ASSEMBLY PROCEDURE FOR PITLESS ADAPTER SYSTEM

LAST UPDATED: June 25, 2018

(The following instructions are very detailed, and should tell you everything you need to know. If you have questions, please phone 775-267-1093.)

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INTRODUCTION

For using the Simple Pump with its own pitless exiting into an underground pipe.
Using this system directs water through the pitless adapter and will not allow water to be delivered through the above-ground pump head.

The Simple Pump Pitless has two parts.

A "saddle" portion is affixed through and to the inside wall of the casing having a compressive seal drawn tight against the inside wall of the casing by a large nut.

The "rider" portion of the pitless holds the weight of the pipe and water by sitting in the saddle against an o-ring seal.

The system is designed to accommodate a modified Merrill 50 pitless adapter installed **between 48" and 84"** below the top of the well casing and below ground. The modified pitless adapter provided, is designed to be installed in a 6" or 8" well casing through a 1¾" hole in the casing wall.

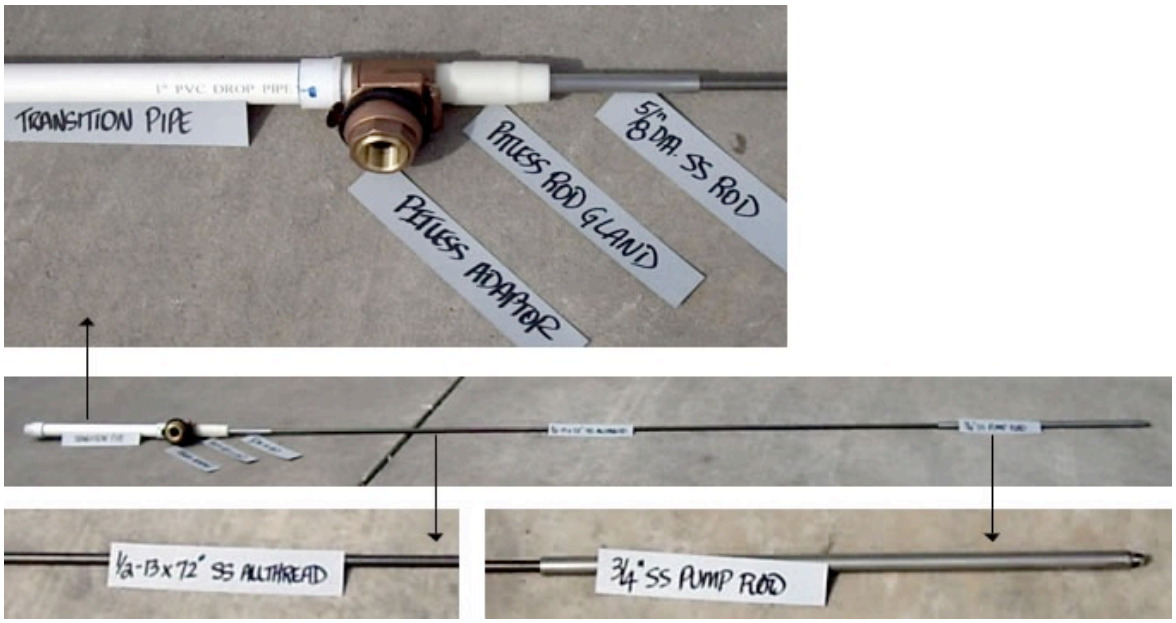
The 7/8" bore, through the Merill 50 pitless along with the application of a rod gland with u-cup seal and stainless rod, allows the water to be contained within the piping while the pumping energy can pass through the pitless.

A spring-to-close check valve is required on the buried line between the Simple Pump pitless adaptor and the tee connecting into the buried line that runs between the well head and the pressure tank.
When the submersible is running, the water must be directed to the pressure tank rather than back-feeding the Simple Pump. The check valve prevents this.

A spring-to-close check valve is also required on the buried line between the submersible pump pitless adaptor and the tee connecting into the buried line that runs between the well head and the pressure tank. When the Simple Pump is running, the water must be directed to the pressure tank rather than back-feeding the submersible pump. The check valve prevents this.

Please do not attempt this installation unless you are familiar with pitless adapters and how to properly install them.

Inexperience can easily result in dropping components to the bottom of the well. When installing the system, the work is best performed by two persons capable of handling perhaps 75 pounds each. Make sure you are very familiar with each step before you start it. If you are uncertain about any of these procedures, please call for help before you begin.



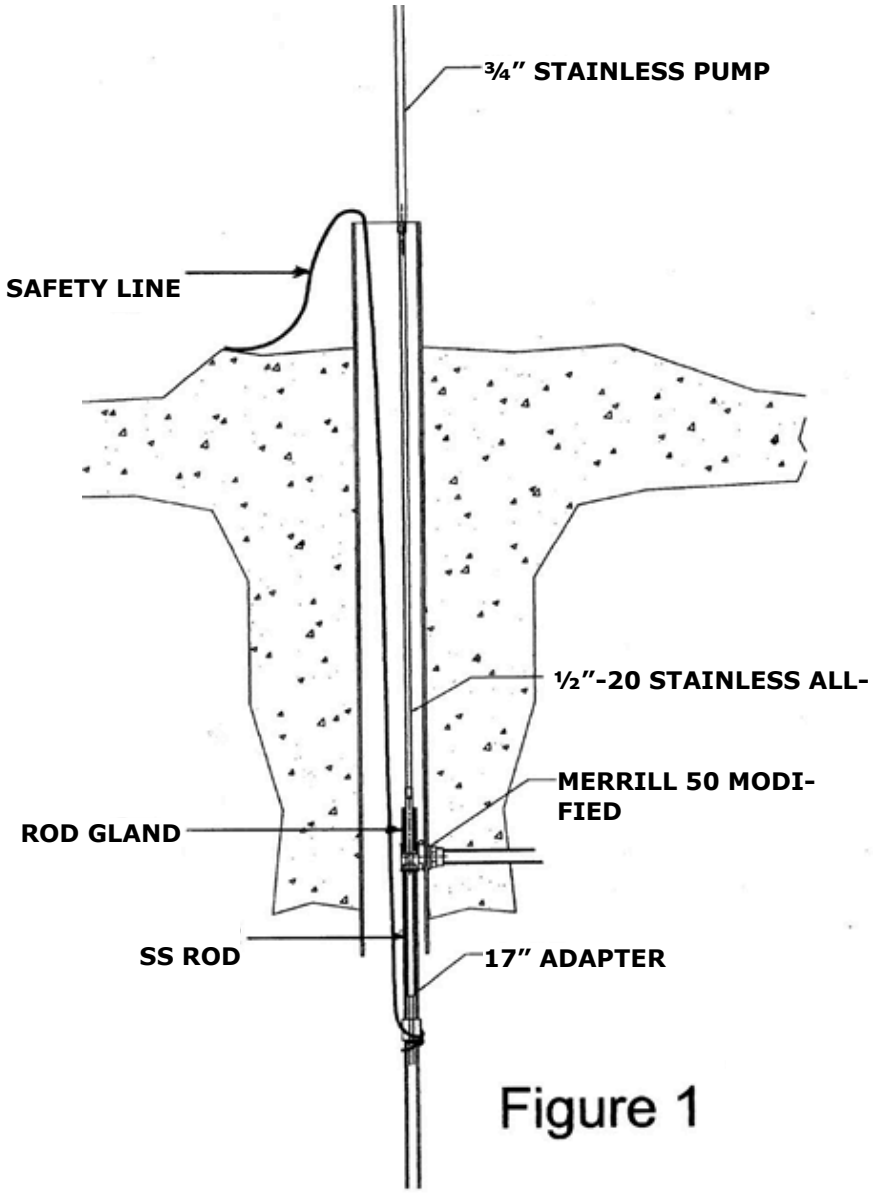


Figure 1

ASSEMBLY

SEE DIAGRAM PREVIOUS PAGE

1. Install the receptacle portion of the pitless adapter in the well casing wall and the desired depth using the instructions provided with the adapter.
2. Using the instructions provided with your pump, perform the installation of your well cover provided. Using the safety tool provided, install the submersed pump, sucker rods and standard 9-foot drop pipes that will be used. When completed with this step, the last drop pipe will be suspended from the well cover by the safety tool. The sucker rod should be protruding out of the female bell end approximately 5”. If this is not the case, one or more rod extenders may be required.
3. Measure the distance from the top of the well casing to the center of the pitless adapter. Using a hacksaw, cut the ½” threaded rod 6” shorter than the dimension measured. For example, if the pitless adapter is installed 60” below the top of the well casing, cut the rod to a length of 54”.
4. Using the ⅝” diameter stainless rod from the pitless adapter, screw it to the top sucker rod and tighten.
5. Now install the 17” long special PVC top pipe. Teflon tape the top threads into the pitless fitting.
6. The next few steps will be performed with the safety tool and well cover removed. This is a two- or three-person job. Begin by lifting the well cover with the pipe string and tying a safety rope around the pipe below the cover. Set it back down on the casing for a moment. The rope can be secured with some slack.
7. Thread the ½” stainless all-thread rod into the ¾” stainless pump rod and tighten. Set this assembly nearby along with the remaining half (rider portion) of the pitless adapter.

SPECIAL INSTRUCTIONS: IF PITLESS IS TO BE INSTALLED AT LESS THAN FOUR FEET FROM CASING RIM

Our pitless adapter is designed to be installed at a location between 48” and 84” below the top of the well casing.... below the frost line. It is designed to be installed in a 6” or 8” well casing through a 1-3/4” hole in the casing wall.

When that 1-3/4" hole for the pitless is cut at less than 4 feet from the top of the casing, the SS allthread will bind and the lever arm action will lift the pitless rider from the pitless saddle.

For installations less than 4' from the casing rim, the PA1-MK should be used to address misalignment and rider lift. The PA1-MK is installed between the 5/8" SS rod and the 1/2-20 SS allthread, just above the Simple Pump modified Merrill 50 pitless adaptor.

8. With the safety rope secured, lift the pipe string and well cover. While holding the pipe from underneath, remove the well cover and set aside. Now slide the pitless adapter over the ⅝” chromed rod with the white nylon rod gland pointing up. Immediately screw the end of the ½” threaded rod to the ⅝” shaft and tighten.

9. Now the pipe string can be lowered with both the safety rope and by holding the top stainless pump rod (one man on each), until it engages into the receptacle. The pipe string is now safely supported. The rope can be drooped across the pitless adapter. It can be retrieved later with a hook if necessary. You may also choose to put the rope through one of the auxiliary ports in the well cover.
10. Reinstall the well cover in a position that best aligns the shafting, which will extend through the large port. Do not tighten it to the well casing yet.
11. Now slide the pump head over the stainless pump rod and into the large port. It may be necessary to move the cover while assembling. The stainless pump rod needs to come through the top of the pump head.
12. Now secure the cover to the well casing with the four setscrews.
13. Adjust the height of the pump head until about 4" of shafting is above the pump head. Tighten the clamping flange on the cover.
14. Attach and tighten the clevis to the left-hand threaded end of the ¾" stainless pump rod.
15. Assemble the lever using the linkage and pivot pins provided.

You should be ready to pump water. It will require about 1 stroke for each foot of depth to bring the water up the first time. After that, it should deliver water within a few strokes, as long as there are no leaks. It is recommended that you leave the outside of the pitless adapter disconnected until you confirm that you have water flow.

TROUBLESHOOTING

If the rider portion of the pitless lifts out of the saddle portion of the pitless the problem may be one of the following…

1. The relationship of the drop pipe length to sucker rod length is not correct and the piston is topping out in the pump cylinder at the bottom causing a lift action. 4" of rod protrusion is desired. If this is not the case, a 4.75" mini sucker rod may be required. Please contact us. (Contact information on cover page.)
2. The Simple Pump port is not positioned over the pitless causing a binding….rotate the well cap so the Simple Pump port is aligned above the pitless.
3. The static water level is rather high resulting in minimal weight of water, the system is new and seal contact with pump cylinder and seal contact with the stainless rod at the pitless is greater than the weight of the system thus causing a lift action. Install a 1" diameter PVC schedule 40 or 80 spacer pipe between the top of the pitless and bottom of the riser tube. The ½-20x72 stainless all thread will run inside of this 1" diameter spacer. The length of this 1" diameter spacer pipe will prevent the rider portion of the pitless from lifting out of the saddle portion.