
How To Install A Drywell



We're here on Jeremy and Corie Unruh's 13-acre property in northeastern Kansas to help them install a drywell behind their house to get downspout drainage away from their home. We're here because they responded to our invitation to send us their project ideas, which is something you can do, too, by sending us an email at Tipldea@JohnDeere.com.

For this project we'll be using a **John Deere 3038E Compact Utility Tractor** ([US CA](#)) with a **370B Backhoe** ([US CA](#)). We'll also use a **300E Loader** ([US CA](#)) with a 61-inch Materials Bucket for moving soil and gravel. And we'll use a few hand tools for more detailed work.

We'll also be using 4-inch (10.2 cm) Schedule 30 PVC pipe, one section of which is perforated, a 40-gallon (151.4 l) plastic dry well barrel, a pop-up valve in case of any overflow, and plenty of gravel to help disburse the water into the soil.

Always. Always. Always.

When planning to dig on your property it's very important to make sure you don't dig into any underground utilities. So first, we asked Mr. Unruh to call 811, the number to call to have **all** your utility lines marked before you start digging.

With the utilities flagged, we plotted where the underground downspout extension should go and where to install a drywell. Then we marked the line for that trench with spray paint. And we're ready to get started.

The Unruh's had already put in a large concrete patio on the back of their house next to the downspout location, and installed a new air conditioner on a new concrete pad. The area we started working in was between the two, and right up against the house.

And wouldn't you know it, we ran into a bit of an obstacle right off the bat. The space between the old air conditioner pad and the new patio was pretty tight and full of old concrete, rocks and other debris. The backhoe bucket couldn't get at all of it, so we had to use our trusty hand tools – also known as, a shovel and our hands. But once we got that portion of the trench dug, we were off and running.

Using the backhoe attached to our tractor, Dan, our tractor operator, started digging a 35-foot (10.7 m) trench from the patio out into the backyard, away from the house. The trench needed to have a

1% slope so water will drain through the PVC pipe properly. That means the trench and drainpipe must slope away from the house and toward the drywell with at least 1-inch (2.5 cm) of fall for every 8-feet (2.4 m) of run. We'll make sure the slope is correct by using a 4-foot (1.2 m) level. For a 1% slope, we want to always be one bubble off level going away from the house.

And that's why we call him Digger Dan.

Once Dan reached the drywell location, he started digging the hole for the drywell itself. Now in all honesty, he may have gotten a little over-enthusiastic digging this hole, the result being it's a little deeper than maybe it needed to be. But there's just no substitute for enthusiasm on the job. So forever more Dan will be known as Digger Dan.

Next, we laid the PVC drain pipe sections in the trench and joined them together using the PVC primer and glue, following the package instructions.

The last section of drain pipe, which extends into the drywell hole, is perforated to allow water to start leaching into the soil even before it reaches the drywell. We covered the perforated section with a thin nylon sock to keep any debris from entering through the drain holes and clogging the pipe, or getting into the drywell barrel.

We also lined that section of trench with landscape fabric and gravel to help keep the system free of debris and allow the water draining out of the pipe to leach into the soil more effectively.

While all that was going on, MJ knocked the perforated caps out of the drywell barrel so the perforated pipe can be attached, and accumulated water can drain out of the barrel. To begin to install a drywell, we placed the barrel in the hole and filled most of the hole with gravel.

And all the parts come together.

We glued a PVC connector to the top vent hole of the drywell barrel and glued a length of PVC pipe to it. Then using a long 2X4 laid horizontally across the edge of the hole and up against the PVC pipe coming out the top of the barrel. We marked the pipe where ground level would be, and continued to add gravel until the hole was almost full. Then we cut off the pipe at the ground level mark, and glued the pop-up valve to the remaining pipe. The pop-up valve will keep debris out of the barrel and let any water overflow escape on the surface.

Finally, we filled the rest of the drywell hole and trench with soil, and smoothed it out a bit so the Unruh's could finish it however they like.

And there you have it. With the right tools and materials, you can install a drywell like this in about a half a day.

Remember, if there's anything you're not quite sure how to do and think others might like to learn too, just email us at TipIdea@JohnDeere.com. If we can, we'll produce that video and even give you a shout out for having and sharing your great idea.

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So, for implements that help turn your tractor into the workhorse it was built to be, think Frontier and your John Deere dealer.

And lastly, always read the Operator's Manual before operating any piece of equipment and follow all operating and safety instructions.

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