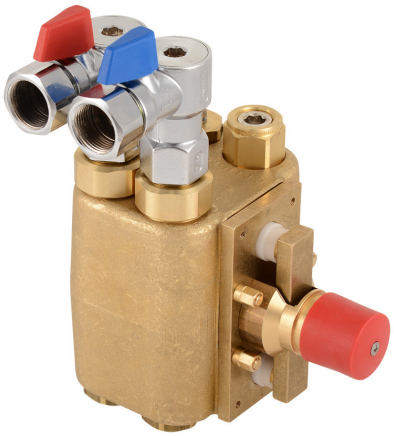
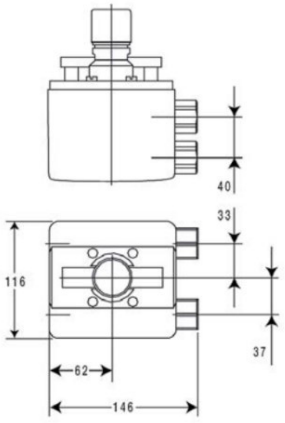
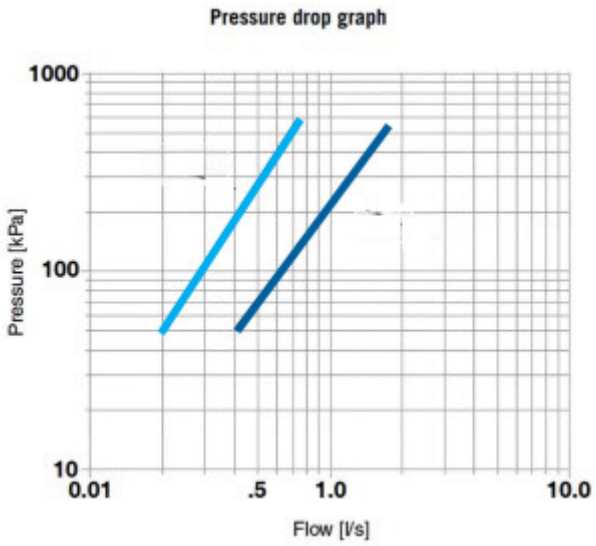
FM Mattsson "High Flow" Pressure Balanced TMV







Product Code: 5193-8070

Product overview

FM Mattsson PBTMVs are the ONLY valves in the market that can cope with sudden pressure peaks and fluctuating temperatures. It has a thermal flushing capability to reduce the risk of Legionella and other bacteria between the outlets. FM Mattsson "High Flow" PBTMV is suitable for public baths, hydrotherapy pools, meat and food processing facilities, work end of trip facilities, safety showers and eyewash units.

Features and Benefits of 5193-8070

- Pre-plumbed with 25mm pipework in and out
- Supplied with one 20mm outlet and one 15mm outlet
- Comes with check valves and line strainers built into the isolating valves supplied with the valve
- Maximum flow rate of 97.5L per minute
- With three regulation cartridges to cater for high flow rates. Each of the three cartridges have thermostatic temperature control and pressure balancing control in the simple cartridge design
- Maintains constant temperature and pressure in all low flow and high flow situations

Flow table

Pressure (kPa)	*15mm Outlet Flow (L/min)*	*20mm Outlet Flow (L/min)*
100	17	36
200	24	
300	29.5	75
400	34	
500	38	97.5
600	41.5	

(03) 9399 8444
sales@magspp.com.au
www.magspp.com.au

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Understanding the unique benefits of FM Mattsson Pressure Balanced TMVs

Thermal Flush Legionella Control

- Only authorised staff and licensed or registered plumbing practitioners are to conduct thermal flush disinfect mode to prevent scalding during the process
- Ensure all outlets to be flushed are unoccupied during the process
- Ensure full compliance in accordance with all relevant and applicable codes and standards
- Thermal Flush for Legionella control – simply remove the Red Lock-shield cap, wind out the valve completely to flush through the desired / maximum degree of hot water

Features and Benefits of FM Mattsson PBTMV

- Thermal flush capability
- Inbuilt non return valves and filters
- Factory pre-set to 38°C (can be re-calibrated by licensed plumber)
- Maintain a consistent mixed water temperature within ±1°C no matter what happens in the pipework
- The pressure-balancing system ensures safety and stability even with unequal supply pressures (up to a 13:1 ratio)
- Operates with a minimum flow rate of 1L/minute
- Pressure-limiting valves ***not*** required
- Suitable for multi and single point installations
- Fixed temperature knob to prevent unauthorised access
- 5-year warranty on the cartridge (*T&C Apply)
- PBTMV Made in Sweden
- Available in Pre-Plumbed boxes fully Australian Made

Operating Parameters of FM Mattsson PBTMV

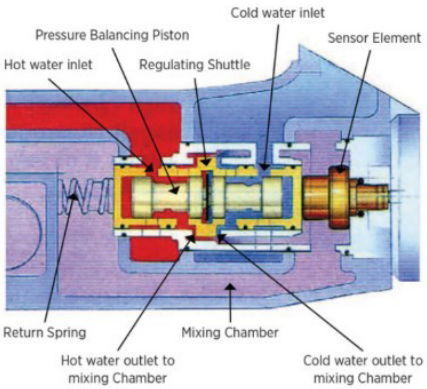
- Operating Outlet Temperature Range: the valve maintains water temperature in the range of 20°C to 50°C
- Unit must have flow control devices fitted between it and each outlet
- Operates from 50kPa to 1000kPa
- Recommended working pressure 100kPa to 500kPa
- Cold and Hot Water Temperature Inlets:
  - » Cold water supply: Minimum 5°C
  - » Hot water supply: Maximum 85°C

Inside the pressure piston of FM Mattsson PBTMVs

At the respective inlets and outlets of the regulating shuttle, the internal pressure balancing piston balances the amount of incoming hot and cold water that is able to enter the mixing chamber. Simultaneously the thermostatic sensor element both monitors and adjusts the regulating shuttle's position to cover the hot water outlet to the mixing chamber, preventing scalding.





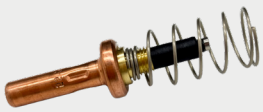
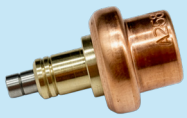


Suitable application:

- Health, aged care facilities and special needs (e.g.: hospitals, nursing homes, senior living, safety showers and eyewash units, disabled bathrooms)
- Public buildings (e.g.: airports, stations, community facilities, public baths, hydrotherapy pools, aquatic and recreational centres)
- Institutional buildings (e.g.: child care facilities, schools, police stations, correctional and prison buildings, work end-of-trip facilities, gymnasiums and sport facilities)
- Commercial buildings (e.g.: hotels, shopping centres)
- Industrial building (e.g.: meat/food processing facilities)

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Why FM Mattsson PBTMVs are superior to its competitors

Generic TMVs	*FM Mattsson PBTMVs*
• Generic TMVs use a wax thermostat element to regulate hot and cold water, allowing adjustment to a set temperature for safe skin contact. However, their slow response to pressure changes or water supply fluctuations can cause temperature spikes.	✓ FM Mattsson Pressure Balanced Thermostatic Mixing Valves (PBTMVs) use a wax thermostat element and an integrated pressure-balancing piston to maintain a consistent mixed water temperature within ±1°C. The pressure-balancing system ensures safety and stability even with unequal supply pressures (up to a 13:1 ratio) or fluctuations in the piping system.
• If there is a cold water failure with the generic TMVs, generally takes longer for the wax element to react (approx. 3-5 secs) which could contribute to unsafe spikes in temperature which could then cause scalding and risks of injury.	✓ If there is a cold water failure, balancing system combined with the thermostatic element, immediately cuts off the hot water supply safely within a second, providing reliable protection against scalding. ✓ Double protection against scalding due to immediate reaction time of the piston and thermostat sensor combined (true safety valve).
• Wax element inside 	✓ Wax element and pressure piston inside  
• Operates with a minimum flow rate of 3-4L/minute	✓ Operates with a minimum flow rate of 1L/minute
• 10°C temperature differential performs with all factory set 50°C water heaters (e.g.: Stiebel Eltron 50°C HWS)	✓ 5°C temperature differential performs with all factory set 50°C water heaters (e.g.: Stiebel Eltron 50°C HWS)
	✓ Easy changeover from older brands (Grohe, Hansa, Rada, Aquablend)
	✓ Design unchanged in over 30 years ensuring consistency with spare parts. Made it simple and cost effective to replace every 5 years.

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