

GLOSSARY OF TERMS

Air volume control

Designed to maintain the air charge in a standard water storage tank. Pre-charged tanks do not require an air volume control.

Atmospheric pressure

A force exerted upon the earth's surface by the weight of air extending to a height of 25 miles above the earth. At sea level 14.7 pounds per square inch.

Barb fitting

A part of a fitting that a hose slides over which contains ridges, which help lock the hose to the fitting. The hose is then secured with a clamp.

Basin

A container connected to a sink, toilet, washer or dishwasher that is used to collect refuse that comes from these appliances. Once collected, the waste is pumped from the basin to a septic tank, holding tank, leaching field, or septic field. See Minimum Basin Diameter for additional information.

Black water

Also known as sewage or wastewater. Water containing semi-solids up to 2 inches in diameter.

Centrifugal force

The force created by a spinning or rotating impeller resulting in the movement of water outward from the center point. A pump uses an impeller to create centrifugal force.

Check valve

Allows water to move in only one direction which prevents water from returning to its source.

Control box

Installs above ground. Contains electrical starting components for 3-wire submersible deep well pumps. 2-wire submersible deep well pumps do not use a control box.

Convertible jet pump

For both deep wells (where pumping water levels are as far as 90 feet below the pump) and shallow wells (where pumping water levels are no more than 25 feet below the pump). Pump/tank packages are also available.

Cut-in pressure setting

The point at which the pressure switch turns the pump on.

Deep well

Well with a depth to water greater than 25 feet.

Deep well pump (submersible)

For use on wells where pump water levels are up to 400 feet below point of use. Pump is submerged underwater in the well.

Depth to water

The vertical measurement from pump level down to water level of water source. Pump height above water.

Discharge

The opening by which water is removed by the pump.

Discharge pressure

The amount of force or pressure of the water being discharged from the pump.

Dual voltage motor

Pump motor can then be operated on 115 Volts or 230 Volts.

Effluent

Water containing semi-solids up to ½ in diameter generated from activities such as dishwashing, bathing, laundry, etc.) Also known as gray water.

FNPT

Female National Pipe Thread – a U.S. standard for tapered threads used on threaded pipes and fittings. (The female end is larger than the male end).

Foot valve

Installs on the end of the pump suction pipe to prevent water from draining back to source. Includes strainer to minimize suction of debris into the pump.

Friction loss

A loss in pressure caused by friction when liquid moves through a pipe.

GLOSSARY OF TERMS

GHT

Garden Hose Thread (3/4").

GPH

Gallons per hour.

GPM

Gallons per minute.

Gray water

Also known as effluent. Water containing semi-solids up to 1/2" in diameter generated from activities such as dishwashing, bathing, laundry, etc.

Head

The vertical distance from:

the top of the well to the pressure tank

+ the top of the well to the static water level

+ the drawdown (static water level to the pumping water level)

+ the vertical distance from the well to the house

HP

Horsepower (power of motor)

Intake

The opening by which water is sucked into the pump.

Jet pump

A centrifugal pump which requires a jet to help build additional water pressure.

Minimum basin diameter

Minimum basin diameter refers to the inside diameter of the opening at the top of a basin not including the lip. It is a guideline based on average basin sizes in the industry. Minimum clearance dimensions are not provided because most basins are tapered at the bottom and it can be difficult to measure this accurately. Place the pump so the switch can move freely without touching the basin (the pump edge should be up against the side of the basin). Always test the pump to make sure the switch clears the side wall of the basin. If you have a narrow pit or basin less than 18" in diameter, a pump with a vertical or snap-action float switch is recommended.

MNPT

Male National Pipe Thread – a U.S. standard for tapered threads used on threaded pipes and fittings. (The male end is smaller than the female end).

Multi-stage jet pump

For use on deep wells only with pumping water levels as far as 210 feet below the pump.

NPT

National Pipe Thread – a U.S. standard for tapered threads used on threaded pipes and fittings.

PSI

Pounds per square inch. A volumetric pressure measurement.

Pre-charged tank

A water storage tank pre-charged with air at the factory featuring a vinyl bag to separate water from the air which prevents waterlogging. This tank design provides greater drawdown than standard tanks. Pre-charged tanks do not require an air volume control.

Pressure

A force usually expressed in pounds per square inch.

Pressure switch

The switch that automatically turns the pump on and off at specified pressures of 30/50 psi and 40/60 psi.

IMPORTANT: always replace an old switch with a new switch with the same pressure settings.

Pressure operation - 30/50

Pressure switch turns pump on at 30 psi and off at 50 psi.

Pressure operation - 40/60

Pressure switch turns pump on at 40 psi and off at 60 psi.

GLOSSARY OF TERMS

Priming the pump

The initial filling of a jet or centrifugal pump with water so that air can be removed.

Pump capacity

The amount of water a pump is capable of moving at a given pressure.

Pumping water level

The distance below ground where the water is found when the well is being pumped at its rated capacity.
Static Water Level + Drawdown = Pumping Water Level.

Safety relief valve

Required for all submersible pump and pressure boosting installations to prevent over-pressurization of water storage tank and system piping that could develop from pressure switch malfunction.

Sewage

Water containing semi-solids up to 2" in diameter. Also known as black water.

Shallow well

Well with a depth of water of 25' or less.

Shallow well pump

For use in wells where pump water levels are no more than 25' below the pump. Features a built-in jet.

Sizing

Properly matching product to application for best performance.

Standard tank

A pressurized water storage tank where air comes in contact with water. Requires air volume control for proper operation.

Static water level

The distance below ground where water is found when no pumping occurs.

Submersible deep well pump

For use on wells where pump water levels are up to 400 feet below point of use. Pump is submerged underwater in the well.

Suction lift

The vertical height from the pumping water level to the suction part of the pump.

Tank

Stores air and water under pressure to provide for automatic pump operation and a source of water when pump is not running.

TEFC design

Totally enclosed, fan cooled design.

Waterlogging

The absorption of air into water stored in a water storage tank which greatly reduces the amount of usable water drawdown available from the tank.

Water storage tank

Stores air and water under pressure to provide for automatic pump operation and a source of water when pump is not running.

Well capacity

Also known as the well's replenishment rate or well recovery rate. It is the rate at which the well refills with water – measured in gpm. This information is found on the Well Driller's Report.

Well recovery rate or well replenishment rate

Also known as the well's replenishment rate or well capacity. It is the rate at which the well refills with water – measured in gpm. This information is found on the Well Driller's Report.