

Determining the Right Hand Pump For You

The two most common pumps offered by Bison Pumps are the Deep Well Hand Pump and a Shallow Well Hand Pump; both made of 304 stainless steel. The Bison Shallow Well Hand Pump is a suction lift hand pump.

The Bison Shallow Well Hand Pump is used when the static water level is 25 vertical feet or less. (See *Page 2 for instructions to measure static water level*).

- A Bison Shallow Well Hand Pump is typically installed in the basement of the home or at the kitchen sink.
- The one-piece shallow well pump can be drained by simply lifting the handle as high as it will go to trip the drain valve in the cylinder.
- Bison Pumps also offers a 2-piece shallow well hand pump for the same price as the one-piece shallow well hand pump.

The options available for the Shallow Well Pumps include:

- An "S" handle which is longer to provide for more leverage
- A check valve for pressurizing water tanks
- Powder coated finish - green or red are our basic colors; others colors available upon request. Please call for a quote.

The Bison Deep Well Hand Pump is a lift pump. The pump cylinder is installed typically 20' below the static water level in the well. The Deep Well Pump is installed outside on top of the well casing. The pump cylinder is connected to the pump head on top of the casing with 8' sections of 1 ¼" sch. 120 PVC pipe and 3/8" stainless steel rod. The size of the cylinder is based on the available space beside the existing electric submersible pump and the depth of the static water level in the well. (See resource page for suggestions and performance of each cylinder). Deep well cylinders are available in 1 ½", 2", 2 ½", and 3" sizes. If the casing is only 4" and also has an electric submersible pump in the well, then the Bison Inline pump and cylinder may be an option. The inline cylinders are available in 2" and 2 ½" sizes. Please call for more information and pricing.

The options available with the Bison Deep Well Hand Pumps include:

- Conduit ell fitting; if the electric wires for the submersible pump exit the top of the casing, the conduit ell will divert the wires out the side of the casing.
- Adjustable Rod and Lifting Tool; if more than 15 lengths of pipe and rod are purchased for your installation, the adjustable rod and lifting tool will be needed.
- A check valve for pressurizing water tanks.
- Powder coated finish - green or red are our basic colors; others colors available upon request. Please call for a quote.

How to Order Your Bison Pump® Deep Well Hand Pump

Our helpful customer service department will ensure you get all the necessary parts for your well's specific requirements. After turning off the power to your well, remove the well cap and take these four simple measurements:

- 1. Well Casing Height.** Measure the well casing from ground level to the top of the casing to ensure that your Bison Pump® is high enough to use easily.
- 2. Outside Diameter of Well Casing.** Place the tab end of the tape on the outside and measure the widest part.
- 3. Inside Diameter of Well Casing.** Place the tab end of the tape on the inside of the well casing and measure the widest part on the inside.
- 4. Static Water Level.** This is the distance from ground level to the top level of water in your well. Before you take this measurement, make sure that your pump hasn't pumped any water for 30 minutes for the most accurate measurement. To obtain the static water measure, drop a weighted string down into the casing until you see or hear it hit the water. Mark the string, remove it and measure the string to your mark. This will give you the static water level of your well.

Bison Pumps does extensive design and production of custom hand pumps. Please call with your specific needs.