

AQUALISA

AQ75

AQ100

3245F

**Thermostatic bar mixer valve
with adjustable head**

Installation guide



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Important information

Introduction

The Aqualisa bar valve product is an exposed bar valve mixer complete with adjustable height head. The shower head features variable spray patterns. The Aqualisa thermostatic valve provides close temperature stability and fail safe protection on appropriate high and low pressure systems.

The Aqualisa bar valve is suitable for use with gravity, gravity pumped, high pressure and combination boiler systems. Please refer to the product specification section below.

The Aqualisa bar valve product is supplied with a 3 year guarantee.

In the event of any product problems, please contact the Aqualisa Customer helpline on 01959 560010 for assistance.

Safety information

This product must be installed by a competent person in accordance with all relevant current Water Supply Regulations.

The Aqualisa bar valve is designed for domestic use only.

Product specification

The Aqualisa bar valve is suitable for gravity stored, gravity boosted, balanced high pressure and combination boiler systems. Pressure range 0.1* – 10 bar max (static).

* 0.1 bar (1m measured from the top of the head to the bottom of the cold water tank – which equates to approximately 1.5m if measured from the top of the head to the top of the water level within the tank). Please refer to the system layouts on page 6.

N.B. Slow refill of the tank will affect shower outlet flow rate performance.

N.B. Please note, if using the product with a combination boiler, the combination boiler MUST have a minimum rating of 24kW (80,000 Btu) and be of the type fitted with a fully modulating gas valve.

If in any doubt, please contact the appliance manufacturer before installation commences.

Connections

The Aqualisa bar valve product is designed for conventional supplies with HOT on the Left and COLD on the Right as viewed from the front.

Supply lines must be flushed clear of any debris before installation of the unit. Any debris accumulation in the shower valve and head may result in damage and poor performance.



Flushing

Some modern fluxes can be extremely corrosive and, if left in contact, will attack the working parts of this unit. All soldering must be completed and the pipe work thoroughly flushed out in accordance with current Water Supply Regulations prior to connection of the product.

Filters

To ensure optimum ongoing performance, the Aqualisa bar valve is protected by inlet filter assemblies in the internal waterways. Debris accumulation may result in progressively reduced flow through the showerhead and noisy operation.

As this condition is not covered by our standard warranty terms, it is suggested that the cartridge be removed and the filters checked by a competent person at least every 12 months. In the event of any difficulties please contact the Aqualisa Customer helpline for assistance.

Isolating valves

Suitable full way isolation valves must be fitted to both supplies in accordance with current Water Supply Regulations and our terms of warranty.

Due to their restrictive characteristics, stopcocks and ball type valves that reduce the pipe bore size must not be used on gravity or pumped installations.

Pressures

The Aqualisa bar valve is designed to control static pressure up to 10 bar. Where pressures are likely to exceed 5 bar, a pressure reducing valve (PRV) must be fitted into the incoming mains supply. A setting of 3 bar is recommended. It should be noted that daytime pressures approaching 8 bar can rise above the stated maximum overnight.

A suitable PRV is available from Aqualisa.

The Aqualisa bar valve is not suitable for mixed supply systems, e.g. gravity hot and mains cold.

Gravity fed hot and cold supplies

The Aqualisa bar valve is suitable for use with gravity systems. Services must be installed according to good plumbing practice having regard to pipe sizing, long pipe runs and low-head situations.

The cold supply for the valve assembly must be taken directly from the cold storage system. The hot supply may be taken from the vent/draw off pipe of the hot water cylinder at a point below the cylinder connection or alternatively from the underside of the horizontal draw off.

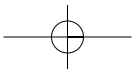
Rising pipe work must not be connected into the horizontal draw-off from the cylinder or to any point in the vent/draw off pipe above the cylinder connection.

CYLINDER TEMPERATURE IN EXCESS OF 65°C MAY RESULT IN POOR SHOWER PERFORMANCE.

To minimise pressure loss we recommend that the hot and cold supplies are run in 22mm as close as reasonably possible to the mixing valve before reducing to 15mm to suit the intended inlet connection fittings.

Siting

For optimum performance, with gravity fed systems, the distance between the bottom of the storage cistern and the shower head should not be less than 1m (when using an adjustable height shower kit). Please refer to the system layouts on page 6.



Pump installation

UNDER NO CIRCUMSTANCES MUST A PUMP BE FITTED DIRECTLY TO THE WATER MAIN.

PLEASE REFER TO THE MANUFACTURERS PUMP INSTALLATION GUIDE FOR PUMP INSTALLATION INFORMATION.

Care should be taken to ensure that there is adequate flow through the pump to activate the flow switches.

A pump must only be used to boost the pressure from tank-fed supplies. A typical layout is shown on page 6.

A minimum 1.5 bar twin ended booster pump may be fitted with the Aqualisa bar valve product. If fitting a booster pump, we recommend a twin ended booster pump larger than 1 bar is used.

Stored water capacities

The minimum capacity of the cold storage cistern should not be less than 225 litres (50 gallons). The capacity of the hot cylinder must be capable of meeting the anticipated demand.

Balanced high-pressure systems

The Aqualisa bar valve is designed to operate with unvented hot water storage systems up to a maximum pressure of 10 bar. The cold water supply must be drawn from the same mains supply as that to the hot water system (down stream of the cylinder manufacturers pressure limiting valve, where supplied) and the hot supply from the nearest convenient draw off point. Account must be taken of pressure drops that may occur when other draw-off points are used while the shower is in use. A typical layout is shown on page 7.

Combination boiler/multipoint systems

The Aqualisa bar valve is suitable for use with combination boiler systems. The combination boiler **MUST** have a minimum rating of 24kW (80,000 Btu) and be of the type fitted with a fully modulating gas valve.

This is sufficient to operate one outlet point at a time. The cartridge is designed to operate from the mains at a maximum of 10 bar. If the mains pressure exceeds 5 bar a 'drop tight' PRV must be fitted on the supply pipe after the main stopcock.

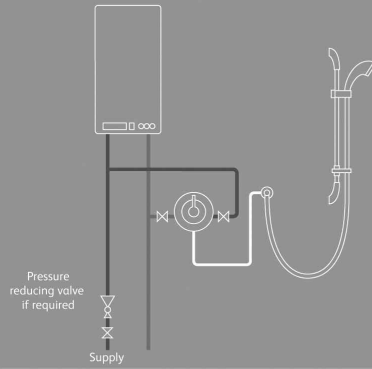
If in any doubt, please contact the appliance manufacturer before installation commences.

The cold supply can be taken from the nearest convenient mains supply and the hot supply can be taken from the nearest hot water draw-off point. Account must be taken of the pressure drops that will occur when other draw-off points are used while the shower is in use. A typical layout is shown on page 7.

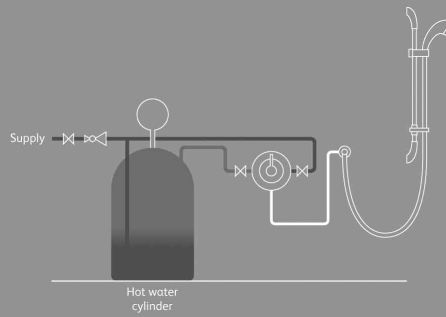
When fitted to combination boiler systems, the Aqualisa bar valve has been designed to give optimum temperature control and stability from fully modulating combination boilers and instantaneous gas water heaters.

Typical system diagrams continued

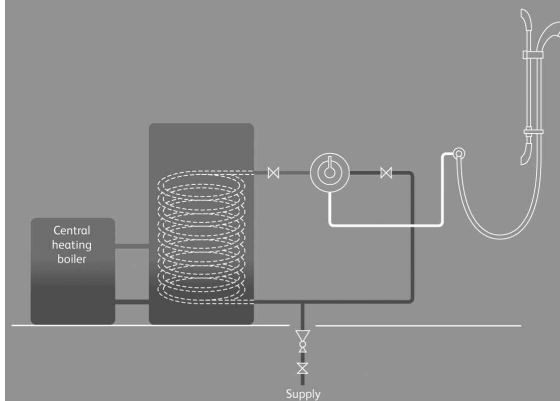
Typical combination boiler system installation



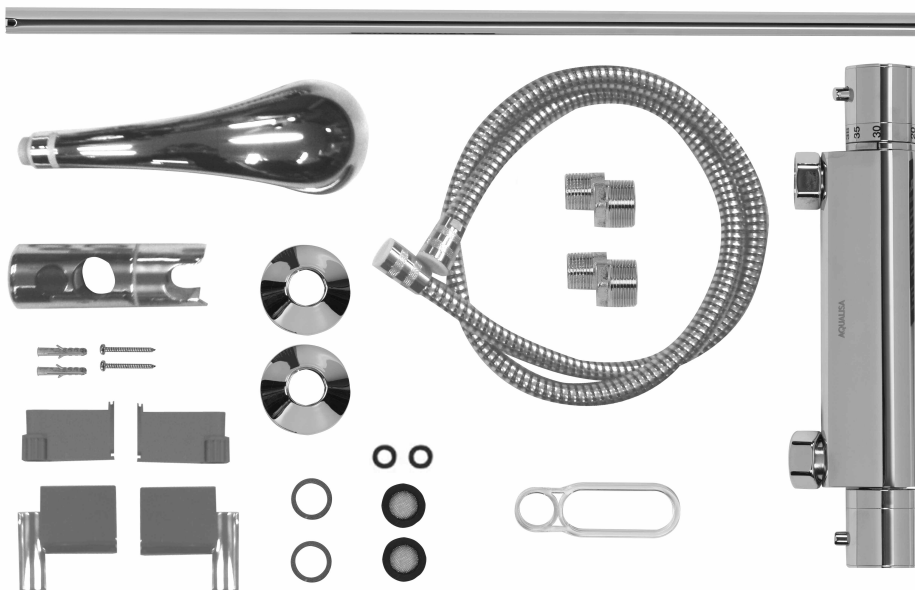
Typical UVHW system installation



Typical thermal storage unit system installation

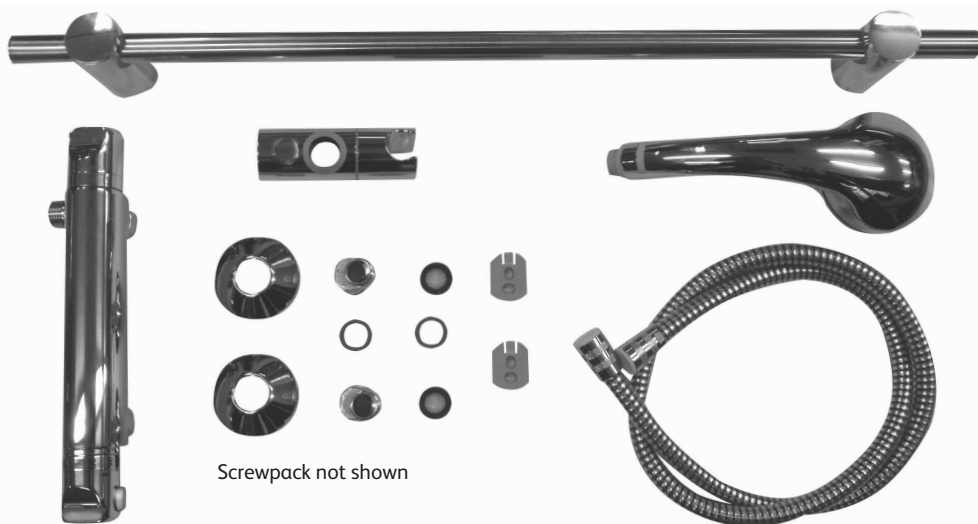


Components - Aqualisa AQ75 bar valve



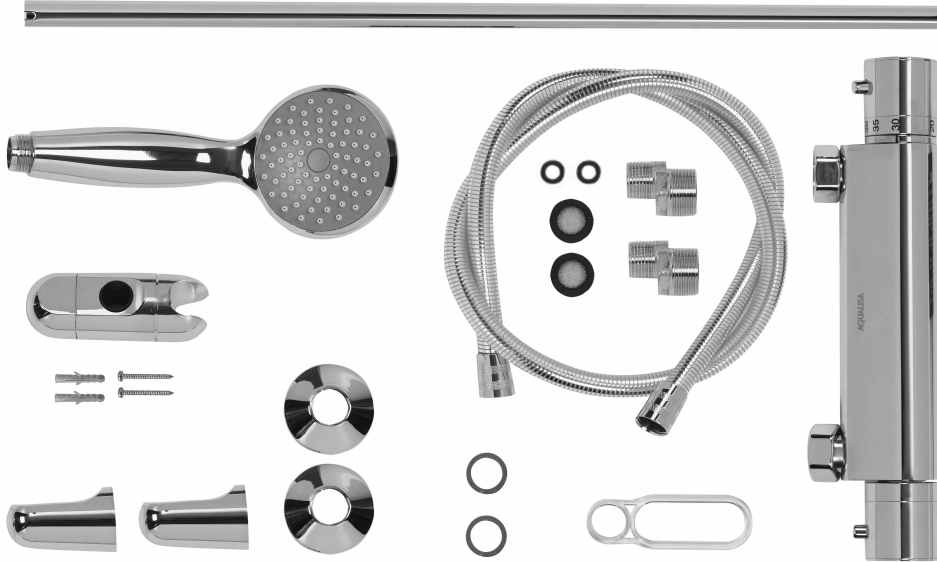
Aqualisa AQ75 bar valve with adjustable height head

Components - Aqualisa AQ100 bar valve



Aqualisa AQ100 bar valve with adjustable height head

Components - Aqualisa 3245F bar valve



Aqualisa 3245F bar valve with adjustable height head

Please note: Literature not shown in any of the components images.

Aqualisa bar valve installation

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In addition to the guide below it is essential that the written instructions overleaf are read and understood and that you have all the necessary components (shown overleaf) before commencing installation. Failure to install the product in accordance with these instructions may adversely affect the warranty terms and conditions. Do not undertake any part of this installation unless you are competent to do so. Prior to starting ensure that you are familiar with the necessary plumbing regulations required to install the product correctly and safely.

Bar valve fixing accessories are available separately, (AQ100 supplied with BAR001FIX). The MD300EFB is a first fix fixing bracket. If using the MD300EFB bracket, ensure sufficient threads are left from the finished wall surface, after the cover plates have been fitted, to ensure adequate purchase for the exposed valve.

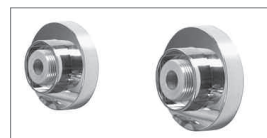


!

The BAR001FIX bar valve fixing kit provides a method of surface siting exposed bar valves onto a finished wall surface, using 15mm concealed pipe work.

If required, fit the bar valve fixing accessory following the relevant installation instructions provided with the accessory kit and proceed to step 6 below.

The exposed valve and fixing bracket assembly **MUST NOT** be used as a grab rail support method.



1

Eccentric elbows are provided to allow for inlet pipework adjustment between 130mm – 170mm centres. Construct suitable connections terminating in ½" BSP female fittings.

When using the eccentric elbows provided we recommend leaving sufficient threads from the finished wall surface, after the cover plates have been fitted, to ensure adequate purchase for the exposed valve.

If using alternative fixings please refer to the installation instructions provided to ensure adequate threads are left to connect the exposed valve after the cover plates have been fitted to the finished wall surface.

2

If required, apply jointing tape to the threads and fit the eccentric elbow connectors sufficiently to achieve a water tight seal, terminating at 150mm centres to suit the exposed valve inlets.



3

Ensuring adequate provision to allow the water to discharge safely to waste, turn on the supplies to flush the system through. Attach pressure test equipment and pressure test the system in accordance with Water Supply Regulations.

4

Ensure the ¾" supply connections are temporarily capped to prevent any dirt or dust ingress into the pipe work during the making good process. Remove the caps prior to connecting the shower valve.

5

Apply a thin bead of mastic to the rear of the cover plates. Place the cover plates onto the exposed $\frac{3}{8}$ " threads, flush with the finished wall surface.



6

Ensuring the fibre washers are positioned within the valve inlets, offer the valve into position. Tighten the fixing nuts using a suitable tool taking care not to overtighten.



7

Attach the hose to the valve hose outlet to allow the water to discharge safely to waste. Turn on the supplies to the shower and turn the shower on to flush the system through. Turn off the shower.

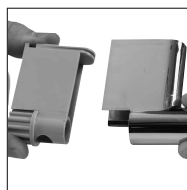


If required, refer to the commissioning instructions on page 14 to adjust the maximum temperature override button position.

Aqualisa AQ75 adjustable height head installation

1

Hold the front and rear of the grey rail end and carefully, but firmly, pull the chrome cover away from the rail end assembly as shown.



2

Prepare two fixing points 585mm vertically apart using a spirit level to facilitate if necessary using the fixings supplied.

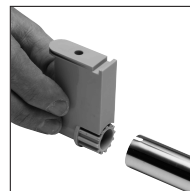
3

Ensuring the handset cradle is on the left side of the rail, pass the rail through the handset holder whilst keeping the slider button depressed.



4

Fit the rail into the rail end bodies ensuring the indents in the rail are facing the finished wall surface.



5

Secure the rail assembly to the wall using screws supplied ensuring the rail and rail end bodies remain firmly engaged.

6

Fit the rail end covers into position and push firmly into place.



7

If required, optional outlet flow regulators can be purchased from the Aqualisa customer helpline on 01959 560010. Fit the relevant flow regulator into the brass housing ensuring the O'ring faces the incoming flow. Connect the flow regulator assembly to the valve outlet ensuring the hose washer is correctly fitted.

!

6lpm outlet flow regulators are not suitable for products fitted to combination boiler systems.

8

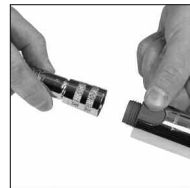
Connect the hose to the bottom of the valve outlet ensuring the hose washer is correctly fitted to allow the water to discharge safely to waste and run the shower for a few seconds to clear any debris in the outlet assembly.

9

Turn off the shower and pass the hose through the hose restraint.

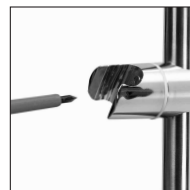
10

Ensuring the hose washers are in the correct position, depress the anti-swivel locking button on the handset and secure the handset to the hose. Place the handset into the handset holder.



!

The tension of the handset station of the handset holder is factory set. However, it may be necessary, especially for showers fitted to high pressure systems, to tighten the tension as required. Tighten the screw inside the handset station taking care not to over-tighten.

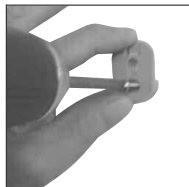


Aqualisa AQ100 bar valve adjustable height head installation

- 1 If the handset holder is not already installed onto the rail, carefully remove the adjustable rail bracket, and whilst holding down the button on the handset holder insert the handset holder onto the rail. Insuring the button is facing upwards.



- 2 Carefully mark out where the rail brackets are going to sit and once happy drill and plug the two holes ready to take the wall brackets and screw the wall brackets to the wall using the fixings provided.



- 3 Slide the brackets along with the rail kit down onto the wall brackets until clicks firmly into place.



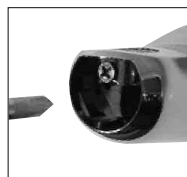
Aqualisa 3245F bar valve adjustable height head installation

1 Drill and plug 2 holes 570mm – 585mm apart using the fixings provided, if suitable.

2 Carefully remove the chrome covers from the rail end brackets and set aside.



3 Fix the bottom rail bracket complete with the rail securing lug into position using the screws provided, if suitable.



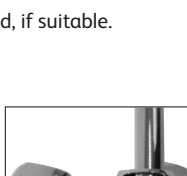
4 Rotate the handset holder to the open position and pass the rail through the handset holder.



5 Place the rail assembly onto the bottom fixing bracket taking care to engage the rail location slot on the bracket lug.



6 Place the top fixing bracket into position and secure to the wall using the screws provided, if suitable.



7 Place the rail end covers onto the rail brackets and push into position.



8

Ensuring the hose washers are in the correct position, secure the handset to the hose and place the handset into the handset holder.

9

The tension of the handset station of the handset holder is factory set. However, it may be necessary to adjust the tension as required. The tension is adjusted by tightening or loosening the fixing screw inside the handset station using a suitable screwdriver, taking care not to over tighten.



Handset to hose assembly

1

Pass the hose through the hose restraint (if required). Ensuring the hose washers are in the correct position, depress the anti-swivel locking button on the handset (if applicable) and secure the handset to the hose. Place the handset into the handset holder.



User guide - shower controls

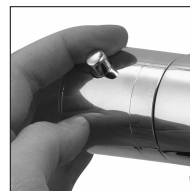
1. When the temperature lever knob on the right of the valve when viewed from the front has the maximum temperature override button at the top of the knob, the valve is in the mid blend position. The mid blend temperature is dictated by the temperature of the incoming supplies. To select a comfortable showering temperature, depress the button and slowly rotate the knob away from the finished wall surface to increase the temperature and towards the finished wall to decrease the temperature, using the temperature markings as a guide.

N.B. Should it be necessary to reset the maximum temperature position, please refer to the commissioning instructions on page 14. **We recommend the MAXIMUM outlet temperature is set to 46°C.**



2. Turn the valve on by carefully rotating the flow control knob on the left of the valve when viewed from the front, towards the finished wall surface until the required volume of flow is reached. Turn the valve off by rotating the flow control knob away from the finished wall until a stop is reached.

N.B. With all Aqualisa bar valves fitted to combination boiler systems, it may be necessary to adjust the flow control knob and reduce the flow to achieve a comfortable showering temperature.



User guide - shower head

NEVER ATTEMPT TO MAKE ANY ADJUSTMENT TO THE SHOWER HEAD BY PULLING ON THE SHOWER HOSE.

1. To select the preferred height for the shower head, depress the handset holder button fully to enable the slider to be moved up or down the rail.



2. Angular adjustment is made by carefully but firmly pulling forwards or pushing back the shower head against the knuckle in the holder.



Cleaning & maintenance

The Aqualisa bar valve shower system should be cleaned using only a soft cloth and washing up liquid.

! DO NOT USE ABRASIVE CLEANERS.

To reduce the need for chemical descaling in hard water areas, your shower head incorporates a 'clear flow' system, whereby any scale build up can be broken down by gently rubbing the flexible tips of the jets during use. This procedure should be completed regularly, as often as once a week in some hard water areas, as scale build up can affect the spray pattern and cause the shower to perform poorly. Failure to descale the shower head can affect the internal seals and may affect the warranty.

Should chemical descaling of the head become necessary, remove the shower head fully and immerse in a mild proprietary descalant.

IT IS IMPERATIVE THAT DESCALING IS CARRIED OUT STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. SUBSTANCES THAT ARE NOT SUITABLE FOR PLASTICS AND ELECTROPLATED SURFACES MUST

Aqualisa bar valve commissioning



THE AQUALISA BAR VALVE IS PRE-SET TO A SAFE MAXIMUM SHOWER TEMPERATURE. SHOULD IT BE NECESSARY TO RESET THE MAXIMUM TEMPERATURE POSITION, PLEASE OBSERVE THE FOLLOWING PROCEDURE. WE RECOMMEND THE MAXIMUM OUTLET TEMPERATURE IS SET TO 46°C.

1

Ensure that the hot water system is at normal maximum temperature.

2

Turn the temperature control knob to the mid-blend position (with the button at the top of the knob).

3

Carefully remove the end cover cap using a small flat bladed screwdriver if necessary.

4

Remove the central fixing screw, pull the knob clear and set aside.

5

Turn the valve on.

6

Using a digital thermometer adjust the temperature control to the required MAXIMUM temperature setting by turning the brass spline.

We recommend the MAXIMUM outlet temperature is set to 46°C.

7

Turn the valve off.

8

Ensuring the temperature override button is pushed in, place the knob onto the valve ensuring the MAX temp position is aligned with the temperature setting indicator.

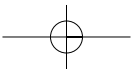
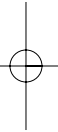
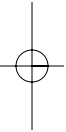
9

Secure the knob to the valve and refit the knob insert.

! Should unacceptable damage to the temperature knob end cap occur when removing it from the temperature knob, please contact Aqualisa Customer service on 01959 560010 to arrange a replacement.

Trouble shooting guide

Symptom	Possible cause	Action
Water output is either all hot or all cold, or cold only	Reversed inlet supplies	Check that the supplies correspond with the inlet markings
Water output is not hot enough	<p>The temperature of the hot water cylinder is too low</p> <p>Water flow through the hot water appliance is too fast</p> <p>Water flow through the hot water appliance is too fast (If fitted on a combination boiler)</p>	<p>The cylinder temperature should be at least 15°C hotter than the blend</p> <p>Check the flow rate recommendations with the heater manufacturer</p> <p>Adjust the flow control knob on the mixer valve to reduce flow until a comfortable showering or bathing temperature is achieved</p>
Flow rate is poor and water temperature is low	Airlock in the hot water supply	Check that the pipe work is laid out in accordance with correct practices, paying particular attention to potential air-traps
Water temperature swings regularly between hot and cold	Cold water pressure is too high	If the static water pressure exceeds 10 bar, install a pressure reducing valve (PRV) in accordance with the installation guide
Poor flow rate	<p>Twisted hose</p> <p>Debris in shower head</p> <p>Debris in filters</p>	Check for debris and clear as necessary



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