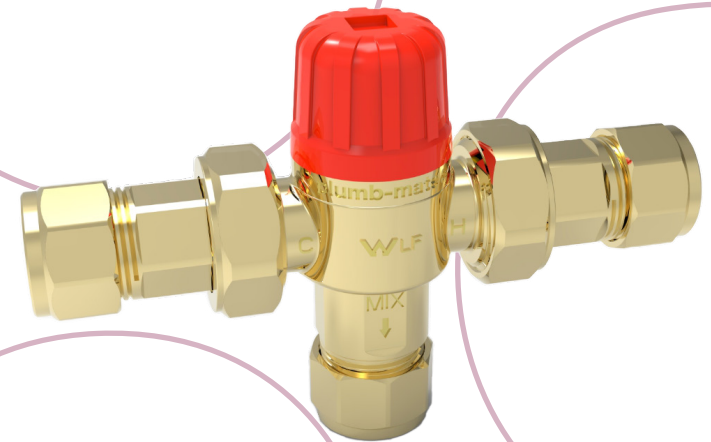


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Tempering Valve

Installation & Operation Manual



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Tempering Valve

The plumb-mate tempering valve is designed to mix hot and cold water to deliver tempered water at a constant temperature throughout a building or system.

It ensures the delivery of safe, constant tempered water to rooms intended for personal hygiene, such as bathrooms and ensuites, where outlet temperatures must not exceed 50°C.

- Standard (Yellow Cap): Ideal for storage hot water systems.
- High Performance (Orange Cap): Designed for solar hot water systems, instantaneous heaters, and pumped ring main distribution systems.

Key Features

Lead-Free body

Fully compliant with the lead-free requirements of the National Construction Code Volume 3

Automatic temperature regulation

Automatically maintains safe outlet temperatures to prevent injury or serious burns

Thermal shut-off protection

Should cold water supply be interrupted the fast acting thermal shut-off feature will stop the flow of water



Product Technical Data

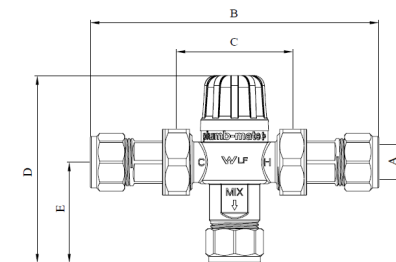
Designed and manufactured to meet AS4032.2-2005



Lead Free

WMK27144

	PMTV15	PMTV20
Inlet Connection	1/2" (15mm)	3/4" (20mm)
Cold Water Supply Temperature	5 °C - 25 °C	
Hot Water Supply Temperature (Standard - Yellow Cap)	65 °C - 85 °C	
Hot Water Supply Temperature (High Performance - Orange Cap)	65 °C - 99 °C	
Adjustable Outlet Temperature	40 °C - 50 °C	
Accuracy of Outlet Temperature	± 3 °C	
Factory Preset Temperature	47 °C	
Minimum Temperature Differential (Between Hot Water Supply & Outlet Temperature)	15 °C	
Maximum Static Supply Pressure	1600 kPa	
Maximum Dynamic Supply Pressure	500 kPa	
Pressure Supply Imbalance	2:1	
Maximum Pressure Variation between Hot water and Cold Water Supply	± 10%	
Minimum Flow Rate	4 Litres / Minute	
Insulation Jacket	Yes	Yes



Technical drawings

Model	Size	A	B	C	D	E
PMTV15	DN15	12.9	136	55	101	54
PMTV20	DN20	19.25	163	66	103	56

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

- **System Flushing:** It is critical that all debris is flushed from the pipework prior to installing the valve to prevent malfunction.
- **Flow Direction:** Ensure the valve is installed with the arrow on the body pointing in the direction of flow
- **Placement:** The valve can be fitted anywhere on the hot water supply line, though installation close to the point of use is recommended.
- **Sanitary Outlets:** If fitted at the point of use, a minimum one (1) metre pipe run is required between the valve mixed water outlet and the tap.
- **Isolation:** It is recommended to fit isolating valves immediately upstream of both inlets to allow for strainer servicing.
- **Protection: DO NOT** subject the valve to heat during installation, as this will damage internal components.

1.2 Temperature Adjustment & Commissioning

Every valve must be commissioned on-site to ensure the correct delivery temperature for the specific installation.

1. Ensure the water heater is switched on and delivering water at a minimum of 65°C.
2. Open the nearest downstream outlet to achieve a flow rate of at least 4 L/min.
3. Allow the water to run for at least **one minute** to ensure the temperature has settled.
4. Remove the valve cap. Use the special tool moulded into the top of the cap to rotate the adjusting spindle.
5. **Clockwise:** Reduces temperature.
6. **Anti-clockwise:** Increases temperature.
7. Check the temperature at the nearest outlet with a thermometer allowing the water to run for at least one minute after each adjustment. Once the desired set point is reached, snap the cap back on to prevent tampering.



2. Maintenance & Servicing

Annual Check: The valve should be checked at least once per year using a thermometer to ensure it is still delivering the commissioned temperature.

Strainer Cleaning: Strainers are located in the union connections and should be cleaned periodically to maintain flow.

Replacement: The tempering valve is a safety valve and is recommended that the valve be replaced every **5 years**.

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 Tempering Valve.

Caution!

If the system is malfunctioning, switch off the energy source and call a qualified service technician.

Symptom	Probable Cause	Recommended Action
Unstable mixed temperature	Fluctuating supply pressures	Install pressure reducing valves on incoming supply
No flow from mixed outlet	Hot or cold water supply failure or blocked strainer	Isolate valve and clean internal mesh strainers. Restore supply
Reduced flow from mixed outlet	Blocked inlet filters or debris in valve	Isolate valve and clean valve body and internal mesh strainers. Restore supply
Valve is noisy	Water velocity is too high	Reduce velocity by fitting a pressure reducing valve on the incoming supply

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