

PRV Static & Dynamic Control



What is a Pressure Reducing Valve?

A Pressure Reducing Valve (PRV) is used to reduce and control the pressure of water entering a system, whether from the mains supply or a boosted supply within a building.

What is their purpose?

High or fluctuating water pressure can place unnecessary stress on components within heating and potable water systems, potentially contributing to premature wear, damaged seals and, in more severe cases, pipework failure.

A PRV reduces the incoming pressure to a controlled downstream value, helping to protect system components and support reliable operation.

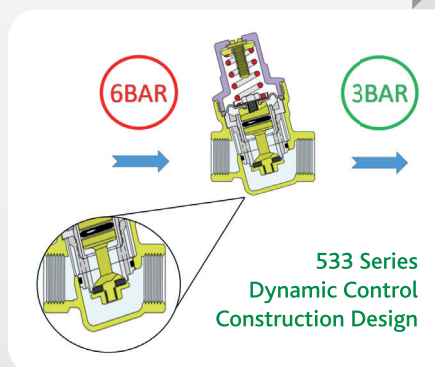
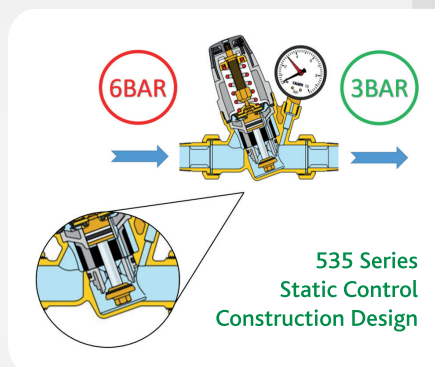
When selecting or setting a PRV, it is important to understand the difference between static and dynamic pressure. Excessive differential pressure can affect the performance of control valves, including their ability to regulate or fully close. In potable water applications, excessive outlet pressure can also result in uncomfortably high flow velocities at taps and other outlets, increasing the risk of splashing and localised flooding.

Static Pressure

Static pressure is the head or pressure of water in a system when that water is at rest. Static pressure control is therefore the maintenance of a set pressure within a system when there is no demand, i.e. no flow. This is particularly useful for single point of use outlets, especially where protection is required due to low pressure rating of, for example, washing machines and showers.

Dynamic Pressure

Dynamic pressure, in comparison, is the static pressure of the body of water but it also includes the momentum of the fluid in motion. Therefore, dynamic pressure control is the maintenance of a set pressure within a system when the water is moving. The key difference is that a dynamic PRV will only control the pressure when water is moving. If there is no demand the pressure can creep up without regulation. Setting is done using a Pressure Gauge installed in the pipework or in the valve. Ideally the Pressure Gauge should be upstream of the valve.



Above Product:
Series 535 - Dial Up
Pressure Reducing Valve
535051



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[Click here](#) to view the full range of Pressure Reducing Valves available from Altecnic or visit: altecnic.co.uk

