

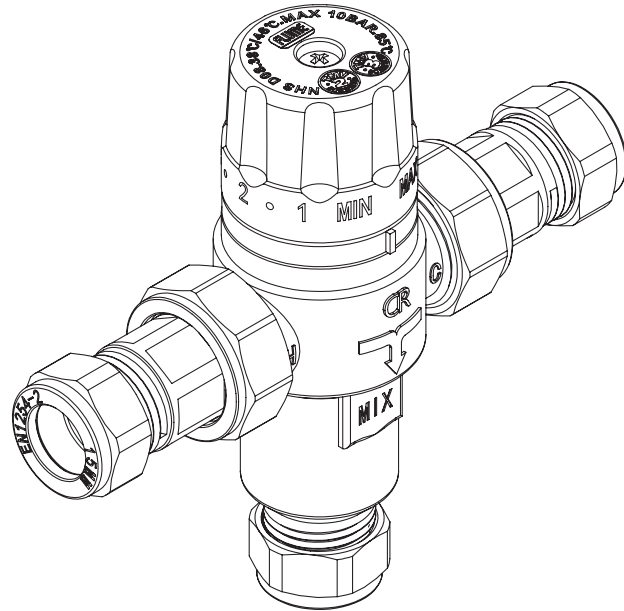
单面尺寸：29x21cm

装钉后14.5x21cm



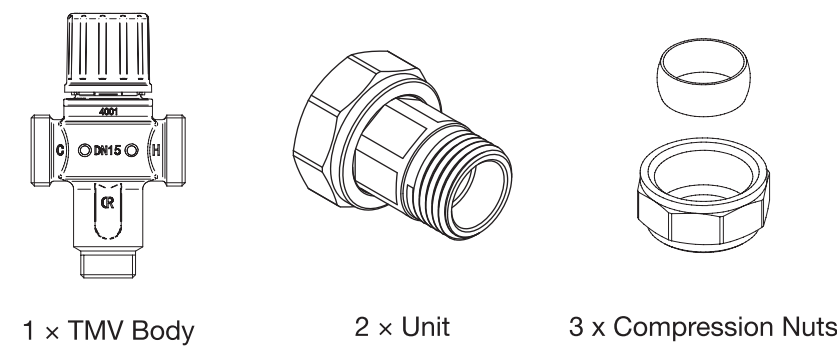
User Instructions
Thermostatic Mixing
Valve

AF064
AF063 (V.2)



PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

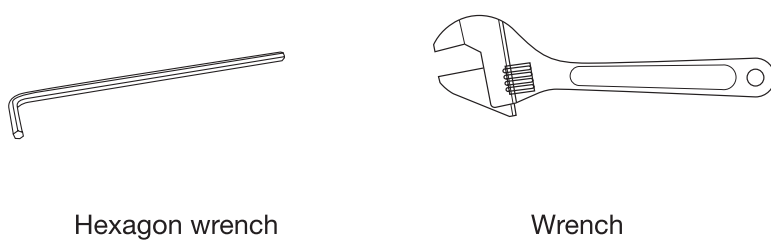
WHAT'S IN THE BOX



If you do not have all of these items, please contact:
Tel: 08081007211 email: info@toolstation.com

TOOLS REQUIRED

Tools not supplied



GUARANTEE

Flume products deliver reliable service for normal, household use in domestic settings. All Flume products are individually tested before leaving the factory. Your product is under guarantee for 3 years from the date of purchase or the date of delivery of the product, if later.

The guarantee is subject to the following provisions:

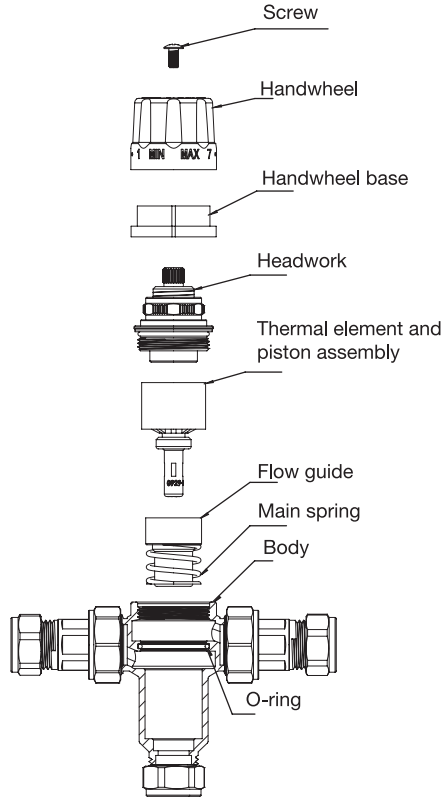
- The guarantee does not cover accidental damage, misuse, knobs, or consumable items.
- The product must be correctly installed and operated in accordance with the instructions contained in this manual.
- It must be used solely for domestic purposes.
- The guarantee will be rendered invalid if the product is re-sold or has been damaged by inexpert repair.
- Specifications are subject to change without notice.
- The manufacturer disclaims any liability for the incidental or consequential damages.
- The guarantee is in addition to, and does not diminish your statutory or legal rights.

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CLEANING PROCEDURE

1. Isolate the hot and cold supply
2. Remove the valve to a clean working area
3. Remove the handwheel
4. Unscrew the headwork of the valve
5. Carefully remove the thermal element and piston assembly
6. Remove the main spring and flow guide
7. Inspect the components for contamination or damage
8. Clean or replace as necessary
9. Remove the O-ring
10. Clean the valve body and headwork with appropriate cleaner
11. Thoroughly rinse the body and headwork in clean water
12. Carefully fit new O-ring to body
13. Carefully re-fit all components and perform the commissioning sequence.

If after cleaning the valve, and replacing the O-ring seals, the valve does not function correctly, it may be necessary to replace the thermal element.

SPECIFICATION

This Thermostatic mixing valve has been designed and manufactured to the requirements of the BS EN 1287 (LP) and BS EN 1111 (HP) standards and HTM 04-01 Performance Specification D08:2017.

The product meets the standard requirements of TMV2 & TMV3.

The following abbreviated designation codes are used throughout this booklet. Detailed descriptions are given below.

HP	High pressure
LP	Low pressure
S	Shower
B	Bidet
W	Washbasin
T44	Bath with fill temperature of 44°C max

Technical Specification / Conditions for use TMV2 Valves

	BS EN 1111:2017	BS EN 1287:2017
Max.Static Pressure	10 bar	10 bar
Flow Pressure, Hot & Cold	1-5 bar	0.2-1 bar
Hot Supply Temperature	55°C-65°C	55°C-65°C
Cold Supply Temperature	5- 20°C	5- 20°C
Temperature Stability	±2°C	±2°C
Min. Temp Differential (Mix to Hot) for fail-safe	10°C	10°C
Max. Pressure Inlet Differential	5:1	5:1

NOTE: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 2 valves.

Application

This product is designed and certified for the following designations:

Application	Range
Washbasin	HP*LP
Bidet	HP*LP
Shower	HP*LP
Bath Fill*	HP

Technical Specification / Conditions for use TMV3 Valves

Outlet Temperature Adjustment Range	38-46
Temperature Stability	±2°C
Maximum Hot Inlet Temperature	85°C
Inlet Temperature Range	55°C to 65°C : Hot Supply 5°C to 20°C : Cold Supply
Max. Working Pressure	10 bar : Static
Min. Working Pressure	0.2 bar : Dynamic
D08 Working Pressure Range	0.2 to 1.0 bar : Low Pressure 1.0 to 5.0 bar : High Pressure
Min Temp Differential (Mix to Hot)for Fail-Safe	10°C

Application

Application	Range
Wash Basin	HP
Bidet	HP
Shower	HP
Bath Fill*	HP

Table 1: Recommended Outlet Temperatures

Application	Recommended Set Mixed Water Temp.
Wash Basin	41°C
Shower	41°C
Bidet	38°C
Bath Fill	44°C

*The mixed water temperatures must never exceed 46° C. The maximum mixed water temperature can be 2° C above the recommended maximum set outlet temperatures.

NOTE: 46° C is the maximum mixed water temperature from bath taps. The maximum temperature takes account of the allowable temperature tolerances inherent in the thermostatic mixing valves and temperature losses in metal baths. It is not a safe bathing temperature for adults or children."

Table 3: Field Test Frequency for TMV Based on Temperature Variation

Temperature Variation °C	Comment	Test Frequency (week)
±1°C		24-28 weeks
±1°C-2°C	The first maintaining	24-28 weeks
±1°C-2°C	The second maintaining	18-21 weeks
> ±2°C	Maintaining at other time	18-21 weeks

Note 1: If there is a residual flow during the commissioning or bi-annual verification (cold water supply isolation test) then this is acceptable provided the temperature of the water seeping from the valve is no more than 2° C above the designated maximum mixed water outlet temperature setting of the valve.

Note 2: If a water supply is fed by gravity then the supply pressure should be verified to ensure the conditions of use are appropriate for the valve.

Note 3: The isolation valve is installed as close as possible to the inlet of the thermostatic mixing valve.

Note 4: Temperature readings should be taken at the normal flow rate after the system has stabilized. The sensing part of the thermometer probe must be fully submerged in the water that is to be tested. Any TMV that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the manufacturer's instructions. In the absence of any other instruction or guidance, it is recommended that tests be conducted at least every 6 months.

TMV CLEANING INSTRUCTIONS

Most domestic water supplies contain calcium which separates out when the water is heated, particularly in storage systems. The degree and speed of scale formation may vary depending on factors such as water flow rates, system design, the hardness of the water, and the temperature to which the water is heated.

Deposits of scale may form over time in the valve, particularly at the hot inlet. Scale formation may adversely affect the performance of the valve, as detected during routine operational testing. If this occurs, it will be necessary to remove the valve for descaling and maintenance.

Table 2: Maximum Set Mixed Water Temperatures

Application	Maximum Set Mixed Water Temp.
Wash Basin	43°C
Shower	43°C
Bidet	40°C
Bath Fill	46°C

CARE AND CLEANING

Maintenance & Operational testing

Purpose: The purpose of field testing is to regularly monitor and record the performance of the thermostatic mixing valve (TMV). Deterioration in performance may indicate the need for servicing the valve and/or inspecting the water supply system.

Procedure:

1. Perform Test Sequence: Carry out the specified commissioning test sequence using the same or equivalent equipment used during valve commissioning.
2. Evaluate Mixed Water Temperature: Compare the current mixed water temperature reading with the previous test results.

If Significant Change (>1°C): Record the temperature change. Before attempting any readjustment, perform the following checks:

- Ensure all in-line or integral filters are clean.
- Verify any in-line or integral non-return valves or other anti-siphonage devices are functioning correctly.

-Confirm all isolation valves are fully open.

If Acceptable Temperature: Proceed to next step .

3. Complete Test Sequence: With the mixed water temperature within an acceptable range, complete the remainder of the specified commissioning test sequence.

4. Assess Final Test Results (Referencing Step 5(d)):

If the final stabilized mixed water temperature exceeds the maximum allowable value specified in Table 2 or the maximum temperature exceeds the corresponding value from the previous test results by more than 2°C, the valve must be serviced.

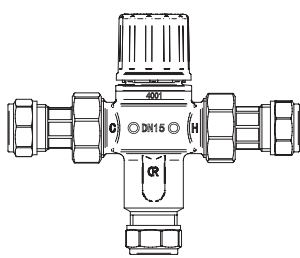
5. Field Testing Frequency

-Minimum Requirement: In the absence of other specific guidance, field testing is recommended at least annually (once every 12 months).

-Performance-Based Frequency: The recommended testing frequency can be determined based on observed temperature variation, as shown in Table 3.

-Corrective Action: If the mixed water temperature is consistently outside the expected or required range during testing, it is necessary to remove, clean, and service the valve according to the manufacturer's instructions

EXPLANATION OF SYMBOLS, CAUTIONS AND WARNINGS



Note: The valve body is clearly marked: "C" with a blue identification ring for cold supply. "H" with a red identification ring for hot supply.
WARNING: Failure to connect the hot and cold supplies according to these markings may create a scalding hazard and will void the warranty.The use of sealing compounds on the threaded connections is not recommended.

HEALTH AND SAFETY

- Identify all components and check pack contents.
- Turn off mains water supply.
- Wear appropriate personal protection equipment.
- This taps should be installed in compliance with the UK Water Supply (Water Fittings) Regulations.

ASSEMBLY AND USE

1. Before installation, the hot and cold water inlet of the mixing valve must be cleaned and confirmed. Independent filters / check valves and isolation valves must be fitted in conjunction with the valves, as close as practically possible to the water supply inlets of the thermostatic valve. The valve must be correctly connected to the respective supplies.
2. Check the main valve assembly bores are free of debris and the end sealing faces are clean.
3. Insert the sealing washer into the inlets and outlet and screw the inlet and outlet fittings onto the valve body, taking care not to over tighten.
4. Assemble the valve to the pipe work and ensure the hot and cold water pipes have full penetration into the tailpiece. The compression fittings supplied allow for direct connection to pipe.
5. Tighten the compression nuts ensuring that the end of the pipe remains in contact with the filter element.
6. After installation check carefully for leaking.

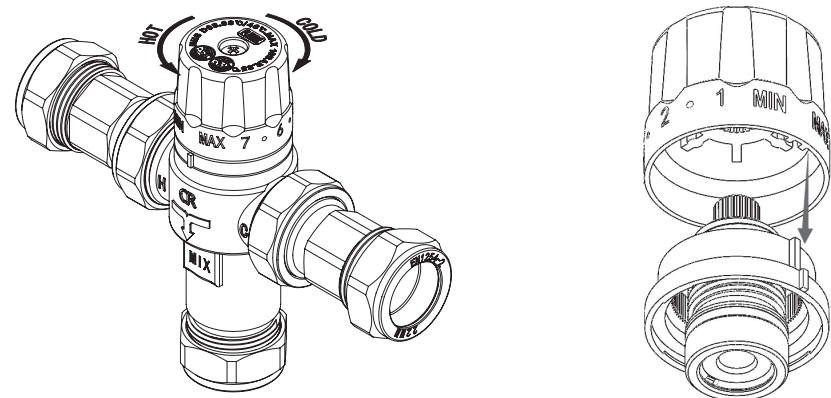
ADJUSTMENT AND COMMISSIONING

The Flume thermostatic mixing valve is supplied factory preset at 38–46° C. However, the temperature can be adjusted according to the customer's requirements.

Prior to commencing commissioning, ensure the system is depressurized and cooled to a safe temperature. The following checks should then be carried out:

1. The designation of the thermostatic mixing valve matches the application.
2. The supply pressures and temperatures are within the rated operating range of the valve (refer to specifications).
3. The supply temperatures are within the range permitted for the valve and comply with applicable guidance and regulations for the prevention of Legionella growth

If all these conditions are met, proceed to set the temperature as described below:



1. Open the outlet to which the mixing valve is supplying and establish a stable flow and temperature
 2. Using a calibrated thermometer place the sensing part of the thermometer probe under the flowing water
 3. Adjust the temperature by turning the handwheel.
 - To increase the temperature turn anti-clockwise.
 - To decrease the temperature turn clockwise.
 - at all times ensuring the probe of the thermostat is under the flowing water.
 4. Once the desired temperature is reached – loosen the screw on the handwheel and then insert the knob into the groove as shown to lock the temperature.
5. Commissioning test sequence after adjusting the temperature of the mixed water in accordance with the valve application (see table 1) carry out the following sequence:
 - a. Record the temperature of the hot and cold water supplies.
 - b. Record the temperature of the mixed water at the largest draw-off flow rate.
 - c. Record the temperature of the mixed water at a smaller drawoff flow rate, which shall be measured.
 - d. Isolate the cold water supply to the mixing valve and monitor the mixed water temperature recording the maximum temperature achieved and the final stabilized temperature.

Note: The final stabilized temperature should not exceed the values in Table 2