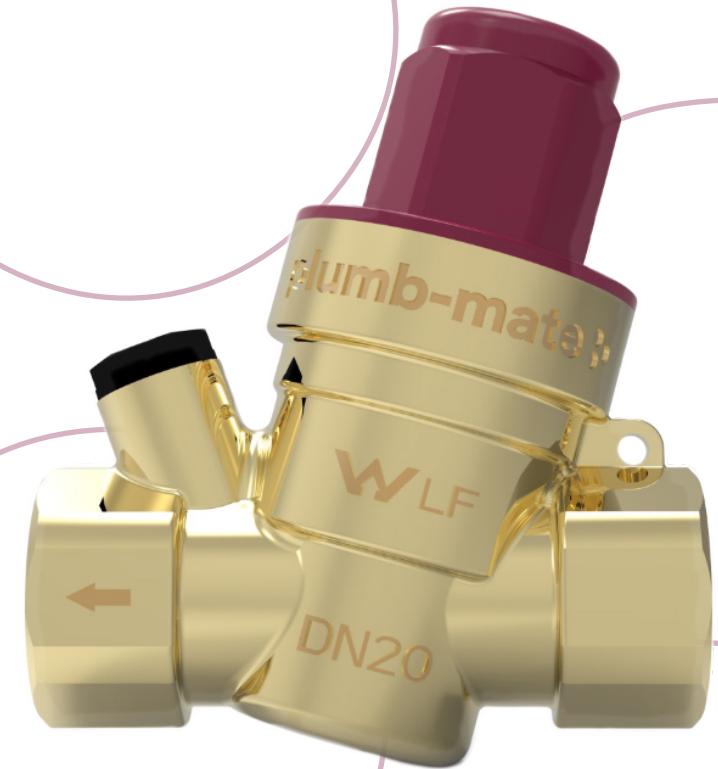


**plumb-mate** ::

# Pressure Reducing Valve (PRV)

Installation & Operation Manual



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# Pressure Reducing Valve (PRV)

The plumb-mate Pressure Reducing Valve is a high-performance solution for effective pressure control, designed to reduce and stabilize pipeline pressure.

It safeguards domestic water heaters and appliances from damage due to high-pressure surges and prevents pipe bursts by limiting downstream pressure to a safe, controllable range.

## Removable Cartridge

Inspectionable and servicable internal cartridge

## Adjustable Pressure

Adjustable downstream pressure from 150 kPa - 600 kPa

## Flexible Application

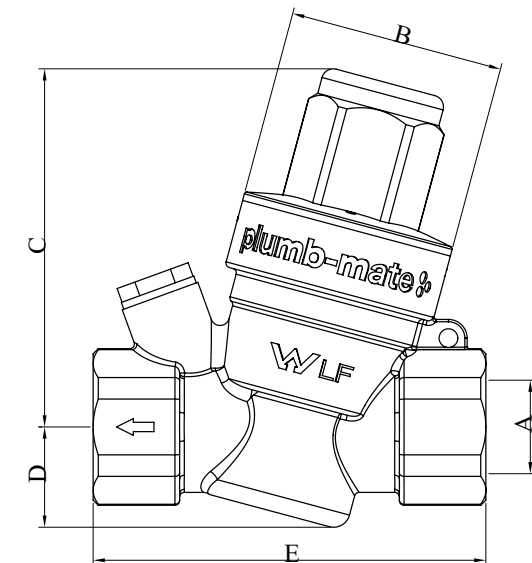
Suitable for residential and commercial applications, and both cold & hot water supply



## Product Technical Data

Designed and manufactured to meet AS 1357.2

|                             | PMPRV-15         | PMPRV-20        |
|-----------------------------|------------------|-----------------|
| Inlet Connection            | Rp1/2            | Rp3/4           |
| Adjustable Outlet Pressure  | 150 - 600 kPa    |                 |
| Factory Preset Pressure     | 500 kPa          |                 |
| Maximum Working Temperature | 80°C             |                 |
| Flow Rate 150 kPa           | 25 Litres / Min  | 40 Litres / Min |
| Flow Rate 600 kPa           | 100 Litres / Min | 125 Lites / Min |
| Allowed Fluid               | Clean water      |                 |



## Technical

| Model    | Size | A     | B  | C  | D    | E  |
|----------|------|-------|----|----|------|----|
| PMPRV-15 | DN15 | Rp1/2 | 46 | 76 | 23.5 | 80 |
| PMPRV-20 | DN20 | Rp3/4 | 46 | 78 | 21.5 | 84 |

# Installation & Operating Instructions

## 1. Installation Requirements

*This valve must be installed by a licensed plumber in accordance with AS/NZS 3500 and local water authority requirements.*

### 1.1 Pre-Installation Checklist

- **Preparation:** Flush all upstream pipework thoroughly to remove debris or dirt particles that could cause the valve to malfunction.
- **Orientation:** The valve is suitable for both horizontal and vertical installation.
- **Flow Direction:** Install the valve ensuring the arrow on the body points in the direction of water flow.
- **Accessibility:** Ensure the valve is installed in an accessible position to facilitate future maintenance.
- **Isolation:** It is recommended to install an isolation valve on both sides of the PRV for ease of service.
- **Upstream Protection:** If water quality is poor, it is suggested to install an additional filter or line strainer upstream to protect the valve's internal mesh filter.
- **Restrictions:** **DO NOT** install the PRV below ground. If the installation is at risk of water hammer, a water hammer arrestor should be fitted.

### 1.2 Pressure Adjustment

The valve is factory set to 500 kPa, but can be adjusted between 150 to 600 kPa. To adjust the outlet pressure:

1. Isolate the water supply and relieve system pressure
2. Remove the test point plug on the outlet side and fit a pressure gauge.
3. Turn the water supply back on and observe the current pressure.
4. Expose the adjustment screw.
5. Using a screwdriver, turn the screw **clockwise** to increase pressure or **anti-clockwise** to decrease pressure.
6. Open a downstream tap for a few seconds during adjustment to confirm the setting.
7. Once set, remove the gauge, re-fit the test point plug, and ensure all joints are watertight.

## 2. Maintenance & Servicing

1. **Isolation:** Isolate the water supply to the valve and open a downstream tap to relieve all system pressure.
2. **Decompression:** Turn the adjustment screw anti-clockwise until the internal pressure spring is no longer under tension.

3. **Disassembly:** Unscrew the valve cover or spring chamber. Remove the spring, spring button, and adjusting screw.
4. **Cartridge Removal:** Using pliers or pincers, grip the head of the module/cartridge bolt and pull it firmly out from the valve body.
5. **Cleaning:** Remove the strainer screen from the module. Clean the screen and flush the valve body thoroughly with cold water only to remove foreign material.  
  
**Caution:** **DO NOT** use solvents to clean the strainer or internal components, as this may damage the seals and cartridge.
6. **Inspection:** Check all O-rings and the valve seat for wear or damage. If the valve still fails to maintain pressure after cleaning, the cartridge should be replaced.
7. **Reassembly:** Re-insert the cleaned or new cartridge into the body. Re-assemble the internal parts in reverse order.
8. **Commissioning:** Restore water supply and reset the delivery pressure following the standard adjustment instructions

## 3. Warranty & After-Sales

plumb-mate (manufactured by RBM Systems Pty Ltd) warrants this product against manufacturing defects for a period of **two (2) years** from the date of purchase. The warranty is void if the valve is tempered with, incorrectly installed, or used outside of its specified parameters.



# Troubleshooting Guide

This guide is designed to help licensed plumbers identify and resolve common issues with the plumb-mate Pressure Reducing Valve (PRV)



| Symptom                          | Probable Cause                                                                                                                                                   | Recommended Action                                                                   |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Reduced Flow Rate                | Usually caused by a build-up of foreign material or debris on the internal mesh filter                                                                           | See Maintenance & Servicing Steps                                                    |
| Failure to Maintain Set Pressure | If the downstream pressure increases beyond the set point, it often indicates that foreign material is lodged on the valve seat, preventing a complete shut-off. | See Maintenance & Servicing Steps                                                    |
| Valve is Squealing               | Combined high inlet pressure and low outlet flow                                                                                                                 | Contact plumb-mate to discuss correct valve selection or a staged reduction assembly |

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