



ACTUATE WITH ACCURACY



WHAT IS A PRESSURE REDUCING VALVE

There are two types of water pressure reducing valves, direct acting and pilot operated. Both use globe or angle style bodies. Valves used on smaller piping diameter units are cast from SS / Brass ; large piping diameter units are made from ductile iron. Direct acting valves, the more popular type of a water pressure reducing valves, consist of globe- type bodies with a spring loaded, heat - resistant diaphragm connected to the outlet fo valve that acts upon a spring This spring holds a pre-set tension on the valve seat installed with a pressure equalizing mechanism for precise water pressure control.



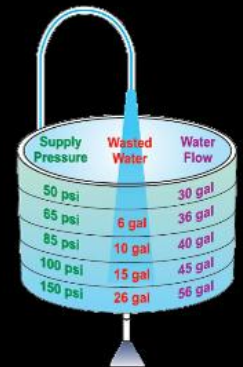
WHY DO YOU NEED A PRESSURE REDUCING VALVE

Common practice and analysis indicate that 50psi or less is sufficient inflow pressure for most home and commercial purposes. The higher the pressure the more of your water resources are wasted Suzhik. water pressure reducing valve will save your money, energy, system maintenance, and on the amount of wastewater returned to the environment (see Fig).

Water Savings : Twice as much water flow through a system at 150psi pressure than at 50 psi. Much of this additional water is wasted.

Energy Savings : If less water flows through the system, then less energy is needed to heat domestic hot water. Calculations show that a Suzhik water pressure reducing valve can save as much as 30% on domestic water heating costs. Wastewater

Savings : When the community's wastewater treatment load is reduced, cost benefits accrue to both the environment and your bottom line. Many municipalities prorate sewer usage fees based upon the water meter reading.



SIZING AND SELECTION OF PRESSURE REDUCING VALVES FOR YOUR APPLICATION

A properly sized valve prevents noisy operation or premature valve failure. Over sizing water pressure reducing valves can lead to problems such as wire draw under low flow conditions. In general, the minimum flow through a water pressure reducing valve should be 10% to 15% of the maximum flow rate desired in the system. Also, water pressure reducing valve should be selected based on the flow and pressure ranges listed in the literature, not the size of the pipe to which they will be attached. You should select a regulator whose operating pressure fall within the middle of its rated range.

IMPORTANCE OF CORRECT INSTALLATION AND CONFIGURATION OF PRESSURE REDUCING VALVES

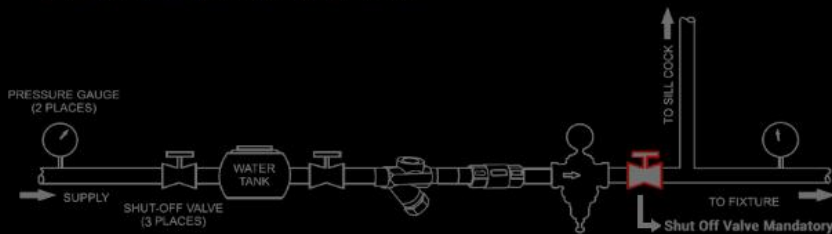
Suzhik water pressure reducing valves can increase your water system's performance, reduce operating costs, and ensure a longer life for other plumbing fixtures. Most simple pressure reducing applications require the installation of a single regulator. However, there are applications that require the use of more than one unit installed in a specific system configuration.

When there is wide variation in pressure between the municipal main's inflow pressure and the function pressure needed within the building, or when the main's pressure exceed 200psi, you should consider using a two - stage serial reduction configuration. When you want to maintain a continuous supply of water at reduce pressure, you should consider a parallel installation.

INSTALLATION GUIDANCE

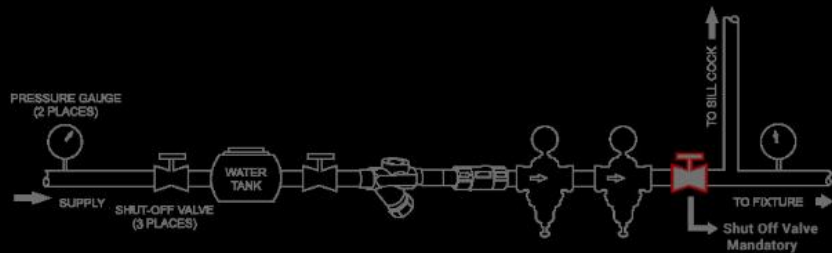
Installation Instruction

1. The valve should be installed by a licensed contractor in accordance with local codes and ordinances. This valve should be installed where it is accessible with sufficient clearance of cleaning, service of adjustment.
2. Before installing the valve, be sure that the pipe ends are reamed and threads are cut to size.
3. Flush the lines to remove all loose scale, dirt and other foreign partical (material) that can damage or clog(choke) the valve.
4. Install the regulator with the arrow on the body pointing in the direction of the flow.
5. Strainer must be installed before installing PRV to prevent dirt and other foreign particles to get regular balancing flow.
6. Regulator may be installed vertically or horizontally (upright or inverted)
7. Better start up with cold water supply subsequently hot water supply. Inspect for leakages.
8. Installing a pressure relief valve at the downstream at pressure reducing valve can protect the system.
9. While using screws to connect pressure reducing valve, joints should be installed in the inlet and outlet to make maintenance easy.
10. This is not an Off & On valve, in case you want to close the line, a Globe / Gate / Ball Valve should be installed before Pressure Reducing Valve to get the line closed.



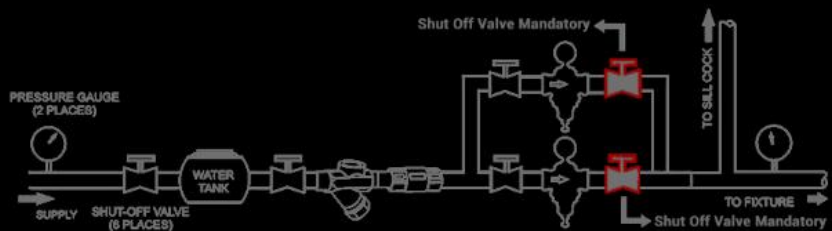
Series Installation

Series installation are recommended where very high supply pressure must be reduced to a very low downsteam pressure Reducing the pressure in stages eliminates whisling and noise.



Parallel Installation

Parallel installations are recommended where high flow or low flow demand is Intermittent / occasional. They are also used for installations where service can not be interrupted.



DEFINITIONS

Pressure Valves

Pressure Valves are used to control the pressure in a pipe system. The pressure requirements can vary between installations and technical aspects. For example, pressure might need to be reduced, so a Pressure Reducing Valve would be used. Another application could require pressure in a pipe to be sustained until a set pressure is reached. This would require a Pressure Sustaining Valve.

Alternatively, there are applications which require pressure to be released once a certain set pressure is reached. These would require a Pressure Relief Valve. AIRA offers Pressure Control Valves for all applications.

Pressure Reducing Valves

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Pressure Sustaining Valves

Pressure sustaining valve is utilized when installing pipes for users. It primarily matches up with the minimum working pressure inside the tap water pipe, balancing up-stream and down-stream pressure during normalcy and emergency, and maintains constant pressure inside the pipe.

Pressure Relief Valves

Pressure Relief Valve is a safety device for pipes and it is normally closed. When pressure increases to setting value, pressure relief valve rapidly releases the over high pressure. When pressure returns to safety value, pressure relief valve will automatically close to ensure the safety of equipment.

Safety Valves

Safety valve is a valve mechanism which automatically releases a substance from a boiler, pressure vessel, or other system, when the pressure or temperature exceeds preset limits.