

Installation, Operation and Maintenance Manual

NeutrAcalC

Scale Prevention System



Models:

NC10SL
NC10BB
NC817
NC835
NC935
NC1035
NC1054
NC1252
NC1354

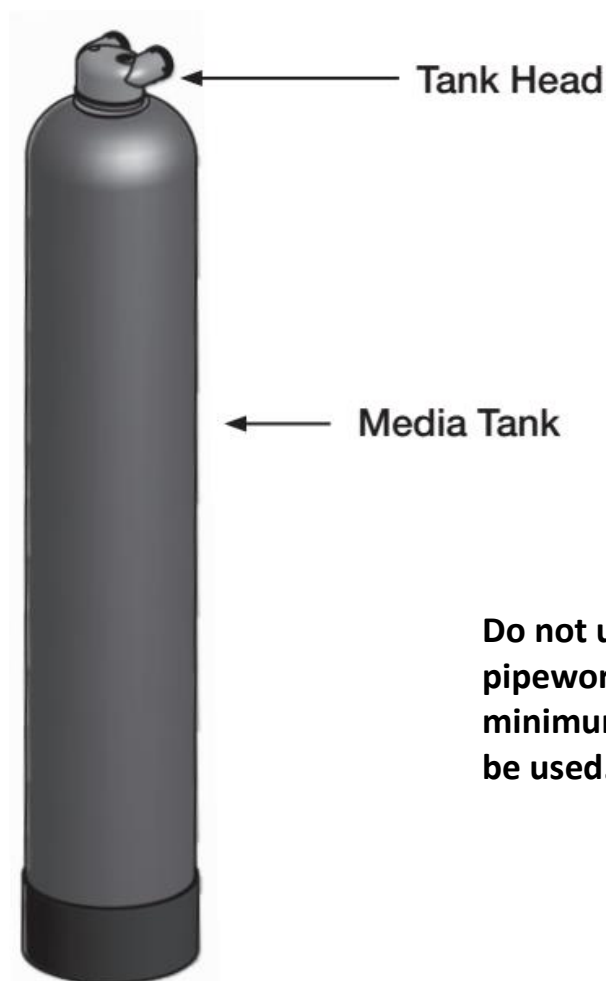
Introduction

NeutrAcalC systems provide protection from scale formation throughout the plumbing system. They can be installed at the point of use (NC10SL & BB) for individual appliances or point of entry (NC817, 835, 935, 1035, 1054, 1252 & 1354) the larger products can also be used as point of use on larger requirements. NeutrAcalC prevents scale from forming on external plumbing as well as reducing spotting and streaking associated with hard water.

NeutrAcalC is a water conditioner not a water softener. A softener removes calcium and magnesium minerals and needs salt to regenerate and a waste to dispose of minerals removed. A conditioner changes the form of the calcium and magnesium minerals so they don't scale up piping and heat exchanges. Low or phosphate free cleaning products are recommended to achieve optimum results.

Unlike softened water NeutrAcalC treated water retains the beneficial essential mineral content of your water and is safe to drink.

System Overview



Feed water requirements

- pH 6.5 – 8.5
- Hardness Max 1285 ppm
- Temperature range 5 - 43°C
- Pressure range 15 - 100 psi
- Chlorine <2 mg/l
- Iron <0.3 mg/l
- Manganese <0.05 mg/l
- Copper None
- No Oil
- No Polyphosphate
- No Hydrogen Sulphide
- Silica 10ppm Max
- Not for closed loop systems

Do not use with new Copper pipework. The pipework needs to be passivated for a minimum of 3-4 weeks before NeutrAcalC can be used.

Equipment Specifications.

NeutrAcalC systems are complete, pre loaded with media and ready for use. All that is required is a simple connection to the inlet and outlet via flexible hoses (not supplied). Please review the operational limitations to ensure compatibility.

Using NeutrAcalC with other water treatment.

NeutrAcalC's unique properties means it has unique requirements when used in conjunction with other forms of water treatment.

It must be the last stage in the treatment chain. Do not install any filters after NeutrAcalC or before any point of use devices. Point of use drinking water filters e.g. carbon or RO are exempt from this requirement.

Do not apply phosphate or any other antiscalant either before or after the NeutrAcalC.

Important notes about Iron, Manganese and Copper in the water supply.

Iron and Manganese

Just as with conventional water softening media NeutrAcalC need protection from excessive levels of certain metals that can coat the active surface, reducing its effectiveness over time. Public water supplies rarely if ever, present a problem. However if the water supply is from a private source, confirm the levels of iron (Fe) and manganese (Mn) are less than 0.3 mg/l and 0.05 mg/l respectively.

Copper

Copper usually originates from new plumbing upstream of the system, if this condition exists, we recommend waiting 3-4 weeks before placing the system into operation. This will allow the copper surfaces to obtain a natural protective surface. To further minimize any problem with excess copper, avoid using excessive flux on the inner surfaces of the pipe and use a low corrosivity water soluble flux. Once the plumbing connections are complete, place the system in bypass prior to following the start up procedure and flush the plumbing for at least 10 minutes.

Caution!

- Do not let the system freeze. Damage to the tank may result.
- The system must be operated in a vertical position. Do not lay it down during operation. The system may be placed in any position for shipping and installation but must be operated in a vertical position.
- Place the system on a smooth, level surface. Because the system operates in UP-Flow, fluidised bed mode, having a level surface is more important than with a conventional softener or media filter.
- A bypass valve should be fitted on every system to facilitate installation and service.
- Observe all local plumbing and building codes when installing the system.

Notes to the installer.

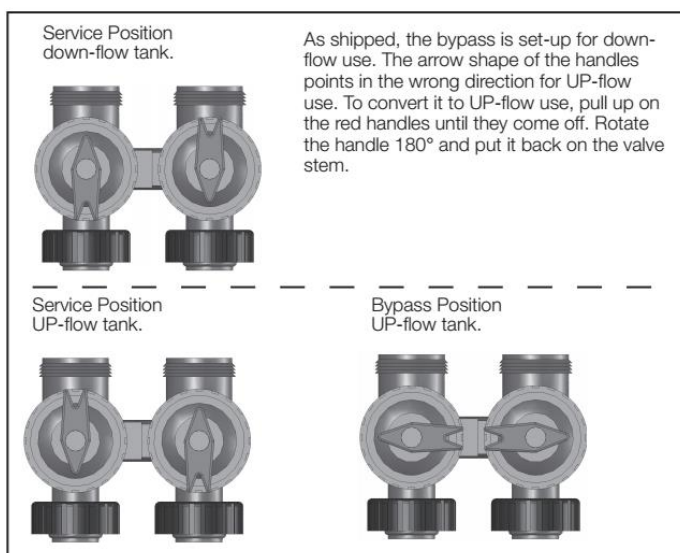
This system differs from conventional softeners or media filters in a number of ways.

- Remember to cover up the riser tube when adding the NeutrAcalC media, then unblock the riser tube.
- The system is light and only partially filled with media. This is normal. The UP flow operation of the system requires a lot of freeboard to allow the media to fully fluidize.
- The system has no underbed so you can tip the system over without fear of upsetting the media. This makes transportation and installation much easier than conventional systems.
- Because the system operates in the up flow mode, the tank connections are opposite to the traditional installations.
- Please see the important note about Iron, Manganese and Copper in the water supply.
- Please see the note about using this system in conjunction with other water treatment equipment.

Installation and Start up.

1. Place system in it's final location
2. Connect the water supply to the inlet
3. Place a bucket under the outlet or connect to a drain
4. Slowly open the inlet and allow the tank to fill with water
5. Close the valve when you have a steady flow from the outlet
6. Connect the outlet to the water supply to the building
7. Open the supply valve to the system
8. Open faucets downstream to relieve any air
9. Check for leaks
10. The system is now ready for use.

Bypass Valve Modification.





Point of entry System (with bypass) pictured.

Maintenance.

Make sure only clean water is supplied to the units.

Change the media every 2 years for the point of use (POU) cartridges and every 3 years for point of entry (POE) system - see image overleaf. If the usage is high or water quality is not good these changes may need to be more frequent.

Accessories:

Filter Kit.

Post filter to catch any fine soft crystal's that may come through the system.

Connection Kit.

Flexible hose connection kit to attach the NeutrAcalC system to the mains.

Limited Warranty

- The NeutrAcalC system is warranted to be free of defects in material and workmanship for 1 year from the date of installation.

Conditions:

- Any component failure must not result from abuse, fire, freezing or other acts of nature, violence, or improper installation.
- Equipment must be installed and operated in compliance with local plumbing codes and on approved water supply.
- Equipment is limited to use at pressures and temperatures that do not exceed our published specifications.
- Water supply must not exceed 2.0 ppm chlorine. For water exceeding 2.0 ppm chlorine, pre treatment is required!
- Information, including model number, serial number and date of installation, must be provided for any claims pertaining to equipment in warranty.
- Defective parts are subject to inspection by the manufacturer before final commitment of warranty adjustment is made.
- The manufacturer reserves the right to make changes or substitutions in parts or equipment with material of equal quality or value and of then current production.