Maintenance Guide

Hot tubs in a business setting

The complete guide for holiday let and holiday park hot tub maintenance - in accordance with HSG282 guidelines and BISHTA recommendations

www.poolandspacentre.co.uk

07548905127
01746 330950

About Us.

We are Europes Leading one stop shop for all your Hot tub and Swimming pool requirements.

.

Since 2003, we have supplied the pool and spa industry across the UK and Europe.

We cater to a variety of businesses, including hot tub, swimming pool, schools, local councils, holiday parks, resorts, hotels, and service companies of all sizes.

If your business falls into one of these categories, you are eligible for a trade account with us.

Our new, easy-to-navigate website www.poolandspacentre.co.uk is designed to help you quickly and efficiently find the products you need.

Our technical staff will guide you through the technical aspects of our products - from identification and selling to installation and aftercare.

We'll work closely with you to develop your account and ensure you have the support you need.

How we can help you?

• Full Technical / Admin. team available Monday - Friday 9:00am - 5:00pm to help & advise.

• 1000's of in stock items products for next day delivery.

• Competitive Trade Prices across the portfolio, bulk buying prices also available

• Approved distributors of the Worlds Leading brands including Balboa, Waterway, Gecko, Darlly, LX & H.S.T
• Account Manager with tailored prices available

• Multiple communication channels - 01746 330950 / tickets@poolandspacentre.co.uk / (+44 7548 905127) WhatsApp Chat

• Fully responsive & mobile friendly website: Order history, Favourites, Address Book, Updating Quotes,
Print VAT receipts, Wish-lists, Basket Transfers (for on-site ordering ease) and Returns / Warranty information, Notifications

• Next day delivery service on in-stock items within England, Wales & Southern Scotland.

• Courier company that give a 1 hour time slot on the day of delivery.

Introduction

A hot tub can add real value to your holiday let by giving guests the opportunity to relax and de-stress, a place where they can spend quality time with loved ones whilst enjoying the benefits of hydrotherapy.

HSG 282 helps operators and owners keep water in the best possible condition and this guide will help you to understand how to maintain and manage your hot tub to promote healthy, safe and inviting water for your guests.

Who is this guide for?

This guide provides detailed advice to help the following persons maintain a hot tub when used in a "business setting" as per current health and safety guidelines:

- **Private owners of a hot tub who make it available to use as part of a holiday property let.**
- **Holiday Park site owners who make a hot tub available as part of a holiday property let.**

Important: Domestic type hot tubs are not suitable for medium or large-scale business use (i.e. large numbers of casual bathers and/or unrelated groups) or for commercial activity as design features and systems for control are unlikely to be sufficient to cope with user demand. The information in this guide does not apply to commercial hot tubs found commonly in hotels, leisure facilities or health clubs.

HSE guidelines

Definition: Hot Tubs in a business setting

A holiday let where a hot tub is available for a single family or group, solely for their own use.

Domestic-type hot tubs used as part of a business activity (e.g. in a holiday park rental unit or hotel bedroom(s) with their own dedicated hot tub, or as part of a rental agreement for a single family or group use) are subject to the general duties under the HSW Act.

There is a legal requirement for these systems to be managed and controlled in proportion to the risk and the risk assessment should consider the type of hot tub and its use.

Identifying and assessing the risk

Before any formal health and safety management system is implemented, the duty holder is responsible for ensuring a risk assessment is carried out to identify the possible risks.

The purpose of the risk assessment is to enable a decision on:

- The risk to health.
- The necessary measures to prevent or adequately control the risk from exposure to legionella or other infectious agents in the spa or any work associated with it.

For further information and the most up to date guidelines, please see the essential reading list.

Note: The HSW act does not apply to the private owners of hot tubs installed in a holiday park unit where there is no financial gain and they are for the exclusive use of the owner, family and occasional guests. To ensure its safe use the hot tub should be used and maintained in accordance with the manufacturer's instructions.

Essential reading

HSG282 – Control of legionella and other infectious agents in spa pool systems

URL - http://www.hse.gov.uk/pubns/priced/hsg282.pdf

Risk Assessments – a brief guide HSE

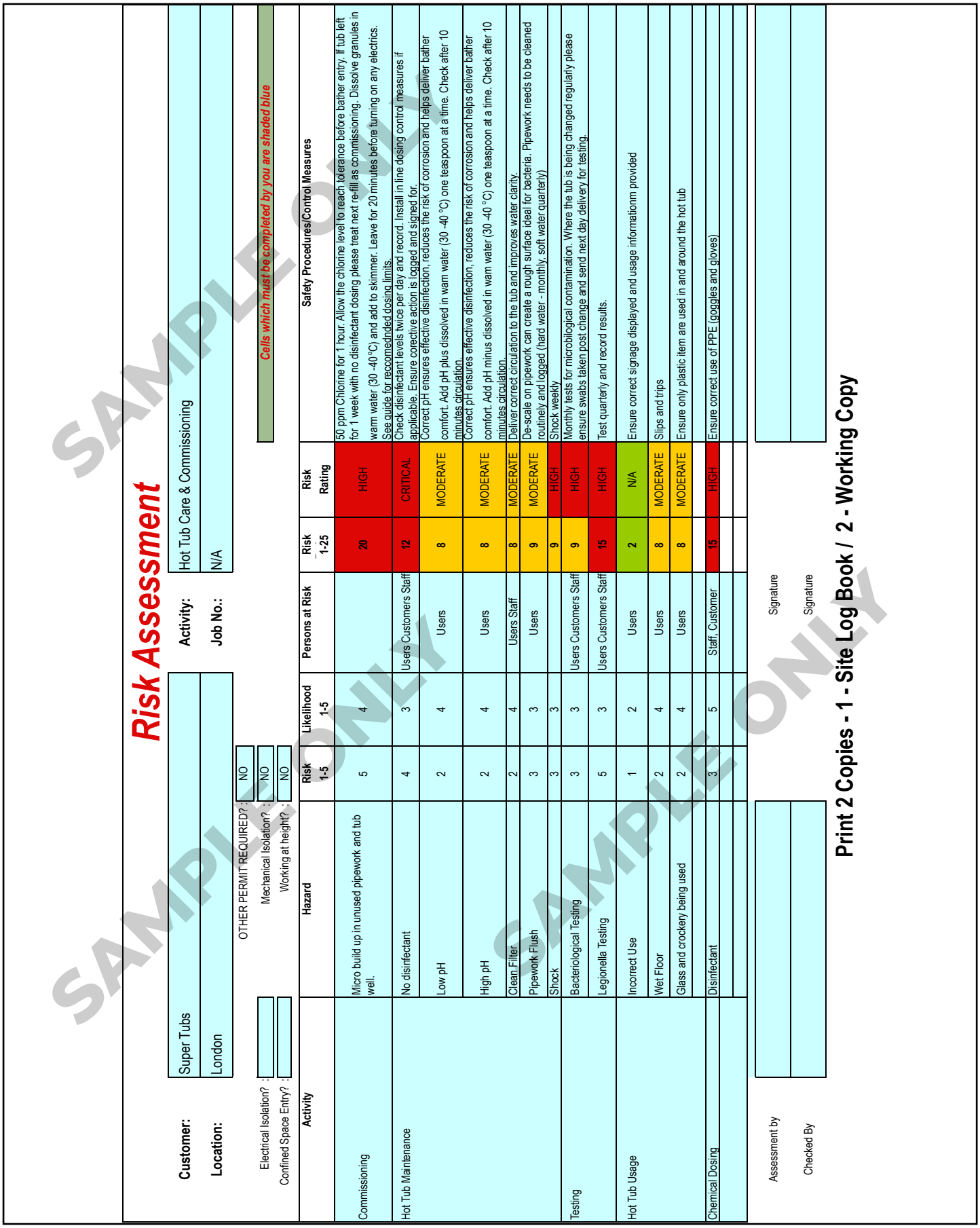
URL - http://www.hse.gov.uk/pubns/indg163.pdf

L8 – The control of legionella bacteria in water systems

URL - http://www.hse.gov.uk/pubns/priced/l8.pdf

Risk Assessment

COSHH provides a framework of duties designed to assess, prevent or control the risks from hazardous substances, including chemicals and biological agents such as legionella and other infectious agents, and take suitable precautions. A site-specific risk assessment is a legal obligation for all businesses that run hot tubs as part of their holiday let if the site has more than five employees. If you have fewer than five employees, you therefore have no legal obligation but may find it useful to write a risk assessment anyway so that you have a record that can be reviewed at a later date. See an EXAMPLE of a risk assessment below.



Product Safety

General chemical safety

- Never mix chemicals
- Always put lids back on chemical containers
- Always wash hands after handling chemicals
- Always keep chemicals out of reach of children
- Always read the instruction label on chemical products
- Never use chemicals that don't have an instruction label
- Never dose chemicals when there are bathers in the hot tub
- When pre-dissolving products, always use a clean container
- Always adhere to the instructions printed on the product label
- Always handle chemicals in a well-ventilated area, preferably outdoors

Guest safety advice

Tip: have advice on 'how to use the hot tub safely' in view of guests

General hot tub safety – Recommended advice for bathers

Do:

- Shower after use
- Supervise children in and around the hot tub
- Use the toilet and shower before entering the hot tub
- Seek medical advice if pregnant or have a medical issue

Don't:

- Use the hot tub after a heavy meal
- Exceed the number of bathers per seat
- Exceed the recommended bathing time
- Use under the influence of alcohol or sedatives
- Allow children under 4 years of age to use the tub
- Enter the water with suntan lotions, spray tans and skin creams
- Don't allow water temperatures to exceed 40°C (lower for children).
- Allow people to use the tub that are unable to keep their head above the water level when sitting

Hot tub safety rules

- Please no jumping or diving
- Please turn off high jets after use
- Enter and exit the hot tub slowly
- Please do not sit or lie down on cover
- Do not bring glass in or near the hot tub
- Please do not use soaps or oils in the hot tub
- Please replace the hot tub cover after each use
- Anyone with heart disease, diabetes, high or low blood pressure or any serious illness should consult with a doctor before entering the hot tub

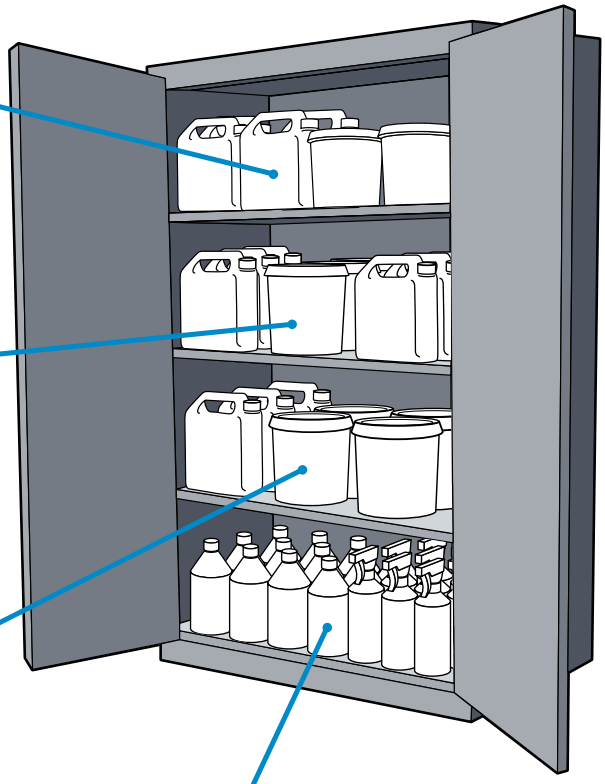
Storing hot tub chemicals safely

- Always wear the appropriate PPE
- Chlorine and Acids must be kept separate to avoid accidental mixing
- Different types of Chlorine must be kept apart
- Keep all Acids and Alkalis separate
- Ensure all chemicals are kept in a locked store away from public
- Chemicals should be kept in a cool, dry place that is well ventilated and out of direct sunlight
- DO NOT mix neat chemicals
- Store chemicals in their original containers with the manufacturers label
- Store liquid chemicals low to prevent accidental spills/ contact

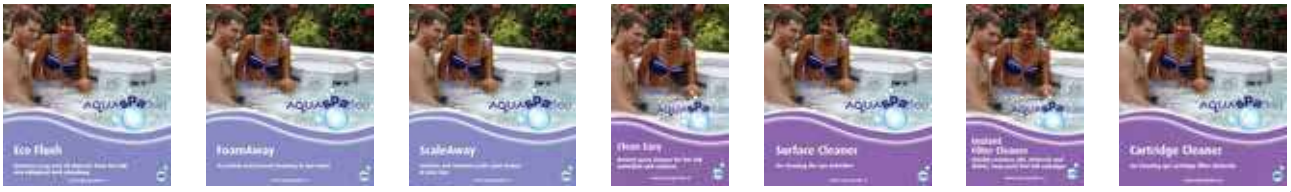
Disinfectants (sanitisers)


Acids (acidic products)

Alkalis (alkali products)



Maintenance (speciality and cleaning liquid products)



Chemical usage

We always recommend products are pre-dissolved in warm water prior to dosing unless the product is designed for direct application.

Ensure all jets are on to aid distribution of the product.

PPE should be worn according to instructions. Glasses and gloves are most commonly used.

Check the bottles for safety instructions.

Product user icons are on the bottles to help with usage, but contact your AquaSPArkle dealer if you are unsure.

Need help with your spa chemicals?

AquaSPArkle product training

- Help build your confidence on how to maintain a hot tub in a business setting
- Education on a wide portfolio of chemicals available
- How and when to use AquaSPArkle products to maintain a hot tub in a business setting

Contact your local AquaSPArkle dealer for more information.

Water testing record sheet

Week commencing:

Location:

Model/Type:
Water volume:
Disinfectant type:

Date	**Time**	**Tested by**	**Water clarity** **1 - Crystal clear** **2 - Murky** **3 - Cloudy**	**Disinfectant** **Chlorine 3-5mg/l** **Bromine 4-6mg/l**	**pH** **7.0 - 7.6** **Business setting**	**Action taken** Chemical type added Amount added
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
SATURDAY						
SUNDAY						

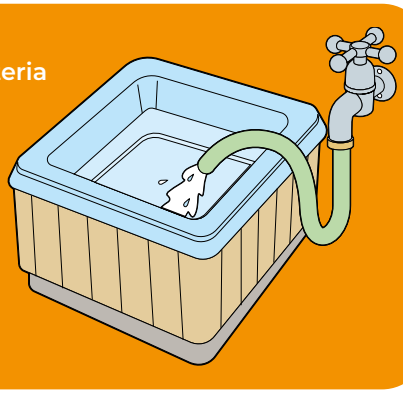
Example of a Water Testing Record Sheet

Commissioning the Hot Tub

Many hot tubs are imported into the United Kingdom and most hot tubs are wet tested at the factory.
This process can leave residual water that can harbour microbiological contamination.
A commissioning procedure is required to ensure the pipework of the hot tub is purged of any contamination that could put bathers at risk.

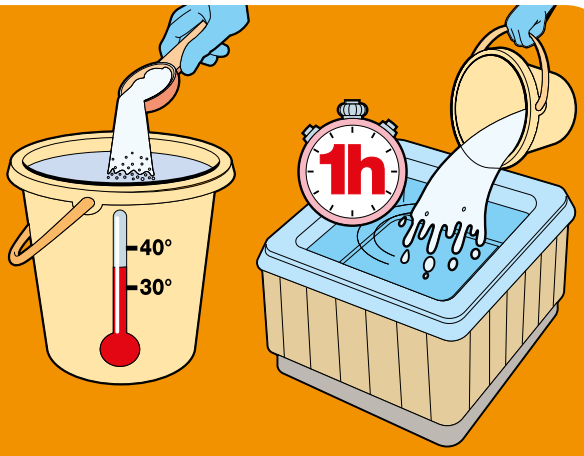
1

- Run the hose to drain to flush through any residual dirt or bacteria
- Place the hose near the filter housing or skimmer basket
  - Be sure to maintain a gap between the hose and the surface water line
- Start filling the hot tub with fresh mains water
- Open all valves and turn on any water features (waterfall)



2

- Dissolve rapid shock granules in a container of warm water (30-40 degrees)
- Add the solution to the hot tub water
  - Target 50 mg/ litre (Free Chlorine)
  - Target 7.0 pH
- Circulate 1 hr
- Monitor free chlorine level during circulation



3

- Reduce the chlorine level by either:
  - Using chlorine reducer
  - Dilute with fresh water
- Test
  - Test when the water is still as aeration will effect water balance
- Balance water as required
  - 7.0 pH

50ppm
Free Chlorine

AquaSPArkle Spa Rapid Shock:

Why Rapid Shock

- Stabiliser-free (no cyanuric acid)
- Low impact on TDS
- Fast dissolving
- High Chlorine content
  - Good sanitation
  - Cost effective

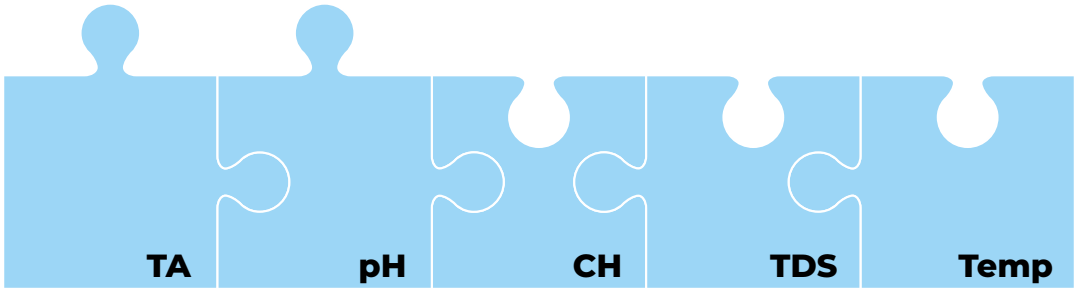
Rapid Shock to introduce a level of 50mg/l		
Spa volumes		
Litres	Gallons	Dose
500	110	37g
1,000	220	72g
1,500	330	110g

Some hot tub retailers and service providers will include this service as part of the install.

Note: Many business settings run their hot tubs 365 days a year.
However, if a hot tub is closed down / winterised, re-commissioning will need to be carried out ensure the water is safe before reopening.

Balance the Water

The main factors that determine water balance are: pH, TA (total alkalinity), calcium hardness, temperature and TDS (total dissolved solids). Balanced water is neither scale forming, nor corrosive.

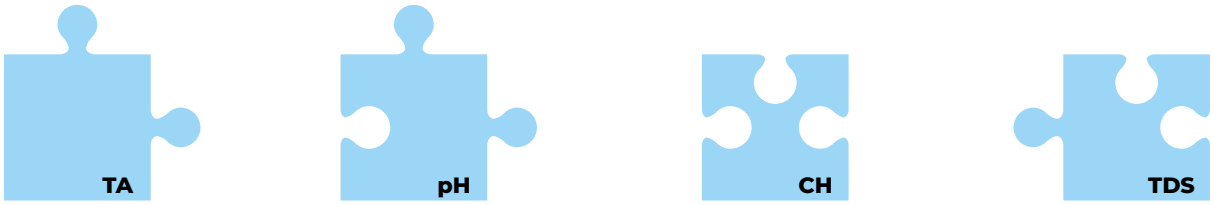


Establishing and maintaining the correct water balance is important for a number of reasons:

- Increases chemical efficiency
- Protects the hot tub and its equipment
- Encourages bather comfort
- Water quality is maintained
- If balance is correct, the likelihood of water problems occurring dramatically decreases

Perfectly balanced water for a hot tub in a business setting will be within these ranges:

TA	pH	Calcium Hardness	TDS – no more than 1000mg/l higher than incoming fill water
80-150mg/l	7.0 – 7.6	100-200mg/l	

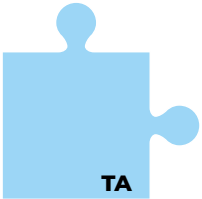


Total Alkalinity

TA is the measurement of the amount of alkaline substances in the water. Alkaline substances can cause the pH to fluctuate, as well as cause it to be resistant to change.

Think of TA as thickness or viscosity of the water if the TA is too high, the water is thick like treacle and cannot move.

If the TA is too low, the water is thin, pH cannot be held stable and so it will fluctuate (pH swings).



Total Alkalinity (TA) Levels Ideal range 80-150mg/l	
Low TA (below 80mg/l)	**High TA (above 150mg/l)**
pH fluctuations Corrosive water	pH hard to adjust Scale forming Cloudy water
Use TA Plus to increase TA	Use pH Minus to reduce TA
	

pH

pH is an indication of how acidic or alkaline a water-based solution is

pH

pH Levels Ideal range 7.0-7.6	
Low pH (below 7.0)	**High pH (above 7.6)**
Corrosive water Skin and eye irritation Damage to spa equipment Disinfectant gets used up quickly	Scale forming Cloudy water Disinfectant is less effective
Use pH Plus to increase pH 	Use pH Minus to reduce pH 

Calcium Hardness

Calcium hardness is the measure of calcium and magnesium salts in the water. Hard water areas have higher levels of calcium in the water and so can be prone to scale build up in the pipes. Soft water areas have a lower level of calcium in the water, but these lower levels can cause the water to be corrosive.

CH

Calcium Hardness Levels Ideal range 100-200mg/l	
Low calcium hardness (soft water)	**High calcium hardness (hard water)**
Corrosive water	Scale forming Cloudy water
Use Hardness Plus to increase calcium levels 	Use ScaleAway to prevent calcium turning into scale deposits 

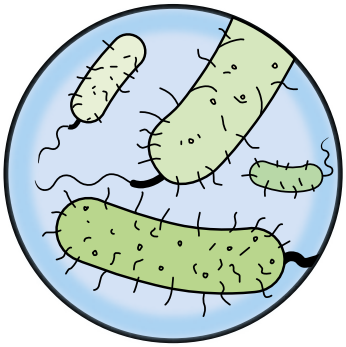
TDS

TDS is the amount of total dissolved solids in the water e.g. calcium, scale, magnesium, cyanuric acid.

High TDS can lead to corrosion, dull looking water, increased chemical consumption, reduced chemical efficiency, salty tasting water. The spa should be no more than 1000mg/l higher than the incoming fill water. If it is higher, the water will need replacing.

TDS

Sanitise Your Water



Sanitisers are an essential part of hot tub maintenance because they ensure water is safe for bathers by killing bacteria that can multiply in the warm conditions of a spa. Various factors can influence the levels of sanitiser in the water, such as amount of bathers, temperature, sunlight, turbulence and aeration.

Sanitisers come in a variety of forms. It is always best to check with the hot tub manufacturer's instruction and warranty documentation before selecting. Factory installed UV systems, ozonators and similar water purification systems provide improved water quality but are regarded as a secondary mode of disinfection. It is essential that a primary sanitiser (either chlorine or bromine) is used at all times.

HSG282 states:

Chlorine or bromine should be used in a business setting.
Recommended free chlorine levels should be maintained between 3-5mg/l
Recommended total bromine levels should be maintained between 4-6mg/l
(levels should be maintained regardless of what form your sanitiser comes in)

Sanitiser comparison table

Key points	Chlorine Granules Di-chlor	Chlorine Tablets Tri-chlor	Bromine Granules	Bromine Tablets	Bromine Pod
Dosing control	Manual	Semi - manual	Manual	Semi - manual	In-line and constant
Disinfectant release	Rapid & Spiked	Gradual	Rapid & Spiked	Gradual	Gradual
Effectiveness in conjunction with pH	Narrow pH	Narrow pH	Wide pH	Wide pH	Wide pH
Chemical handling	Manual dosing	Regular top up	Manual dosing	Regular top up	Pre packed no handling
Business setting compliance	Not recommended	Not recommended	Not recommended	Not recommended	In line dosing
pH of product	Neutral	Low (acidic)	Neutral	Low (acidic)	Low (acidic)

Percentage efficiency of Bromine and Chlorine against pH level

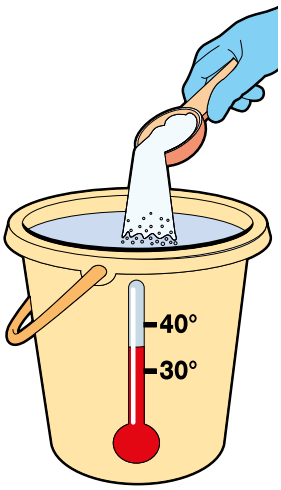
Chlorine becomes less effective when pH levels are high. It is important to keep pH levels between 7.0-7.6 to ensure sanitiser efficiency.

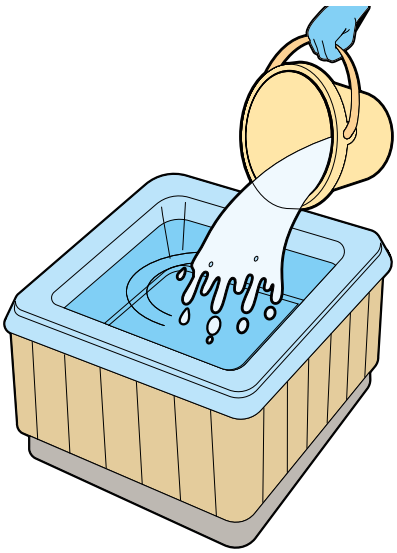
Bromine is not as sensitive to pH like Chlorine is but it does become slightly less effective as pH levels rise.

pH	Chlorine	Bromine
7.0	76%	95%+
7.2	63% available	95% available
7.6	39% available	87% available

Sanitise Your Water – Ideal in-line dosing

Handy tip: when dosing bromine or chlorine granules, pre-dissolve them in warm water (30-40 degrees) then pour the solution straight into the hot tub





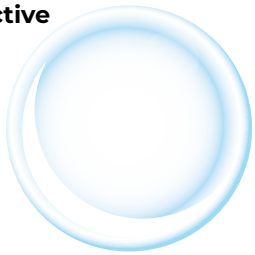
Floating dispensers are not suitable for use in a business setting.
Never mix chemicals (including household cleaners) as a dangerous reaction may occur.

Chlorine

Chlorine is a popular sanitiser because it is affordable, accessible and easy to use. It does not work as effectively at a high pH. When chlorine reacts with contamination, it can produce chloramines that may irritate the skin and eyes.
Tip: Use a shock product regularly to remove these chloramines.

AquaSPArkle Spa Stabilised Chlorine Granules

- Granular
- Quick dissolving
- Minimal effect on pH
- Stabilised
- Cost effective



AquaSPArkle Spa Multifunctional 20g Chlorine Tablets

- High chlorine content
- Easy to use
- Slow release dosing providing consistent sanitiser levels
- Multifunction
  - Clarifier
  - Stabiliser
  - Sanitiser
- Acidic
- Designed to be used in conjunction with appropriate dispensers

AquaSPArkle Spa Bromine Granules

- Granular
- Quick dissolving
- Minimal effect on pH
- Stabilised
- Cost effective
- Considered a milder sanitiser
- Reactivated with regular shocking
- Retains effectiveness over a wider pH range

AquaSPArkle Spa Bromine Tablets

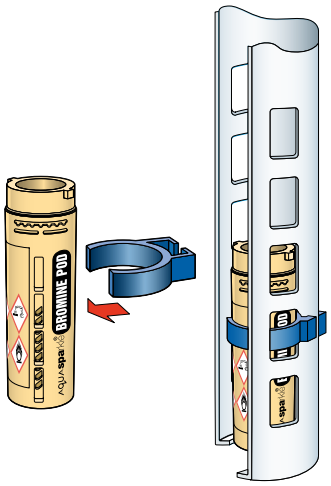
- Slow release dosing providing consistent sanitiser levels
- Easy to use
- Considered a milder sanitiser
- Reactivated with regular shocking
- Retains effectiveness over a wider pH range
- Designed to be used in conjunction with appropriate dispensers
- Preferred choice for many in a business setting

The AquaSPArkle Bromine Pod

The AquaSPArkle Bromine Pod is an innovative new product for the holiday let sector. AquaSPArkle Bromine Pods are pre-filled adjustable dispensers which give a continous slow-release of high quality AquaSPArkle bromine tablets for safe, convenient, and cost-effective sanitiser dosing.

Key Benefits:

- Pre-filled with high quality bromine tablets
- Adjustable output depending on bather load
- Up to six weeks sanitation per Pod
- Convenient and safe to use, no chemical handling
- Meets HSG282 requirements for continuous disinfection
- Simple in-filter installation keeps chemicals away from bathers
- Compatible with popular in-line dosing systems

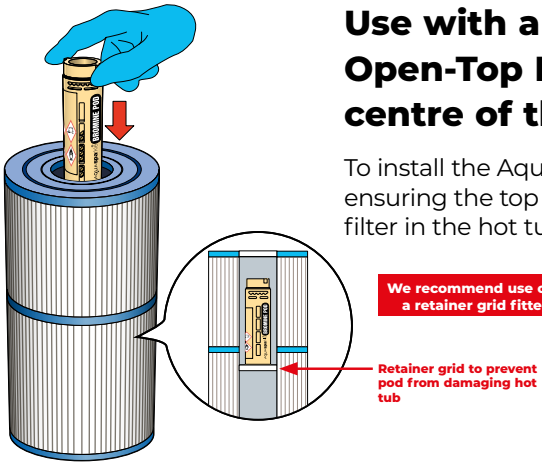


Use in a Built-in Proprietary Hot Tub Dosing System (or frame)

Attach the AquaSPArkle Bromine Pod to the chemical dispenser frame or chamber using the adaptor clip provided. Ensure that the AquaSPArkle Bromine Pod is firmly attached to the adaptor clip, and the adaptor clip is firmly attached to the chemical dispenser frame.

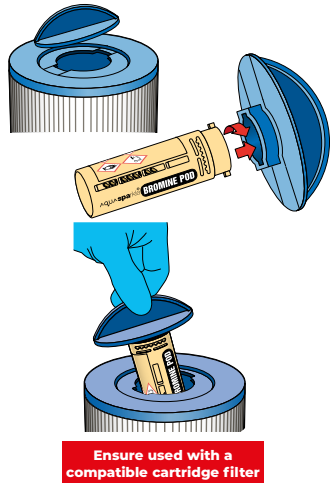
It takes a while for bromine tablets to begin to dissolve so it may be appropriate to first shock treat to immediately establish chlorine or bromine residuals. Add the appropriate amount of Rapid Shock as per product label dosing instructions. Always test your hot tub water prior to use and maintain bromine levels between 4 - 6 mg/l (ppm).

(Initial shock dose applies when using the AquaSPArkle Bromine Pod in any of the 3 installations.)



Use with a Darlly Sanistream™ Open-Top Filter, or Open-Top Filters fitted with a stopper device in the centre of the cartridge

To install the AquaSPArkle Bromine Pod into an open ended cartridge filter, lower the Pod ensuring the top is upright until it rests onto the Pod retainer grid. Then install the cartridge filter in the hot tub.



Use with a Darlly Sanistream™ Handle-Top Cartridge Filters, or other Cartridge Filters that contain a cap that accommodates the clip-in of the pod lugs

To install the AquaSPArkle Bromine Pod into a closed-cap cartridge filter, first twist the handle anti-clockwise and remove the cap.

Install the AquaSPArkle Bromine Pod in the cartridge filter cap by locating the two protruding lugs on the top of the Pod into the underside of the cap, then twist until it clicks to lock the pod in place.

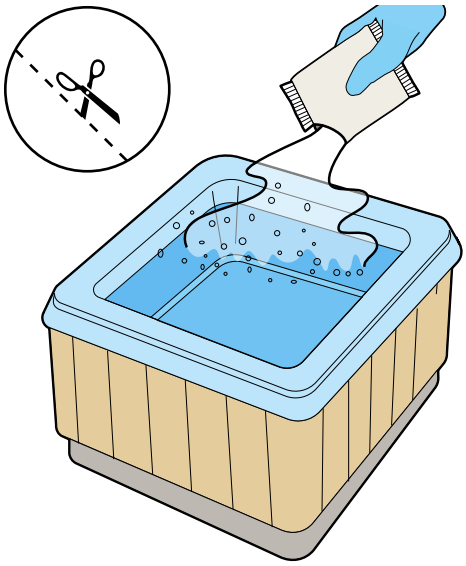
Insert the AquaSPArkle Bromine Pod and cap assembly into the cartridge filter by locating the lugs of the cap into the slots, then twisting clockwise to lock the cap into the cartridge filter. Then return filter to the hot tub.

Oxidising

Oxidising the water is critical after heavy usage or high bather load to remove bather wastes that are introduced into the water. It involves adding a higher than normal dose of shock chemical to the water to control bacteria growth and destroy bather impurities. Popular oxidisers:

- Spa Fusion
- Non Chlorine Shock
- Rapid Shock (perfect for commissioning and recommissioning)

How to apply Spa Fusion



AquaSPArkle Spa Fusion

Spa Fusion is the ultimate product for regular oxidisation of hot tub water. Supplied in a convenient 35g sachet, this powerful oxidiser not only destroys bather wastes but also clarifies the hot tub water. This gives you water that looks great and feels good. As Spa Fusion is supplied in a pre-measured sachet, application is easy: simply cut the corner of the sachet with scissors and carefully sprinkle the contents over the spa water. No pre-dissolving is required. One 35g sachet is sufficient to treat up to 1,500 litres of hot tub water.

AquaSPArkle Spa Non Chlorine Shock

A granular product that is ideal for the regular oxidation of hot tub water as it will destroy organic waste and chloramines without increasing the chlorine level. These granules can be used for chlorine or bromine treated hot tubs.

AquaSPArkle Spa Rapid Shock

A fast dissolving, stabiliser free granule with a high chlorine content designed to remove organic and bather contamination. The perfect product to commission or recommission a hot tub that has been winterised or is brand new.

It is recommended that shock dosing should be done when a hot tub has been drained and refilled in-between guests to 10mg/l.

Shock dosing is also recommended if there has been a heavy bather load. Remember, some products elevate disinfectant level, if it is too high, the water can be unpleasant to bathe in.

Product	Spa Commissioning	Rapid Spa Re-entry after use	pH Neutral	Added clarifier	Removes bather waste
Spa Rapid Shock	✔				✔
Spa Fusion		✔	✔	✔	✔
Spa Non Chlorine Shock		✔			✔

Hot Tub & Pool Parts.

Over 34000 products online, with a huge stockholding, covering jets, filters, covers, pumps, plumbing & packs virtually everything else for your business.

We have a dedicated technical team to help you ID, specify and install via telephone email or Whatsapp for quick instant responses when you most need it.

We hold one of the largest stock portfolios of any hot tub and swimming pool parts distributor in the World.

We stock direct a huge array of manufacturers such as Waterway Plastics, Balboa and Hydroair and Gecko and Aqua-Flo Products. In addition we source OEM spares for hot tubs not available from the manufacturers for leading brands, such as Dimension One Spas, Sundance® Spas, Jacuzzi® Spas, Spaform Spas, Arctic Spas, and HOTSPRING® SPAS

Cover Care and Maintenance.

The hot tub cover is one of the most important parts of your hot tub.

We are the largest distributor of replacement hot tub covers and swim spa covers in Europe, we have been at the forefront of selling them on-line for the last 20 years.

We have achieved this enviable position though our passion for quality, specification and industry leading customer service.

All lids are premium & come with what we consider essential add ons:

5-3" tapered core - provides greater strength and thermal characteristics
Continuous Heat seal - keep heat in the lids where it belongs
Triple “thickness” vapour barrier to etxend the life of the lid against water entry

All this provides you with the best lid with the longest life expectancy at the most competitive price - look around and if you can find a cheaper price for the same specification we will beat it.

A quality cover is no small investment, and it will need to be replaced every so often.

Save money by learning how to get the most life out of your hot tub cover and how to tell when it's time for a new one.

Maintaining Chemical Balance.

Keeping your hot tub water balanced is one of the most important, but potentially expensive, parts of spa ownership.

You'll get the most bang for your chemical buck by keeping your hot tub covered.

When you leave your spa uncovered, the water begins to evaporate, taking all those expensive chemicals with it, and slowly reducing your hot tub's water level

This means you'll have to top it off more often, and then add more chemicals not only to replace what was lost to evaporation, but also to balance the newly added water. The longer you leave your hot tub uncovered, the more water, chemicals, and money you'll lose.

Keeping Debris out.

A hot tub cover eliminates things like leaves and insects falling into the water, however, that debris (including snow) will settle on top of your hot tub cover, if left the weight will damage your cover.

Moisture and decaying leaves breed midges—not the best company for your guests

The more often you remove debris, the better. Once a week and immediately following a storm is a good minimum to keep your cover in tip top shape.

Most debris, including snow, a regular push broom is the easiest way to brush everything off. If the debris is dry, you may also use a leaf blower / avoid using any tool with sharp edges, such as a snow shovel, which could gouge the vinyl and allow moisture inside your cover.

Keeping Customers Safe

This is undoubtedly a paramount concern, to avoid a tragic, accidental drowning, it's essential to cover your spa when it's not in use.

Be sure the cover fits your spa properly, without any gaps.

Not all hot tub covers could handle the weight of child walking across them.

To be absolutely certain yours will be able to, check that your cover meets ASTM Fl 346-91 safety requirements.

ASTM International is a worldwide organization of technical professionals who create industry safety and labelling standards for items such as pool and hot tub covers.

The packaging or online product description for your hot tub cover should prominently state whether it meets those criteria.

.

A special hot tub cleanser, a scrub brush, sponge, and your hose are the essential items.

Remove the cover from your hot tub, then lay it flat with the top up. Spray on the cover cleaner, then gently scrub any tough residue with a sponge.

Wipe the cover clean. Some cover cleaners may also need to be rinsed. Flip the cover over, and clean the underside and sides the same way.

Using special cover cleaner offers you several benefits beyond regular detergent or a multi-purpose cleaner.

First, it's created to be gentle on your vinyl, preventing damage that other cleaners may cause if they contain harsh ingredients like alcohol.

Also, it typically doesn't require a lot of rinsing like thick detergent cleaners do. Its important that the cleaner you use rinses completely so you don't end up with residue in your hot tub.

Avoid any cleaners with alcohol, detergent, oil, or silicone.

Finally, apply a vinyl protectant or conditioner before replacing your hot tub cover.

Clean and protect your spa cover at least once every two weeks to keep it in tip-top condition, and help it last longer.

If this is impossible during the winter months, remove snow and ice frequently, and consider using a cover cap throughout winter. Then go back to removing the cover regularly as the season arrives.

Our lids are ASTM certified, you may be using a low-quality cover. If you've been using the original cover that came with your spa, or you went with a cheap replacement cover, you may be paying the price now with mold, rips & tears and safety inplications.

Strap Your Cover Down

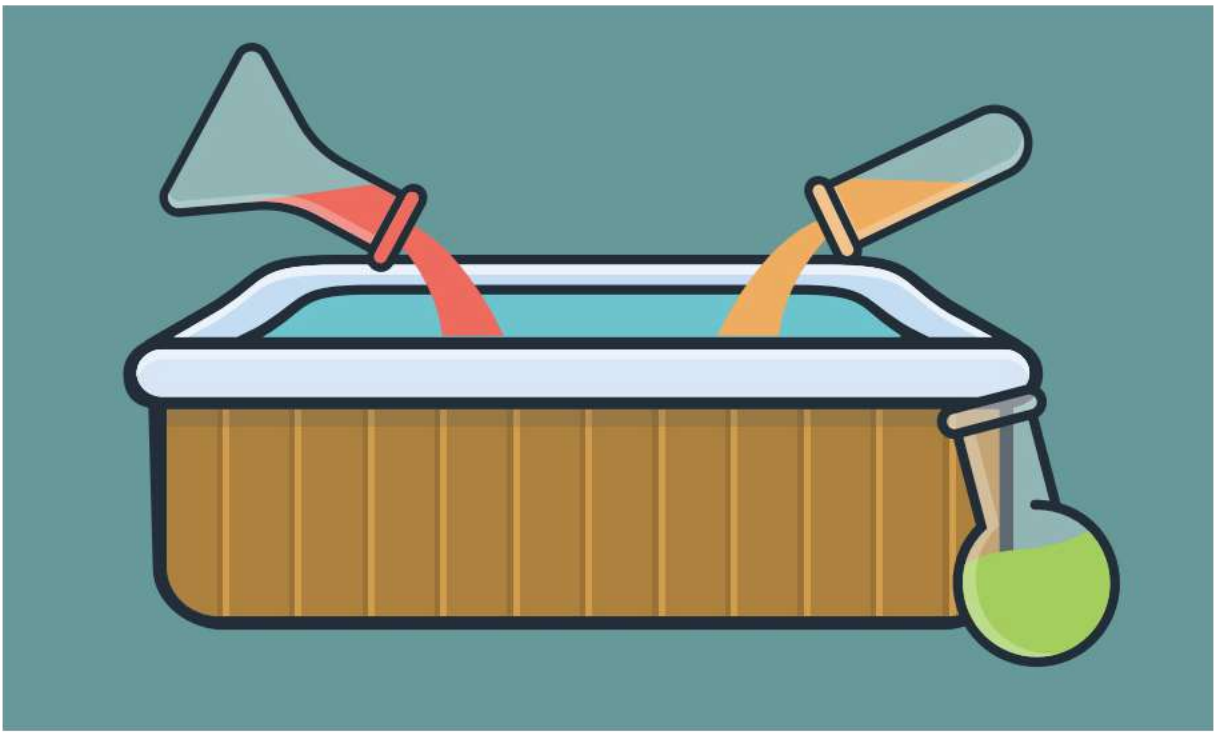
The best way to make sure your spa cover never goes airborne is to install cover straps.

Sometimes called hurricane straps, they're securely anchored to the sides of your hot tub to keep your spa cover in place even in high winds. Small, plastic clips allow you to easily detach the straps whenever you want to use your spa.

Get a Cover Cap

A cap costs far less to replace than a whole new hot tub cover- Plus, a physical barrier is doubly effective against snow, debris,and UV damage than using spray-on protectant alone.

If you want to protect the sides of your spa cabinet as well, you can go with the whole hot tub ensemble and attach a skirt to your cap. Skirts can be especially useful in places that see a lot of snow in winter by providing a barrier between accumulated snow and your spa cabinet



Maintain balanced water.

When your spa is covered, condensation will accumulate on the underside of the cover.

If the water chemistry water is incorrect, the bacteria and algae growing in the water will also grow on the surface of your spa cover.

Make it a habit to balance your water and clean your spa cover at the same time.

In addition, if you shock your hot tub then cover it back up right away, the intensity of chlorine in the water can damage the vinyl cover.

When you shock your hot tub, use that time to allow your cover to air dry while it's off the hot tub.

Test your water to ensure chlorine levels are back down to at least 5 ppm before replacing the cover, and definitely before using your spa.

.

Why is Your Hot Tub Cover So Heavy?

As a hot tub cover is used, you'll notice it begins to feel heavier after a while.

Hot tub covers have dense foam cores.

Over time, that core slowly absorbs water, and eventually becomes waterlogged and grows heavier.

To slow this process down, our hot tub cover has a triple thickness vapor barrier, which is a specially designed plastic film that covers the underside of the cover to keep water vapor away from the foam core.

The thing is, the vapor barrier will eventually wear out through chemical burning, causing the cover to become even heavier, and creating an even more serious issue.

Allowing your cover to air out regularly may slow down this process some, but there is no way to completely avoid it.

Eventually your cover will become so heavy, you'll need help removing it, probably tearing weaker areas of the cover in the process, a cover lifter is essential in this type of setting to be installed on your spa.

You may not even realize your cover is getting heavy at first because the lifter is taking the brunt of the extra weight.

But just as lifting that soggy cover yourself could hurt you, it can also hurt your lifter.

The mechanism just isn't meant for lifting a cover that weighs twice what it should.

.

How to Lift Your Hot Tub Cover.

The benefits of cover lifters are fairly obvious.

hey make removing your cover easier, so your customers can use your hot tub easier & more frequently.

Using a lifter may make cleaning a bit easier if you wipe down the top of the cover while the spa is closed, then clean the underside while the cover is on the lifter.

One downside is none of the three types of lifters can fully remove your hot tub cover.

If you want to take it off to air out, for example, you're still in for some heavy lifting.

Most lifters put your cover at around eye level while your spa is open. So consider your customers and location!

With few exceptions, one side of your hot tub will have nothing but a spa cover for scenery.

If you notice bending or bowing of your lifter, it could be a warning sign that your spa cover is getting heavier-

A waterlogged cover will continue growing heavier over time, so it's best to replacethe cover when you notice this happening.

Extensive damage to the vinyl that cannot be repaired is another sign that it's time to invest in a new hot tub cover
.
.

Comparing our Covers

When it's time to shop for a new hot tub cover, please contact us to discuss our features in depth as we can tailor your requirements at the production stage.

We've been doing this for 20 years plus and we know the difference between ours and the competitions lids and can advise fairly and appropriately

Hot Tub Cleaning

Cleaning the shell

HSG282 states:
"Cleaning products should be compatible with the materials used in the construction of the spa pool and with other chemicals used for treatment"

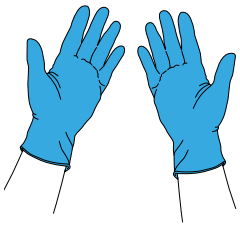
AquaSPArkle products are suitable for acrylic hot tubs and cedarwood tubs, although we do not recommend using highly acidic products on cedarwood hot tubs.

The waterline can accumulate bather wastes such as dead skin and sweat this creates a scum line that can host bacteria. Cleaning the waterline with AquaSPArkle Surface Cleaner will remove the scum line and any residual grime.

Action	Frequency
Clean the waterline	Check daily and clean as appropriate
Clean overflow channels & skimmers	Always clean at water replacement

AquaSPArkle Spa Surface Cleaner

This product is easily applied using either a brush, sponge or cloth. Before applying, ensure the area to be cleaned is wet, then disperse a little on to your chosen application method and gently apply it to the waterline. Leave it for 2-3 minutes and then rinse the area with plenty of water.



Caution: Gloves must be worn when using this product.

This product should also be used in between draining and refilling to clean all internal hot tub surfaces.

Top Tip: To avoid cross contamination, designate a specific brush, sponge or cloth to each hot tub.

Surface cleaner can also be used on headrests, jets, skimmers and hot tub covers.

To help rejuvenate and protect your hot tub cover, use Gold Horizons Spa Shine 'n' Protect as a partner to surface cleaner.

Filter Cleaning

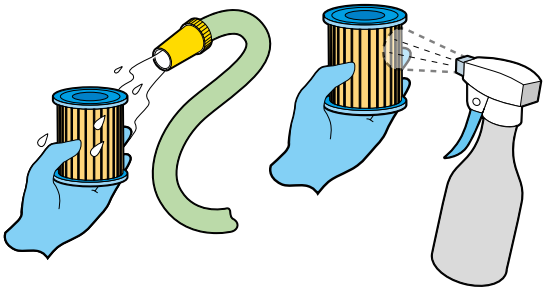
The filter is the dust bin of the hot tub and therefore requires frequent cleaning. It is recommended that you always have a spare, clean and dry set of replacement filter cartridges.

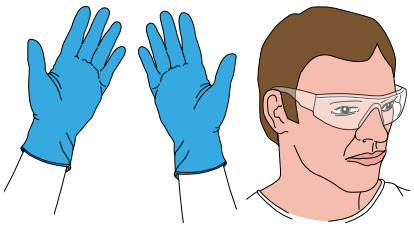
Action	Frequency
Replace and clean the cartridge filter	At changeover or weekly, whichever is shorter
Deep clean cartridge filters	Every 4-6 weeks

AquaSPArkle Instant Filter Cleaner

This product is recommended to clean filter cartridges weekly. Instant Filter Cleaner rapidly removes greases and oils from the pleats in the filter. For best results, rinse the filter with a hose before applying the product thoroughly to the cartridge. Leave it to soak for 15 minutes, then rinse again thoroughly before placing back into the filter chamber.

Ideal for interim cleaning





Caution: PPE should be worn while using this product. I.e. gloves and eye protection.

The following products are recommended for deep cleaning filter cartridges. Soaking the filter in either of these products will remove stubborn oils and greases as well as scale, keeping your filter working efficiently.

AquaSPArkle Immerse / AquaSPArkle Cartridge Cleaner

These products are ideal for deep cleaning filter cartridges.

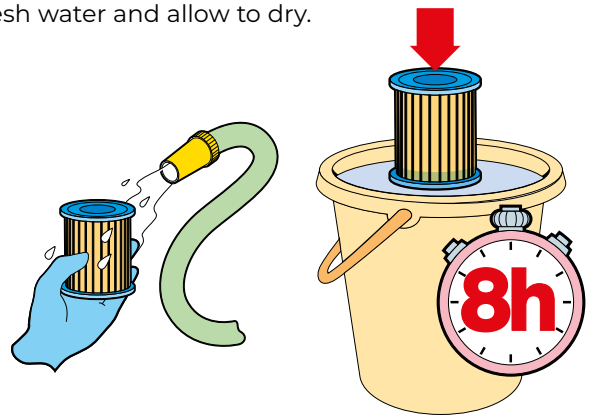
If using Immerse, add the contents of both sachets to a clean bucket with fresh water and mix well.

If you're using Cartridge Cleaner, add the required dose to a clean bucket with fresh water and mix well.

Rinse the filter with a hose to remove lose debris and then add to the cleaning solution, leaving it to soak for 8 hours. After soaking, remove the cartridge, rinse thoroughly with fresh water and allow to dry.

Ideal for deep cleaning

Ideal for deep cleaning



Top Tip: Allowing the filters to dry will restore the tension in the pleats helping them to last longer.

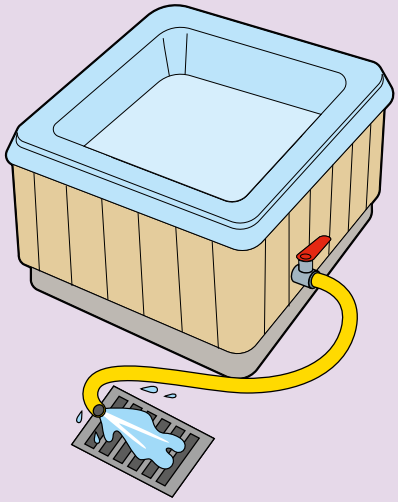
Draining & Refilling

HSG282 states:
"Where a hot tub or spa pool is used as a business activity, the total water should be replaced each week, or after each group of users, if earlier"

Action	Frequency
Drain the hot tub and flush pipework	Weekly or at changeover

Drain down routine:

- Remove all filters and inline feeders
- Apply flush treatment in line with dosing instructions.
- Circulate product as directed.
- Empty the hot tub completely of water by opening the drain valve or use a submersible pump
  - Use a wet vac where possible
- Clean the waterline, surrounding surfaces, headrests and cover, inside and out
- Check control valves, internal jets and features
- Inspect handrail and access steps
- Clean the filters



While the surfaces of the hot tub are regularly cleaned, the pipework is not and requires a special treatment prior to drain down.

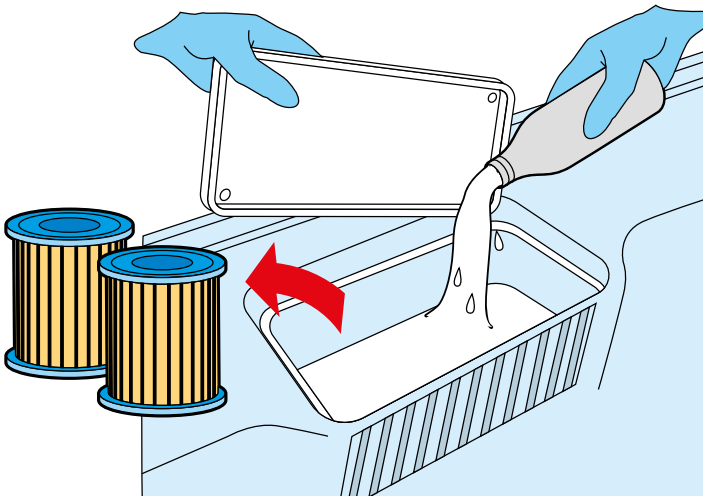
AquaSPArkle Hot Tub Flush

Dose the required amount directly into the filter chamber while the pumps are running. Leave for a minimum of one hour, then the hot tub is ready to be drained.

Important. All pumps need to be operating. Check to ensure all jets in the hot tub shell are open. Any diverter valves and air controls need to be operated several times to ensure that water circulates through all internal pipework, this includes any water fountain features. Also operate any aroma essence injection features by filling with hot tub water once treated with the Hot Tub Flush. Remove any in-line feeders (Frog cartridges/ BROMINE PODS) and the spa filters / floating dispensers.

Once the hot tub is drained, the use of a wet vac will allow as much water to be removed as possible from the hot tub by inserting into the spa filter canister pipe work. Thoroughly clean the hot tub shell, inside the filter canisters and, using a vinyl cleaner, clean the underside of the hot tub cover.

How to apply Hot Tub Flush



AquaSPArkle Spa Super Cleanse

Hot Tubs in holiday lodges tend to encounter more cosmetic contamination and heavier bather sessions. This can leave the hot tub more susceptible to biofilms and microbiological contamination. A chlorine dioxide treatment is recommended **every other month.**

Biofilm is extremely resistant to chlorine and can harbour bacteria and other pathogens. AquaSPArkle Spa Super Cleanse is a highly effective cleansing agent that penetrates the biofilm and cleans the hot tub pipework and surfaces.

Caution: Particular care should be taken with this product, do not touch the tablets or allow them to get wet prior to adding to the hot tub water.

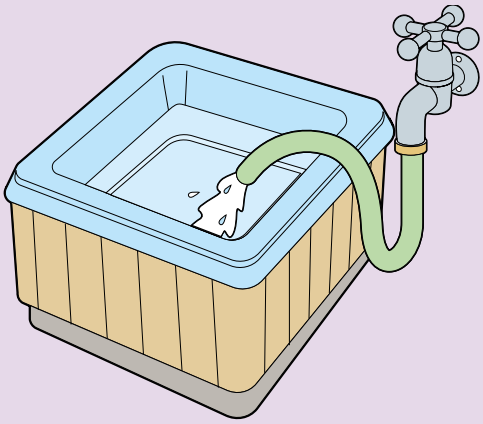
Litres	Gallons	Number of tablets Required
500	110	1
1,000	220	2
1,500	330	3

Dosing instructions

- Remove and thoroughly clean cartridge filters
- Ensure free chlorine or total bromine levels are within the recommended range of 3 – 5mg/l.
- Remove any soft head rests that may be fitted.
- Isolate any chlorine or bromine feeders prior to Spa Super Cleanse treatment.
- Refer to table below for number of tablets required for your hot tub.
- Wear protective gloves and eye protection when handling product.
  - Remove the required number of sachets from the sealed container.
  - Use scissors to cut open the sachet and carefully drop the tablet into the hot tub water with the filtration running.
- DO NOT touch the tablets or allow them to get wet prior to adding to the hot tub water.
- For a deep clean treatment, keep the pumps running for 60 minutes. After this, turn the pumps off and drain the hot tub water to waste.
- Refill with fresh water and return hot tub water to the recommended chemical levels.

Refilling routine:

- **Refill the hot tub with fresh water**
  - **Run the hose to waste prior to filling**
  - **Always maintain a gap between the hose and water**
- **Shock dose aiming for 10 ppm free chlorine**
- **Run the pumps and open the air control valves and operate all diverter valves to allow the oxidiser to circulate effectively.**
- **Add chemicals as needed to achieve balanced water**
  - **TA 80 - 150mg/l**
  - **pH 7.0 - 7.6**
- **Test and record the results**
- **Place clean, dry filters back into the filter chamber**



Water Problems

Foam

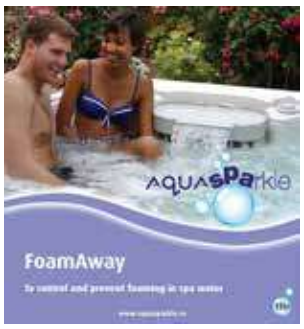
Cause: Detergents on swimwear is the main culprit for causing foam in a hot tub. Equally, cosmetics, lotions and sweat can also cause excessive foaming.

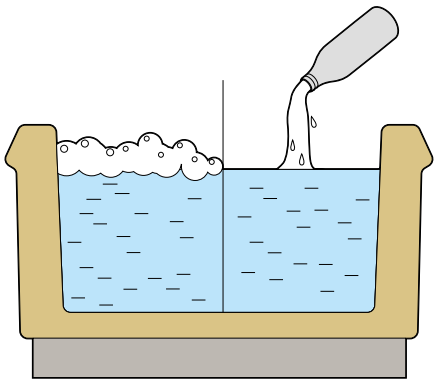
Solution: Using AquaSPArkle FoamAway will help to dissipate the foam.

Tip: Get guests to shower before using the hot tub to reduce the amount of bather waste introduced into the water. Rinsing costumes with water rather than detergent will also help to prevent foam.

AquaSPArkle Spa FoamAway

This fast acting product quickly breaks down any unsightly foam on the surface of the hot tub water. It comes in a liquid form that can be added directly to the hot tub water.

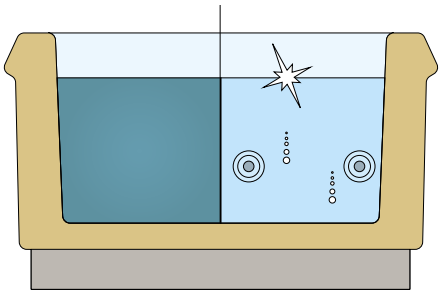




Cloudy water

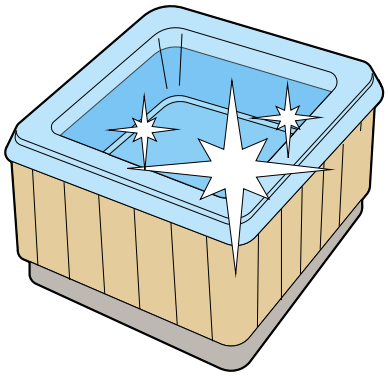
Cause: Incorrect water balance / Poor or insufficient filtration / Low levels of sanitiser / A build up of bather waste.

Solution: Using AquaSPArkle Spa Sparkle will restore water clarity. However, check the cause of the cloudy water as another action may be necessary before application of this product, e.g. if the cause is bather waste, it will require a shock dose before using the clarifier.



AquaSPArkle Spa Sparkle

A clarifier in liquid form that can be used with all types of filtration systems. Spa Sparkle is added directly to the hot tub water with the pump running. Once applied, it collects small particles and binds them together making larger particles that are much easier for the filter to remove.



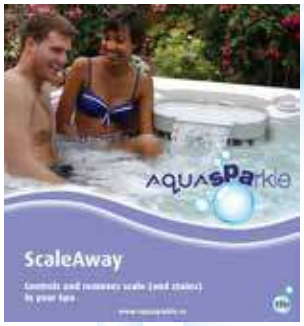
Scale / Calcium flakes

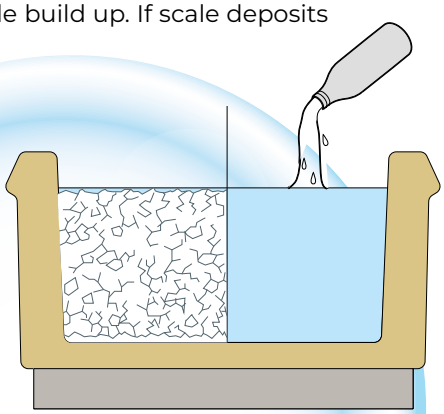
Cause: High calcium levels in the water (hard water area) / Incorrect water balance (high TA, high pH, high TDS).

Solution: Using Scaleaway in a hard water area is recommended to prevent scale build up. If scale deposits are severe, contact your local AquaSPArkle dealer for advice.

AquaSPArkle Spa ScaleAway

A liquid product which will prevent scale deposits caused by mineral precipitation which can build up rapidly on hot tub surfaces due to high water temperatures. Dose weekly to prevent scale deposits within the filter, heater, pipework and on hot tub surfaces.





Bacterial growth / Biofilm

Cause: Warm hot tub water can provide the ideal breeding ground for bacterial growth. As this begins to attach to spa pipework and surfaces, biofilm can begin to form.

Solution: AquaSPArkle Spa Super Cleanse is a highly effective cleansing agent that penetrates the biofilm and helps remove the bacteria.

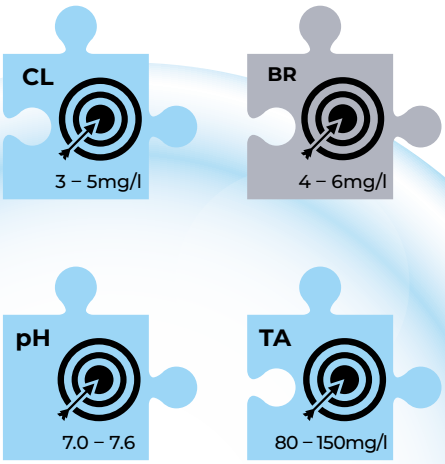
Treatment and cleaning of hot tub pipework

Where there is a failed microbiological result or known issue with a hot tub

1. Remove and dispose of the filters
   - Eliminate the risk of cross contamination
   - Ensure filter efficiency
2. Remove inline feeders and pillows
   - Clean pillows with surface cleaner and disinfect with a high chlorine solution
3. Put on recommended PPE
4. Double dose Spa Super Cleanse tablets to the water
   - With hot tub cover off
   - Turn the pumps on
   - Circulate for 15 minutes

Secondary clean

5. Add recommended dose of hot tub flush to the skimmer basket / filter housing.
   - With hot tub cover off
   - Circulate for 1 hour
6. Drain the water into a mains via the drain valve or use a submersible pump
7. Clean the shell with Surface Cleaner
   - Rinse
   - Drain thoroughly to avoid foam upon refilling
8. Re-fill hot tub
9. Pre-dissolve Rapid Shock in a bucket of warm water
   - Target 50 mg/l free chlorine (commissioning dose)
   - Water dilution test if in doubt of chlorine level
     - Speak to your local dealer or chemical supplier if you have any concerns
   - Circulate for 1 hour
10. Reduce chlorine to safe bather levels
    - Use a chlorine reducer
    - Dilute with fresh water
    - Leave to naturally decline
11. Balance the water in line with recommendations
12. Prepare the hot tub for use
    - Test the water and record the results
    - Install new filters
    - Replace pillows and other accessories
    - Additional bacteriological test may be required



Chemical Testing

Testing the water

With increased risk of infectious diseases in spas, such as legionella or pseudomonas, effective water management is critical to your bathers safety. Regular and routine chemical testing will help to optimise your treatment plan by informing you of the balance and sanitiser levels of your water.

The minimum key parameters under the HSG282 which should be tested for are:

- pH
- Disinfection (chlorine or bromine)
- TDS (total dissolved solids)

We recommend that the TA (total alkalinity) is regularly monitored because TA levels will affect your pH reading.

Frequency of water testing

The frequency and extent of the chemical testing should be determined by the risk assessment – HSG282 para 149.

BISHTA recommend testing at least twice daily using a method that will produce repeatable and accurate results.

Testing tools

Test strips and domestic pooltesters are NOT recommended as appropriate devices for accurate and consistent testing of a hot tub in a business setting. Photometers that use reagent tablets are advised to test for pH, bromine, chlorine and TA. Depending on the device, you can also test for calcium hardness and other parameters. To test for TDS, a TDS pen is required, as this is a measure of conductivity.

Recording test results

Test results, along with any corrective action should be recorded and data should be stored for 5 years.

Frequency	Action
At least twice a daily	Test pH & sanitiser level of water with suitable test kit. Record results. Check water clarity. Add chemicals as required. Record action/s taken

Free and combined chlorine

- Free chlorine will react with organic bather pollution and kill bacteria in the water. When free chlorine reacts with contaminants, it becomes bound and can no longer kill bacteria or react with organic matter. This is referred to as combined chlorine. Combined chlorine can affect the overall efficiency of the sanitising agent to cope with the bather load.
- The accepted concentration of combined chlorine is 1mg/l. However, the combined chlorine levels should be no more than half that of the level of free chlorine.
- To work out combined chlorine you do the following: Combined chlorine = total chlorine (use DPD3 tablet) – free chlorine (use DPD1 tablet).

HSG282 states:

'The process of disinfection using a chlorinating agent results in the formation of free and bound (combined) chlorine. Combined chlorine, which has slow and little disinfectant effect, is formed by the reaction of free chlorine with organic materials arising from bather pollution, e.g. urine and perspiration. The efficiency of the disinfection system to cope with the bather load is reflected by the concentration of combined chlorine. The ideal combined chlorine concentration is 0 mg/l, but a concentration of less than 1 mg/l is normally considered acceptable (although the combined chlorine should not exceed half of the free chlorine). Above this concentration, irritation to the mucous membranes of the eyes and throat may occur'.

Chemical Testing Equipment

For repeatable and accurate testing, a photometer should be used in a business setting. Photometers provide precise water analysis in a compact, hand held unit. Unlike test strips, comparators and pooltesters, they aren't subject to human error or interpretation because the unit interprets, records and displays the results for you.

Photometer kit options:

Parameter	Reagents (Test Tablets)	Palintest - Lumiso 4	Palintest - Lumiso 6	Lovibond - 278110-HSG	Lovibond - MD110
Free Chlorine	DPD No 1	✔	✔	✔	✔
Total Chlorine	DPD No 3	✔	✔	✔	✔
Bromine	DPD No 1	✔	✔	✔	✔
pH	Phenol Red	✔	✔	✔	✔
Total Alkalinity	Alkaphot	✔	✔		
	Alka M				✔
Calcium Hardness	Calcicol No1 & No2		✔		
	Calciio-H No1 & No2				✔
Cyanuric Acid	Cyanuric Acid		✔		✔
TDS Meter	SD30			✔	

Palintest Lumiso Expert

A multi-parameter bench top photometer designed as an all-round solution for pool and spa water testing needs. It has a large touch screen interface, with easy to follow on-screen instructions, and its robust construction and IP67 waterproof design ensures it can be used in any environment. The Lumiso Expert also benefits from easy results retrieval and data traceability. With 35 tests routine and troubleshooting, testing is made easy with quick and accurate results.

- Designed and manufactured in the UK
- Recycled material case
- IP67 Waterproofing
- Multi parameter for troubleshooting
- Simple to follow on screen instructions
- Data traceability for audit compliance
- Easy results retrieval with Palintest Connect

Photometer testing tips:

- Wash and dry hands before commencing testing
- Make sure the test tablets are the correct grade for the equipment being used
- Ensure all equipment is clean and dry
- Check the tablet prior to testing and reject any suspect tablets
- Rinse vials 3-4 times with sample water before carrying out the test
- Never handle the tablet
- Ensure the test tablets are completely dissolved with no particles floating in the test cell
- There must be no bubbles adhering to the inside walls of the test cell
- The cell compartment itself must be kept clean and dry

Standard Operating Procedures (SOP / NOP)

It is important to maintain the hot tub to keep guests safe. BISHTA recommends the following to be done daily, weekly, monthly.

Advised operating procedures are seen below. However, your site-specific risk assessment will guide you on regular procedures.

Things to consider:-

Frequency	Operational Action
At least twice daily	Test pH and residual disinfectant level of water with a suitable test kit.
	Check water clarity.
	Add chemicals as required.
	Record action taken on an appropriate record sheet.

Frequency	Operational Action
Daily	Clean waterline and acrylic surfaces with Spa Surface Cleaner.
	Check skimmer basket and remove any visible debris.
	Check suction grilles intact.
	Check in-line feeder is working (if applicable).
	Refill in-line feeder (if required).

Frequency	Operational Action
Between each group of users or at least weekly, whichever is shorter (Changeover)	Empty hot tub completely of water, open drain valve and vacuum out any remaining water.
	Clean waterline and surround surfaces.
	Clean headrests and cover inside and out.
	Check controls and internal jets/features.
	Inspect handrail and access steps.

Frequency	Operational Action
Between each group of users or at least weekly, whichever is shorter (Changeover)	Refill with fresh water and dose with Rapid Shock to achieve a free chlorine level of 10ppm.
	Run the pumps (filter cycle) and open the air control valves, operate all diverter valves to allow the chemicals to circulate through all the pipework, spa jets and featues.
	Test fill water. Record results.
	Add chemicals to achieve “balanced” water. Record results.
	Replace cartridge filter with a clean/dry filter.

Frequency	Operational Action
Monthly	Purge spa pipework with Hot Tub Flush or alternatively use Chlorine Dioxide after heavy use or poor test results.
	Clean/remove jets and all surfaces.
	Clean input air filter.
	Send water sample to UKAS approved laboratory for Microbiological Test.
	Additional Legionella Test sent every 3 months.

Bubbletubs Ltd,
Unit 2 New Barns Farm,
Hilton,
Bridgnorth
WV15 5PB.
VAT: 834 2050 60
Registered: 4995297

Maintenance Guide

Hot tubs in a business setting

The complete guide for holiday let and holiday park hot tub maintenance - in accordance with HSG282 guidelines and BISHTA recommendations

www.poolandspacentre.co.uk

07548905127
01746 330950