

## 5 Trouble Shooting

Faults are often incorrectly attributed to the pressure reducing valve due to a lack of understanding of the system as a whole.

The most frequent problems are:

### **Increase in pressure downstream of the PRV with a water heater inline.**

This problem is due to water in the pipe between the heater and the PRV becoming hot. The pressure downstream increases due to water expansion, as the PRV is isolating correctly.

The solution is to install an expansion vessel between the heater and the PRV to absorb the pressure increase.

### **The reducer does not maintain the set pressure.**

In most cases, this problem is due to the presence of debris on the valve seat, causing the consequent increase in downstream pressure.

The solution is to clean the strainer screen, follow the instructions detailed in the Maintenance section.

## 6 Guidance

The PREDATOR PRV must only be installed by a qualified installer and the installation should be in accordance with the Water Supply (Water Fittings) Regulations 1999 and any other relevant building regulations specific to the valve or application.

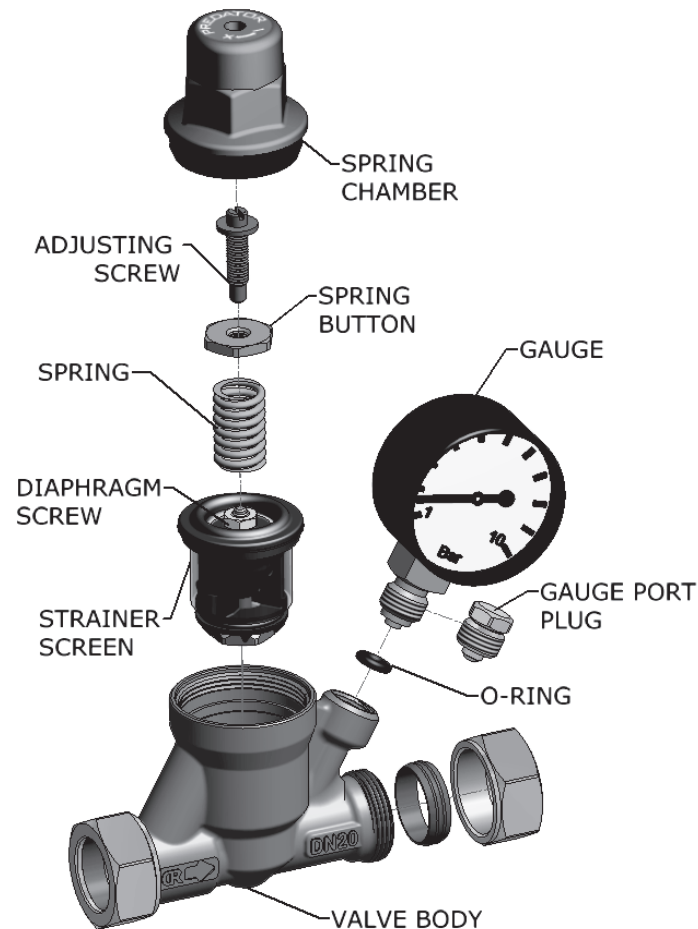
If the valve is not installed, commissioned and maintained correctly in accordance with the instructions contained in this manual, it may not operate correctly.

Make sure all connections are tight and the compression joints are sealed, but not over-tightened.

Please leave this operating manual for the user.

**Failure to comply with these instructions will result in the warranty becoming null and void.**

## 7 List of Parts



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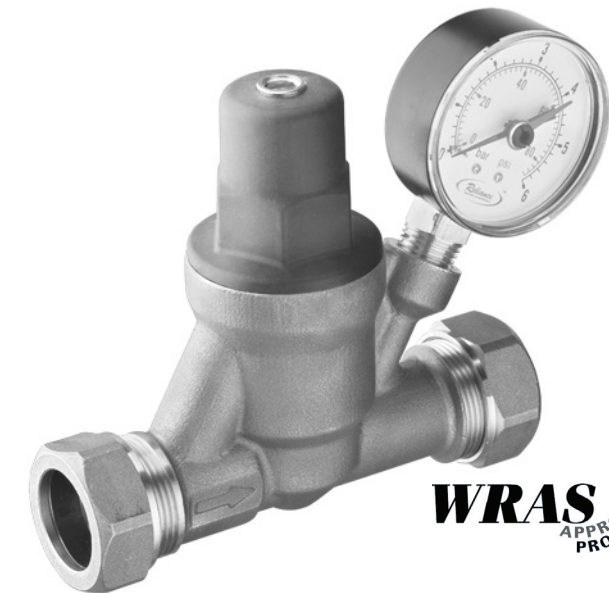
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# PREDATOR

Pressure Reducing Valve



## Installation & Maintenance Instructions



**WRAS**  
APPROVED  
PRODUCT

For hot and cold water supplies

The PREDATOR PRV 15mm & 22mm is manufactured to BSEN 1567. Independently tested, the product is WRAS approved.

This installation guide is provided to give instruction on the best installation practices that should be observed to ensure the correct functioning of the PREDATOR Pressure Reducing Valve.

Pressure reducing valves take a high inlet pressure and reduce it to a lower outlet pressure, which can be set as desired.

Before installing the PREDATOR PRV, ensure that the designation of the valve matches the application.

The valve can be used in both hot and cold water services in domestic, commercial and industrial applications to supply water at the designated pressure, but do ensure the performance criteria are adhered to as detailed below.

The PREDATOR PRV comes complete with a pressure gauge but also has a 1/4" BSP brass plug to block off the gauge point if desired, and a die cast zinc alloy cap for additional strength.

# 1

## Technical Data

### Performance

Maximum inlet working pressure:	20 bar
Minimum outlet pressure:	1 bar
Maximum outlet pressure:	6 bar
Pre-set at factory:	3 bar $\pm$ 10%
Maximum operating temperature:	80°C
Pressure gauge connection:	1/4" BSP
Pressure gauge dial:	0-6 bar
Strainer screen:	30 mesh
Medium:	Potable water

### Materials

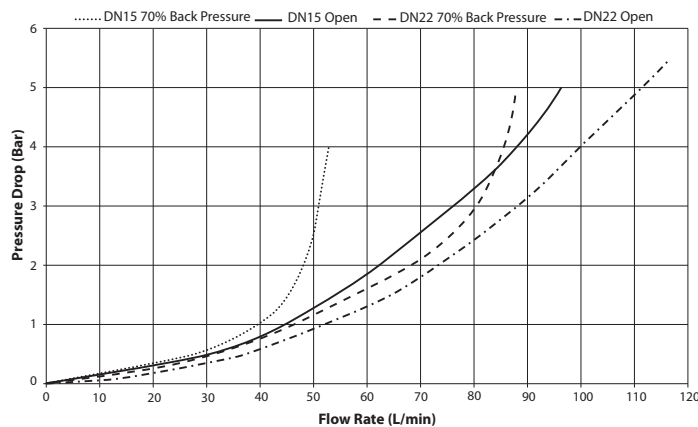
Body:	Brass UNS C48600
Spring:	Stainless steel
Diaphragm:	EC-6505 EPDM, FA-0919 Polyester reinforced Ethylene-Propylene, EP70 Duro

### Approvals & Standards

WRAS  
BSEN 1567

# 2

## Flow Rates



Flow rates should be checked prior to installation to ensure the valve can cope with the system requirements.

# 3

## Installation

**Installations must be carried out by a competent person.**

The PREDATOR PRV can be installed in any orientation but care should be taken to ensure that the valve is installed in the correct flow direction as shown by the directional arrow on the body of the valve.

The PREDATOR PRV is rated for continuous temperatures up to 80°C and a maximum inlet pressure of 20.0 bar. The delivery pressure is adjustable between 1.0 - 6.0 bar and comes factory set at 3.0 bar.

Do not install the PREDATOR PRV where it may become frozen, as freezing may cause damage to the valve's components, therefore it must not be installed outdoors.

The PRV should always be installed in an accessible location with adequate clearance to allow for servicing and maintenance.

Do not solder or apply heat directly or close by to the valve as this will affect the valve.

Flush the upstream pipework to remove any debris & trapped air before installation, it is also recommended that an in-line strainer be installed upstream of the valve to protect it.

The valve is factory set at 3.0 bar pressure; to adjust this firstly open a tap downstream and relieve the pressure from the pipework. To increase the outlet pressure, turn the adjuster screw clockwise with a flat-bladed screwdriver. To decrease the outlet pressure, turn the adjuster screw anti-clockwise. Only adjust the pressure under no flow conditions.

A pressure gauge is provided and can be connected at the 1/4" BSP gauge port. When replacing the gauge port plug take care not to damage the o-ring.

# 4

## Maintenance

The strainer screen should be cleaned and the cartridge inspected on an annual basis. The PREDATOR PRV assembly should be commissioned after all maintenance work has been carried out.

### Removal and Inspection

1. Isolate the water supply to the PREDATOR PRV.
2. Relieve pressure from both upstream and downstream of the valve.
3. Loosen the adjusting screw by turning the adjuster screw anti-clockwise until the spring is no longer under tension.
4. Remove the spring chamber (zinc cap) and then remove the spring button, adjuster screw and spring.
5. Using pliers to grip the diaphragm screw, pull the module out from the valve body.
6. Remove the strainer screen from the module. Clean thoroughly under clean running water and flush the valve body to remove any further debris.
7. Inspect all parts to ensure no components are damaged.
8. Re-assemble parts in reverse order.
9. Adjust the outlet pressure as detailed in the installation section.
10. Open isolating valves.
11. Test the operation of the PREDATOR PRV.