wellcare® information for you about

WELL COMPONENTS: YOUR WELL PUMP

The well pump raises water from your well and delivers it to a storage tank, where it is held under pressure until you need it. The pump refers to both the pump itself and an electric motor, which together make up the pumping unit.

There are many types, kinds, and sizes of pumps for water systems. Some are designed simply to remove water from a source. Others also force water through the rest of the system. Some pumps serve special purposes, such as boosting water pressure or supplying a special water outlet.

Pumps vary in sizes and types. Pump sizes include shallow-well and deep-well. Jet pumps and submersible pumps are the most common pump types. Selecting the appropriate pump size and type is a critical step in the design of your water well system. If your pump installation is not properly planned, you won't receive satisfactory water delivery.

The size of your well pump is based on the yield of your well and the needs of your household. The pump must meet normal peak demand for the household, rather than average use. One general rule is to never install a pump that has a greater capacity than your well, unless you need to use well storage, along with well yield, to meet your peak demand for water.

If the peak demand exceeds the maximum rate of water available, the pump must be sized within the well capacity and the peak demand reached through

added storage. Usually a large-size pressure tank can perform this function.

Sample Water Well System 24 17 14 15 13 10 Check Valve **Rope Insert Adapter** 3. Clamps Heat Shrink Splice Kit **Torque Arrester** Safety Rope Cable Tie or Tape 8. Cable Guard This illustration is Pitless Adapter intended to represent 10. Male/Female Insert Adapter some of the components that can be included in 11. Well Cap a water well system and 12. Well Seal is not intended as an 13. Check Valve installation guide. 14. Tank Tee Check local codes for 15. Drain Valve actual requirements and restrictions. 16. Nipple 17. Relief Valve 18. Pressure Gauge 19. Pressure Switch 20. Power Disconnect 21. Control Box 22. Lightning Arrester 23. Ball Valve 24. Pressure Taple 25. Pump

In fact, a larger water storage tank can prolong the life of your pump, as it reduces the need for the pump to cycle as often. Most wear and tear on a well pump occurs when it stops and starts.

wellcare® information on Well Pumps

There are times, however, when the well capacity is so low that a two-pump system is needed. The well pump supplies water to an atmospheric storage tank. A second pump, a shallow well or submersible unit, then moves water from the atmospheric tank and discharges it into a pressurized storage tank or directly into your system. Its operation is controlled by a pressure switch. You can also find more information in our information sheet on <u>Sizing a Well Pump</u>.

Your licensed well contractor can determine the correct pump size and type for your system and suggest options for improved water pressure or expanded storage capacity. For a list of licensed well contractors in your area, use our <u>interactive map on our website</u>. If you need help locating a licensed well contractor, contact the <u>wellcare</u> Hotline at 1-888-395-1033.

For More Information on Well Pumps

Contact your licensed well contractor, local health department, state environmental agency, or the wellcare® Hotline. The Water Systems Council's *Water Systems Handbook* provides technical information on well maintenance and service.



Information to help maintain and protect your water well system:

wellcare® is a program of the Water Systems Council (WSC). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 wellcare® information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the wellcare® Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE wellcare® Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!