



## Scale Issue - Solution 1

If you have a new hot tub there will be no scale build-up, please refer to "Bacteria or Fungus Issue – Solution 2".

If you have an existing hot tub and have discounted the use of bromine and answered “yes” to all in "Check Your Settings", then the next most likely cause is due to a build-up of calcium carbonate (scale) and other water salts within your pipes, jets and system. This is similar to the scale you sometimes get in your kettle.

- After 4 to 6 weeks simplesilver™ slowly softens any scale within the system. This is then detached and removed by the water passing over the softened scale. These salts are held transparently within the hot tub water, then removed via the filters and you cleaning these.
- If the hot tub has an abundance of scale, the scale salts bond together and come out of transparent solution, turning the water grey and smelly. Once again these are then removed by your filters and you cleaning these.
- Depending on the volume of contamination, it will take time for each layer of scale to soften and detach. Any corrosion bacteria that may lie beneath the layer of scale is then killed on contact, preventing any mutation.
- Once all the scale is removed and the system is clean, simplesilver™ then coats the insides of the pipes and equipment to prevent any further build-up of scale.

## Solution 1

### Cleaning Process

1. Purchase a small container of hot tub chlorine granules.
2. Add 4.5 ounces (half a cup) of chlorine granules into a container of warm water.
3. Mix until the chlorine granules are dissolved.
4. Pour the diluted chlorinated water into the hot tub water.
5. Operate all pumps for **1 hour** so the water and chlorine is circulated throughout the entire system. Note - you will need to manually activate the pumps that have an auto-off function over this period to ensure that there is continuous water flow.
6. **Drain a third** of the hot tub water. Note - draining more will remove the simplesilver™ minerals and their effectiveness!

### Re-filling Process

1. Re-fill the hot tub to the recommended water level.
2. Set the filtration timer on the controller. Go to the **controller adjustments** section and follow the instructions for your model controller. Make sure you have your controller setup to circulate between 21,500 to 26,500 gallons of water daily. For assistance on how to calculate this to go to the FAQ section.
3. Do not use the hot tub for **3 days**. If you use the hot tub before this, there will not be sufficient simplesilver™ minerals eluted into the water to inhibit the growth of bacteria or balance the water. This is due to simplesilver™ minerals being eluted daily at a constant and controlled rate, ensuring 12 months of effective water treatment.
4. After day 3, once the water is crystal-clear and odourless, you can start using the hot tub again!



## Important to Note:

- By removing a third of the water and replenishing it with new dilutes the level of scale concentration in the water. However, if you remove more than a third, you will also remove the simplsilver™ minerals and their effectiveness to balance and control the water.
- The addition of chlorine will quickly remove any foreign bacteria or fungus that may be beneath the scale or in the water, but the chlorine will not remove any other scale within the system, only simplsilver™ can do this.

## Water Treatment

Water treatment is a twofold process and these must both align to provide pristine, clean and clear water.

1. simplsilver™ automatically controls and maintains the pH, alkalinity, total dissolved solids and bacteria levels.
  2. The filters remove skin, perspiration, water salts, hair, oils and any other solid matter, assisting simplsilver™ to maintain water cleanness, clarity and quality.
- It is very important that the filters are cleaned every two weeks. A cartridge cleaner sanitising solution must be used to remove the contaminates, as water alone cannot remove these. Your hot tub retailer will be able to assist you in product selection.
  - Filters have a finite life of between 12–18 months, after which they will saturate and block and will no longer be effective or able to be cleaned.
  - If you have not already done so, purchasing a second set of filters will make your life easier!!