

About

Drip Soaker Tape is a drip irrigation method for watering vegetable gardens, row crops and flowerbeds, or where total saturation is desired along a straight, narrow path of the drip tape. The drip soaker tape is a flat drip tape with .8 GPH @ 25 PSI labyrinth-like flow path drip emitters welded into the inside diameter of the tape every 12”. When filled with water, the drip tape expands and disperses the water through the pre-inserted drip emitters. Operating pressure for this product is 10 to 25 PSI. We highly recommend installing a 25 PSI preset pressure regulator and a filter at the beginning of the line. The drip soaker tape can be used below or above the ground and can be covered by mulch. The drip tape can be installed in a sub-surface layout 4” to 8” deep, depending on the crop and soil type.

To use drip irrigation in vegetable gardens, it is best to water early in the morning before the temperature begins to rise, allowing excess moisture on leaves and top soil to dry before fungal and other diseases can develop. The most common cause of early plant death is over watering. Using drip irrigation can help sustain healthy plants by applying water directly to the plant root zone when and where it is needed.

The drip soaker tape requires special drip soaker tape fittings that are different in design from those used with 1/2” drip tubing, in that they work with a twisting lock device rather than with compression. Find our tape fittings on the main menu under the “Fittings” link or click here.

DIG provides the following installation steps as general suggestions. There are other ways to install this product.
When designing a drip irrigation system using drip tape, first identify the number of similar irrigation zones needed. Irrigation zones can be based on factors such as type of vegetable crop, total flow available in a given time (see drip tape flow rate), field length and soil texture. Once the zones are designed and the drip system is selected, an irrigation schedule must be set up to meet the unique needs of the crop in each zone. A properly designed and installed drip system will provide better uniformity for many years and can improve crop production.

Start the installation from a PVC pipe or to pipe thread

1. If the drip system installation is started from a PVC pipe, first shut off the main water supply.

2. If an automated system is preferred, we recommend installing a 3/4” ball valve or gate valve before the battery operated controller or AC valve, if used. This ball valve can be very useful as an emergency backup to turn the system off. This type of arrangement is used by professional installers.

3. Turn the water supply on to flush the line and then shut the water supply off using the new ball or gate valve.

4. Install an AC valve or battery operated controller, wrapping TEFLON tape on all the male thread fittings used.

5. Turn the water supply on again to pressurize the system. The unit will open momentarily and then will shut off.

6. Test the valve or the battery operated controller and make sure that valve or battery operated controller are working correctly. If using a battery operated controller, program the controller.

7. After the AC valve or battery operated controller, add a 3/4” screen filter with 155-mesh . The screen filter is used to protect the drip system. Next, add a preset 25 PSI pressure regulator or adjustable pressure regulator. The pressure regulator is used to lower the pressure to the normal operating pressure for a drip system. Follow with a 3/4” swivel adapter (model A025) to the drip tubing or 3/4” PVC thread x slip adapter to the PVC line.

Start the installation from a faucet or hose thread

1. If an automated system is preferred, install a hose end timer.

2. Test the hose end timer and make sure that it is working correctly, then program the timer. To the hose end timer, add a backflow device (model A015), then a 25 PSI pressure regulator (model PR204), and then a 3/4" swivel adapter with screen (model LF003). If water quality is a concern, we highly recommend using a fine mesh 3/4" filter with 155-mesh (model F001). To connect the 1/2" drip tubing into the compression fittings side, cut the drip tubing with a hand pruner, being careful to keep dirt from entering the line, or connect the fitting to the end of the 1/2” drip tubing. To do so, hold the fitting in one hand and the 1/2” drip tubing in the other and force the drip tubing into the fitting by wiggling it from side to side. Make sure that the drip tubing is pushed into the compression fitting side for about 1/2" to 5/8" for a very tight fit. No glue or clamps are required.

3. At this stage of the installation you have two layout options:

Option one with single row:

Use the drip tape to 1/2” drip tubing connector (model A024R) to connect the drip tape to the end of the drip tubing for a single line of drip tape. This one line can be extended up to 280’ long using the drip soaker tape connector. First, connect the 1/2” drip tubing to the compression side of the connector by pushing and wiggling the 1/2” drip tubing into the adapter end. Connect the drip soaker tape to the other end by first turning the ring counter-clockwise to expose the barb, then pushing the drip soaker tape over the barb, and finally threading the sleeve clockwise to lock in place.

b. Lay out the drip soaker tape near the vegetables row or between two close rows (6”-10” apart). Extend the drip tape a few extra feet past the end of the row.

Option two with multi-rows:

Additional 1/2” drip tubing may be added to the 5’ section in this kit and used as the main line. Lay out the 1/2” drip tubing perpendicular to the vegetable garden rows. Near each row, punch a hole in the 1/2” drip tubing using a tool punch (model A019) and insert the barbed end of the drip soaker tape reducer (model A026) into the 1/2” poly tubing. Connect the drip soaker tape to the other end by first turning the ring counter-clockwise to expose the barb, then pushing the drip soaker tape over the barb, and finally threading the sleeve clockwise to lock in place. Lay out the drip tape near each vegetable row or between two close rows (6”-10” apart). Extend the drip tape a few extra feet past the row.
4. Turn the water on and flush all outlets for about 30 seconds to a minute and after the lines are flushed, turn the water off.
5. Close each drip soaker tape end using the end closer (model A027 or A031).
6. Turn the water on again to test the system and check for leaks.
7. If a hose end timer is used, program the timer.

NOTE: Install the drip soaker tape in straight lines only.

A report from Cal Poly San Luis Obispo’s Research Center (ITRC) reveals that closely spaced drip emitters can improve salinity, provide a better wetted pattern and increase crop quality.