FORM: D5024

USEFUL TIPS FOR SPRINKLER SYSTEM LAYOUT

LINE PREPARATION AND PLANNING
Make sure all PVC pipe and fittings are free of debris. Remove any PVC shavings from outside edges and interior of pipes and fittings. Then flush with air and water to clean thoroughly.

Lay out your system before gluing together, and do the following:

1. Predetermine hanging or ground position of sprinkler line. If the line will be overhead, it should have a 1" downgrade from the highest point to the lowest point in the line.

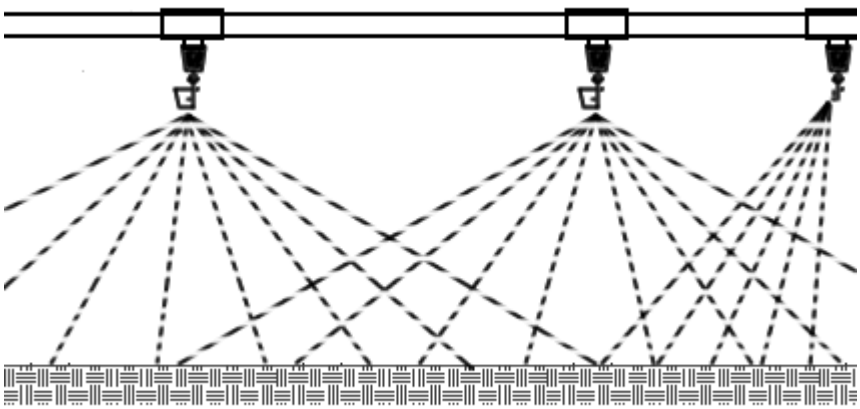
2. Determine where (if any) turns will be made. It is recommended that you build the separate straight sections first and connect them together with a 90 degree or 45 degree PVC elbow.

3. Measure the lengths needed for the straight runs of sprinkler line.

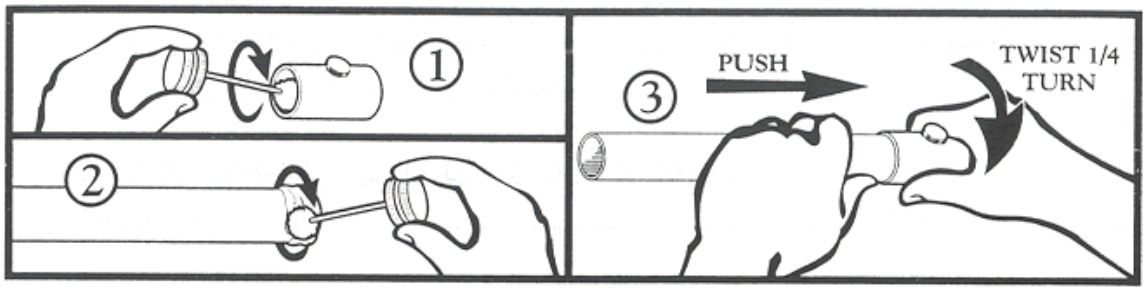
4. An auto drain valve should be placed at the lowest point in the line to insure proper drainage and prevent sprinkler dripping when the system is cut off.

5. Determine where you will connect the water source to the sprinkler line.

SPRINKLER SPACING
Sprinklers are intentionally designed to require 100% overlap of watered areas as shown in the diagram below. That means each sprinkler throws water ALL the way to the next sprinkler in each direction. **100% overlap of watered areas is REQUIRED,** or you will get dry spots. This is known in the industry as "head-to-head coverage or head-to-head spacing". The 360° sprinklers have an adjustable spread of approximately 7' to 15' diameter. This means the sprinklers should be placed within 3 ½' to 7 ½' of each other to provide head-to-head coverage. 180° sprinklers can be placed at the ends of sprinkler lines to provide overlapping coverage for the last and first 360° sprinkler in that line.



SPRINKLER PIPE ASSEMBLY
Assemble straight sections of pipe. Connect pipe using the PVC tees included with the sprinkler kits. Apply PVC cement liberally to the inside of the fitting and the outside of the pipe as show in the diagram below. Insert pipe into fittings and twist approximately ¼" turn. **(IMPORTANT)** Make sure all sprinkler tees' threaded nozzle openings are aimed in the same direction. Otherwise, sprinklers will not cover the desired area. Repeat this process for all fittings **EXCEPT** gray sprinkler tee nipple and sprinkler head.



FLUSHING THE LINE
Allow a minimum of **1 HOUR** for the pipe and fittings to dry before flushing the system with water. After the PVC cement has dried, attach the water supply line to the sprinkler system. Turn water on full pressure for a few minutes to flush out any dirt or debris from within the pipe. Turn water off. You are now ready to assemble the sprinklers.


Sprinkler Tee


Gray PVC Nipple

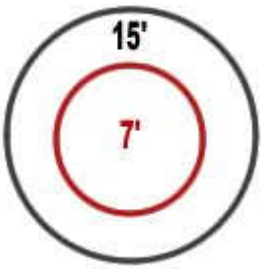

Gray PVC Adapter


Sprinkler or Mister Head

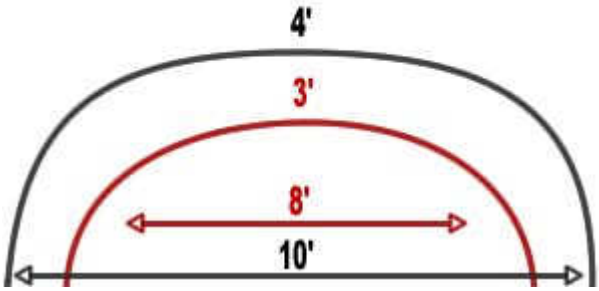
SPRINKLER HEAD ASSEMBLY

1. Wrap one end of each gray nipple piece with Teflon pipe tape (Wrap 4 to 6 times).
2. Screw gray nipple into the sprinkler tee's threaded nozzle until it is tight.
3. Wrap the other end of the gray nipple with Teflon pipe tape (4 to 6 times).
4. Screw the gray PVC adapter onto the gray nipple until it is tight.
5. Screw the sprinkler or mister head into the gray PVC adapter until it is tight.
6. Turn the flow control knob on the sprinkler to the desired output. Turn the knob clockwise to reduce output and counter clockwise to increase output.

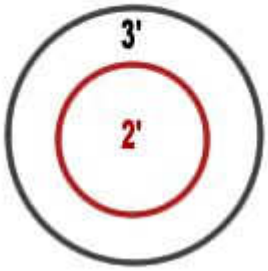
360° Sprinkler Coverage Area



180° Sprinkler Coverage Area



Mister Coverage Area



The smaller area above indicates the maximum coverage area when heads are placed 2' to 3' above plants.
The larger area above indicates the maximum coverage area when heads are placed 4' to 5' above plants.