

# Operating Instructions and Parts Manual

## INSTALLATION (CONTINUED)

Leaking joints or couplings will allow air to leak into the pipe and cause abnormal pump operation. Make sure to use pipe joint compound on all male pipe threads.

DUG WELL, CISTERN, LAKE AND SPRING INSTALLATION (FIGURE 16, ON PAGE 10)

- Install a foot valve on inlet pipe and lower into water.

**CAUTION** *The foot valve should be at least 18 in. from the bottom of the well or sand or sediment could be drawn into the system.*

**NOTE:** When a lake is used as a water supply, make sure the inlet pipe is deep enough to be submerged at all times.

Slope the horizontal piping upward toward the pump to prevent trapping air. The pipe must be removed during winter months or protected against freezing.

Protect the pipe from damage from swimmers and boats.

**WARNING** *Install a screen around the inlet pipe to prevent the entrapment of swimmers.*

## DEEP WELL INSTALLATION

DRILLED WELL (4 IN. OR LARGER) WITH TWO PIPE JET (FIGURES 16, ON PAGE 10 AND 3, ON PAGE 4)

1. Assemble a 1-1/4 in. foot valve (not included) to the jet body. A 1-1/4 in. coupling is required to connect the larger pipe to the jet assembly.
2. Connect the 1 in. pipe threads into the smaller opening in the jet body.
3. Lower the jet into the well. Add pipe as needed. Be sure to use pipe joint compound, or plumber's seal tape on all male threads.
4. Position the jet 10 - 20 feet below the lowest anticipated water level, but never closer than 5 feet from the bottom of the well, if possible.
5. Install a well seal to support the pipe and prevent surface water and other contaminants from entering the well.
6. Install the horizontal pipe from the well to the pump. Piping from the vertical well pipe to the pump should never be smaller than the well pipes.
7. Slope both pipes upward toward the pump to prevent trapping air. If the horizontal distance exceeds 25 feet, see Chart 1 for the recommended pipe sizes.

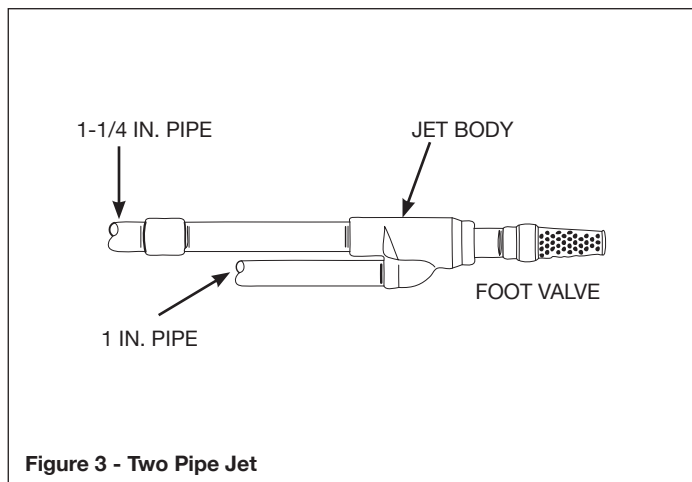


Figure 3 - Two Pipe Jet

DUG WELL, CISTERN, LAKE AND SPRING WITH TWO PIPE JET (FIGURE 16, ON PAGE 10)

1. Install a 1-1/4 in. foot valve (not included) to the jet body. A 1-1/4 in. coupling is required to connect the larger pipe to the jet assembly.
2. Connect the 1 in. pipe threads into the smaller opening in the jet body.
3. Lower the jet into the water below the lowest anticipated water level, but never closer than 18 in. from the bottom. Sand or debris may be drawn into the system if the jet is too close to the bottom.
4. Provide protection for the jet and pipes against damage from boats or swimmers if a lake is used for the water supply.

**WARNING** *Install a screen around the inlet pipe to prevent the entrapment of swimmers.*

5. Slope the horizontal pipes upward toward the pump to prevent trapping air. If horizontal distance exceeds 25 feet, see Chart 1 for recommended pipe sizes.

DRILLED WELL (2 IN.) WITH SINGLE PIPE PACKER (FIGURES 16 AND 4)

**NOTE:** Single pipe packer jets rely on the space between single pipe and inside of well casing for return water to operate jet. Two inch installations must use 1-1/4 in. galvanized steel pipe with special turned couplings (1-13/16 in. O.D.) to avoid restricting flow of return water back to jet.

1. Assemble the foot valve and packer to the jet body.
2. Lubricate the rubber cups with petroleum jelly.
3. Attach the first section of pipe and lower jet into well.
4. Add pipe until the jet is positioned 5 - 15 feet below the lowest anticipated water level. The jet should never be closer than 5 feet from the bottom of the well or sand and sediment may be drawn into the system.
5. With the jet in position, fill the pipes with water to make sure the rubber cups are sealed against inside of the well casing. It may be necessary to move the jet up and down to seat the cups.
6. Install the casing adapter and the horizontal pipes.
7. Slope both pipes upward toward the pump to eliminate trapping air. If the horizontal distance exceeds 25 feet, see Chart 1 for the recommended pipe sizes.

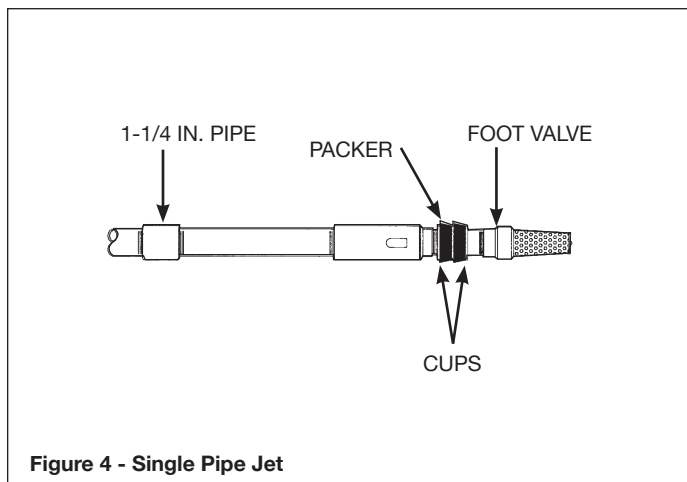
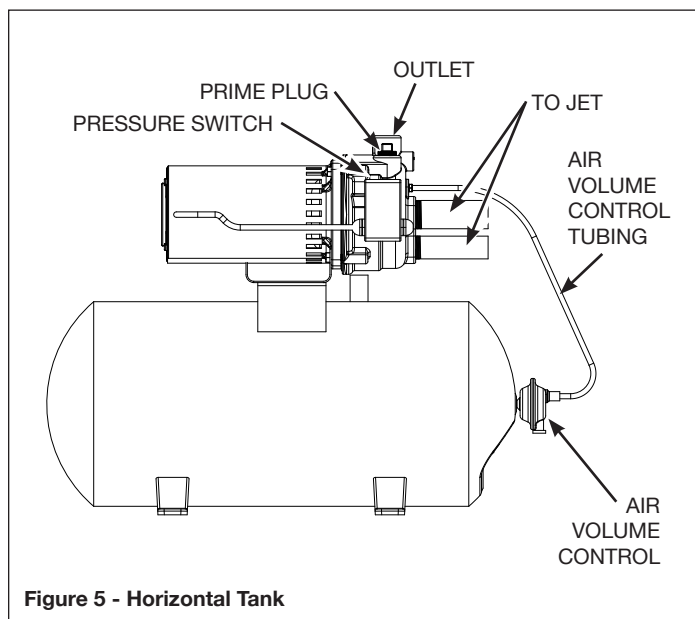
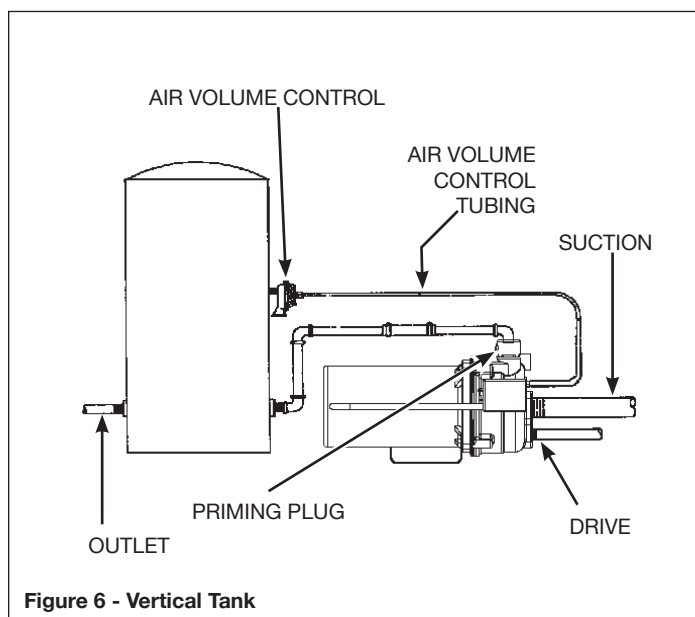


Figure 4 - Single Pipe Jet

**CHART 1 - PIPE SIZING**

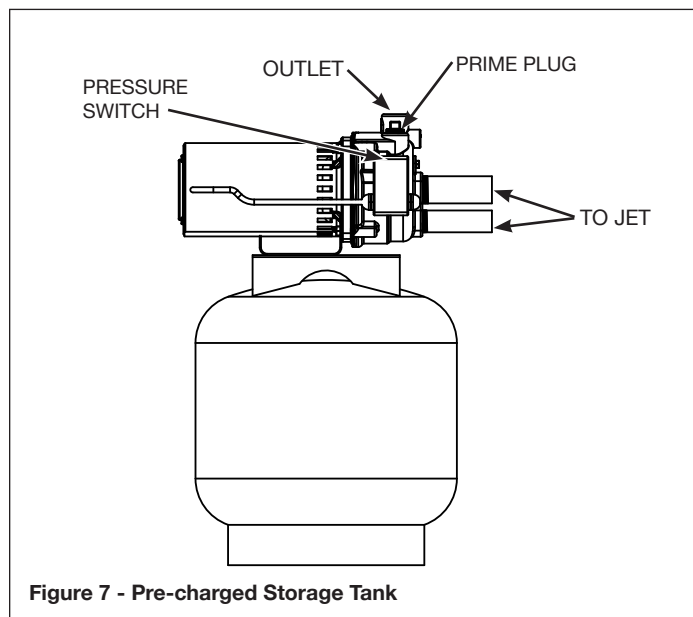
Pump Model	Pump Opening	Horizontal Distance (Feet)	
		0-25	26-100
Deep Well	Inlet: Suction	1-1/4 in.	1-1/2 in.
	Inlet: Drive	1 in.	1-1/4 in.
	Outlet	3/4 in.	1 in.

**Figure 5 - Horizontal Tank****Figure 6 - Vertical Tank****DEEP WELL PUMP WITH HORIZONTAL AND VERTICAL STORAGE TANK (FIGURES 5 AND 6)**

1. Install the air volume control on the tank as shown.
2. Connect the copper tube from the air volume control to the 1/8 in. NPT opening directly above the 1-1/4 in. opening on the front of the pump.
3. Install a valve and isolating hose between the system and the house plumbing to aid in pump removal for servicing and for reducing noise transmitted through the house piping.
4. Provide a hose bib (faucet) at the lowest point in the system to drain for service or storage.

**DEEP WELL PUMP WITH PRE-CHARGED STORAGE TANK (FIGURE 7)**

1. Check tank pre-charge using a tire pressure gauge. Set air pressure in tank to 28 psi which is 2 psi below pressure switch cut-in level. An air valve is located on the side and will accept a standard fitting from a bicycle pump or air line.
2. Check the pressure with the power off, faucets open and no water flowing (zero water pressure).
3. Install a valve and isolator hose between the system and the house plumbing to aid in pump removal for servicing and for reducing noise transmitted to the house through the piping.
4. Provide a hose bib (faucet) at the lowest point in the system to drain for service or storage.

**Figure 7 - Pre-charged Storage Tank**