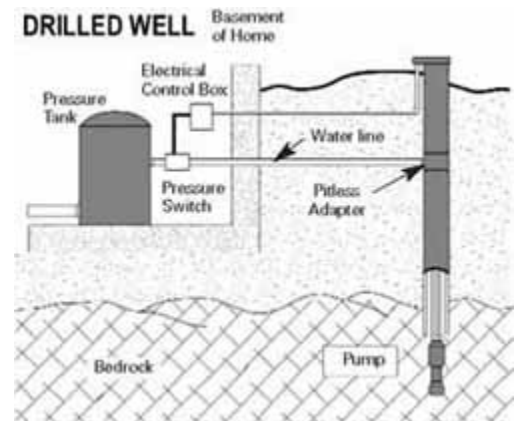


Drilled Wells

Drilled wells penetrate about 100-400 feet into the bedrock. Where you find bedrock at the surface, it is commonly called ledge. To serve as a water supply, a drilled well must intersect bedrock fractures containing ground water.

Drilled Well Construction Features

- The casing is usually metal or plastic pipe, six inches in diameter that extends into the bedrock to prevent shallow ground water from entering the well. By law, the casing has to extend at least 18 feet into the ground, with at least five feet extending into the bedrock. The casing should also extend a foot or two above the ground's surface. A sealant, such as cement grout or bentonite clay, should be poured along the outside of the casing to the top of the well. The well is capped to prevent surface water from entering the well.
- Submersible pumps, located near the bottom of the well, are most commonly used in drilled wells. Wells with a shallow water table may feature a jet pump located inside the home. Pumps require special wiring and electrical service. Well pumps should be installed and serviced by a qualified professional registered with your state.
- Most modern drilled wells incorporate a pitless adapter designed to provide a sanitary seal at the point where the discharge water line leaves the well to enter your home. The device attaches directly to the casing below the frost line and provides a watertight subsurface connection, protecting the well from frost and contamination.
- Older drilled wells may lack some of these sanitary features. The well pipe used was often eight-, 10- or 12- inches in diameter, and covered with a concrete well cap either at or below the ground's surface. This outmoded type of construction does not provide the same degree of protection from surface contamination. Also, older wells may not have a pitless adapter to provide a seal at the point of discharge from the well.



Hydrofracturing A Drilled Well

Hydrofracturing is a process that applies water or air under pressure into your well to open up existing fractures near your well and can even create new ones. Often this can increase the yield of your well. This process can be applied to new wells with insufficient yield and to improve the quantity of older wells.

Other types of wells:

- [Driven](#)
- [Dug](#)

The information contained on this page, as well as the above graphic was provided by The Rhode Island Department of Environmental Management from their document: [Health Drinking Water for Rhode Islanders: Private Drinking Water Wells](#) (644KB PDF FILE, 4 pgs) ([ALL ABOUT PDF FILES](#)) [EXIT Disclaimer](#)