

# WHAT IS THIS?



# AND WHY SHOULD YOU CARE?

## EVERYTHING YOU EVER WANTED TO KNOW ABOUT A PRESSURE REGULATOR VALVE (also called a PRV)

**WHO** needs a PRV? Anyone who owns a house should have a pressure regulator valve. If water pressures fluctuate, the valve will not only help protect your fixtures and appliances, but also help reduce water use.

**WHAT** is a pressure regulator valve? It acts as a buffer between The high pressure water mains and a resident's supply line. The main's pressure is reduced to a safe level for home appliances and home plumbing systems. A PRV is a relatively inexpensive plumbing item and is installed on most (but not all) homes in Cave Creek's and Desert Hill's water systems.

**WHEN** do you need a need a PRV? You need a PRV if you experience banging in water pipes (known as "water hammer") when Flushing the toilet. You can check your water pressure by attaching a pressure gauge to a garden hose. If the pressure reads above 80 psi you need to install a PRV or have your existing PRV checked by a licensed plumber. High pressure can erode washers, cause leaks in pipes, and create premature wear in appliances.

**WHERE** should the PRV be located? A PRV should be installed between the water meter and the house inlet. Water that enters the valve from the main is constricted within the valve body and sent through the inner chamber. Even if the water pressure fluctuates, the pressure reducing valve maintains a constant flow of water at a Functional pressure.

**WHY** have a pressure regulator valve? When a fixture, such as a faucet, washing machine or dishwasher is turned on, a tap is opened and water flows from it driven by the pipe's water pressure. The speed at which water flows from the opened tap is determined by the amount of pressure that is in the system at that time. The higher the pressure the stronger the force behind the water. Water pressure that is beyond the normal requirements for fixtures and appliances can cause damage. Plumbing code requires water pressure to a residence not to exceed 80 psi.

### PLEASE READ: IMPORTANT INFORMATION FROM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY GUIDELINES AND THE TOWN OF CAVE CREEK UTILITY DEPARTMENT

Maximum pressures of as much as 100 pounds per square inch can be allowed in small, low lying areas not subject to high flow rates and surge pressures. Areas of excessively high or low pressures require that the system be divided into multiple pressure levels, or that pressure reducing and pressure relief valves be installed.

All water mains and service lines should be designed for a minimum normal internal working pressure of 150 pounds per square inch plus appropriate allowances for water hammer.

In cases where greater than the above noted maximum pressures are required for effective operation, all elements of the system shall be designed accordingly.

**Responsibility for pressure reduction, if necessary, shall be specifically defined to be the responsibility of the customer.**

**We highly recommend all customers have a PRV !**

Refer to your manufacturer's recommendations for regular maintenance checks of your PRV.

T O W N O F C A V E C R E E K U T I L I T Y D E P A R T M E N T

