

CONVERTING A SPRAY BED TO DRIP IRRIGATION



1 The first step in converting a spray bed to on-surface drip irrigation is to determine the square footage of the area, the soil type and the system pressure. This will help you figure the flow rate, the spacing and the lateral row spacing of the on-surface dripperline. The soil will not require any special preparation.

2 You can often use the same controller and valve that were operating the spray heads as long as the valve is large enough for the total GPM of the new system – and in most cases it will be.

3 The existing irrigation lines running to the site can also be utilized as long as the PVC is large enough for the total GPM of the system, which, again, in most cases it will be.

4 Existing plants or shrubs can remain in place. On-surface dripperline is very flexible and you will have a variety of fittings to work with so you can run the tubing alongside the pre-existing plant material.

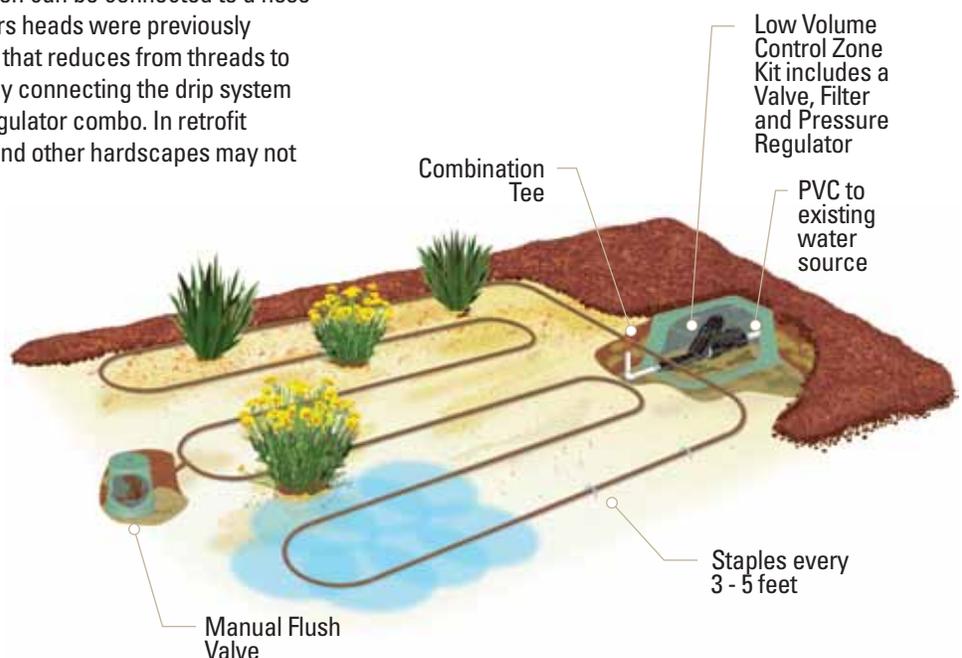
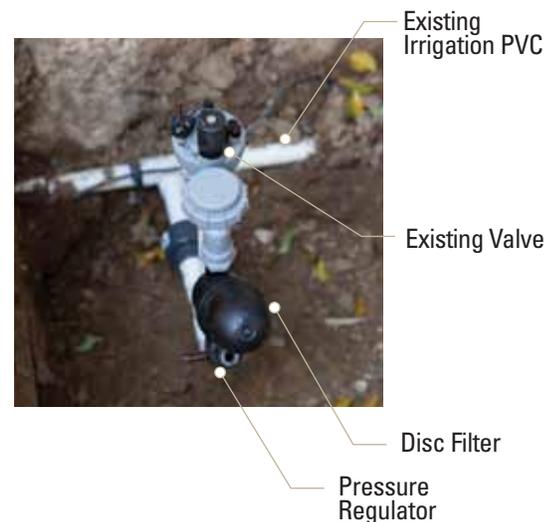
5 If you are installing new shrubs and flowers, 1-gallon plants should be put in after the on-surface tubing is in place. If you are adding larger 5-gallon or 15-gallon plants or boxed trees, however, you would plant them first and then lay down the looped tubing.

6 To start, remove and cap off all of the spray sprinkler heads.

7 Connect to the water source. Drip irrigation can be connected to a hose bib or one of the nipples that the sprinklers heads were previously connected to by using a combination tee that reduces from threads to insert. Typically most contractors begin by connecting the drip system straight after the valve, filter, pressure regulator combo. In retrofit applications though, existing sidewalks and other hardscapes may not allow this. Therefore connecting to the existing pvc laterals through one of the before mentioned nipples is an easy choice.

8 Next, choose the appropriately-sized pressure regulator. Typically a regulator with a range from 20 to 45 psi will work fine. Then connect a valve, filter and pressure regulator kit to the tubing. Netafim offers a pre-assembled Low Control Zone Kits with a pressure regulator, valve and filter that can be installed quickly without guesswork.

Netafim offers a free design calculator to help you figure out the flow rate, spacing and lateral spacing at www.netafimusa.com



9 CONNECT THE DRIP LINE WITH A COMBINATION TEE FITTING. After it is connected, starting at the tee, loop the drip tubing around the plants or bed using evenly spaced rows 16"-24" apart. Use fittings to add rows and keep the outside rows about 2" to 4" away from edges of the hardscape or adjacent planters that are on another valve or zone. Complete the looping and return the tubing back to the "T."

NOTE: Netafim shows a typical system layout on the drip tubing label. The label illustrates what a loop design looks like and can help you determine how much tubing you will need to cover the square footage and how long to run each zone.

10 SECURE THE TUBING TO THE GROUND. Drip line staples should be placed every 3' to 5'. If the soil is soft the staples can be pushed in by hand. Otherwise, use a hammer, rubber mallet or a smooth rock to anchor the staples into harder soil. Use staples that are curved at the top so they do not pinch the tubing.

11 ADD A MANUAL FLUSH VALVE. A manual flush valve will need to be installed in the middle of the looped system at the location farthest from the water source and towards the lowest point. Its function is to periodically clean or flush the system, however, it rarely needs to be used.

12 TEST THE SYSTEM. Before covering the tubing with mulch, turn on the water and time how long it takes for the soil to become saturated and for water to move from one lateral line to the next. Make sure there are no leaks at your connections.

13 COVER WITH MULCH. Once you have turned on the system and tested the connections, you can cover the drip tubing with mulch or ground cover if desired. When covered with mulch, on-surface drip tubing disappears into the landscape, yet is still easily accessible.

14 MAINTENANCE. Most contractors find it is a good idea is to flush the system during routine servicing when you clean the filter. This should be scheduled once a quarter. If the site is on city water and you are using Netafim's disc filters, it will be rare that any dirt and debris gets past them!



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