Salt Free Limescale Inhibitors

Product Manual

ULTRA SOFT

WATER SOFTENER SPECIALISTS

System Overview

Our Commercial Salt Free Scale Inhibitor range is designed to protect against limescale formation at the point of use (eg; on the feed to an appliance), or at the point of entry to a property (eg; just after the stopcock). Each system is rated by the maximum recommended flow rate (constant flows at or below the given flow rate are fine). To ensure the system is adequately sized, please check the flow rate against your requirements.

Commercial Salt Free Scale Inhibitor 817	15 lpm
Commercial Salt Free Scale Inhibitor 1019	25 lpm
Commercial Salt Free Scale Inhibitor 835	38 lpm
Commercial Salt Free Scale Inhibitor 935	40 lpm
Commercial Salt Free Scale Inhibitor 1035	45 lpm
Commercial Salt Free Scale Inhibitor 1054	57 lpm
Commercial Salt Free Scale Inhibitor 1252	85 lpm

Feed Water Requirements

To ensure the system can work effectively, it is important that your water meets the requirements for installation. For customers with a private water supply (eg; borehole) this is particularly important, and should be checked against a recent water analysis. Specific details of feedwater chemical parameters can be found at the back of this product manual.

Installation Parameters

Maximum Water Pressure: 6.8 Bar (100 psi)*

Water Temperature: 5-43˚C

Maximum Water Hardness: 1,300ppm

Outdoor Installations: Ensure system is adequately protected from frost and UV exposure

***If water pressure exceeds 4 Bar we recommend that a pressure limiting valve is installed.**

Important Notes

If new copper pipework is in place or is used during installation, the pipework should be passivated for a minimum of 3-4 weeks before the system is used. You can do this by bypassing the system using the supplied bypass, or if required removing the media from the vessel initially, before adding it back in once pipework has passivated. Failure to do this can dramatically reduce effectiveness. Commercial Salt Free Scale Inhibitors should **NOT** be used in conjunction with other water conditioning technologies, these include polyphosphate and anti-scale dosing systems.

Before Installation

The systems utilise two 1" BSP Male inlet and outlet connections. Ensure the direction of flow matches the marked inlet and outlet on the unit. Before starting the installation, please ensure that the water-supply is turned off at the stopcock.

Additional Notes

Installing the system may require the cutting or soldering of existing pipework, in this case we recommend the use of a professional plumber and/or adhering to any local plumbing regulations. If new pipework is used, ensure that the system is passivized for a minimum of 3-4 weeks as described under the 'Feed Water Requirements' section. We recommend installation using flexible braided stainless-steel hoses, a bypass is not required as there is a built in bypass in the head assembly.

The Installation Process

The system is supplied as a complete kit with vessel, the required amount of anti-scale media (media may be inside or supplied in a separate bucket) and a head with built-in bypass. Once you are ready to start the installation, follow the below steps:

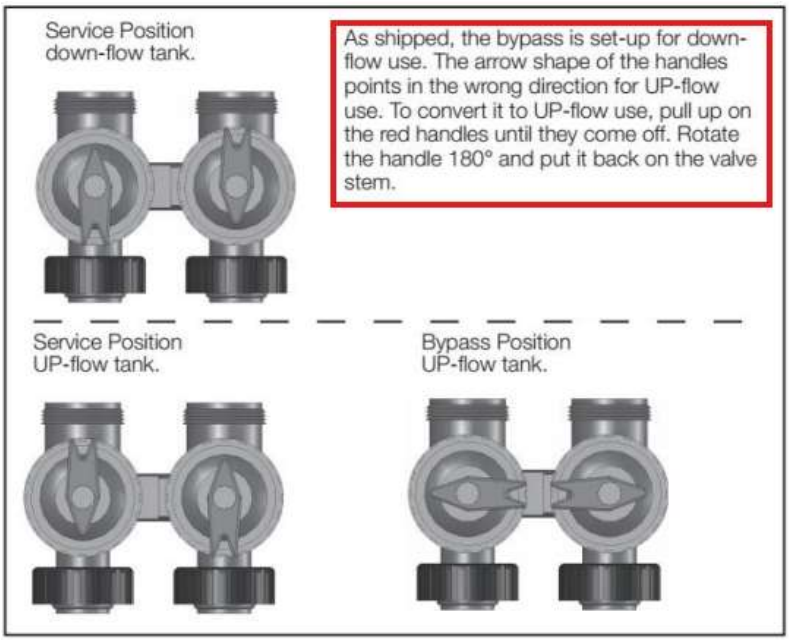
Step 1: Identify the installation location and ensure adequate space around the vessel to allow for future maintenance. The system should be stood up right on a smooth and level surface, with inlet and outlet at the top. Do not lay it down or install at an angle.

Step 2: If the media has not already been added to the vessel, add it now*. Be sure to check that the upper and lower screens are in good condition and take care not to let media get inside the riser tube (block it off before filling if required). The riser tube pushes up into the head and is held using a friction seal, make sure this is fully inserted before screwing on the head.

***If hard piping or connecting to new copper pipework, then note that pipework will need to be passivated for a minimum of 4 weeks prior to adding the media.**

Step 3: Connect the inlet supply pipework, ensuring it is connected in the correct configuration as per the marked inlet and outlet ports. Connections are 1" BSP Male and we recommend the use of flexible braided stainless-steel hoses for a quick and easy installation.

Step 4: Place a bucket underneath the outlet or run via a hose to a drain temporarily. With the red handles of the bypass valve set to in service (up flow) you can slowly turn on the mains supply at the stopcock, when there is a steady flow of water from the outlet and the tank is full of water, turn the water off at the mains again.



Step 5: Now connect the outlet of the system and turn the mains back on. Open a tap or faucet downstream of the system and flush to relieve any trapped air. Immediately check for leaks and rectify if needed. Note that it is normal for the water to appear cloudy at first, this is simply caused by dissolved air and will go away after adequate flushing.

Step 6: Check again for any leaks.

Maintenance

These systems require very little maintenance when operated within their usage parameters. The following maintenance schedule should be followed to ensure the system is able to operate effectively:

Point Of Use (Eg; To Feed A Single Appliance):

- Change the media every 1-2 years

Point Of Entry (Eg; Whole House/Property):

- Change the media every 3 years

If incoming water quality is poor, more frequent media changes may be required. Ensure the supply water meets the feed water requirements. For customers with private water supplies, the system should be installed downstream of any existing treatment that may be in place.

Feed Water Requirements

Please check that the supply water meets the following feed water requirements for effective treatment. This is especially important if you are using the system with a private supply (eg; borehole or well). Customers with a public mains supply will usually meet these criteria, but this can be checked on your local water suppliers website.

Parameters For Use:

- pH Range: 6.5-8.5
- Water Hardness: Max 1,300ppm
- Temperature Range: 5-43°C
- Pressure Range: 15-100psi
- Chlorine: < 2mg / litre
- Manganese: < 0.05mg / litre
- Copper: None
- Oil: None
- Polyphosphates: None
- Hydrogen Sulphide: None
- Silia: 10ppm Max

***Commercial Salt Free Scale Inhibitors are not suitable for use with closed loop heating systems.**

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Troubleshooting Guide

Problem	Possible Cause	Solution
Leak from inlet/outlet connections	A. Fittings too loose or overtightened B. Improper fittings used C. Inadequate amount (or too much!) PTFE sealing tape	A. Remove the fitting and inspect, providing it is in good condition, reapply PTFE tape as required and reconnect B. Ensure the correct size and type of fitting has been used, these systems have 1" BSP male threaded ports C. Remove the fitting and any PTFE tape already on it, reapply 7 winds of PTFE tape (winding in the opposite direction to the thread) and reconnect
Leak from between the bypass head and vessel	A. O-Ring cracked or perished B. Head too loose or overtightened	A. Remove and inspect the O-Ring for signs of cracks or damage. Regrease using silicone lubricant and reinsert or replace altogether if damaged B. Undo and re-tighten bypass head, tighten at first by hand and then tap gently with a rubber mallet if required. Be careful not to overtighten
Water appears cloudy after installation/media change	A. Trapped air B. Poor incoming water quality	A. Flush the system adequately until the water runs clear B. Address using pre-filtration as appropriate