Water in Yard Drainage System

List of Tools Needed, Shopping List, and Installation Instructions

Low Capacity | **6-8 Hours** Total Man Hours | **$80-$95** Material Costs | 10 Tools Needed

Tools Needed


Saw


Level


Measuring Tape


Pick


PVC Glue


Shovel


Plastic or Tarp


Trenching Machine Optional


Clear Waperproof Silicone


Plastic Cable Ties

Shopping List

Quantity needed of each part will vary based on several factors specific to your project including system length, rainfall intensity, and number of problem areas. Pipe and fittings are offered in two sizes: 3" and 4". Size availability will vary based on region and store. Ensure that component sizes are consistent throughout your drainage system.

NDS Part Number	Description	Purchase Online

321 or 421	3” or 4” Pop-up Emitter with Elbow	Buy online
3P02 or 4P02	3” or 4” Sewer and Drain Elbow	Buy online
Generic	3” or 4” Drain Pipe	
16 or 13	3” or 4” round Grate	Buy online

Installation Instructions

Note Before You Dig

Prior to installation, have your local utility companies locate and mark the location of existing utilities. Lay out your drainage system and mark the location of trenches and individual parts to be installed with marking paint before digging. Carefully remove grass or plants that are located where the trench will be dug so they can be replanted after installation. Trenches should be dug such that they slope a minimum of 1% away from your house. Place all excavated dirt on a tarp so that it can be used later to backfill.

To speed up installation, a trenching machine can be used to dig all trenches, especially in areas with particularly hard soil. NDS drainage products have been designed to be installed in any soil type. Due to the variety of pipe types and sizes, double check that all pipe connection points are the correct size. Please follow all installation directions included with the individual parts of your drainage system. To create watertight connections between products, apply a bead of waterproof silicone to both parts and connect.

This system requires that the elevation of the Pop-Up Emitter be lower than the elevation of the area drain or the system will not drain

Step 1: Lay out system, dig trenches and holes

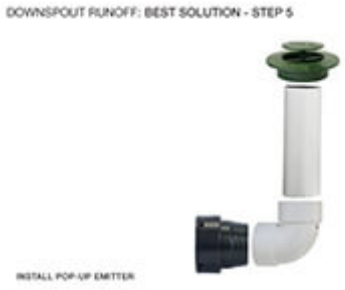
Dig trench for drain pipe. Dry fit (no glue) the entire drainage system from the atrium grate to the pop-up emitter. Measure and cut all pipe to necessary lengths. After completing each step, glue parts together.

Step 2: Install area drain and drain pipe

Connect the drain pipe to an elbow with a weep hole. The elbow should be installed with the weep hole on the horizontal side of the elbow. Slide the Pop-up Emitter onto the elbow. An additional length of pipe can be used between the elbow and Pop-Up Emitter to bring the Pop-up emitter to the surface. The Pop-Up Emitter fits on the “bell” or “hub” end of the pipe or a pipe coupler. TIP: To avoid damaging

your Pop-Up Emitter with your lawn mower, raise the cutting level of the blades or avoid passing the mower over the Pop-Up Emitter

Step 3: Install Pop-Up Emitter



Determine the way which the Spee-D Channel Drain will be drained (either via an End Outlet or Bottom Drain) and connect the appropriate drain pipe. Glue and connect elbows as needed. Continue drain pipe in the direction of where the Flo-Well will be installed.

Step 4: Backfill and Replant

Backfill and replace any grass or plants that were removed

Have Questions?

Call 1-877-412-7467 or visit us on the web NDSPro.com