

# WELL HAND PUMP KIT

Installation and Use

# PUMP INSTALLATION

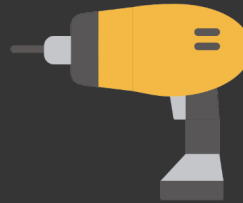
## Tools Needed:



PVC Cement



PVC pipe cutters or a hand saw



A Drill



1/16" Drill Bit



1-3/8" Metal Hole Saw



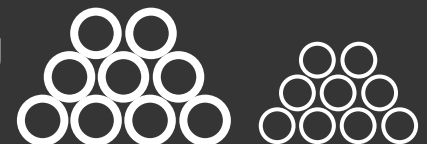
Nylon Rope (Recommended)

## Pipe Needed:

Piping will need to be purchased for this pump at your local hardware or plumbing store. The type of piping you will need is thin wall 1" PVC (commonly referred to as class 200), and an equal length of 1/2" PVC thin wall pipes (commonly referred to as class 315).

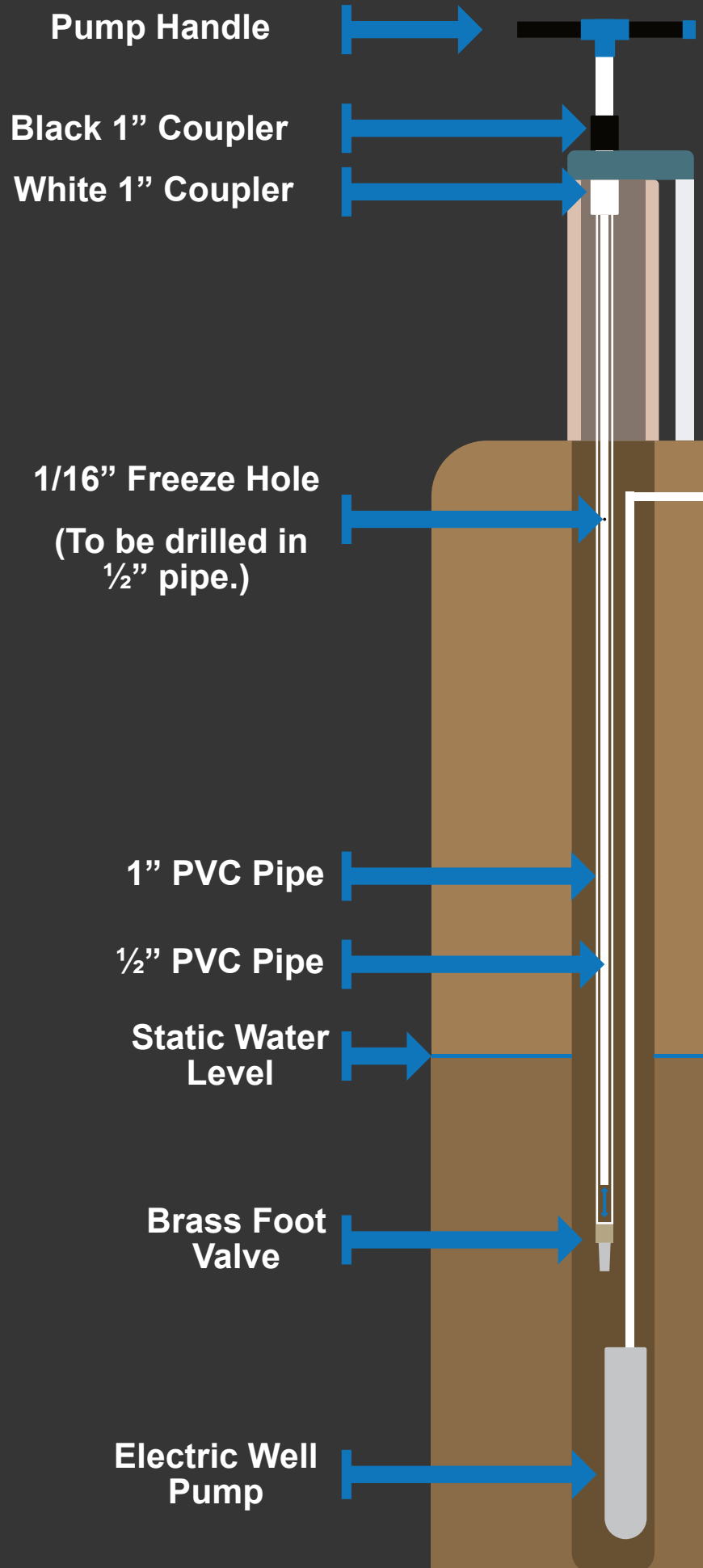
The number of pipes needed is dependent on how deep your static water level is in your well. There are some methods available to measure or estimate the static water level, but the easiest way to estimate the level is to check your well report from when the well was drilled. The well report should have a static water level measurement. It is possible the static water level is lower than the well report, so you may want to purchase some extra piping just in case.

You will want to get 10-20 feet in additional piping than what your static water level is. For example, if your static water level is 100 feet, then you will want to purchase 120 feet of the 1" thin wall PVC piping and also 120 feet of the 1/2" thin wall PVC piping.



In this example if you are purchasing each PVC pipe in 10' sticks, then you will want 12 sticks of both the 1" and the 1/2".

# Assembly Overview:



# Method 1: Install All Together

- Requires 2 people to install.

- Fastest and easiest way to install.

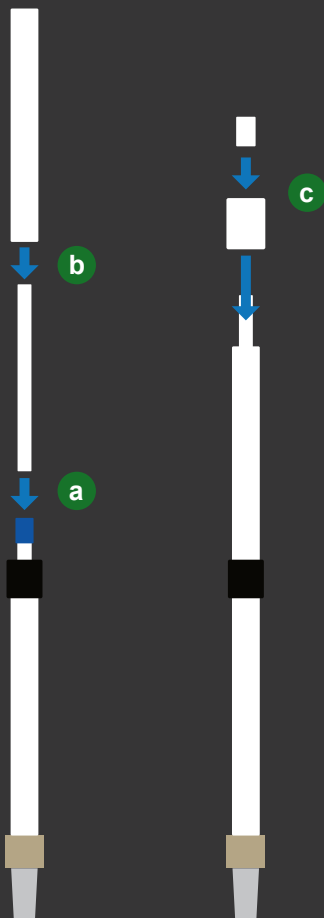
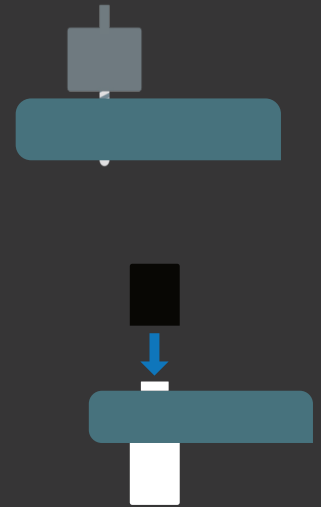
- Install this way if you have two people, the well head is outdoors, and there is no structure above the well head.

1. Remove well cap.

2. Use the 1-3/8" metal hole saw to drill a hole in the well cap for the hand pump piping.

3. Take the black coupler along with one of the 1" white couplers and glue them to a small piece of pipe so that there is a coupler on both sides of the well head. This is to secure the pump in place when it is all assembled.

**Gluing Tip:** Use a cotton swab or small glue applicator for applying PVC glue to the inside of the 1/2" and 1" couplers. Ensure there is plenty of glue so that the pipe is securely cemented to the couplers, but you don't want too much so that the water flow is restricted. Also when gluing the pipe into the couplers make sure to give the pipe a quarter rotation to give even glue application around the pipe.



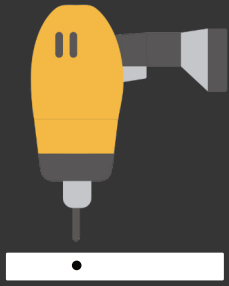
4. Take the pump piston provided in the kit and begin to assemble the pump.

**a** Take one of the 1/2" pvc pipes and glue it into the 1/2" coupler on the piston.

**b** Take one of the 1" pipes and glue it to the 1" coupler on the pump piston.

**c** Glue a 1/2" coupler to the end of the 1/2" pipe you just glued to the piston and also a 1" coupler to the 1" pipe.

5. Repeat these steps until all of the pipes are glued. Be careful in only getting glue on the pipe and couplers to fasten them. Too much glue and the pump will be stuck from pumping. Do not glue couplers to the ends of the last pipe. That pipe will be glued to the well cap later on.



6. Drill a 1/16" hole in the 1/2" pipe 5-10 feet below ground level or at whatever depth the freeze line is in your area. This will allow the pipe to drain off to prevent freezing. This hole can either be drilled in the last 1/2" pipe before the 1" is glued over it, or it can be drilled after by drilling through the 1" pipe to the 1/2". Try to remove any PVC shavings inside the pipe after drilling.

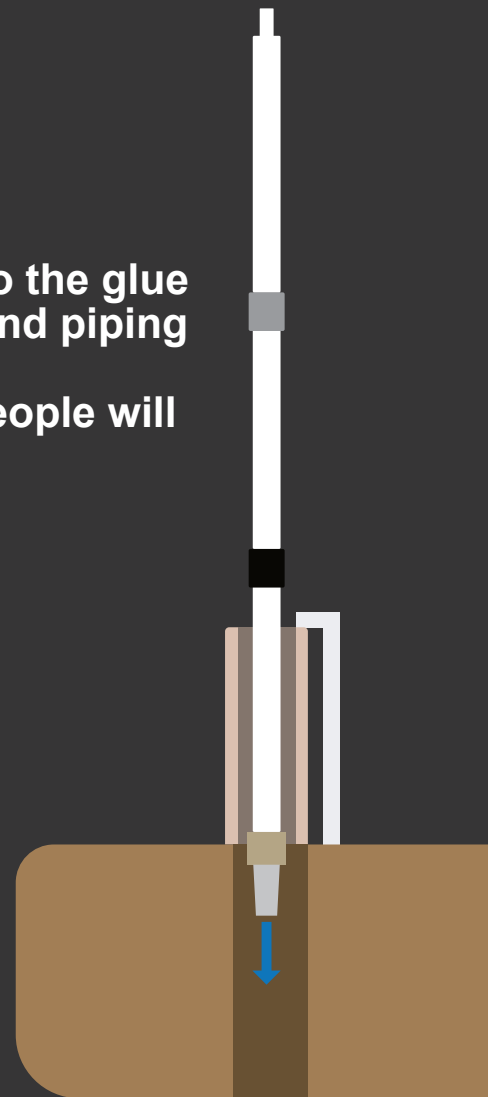
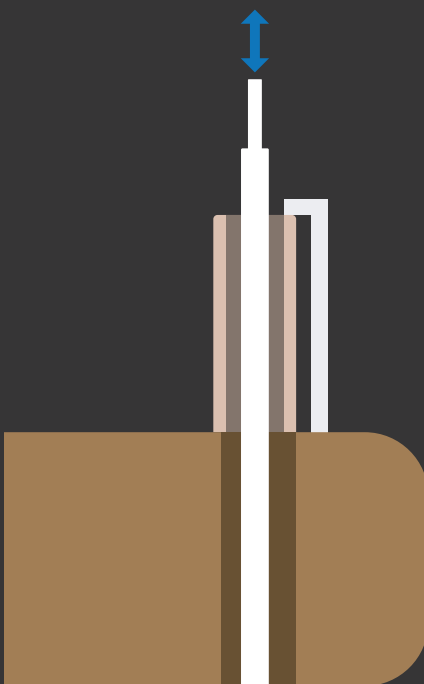
**Highly Recommended Tip:** It is now time to lower the pump into the well. For extra safety when lowering the pump piping into the well, you can tie one end of the rope to the pump piston coupler and anchor the other end so that if the pump piping were to drop into the well it could be retrieved by pulling up the rope.

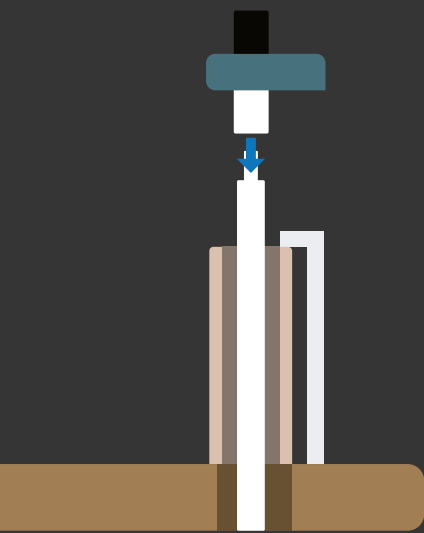


7. Allow all the joints proper time to cure according to the glue instructions, and then lower down the pump piston and piping into the open well cap. This can be a little bit difficult especially with a long pump for deep wells, so two people will be needed for this step.

8. Once the pump is lowered, and the top end is at the top of the well head, hold the 1" pipe to keep the pump from going any further into the well. (You can also use a C-clamp to assist with holding it).

While holding the 1" pipe, pump the 1/2" pipe up and down a few strokes to see if you have hit water. If the pump strokes don't become heavier, and there is no water coming out, then you may have to add additional pipe to go deeper to find water. Continue to add pipe until there is water coming out on the pump strokes.

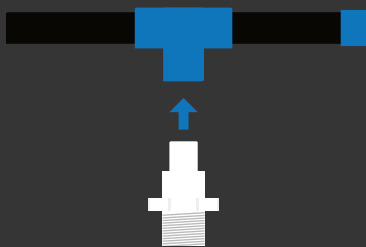
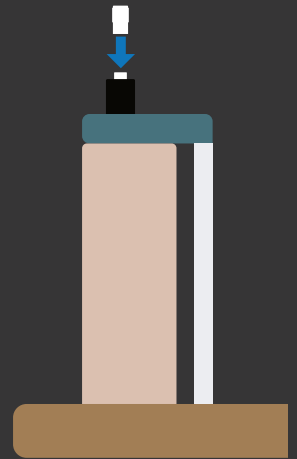




9. After water has been found, go ahead and glue the 1" pipe to the coupler on the well head. Continue to hold onto the 1" pipe until the glue cures.

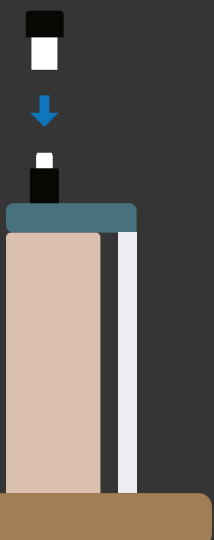
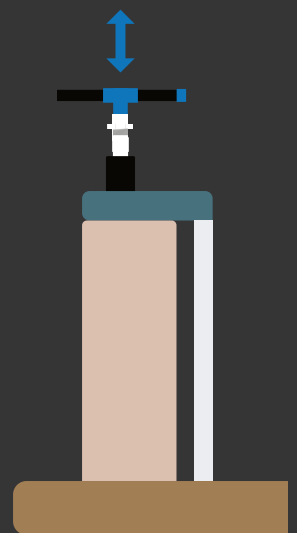
10. After the glue cures, lower the pump the rest of the way and secure the well head back in place.

11. Glue the female thread fitting provided with the kit to the 1/2" pipe. You may need to trim the 1/2" pipe a little bit so that it doesn't stick much further out than the 1" coupler on top of the well head.



12. Cut a piece of 1/2" pipe the desired length for the handle and then glue the handle to the male thread fitting with that pipe.

13. Now whenever you need water manually from your well, just screw on the handle and pump long and continuous strokes up and down for water to flow out of the handle.



14. When the pump isn't being used you can use the provided 1" cap. Do not glue this piece. Just use it to cover the pump and take it off whenever you need to use it.

# Method 2: Install Piece By Piece

- Only one person needed to install.

- Slower way to install.

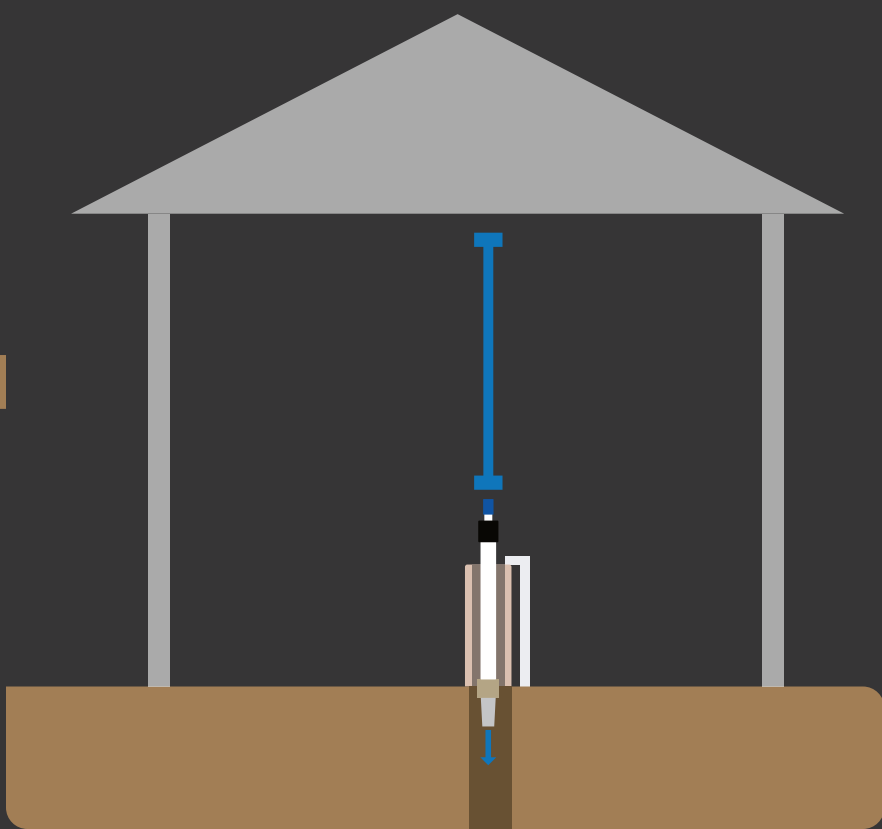
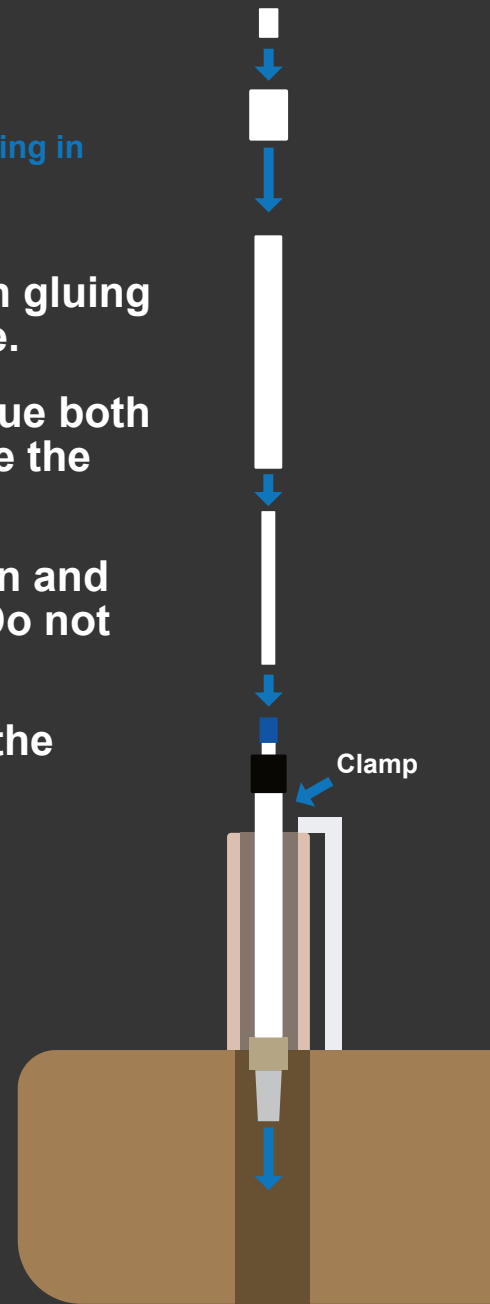
- Install this way if you don't have two people to install, or if you are installing in a well house or covered area with not enough head height for method 1.

1. Follow the same steps from method 1, but rather than gluing them all at once and lowering it in, do one pipe at a time.

2. Hold the piston with a C-clamp or wedge, and then glue both the 1" and 1/2" pipes just like in step 3 on method 1. Glue the couplers to those pipes.

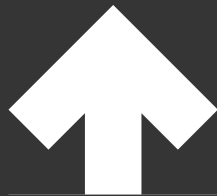
3. Wait for the glue to cure, then lower that section down and clamp at the coupler, and repeat until the last section. Do not put couplers on the last section.

4. Follow steps 7-12 from section 1 to finish the rest of the installation.



5. If installed in a building such as a well house, the sections will need to be shortened to the height of the well head to the ceiling. If the sections need to be shortened, additional couplers may be needed to finish the installation.

**NEED MORE HELP?**



Scan or go to  
[pump.eppwellsolutions.com/support](https://pump.eppwellsolutions.com/support)



[pump.eppwellsolutions.](https://pump.eppwellsolutions.com)