, bases, one-piece, and adjustable sprayers and bubblers that are small and designed to operate with drip irrigation systems. These drip irrigation sprayers can be used for ground cover, flower beds, vegetable gardens and landscapes where you need to water a large area.



More Water Saving Ideas

When designing a new drip system or retrofitting an existing system, consider installing a drip system in smaller planting areas. Drip systems can deliver the water near the root zone and right to the plant. This minimizes wind drift and eliminates the problem of water not reaching the matured landscape due to plant foliage blocking the spray from a standard pop-up sprinkler.

Root Zone Watering:

Root Zone Watering System features **Hunter's** patented StrataRoot design, which is a series of internal baffles that deliver water where it's needed most. The RZWS comes pre-assembled to save time, and the enclosed design and grate protect irrigation hardware from vandalism. For efficient irrigation of trees and shrubs delivered at the root, the **Hunter RZWS** is the solution.



For more information about the "Root Zone Watering System" - [Click Here](#)

Mulch:

Applying mulch around plants can save water by keeping the moisture contained by reducing evaporation. Mulch will help retain the moisture in the soil and reduce the amount of water needed for the plants.

Emitter Calculation Tool

This tool will calculate the Daily Plant Water Requirement (PWR), provide you with the number of emitters required to irrigate each individual plant, and the suggested run time for your drip irrigation system.



RainBird's Point Source Emitter Calculation Tool - [Click Here](#)