

AQUALISA

# Aquavalve 700<sup>®</sup>

## Thermo

shower valve



# Shower systems



Aqua valve 700 Thermo  
Exposed valve

Chrome

**700.51.01**

Gold

**700.51.04**



Aqua valve 700 Thermo  
Concealed valve

Chrome

**700.50.01**

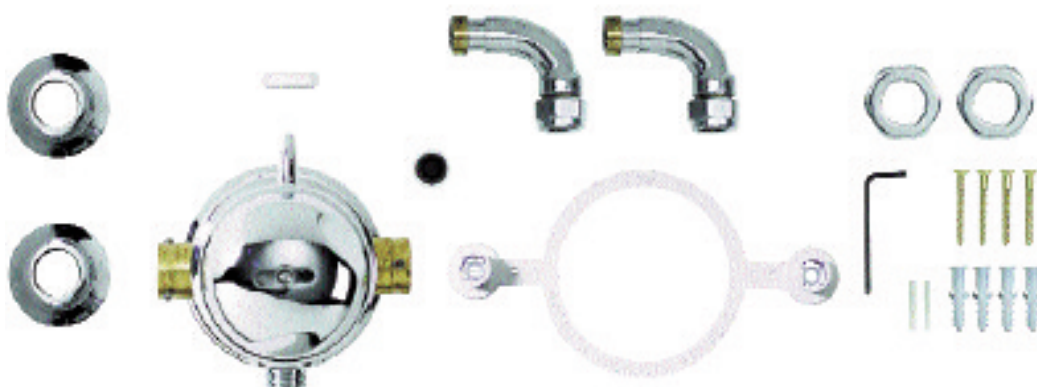
Gold

**700.50.04**



# Components

## Components (exposed)



Literature not shown.

## Components (concealed)



Literature not shown.

# Important information

## Introduction

The Aquavalve 700 Thermo is a brass bodied thermostatic shower valve designed for built in and concealed panel mount and exposed installations. The Aquavalve 700 Thermo provides close temperature stability and fail safe protection when installed on approved gravity or pumped systems and balanced high pressure systems. A cold inlet flow regulator is provided for use with instantaneous (multipoint) gas water heater and combination boiler applications.

If you have any questions at any stage during installation please contact the Aqualisa customer helpline on 01959 560010 for advice.

## Commercial applications

This product is suitable for commercial applications. Products BBV001 (exposed) and BBV002 (concealed) should be ordered. The BBV001 is fitted with the ½" outlet at the top of the valve to facilitate the use of an exposed fixed head, rather than at the bottom of the valve as per the domestic 700.51.01 version.

## Safety information

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

## 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.

## Connections

The Aquavalve 700 Thermo is supplied for connection to conventional supplies with HOT on the LEFT and COLD on the RIGHT when viewed from the front. However, for non-conventional supplies, the valve can be reversed by 180°. Please see installation instructions overleaf to reverse the valve.

The Aquavalve 700 Thermo exposed valve is supplied complete with 15mm compression elbow fittings at 198mm centres. The Aquavalve 700 Thermo concealed valve is not supplied with any elbow connections. Suitable ¾" BSP union connections will need to be used.

Pipe work connections to this product should be cut using a rotary type cutter.

## Isolating valves

Suitable isolation valves such as gate valves must be fitted to both supplies in accordance with the 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.

## Filters

To ensure ongoing optimum performance the internal control mechanism 'cartridge' is protected by a two-part filter system. Debris accumulation may result in reduced flow from the shower head 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. In the event of any difficulties please contact the Aqualisa customer helpline for assistance.



## 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 head). If using a fixed head, the highest point of the pipe work must be not less than 1m below the underside of the cistern. Please refer to the system layouts on the reverse of this guide.

# Important information

## Pump installation

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

A pump must only be used to boost the pressure from tank-fed supplies. A typical layout is shown on the reverse of this guide.

## 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.

## Pressures

The Aquavalve 700 Thermo shower valve is designed to control static pressure up to 10 bar. Where pressures are likely to exceed 10 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.

The Aquavalve 700 Thermo is not suitable for mixed supply systems e.g. gravity hot and mains cold.

A suitable PRV is available from Aqualisa.

## Gravity fed hot and cold supplies

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.

A typical layout is shown on the reverse of this guide.

## Balanced high-pressure system

The Aqualisa Thermo cartridge is designed to operate with unvented hot water storage systems up to a maximum pressure of 10 bar. A PRV must be used if either supply exceeds 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.

Pipe work can generally be run in 15mm.

## Combination boiler/multipoint system

The gas water heater must be capable of raising the temperature of the incoming water by 35°C and delivering a flow rate of no less than 9 litres (2 gallons) per minute to the shower valve. This is sufficient to operate one outlet point at a time. The Aqualisa Thermo cartridge is designed to operate from the mains at a maximum of 10 bar. If the mains pressure exceeds 10 bar a 'drop tight' PRV must be fitted on the supply pipe after the main stopcock.

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.

Pipe work can generally be run in 15mm.

# Step-by-step instructions

## Exposed valve

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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.

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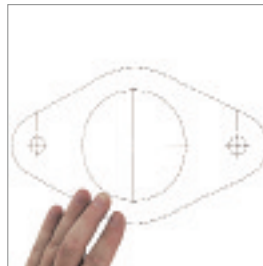
The Aquavalve 700 Thermo is supplied with universal fittings.

Please note that the fixing template is supplied as a guide only, we thus recommend that you assemble the valve and measure the pipe inlet centres against the template prior to installation.

## Rear entry pipe work

1

Carefully cut out the cardboard fixing template supplied, mark out the inlet supply holes at 194mm centres.



2

Set the pipe work to emerge from the wall at right angles.

3

Make good the wall as appropriate. After making good, measure the pipes and mark the pipe cut off length (19mm-21mm).

4

Remove the mounting ring from the rear of the valve using the 2.5mm hexagonal key provided. Locate the ring inside the large ring on the template ensuring the locking screw is in the 6 o'clock position and mark the four fixing holes.



5

Using a rotary type cutter cut the inlet pipes to length and drill and prepare the fixings for the mounting ring. Fix the mounting ring to the wall using the screws provided.

6

Briefly run the hot and cold supplies to flush out any debris that may be present in the system.

7

If the valve is being installed for use with a gas fired instantaneous (multipoint) water heater or a combination boiler, the cold water flow regulator must be fitted at this stage by insertion into the cold inlet connection ensuring the small 'O' ring is facing the incoming flow, prior to connection of the elbow assemblies.

8

Carefully slide the dummy nuts onto the elbows ensuring damage to the plated surfaces is avoided.



9

Carefully locate the elbows into the valve inlet connections and push fully home. Using the 2.5mm hexagonal key provided, tighten the locking screw enough to retain the elbows in the connections whilst still allowing ease of movement for final adjustment.



10

Remove the compression nuts and olives and carefully slide the cover plates onto the elbows. Replace the nuts and olives.



11

Place the assembly into the mounting ring and onto the supply pipes. Tighten the locking screw to secure the assembly to the mounting ring using the 2.5mm hexagonal key provided.



12

Tighten the elbow locking screws using 2.5mm key provided. Slide the dummy nuts into position and rotate them so the locking screw is out of site before securing them using the 2.5mm key.



13

Tighten the inlet compression unions sufficiently to ensure a watertight seal. Push the cover plates over the unions flush to the wall surface.

14

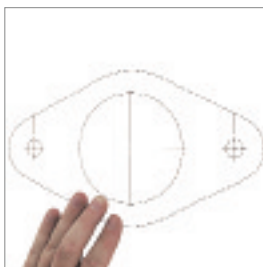
After checking that the badge recess in the on/off knob is clean, dry and free of dust, remove the paper backing from the badge and push firmly into position.



## Surface sited pipe work

1

Carefully cut out the cardboard fixing template provided, mark out the position of the mounting ring. If required the (194mm) inlet pipe centres may be used as a guide to mark out the falling or rising exposed pipework as appropriate to aid the positioning of the pipe fixing clip locations.



2

Remove the mounting ring from the rear of the valve using the 2.5mm hexagonal key provided. Locate the ring inside the pre marked position, ensuring the locking screw is in the 6 o'clock position and mark the four fixing holes.



3

Drill and prepare the fixings for the mounting ring. Fix the mounting ring to the wall using the screws provided.



4

Follow steps 6 to 14 listed above.

## Concealed valve

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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.

!

The Aquavalve 700 is supplied with universal fittings.

Elbow connections are not supplied with concealed models; suitable  $\frac{3}{4}$ " BSP unions are required.

1

If installing the product built in to a solid wall, chase out a suitable recess in the wall to receive the valve and pipe work. If installing the valve in a concealed panel mounted situation, in most cases it will be necessary to first install a suitable sound fixing in the cavity area before fixing the valve. A hole of Ø130mm is required to install the valve and gain access to inlet and outlet connectors.

!

Minimum mounting depth 68mm, maximum depth 82mm, measured from mounting surface to finished/tiled wall surface.



2

Unscrew the fixing screw and remove the on/off knob. Set the temperature lever to the vertical position, undo the four screws and remove the temperature lever.



3

Remove the mounting ring from the shower valve using the 2.5mm key provided.



4

Position the mounting ring in the chase or suitable sound fixing surface. Ensure the locking screw is in the 6 o'clock position and mark the four fixing holes. Prepare the holes and secure the mounting plate to the wall using the fixings provided.



5

Insert the valve into the mounting ring and tighten the locking screw using the 2.5mm key provided.



6

If the valve is being installed for use with a gas fired instantaneous (multipoint) water heater or a combination boiler, the cold water flow regulator must be fitted at this stage by insertion into the cold inlet connection ensuring the small 'O' ring is facing the incoming flow, prior to connection of the elbow unions.

7

Using suitable  $\frac{3}{4}$ " BSP unions, connect the inlet and outlet pipes.

8

Turn on the supplies and check for any leaks upstream of the valve. Fit the on/off knob and turn the shower valve on to check for any leaks downstream of the valve. If all is sound, turn the shower valve off by turning the on/off knob off fully clockwise. Remove the on/off knob and turn off the supplies.

9

Fill in the chase ensuring the valve body, elbows and outlet are not cemented into the wall. Suitable non-setting infill material such as paper, polystyrene etc. should be wrapped around the components and a plaster finish applied.

!

**Aqualisa reserves the right to revoke the terms of the warranty should access to service connections be denied by the use of solid setting infill material.**

10

Using a silicone based lubricant or liquid soap, lubricate the wall plate grommet and push onto the valve flush with the wall surface. A thin bead of silicone based sealant may be required to seal the wall plate to the wall surface.



11

Fit the temperature lever to the valve body with the lever in a vertical position. Secure with the four screws hand tight only.



12

Push the on/off knob onto the valve fully home ensuring the badge recess is horizontal and the finger grips are correctly orientated. Secure the knob using the small screw provided. Ensuring the badge recess is clean, dry and free of dust, remove the paper backing from the badge and push firmly into position.



# After installation...

## Reversed supplies

The Aquavalve 700 Thermo is designed for conventional supplies with HOT on the Left and COLD on the Right as viewed from the front. However, the Aquavalve 700 Thermo can be adapted for use with reserved supplies, by adopting the following procedure.

- 1 Ensure the temperature lever is set to the vertical position.
- 2 Remove the on/off screw and remove the on/off knob. Remove the four temperature control lever fixing screws and detach the lever.
- 3 Remove the elbow connections and loosen the locking screw in the bottom of the valvebase plate. Rotate the valve body 180° and tighten the locking screw in the valve base plate.
- 4 Unscrew and remove the outlet connector using a 12mm hexagonal key or radiator key and remove the outlet plug using a snug fitting screwdriver taking care to avoid any damage to the plated surfaces.
- 5 Reposition and refit the outlet and outlet plug as required.
- 6 Refit the elbow connections.
- 7 Ensuring the temperature lever is in the vertical position, replace the lever and secure using the temperature lever screws hand tight only.
- 8 Refit the on/off knob ensuring it is turned fully clockwise. Refit the on/off knob screw and secure hand tight only. Ensuring the recess is dry and free of dust, remove the paper backing from the badge and fix firmly in position.

## Commissioning

For additional safety, for example when the very young or elderly people will be using the shower, the Aquavalve 700 Thermo incorporates a temperature limiting device enabling you to set minimum and maximum temperature adjustment if required.

Temperature adjustment is limited by inserting the limiting pins provided into the small holes in the face of the cartridge.

- 1 The pins are fitted as follows:
- 2 Ensure the temperature lever is set to the vertical position.
- 3 Remove the on/off knob screw and pull the on/off knob clear. Remove the four temperature control lever fixing screws and detach the lever.
- 4 Replace two of the screws in the top and bottom threaded holes of the temperature ring.
- 5 To set the MAXIMUM temperature, insert a limit pin into the mid-position hole in the upper set of holes.
- 6 Using the two screws in the cartridge face as a lever, turn the temperature control ring clockwise until a stop is reached.
- 7 Replace the on/off knob and turn the valve on to check the temperature is at the desired maximum temperature. If not, turn the valve off; re-position the pin in a higher hole and turn on the valve to check the temperature is sufficient. Repeat the procedure as necessary.
- 8 If a minimum temperature is required, use the lower set of holes in the cartridge face and repeat the above procedure. If no minimum temperature is required, do not position any pins in the lower set of holes.
- 9 Snap off the pins by levering outwards. Turn the temperature control ring to the vertical position and remove the two fixings screws. Replace the temperature control lever in its original position and fix with the screws hand-tight only.
- 10 Refit the on/off knob ensuring it's turned fully clockwise. Refit the on/off knob fixing screw and secure hand-tight only. Ensuring the recess is dry and free of dust, remove the paper backing from the badge and fix firmly in position.

Should the on/off knob need to be removed at any time, turn the knob fully clockwise to the off position. Carefully depress the left hand side of the badge using a suitable tool taking care not to damage the badge or the surrounding plated surfaces of the on off knob. The right hand side of the badge will lift clear of the recess enabling you to remove the badge, giving you access to the small screw fixing the knob in place. Remove the screw and pull the knob clear.

Should unacceptable damage to the badge occur when removing it from the recess, please contact Aqualisa customer services who will send a free of charge replacement.

# User guide

## Shower operation

Turn the on/off control fully anti-clockwise into the open position to turn the shower on.

**N.B. The on/off knob MUST NOT be used as a method of flow control.**

1 Rotate the temperature control lever to select a comfortable showering temperature using the temperature markings as a guide.

2 Turn the on/off control fully clockwise into the closed position after use.

## After installation

Run through the valve operation with the purchaser and hand them this guide.

Complete and post the Aquavalve 700 Thermo guarantee card or register online at [www.aqualisa.co.uk](http://www.aqualisa.co.uk).

## Cleaning

Your Aquavalve 700 Thermo shower valve should be cleaned using only a soft cloth and washing up liquid.

**DO NOT USE ABRASIVE CLEANERS.**

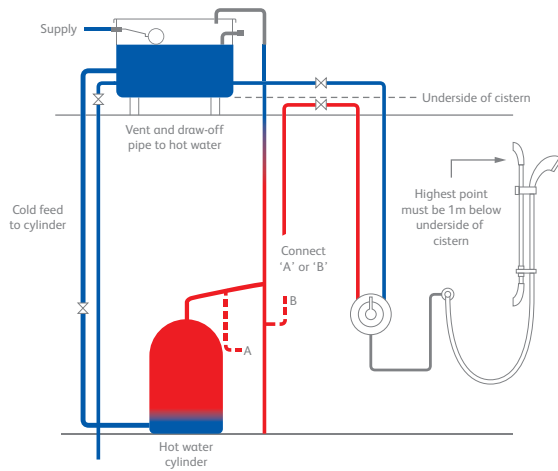


# Trouble shooting guide

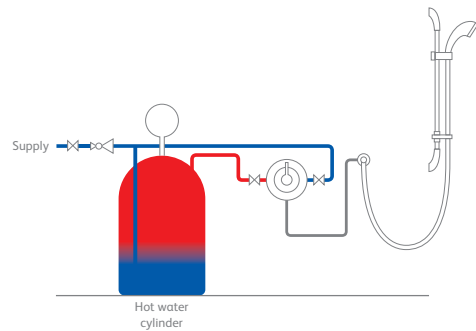
Symptom	Possible cause	Action
Water output is either all hot or all cold, or cold only	Reversed inlet supplies	Check that the supplies correspond with the inlet markings
Water output is not hot enough	The temperature of the hot water cylinder is too low	The cylinder temperature should be at least 15°C hotter than the blend
	Water flow through the hot water appliance is too fast	Check the flow rate recommendations with the heater manufacturer
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 7 bar, install a pressure reducing valve (PRV) in accordance with the installation guide
	The flow regulator has not been fitted	Fit the flow regulator
Poor flow rate	Twisted hose Debris in shower head Debris in filters Debris in cold inlet flow regulator	Check for debris and clear as necessary

# Typical installations

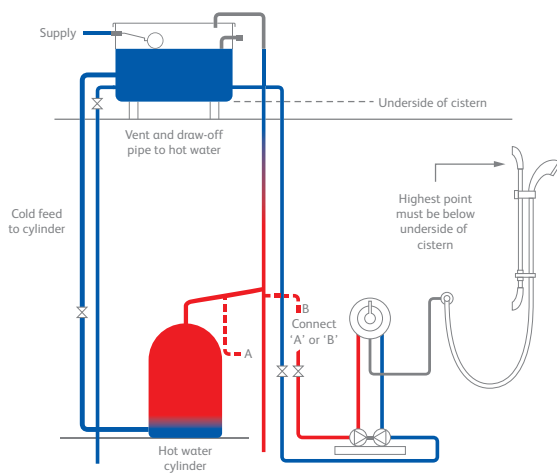
Typical gravity system installation



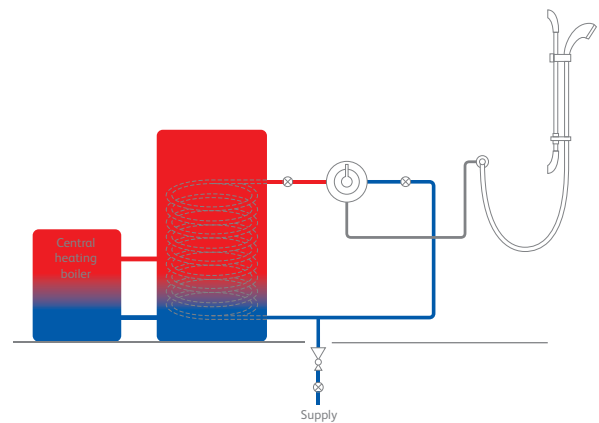
Typical Thermal storage unit system installation



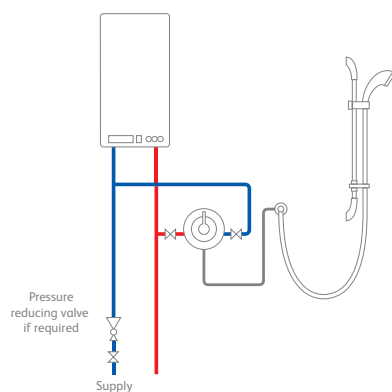
Typical pumped system installation



Typical UHW system installation



Typical combination boiler installation





# AQUALISA

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The company reserves the right to alter, change or modify the product specifications without prior warning

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