BISHTA

PROMOTING SAFE HOT TUB STANDARDS

Hot Tub & Spa Owner's Handbook

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1. Introduction

Spa and Hot Tub owners know that their Spa/Hot Tub can provide years of fun and relaxation. The therapeutic benefits of hydrotherapy have long been recognised worldwide; it is now possible to enjoy this luxury at home. Whether lounging in your Spa/Hot Tub soothing away the stresses and strains of the day, or getting more physical with the jet streams of a Swim Spa the benefits of water-related therapies is endless.

Simply put, hydrotherapy is the therapeutic use of warm water – a proven, natural remedy. Whether it's to unwind from the complexities of everyday life or to rejuvenate sore muscles and joints caused by sports or arthritis pain, hydrotherapy can help you feel better – naturally.

Who Needs Hydrotherapy?

In a word, everyone! Soaking in the hot, swirling water of a spa leaves you feeling both mentally and physically relaxed. Ever have trouble getting to sleep? Fifteen minutes in a Spa/Hot Tub before bedtime can make it easier to drift into a deep, restful sleep.

If you've ever felt stiff or sore or tense (and who hasn't), you'll appreciate hydrotherapy. Many arthritis suffers find that a soak in the morning provides day-long relief. And anyone who engages in strenuous sports, hard physical labour, or just spends the day on their feet can find relief in a Spa/Hot Tub, too.

Of course, a Spa/Hot Tub is more than just good hydrotherapy. It's also good fun. So it's something you'll want to experience every day. And once you own a Spa/Hot Tub, you'll probably find yourself saying "I don't know how I got along without it."

This handbook has been compiled for Spa and Hot Tub owners. It is written in simple non-technical language and endeavours to answer some of the queries that will inevitably occur. You are urged to follow the suggested care and maintenance routines so that you can anticipate the trouble-free enjoyment of your Spa or Hot Tub.

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Customer Advice When Buying a Hot Tub or Swim Spa

BISHTA is the Trade Association for the Spa and Hot Tub manufacturers, importers, retailers, suppliers, service/maintenance engineers and holiday venues hiring out Hot Tubs in the UK. BISHTA and its members want you to enjoy your experience of buying a Spa or Hot Tub, as you deserve it!

Buying from a BISHTA member, either from their showroom, on their internet site, or from an exhibition, should ensure that you get the best advice and find the item you wish to purchase that suits your needs and budget requirements. BISHTA members are suitably trained and experienced to provide you with knowledge about the products and, most importantly, the water treatment regime needed to safely maintain your Spa or Hot Tub. BISHTA members are expected to work to industry standards and abide by a Code of Ethics, to give you peace of mind.

Sadly, customers have bought products from companies that are not BISHTA members, especially on the internet, thinking they are getting a great bargain, only to be let down by poor quality products or shoddy after-sales service. In the longer term, this can cost even more money due to not asking the right questions from the outset.

To assist customers in making informed choices about buying a Spa or Hot Tub, BISHTA and its members recommend that you ask the following questions (which continue overleaf):

- Make sure you know what you want the Spa or Hot Tub for, as this may influence the equipment that you need. For instance, is it for fun, fitness, medical reasons or relaxation?

- Confirm what water treatment is required to ensure that you know how to maintain the water safely. Anyone that does not offer you this water treatment advice should be avoided at all costs, as they may be putting you and your family at risk.

- Clarify what features you will be getting in terms of number of seats, number and style of jets, entertainment systems available and the manufacturer of the control box (powerpack).

- Some Hot Tubs can be plugged into a socket with a three-pin plug and may only require a 13-amp fuse, depending on the heater and pump size, so check this carefully with the retailer/supplier.

- Do not purchase a Hot Tub if the company does not undertake a site survey; otherwise, how do they know that your home can accommodate their product?

- Other Hot Tubs need to be wired into the mains. So, you will need to ensure a competent person registered with an Electrical Self-Certification Scheme in England and Wales (or equivalent in Scotland, Northern Ireland or the Republic of Ireland) can connect your power supply from the consumer unit to the rotary isolator (or equivalent localised power source) that will feed your Spa or Hot Tub. The final connection to the Spa or Hot Tub should be made by someone who is suitably trained and skilled electrically.

- Some internet providers have products that customers may believe to be from one country but are actually from a different continent, so check carefully and do not assume a name means that the product is from that country!

- Some internet providers have products that customers may believe to be from one country but are actually from a different continent, so check carefully and do not assume a name means that the product is from that country!

- If you are unsure if an internet company will be reliable, find out where the company is based and go and visit them.

- Ask who the manufacturer of the Hot Tub is and check out their website to clarify where their equipment is manufactured, as companies may be misleading potential customers by suggesting that their products are manufactured in North America or the UK when they are manufactured in China.

- Ask to see the warranty on offer before you buy as this may vary between products, and in some instances, it may not be offered by the same company, which may cause difficulties.

- Check what arrangements there are for call outs and servicing if anything goes wrong with your purchase, including timescales and costs.

- Before making the purchase, clarify in writing when the product is to be delivered, as genuine companies will inform you if there is going to be a delay in receiving your goods. Sometimes genuine companies will need to wait for a full container to be shipped to the UK, while other companies may try and mislead you, so get the details in writing.

- Ask to speak with genuinely satisfied customers and check customer reviews on the internet, but be careful as at least one customer feedback site that we have seen appears to be very suspicious as there is only positive feedback for one company!

- Check if they are BISHTA members as the Association works on behalf of the industry to promote Hot Tub ownership and safe spa water.

Buying a second-hand hot tub

A second-hand hot tub may be a way to own a hot tub if it means you can get a hot tub quicker than buying a new one. But you will need to consider who you are buying it from and be aware of what to look for to be safe. Just as you would when you buy a second-hand car, you need to make sure that you are buying from a reputable source and that the hot tub has been well maintained and in good working order. The safest option would be to buy from a hot tub retailer that has a showroom you can visit and can offer you a warranty and guarantees for your hot tub purchase, and you can see the hot tub working and have a wet test of the hot tub before purchase if you desire. For more information on buying second-hand, please see BISHTA factsheet C36

Does your hot tub or exercise spa need to be lifted into your property?

To move hot tubs, reputable suppliers will use specialist moving equipment to safeguard their staff from injury, to protect the hot tub whilst it is being transported and moved to its new location, and to protect the buyer's home and garden as the hot tub is transferred from the supplier's vehicle into the buyer's home or garden, to protect any surrounding properties and to follow health and safety requirements.

In some instances, additional lifting equipment may be needed; this may be if the access space to the garden is too small or if the product is to be placed in a location with no (or very limited) access, such as a garden with no access point, a terrace, balcony or rooftop. For more information on buying second-hand, please see BISHTA factsheet C36

Hopefully, you have found this factsheet informative; please check our other consumer factsheets and the BISHTA homeowners' handbook at; www.bishta.co.uk.

For advice on using domestic hot tubs in business settings, please contact the BISHTA office on 01264 356211 or email: admin@bishta.co.uk

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What is the difference between a Hot Tub and a Spa?

Domestic self-contained spas are usually referred to as `hot tubs` here in the UK, to avoid confusion with the terms "spa" which is usually thought of as some kind of hotel venue where you get pampered! Quite often, people enjoy the benefits of being in warm water at a Hotel or Fitness club and decide they want to replicate the experience in their own home.

In some parts of the world (such as Scandinavia) the term 'hot tub' is only used for wooden equipment (with a stove) while in other parts of the world (such as North America) they use the term 'Spa' to mean any type of equipment, whether made of wood, acrylic or other materials!

Although the UK tends to use the phrase 'hot tub' as a generic word, later on in this factsheet you will see mention of 'Swim Spas' which denotes larger items that are designed for swimming in and so are bigger than a 'hot tub', but the water temperature is greater than a normal swimming pool, but less than a 'Hot Tub'.

A Hot Tub is typically made from either wood or thermoplastic composites including acrylic and Vinyl. Hot Tubs come complete with heating and filtration built-in making them very straightforward to both purchase and install. Added extras such as sound systems, DVD / CD players, TV and lighting features are widely available. Look for the logo and name displayed by members of BISHTA (The British and Irish Spa and Hot Tub Association) when buying a portable Hot Tub, or visit our website at **www.bishta.co.uk** to find local BISHTA member's on our easy search map.

Hot Tubs can be installed in the garden, on a terrace, in a conservatory or in a home extension. By usually being above ground (rather than inground), this gives you more flexibility about positioning, with the added advantage of being able to take it with you if you move house, but please remember they are heavy items and may require specialist lifting equipment. Simple to run, a basic Hot Tub can be purchased for under £5,000.

BISHTA warns that careful consideration would need to be made for rigid hot tubs costing less than £3,500. There is likely a reason they are at this price point (regarding build quality and/or energy efficiency).

Often it is either that the components are not of the same quality (such as not selling the hot tub with a safety cover or lower levels of insulation),

- meaning the hot tubs will be much more costly to run than a well-insulated version, or the seller may also be offering very limited warranties (and if things go wrong, then they may have no system for picking up warranty claims).

Energy costs are an essential consideration. Therefore, it is worth paying a little more for a well-insulated hot tub; otherwise, the extra running costs for poorly insulated hot tubs will soon add more money overall.

Expect to budget an average of at least £2.50 'per half an hour per day' for the smaller efficient models to maintain at a comfortable 40°C. Running costs for exercise spas may require upwards of £5.00 - £7.00 'per half an hour per day'. It is sensible for buyers to ask the retailer for information on their products' energy efficiency and the average running costs associated with using the product before they purchase. BISHTA members can provide hot tub and spa buyers with a trusted source of purchase and can offer advice on the most efficient hot tubs available and cost-effective ways to run them.

Swimming against the tide

Another option that you may decide to consider is a Swim / Exercise Spa, as they are great for those who enjoy swimming, but who do not have room for a swimming pool. A Swim / Exercise Spa can provide the experience of swimming the English Channel in an area often no bigger than 8`x 6`! Swim / Exercise Spas pump a turbulent flow of water from outlets along one side of the pool offering a similar sensation to swimming against the flow in a mountain stream. Swimming against the current offers all the benefits of a full exercise swim without moving an inch.

Whether you prefer a leisurely doggy paddle or a competition standard sprint, the water flow can be adjusted to match your exercise needs. Air can also be mixed with the water giving added buoyancy and some models offer an underwater massage facility. Swim / Exercise Spas allow you to swim against a continuous stream of water, it's basically a swimming treadmill. You do not have to complete laps or turn around like in a normal pool, but just have to keep exercising within the space provided to ensure you get the swimming exercise you need.

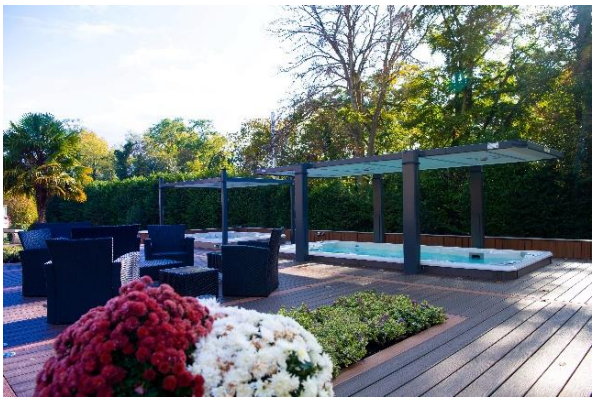
It provides a whole range of aqua aerobics activities, from swimming to weight resistance training, to water jogging, making it the ideal therapeutic tool for tired bodies. It has been found to be effective for those recuperating from any sports injuries. The reason is that these units have been designed so that you can indulge in strenuous water-based activities and the flow of the water jets can also be fine-tuned to deliver just the right force and direction.

To make exercise even easier, manufacturers are offering a vast selection of underwater exercise equipment, such as resistance bands, which make it possible to target muscle groups that standard swim strokes do not.

In terms of space, they only need about 4 – 8 metres in length and 2.5 – 3.5 metres width. Since they are self-contained, they are quicker and easier to install than most pools. The cost of a Swim / Exercise Spa is anywhere between £15,000 and £50,000.

Hot Tubs and Swim / Exercise Spas are a healthy and natural way to relax and are a great addition to any home or garden to enhance your lifestyle. With a huge variety of shapes, sizes, colours and styles you can be sure that somewhere there is an option to suit every situation!

Children delight in them, parents love them and older people derive great benefit from the massaging waters, it is pure **Hot Tub (or Swim / Exercise Spa) Heaven!**



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Buyers Guide for Hot Tubs and Swim Spas

Since its foundation, the main purpose of BISHTA has been to address issues of water hygiene and correct water hygiene management and maintenance. Today, BISHTA continues to take this role very seriously and it is very important that consumers ensure their hot tub is well looked after.

A hot tub is designed for sitting or lying in up to the neck, and not for swimming. A swim spa is more like a small pool and is designed for swimming in. Both are self-contained bodies of water that are re-circulated, filtered and chemically treated. Hot Tubs and Swim Spas are not drained, cleaned or refilled after each use, but after a number of uses or a maximum period of time. Hot tubs and Swim Spas can be sited indoors or outdoors, depending on your requirements.

Hot tubs contain water heated to between 30ºC and 40ºC and have hydrotherapy jet circulation with induced air bubble streams, which are controllable to varying degrees, depending on manufacturer and model. Some hot tubs also feature air blowers, where air is forcibly introduced into the hot tub water via strategically sited jets by an additional electric air pump.

Swim Spas (Exercise Spas) can provide a whole range of aqua aerobics activities, from swimming to weight resistance training to water jogging, making it the ideal therapeutic tool for tired bodies. Using a swim spa has been found to be effective for those recuperating from any sports injuries. The reason is that these units have been designed so that you can indulge in strenuous water-based activities and the flow of the water jets can also be fine-tuned to deliver just the right force and direction.

The terms “hot tub” and “spa” usually mean the same thing. However, in Britain, a self-contained (hard-shell or portable) unit is referred to as a hot tub. They have all of the electrical equipment, filtration, heating systems and plumbing contained below the hot tub’s shell inside the cabinet. There is usually no additional assembly required on-site and the product merely requires the addition of water, chemicals and connection to an appropriate electrical supply in order to function.

And a spa (in-ground spa) is non-self-contained and installed in-ground permanently and cannot be taken with you if you move house.

Inground spas often form part of a spa-pool combination; with the electrical, filtration and heating systems located remotely from the hot tub. In-ground hot tubs are usually installed by skilled engineers.

Purchasing a hot tub for your home can provide an everydaycation lifestyle at home, as well as a focal point for entertaining with recognised and tangible therapeutic benefits.

Modern hot tubs are high technology, complex pieces of equipment providing luxury, therapeutic benefits and a great addition to any home. There are a vast number of hot tub manufacturers and models available to choose from in the UK today, something for every lifestyle, budget and space.

The longest-established and best-known brands come from a variety of locations around the world, including North America, Europe and Australia. Latterly, there has been more equipment coming in from China and some BISHTA members are sourcing good quality products from this country.

There have been some concerns within the UK hot tub industry about the consistency and quality of some hot tubs and swim spas coming from the Far East, so it is worth checking to make sure the products are reliable. Sadly, there are unscrupulous traders who go to China and look to exploit the small number of UK consumers who only look for the cheapest priced products and who are happy to buy something over the internet without seeing it first (thereby losing the opportunity to compare it with other products).

Consumers should always check the origin of equipment and whether it complies with European legislation (CE Mark). When purchasing from a reputable retailer, they will be able to provide you with everything that you need to know. You should **always** ask to see the product operating first, even if you ultimately buy it over the internet. It could both save money and avoid any problems which may occur at a later stage. If an internet company won't allow this, serious consideration should be given to walking away.

Hot tubs are typically installed above ground; however, you can easily achieve an attractive, built-in look by installing your hot tub partially or completely sunk in a surrounding deck or paving. These self-contained units can be moved and re-installed elsewhere if you decide that you wanted your hot tub in a different location (subject to the base and electrics), or even move to a new property. Separate advice is available from BISHTA on installing hot tubs in the ground.

Before deciding on which style to buy, give some thought to how you will use it. If you want to entertain a large group of people, a family-friendly model with plenty of seating might be the way to go. A deeper, less contoured hot tub is ideal for exercising; whereas if relaxation is your goal, look at products with varied massaging jets and comfortable ergonomic seating.

Also consider the installation of a convenient cover removal/storage system (cover lifter) and easy water-care methods, as this will assist with maintenance and servicing. Attractive deck surrounds and/or enclosures, special lighting and jets, audio and DVD systems, water features and more can make your hot tub as beautiful as it is comfortable.

Location, location, location. Portable hot tubs require very little site preparation. You will simply need a dedicated electrical outlet, a standard garden hose, and a firm, level, solid surface that can support the weight of your unit, water and occupants without shifting. Patios with good foundations are generally perfect. A location that offers both an attractive view and affords you some privacy is usually best.

Find the right dealer

This cannot be overstated. Whichever way you look at it, a hot tub is a high-ticket, luxury, discretionary item. They are also complicated pieces of electro-mechanical equipment which, once they are in place, are not easy to remove again. It is therefore important that you buy from a reputable retailer who can help you through the entire buying process and who can offer comprehensive on-site warranty coverage for a number of years. Once you have decided what kind of hot tub you would like and its best location for you, take some time to choose an experienced, dealer. A great place to start is by looking for a BISHTA Member at www.bishta.co.uk. Using a BISHTA member will mean that you work with a company that is dedicated to providing excellent, uncompromised service, working to recognised standards and the BISHTA code of ethics.

Make sure you try before you buy! Most retailers encourage you to test soak before you buy. This is the best way to ensure you choose the hot tub that is perfect for you. You would not spend many thousands of pounds on any other product without trying it out beforehand, and hot tubs are no different. Each one its their own unique feel. When you do wet-test, note the depth of the water, the seating capacity and location of seats, and the variety and power of the jets.

Look for a hot tub with seats deep enough to cover your shoulders; others should be high enough to let you cool down. Make sure you can stretch out and get comfortable. You should check the power available to each jet in each seat, and how controllable that power is. If you have a particular condition that you are looking for your hot tub to relieve, check how it feels to you.

Understand your warranty. Obtain a copy of your warranty before you sign the contracts and be sure to read the fine print. Check if there will be any additional expenses if you need to replace the unit while it is under warranty.

Let the professionals look after the hot tub installation. Make sure a qualified electrician carries out any electrical work according to local codes and check with your local building inspector's office to find out whether you need any form of permit.

Please remember that water hygiene is an essential feature of all spas and hot tubs. Your dealer will be able to tell you what is available in order to keep your hot tub water hygienic and safe for bathers.

Types of Hot Tubs and Swim Spas

Acrylic Hot Tubs

Portable acrylic hot tubs are what most often spring to mind when somebody mentions a hot tub. They are the most popular type of hot tub on the market and usually seat between two to ten people. They consist of an above-ground, self-contained unit that requires a power supply and permanent ground support, usually a concrete pad.

Acrylic hot tubs, in general, are more expensive than inflatable hot tubs and offer better aesthetic value. These are the hot tubs which provide all the high-tech benefits and can become real luxury items – depending on your budget. The choices when buying any type of model include things like: the number of seats, the efficiency and power of the jets and the ease of the cleaning regime. There are a number of gadgets and optional features like DVD players and speakers that you may wish to upgrade your hot tub with. They normally come with an expansive warranty and have a longer life span than inflatable and soft hot tubs.

Timber Hot Tubs / Wood Fired Hot Tubs

For people looking for a traditional, rustic feel, wooden hot tubs are the perfect solution. Made from oak, redwood or teak, timber hot tubs look like the wine barrels of yesteryear. Timber hot tubs offer the added benefit of natural aromatherapy that cannot be found with any other hot tub construction. As with acrylic hot tubs, timber hot tubs need a permanent platform on which to be sited. Unlike other hot tubs and spas, a timber hot tub can use a wood-fuelled fire as its heat source, allowing it to be placed in remote locations without the need for an electrical connection. This type of hot tub can be of simplistic design, consisting of the barrel and bench seating. Given the natural make-up of their construction, timber hot tubs can require more maintenance than acrylic hot tubs, but many people choose them for their aesthetic appeal. Please note there are timber hot tubs that can use conventional spa pumps and jets.

Inflatable Hot Tubs

An inflatable hot tub is a soft-shelled hot tub, typically made of vinyl, where the structure is made rigid by air being pumped into the frame. They can be permanently sited, or emptied and moved easily, as required. They are popular with hire firms and those who own caravans and motor homes.

Soft Tubs

Soft tubs are another example of a soft-shelled hot tub, typically made of vinyl, where rigidity to the structure is usually provided by a foam core. They can also be permanently sited or emptied and moved as required, or even taken on holiday.

Liner Hot Tubs

Liner hot tubs are usually constructed of modular timber or synthetic wall sections, with a vinyl liner to make a watertight membrane. They are usually permanently sited and are not easily moved once installed.

Inground Spas

Inground spas, including those installed as part of a pool/spa combination, are the most expensive of all spas, seating between two to sixteen people. The spa's shell and equipment are all delivered to site separately and require assembly and installation on-site, and the spa itself is concreted permanently into the ground. In-ground spas require installation from a professional pool or spa contractor because of the excavation, concrete, plumbing and electrical works involved. In-ground spas also need to be permitted by Local Authorities, as well as inspected upon completion. Heating is usually provided from separate electrical or gas heating units. For those for whom budget is not an issue, in-ground spas offer the widest range of options and can have unique, customised finishes which cannot be attained with a portable spa.

Swim Spa/ Fitness Spa/ Exercise Pool

A swim spa (or fitness spa, or exercise pool) is a small combined swimming pool with hydrotherapy jets, air induction and a counter-current exercise unit. The counter-current exercise unit generates a current that a swimmer swims against, rather like the swimming equivalent of a treadmill or running machine.

Units are usually described as single-chamber or dual-chamber. A single-chamber swim spa has just one body of water with the pool and spa areas sharing the same water which is at the same temperature throughout. They are less expensive to buy than dual-chamber swim spas, but there is a compromise in that many feel that an ideal swimming temperature is too cool for relaxing in the spa seats, whereas the ideal spa temperature is too hot for swimming. A dual temperature unit has two separate and distinct bodies of water; one for swimming in, the other for hot tubbing in. Both have separate thermostatic controls so that they can be run at the optimum temperature for both activities.

Swim spa installations can be for domestic or light commercial use, providing the unit and its equipment are specified appropriately. It is absolutely essential the potential owner seeks professional advice for any “non-domestic” application.

Where can I go to see a hot tub or swim spa working?

The majority of hot tub dealers in the UK display hot tubs in their stores or showrooms. If you would like to try out a hot tub or swim spa (which we feel is vital), then ask them for a full wet test. It is a very reasonable request and most dealers will agree. Indeed, most dealers provide facilities to do just that.

Testing out the products beforehand gives you the opportunity to check the quality and performance of the equipment first-hand for yourself. Unfortunately, there has been a small but significant group of consumers who have fallen foul of one or two unscrupulous internet sellers who are not BISHTA members, selling poor quality and sometimes potentially dangerous equipment from the Far East. Buying from the internet can be a rewarding experience, but please think very carefully before buying from any internet company that is not in BISHTA, that does not offer the opportunity for you to wet-test their product.

Always ensure you buy from a reputable dealer and check carefully for customer reviews of companies you are considering. That really cheap hot tub may look like a cracking deal initially but could end up costing you more money in the long run, so check on the BISHTA website for relevant consumer advice (see factsheet C1).

Where can I buy one?

The choice of products on the UK market is wide and varied, and all the world's most respected and reputable brands are represented here. To find a hot tub retailer near you, then visit the BISHTA website – www.bishta.co.uk. The British and Irish Spa and Hot Tub Association is the Trade Association representing manufacturers, importers, distributors, retailers and service engineers involved with hot tubs and swim spas. Membership is also open to leisure venues providing hot tubs as part of their holiday package.

BISHTA members have to undertake rigorous water hygiene management training and abide by a Code of Ethics to demonstrate they are committed to being professional and reputable companies.

All members and their products comply with BISHTA Standards, which are a comprehensive and detailed set of technical and business standards geared to giving consumers complete peace of mind. The BISHTA website is your source of any information you require on a dealer or a particular brand, so please do utilise it to its maximum effect: **www.bishta.co.uk**

How much will it cost?

Like any consumer purchase, there is a wide range between the cheapest and most expensive products on the market. There are many factors to take into consideration, including the size and style of the equipment that you would like. In general terms, you can buy a good quality hot tub for about the same price as a car. There are products which can be purchased for under £5,000, but the higher quality, more reliable hot tubs which come with full-service backup usually cost in the range of £11,000 to £20,000, while swim spas can cost anything between £10,000 to £30,000. Above all, apply the same common sense to the purchase of a hot tub as you would any other high-ticket item and, remember the old adage, 'if something sounds too good to be true, it probably is.'

What about maintenance and upkeep?

The important points on upkeep tend to relate to the quality and purity of the water and a good filtration system. All hot tubs and swim spas will come with a warranty, and your dealer will be able to advise you on how to keep high-quality water in the hot tub. Again, use BISHTA for further information. The most important point to keep in mind at all times is that it is straightforward and not time-consuming. See Factsheet 'C3 Water Treatment'.

Will I need planning permission?

Not usually, however, the installation of a hot tub or swim spa does require planning permission, if it is in a conservation area, for instance, or the hot tub is part of a structure in the garden. If there are no restrictions, then you can usually put the equipment anywhere in your garden as long as it is installed on a level, solid base. If in doubt about whether planning is required, check with your local planning office for clarification.

Don't forget the cost of installing a hot tub or swim spa

When you come to budgeting the cost of your hot tub or swim spa project, don't forget to allow sufficient funds to cover installation costs. Often these are negotiable, but we strongly recommend that you insist that your contract includes an installation package by your dealer, as the weight of the product will more often than not require specialist lifting and handling equipment. Some companies may offer an all-inclusive service, but more likely the costs will be on top of the price of the equipment itself. Always ask for a detailed written quote so that you are sure of what is and is not included. Installation is not complicated and it is certainly not like installing, for example, a full-scale swimming pool.

You also need to give some thought to any decking, paved or other landscaped area that you might want around your hot tub or swim spa but, again, a site survey ahead of delivery is normally included in the price, this can be discussed with your dealer during your site visit.

Why opt for a swim spa rather than a swimming pool?

Many consumers are torn between the idea of buying a swim spa or a more conventional swimming pool. Here are a few points you may find useful in helping you make the choice.

- Swim spas are generally less expensive in terms of capital cost and installation costs, and take up less space than a traditional swimming pool.
- Swim spas are often called 'Exercise Spas' as they combine the physical exercise of swimming against a water current, with the opportunity to relax in a hot tub environment.
- The running and maintenance cost is generally, less than a traditional swimming pool, due to a relatively smaller water volume.
- A swim spa can go with you if you move home.
- A swim spa is designed to be used outside all year round.
- You have the option of fitting a swim spa indoors, if you wish.

Whatever your choice of a hot tub or swim spa, enjoy yourself, as that is what it is really all about! You will find that today's hot tubs are amazingly relaxing, but really easy to maintain, and they are also powerful, yet extremely energy efficient.

Once you have done your homework, you can be sure that you have chosen the right hot tub for you and your family. Please make sure that you check the BISHTA website for details of companies that are part of the British and Irish Spa and Hot Tub Association. BISHTA provides an invaluable source of information to find the right dealer or a particular brand. And BISHTA membership is your assurance of buying with confidence from a dealer who is knowledgeable, trained in all aspects of hot tub safety and water hygiene, who is signed up to a published code of ethics, and who sells safe and reputable products from respected sources which comply with industry and statutory standards, and who backs their products with comprehensive warranties and high levels of customer service.

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Benefits of Hot Tub Usage

Being the owner of a Hot Tub promises a number of health benefits, as well as a treat for you and your family. Hot Tubs have been used as a source of relaxation in spa resorts and fitness centres all over the world and promote wellbeing and by owning your own one, this can give you more regular access to these benefits.

Medical

Hot Tubs help to relax your body and mind, leading to a number of benefits to improve physical and mental health conditions. The warm water and bubbles will reduce the gravitational pull of your body, dilating the blood vessels which means less pressure on your heart, helping you cope with stress and anxiety and giving your body and mind time to relax.

The temperature of the water will also induce perspiration which will help your body get rid of impurities and any water retention, which is a great way to detox your body and help those people who wish to lose weight or are struggling with cellulite.

The Hot Tub jets contribute to helping those people with aching muscles and back pain. Patients with arthritis find this kind of hydrotherapy especially effective, as the warm water helps with the blood circulation, the lack of gravity in water lets them move around easier. The constant warm water will provide a longer pain relief, compared with a hot bath, as the latter will start to cool down before you feel you are ready to get out of the water.

The experience of using a Hot Tub will release the body's natural feel-good chemicals called endorphins, which will make a person feel happy and relaxed - another factor that will help those suffering with anxiety or depression.

Social

A Hot Tub is a great place to enjoy social activities, such as spending time with friends or getting together with the family. As a Hot Tub owner, you will have the advantage of hosting responsible parties throughout the year in a relaxing and warm atmosphere. You can choose the size of your Hot Tub from two or up to ten people, depending on your needs. A Hot Tub can be enjoyed in all seasons: from a summer BBQ party to a winter get together, being enveloped in the hot water against the cold winter is excellent.

With the rush of modern life, a Hot Tub has also become a place for families to enjoy a catch up and unwind after a long day at work. Family members will enjoy a beneficial soak in the Tub, relaxing both the mind and the body, whilst catching up with the day's events.

With extras such as lights, sound systems and other gadgets that could be installed along with your Hot Tub, you could lead the way in social interaction amongst your friends!

Financial

Contrary to the belief that Hot Tubs are very expensive, you could actually save money in the long run! Hot Tubs come at a variety of prices which means you can pick one that is right for your budget and use the Tub to increase your fitness at home, rather than paying for a membership at the gym. A Hot Tub is especially effective for people who suffer from muscle, or poor joint conditions, as you can move more freely and pain-free in water. The pressure from the jets in the

Hot Tub are strong, yet gentle and can work your muscles to get them into shape while you relax.

A Hot Tub can also help you with that "getting away from it all" feeling you need, without costing a fortune. By relaxing in your Hot Tub, you can get similar feelings of relaxation as you would on a holiday break, with warm waters and stress-free atmosphere and all that can be achieved in your garden!

Space

Hot Tubs have adapted to cater for most living spaces and can hold a various number of people, depending on your needs and the purpose of the Hot Tub. You can decide where you want your new Hot Tub, indoors or outside in your garden.

Time

You can use your Hot Tub all year round, from enjoying the warm summer nights to looking at contrasting winter snow while the bubbles of the heated Hot Tub massage your body.

BISHTA recommends that bathers use their Hot Tub for 15-minutes and then get out and take a break from the heated water, as well as, staying hydrated by drinking water. This will ensure maximum use of the Hot Tub, while enjoying the many health benefits.

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Using Your Hot Tub Safely for Improved Health and Enjoyment

Hot tubs are an oasis of enjoyment and relaxation with many therapeutic benefits which will give owners many years of good service when looked after properly. As with many products potential risks can arise, particularly if a product is misused or neglected, but there are a number of simple steps that can be taken to ensure your hot tub or swim spa is kept safe, both when in use and when it is empty.

Always use a cover when the hot tub is not in use to prevent unauthorised access to the water. Most reputable manufacturers have locking straps which can be locked using supplied keys, which should be kept away from children. Without the keys, it is not possible to gain access to the hot tub. Covers which cannot be secured are not safety covers, so ask your supplier about having one, to keep children and pets safe.

Modern covers are designed to maximise insulation from evaporation whilst ensuring a physical barrier to the water. Whilst they are not overly heavy, they can be cumbersome, particularly on a large hot tub or if the user is in anyway movement impaired. Therefore, we highly recommend the fitting of a cover lifter to aid in the removal and replacement of the cover.

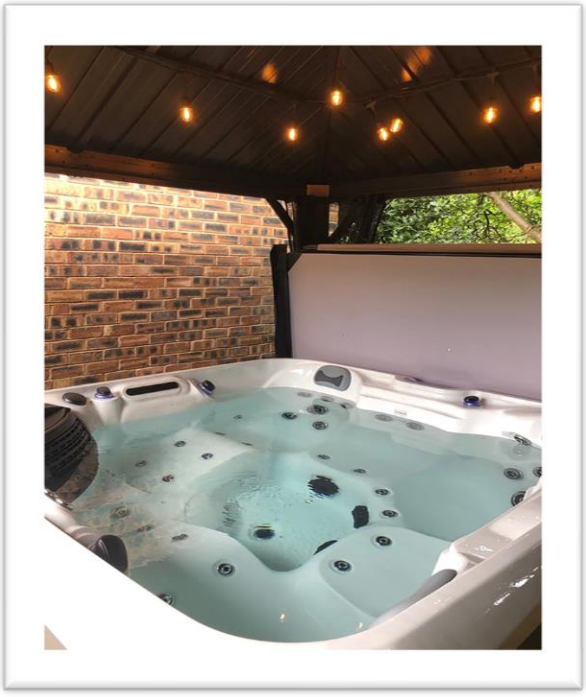
Always use the hot tub with the cover removed. Never try to bathe with the cover in place over the heads of bathers.

The best way of enjoying your hot tub is to follow the manufacturer's guidance, these recommendations may include; maximum bathing period of 15-minutes before taking a break, keeping hydrated with water in non-glass products, always supervise children when they are using the hot tub (and the medical advice is to avoid children under four years using the hot tub).

If the hot tub is to be used at night, always use the underwater light so that bathers can clearly see their safe entry point into and out of the water, and ensure that the access route(s) between the house and the hot tub are clearly lit as well.

Unless a hot tub is sunk or partially sunk into the paving or decking, always use a set of approved spa steps with non-slip treads to gain access to the hot tub. For extra security a hot tub grab-rail can be installed at the access point and attached under the hot tub or attached to the cabinet.

When getting in, or out of, a hot tub, do so with care and do not run, to avoid slips, trips and falls.



If your hot tub is partially or completely sunk into paving or decking, always ensure it is clearly visible day and night and everyone in its vicinity are aware of it to avoid accidental trips and dunking's!

Never put your head underwater in a hot tub, or allow another bather to do so. The high-water temperature can potentially lead to loss of consciousness.

Never use a hot tub with a water temperature higher than 40ºC. Reputable brands will be factory configured in such a way as to make this impossible, but we recommend that you keep on hand a good quality thermometer to double check the water temperature against that showing on the hot tub's display.

Always ensure your water is tested and sanitised correctly and the water balance maintained to BISHTA standards; and ensure the filter(s) is/are clean and the spa drained down regularly at prescribed intervals (for further information and detail on this, see BISHTA factsheet 'C3 Water Treatment').

Never use a hot tub when under the influence of alcohol or drugs, as this can increase the risks of accidents occurring. In extreme cases dehydration can cause heat exhaustion.

Always use and maintain the hot tub according to the manufacturer's instructions. Failure to do so could not only pose a safety risk, but could also void your hot tub's warranty.

Never block suction fittings or skimmers in the hot tub.

Never tamper with or modify the hot tub or any of its workings. Only use approved accessories and after-market products designed specifically for use in hot tubs, as recommended by your manufacturer or retailer.

Always treat with chemical products designed specifically for use in hot tubs. Never use general household cleaning products or detergents.

Whilst regular hot tub bathing has been known to afford many tangible and therapeutic benefits, if you have any concerns or any pre-existing medical conditions, always discuss these in advance with your GP.

Many spas require an electrical connection, so please check with your hot tub supplier what they require. Always ensure that the power supply is provided by an electrician who is part of a Competent Person Scheme.

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Water Treatment

BISHTA's main purpose since it was founded, has been to address issues of water hygiene and correct water hygiene management and maintenance. Today, BISHTA continues to take this role very seriously and it is very important that consumers ensure their hot tub is well looked after.

Why is this? A hot tub is one of the most wonderful, therapeutic and lifestyle-enhancing home improvements that consumers can invest in. However, it is important to ensure the water in your hot tub is clear, clean and hygienically safe, as some potentially harmful micro-organisms could otherwise cause problems if left unchecked. Therefore it is vital that your water is treated to BISHTA Standards. The good news is that this is neither expensive nor time consuming, and this factsheet aims to highlight this.

There is a wide choice of water treatment products on the market which are safe, easy to use and reliable. The most common types of water treatment products are sanitisers (disinfectants), oxidizers, minerals and pH balancers.

Sanitisers

BISHTA recommends the continuous use of a residual sanitiser. A residual sanitiser is a substance which kills potentially harmful micro-organisms rapidly and leaves a residual in the water which can be measured. A residual sanitiser MUST be used, irrespective of any other back-up equipment or substance (i.e. an ozone generator or mineral cartridge) which may be used.

The Health Protection Agencies (such as Health Protection England) and the Health and Safety Executive (HSE) recognise and consider the use of the following oxidising biocides essential: chlorine, bromine or PHMB (Biguanide) – see HSE/HPA Management of Spa Pools, Controlling the Risk of Infection.

Chlorine

Chlorine is a fast and effective sanitiser, and its biocidal properties are well-established and proven. There are TWO DIFFERENT TYPES OF Chlorine granules which are available for use in hot tubs and are safe and easy to use. There is calcium hypochlorite which is stabiliser free and available in a quick dissolving form. Then there is sodium dichloroisocyanurate dehydrate (AKA Troclosene sodium, dehydrate or “dichlor”). This stabilised chlorine helps keep chlorine in the water on warm sunny days. Stabilised chlorine tablets (trichloro isocyanuric acid) are also available but some manufacturers of hot tubs state that their use will invalidate the warranty.

Bromine: Bromine (usually BCDMH) is also available. It is popular among hot tub owners as it does not give off the 'swimming pool odour' some associate with Chlorine, and it's also very effective at higher temperatures. Bromine is sold in granule, lozenge, or tablet form. There is also a product available called sodium bromide, which produces Hypobromous Acid in the hot tub water, but it needs a catalyst such as chlorine or non-chlorine shock, to activate it.

PHMB: PHMB (also known as Biguanide) contains neither Chlorine nor Bromine. It destroys bacteria by assaulting the cell walls of the microbe. PHMB emits less odour than either Chlorine or Bromine and does not cause a smell at high temperatures found in hot tubs. NB: PHMB is not compatible for use with Chlorine or Bromine and correct advice must be sought from your BISHTA hot tub dealer if considering changing from one system to another!

Sanitiser back-up products and systems

Ozone: Many hot tubs are fitted with ozone generators as standard, or available as options. Ozonators create ozone gas in a chamber and bubble it into the hot tub's internal pipework. Ozone is a powerful oxidiser which kills bacteria as it passes through the ozonator. In order to use ozone, a hot tub has to have an ozonator installed in line. Irrespective of whether an ozonator is in use or not, a residual sanitiser maintained to prescribed levels must be used.

Mineral Systems: Mineral systems, which utilise the bactericidal properties of metal minerals, can contribute towards keeping hot tub units free from contamination. They are dispersed through a floating dispenser, or sometimes via the filter cartridge. Some hot tub manufacturers also build a mineral dispensing canister into their hot tubs, into which special cartridges are placed. Minerals are released slowly and also contribute to a reduction in the consumption of Chlorine or Bromine, but, as with ozonators, must be used in conjunction with - not instead of - a residual sanitiser of chlorine or bromine.

Oxidation

Oxidation is carried out utilising a “non chlorine shock” which can break down some organic matter and help prevent/break down Combined Chlorine. However, mono-persulphate is not a sanitiser (or disinfectant). Non chlorine shock can be used for example before a party and again afterwards, bathing does not have to cease following the application.

Super-chlorination using a quick dissolving calcium hypochlorite will both oxidise to help break down Combined Chlorine and will quickly kill bacteria. Shock dosing a hot tub at 20 ppm for 2.5 hours is recommended upon initial fill of a hot tub and monthly thereafter. The residual chlorine needs to fall back to below 10 ppm before bathers can use the hot tub. A weekly shock dose at 10ppm with fast dissolving calcium hypochlorite granules is a good routine which can also be applied after a party when more people than usual have used the hot tub.

The waterline should be kept clean and free from body oils, cosmetics, artificial tan and body lotions etc which can not only create a chlorine demand but a home for bacteria. Sodium bicarbonate is an easy means of doing this.

Fast dissolving calcium hypochlorite is ideal for shock dosing a bromine treated hot tub but the calcium hypochlorite must be dissolved before coming into contact with the bromine.

pH Balancers

For your sanitiser to work most effectively, and for the comfort of bathers and protection of the hot tub's equipment, the water's pH must be controlled. pH is, in the most basic terms, the balance between acid and alkaline substances in the water. If water is too acidic, then the water will be corrosive, and if it's too alkaline, then there is more likelihood for damaging scale to form. pH balancers are water treatment products which allow you to easily and safely control. pH balancers need to be added gradually to achieve the correct levels.

Acids or pH reducers. Used to lower a high pH.

Alkalis or pH increasers. Used to raise a low pH.

T.A. increasers. Used to increase the Total Alkalinity. Total Alkalinity is a measure of the total amount of alkaline substances in the water. If it's too high, it will make an incorrect pH difficult to adjust, and if it's too low, then small additions of either pH reducers or pH increasers will cause the pH to swing one way, then the other, rapidly. So the correct TA acts as a 'buffer' against this and allows you to control the pH easily, quickly and effectively.

Testing

In order to know whether you are treating water correctly and, therefore, whether it is safe and hygienic to use, it is vitally important to test the water in your hot tub daily before use to find out what the pH and sanitiser levels in your water are. You will then need to make any adjustments required, as highlighted by your test results.

There are a number of inexpensive test kits on the market which are quick, safe and reliable to use. Testing just takes a few seconds, whether by the tablet type test kit - where tablets which change colour according to readings are dropped in to a sample of the hot tub's water; or by test strips, small strips with impregnated pads which change colour when dipped into your hot tub's water. NB: Both test strips and test tablets have use-by dates. It is important that you only use strips and tablets that are in-date.

BISHTA recommended test reading parameters

We recommend that your hot tub water is maintained daily according to the following levels.

Bromine
(if Bromine is used as your sanitiser):
2mg/l - 4mg/l Domestic (Business 4 – 6 mg/l)

Chlorine
(if Chlorine is used as your sanitiser):
3mg/l - 5mg/l

PHMB
(if PHMB is used as your sanitiser):
50mg/l

pH:
7.0 - 7.6

Total Alkalinity:
80 - 120 mg/l

Draining down and refilling

Hot tubs are very small bodies of water with relatively very high bathing loads. As water is used and recirculated, water treatment products and other particulates that aren't removed by the filters build up over time, and there comes a point when even correct water maintenance regimes are applied, the water looks and feels “lank and lifeless”, and the only corrective action remaining is to drain the hot tub down and refill.

BISHTA recommends that water should ideally be changed a minimum of every month and an absolute maximum of three months to maintain water quality.

WARNINGS

1. Always store hot tub chemicals in a cool dry place, secured away from children and animals.

2. Always follow manufacturer’s instructions on chemical labels at all times.

3. Never mix hot tub chemicals, other than according to manufacturer’s instructions.

4. Always add chemicals to water, never the other way round.

5. If you have any questions, always speak to your BISHTA hot tub dealer.

Hot Tub and Hard Water

Many people are familiar (particularly if you live in the south and east of the UK) with hard water and its effects. Hard water is usually viewed as a problem, with images of scaled up pipes, kettles and hot water cylinders and the potentially expensive damage that can be caused. Such imagery is often used to sell a plethora of water softening devices and treatments.

Please note that the industry advice is to **never** use water from a water softener to do a complete fresh fill of your hot tub or swim spa.

It is important to understand that a certain level of hardness (or calcium level, to be more accurate) is a good thing and, indeed, required to maintain the quality of hot tub water at optimum levels, and maintain the hot tub's equipment. Start out by having your fill water tested for calcium, as this will determine your level of calcium hardness. Test kits to do this are available from your hot tub retailer.

High calcium levels (common in water abstracted from ground sources) could cause cloudy water, scaling and scale deposits forming; too low calcium levels could lead to excessive foaming of the water and corrosion of metal surfaces. Calcium levels should be maintained at an ideal level of between **200mg/l – 400mg/l** (or ppm – parts per million).

The best time to test a hot tub for calcium hardness is immediately after it is filled, whilst the water is still cold. Most treatment products available for increasing calcium levels work more efficiently in cool water than they do in hot. We recommend you test the hardness levels every time you freshly fill your hot tub.

There are a wide variety of treatment products from all the major brands in the UK for raising calcium levels if you have soft water. When correcting the calcium levels, it's a good idea to wait two to three days before retesting, as these products can take a while to fully dilute. If you accidentally add too much calcium increaser, simply drain 6" to 12" (150mm to 300mm) of water, top back up again, and retest.

There are no chemical products on the market for reducing calcium levels. If you live in an area with very hard source water, and your house is fitted with a water softener, then try filling the hot tub with regular tap water up to 6" to 12" (150mm to 300mm) below the fill level, then fill the final 6" to 12" (150mm to 300mm) using water which has passed through the water softener. Important note: this is the **only** circumstance we recommend you can use softened water in your hot tub.

If you are unable to reduce high hardness levels, don't worry. Just ensure you diligently maintain your pH and alkalinity levels in balance (see Factsheet C3 on Water Treatment), and use a proprietary hot tub scale and stain inhibitor (available from your BISHTA dealer) to lower the chance of scale precipitating out.

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Tips On Saving Water

Many hot tub owners are seeking ways in which they can conserve water usage, both for environmental reasons, and to minimise their costs.

Here are a few tips to point you in the right direction, while you relax and enjoy your hot tub experience.

1. Ensure a water meter is fitted

- Fitting a water meter to monitor hot tub or swim spa usage will ensure that a hot tub owner is aware of the water being used, and also how much they will be paying for it.

2. Ongoing servicing costs less in the long term

- Maintain your hot tub correctly throughout the year. It takes very little time, and is inexpensive. However, neglecting it and letting it turn into a swamp, as well as being potentially harmful to bathers, will cost you much more in time and money. It costs more in water usage and additional chemicals to rescue a neglected hot tub, than to maintain it throughout the year.

3. Stop any unnecessary water losses

- When using a hosepipe to fill or top the hot tub up, ensure it has a trigger that complies with Water Regulations.
- Perform filter maintenance when required as per manufacturer's instructions.
- When emptying the hot tub, use the water for other purposes, such as to water your garden. The chemical levels present in hot tub water are maintained at relatively low levels and should therefore be safe to use for watering the majority of garden plants. However, if you have any plants which are particularly exotic or delicate, it is good practice to consult with a qualified horticulturalist to seek further information and guidance before using the empty water on these plants.
- As far as is possible, try not to splash the water out of the hot tub, as displaced water will need topping up.
- In the unlikely event of any leaks, get them fixed immediately.

4. Reduce evaporation and save energy

- Keep the cover on at all times the hot tub is not being used.
- Maintain lower water temperatures, especially when the weather is hot. This will also make the water more comfortable for bathers.

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Regular Maintenance Saves Money

BISHTA is the Trade Association for the Spa and Hot Tub manufacturers, importers, retailers, suppliers, service / maintenance engineers and holiday venues hiring out Hot Tubs in the UK. BISHTA and its members want you to enjoy your experience of buying a Spa or Hot Tub, as you deserve it!

So, the first step to simple and low-cost hot tub maintenance is buying a quality product from a reputable dealership. As well as selling a high quality, reliable product with a good on-site parts and labour warranty; a reputable dealer should also be knowledgeable and be able to offer straightforward water care advice to current BISHTA standards. If they can't, be very wary of your dealings with such a company. Sadly, there are a few unscrupulous firms, particularly some internet only, importers of sub-standard products, who offer very poor or no water care advice at all.

Here is a typical sample regime of hot tub maintenance, which will keep your spa water safe and crystal clear, minimise the amount of time and money you spend on it, and maximise the time you spend enjoying it. Check with your retailer for the exact regime for your hot tub, as some filter systems vary by manufacturer.

pH to be maintained at:
7.0 to 7.6 ideally the closer to 7.0 the better.

If using Bromine: Bromine residual to be maintained at:
2 to 4mg/l (ppm).

If using Inorganic Chlorine (usually Sodium Hypochlorite or Calcium Hypochlorite):
Chlorine residual to be maintained at: 2 to 4mg/l (ppm).

If using Organic Chlorine (usually Stabilised Chlorine such as DiChlor or Tri-chlor):
Chlorine residual to be maintained at: 3 to 5 mg/l (ppm).

Total Alkalinity to be maintained at:
80 to 160 ppm. (industry parameters).

Daily

- Always test the water before use, to ascertain pH and sanitiser readings. Add required chemicals, as necessary, to correct any out of parameter readings, according to manufacturer's directions on packaging. Check status of bromine tablets in dispenser (if using bromine tablets) and add more if necessary. (Use pH Minus to reduce a high pH, OR pH Plus to raise a low pH).

- NB: **Do not** check pH for at least **20 minutes** after the hot tub was last used, to allow time for all bubbles to dissipate.

Monthly

Please note the following may need to be carried out more frequently.

- Add a clarifying agent according to manufacturer's instructions to help maintain water clarity. This should not be needed always, but may be required e.g. after a party.
- Check T.A. (Total Alkalinity) level and, if required, add a T.A. increaser.
- Add a Scale & Stain Inhibiting agent according to manufacturer's instructions to help maintain water clarity and prevent scale formation and cloudy water. **NB:** Do not carry this out on the same day that you add the clarifying agent.
- Remove the pleated filter cartridge and soak in a specific Cartridge Cleaner that is both acidic and a degreaser. This avoids the need for "Hosing off" with its attendant Legionella Risk from aerosolised water droplets. Gently wash off the Cartridge and then allow to dry. Hence the need for 2 sets of filter cartridges. **NB:** Do not use a pressure washer for this task, and ensure that the power to the hot tub is turned off while the filter is removed from the hot tub.
- **Top Tip:** Given that it is necessary to allow a cleaned and rinsed filter to dry out before returning it to the hot tub, it is a good idea to buy a second set of spare filters so that whilst one set are being cleaned, rinsed and dried, the second set can be in the hot tub filtering the water. This ensures that you have no downtime and you can still enjoy your hot tub whilst one set of filters are being cleaned.
- Oxidise (or "shock dose" with non-chlorine shock) the hot tub with an oxidising agent according to manufacturer's instructions to help eliminate bather waste, after heavy use. Super-Chlorinate with a quick dissolving Calcium Hypochlorite at 20ppm for 2.5 hours to try to eliminate bacteria that may have developed a resistance to the sanitiser at normal residuals and to oxidise biological impurities in the water. **NB:** If the hot tub is particularly heavily used, after a party for instance, it may be necessary to oxidise more often.
- Super-chlorination using a quick dissolving calcium hypochlorite will both oxidise to help break down Combined Chlorine and will quickly kill bacteria. Shock dosing a hot tub at 20 ppm for 2.5 hours is recommended upon initial fill of a hot tub and monthly thereafter.

Ideally Monthly, But Not More Than Three Months (Maximum!)

- Completely drain the hot tub down and clean the inside of the shell with a specialist hot tub surface cleaning product. **DO NOT** under any circumstances use proprietary household cleaning products such as Jif, Flash, Fairy etc. The drain-down time is dependent on how heavily used it is, especially if the water chemistry becomes harder to maintain despite all your efforts, or if the water looks lank, tired, and slightly musty, despite the chemistry being within the parameters.
- Bear in mind that, for obvious reasons, a hot tub will see its heaviest usage in the first six months of ownership, so you will need to ensure you're particularly diligent until it settles down to a more regular pattern of use.

ALWAYS SWITCH OFF POWER TO A HOT TUB, WHEN REMOVING THE FILTER.

ALWAYS STORE, HANDLE, AND ADD HOT TUB CHEMICALS ACCORDING TO THE DIRECTIONS ON THE MANUFACTURER'S PACKAGING, AND ENSURE YOU USE AND OPERATE YOUR HOT TUB ACCORDING TO THE OWNER'S MANUAL.

It is essential that you learn the basics of looking after your hot tub. You can also talk with a reputable retailer from BISHTA, as most offer a range of service and maintenance packages according to your needs and budgets.

Hot Tub Accessories

Your hot tub experience can be enhanced by a whole galaxy of accessories and after-market products designed to make your hot tub life easier, or just a whole lot more fun! For those who prefer not to be able to look up at the stars and are looking for a less alfresco experience, there are a range of purpose-designed hot tub gazebos and buildings available, in a range of materials designed to be sympathetic to any number of environments, be they traditional or contemporary. Some are open sided with roofs which can be lap, tiled or thatched, allowing an experience which is still outdoors, but with overhead protection from direct sunlight in the summer, or worse that mother-nature can descend upon us in the autumn and winter. Others are full blown enclosed buildings, usually with provision for a changing area or room, and some big enough for the installation of bars, billiard tables and even home saunas and steam rooms.

For those seeking life in the "great outdoors", you can still add surrounds incorporating bars, tables, steps, stools, towel trees and privacy panels. Usually made in cedar or other weather-resistant timbers, some are also now available in new composite materials, as used in many modern hot tub cabinets. These offer the deceptively convincing look and feel of real wood, yet with the benefit of zero maintenance that even the best of real timbers will inevitably require in time.

Modern hot tub covers are lightweight (yet robust) although their size can make them cumbersome to take off and return for some people, such as the elderly, those with a disability, or children. A number of manufacturers produce add-on cover-lifters, which feature cradles or gas-shocked arms which take the weight of the cover and make it considerably easier to lift on or off the hot tub, whilst also storing the cover up and out of the way (or down behind the hot tub when not in use).

Those who yearn for the sweet smell of success, or any other aroma-induced moods and emotions, should try one of the many fragrances on offer. Usually available in crystal or liquid form, the fragrances are added directly to the hot tub water and come in a bewildering array of scents from the more traditional like citrus or lavender, to the more exotic such as ylang ylang and patchouli. Each scent has differing properties, thus evoking different emotions in the bathers. Some help soothe and relax, whilst others rejuvenate and invigorate. They are not expensive, so it's easy to buy several and use them at different times depending on your mood.

Look out too for add-on coloured LED lights and drinks coasters, unbreakable 'glassware', towel trees and hooks, products to make cleaning your hot tub less tiresome, hot tub vacuums, floating drinks trays, floating waterproof chess boards and playing cards, swimming fish (yes, they really do look like real fish cruising around in your hot tub)! Steps and grab-rails to aid getting in and out of the hot tub, underwater cushions for the "not-so-tall", waterproof iPod cases, and, of course, the ubiquitous and must-have rubber duck!

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Sustainable Heat Technologies

With energy prices and environmental impact being causes for concern for many consumers, they have become more conscious of issues surrounding the cost of running electrical equipment and the carbon footprint they are responsible for. Hot tubs are pieces of electrical equipment, fitted with electric heaters which, normally, are heated using regular mains electricity. There are two principal technologies to consider as alternatives which can reduce your energy bills as well as reduce CO_2 emissions and they are outlined below. You will also have to consider the amount of space required for the heaters and the fuel.

Solar PV

Your home can be fitted with solar photovoltaic panels (PV) which are fixed to a south facing surface such as a roof, or, on special metal frames on the ground. They generate electricity from the sun's rays by converting light energy to electric energy. You will generate a lot more power on a long clear sunny day than you will on a short cloudy day and the more panels you install, the more electricity you will generate. The electricity generated is not used by the household itself, but flows back into the grid. The government wants to promote the use of green technologies and encourage home owners to install renewable systems; therefore the home owner is paid what's known as a 'feed in tariff'. The amount returned is, generally, significantly higher per unit than the cost of buying electricity in. This means that if you install a large enough area of panels, you can completely offset the carbon produced from your hot tub usage, including the running costs. Please visit https://www.gov.uk/feed-in-tariffs/overview for further information and the conditions that apply.

Solar hot water

When heating hot tub water, the period of most energy demand is immediately after filling the spa from empty. The water needs to be heated, through the hot tub's built in heater, from cold up to the required temperature (36 - 40° Centigrade). However, it is possible to achieve this by filling or part filling the hot tub using water heated by either solar hot water evacuated tubes or flat panel collectors. These work by using the sun's energy to generate heat, by trapping the sun's energy in highly efficient glass tubes or panels. In these systems, small amounts of fluid are converted to superheated steam (often over 200ºC on very clear sunny days) and the heat transferred to a heat exchanger, which is then used to heat the hot water.

The hot tub's in-built electric heater would then only be required to be active for much shorter times to maintain the set temperature during normal use, which uses much less energy. It is not generally possible to replace the hot tub's heater completely with a solar hot water feed, as it would not operate at night and may not respond quickly enough at other periods. It would also require some major modifications to the spa's interior plumbing which would void most hot tub manufacturer's warranties.

Biomass hot water

This is again a method of obtaining hot water for a fresh-fill of an emptied hot tub, derived from a renewable source, rather than by electricity, to heat the hot tub water to working temperature from cold. Here, water is heated from a specialist heater which is designed, as the name implies, to burn organic fuels taken from a sustainable source. Such heaters are built to burn logs, wood pellets or wood chips, which are fed automatically into the combustion chamber from an adjacent store.

As with solar hot water, heated water from a biomass source would help raise the fill water to near desired temperature, and the hot tub's in-built electric heater would, again, then only be required to be active for much shorter time periods to maintain the set temperature during normal use, which uses much less energy. It is not generally possible to replace the hot tub's heater completely with a biomass hot water feed, as it would also require some major modifications to the hot tub's interior plumbing, which would void most manufacturers' warranties.

Now that you have a little bit more information, the choice about whether to harness these forms of sustainable heat technologies is up to you!

Winter Usage Advice

Hot tubs and swim spas are designed for all-year round use. Despite the fact that most hot tubs are purchased and installed during the summer in the UK, most new hot tub owners report that they really come into their own during the colder months, especially if there is frost or snow! Hot tubs offer a unique experience on the senses - the contradiction of your eyes telling you it is freezing cold, whilst at the same time your body is telling you it is warm - which is virtually impossible to describe, unless you have experienced it for yourself.

Modern hot tubs from respected manufacturers, employing the latest materials and control systems are highly energy-efficient compared to hot tubs of even a few years ago, therefore running costs, even during the winter, are not as high as they used to be.

First of all, to dispel a commonly-held belief, many people are put off by the idea of using a hot tub when the temperature is very cold, because they believe they will get chilly once they leave the water. They have actually got this the wrong way round, it is getting into the water that is more of an issue if you are worried about feeling the cold. This is because, after a few minutes in the hot water, the outside of your body heats up to a temperature on a par with your core body temperature. So, when you get out, unless there is a strong wind blowing, this heat takes a short while to dissipate, giving you time to put a robe on, put the cover back on the spa and get your things together before you start to feel cold.

Using a hot tub in the winter months is not that much different to using one during the summer, but with a few additional points to bear in mind.

- Ensure pathways between the hot tub and the house are cleared of snow and frost, to minimise the risk of slipping over. Use a proprietary path-clearing salt/grit combination if necessary.
- Always wear suitable footwear to protect feet from the cold and minimise the chance of contamination being transferred from feet to the hot tub water.
- If a hot tub cover is covered in snow, sweep the snow off completely with a soft brush first before trying to move the cover. Snow is heavy and trying to lift the cover may potentially cause damage to the cover (and potentially the person trying to lift it). Secondly, you don't want freezing snow dropping off the cover and into the hot tub water! A cover lifter is recommended to assist with lifting and replacement of the cover.
- Only remove the cover immediately before getting into the hot tub, and replace it again immediately after getting out. This is good practice at any time of year in order to minimise heat losses and, therefore, running costs. However, it is absolutely imperative when the weather is cold, as the difference between water temperature and air temperature is much greater than it is in the summer, and so therefore is the rate of heat loss.
- Always remove the cover completely when using the hot tub! Even in cold weather. The gap between the water surface and the underside of the cover is very small and suffocation could occur quickly, so NEVER be tempted to use the hot tub with the cover on.
- Invest in good quality heavy towelling robes, and place a towel tree to hang them on close to the hot tub. That way your walk to and from the hot tub will be as warm as the time you spend in the water, regardless of how alpine the conditions get.
- Wear your favourite winter hat! OK, you may not win any awards for sartorial elegance, but the only part of you that will be exposed to the cold (and also the bit you lose the most heat from) will be your head, so insulate it!

If your hot tub breaks down, get it fixed as soon as possible. As long as a hot tub is working correctly, heated water is circulating and filtering and built-in freeze protections are operating, modern hot tubs can deal with the absolute worse that the winter can throw at it. However, a breakdown could potentially lead to circulation and heating stopping, and the risk of freezing conditions affecting pipework and equipment, leading to damage being caused. By calling out an engineer and asking for a visit as soon as possible will ensure that the chances of damage being caused are minimised.

Keep up a good water care maintenance regime. Just because it is winter, it does not mean you can step back from a good water care programme.

Winterising Your Hot Tub

If you are not planning on using your hot tub during the winter months, (indeed at any time that we may get a frost), it must be properly winterised or potentially severe damage could be caused to the pipework and equipment in freezing conditions. Here's how you go about doing the job, but you may prefer to get a BISHTA member to do the work for you.

1. **Turn off all air control valves and open all jets. If the hot tub is a couple of years old or more, it would be a good idea at this point to use a proprietary pipe cleaner and biofilm eliminator immediately before draining the hot tub.**

Drain the water from the hot tub, using the hot tub's in-built drain valve or a submersible pump (which will empty it out much faster). There will normally be a few inches of water left in the bottom of the hot tub which can be bailed out using a plastic bucket or similar plastic container.

Switch off power to the hot tub both at the local isolator switch (if fitted) and the MCB in the consumer unit.

2. **Take off the cabinet panel at the front of the hot tub's equipment bay. Undo the unions connecting the pipework to the pumps and allow the water in the pipework drain away.**

Use a wet and dry vacuum cleaner to clear the pipework of any remaining water. If the hot tub is fitted with an air blower, disconnect the end of the pipe from the blower, and suck as much water as possible from the blower lines with the wet and dry vacuum.

Remove the drain plugs from the pumps and let the water drain from the pump bodies. When all the water has drained from the pump bodies, replace the drain plugs.

3. Replace the cabinet panel.

Wipe the hot tub's interior and exterior with a clean cotton towel. After it has completely dried out, place the cover back on the hot tub, close it and secure it.

4. As the hot tub is not going to be used for a while, it is better to cover it up properly to ensure it does not attract dirt and insects, and protects the exterior from the elements. Cover the hot tub with a tarpaulin or large plastic sheet and tie it down securely so it remains in place.

If your hot tub is still within its warranty period, before you begin any hot tub maintenance yourself check your manufacturer's terms and conditions as, sometimes, the manufacturer may only provide warranty coverage if it has been winterised by an authorised service professional.

5. Your hot tub is now winterised!

#lovelifeleisure

Running Costs for Hot Tubs and Swim Spas

There are a number of factors that will affect the likely running costs of hot tubs and swim spas, including heat losses and usage.

Firstly, the water volume that needs heating will have a bearing. The greater the volume that needs heating, the higher the running costs. Some hot hubs may hold around 1,000 – 1,500 litres, whilst swim spas can often be in excess of 10,000 litres.

Water temperature is typically set between 36°C to 40°C, but in the summer, especially during very hot weather, this might be reduced to make the water temperature more comfortable. The higher the water temperature is set, the more energy will be required to maintain it and therefore the higher the running costs. A consideration may be to turn down the water temperature, especially if not being used for a period of days, into the 20's, but you will need to be organised and patient while it heats back up again!

The ambient temperature will also have a bearing, when the cover is off. The greater the difference between the water temperature and the ambient air temperature, the more rapidly heat is lost. There will generally be greater costs for heating your hot tub in the winter, although it is great fun to be sitting in the hot tub on a cold day with blue sky overhead!

The usage will also need to be considered. Obviously, the more the hot tub is used - where the cover is off and the pumps (and blowers, where fitted) are running - the more it will cost to run as, not only do you have to factor in electricity required to drive a pump or blower, but an agitated, aerated water surface will lose heat faster than water which is flat calm.

Is your hot tub installed indoors or outdoors? This too will have an effect on running costs as indoor hot tubs normally have a much higher year-round ambient temperature than an outdoor hot tub, which will mean lower running costs than an outdoor hot tub. However, an indoor hot tub will require specialist equipment installed to keep the humidity and temperature of the air indoors at comfortable levels.

When the hot tub is not in use, always ensure the cover is replaced back on the hot tub, and that it fits snugly to avoid any gaps where heat can escape. Make sure your cover is maintained to maximise its life-span. An old cover can take on water and, not only does this make it very heavy for a user to lift on and off, but it also dramatically reduces its heat retention properties. If your cover becomes heavy like this, replace it straight away.

So, what are my likely running costs?

The cost of electricity varies widely, and some providers will be more cost-effective than others. In the experience of BISHTA members, typical costs based on a well-insulated acrylic expect to budget an average of at least £2.50 (per half an hour per day) for the smaller efficient models from a reputable manufacturer.

Running costs for exercise spas may require upwards of £5.00 – £7.00 (per half an hour per day) depending on the factors above, especially the usage. It is sensible for buyers to ask the retailer for information on their products' energy efficiency and the average running costs associated with using the product.

Some hot tubs are more energy efficient than others, and quite often, hot tubs which are advertised very cheaply can be poorly insulated, so always ask your retailer how cost-effective they are to run and to show any published figures they may have.

Finally, the other costs associated with owning and running a hot tub are water treatment chemicals. Chemicals are a vital requirement in ensuring that hot tub water is kept crystal clear, clean and hygienic. The good news is that a hot tub contains relatively small volumes of water, so this only requires small amounts of water treatment products to keep it correctly maintained. Allowing an annual budget in the region of £300 - £400 should cover your water treatment chemical requirements, though heavier used hot tubs and swim spas may require a bigger budget.

The cost of filling a hot tub with water will depend on the size of the hot tub; the average hot hub holds around 1,000 litres. In the UK, the average cost is 1p per litre of water. Therefore, an average hot tub (1000 litres) would work out at £10 to fill.

If you need any further help, BISHTA have a range of useful resources at; www.bishta.co.uk

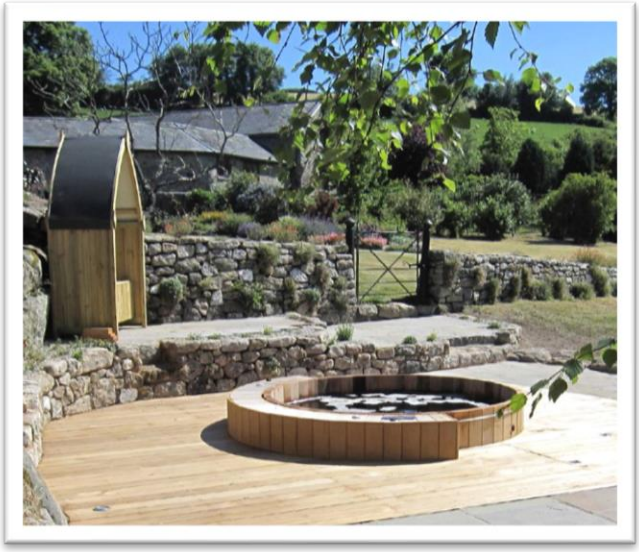
Installing Hot Tubs and Swim Spas Inground

Typically, the majority of hot tubs and swim spas are located outdoors, with a small minority installed in a building of some kind. Regardless of location, they must always be installed on a firm, level base which is capable of supporting the weight of the hot tub, the water and the bathers without risk of movement. However, there is a growing trend to have hot tubs landscaped into the garden, to take advantage of the aesthetics of a garden's natural contours, to make them easier to get in and out of, and so that they are less imposing on the overall view. Such an installation requires having the hot tub partially or fully lowered into a recess in the ground. If you are considering this kind of installation, it is important to give consideration to a number of important factors, to ensure a trouble-free installation, as well as on-going service and maintenance.

The foundation the hot tub sits on at the bottom of any excavation must still be flat, level, not shift under load and be capable of supporting the considerable weight of the hot tub, the water and a full complement of bathers (typically a floor loading of well over 500kg/m^2).

Even if you consider the surrounding ground to be solid, always build concrete retaining walls, and tank them with a suitable waterproofing material to prevent the ingress of ground water into the pit that the hot tub is sitting in. A reputable hot tub retailer or reputable builder will be able to give you advice on doing this.

Ensure there is adequate ventilation in the recess to allow sufficient airflow to keep pump motors cool and prevent the build-up of humidity. In the event of heavy rainfall or a major leak in the hot tub, the recess could easily fill with water, flooding the hot tub's equipment and causing expensive damage. Therefore, any excess water needs to be taken away and measures should be taken to facilitate this, such as a suitably sized drainage channel built into the floor of the recess and discharging to a lower point; or the construction of a sump below the floor of the recess fitted with one or more float switch operated submersible pumps, which are fitted in such a way as to discharge any water well away from the hot tub.



The electrical connection point is also important as this must be sited as high above the recess floor as possible, to keep it well above the level of potential flooding. It is recommended that any submersible pump is installed with its own dedicated RCD protected supply to prevent the possibility of the house electrics being tripped out by the hot tub. The 18th Edition IET Electrical regulations provide greater detail, and it is very important that a suitably qualified electrician carries out any electrical work and is able to sign off and certify any electrical installation to Part P of building regulations. Many reputable hot tub companies have their own in-house qualified electricians, but check with them first to make sure.

Like any piece of electro-mechanical equipment, at some point in the future your hot tub will require service or repair, so think about making access to all sides of the hot tub as easy as possible. This is particularly important with a hot tub partially or fully sunk in ground. If at all possible, build the recess with a void large enough all round to get an average size hot tub engineer in, and with modular removal sections on all sides, supported by a suitable, and equally modular and easily removed, frame.

Bear in mind that hot tub engineers charge for their services by the hour, so if they have to spend the first 2 hours dismantling decking or even lifting a hot tub out of a recess, then that could make what may otherwise be a quick and simple repair more expensive than it should be. The other thing to be mindful of is that the majority of parts and labour warranties on hot tubs cover the time it takes to diagnose a fault and make the actual repair. Most warranties have clauses which allow the service company to charge for the time it takes to gain access to the hot tub if they deem it unreasonable.

If you are intending to use wooden decking, it is important to ensure the timber selected is suitable for use in a wet environment.

When purchasing your hot tub or swim spa, it is strongly advisable to notify your insurance company to ensure that it is covered through your home owner's insurance policy. As a single high value item, many insurance companies require specific notification and details in order to provide cover.

By following the advice above, in conjunction with discussing your plans with a hot tub retailer who is a BISHTA member, their experience is invaluable, you should benefit from a trouble-free installation, leaving you free to relax in the warm, soothing waters of your new hot tub or swim spa!

Installing Your Own Hot Tub

BISHTA would always recommend that you buy a hot tub or swim spa from a reputable company who offer a full delivery and installation service, to avoid any potential issues that may arise.

However, if you have the skills and expertise to install it yourself, BISHTA has prepared some key tips to remember for a safe installation, but make sure you speak with and involve your retailer to ensure there is nothing else that they recommend you do to ensure a trouble free installation.

So, here are some top tips to help you if considering a DIY hot tub installation.

Location, location, location.

Choose the location on your premises very carefully. Do you want the hot tub close to the house, or in a more remote location? If it is to be installed some way from the house, think about the path between changing facilities and the hot tub and what type of surface it needs to be finished in to ensure it is non-slip, and that no dirt, grass or other contaminants can be picked up on feet and transferred to the hot tub. Most hot tub owners like to use their hot tub at night, so think about any lighting you will need along the pathway and around the hot tub to ensure that bathers can get to and from it safely. Do you need a separate stand-alone building near the hot tub to provide changing facilities and other services? If so, how big will it need to be, where will it go, and what services will it require? Where are the nearest toilets and showers located, so that bathers are as clean as possible when they enter the hot tub?

Avoid overhead power lines, and think about proximity to trees, to minimise the leaf debris which could end up in the hot tub water. If you are within sight of neighbours' houses, consider the noise and the impact this may have on them and your privacy and whether it may be necessary to erect some kind of screening or fencing.

Many hot tub owners love to star-gaze from their hot tub, so, if this is one of your aims, think about your view of the night sky when sitting in your hot tub. Or, perhaps you would like the hot tub to benefit from a particular view. In which case, consider not only the location of the hot tub, but its orientation to take maximum advantage of the view.

Whilst the vast majority of hot tubs are installed outdoors, some are installed in the house or in some kind of garden building. If considering any kind of indoor installation, it is very important to consider how you intend to deal with the vastly increased, and potentially damaging, heat and humidity levels that become an issue in indoor installations. Specialist dehumidification equipment may need to be fitted, which a reputable retailer will be able to advise you on specifying and sourcing. You will also need to think about how you will deal with the water from overspill caused by bathers getting in and out of the hot tub, or in the unlikely event that the hot tub springs a leak; so installing suitable drainage will be a requirement. Access in indoor installations is usually much more restricted than in outdoors so, as well as getting the hot tub in at the outset, give some thought to maintenance access, and even to how you will get it out again, if you're looking to upgrade to a new model in years to come! Please also bear in mind that some indoor projects may require planning permission, so always speak to your Local Authority to avoid potential problems later on.

And don't forget that a hot tub requires electricity and a water supply, so the further away you install the hot tub from the house, the more expensive it will be to get these services to it; not to mention the practical challenges that may need overcoming in getting supplies from A to B.

Access all areas (or not, as the case may be!)

Once you have decided on your hot tub's ideal spot, you then need to think about how you are physically going to get it from the road to its chosen location. The vast majority of reputable hot tub retailers offer a comprehensive and insured delivery service, and have the correct tools for doing the job, and we would strongly advise you take advantage of this. If any company tells you they only offer 'kerbside' delivery (in other words it will be dropped off a truck into the street outside your house), then we would strongly suggest avoiding them, as getting a hot tub from the street to the pad is not for the faint-hearted without the correct equipment.

A hot tub is usually delivered on its side on a special trolley which can be steered at both ends. As it is on its side on the trolley, the hot tub's height then becomes its width, and its width (or length) then becomes its height. You must also take into account the height of the trolley itself, and allow for the thickness of the hot tub's packaging.

You need to plan the hot tub's journey from the street through to the rear of the property and on to the pad, so you therefore need to consider the following: Are there any overhanging eaves, flues or branches that would interfere with the hot tub's height on the trolley? Is the access wide enough throughout the route? If not, can any fence sections or gate posts be removed? Is the ground solid all the way, or are there areas of cultivated soil, delicate lawn or gravel which need protecting with scaffolding boards? Are there slopes, walls or terraces which need negotiating; or ponds which need crossing? Are you on good terms with your neighbours and, if so, might an easier route be to come via a neighbour's property and remove a fence panel? It's also a good idea to have the services of a few strong people on-hand to help with the safe lowering of the hot tub from the trolley to the ground.

Do not forget that a hot tub is a big, cumbersome and rigid item. It would be fair to say they are not in any way bendy. So pay particular attention to very restricted and tight alleys, and sharp corners, as you will not be able to bend the hot tub to get round them!

In a minority of installations, where there is no possibility of getting it to the rear of the property over ground, there is sometimes no other option than to crane the hot tub in. Your local retailer will normally have existing relationships with a local crane company experienced in delivering hot tubs, and we would strongly recommend that you utilise their services. Please note you will need a risk assessment for the lift. Always request an insured lift where the crane company is wholly responsible for all aspects of the lift and provides a banksman. Never opt for a 'lift only', where you are not insured for anything which goes wrong, and you have to act as banksman. Whilst the former is always more expensive than the latter, you cannot put a price on the peace of mind that it brings.

It's all in the foundations

All hot tubs require a firm, level base which is capable of supporting the weight of the hot tub, the water and the bathers without shifting at all. Hot tubs are very heavy pieces of equipment - typical floor loadings of a hot tub full of water and bathers are in excess of 500kg/m^2! (Refer to your retailer for accurate figures for your chosen hot tub). Any other items which could add to the weight (i.e. gazebos or buildings) will also need to be taken into account.

The most common form of foundation is a 4" (100mm) deep reinforced concrete pad, which is formed using timber-shuttering and levelled off smooth and level, so that the hot tub cannot rock on any high or low points, and built to an area at least the size of the hot tub's published footprint.

It is also possible to install on an existing patio, as long the patio's foundations are strong enough to take the weight, and the slabs on top are smooth and level. Also, bear in mind that the surface needs to be level, so check an existing patio, as many are built with a fall to allow for rainwater to run off, which will not be suitable for a hot tub.

A hot tub can also be installed on decking, as long as the sub-structure is strong enough to take the weight. If you are at all unsure, speak to an experienced decking contractor, or your retailer, if they offer decking services. The other thing to bear in mind when considering putting a hot tub on decking is that timber is naturally resonant and can transmit and amplify any vibration from the hot tub during its operation and filtering modes. Many hot tub owners opt for the concrete pad solution, then simply deck up to the edges or around it.

If you are considering installing a hot tub in any kind of raised position, i.e. a balcony, roof, or terrace, it is vital to call upon the services of a qualified structural engineer or architect who can provide calculations to ensure that the hot tub has the minimum level of structural support underneath it. Under no circumstances go ahead and install a hot tub in such a position without doing this first.

It’s electrifying!

There are specific regulations governing the electrical installation of a hot tub. A hot tub must be installed on its own correctly-sized fused spur, wired in SWA cable directly back to the consumer unit, and protected by its own separate RCD, according to 17th Edition electrical regulations. All work must be carried out and signed off by a competent person according to Part P of Building regulations. **Under no circumstances whatsoever,** carry out any such work yourself, unless you are a competent person and able to sign off the work under Part P.

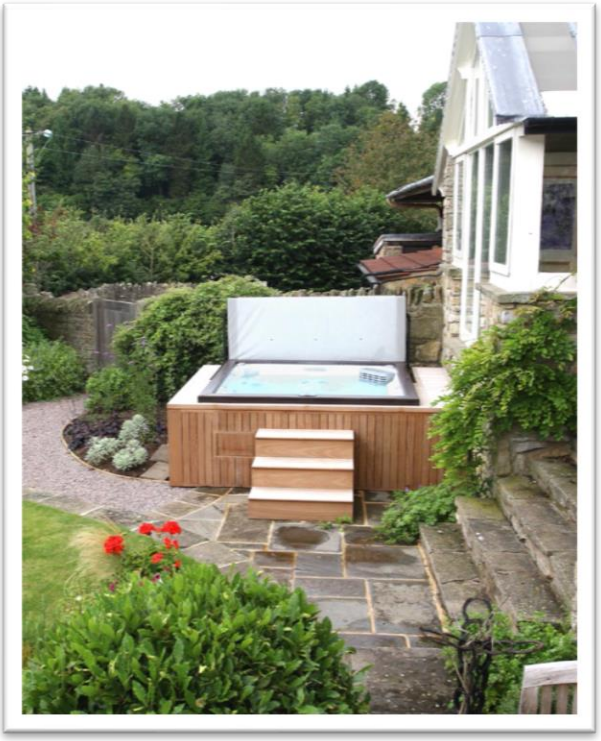
Taking the plunge

What access will you have for bathers to get into and out of the hot tub water? If installed at ground level, then you will need to consider at least a set of steps to allow bathers access in and out of the hot tub. Many owners build decking around the hot tub to facilitate access as well as for aesthetic reasons. If you are doing this, construct the decking in modular sections which can be removed easily in the event that the hot tub requires servicing or repair. If anyone using the hot tub has mobility issues, it is worth considering installing a grab-rail to assist entry and exit. These accessories are available from all reputable dealers.

Hot tubs can also be partially or fully sunk in ground, thus lowering the height of the lip. See the separate BISHTA factsheet for more information on doing this, as it has some very specific design considerations. If you are doing this, give particular thought to illumination round the hot tub so it does not become a trip hazard in darkness.

Think of access for future servicing

Like any piece of electro-mechanical equipment, at some time your hot tub will require servicing or repairing, so think about making access to all sides of the hot tub as easy as possible. Bear in mind that hot tub engineers charge for their services by the hour, so if an engineer has to spend the first 2 hours dismantling a deck or taking down a wall, then that could make what may otherwise be a quick and simple repair avoidably expensive. The other thing to be mindful of is that the majority of parts and labour warranties on hot tubs cover the time it takes to diagnose a fault and make the actual repair. Most warranties have clauses which allow the service company to charge for the time it takes to gain access to the hot tub if they deem it unreasonable.



Chemical store

Your hot tub will require a small number of water treatment chemicals to keep the water clean, safe and hygienic. These chemicals require some kind of store where they can be locked away in clean, dry conditions, and kept safely away from children and pets. The chemicals also should be kept apart from one another and away from flammables such as petrol; therefore a garden shed with a lawn mower should be avoided.

Treat it right, to keep it safe.

BISHTA is very keen to ensure that all UK hot tub owners are aware of correct water hygiene management to ensure your hot tub water is kept clean, safe and hygienic. Please ensure you familiarise yourself with our free water treatment factsheet (C3).

Safeguarding Your Money

If you are a little bit concerned about spending money on a hot tub or swim spa, BISHTA members can offer extra peace of mind through the "BISHTA Stakeholder account". This account is an excellent means of safeguarding your money, as it gives reassurance to customers paying large sums of money to retailers before goods are delivered, giving the client extra protection when they order goods and services from a BISHTA member.

BISHTA's Stakeholder account is only available to BISHTA members and their customers. It requires a "Heads of Agreement" to be developed, detailing what product(s) or work is needed and details what amount of money can be paid out on each item (as part of Annex A).

The Agreement is then signed by both the client and the BISHTA member and is then sent to the BISHTA office, along with the money, which is placed in a Client Stakeholder account. Once cleared funds have been received, the member proceeds with the actions to meet the agreed timescale.

Once the BISHTA member's actions have been completed and client confirmation has been received, the client funds can be paid by BISHTA. In the unlikely event that there is a disagreement, an inspection can be arranged (but there may be an additional cost for this service).

There is currently no charge for use of the Stakeholder account and any interest is retained by BISHTA from the funds deposited. If any (overseas) bank charges are incurred, these will be payable by the BISHTA Member, unless otherwise agreed with the client.

Please contact the BISHTA office for copies of the Stakeholder account documentation.

About BISHTA

BISHTA (The British and Irish Spa and Hot Tub Association) has members that are part of the Hot Tub industry and is recognised by the HSE (Health and Safety Executive) and the UKHSA (UK Health Security Agency).

BISHTA was established in 2001 to ensure that member companies engaged in the display and sale of hot tubs are properly trained in water hygiene management and understand the importance of maintaining these Standards throughout the products life.

BISHTA has a world renowned team of experts on hand to offer support and assist with issues or any questions.

BISHTA is an organisation established by the industry to maintain the highest standards and to ensure the customer is given the best possible advice.

Why buy from a BISHTA Member?

Because every BISHTA Member has proven skills in water hygiene management and can offer expert advice and service on their products.

Because our Members will answer your questions on what type of hot tub will suit your needs and budget. They will also have a sound knowledge of other key issues, such as the correct water treatment, selection of chemicals, location, access, running costs and a guaranteed after-sales service and support.

Because our Members work to a Code of Ethics, you will be given honest, reliable advice.

The benefits of dealing with a **BISHTA** Member are:

- ✓ Purchasing quality products that conform to European Standards
- ✓ Members that abide by a Code of Ethics to promote fair and responsible trading
- ✓ Knowledgeable staff who have access to an expert technical advice service, if needed
- ✓ Members will have undertaken training in water treatment and the handling transport of chemicals to comply with dangerous goods legislation and registration with our own Dangerous Goods Safety Advisor
- ✓ Clear warranties in case of any issues
- ✓ A thorough after sales service
- ✓ They will hold a valid Public Liability Insurance Cover

There is also freely available, impartial advice from the BISHTA head office (see contact details below).

W: www.bishta.co.uk T: 01264 356211

E: admin@bishta.co.uk /Bishta.Hot.Tub.Association/ @Pools_HotTubs

Daily, Weekly, Monthly and Annual Hot Tub Checks

The joy of having a hot tub at home can be made simple by carrying out regular checks to keep it ready for use, whenever you want to use it. At first, hot tub care can seem a little overwhelming, but like a new car, once you get used to the regular maintenance schedule to keep it running, you can jump in whenever the compulsion takes you. Having a hot tub to use at home can bring a holiday feel all year round, or as we like to call it, an everydaycation lifestyle!

Daily Checks

On a day-to-day basis, you have to ensure that there are adequate levels of sanitiser in the water (recommended as Chlorine or bromine) and the pH of the water (its acidity or Alkalinity) is within the accepted values (see below). The easiest way to check the water of a domestic hot tub is to use a test strip, but make sure the test strip is in good condition and in-date, as some are very poor quality and will give you very inaccurate readings. The test strip bottle has a visual colour levels guide on the side label. You should follow the instructions on the bottle for using the test strip. Once the strip has been dipped in the water for the recommended time, it can be compared to the guide. The strip should be the same colours as the centre section of the guide to be balanced.

The ranges are as follows:

pH to be maintained at 7.0 to 7.6; ideally, the closer to 7.0, the better.

If using Bromine: Bromine residual to be maintained at 2 to 4mg/l (ppm).

If using Inorganic Chlorine (usually Sodium Hypochlorite or Calcium Hypochlorite): Chlorine residual to be maintained at 2 to 4mg/l (ppm).

If using Organic Chlorine (usually Stabilised Chlorine such as DiChlor or Tri-chlor): Chlorine residual to be maintained at 3 to 5 mg/l (ppm).

pH control

It is essential to monitor pH daily, as both low and high pH values can be uncomfortable for bathers and can lead to skin or eye irritation. High pH values can also hamper the efficiency of the sanitiser (especially Chlorine) to control and kill potentially harmful bacteria and pathogens. Low pH can be corrosive and lead to damage to hot tub equipment over time, and high pH can be scale-forming, leading to cloudy water and scale formation on heating elements and other hot tub surfaces. If the pH is lower than 7.0, use a pH increaser and conversely, if the pH is above 7.6, use a pH reducer.

Sanitiser control

The primary sanitiser (either Chlorine or bromine) is your main defence against harmful water-borne pathogens, so it is vital to test and adjust sanitiser levels as required daily. Many hot tubs now come equipped with built-in sanitiser tablet dispensers to make this even easier, so keep an eye on the tablet dispenser to check that the tablets haven't completely dissolved. Never switch between Chlorine and bromine without consulting your retailer, as this can be potentially dangerous regarding chemical reactions.

Weekly Checks

Turn on all the hydrotherapy pumps, open any topside air controls and ensure that any adjustable flow-control waterfalls or jets are turned back on. If the hot tub produces visible foam at this stage, you can add a small quantity of foam suppressant until the foam dissipates. Then turn the air controls and waterfalls back off.

Visually check the water for clarity; if the water is cloudy, you can use a combination of fast-acting oxidisers and clarifiers that will help to clear the water again.

If you are in a hard water area, add a dose of Anti-Scale, which will keep any calcium in suspension in the water and prevent it from scaling up your heating element and other hot tub surfaces.

Check for Total Alkalinity (TA). Total Alkalinity is a measurement of the water's ability to resist pH change. If TA is low, pH can easily fluctuate, making it difficult to control and maintain the ideal level for the rest of the week. Ideally, aim for a TA level of between 125 – 150mg/l, but at least 80mg/l is desirable.

If there are any leaves, debris or grit in the footwell, use a skimmer net or spa vacuum to get the hot tub looking in 'tip-top' condition again. Give the topside and waterline a quick wipe down with a damp cloth and a hot tub surface cleaning solution, then clip the hot tub cover back into place, and you are ready to enjoy your hot tub again.

Monthly Checks

Remove the filters from the hot tub (for cleaning later), then thoroughly clean the inside of the hot tub surfaces with a damp cloth and a hot tub surface cleaner solution. Replace the filter with a clean replacement (always keep two sets of filters to clean one set whilst the other is in active use).

Do your final checks for pH and sanitiser levels and check that the hot tub is set to your ideal temperature; chemically clean your filters (using a hot tub filter cleaning solution), then leave them to dry naturally, ready for putting back when you next need them.

Quarterly Checks

Depending on how often your hot tub is used, BISHTA recommends that you drain down and refill the hot tub at least monthly, but not more than once every three months. Using the hot tub at least three or four times per week will most likely lead to changing the water monthly rather than quarterly.

Drain Down

Ensure that you use 'system flush', a chemical designed to clean away any debris in the pipework. It is good to use a proprietary spa plumbing 'system flush' before draining. Then flush the hot tub pipelines through with a garden hosepipe, but it is a good idea for the first few minutes of hosepipe water to flow onto the garden (or elsewhere) to minimise the possibility of having any bacteria accumulated in the hosepipe being put into the hot tub. Note: Up to 10% of UK drinking water contains legionella, which is safe to drink, but not something you want to be heated up in your hot tub!

Clean the hot tub shell inside with a clean cloth, and ONLY use cleaning materials as recommended by the hot tub manufacturer, explicitly designed for use in hot tubs. Never use regular kitchen or bathroom cleaning products. Vacuum the pipework, jets, blowers, and heaters with a suitable wet and dry vac to remove debris and dirt. It is a good idea to remove all of the jets and check to make sure they are clean, especially the area behind the jets.

Refill

Before filling the hot tub, don't forget to replace the drain plugs from the pump(s) so that the pump(s) do not leak. Also, check that any compression fittings are also correctly fitted again. Fill the hot tub with water through the skimmer or filter area, ensuring that the hose does not sit in the water (there should always be a gap between the end of the hose and the water surface, to conform with WRAS Water Regulations). Add Chlorine (or bromine) to the filter area as the water is filling and add more Chlorine (or bromine) while the hot tub continues to fill with water (but NEVER mix these two neat chemicals, in case there is a risk of a chemical reaction). Depending on the water pressure and the volume of water needed for the hot tub, this could typically take anywhere between 1 – 3 hours, but the hot tub should never be left unattended for any length of time in case any issues arise.

Annual Checks

BISHTA advises that it is sensible to conduct an annual equipment service on your hot tub to ensure it is fully operational and that all equipment is working correctly to the manufacturer's safety standards instructions. Check that your secondary sanitisation equipment (typically an Ozonator or UV equipment) is working correctly and that UV bulbs are replaced according to your supplier's recommendations.

Also, replace your filters at least once a year, as filters can degrade over time and eventually provide inadequate filtration performance leading to cloudy water. This annual check may be best undertaken by a hot tub professional, and they may require this visit to maintain any warranty on the product.

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How should I take care of my hot tub filters?

Filters are a critical piece of hot tub equipment, and keeping them in tip-top condition is one of the key ways to make sure you have a clean and healthy hot tub. Hot tub filters work by trapping and retaining solid and particulate matter that would otherwise unpleasantly pollute the water.

Clean filters that are well maintained have many benefits, such as helping to prolong the life of your hot tub, maximising the life and efficiency of the filters, and assisting in maintaining clean, clear, healthy water for the bathers. Having clean, well-maintained filters also ensures that you do not use excessive amounts of chemicals, allowing your sanitiser to focus on killing harmful micro-organisms and saving you money in the long run.

How do filters work, and how long do they last?

Water is pumped through the filter(s) by a dedicated circulation pump or a massage pump at half speed to remove any solid contaminants such as dirt and debris. The amount of water pumped through the filtration system will vary depending on the make and model of the hot tub and the type of circulation/filtration system it employs. The filter works in conjunction with chemicals and sanitisers to keep your hot tub water clear and hygienically clean.

High-quality hot tub filters are designed with a moulded plastic core and a pleated woven synthetic fabric that allows water to pass through but traps and retains any solid contamination. The pleats of the filter material increase its surface area allowing for more dirt to be contained. The filter material is resistant to acids, oxidisers, and other chemicals, making it suitable for use in hot tub applications.

It is advisable to have two sets of filters used on a month on / month off rotational basis so that you always have a clean set ready to go back in when the other set is removed for deep cleaning (to reduce the downtime of your hot tub). If you are **not** rotating your filters, they should be replaced with a new set every 12 months; whereas those used on a month on / month off rotational basis can be replaced with new ones every 24 months.

How should I care for my filters?

Hot tub filters must be regularly cleaned. If not, the particles of dirt and debris remain trapped and eventually reduce the filter's effectiveness and the cleanliness of your water. Greases and fats can become impacted and ingrained in the pores of the filter material. This will reduce flow and overly stress the circulation pump, and your sanitiser will be used up more rapidly, killing germs in the debris in the filter rather than in the main body of your hot tub water where it's actually needed. Keeping your filters well maintained will also mean that they last longer.

You should always follow the manufacturer's instructions for filter and hot tub care. Here

BISHTA provides an outline of what cleaning your filters looks like;

Once a week

1. Turn your hot tub off at the power source.
2. Remove the filter cover and then remove the filter(s) from the filter housing.
3. Hose down the filters using a garden hose with a good jet pressure to clean off the large and loose debris caught between the pleats. Either put your thumb over the end of the hose to increase the pressure of the water jet or use a hot tub filter brush hose attachment designed specifically for this purpose (available from your local BISHTA dealer). A power jet washer must NEVER be used to clean filters as the power of the jet will damage the fibres of the weave in the fabric and render it useless as a filter.
4. Replace filters back in the hot tub and turn the power back on.

Once a month. Deep cleaning

1. Turn your hot tub off at the power source.
2. Remove the filter cover and then remove the filter(s) from the filter housing.
3. Hose down the filters using a garden hose with a good jet pressure to clean off the large and loose debris caught between the pleats. Either put your thumb over the end of the hose to increase the pressure of the water jet or use a hot tub filter brush hose attachment designed specifically for this purpose (available from your local BISHTA dealer). A power jet washer must NEVER be used to clean filters as the power of the jet will damage the fibres of the weave in the fabric and render it useless as a filter.
4. Fill a plastic bucket or container with a specialist quality hot tub filter cleaning solution, following the filter cleaner packaging directions and taking care not to splash the solution outside the bucket or container. Wear eye protection, rubber gloves, and appropriate PPE. NEVER use regular household detergents or cleaning products, and unless specified by the filter manufacturer, NEVER put hot tub filters in a dishwasher or a washing machine.
5. Place the filter(s) in the bucket or container. The cleaning solution should be deep enough to ensure the filter(s) is/are completely submerged.
6. Put a lid on the bucket or container to keep the filters submerged and to ensure it is not accessible to children or pets.
7. Once your filters have soaked for the recommended time according to the cleaning solution manufacturer's instructions, remove the filters from the container (make sure you're wearing rubber gloves, eye protection, and appropriate PPE) and hose the filters down again, ensuring that you thoroughly rinse between the pleats washing away all of the loosened debris, and as much of the filter cleaning solution as you possibly can.
8. Allow the filters to dry out completely and naturally before placing them back in the hot tub. This drying process is extremely important, and the principal reason we recommend having a second set which can go back into the hot tub while the other set is being cleaned and dried to avoid any downtime in usage.

Once a year. Replacement

1. Replace the filter(s) with brand new ones. This process can be stretched out to once every two years if you are using two sets of filters on a month in / month out rotational basis.

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How to prevent and deal with cloudy hot tub water

Have you found that your hot tub water has become cloudy or milky? Cloudy water is probably one of the most common hot tub owners' issues; hot tub water can quickly lose its clarity, turning from crystal clear to hazy and dull.

The milky looking water is caused by suspended particles in the water giving the water its cloudy look. These particles are too small to get picked up in the filter, so they pass straight through, staying in the water.

Why does my hot tub water get cloudy?

In most cases, these particles are introduced by bathers. A hot tub contains a very small volume of water for each person, compared to a swimming pool. This ratio of bathers to the volume of water is known as the 'bathing load', and in hot tubs, the bathing load is incredibly high. So, when outside contaminants are introduced into hot tubs, it quickly leads to a large concentration of particles in the hot tub water, which causes it to look cloudy. These particles are typically made up of the following:

Environmental debris – Insoluble matter, such as dust, dirt, grass and leaf matter, carried in on bathers' feet.

Organic matter - introduced by bathers, consisting of debris such as dead skin cells, body oils and fats, sweat, and "other" bodily secretions. Other non-bather introduced organic matter could be algae and bird droppings (but both are rare in a hot tub due to the cover being in place while the hot tub is not in use).

Man-made organic contamination – introduced to the water from the bather. These could include makeup and cosmetics, detergents (in soap, shampoo and shower gel residues on bathers' skin, and traces of laundry detergents and softeners in the fabric of bathing costumes), lotions, moisturisers, and fake tans.

Other factors which affect water clarity include heavy bather usage (i.e. long periods of use and/or high or excess bather capacity) and low sanitiser levels.

How do I make cloudy water clear again?

Start by testing your water chemistry. Having low sanitiser levels can cause cloudy water, as there isn't enough sanitiser to cope with the amounts of organic matter being introduced into the water.

Make sure your figures are correct:

- pH: 7.0 – 7.6 (ideally 7.2 – 7.4)
- Total alkalinity: 80 – 160 mg/l (or ppm)
- Sanitiser: – Chlorine 3 – 5 mg/l (or ppm) / Bromine 2 – 4 mg/l (or ppm)

The optimum way to treat cloudy water is by regularly oxidising these impurities, or 'shocking' / 'shock dosing' to give it its more common industry title. Shock dosing will oxidise, i.e. burn off, any organic matter present, turning it into gasses that are given off from the water's surface.

There are a variety of options depending on your chemistry preference;

- Non-chlorine shock – as the name implies, a product with no chlorine component in its composition. Add 20g per 1,000 litres of water (the average hot tub is about 1,500 litres). Remove the hot tub's cover and allow it to circulate for up to an hour.
- Chlorine granules (sodium dichlor) – Increase your free chlorine level up to 20 ppm and allow it to circulate with the cover off.
- Bromine granules – Increase your bromine level to 20 ppm and allow it to circulate with the cover off.
- One-shot sachet shock treatments - these are a very popular option as they are in a convenient pre-measured single-dose sachet

Using chlorine or bromine granules will mean you will need to wait until the levels naturally reduce to an acceptable level before using the hot tub again. Using a non-chlorine shock or a one-shot sachet shock treatment means you can use the hot tub soon after treating.

Badly contaminated water may require repeated shock treatments to bring it back under control and regain clarity. If the water is coming up for a full empty and refill soon, it may be cheaper and more effective to bring this forward and drain it down rather than try to recover the water chemically.

Check your filters

Your hot tub filter is essential in maintaining clean, clear water and requires regular cleaning. Blocked or clogged filters can't do their job correctly, so make sure filters are rinsed regularly and treated with a hot tub filter cleaning product at least monthly to remove oils and greases (see consumer factsheet C27). Filters need to be entirely replaced with new ones at least every 12 months (or every 24 months, if using them in pairs on a month in / month out rotation basis).

Use a clarifier

Chemical clarification works by binding together the tiny particles in the water that are too small to be trapped in the filter to form larger particles that can be caught in the filter's fabric. The hot tub filter then retains these larger particles and take them out of suspension. When using clarifiers, ensure the filters are rinsed out regularly to remove the additional debris collected in them.

If the above measures do not clear your water, it is probably chemically irrecoverable on a cost-effective basis, and you should drain and refill your hot tub.

How can I prevent cloudy water from developing in the first place?

As contaminants are the cause of cloudy water, preventative measures will ensure they are not introduced into the hot tub in the first place, thus avoiding having to take remedial action and making the maintenance of your hot tub cheaper and more manageable. The following steps can help to reduce the chance of contaminating your water;

- Shower before using the hot tub, using water without soap or shower gels to wash off any surface dirt and bacteria.
- Don't wash swimming costumes in detergent and fabric conditioners; only rinse them in plain warm water after use, wring out, and hang to dry.
- Do not go in the tub wearing any fake tans, moisturisers, cosmetics, deodorants or perfumes.
- Do not drop food or drink into the hot tub water.
- Before getting into the hot tub, use a foot bath to stop any dirt and organic debris from being carried in on bathers' feet.
- Ensure any guests you allow into your hot tub follow the above rules, explaining to them the reasons why.
- Keep the cover on when the hot tub is not in use.
- Do not allow pets into the hot tub.
- Clean your hot tub filters regularly.
- Shock dose regularly - at least once a week and after every heavy usage session.
- Use a chemical clarifier once a week, following the manufacturer's instructions.
- Check your chemical levels regularly to make sure your chemistry is correct.
- BISHTA recommends, ideally, emptying your hot tub water every month (but a maximum of every three months)

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Hot tub Foam - Remedial Treatment & Prevention

You may have found that your hot tub has foam floating on the water surface. While foam can be fun in a bath, it's not desirable in a hot tub.

Although it is not harmful, the foam is caused by a build-up of products and TDS (Total Dissolved Solids) in the water. The foam is created when the TDS gets high, and the jets are turned on, which then causes foam to appear on the water surface. Prevention is always better than cure to reduce the chance of foamy water!

What can you do to reduce the chances of foam appearing?

- Shower before using your hot tub to remove as far as possible any potential contaminants from your body such as dirt, sweat, deodorants, perfumes, fake tan, creams or oils.
- Don't wash your bathing costume in detergent; rinse your costume with clean water after each use.
- Don't use inferior chemicals. Use the products recommended by the manufacturer, which should be of high quality and from a trusted source.
- A hot tub shock treatment should be added to your hot tub water once a week. This product will help break down any TDS in the water, such as body oils, lotions, hair products, deodorants, perfumes, makeup, creams, fake tans, and organic products left behind after bathing.
- Opening your hot tub cover regularly allows the water to "breathe", introduces oxygen to the water and allows any chemical gaseous residual build-up to be released from under the cover.
- Ensure you are maintaining your hot tub to the manufacturer's instructions. Depending on what make and model of hot tub you own, the manufacturer's instructions should include recommended periods for water changes, filter changes, filter renewal, bulb renewal and maintenance. Some makes and models of hot tubs will have these as reminders on the digital control panel.

How can you clear foam from your hot tub water?

- Use a good quality test strip to check your water to ensure that the total alkalinity is within the correct parameters. Also, check your pH levels and your sanitiser level.
- A defoamer product can be used to remove particles from the water. The product is used by squirting it across the water's surface in a zigzag motion and then turning on your Hot tub jets. After adding a defoamer to your water and running a jet sequence, you should check your filters to see if they need changing, as it is likely the filters will be covered in the contaminants cleared from the water, which will be visible. Change your filters and see if the water becomes clear within 24-hours.
- If the above actions do not result in the water clearing, it may be necessary to complete a full water change.

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