

# Water Well by Finn Home Inspectors

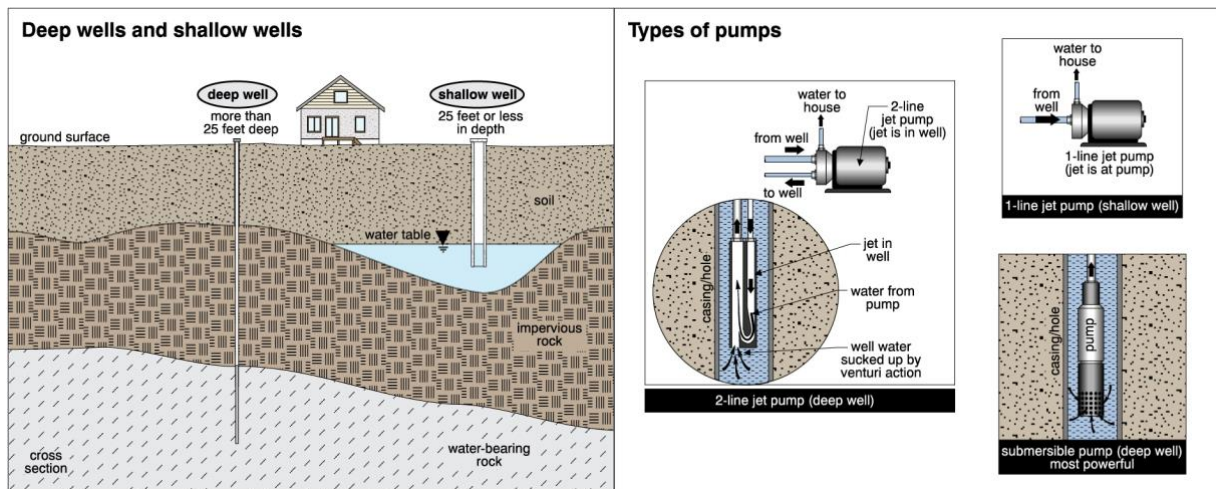
Most water wells are deep drilled wells (75 to 400+ feet deep). These wells have pumps that are in the bottom of the well, see figures below.

Some wells are shallow, and their pumps are generally visible in a basement or well pump shed.

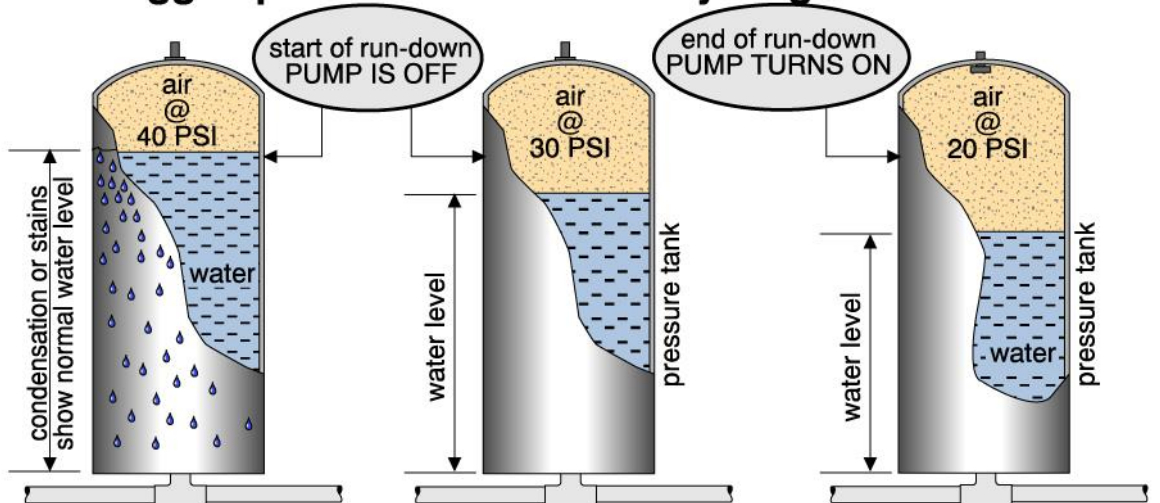
In both cases the pumps move water into a well water accumulation tank which stores it under pressure. As you draw water for use the compressed air in the tank pushes the water to the faucet you are using. When the pressure in the tank drops to a preset level the pump will turn on and fill the tank again.

A water logged tank will short cycle, turning on and off in seconds, you will hear the pressure switch click if near the tank and you may see the water at the faucet pulsating. If short cycling the tank needs replacement.

Drawings from Carson/Dunlop



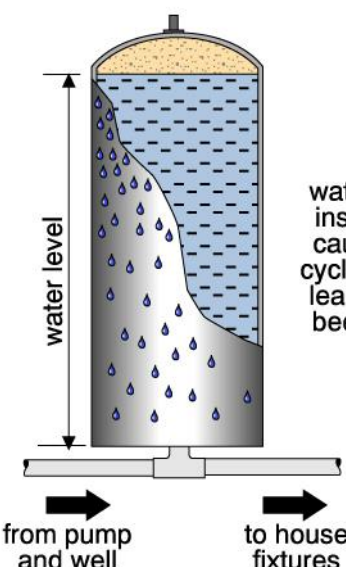
## Waterlogged pressure tank - short-cycling



this is the rest position with the tank charged the pump has just shut off

as water is drawn off, the air expands slowly, maintaining a relatively constant pressure in the piping

when the pressure drops to 20 PSI, the pump kicks in



waterlogged tank - insufficient air will cause short pump cycle - air may have leaked out or have been absorbed by the water

for a typical 20 to 40 gallon tank and one fixture running, it takes 1/2 to 2 minutes to draw down the water enough for the pump to cut in

if the pump cuts in after only 5 to 10 seconds and keeps cycling at that rate, more air is needed in the tank or another problem exists and must be repaired promptly