

wellcare[®] information for you about Frequently Asked Technical Questions

When there is a problem with your well, having a basic understanding of common symptoms and their causes can be helpful. This knowledge can help you when discussing the problem with the well contractor or pump installer that you contact for help or repair.

This information sheet lists some common technical problems with wells and the possible reasons behind them. For information on other common problems, such as coping with low water yields or power failure, see the wellcare[®] information sheets on these topics.

Q: What Would Cause Air in my Water Lines?

A: If you experience sputtering of air when you turn on your water, there may be air in your water lines. There are a number of possible causes for air in a well's water line, including:

- A **failed tank**, caused by:
 - A leak in the precharge pressure tank due to a faulty bladder/diaphragm.
 - A drawdown in a plain steel tank with the water/air line at the discharge connector.
- **Excessive air from the use of an air inductor** (used to remove iron or hydrogen sulfide) or **other treatment unit**.
- A **gaseous well**, due to gases present in the water, such as methane or hydrogen sulfide.

*Important Note:
This information sheet is intended as a guide to assist you in identifying possible reasons why your well might not be performing properly. Water Systems Council strongly recommends that you not attempt to fix these problems yourself. Please contact a licensed well contractor or pump installer for diagnosis and repair.*

All of these require a qualified water well contractor to identify and fix the problem. Call the dealer who services your unit for assistance. Before calling for help, you may wish to fill a pitcher with water from the faucet and observe what happens, so that you can accurately describe the situation to the contractor. Note the color of the water and any fizzing or sputtering that takes place when running the faucet.

Q: I Have Low or No Water Pressure or Water Flow. What Would Cause This to Happen?

A: First, it is important to understand the difference between water pressure and water flow. Water flow may be used to describe the time it takes to fill a pot with water. Water pressure is often best observed when taking a shower. For example, if you have low water

pressure, the water may not come out forcefully enough to rinse shampoo from your hair. Water pressure often gets lower on higher levels of the home, or when multiple water-using appliances are working at the same time.

Some possible reasons for low or no water pressure or flow are:

- No water pressure or flow due to a **power failure**.
- No water pressure or flow due to a **well that has gone dry**.
- No water pressure or flow due to an **inadequate water supply**.
- No water pressure or flow due to a **faulty pressure switch**.
- Low water pressure or flow due to the addition of **water treatment equipment** without adjusting the pressure switch to a higher setting.
- Low water pressure or flow due to a **filter that has become clogged**.
- Decreased water pressure or flow due to an **obstruction in the water line**.
- Low water pressure or flow to the **lowering of the water table**, making the pump not capable of reaching the higher pressures at the design flow.
- Low water pressure or flow due to a **leak in the system piping**.

Again, a qualified water well contractor can best identify and fix problems related to low or no water pressure or flow. Be sure to relay any specifics – such as where and when the problem began, and any knowledge of work performed on or around your well recently – to the contractor who services your well.

Q: Why Does My Water Pressure Surge?

A: Possible reasons for fluctuating water pressure include:

- The **pump capacity is far greater than the demand** of the system on start-up, and there is an **inadequately sized pressure tank**.
- A quick closing valve is shut off, or there is a rapid change in flow. (This phenomenon is commonly known as **water hammer**).
- Your well **system is faulty**, or a **system component has failed**.
- The **pump is undersized**.

As with the problem of low or no water pressure, be sure to provide the contractor who services your well with any information related to the problem.

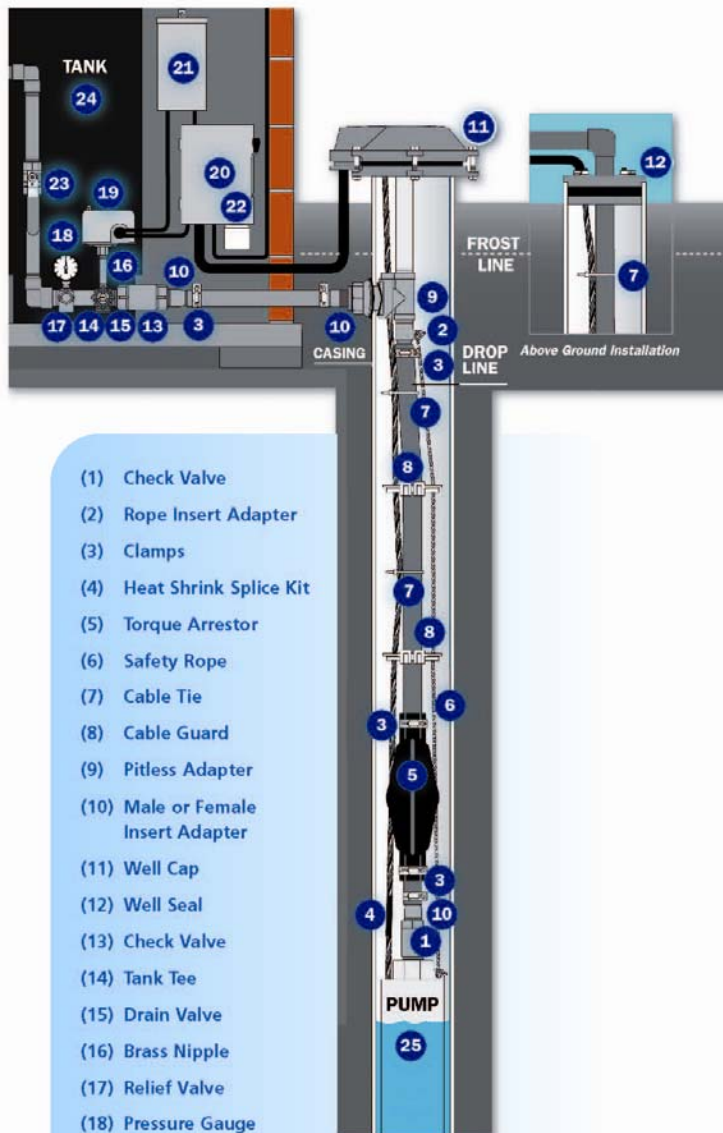
Q: When the Water is in Use, the Pump Clicks On and Off. Why Would This Happen?

A: Some reasons for rapid cycling of the pressure switch include:

- The air cushion in the pressure or plain steel tank has been depleted, commonly referred to as **waterlogged tank**. On pressure tanks, that is due to the loss of air. On plain steel tanks, the air volume control is not working.
- Rapid cycling of the pump can be the result of a defective pressure switch.

If you are experiencing this problem, contact a qualified water well contractor as soon as possible, to prevent damage to your well pump.

Typical Water Well System



- (1) Check Valve
- (2) Rope Insert Adapter
- (3) Clamps
- (4) Heat Shrink Splice Kit
- (5) Torque Arrestor
- (6) Safety Rope
- (7) Cable Tie
- (8) Cable Guard
- (9) Pitless Adapter
- (10) Male or Female Insert Adapter
- (11) Well Cap
- (12) Well Seal
- (13) Check Valve
- (14) Tank Tee
- (15) Drain Valve
- (16) Brass Nipple
- (17) Relief Valve
- (18) Pressure Gauge
- (19) Pressure Switch
- (20) Safety Switch
- (21) Pump Saver
- (22) Lightning Arrestor
- (23) Ball Valve
- (24) Pressure Tank
- (25) Pump

This illustration is not intended as an installation guide. Check local codes for actual requirements and restrictions.

For more information on Technical Issues with Wells

Contact your water well driller or certified pump installer. The Water Systems Council's *Water Systems Handbook (12th Edition)* provides technical information on well maintenance and service.

For more information on your drinking water

The following websites provide up-to-date information on efforts to protect drinking water supplies and steps you can take as a private well owner. In addition, you may contact the wellcare® hotline at 1-888-395-1033.

U.S. Environmental Protection Agency
Water Quality Association

www.epa.gov
www.wqa.org

For more information about wells and other wellcare® publications

wellcare® is a program of the Water Systems Council (WSC). WSC is a national nonprofit organization dedicated to promoting the wider use of wells as modern and affordable safe drinking water systems and to protecting ground water resources nationwide. This publication is one in a series of wellcare® information sheets. There were more than 70 available at the time this document was published. They can be downloaded FREE from the WSC website at www.watersystemscouncil.org. Well owners and others with questions about wells or ground water can also contact the wellcare® hotline at 888-395-1033 or visit www.wellcarehotline.org



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