

## **Pitcher Pump Installation and Leather Replacement:**

### **General**

Pitcher Pumps are great for shallow wells with a water level of less than 20 feet from the bottom of the pump (This is where the water is actually being pulled from). The shallow well hand pitcher pump can be used to pump water from rain barrels or ponds. It can also be used as a drinking-water pump to draw water from a well 20' deep, or less. It attaches to common plumbing connectors, it is very easy to install, and it will provide years of trouble-free use with minimal maintenance.

### **CAUTION**

1. Carefully read and follow all safety instructions in this manual.
2. Do not allow pump to freeze. Doing so **will** void the warranty.
3. Only pump water with this pump.
4. Periodically inspect the pump.

### **Drop-Pipe Installation**

You will need 1 1/4" steel pipe with threads or 1 1/4" PVC pipe with a 1 1/4" male adapter.

- Screw a drop-pipe to the bottom of the pump (drop-pipe should be the same size as the connections on the pump) Thread tape or a good quality thread sealant should be used on all pipe threads. (**NOTE:** Do not use thread tape with PVC pipe)
- Drop-pipe should be submerged at least 5 ft.
- Tighten drop-pipe enough to prevent leaks. **NOTE:** Any small leaks will prevent the pump from priming.

### **Sealing Pipe Joints**

- Use only thread tape or Teflon based joint compounds for making metal to metal connections on the pump itself.
- Make sure that all pipe joints in the suction pipe are air tight as well as water tight.
- If the suction pipe can suck air, the pump will not be able to pull water from the well.

### **Priming the Pump**

Never operate the pump while it is dry. Operating the pump without water may cause damage to the leather cup. **Always fill the pump with water before starting the pump.**

- To prime the pump, pour water in the top of the pitcher pump until it runs out of the spout.
- Wait 5 minutes until the cup leather swells enough to make contact with the pump wall.
- Raise and lower the handle in short strokes until suction pipe fills with water **NOTE:** Any leak on the suction side will prevent the pump from priming.
- The use of a foot valve will maintain permanent prime. We suggest using a foot valve if your water is 8' down, or deeper.

### **Freezing Protection**

In freezing weather, the internal flapper valve and plunger (both are made of leather) may freeze to the pump body. If you start pumping, these two pieces may tear, making the pump inoperable.

- The pitcher pump will self-drain if the handle is left in the 'up' position and the foot valve is removed.
- If you use a foot valve, you can prevent the pump and pipe from freezing only by removing the pump from the well and keeping the water in the well below the frost line.

### **Troubleshooting**

If your pump does not pump:

- Open the pump (see maintenance section) and make sure the flapper valve is not broken and is centered over the hole.
- Make sure leathers are not damaged. If damaged, replace or call 800-241-1935 to order.
- Reassemble the body and ensure the bolts are tightened enough to prevent air from leaking around the base.
- Check for leaks around the joints. Tighten clamps or add thread tape as needed. Replace defective connectors.
- Make sure the pipe end is submersed in the water.
- Use plenty of clean water when priming. The plunger will expand as it absorbs water. Let the plunger absorb water for a few hours and try again.
- Make sure you are not trying to lift water more than 20' (measured from the water surface to the spout).
- At higher elevations, the distance water can be lifted is reduced. At sea level and under ideal conditions, this pump will lift to a maximum of about 20'.

## MAINTENANCE

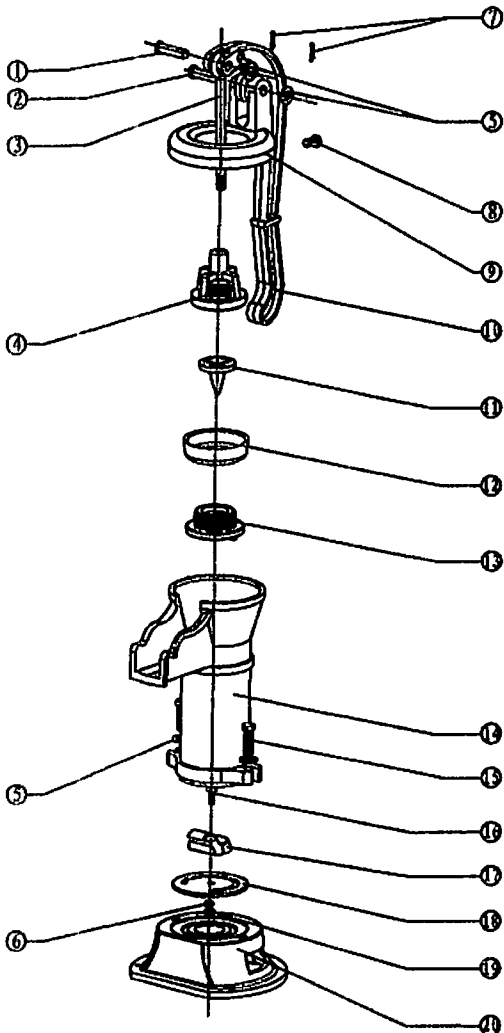
### Replacing the Cup Leather

- Loosen the hexagon bolt (8) and lift the plunger assembly out of the pump
- Unscrew the cup leather holder (13)
- Remove old cup leather (12) and put on new cup leather
- Screw leather cup holder (13) back into original position
- Reinstall plunger assembly and top cap (9)
- Insert hexagon bolt (8) and tighten

### Replacing the Valve Leather

- Unscrew the hexagon bolts (15) & flat washers (5)
- Remove the pump body (14) from the flange (20)
- Lift the valve leather assembly from the flange (20). Unscrew hexagon nut (19) and flat washer (6). Remove the valve leather (18) from weight (17). Attach new valve leather to weight (17); tighten hexagon nut (19) and flat washer (6).
- Before placing valve leather assembly on flange (20), clean the flange by removing dirt/debris that could be left over
- Reattach the valve leather assembly of hexagon nut (16), weight (17), valve leather (18), hexagon nut (19), and flat washer (6) on the flange (20).
- Reattach the pump body (14) to the flange (20) by tightening hexagon bolts (15) & flat washers (5). Make sure to soak the valve leather before next use.

For questions or technical support, please call 800-241-1935 or visit [www.simmomsmfg.com](http://www.simmomsmfg.com)



|    |                    |
|----|--------------------|
| 1  | Pin                |
| 2  | Pin                |
| 3  | Lift Rod           |
| 4  | Plunger Valve Cage |
| 5  | Flat Washer        |
| 6  | Flat Washer        |
| 7  | Cotter Pin         |
| 8  | Hexagon Bolt       |
| 9  | Top Cap            |
| 10 | Handle             |
| 11 | Plunger Valve      |
| 12 | Cup Leather        |
| 13 | Cup Leather Holder |
| 14 | Pump Body          |
| 15 | Hexagon Bolt       |
| 16 | Hexagon Bolt       |
| 17 | Weight             |
| 18 | Valve Leather      |
| 19 | Hexagon Nut        |
| 20 | Flange             |