7 Steps To Healthy Hot Tub Water

**1. Sanitizing**

This can be done using either Chlorine, Bromine or an approved Non–chlorine or bromine alternative, to ensure that the hot tub water stays healthy along with preventing and killing bacteria.

* Chlorine - A traditional method, which can be in either granules or small tablet form.
* Chlorine Granules – Rapid dissolving granules are very popular as it gives dose rate flexibility along with easy application. The granules have a PH value of 6.0 to 7.0, which is fairly close to the recommended PH level for your spa water. The ideal chlorine level is between 3.0 to 5.0mg/l.
* Chlorine multifunctional tablets - Are designed to maintain chlorine levels within your spa/hot tub. The chlorine tablets should be dosed using a small floating dispenser, which should be removed from the hot tub when people are bathing (be careful to place it on a non-bleachable surface).
* As the tablets dissolve slowly the correct chlorine level should be established with rapid dissolving granules when first filling or on refills giving enough time for the tablets to kick in. When the floating dispenser is set up correctly it will dispense the correct amount of chlorine into your hot tub. All you need to do is add new tablets as and when needed to maintain the ideal level of chlorine, which is between 3.0 to 5.0mg/l making this a very straightforward method of dosing.
* Bromine – Has advantages over chlorine making it an ideal sanitizer for spa. Bromine retains better levels of efficiency over a wider PH band than chlorine.
* Bromine Granules – A highly effective sanitizer formulated to prevent and kill algae growth and bacteria in a hot tub. Being granules it is easy to vary the dose rate to suit requirements. These granules have a fairly neutral PH, which will not upset the water balance.
* Bromine tablets - Are designed to maintain Bromine levels within your hot tub. The Bromine tablets should be dosed using a small floating dispenser, which should be removed, from the spa when people are bathing (be careful to place it on a non-bleachable surface).
* As the tablets dissolve slowly the correct Bromine level should be established with Bromine granules when first filling or on refills giving enough time for the tablets to kick in. When the floating dispenser is set up correctly it will dispense the correct amount of Bromine into your hot tub. All you need to do is add new tablets as and when needed to maintain the ideal level of Bromine, which is between 3.0 to 5.0mg/l making this a very straightforward method of dosing.
* Non-Chlorine/Bromine Alternative - Our non-chlorine active oxygen treatment offers bathers a non-halogen alternative (i.e. no chlorine or bromine), for effective sanitisation of their spa water.

**﻿2. Balancing**

By balancing the water you are creating the right conditions for bather comfort, chemical efficiency & equipment protection. A number of factors are involved in balancing the water but the main areas are: PH, Total Alkalinity & Calcium Hardness.

**PH Levels**

Regular pH checks are an essential part of your tub maintenance routine using Test Strips or a tablet test kit. The pH scale has a range of 0 - 14 with 0 being very acidic, 7 being neutral & 14 being very alkali. For tubs the ideal range is between 7.2 - 7.6, this being slightly alkaline to protect the hot tub and prevent equipment corrosion. This also provides the most comfortable conditions for bathers and good sanitizer efficiency.

If the level is below 7.2 use pH Plus to raise the level as a low pH can cause staining, damage to spa equipment, skin & eye irritation, & corrosive water.
If the level is above 7.6 use pH minus to reduce the level as a high pH can cause reduced effectiveness of chlorine, cloudy water, scale formation & drying to the skin.

**Total Alkalinity (TA)**

This will again vary depending upon your water source so must be checked each time fresh water is added. It acts as a buffer to prevent pH change and if the level is too low the pH will fluctuate widely, if too high pH adjustment will be difficult to change. The ideal Total Alkalinity for hot tubs is between 80 - 150mg/l. When it is below this level not only will pH fluctuate but the water could be corrosive, cause damage to equipment and be uncomfortable to bathers. Use TA Plus to raise levels.

When it is above this level not only is pH difficult to adjust but also the water could be scale forming and clarity impaired. Use pH minus to reduce levels, the pH minus should be pre dissolved and then dumped into one area of the spa.

**Calcium Hardness**

This will vary depending on where you live and where your water supply comes from and it is very important that the correct level is established. As a guide soft water tends to be low in Calcium Hardness and hard water more obviously is high. The level should be checked each time you top-up or refill the spa with fresh water. The ideal Calcium Hardness level for spas is between 100 - 200mg/l.

When it is below this level the water could be corrosive which could lead to damage of plant equipment such as the heater. If this is the case apply Hardness Plus to achieve the correct level.

When it is above this level the water has a tendency to appear cloudy and also calcium can precipitate out and deposit itself on the tub shell finish, heater element, cartridge element & within pipework. If this is the case apply No Scale to achieve the correct level.

**3. Water Testing**

**How to test hot tub water?**

The most popular methods for domestic hot tub testing is by using test strips or a tablet test kit. Either way you should be testing regularly ideally every day. This forms an essential part of spa maintenance as you need to know what the sanitizer, pH, and total alkalinity levels are.

Test strips are not as accurate as the tablet test kits but they are very popular as it’s a very quick and easy way to test. Just dip the strip into the water, remove and hold it horizontally and compare the colour of the pads to the colour chart on the test strip pot within the required time. It is best to circulate the water before testing. A test strip can only be used for 1 test. Normally pots will hold 50 strips.

Tablet test kits use reagent tablets to determine the sanitizer and pH levels in your hot tub. Phenol red test tablets are used to check the pH level and DPD No1 test tablets are used to check the free chlorine/bromine levels. Just turn the test kit upside down and lower it into the water to about an elbows depth then turn it the correct way up so that it fills the chambers. Then add a phenol red and a DPD No1 test tablet to the correct chambers place the lid on and shake until the test tablets have dissolved. Then hold the test kit up to natural light and match the reading of your samples to the colour chart on the test kit.

**4. Oxidizing / Shock**

A weekly oxidising treatment or shock dose will help prevent water problems.

Bathers wastes such as cosmetics, perspiration and urine can build up in your hot tub water providing nutrients for algae and bacteria. You can destroy these wastes by using either a Non Chlorine shock or Spa Fusion.

Non-chlorine shock can be used on both chlorinated or bromine treated spa, it’s a granulated product that is ideal for removing organic waste and chloramines without increasing the chlorine level.

**5. Filtration & Circulation**

All spas vary with the amount of equipment on them however they all need to pump the water through a filter to remove particles that will be collected inside the pleats of the filter. The combination of good circulation and filtration along with keeping on top of the water chemistry will result in a clear, clean and healthy spa to be proud of.

Most hot tubs have a certain cartridge filter which collects oils, greases along with the particles removed from the water which will impair the efficiency of the filter and reduce the flow rate if not cleaned correctly and regularly. It is necessary to chemically clean the filter cartridge approx. every 4 to 6 weeks. It is also a good idea to have a spare filter for your hot tub so that it can remain in use when you are cleaning a dirty filter. Some spas will have a pair of filters, either one on top of the other or located side by side. On occasions a mineral filter may be inserted inside a pleated filter making 4 elements to one spa. For more info on filter cleaning please read step 6.

Most hot tubs will be set up and commissioned by experienced dealers and handed over, they will set the correct filtration cycle up for you then the spa will continue with that program. Sometimes depending on bather loads and usage this may need changing from time to time.

\*\*\*\* If using disposable filters they must be changed every 3-4 or along with the water depending of usage. \*\*\*\*\*

**6. Cleaning**

There are 3 main areas to regularly clean so that your spa/Hot tub stays in tip top condition these are the cartridge filters, the spa/Hot tub shell and the rigid heat retention cover.

Filter Cleaning – Your spa filters should be cleaned every 4 to 6 weeks. The highly effective way is to soak them in a container with a Cartridge Cleaner product. We offer a liquid or powder form. Regular cleaning is made easier if you have a spare set of filters for your hot tub as it can stay in use by rotating the filters this also gives you approx. 2 to 4 years of filter life (depending on usage). If we do not show your filters on this site then please email us the product code and we will add them to our product range.

Just hose of the dirty filter(s) to remove any loose debris and then soak in the cartridge cleaner solution for 1 to 2 days. If you have the patience you could wear some rubber gloves and eye protection and give the filters a quick scrub with a wooden bristle scrubbing brush. Then rinse the filters thoroughly and if needed just soak in fresh water for 1 more day to dilute any solution that may still be in the pleats. If possible allow filters to dry before returning them to the hot tub.

In addition to the above you could also use Instant Filter cleaner, every 2 weeks which will rapidly remove any grease and oil from the filters. Just remove the filters and hose any loose debris off. Thoroughly spray into all the pleats with Instant Filter Cleaner, remember to wear rubber gloves and eye protection when using this spray, then leave filters to stand for 15 minutes before hosing off. The more you clean the filters the easier it will be to keep sparkling water that is simple to maintain and in turn may reduce your chemical consumption.

**Hot tub Cleaning** - A weekly clean around the waterline with a Spa Surface Cleaner is recommended as cosmetics, grass, lotions, & insects will collect providing a source of food for algae and bacteria. You can apply Spa Surface Cleaner with a sponge or cloth. Rubber gloves must be worn when using this product. This product is also recommended to clean all internal surfaces when you drain down your hot tub. Apply onto a wet surface; leave for a couple of minutes then wash down with fresh water. When done refill your spa/Hot tub and sanitise to recommended levels.

It is recommended that you empty and refill your spa every 3 to 4 months if in a normal domestic situation. Portable hot tubs in B&Bs, lodges etc come under different guidelines, please get expert advise from your dealer/supplier.

Prior to draining your hot tub you may want to consider the build up of oils and deposits inside the spa plumbing, A Hot Tub Flush has been especially formulated to remove this. Before draining dose the Hot Tub Flush directly into the skimmer area with the pumps running. Leave for approx. 12 to 24 hours then drain down your spa. Then continue as above with Spa Surface Cleaner.

For a real treat once or twice a year why not use a Spa Polish, this is a silicone based cleaner that cleans, shines and protects the acrylic, rubber and vinyl surfaces. It also helps to protect from UV, moisture and chemical degradation. A DIY service consisting of a good clean and polish may well prolong the live of your hot tub along with keeping it looking nice and up together.

**Rigid cover cleaning** – It is just as important to clean and protect the outside of your cover as well as the underside. The top of your cover is subject to our harsh weather conditions, UV, tree sap, animals, etc. and needs to be looked after. It is recommended that you wash the cover down twice a year with warm water and then protect it with a good cleaner.

You can help to prolong the life of your cover by cleaning the inside of it as chemicals and steam are constantly attacking the cover from underneath which is why it is very important to maintain a well-balanced spa. As covers get older the membrane will start to break down and the moisture will collect in the inserts making the cover heavier and it may start to sag. We advise that you remove the cover inserts twice a year and turn them over like you would a mattress. An average lifespan of a cover on a hot tub outdoors is 3 to 5 years, maybe slightly extended if you have a cover lifter attached.

**7. Draining & Refilling**
The last of the 7 steps but equally important, over time your spa water becomes stale as it absorbs minerals, chemicals and other materials. This causes the Total dissolved solids level (TDS) to increase.

When the TDS level reaches 1,500mg/l it is time to drain, clean and refill.

On average a hot tub should be drained and refilled every 3 to 4 months.

Please read step 6 on cleaning before draining your spa. If a hot tub is left empty for some time it will need to be treated with a high dose of sanitizer before being switched back on, also if being drained in cold months it may be wise to have your spa winterised which will eliminate problems that the frost may cause.