

Ref.	Description	Ref.	Description
1	Lever handle complete	7	Cartridge retaining nut
1a/1b	Nut and washer	8	O-ring - cartridge sealing
2	Handle cover cap	9	Multiport cartridge complete
3	Shield	9a	Cartridge spacer
4	Cover plate fixing screw	10	O-ring (shield retaining)
5.1	Cover plate for built in version	11	Valve body
5.1a	Cover plate trim	12	Blanking plug
5.2	Cover plate for exposed version	14	O-ring for outlet nipple
5.3	Cover plate for exposed pipework version	15	Outlet nipple 1/2" BSP
5a	Plastic trims	16	Elbow -1/2" BSP to 15mm
5b	Plastic plug for cover	17	Plaster guard retaining screw
6	Sealing ring	18	Plaster guard
		19	Box spanner 10mm A/F
		20	Fixation lug



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## TREVI BLEND

### SINGLE LEVER SHOWER VALVES



**INSTALLER**  
After installation pass to user for future reference

**Installation Instructions**  
**A4000 Trevi Blend Built-In**  
**A4100 Trevi Blend Exposed**  
**A4110 Trevi Blend Exposed**  
**for exposed pipework**



**This installation instruction covers all three versions on the Trevi Blend Built-in (A4000), Exposed (A4100) and Exposed for exposed pipework (A4110)**

The Trevi Blend is a mechanical mixing valve operated by a single lever. Lifting the lever up operates the flow control and rotating it changes the blend temperature.

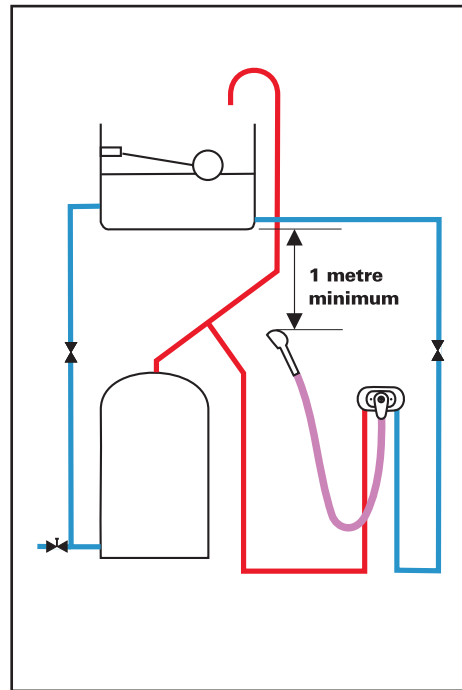
Rotating to the left increases the temperature and to the right reduces it.

### Water supplies

The Trevi Blend fitting can be fitted on both low pressure vented and high pressure unvented systems.

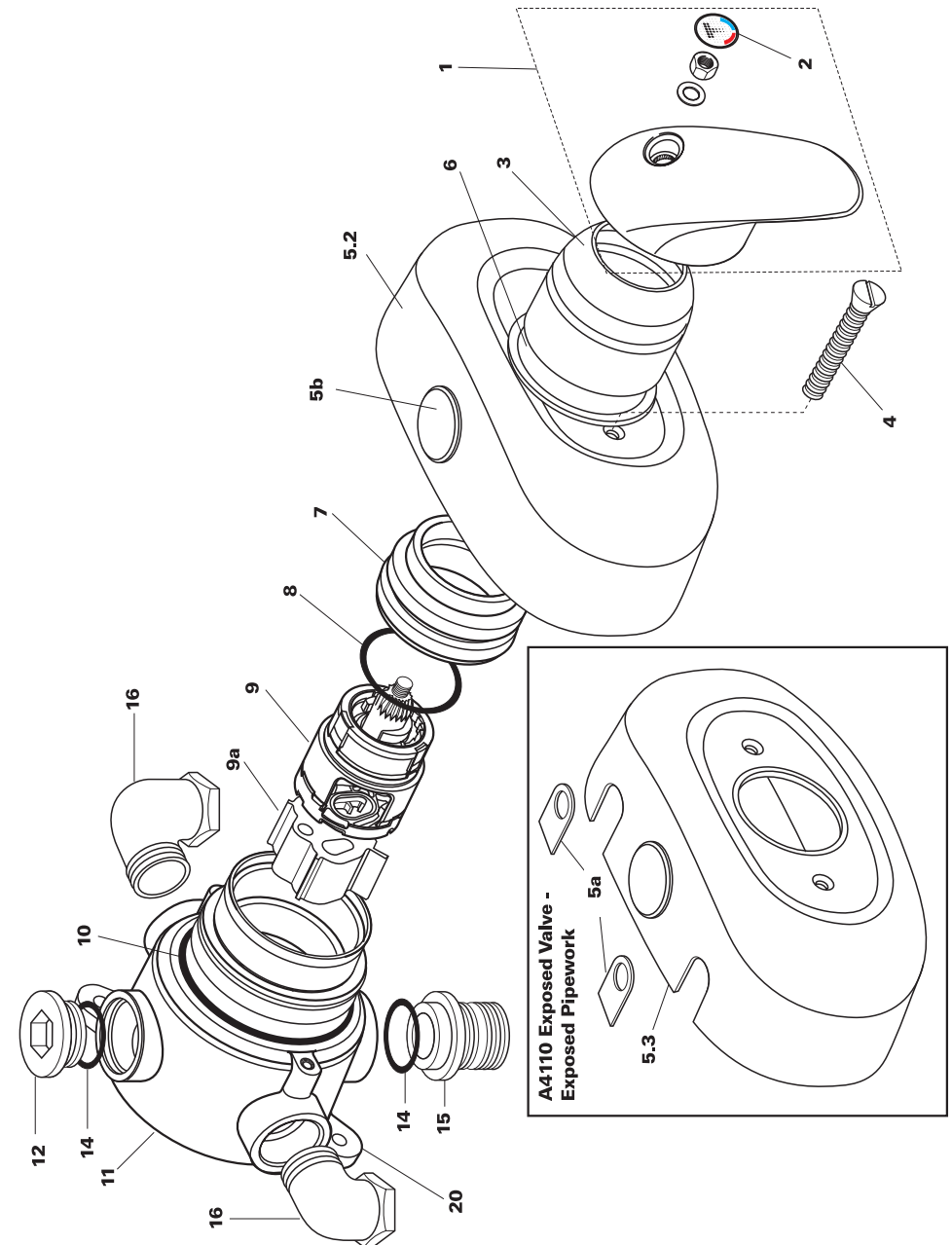
When installing on conventional UK tank fed hot water storage systems (low pressure vented) it is important consider the following factors.

1. A minimum head of one metre is required between the bottom of the storage tank and the operating position of the shower head.
2. Both hot and cold supplies should be fed from the storage tank.
3. For safety reasons the tapping on the storage tank for the hot feed to the cylinder should be higher than the tapping for the cold feed.
4. Supplies to the shower should be led under the floor if possible otherwise air locking could occur. If supplies must be led above the shower valve, the pipes must be vented at the highest point.



**Figure 1. Conventional UK tank fed hot water storage system**

The Trevi Blend incorporates a “Blend Control” which is a mechanical stop, located under the lever handle, which should be pre-set by the installer to limit the maximum temperature. It does this by limiting the angle to which the lever can be moved towards the hot position. There are five possible settings for the blend control. It should be emphasised that the blend control is not a thermostat. All versions are supplied with elbow fittings allowing the Trevi Blend to be fitted directly to 15mm copper plumbing set at 127mm centres.



**Figure 13. A4100 Trevi Blend Exposed & A4110 Trevi Blend Exposed for Exposed Pipework**

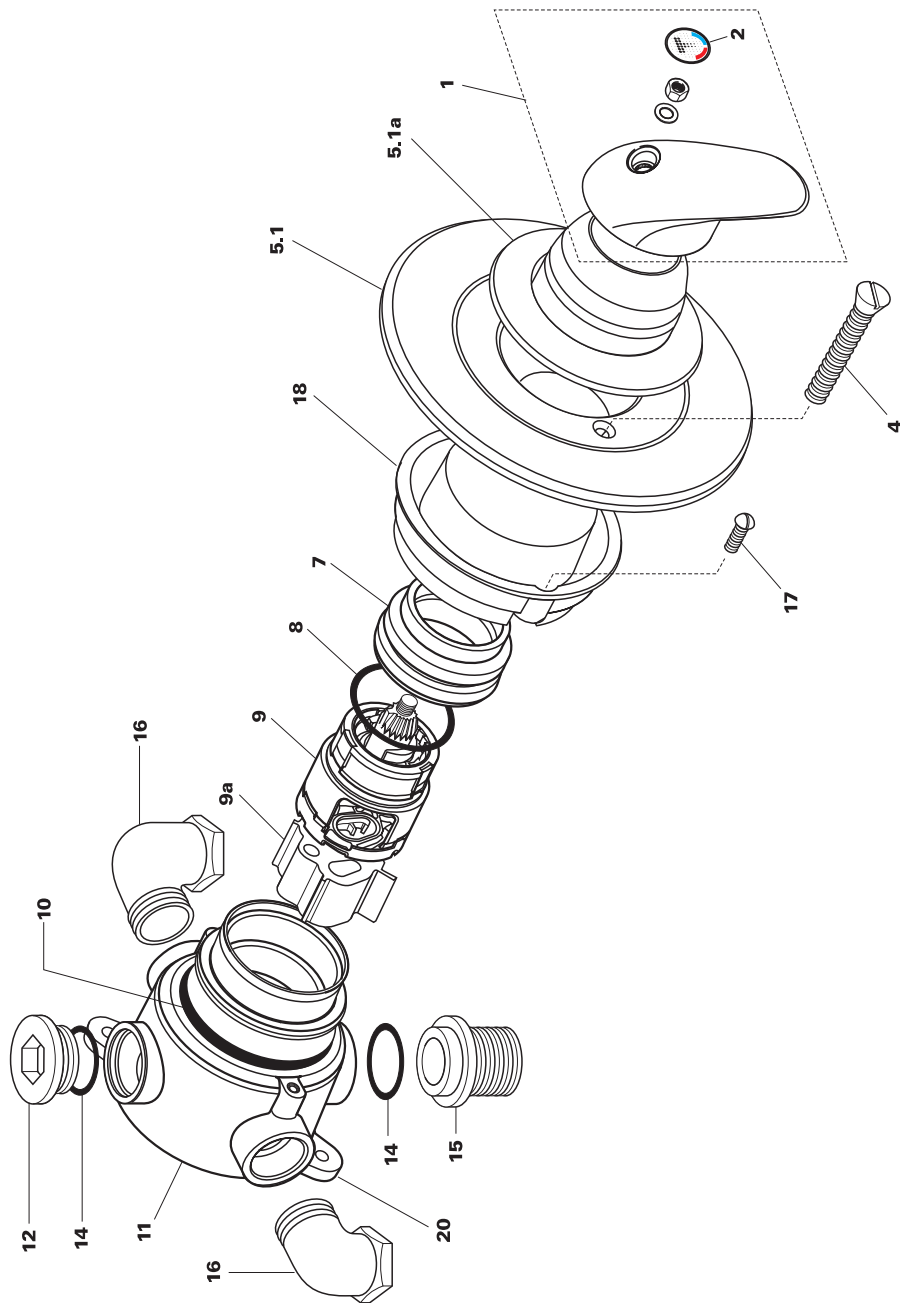


Figure 12 A4000 Trevi Blend Built-in

**Unvented Systems**

The Trevi Blend can be fitted to most types of unvented system. (Typical systems are illustrated below.)

Hot and cold supply pressures should be

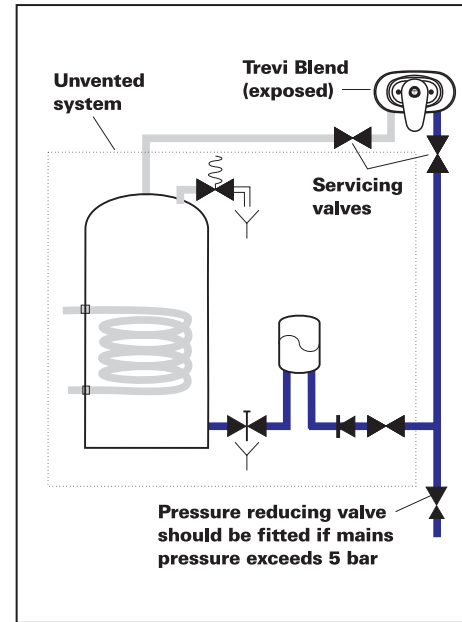


Figure 2. Unvented mains pressure storage system

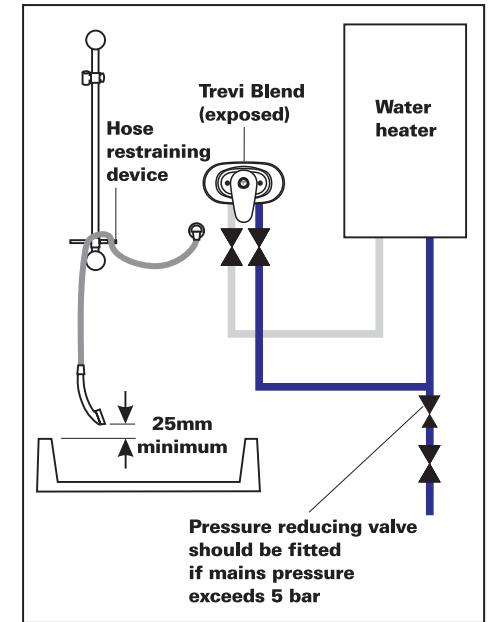


Figure 3. Instantaneous gas water heater or combination boiler system

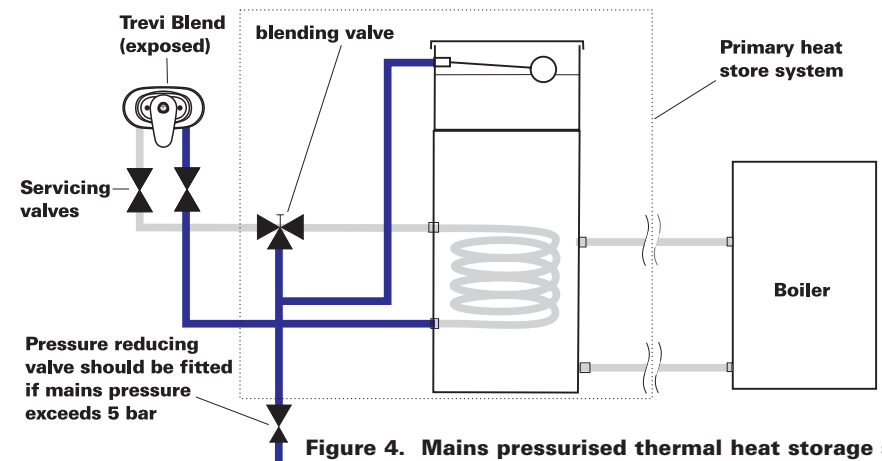


Figure 4. Mains pressurised thermal heat storage system

balanced and in the range 1 bar to 5 bar (ideally 2 bar to 3 bar)

Combination boilers and instantaneous gas water heaters should be of a fully modulating design. Servicing valves should be fitted immediately upstream of the Trevi Blend.

The water regulations published in 1999\* take a new approach to backflow in that they look at different categories of risk. The installer must assess the risk from the various categories of fluid in adjacent appliances before determining the level of backflow protection required for a particular installation. The following diagrams outline the protection required in various installations.

Water in a shower tray, basin or bathtub is considered to be a fluid category 3 risk which is a fluid which represents a slight health hazard if it were to find it's way back

into the supply pipe. For this reason it must not be possible for any flexible shower head to be able to enter any adjacent washbasin, bath or shower tray unless appropriate protection is employed. (Figure 5)

If it is desired to allow the handspray to be used inside say a bathtub or a basin it is essential that double check valves be fitted to the inlet on both hot and cold supplies to the Trevi Blend. Alternatively single check valves may be fitted on the inlets and an additional check valve at the valve outlet.

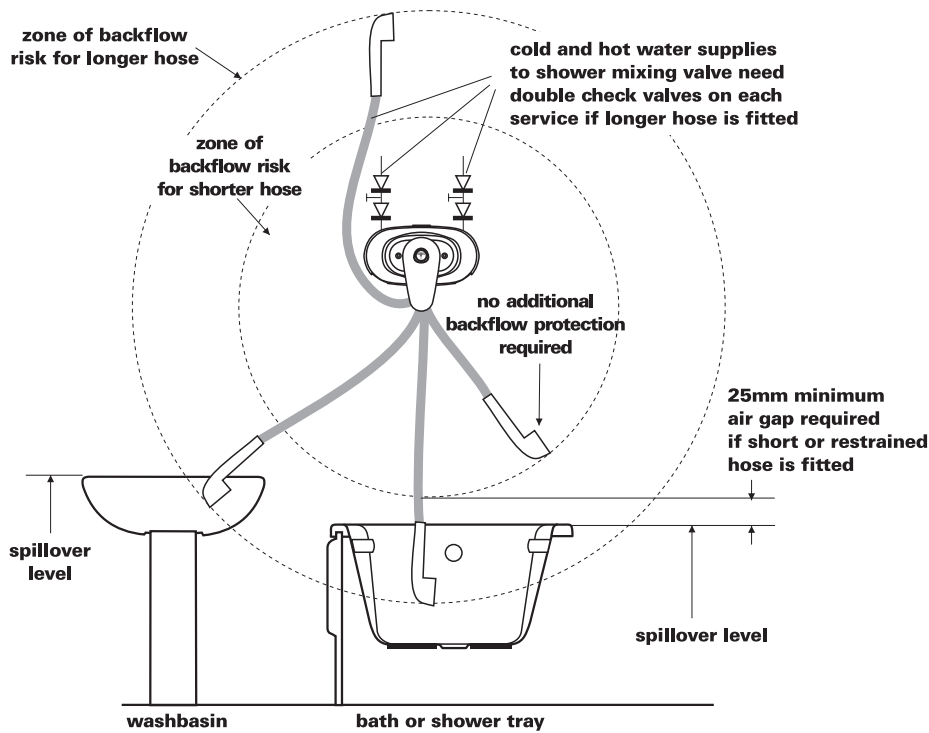


Figure 5 Backflow from a fluid Category 3 Risk

**Cartridge Replacement**

1. Remove lever handle (1). (A 10 mm A/F box spanner (19) is supplied with the fitting for this purpose.)
2. Remove outlet nipple (15) - exposed version only.
3. Remove cover plate (5.x) by removing screws (4).
4. Pull off shield (3)
5. Unscrew cartridge retaining nut (7) and place on a clean piece of paper to ensure the grease on the o-ring does not pick up any grit.
6. Pull cartridge out ensuring that the cartridge spacer (9a) is not dislodged. If it is, reposition it ensuring that the moulded location pin engages in the hole on the base plate inside the valve body.
7. Position replacement cartridge ensuring that the moulded location pin engages in the hole on the cartridge spacer.
8. Refit retaining nut (7) and tighten to a torque of 4 N/m. (A plastic spanner is supplied with the replacement cartridge which will apply this torque when the central lever just touches the edge of the slot).

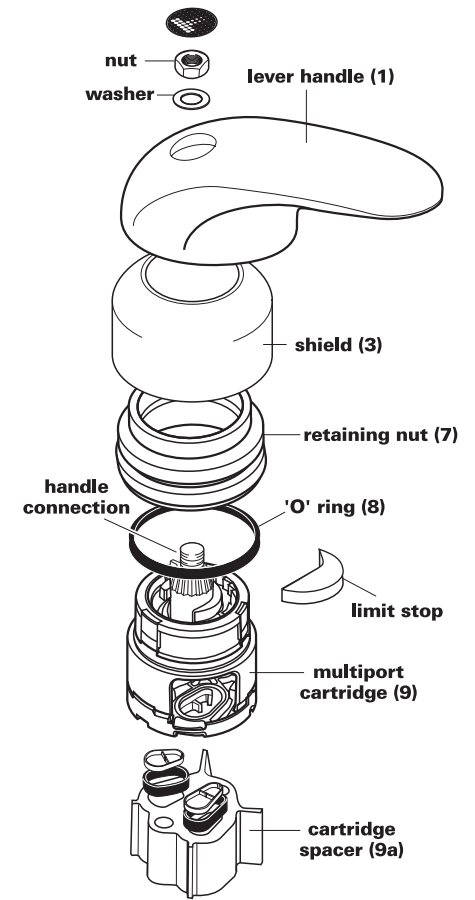


Figure 11. Cartridge assembly

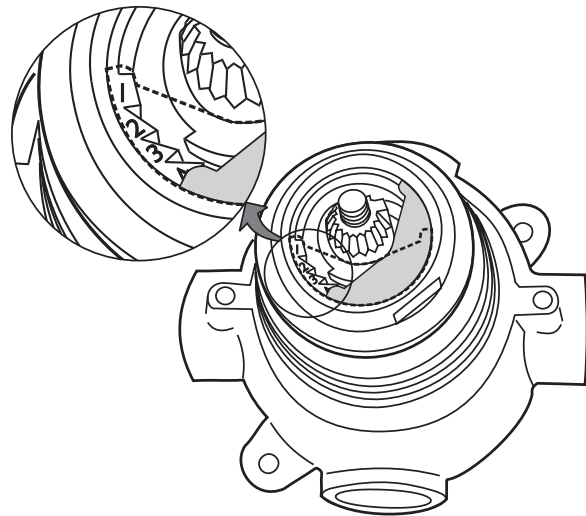


Figure 10. Setting the blend control

5. Operate the shower and measure the temperature at the maximum setting.
6. If not high enough reposition the stop in position 3 and check the temperature again.
7. Repeat the process until the temperature at the maximum setting is satisfactory.
8. Refit the shield (3) and handle (1) and check that the maximum blend temperature is still satisfactory.

**Note:** The maximum temperature to which the blend control limit stop is set will usually be a few degrees above normal showering temperature. e.g. approximately 43°C.

### Maintenance

The Trevi Blend fitting should be cleaned regularly using a mild detergent, rinsed with warm water and dried with a clean soft cloth.

In hard water areas the spray head will require to be descaled from time to time using a proprietary lime scale remover – always follow the manufacturer's instructions on the label.

The unique Multiport ceramic disc cartridge contains ultra-smooth ceramic discs. These are so hard that they always remain sealed together, polishing each other in use. Sand, sediment and other water borne matter cannot get between them or damage them. Even the hardest water has no effect and this means that the Trevi Blend fitting should give many years of efficient trouble free service without the drip and liming up problems associated with traditional valves.

However, in the unlikely event of a failure or any other problem it is a simple matter to exchange the cartridge. Before doing so, however, it is best to check that the showerhead has not become blocked with limescale.

Water in a Sink, WC or Bidet is considered to be a fluid category 5 risk which is a fluid which represents a serious health hazard if it were to find its way back into the supply pipe. For this reason it must not be possible for any flexible shower head to be able to enter any adjacent Sink, WC or Bidet. If the flexible hose to be fitted could reach into any such vessel, the requirements to the system design are so onerous it is better not to fit a flexible.

Rather, a fixed overhead showerhead should be considered. (Figure 6)

It will also be seen that this risk could change should the hose be taken out of the restraining device or should a longer replacement hose be fitted at a later date.

Installers and householders are advised to take account of these factors when fitting replacement hoses.

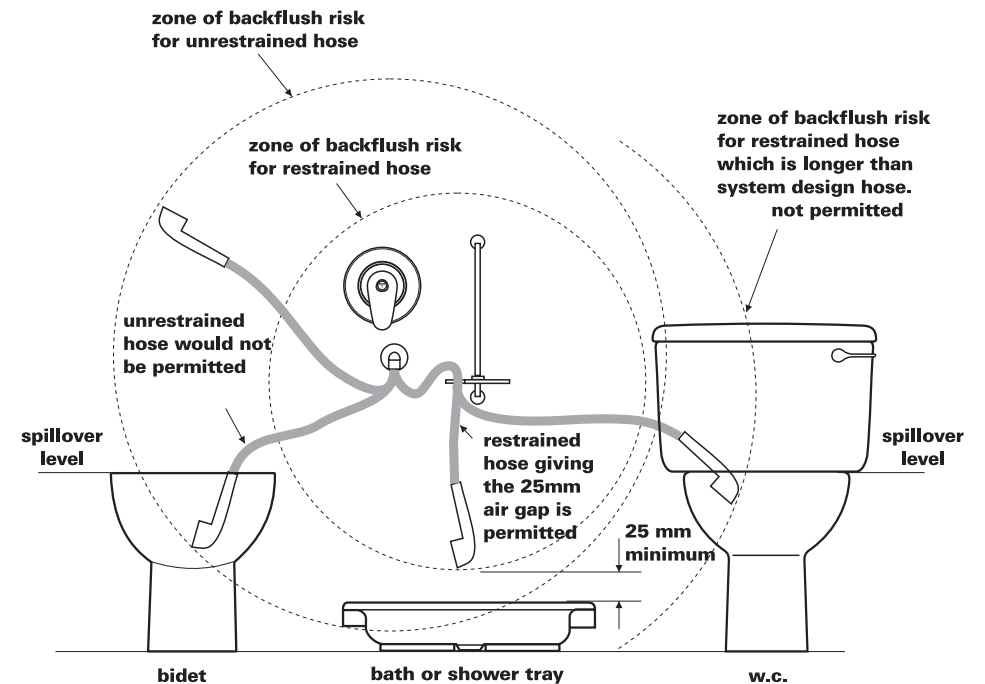


Figure 6 Backflow from a fluid Category 5 Risk

\*A guide to the Water Supply (Water fittings) Regulations 1999 and the Water Byelaws 2000, Scotland is published by WRAS (Water Regulations Advisory Scheme) Fern Close, Pen-y-Fan Industrial Estate, Oakdale, Newport, NP11 3EH ISBN 0-9539708-0-9.

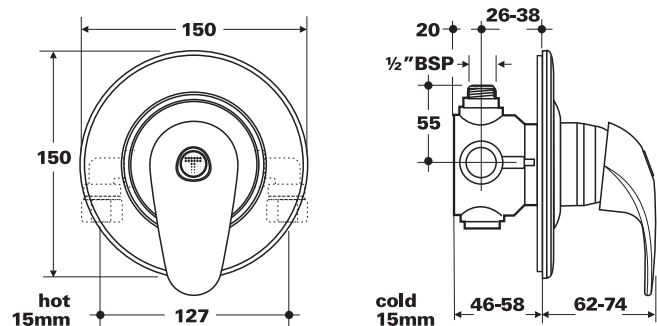


Figure 7. A4000 Trevi Blend Built-in

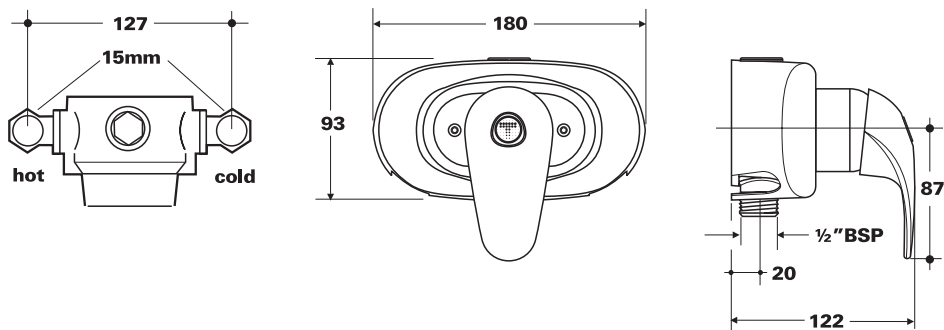


Figure 8. A4100 Trevi Blend Exposed

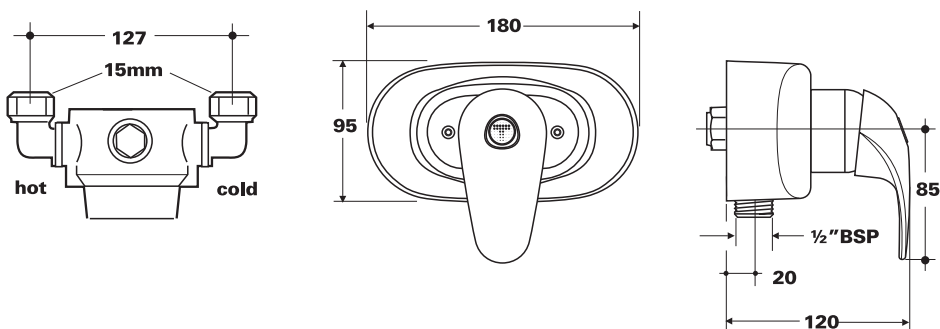


Figure 9. A4110 Trevi Blend Exposed for Exposed pipe work

1. Fit inlet elbows (16) in the orientation required. Thread tape or plumbers compound will have to be used to seal the threaded tails of the elbows into the brass body casting.
2. Check the sealing o-rings (14) are present then fit the blanking plug (12) and outlet nipple (15) in the positions required. Ensure both are tight.
3. Secure valve body to wall using fixing lugs (20). The built-in version must be recessed to a depth of between 46mm and 58mm from the finished wall surface. The exposed versions must be fitted on the finished (after tiling) wall surface.
4. Slide plastic trims (5a) onto the supply pipes. (Exposed pipe work version only).
5. Connect supply pipe work and secure pipes firmly to wall.
6. Connect outlet nipple (15) to wall elbow or overhead shower pipe work. (Built-in version only).
7. Turn on water supplies and test for leaks. (Blank off spray head connection to ensure outlet pipe work is tested under pressure).
8. Open Trevi Blend flow control and flush any debris from the system.
9. If installing the built-in version fit the plaster guard (18) and check wall levels agree with those marked on the guard.
10. Complete the plastering and tiling.
11. Ensure the small drainage hole in shield (3) is located at the bottom.
12. If fitting the exposed version, remove the outlet nipple.
13. Fit cover plate (5.x) and trim (5a or 5.1a) as appropriate.

14. Fit operating handle and secure using washer and nut (1a/1b). (A 10 mm A/F box spanner is supplied with the fitting for this purpose).

15. Refit outlet nipple (exposed version)

### Fitting the lever handle

The lever handle is easily fitted as follows, see Figure 11.

1. Place handle on tapered splines on cartridge spindle ensuring that the lug on the spindle engages in the recess on the handle.
2. Secure with washer (1a) and nut (1b) using the box spanner provided. Hold handle so that tightening torque is not transferred to the cartridge mechanism.

### Setting the blend control

The blend control is a simple mechanical limit stop, located under the single lever handle, which restricts the angle to which the handle can be rotated towards the full hot position. To set it, the hot water system should be on and the hot water up to normal working temperature. A thermometer will be required to measure the maximum blend temperature.

1. Remove the handle (1) by undoing the nut (1a) using the 10 mm A/F box spanner and removing the washer (1b). Pull off handle
2. Remove face plate (5.x).
3. Pull off shield (3).
4. The blend control stop (white crescent shaped plastic moulding) can then be removed. (In it's factory set position "0" - shown dotted in Figure 10 - it does not limit the lever handle movement so the highest possible temperature will be possible).
5. Insert the limit stop in position 4 (shown shaded in Figure 10).

