



## **Understanding Plumbing**

Plumbing has come a long way since the days of outhouses and hand pumps. We rely on the convenience of today's plumbing systems so much that we take their reliability for granted.

Unfortunately, many home owners don't know the basics of their plumbing systems. When a major problem occurs, they are left at the mercy of a contractor, trusting their estimate of the damage and the repairs needed. So knowing what you can about plumbing may help in selecting the best possible contractor.

## **Water Supplies**

Your potable water is supplied by either a municipality, utility company or a well. If you have a well, water is pumped for the well by a motorized pump into a pressure tank and then into the supply system. When demand in the house causes pressure in the tank to drop, the pump turns on and water is drawn out of the well to refill the tank. The pump shuts off automatically when the pressure is reestablished.

Most interior residential water supply systems use one or more of the following material for piping: galvanized iron, copper, brass, lead or plastic. If your piping is lead, you may want to have your water laboratory-tested to determine if the lead is contaminating your water supply.

## **Water Heaters**

Most homes have their water heated by electric, gas, or oil-fired heaters. Tanks normally range in size from 30 to 82 gallons. Some larger homes have two water heaters, or even point of use water heaters. Most modern tanks are guarded against corrosion by a thin coating of enamel inside the tank. Also insulation is placed between the tank and outer jacket to minimize heat loss.

To guard against excessive temperature or pressure, every water heater must have a temperature/pressure relief valve that automatically releases water when the temperature or pressure in the tank reaches its limit.

Follow the manufactures recommendations for temperature settings to prolong the life of the tank. Some tanks have replaceable magnesium rods which are suspended in the water to attract corrosive electrolytes that would otherwise consume the tanks walls. Check the manufactures instructions for replacement schedules for these rods.

## **Toilets**

To most people, the workings of the toilet seem complicate, however they're really quite simple. When the tank handle is pushed or lifted, a connecting rod or chain raises a rubber stopper from a valve seat at the bottom of the tank. Water from the tank rushes into the bowl and the tanks float ball drops with the water level. As water fills the bowl, gravity and a siphoning action draw the contents of the bowl through the trap and into the drainage system.

After the tank water is released into the bowl, the rubber stopper drops down to seal the valve seat at the bottom of the tank. Water from the supply line flows through a ball cock valve to refill the bowl and then the tank. The float ball rises with the water and when the water reaches the proper level the ball cock valve shuts off the water to the tank until the next flush.



## **General Tips**

1. When in doubt about any plumbing problem call a licensed plumber.
2. Clean pop-up sink drains and strainers every month.
3. Try to keep fat, greases and coffee grounds out of drains and dishwashers.
4. Never pour paint or chemicals down drains.
5. Flush the garbage disposal with one pot of hot water and a half cup of baking soda each month.
6. Take note of any pipe repairs that have used caulk or tape or other temporary repair methods or materials. Have these repaired by a licensed plumber.
7. Make sure caulk is in good condition. Fixtures should be firmly attached to the wall or floor.
8. Periodically inspect your water heater for signs of rust or leakage. If the tank or relief valve is leaking call a licensed plumber immediately.
9. Make sure any sump pump in use is connected to a surface grade drain or to a storm drain and not a septic tank or sewage system. The pump should have its own dedicated electrical outlet.
10. Check with your local authorities to find out what plumbing projects need permits, and when completed have it inspected and approved by the local authorities.

[Click here to order a plumbing inspection or full home inspection](#)