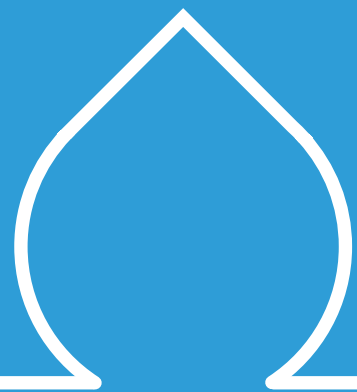
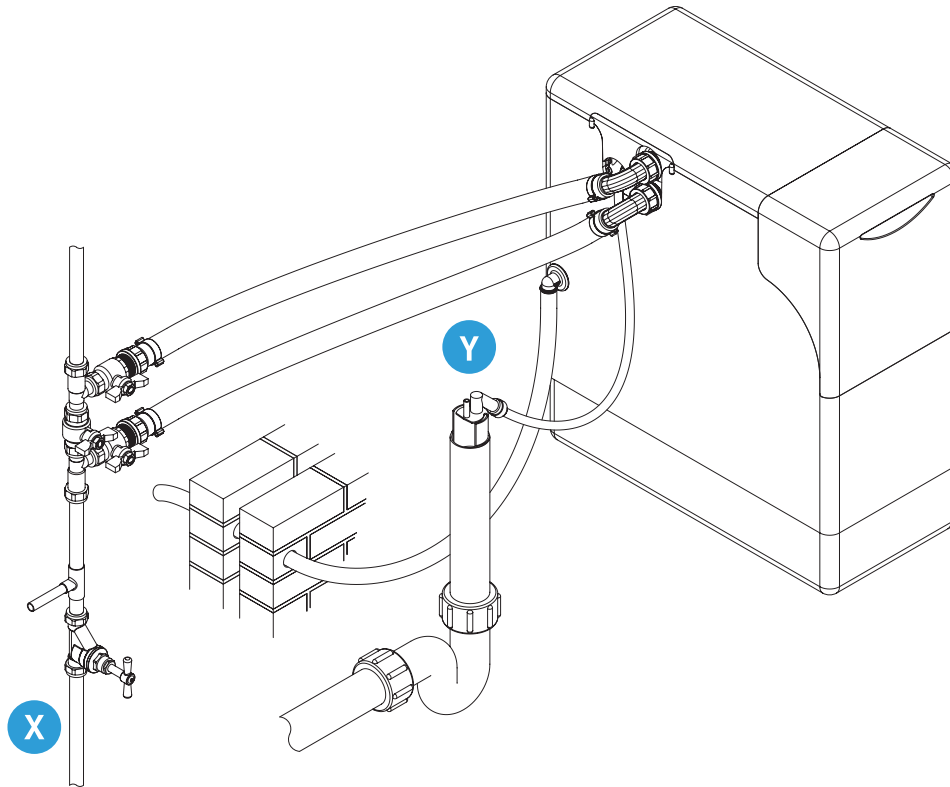


WATER SOFTENER INSTALLATION GUIDE



PRE-INSTALLATION CHECKS

Make sure you carry out these necessary safety checks before carrying out an installation.



1 If the static pressure is 6 bar (90psi) or higher, **A PRESSURE REDUCING VALVE MUST BE FITTED.**

2 Mains water isolation point (see point X).

3 Drain location (see point Y).

Remove the red plastic caps from the softener inlet, outlet and drain. Run the pipe-work from the bypass to the water softener using WRAS approved flexible hose. Connect Hose connectors, nuts and washers as diagram.

Connect the 3/8" drain tube via the air gap fitting by pushing the tube firmly into the connection. Run the tube to a convenient drain and connect to the drain via the air gap fitting. If the drain runs outside it must be protected from freezing.

Important note: If the water pressure is 2 bar or less the length of the drain tube must not exceed 3m and the discharge point should be below the top of the softener. The length of the drain tube may be increased by 1m, and the discharge point above the top of the softener may increase by 0.5m, for each 1 bar above 2 bar.

4 **Overflow - this should ideally be run to an outside wall in a visible location.**

Connect the overflow hose to the overflow elbow on the side of the cabinet. No securing clip is necessary as it is not under pressure. The hose should be run downhill all the way and terminate at the exterior of the building if possible.

PRE-INSTALLATION CHECKS

Make sure you carry out these necessary safety checks before carrying out an installation.



INSTALLATION POSITION

Do not install the water softener next to a boiler where it may be subjected to excessive heat.



DRAIN CONNECTION

The drain tube is connected to the JG connection. The tube must be pushed into the elbow 20mm to ensure a leak free joint. Check joint does not leak during regeneration.



FREEZING

The water softener and pipework including the drain must be installed such that the installation is not subjected to freezing conditions. i.e: any hoses or pipework located externally and constantly holding water, must be kept inside the perimeter of a frost proof outside cabinet.



HARD WATER TAP

We recommend the provision of a separate hard water tap at the kitchen sink, wherever practicable. Alternatively, a utility area or other convenient location will suffice.



HOSES

The hoses must be WRAS approved hoses as supplied in the recommended installation kit. Do not use washing machine hose or garden hose as these are not suitable.

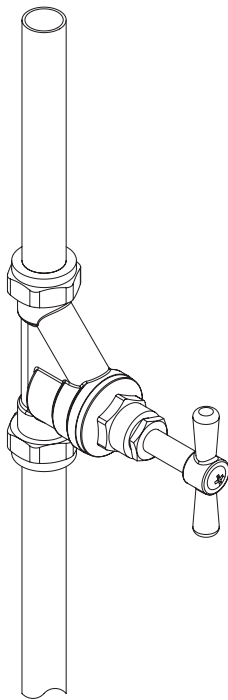


NEW DWELLINGS

When installing a water softener into a new dwelling the water softener should not be put into service until the entire plumbing system has been completed and flushed.

INSTALLING OUR TWIN CYLINDER WATER SOFTENER

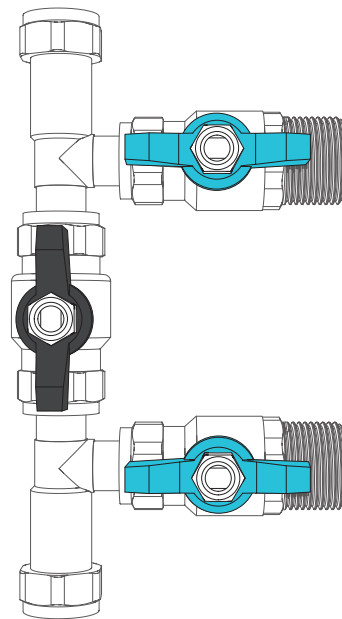
After the safety checks, follow these steps closely to ensure a compliant installation.



1

DRAIN THE RISING MAIN

Before cutting the rising main, turn off the stopcock and drain any excess water from the pipe by either opening a tap in the bathroom if it's a pressurised system, or running a tap in the bathroom to allow the storage cistern ball valve to drop. Then open the kitchen sink tap, this should allow the main to empty.



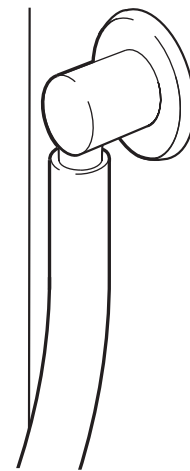
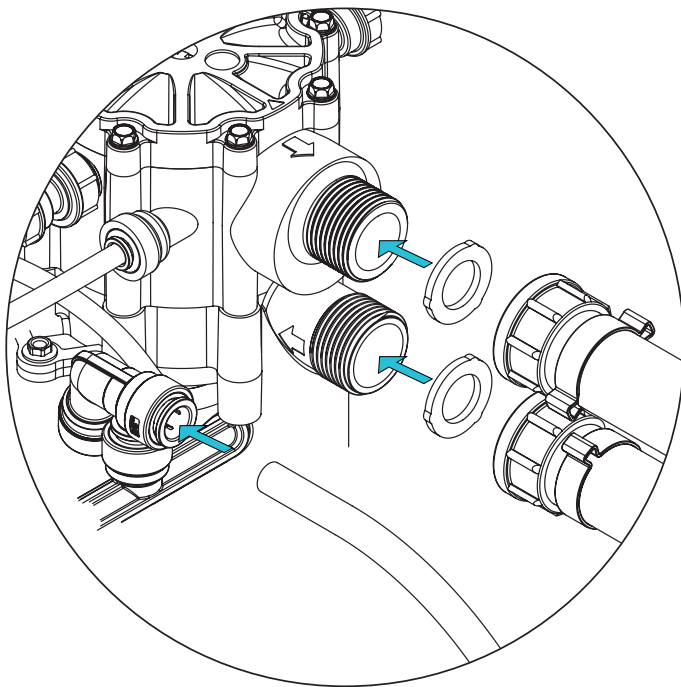
2

INSTALL THE CHECK VALVE & BYPASS

Cut the rising main and fit the three valves as shown to form a bypass. Install full bore valves to allow for maximum flow rate. If you are using a Harvey supplied bypass set, a single check valve (complying with BS6282) will be incorporated inside the inlet tee. Garden taps and hard water drinking taps, if fitted, should be teed before the bypass. You may have to run additional pipework to alter the existing plumbing.

INSTALLING OUR TWIN CYLINDER WATER SOFTENER

After the safety checks, follow these steps closely to ensure a compliant installation.



3

PLUMB THE INLET, OUTLET & DRAIN

Run the pipe-work from the bypass to the water softener using WRAS approved flexible hose. Connect Hose connectors, nuts and washers as shown in the diagram.

Connect the 3/8" drain tube to the JG connection. Run the tube to a convenient drain and connect to the drain via the air gap fitting. If the drain runs outside it must be protected from freezing.

4

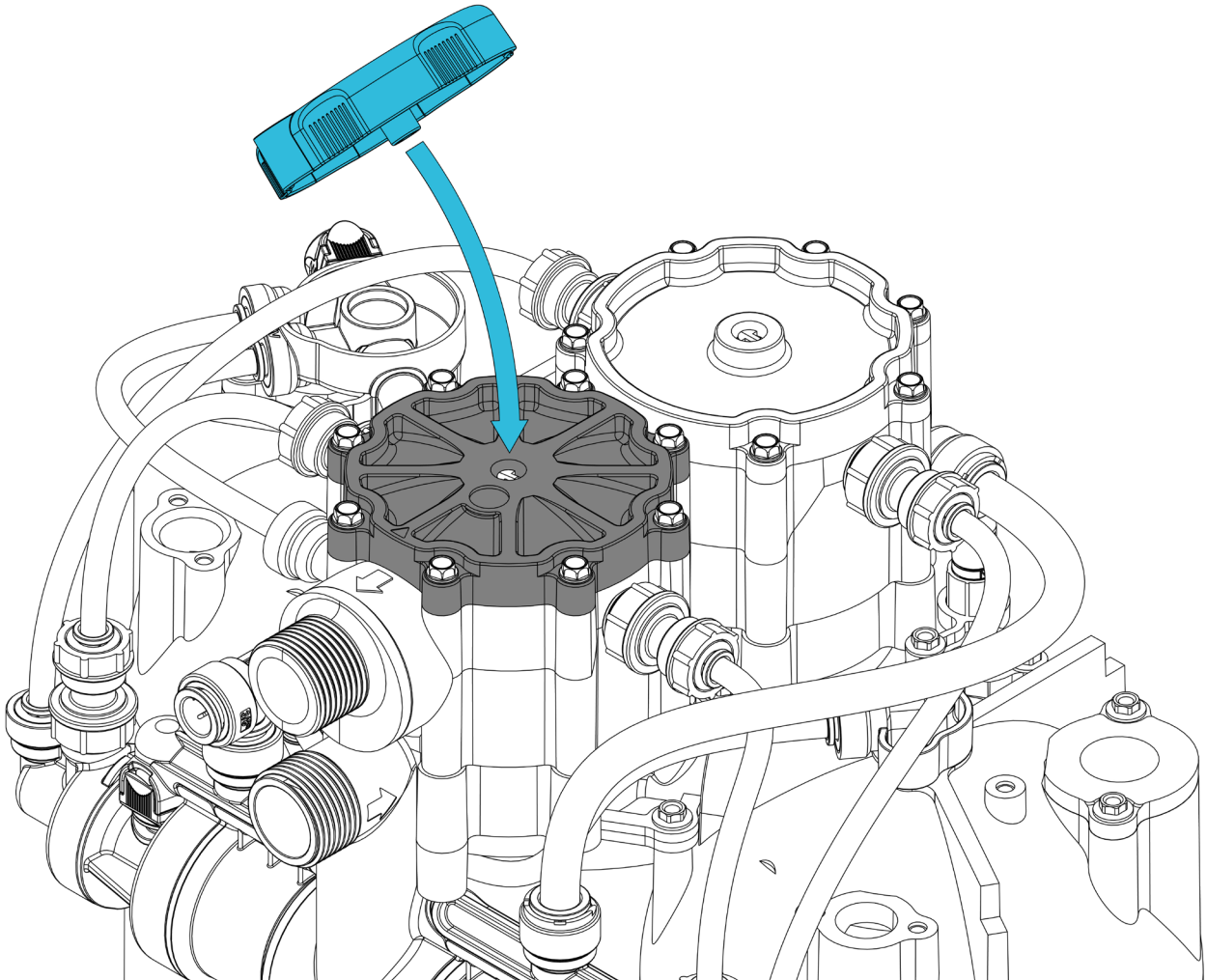
PLUMB OVERFLOW

Push the overflow hose onto the overflow elbow on the side of the cabinet. No securing clip is necessary as it is not under pressure. The hose should be run downhill all the way and terminate in a clearly visible position at the exterior of the building if possible.

WATER SOFTENER SETUP AND TESTING

To fully commission the water softener it must complete two regeneration cycles.

- 1 Place the commissioning tool on to the regeneration button as shown.

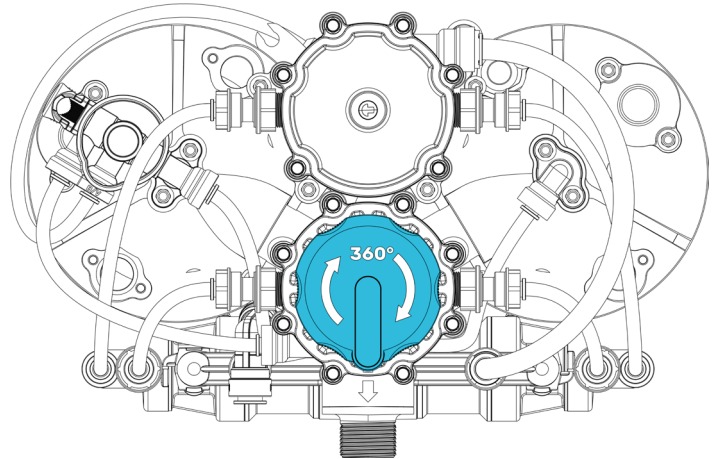


- 2 **WITHOUT APPLYING PRESSURE DOWN**, turn the tool until it engages with the regeneration button.

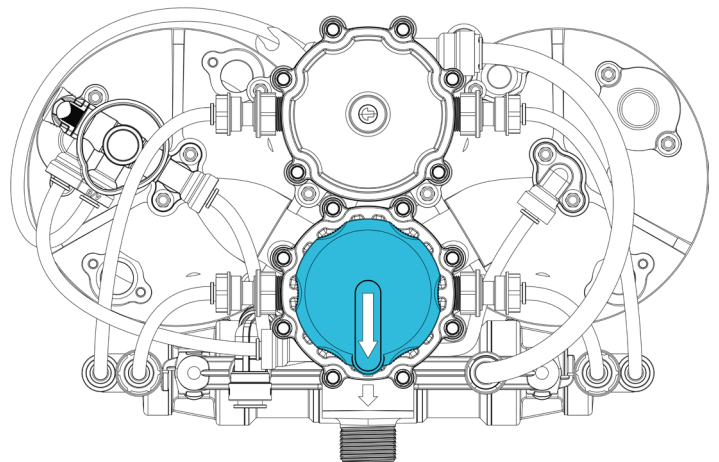
WATER SOFTENER SETUP AND TESTING

It's better to install the salt last but it is not essential.

- 3** **SLOWLY** rotate the tool **CLOCKWISE** one full turn. You will feel two 'bumps' and water will begin flowing into the drain.



- 4** **BEFORE REMOVING THE TOOL,** ensure it is left in the position shown here:



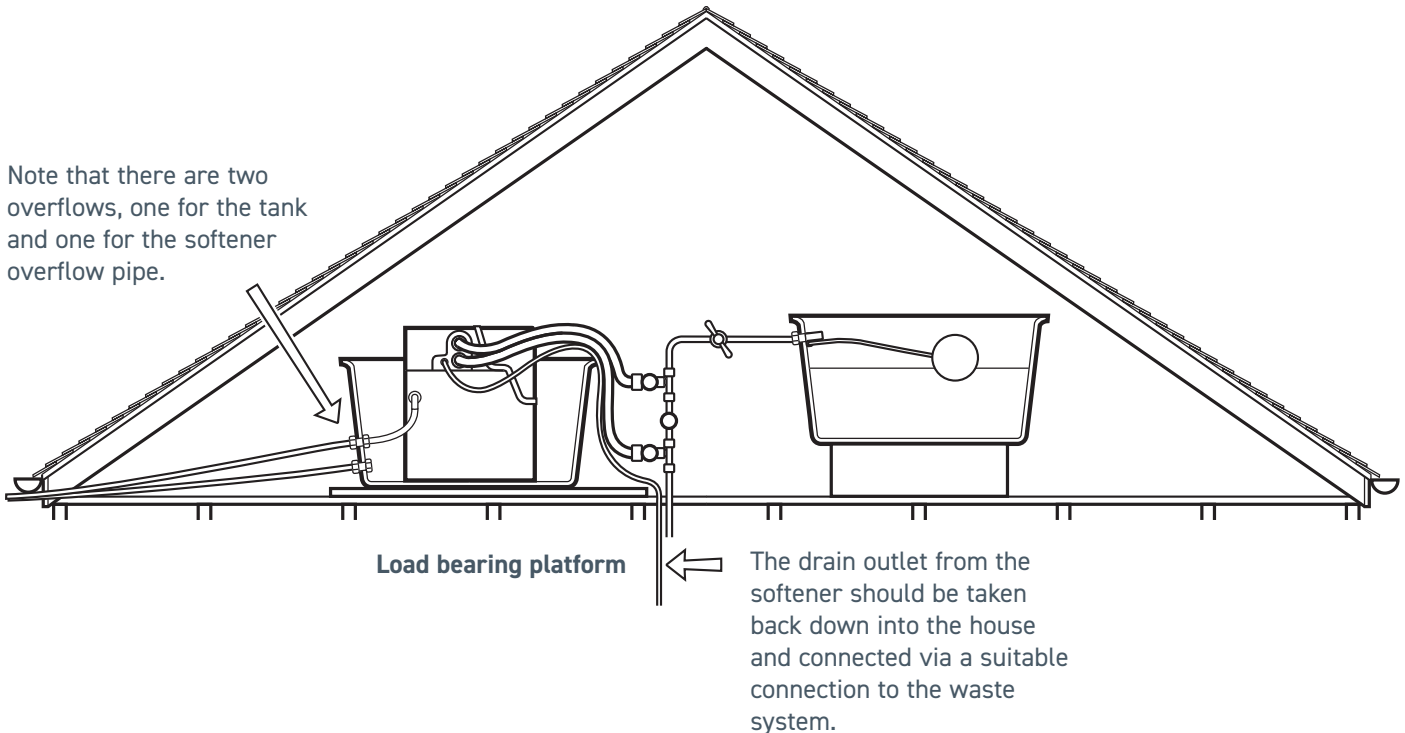
- 5** **CHECK FOR LEAKS.** Water will stop flowing into the drain after no longer than approximately 15 minutes.

- 6** **REPEAT STEPS** **3** and **4**

- 7** **COMMISSIONING IS COMPLETE.** Ensure the commissioning tool is left in the position as shown in step **4**. This is important before commissioning tool can be removed.

INSTALLATION IN THE LOFT

Note that there are two overflows, one for the tank and one for the softener overflow pipe.



The Block Salt Softener may be installed in the loft or roof cavity but it should be within a safety tank. A suitable tank is a plastic roof storage tank sufficiently large to accommodate the block salt softener.

Please note that it should be mounted on a board strong enough to spread the weight over a load bearing wall.

BEFORE YOU GO

Bypass

Check that the bypass valve is closed and the inlet and outlet valves are open.

Soft water

Check at the kitchen tap that soft water is coming through. If you do not have a hard water test kit wash your hands in a bowl of cold water with a bar of soap. When the water is soft you will get lots of lather and no scum. If you get scum, the water is hard.

Show Customer

Show the customer how to load the salt blocks. Explain that the first blocks will dissolve rapidly to make up a stock of brine. They may then place additional blocks on top of the first blocks as space becomes available. Also show them where the bypass is and how to use it.

Tell Customer

When they return from holiday, or if the softener has not been used for more than 4 days, we recommend that the softener is flushed by allowing the water to run to drain for a minute or two.

RUNNING A WASTE PIPE INTO AN OPEN GULLY

If you have an open gully you can run the drain directly outside and into it.

However there is one very important point to remember. A 3/8" or 1/2" hose will not drain empty on completion of a regeneration. The fresh water will, therefore, stay in the hose and freeze. When the softener goes into regeneration the frozen water will block the pipe and may cause it to burst.

You can overcome the problem by using a larger diameter pipe.

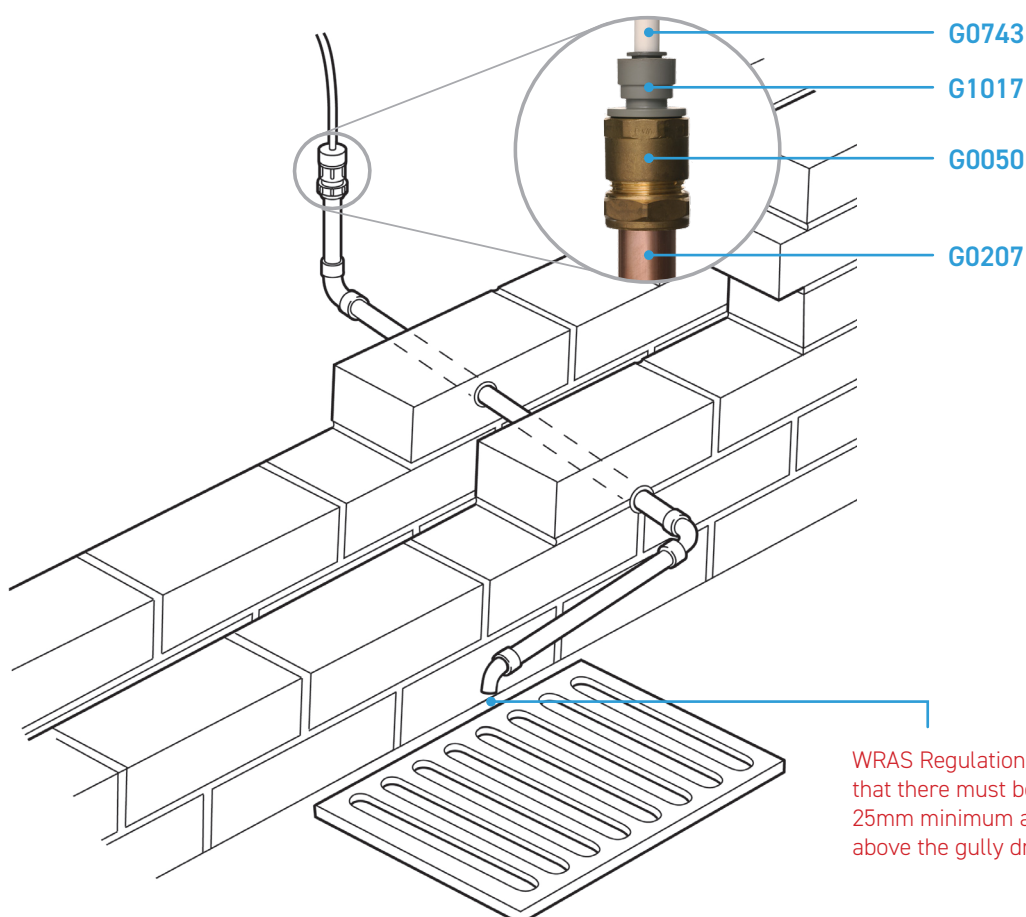
A 22mm pipe will self ventilate.

In other words the diameter of the pipe is sufficiently large to allow an air bubble to go up and release the water. So here is the best way we have found to plumb a drain to an open gully.

Firstly you need to drill a hole through the wall and run a 22mm pipe downhill all the way to the open gully.

On the inside you need to attach a G0050 female iron to the pipe and then screw in a G1017 adaptor. 3/8" drain hose can then be pushed straight in.

This also applies to an outside installation. If you are running from an outside cabinet to an open gully take the 22mm pipe right up to the inside of the cabinet where it is protected from freezing.



G0050
22mm x 3/4" FI Coupling



G0207
22mm x 3m Copper Pipe



G1017
3/8" Pushfit x 3/4" bsp Male



WRAS Regulation states that there must be a 25mm minimum air gap above the gully drain.

THINGS TO CONSIDER



Installation Position

Do not install the water softener next to a boiler where it may be subjected to excessive heat.

Freezing

The softener and pipework including the drain must be installed such that the installation is not subjected to freezing conditions.

Hoses

The hoses must be approved hoses as supplied in the recommended installation kit. Do not use washing machine or garden hose as these are not suitable.

Heat

Do not run the hoses close to boilers, radiators, or hot water pipes. Never run behind boilers or radiators. Remember, heat melts hoses.

Hard Water Tap

We recommend the provision of a separate hard water tap at the kitchen sink, wherever practicable. Alternatively, a utility area or other convenient location will suffice. People on a medically prescribed low sodium diet are advised to drink unsoftened water. It is recommended that unsoftened water is used for the mixing of infant feed preparation for infants below the age of six months. There is no current legal requirement for the provision of hard water for drinking and there is no evidence to indicate that there is any health risk, but the Department of Health and the DWI along with the water suppliers recommend one.

Condensation

In some damp kitchen environments there is a problem with condensation. To prevent this lag the pipe-work connected to the softener.

Electrical Earth Bonding

If you alter the rising main pipework, ensure that you maintain the integrity of the earth bonding.

Dishwashers

When installing a water softener, note should be taken of whether the dishwasher should be connected to the hard or soft supply. Consult the dishwasher manufacturers' instructions for advice.

New Dwellings

When installing a softener into a new dwelling the softener should not be put into service before the entire plumbing system has been completed and flushed.

Hygiene

Remember that you are dealing with drinking water. Exercise normal domestic hygiene precautions particularly when breaking into the water supply and connecting the bypass system. Flush the system thoroughly before use.

Kitchen Units

When installing a Block Salt Softener inside a kitchen base unit, you must either: A cut through the floor of the unit so that the water softener sits on the kitchen floor, or B fit supports underneath the floor of the kitchen unit to sustain the very heavy weight of the water softener.