

A Warm Beginning

Few things are more comforting than a warm embrace, whether it comes from a loving parent or an old friend. And when we can't get that calming touch from another person, we often seek out cosy refuge beneath a duvet, next to a roaring fire, or submerge ourselves in a hot bath.

In stressful times (of which there seems plenty), it's natural to want to cocoon, to wrap oneself in a warm and protective environment. New-age psychologists might say it's our natural desire to return to the womb, the most protective environment we have ever known. Well they may be right, given the rate at which people are flocking to health spas to be massaged, wrapped, steamed, and soaked in an attempt to feel rejuvenated – dare I say *reborn* – in mind, body and spirit.

Today, incredible numbers of people are lured to health spas. So it's no surprise that an increasing number of people are trying to recreate the spas, saunas, and steam baths in their own home.

Let's take a brief look at where it all began.

Today's home spa industry has roots in ancient Indian, Greek, and Roman culture. Hindus practiced Ayurveda more than five thousand years ago. Ayu means "life" and "veda" means "knowledge" Hence, ayurveda can be defined as knowledge of life using curative properties of plants and essential oils, Ayurveda aims to relieve naturally the stress, tension, and negative emotions of daily life. Among the prescribed tasks, depending on one's disposition, is a sweat bath.

Better known than the Hindus for their bathing rituals are the Greeks and Romans. In fact Homer mentions the Greeks passion for bathing in the *Iliad*. Greek and Roman rulers considered it one of their basic responsibilities to provide social and recreational activities to the populace. Hence, gymnasiums and adjacent baths became ubiquitous in ancient Rome as a shopping centre is today.

Entrance fees were minimal so nearly everyone could afford admission, the baths were a way of life. Every afternoon throngs of people -men and women, young and old, aristocrat and pauper, concluded their workday with a trip to the baths.

Bathing became a symbol of Rome.

THE TURKISH BATH by Jean Auguste Dominique Ingres is an extraordinarily sensuous depiction of communal bathing



Homer and other writers tell us that the Greeks also enjoyed the hot-air bath, called Laconicum. Though many people attribute the sauna concept to the Finnish, it was the people of Laconica, the ancient region of Greece whose capital was Sparta, who conceived the idea of creating a hot-air bath by heating rocks. Today, however, the sauna is synonymous with the Finnish lifestyle, with more saunas per capita in Finland than cars.

Like many modern health spas, the ancient baths catered to a culture that thrived on pleasure and leisure. However, they were also used for medicinal purposes. During the Dark Ages, the stately sanctuaries fell to ruin. Unfortunately, it took centuries for Western Europe to rediscover the healthful benefits of hot water baths, dry-heat baths, and steam baths. And recent years have brought the most dramatic advances in hot tub, sauna and steam bath technology.

Whether you're interested in hot tubs, saunas, steam baths, or all three, we at Tubbies will attempt to demystify these products and bring you up to date on everything you need to know to create the ultimate home spa environment, from purchasing and installation to maintenance and repair.

For more detailed information contact our office by phone or email and we will send you a more thorough information pack on the subject/s you require.

SPA HISTORY AND CONTEMPORARY TRENDS

For thousands of years, people from nearly every continent have been drawn to the therapeutic wonders of hot water. The Greeks and Romans may be best known for their bathing rituals because of the massive and baths they built — some large enough to cater to thousands of bathers at a time. However, other civilizations also have a steeped in bathing traditions.

Roman baths were a place where all society could recreate and relax. On the other end of the spectrum is the centuries- old Japanese *ofuro*, traditionally a freestanding wooden tub for individual hot-water bathing. The *ofuro* is as much a part of Japanese culture as are the better-known exports sushi and karaoke. More than just a way to wash away the day's dirt and grime, an *ofuro* incorporates botanicals, minerals, and herbal extracts that enhance the therapeutic benefits of bathing — mental, physical, and spiritual.



Native Americans engaged in a culture of hot-water bathing, too. Instead of a wooden tub, however, they simply dipped into natural hot springs, which were believed to have therapeutic properties. For hundreds of years, people have sought out natural hot springs for their alleged curative powers. Today many of these hot springs have been fashioned into resort spas.

The hot tub as we know it today, however, originated in the 1960s. During this period wooden bathtubs were created from old oak barrels and vats used for winemaking in California. Early prototypes were reminiscent of the Japanese *ofitro*. As manufacturing processes were developed, most wooden hot tubs were made from regional redwood. As the product developed, circulating pumps and heaters were added to keep the water temperature high. But let's face it, a wooden tub sitting in the harsh elements of nature can easily develop leaks and play host to a variety of unhealthy bacteria.

Which brings us to the modern-day hot tub or spa. Though many lavish hot tubs are constructed using the same materials and techniques used to build concrete swimming pools, the vast majority of hot tubs are prefabricated in factories using acrylic shells surrounded by wooden or synthetic skirts. The shells are molded to fit the human form, and powerful jet action provides hydrotherapy. With factory-installed plumbing and filtration systems, the units are relatively easy to install. It's just a matter of choosing the one that has the amenities you and your family are seeking.

Before we move on any further, now I'd like to clarify some terminology. When manufacturers started to build hot tubs from colorful acrylic sheets, the results were a smooth, luxurious, and attractive surface. To separate this new class of products from the traditional wooden hot tub, companies began referring to their products as spas. But old habits are hard to break. Industry research has shown that most consumers refer to a freestanding, jetted tub of water as a hot tub, regardless of its composition and form. Plus, the tremendous growth in the resort spa industry has caused most people to think of massages, facials, and seaweed wraps when they hear the word *spa*. Still, many hot tub dealers and manufacturers have kept the word in their names. So now when someone says, "I'm going to Spa Haven this afternoon," you're not sure whether she's checking out hot tubs or getting a pedicure.

I use the terms *hot tub* and *spa* interchangeably for variety's sake,

Now that that's settled, there's one more issue of semantics that needs to be clarified: the use of the word *Jacuzzi*. Jacuzzi is a trademarked brand name of jetted bathtubs and spas and should not be used when talking about hot tubs or spas generically.

Whether it's a quiet soak or a vigorous massage you seek, the soothing effects of hot tub therapy can't be duplicated. The massaging action of warm water reduces muscles soreness and stiffness and eases the pain of arthritis. In fact, the Arthritis Foundation recommends hot-water therapy for relief of arthritis pain. In addition, the heat causes blood vessels to dilate, which lowers blood pressure. And the buoyancy of the water greatly reduces the workload on your heart and muscles. Some people credit spas with reducing stress, promoting more restful sleep, mimicking the benefits of exercise for people with type 2 diabetes, and ridding the body of toxins by encouraging sweating.

As research into hot-water therapy continues, the list of benefits continues to grow. But not as quickly as the styles and options available to today's consumers. Indeed, spas can be as basic as white boxers or as luxurious as silk pajamas. While shopping for the perfect spa, don't be surprised when you encounter a litany of hot tub amenities that have little to do with hydrotherapy and everything to do with making the spa experience more enticing.

Be on the lookout for:

- LED underwater lights that change colors

- Fiber-optic accent lights around the spa.

CD/stereo systems with waterproof speakers

Waterfalls and misters

Built-in cup holders and ice buckets

Integrated aromatherapy systems

Built-in TV screens

Computer terminals networked to the Internet

With so many options, it's easy to see why choosing the right hot tub can be a daunting, and often frustrating, task. You can spend countless hours surfing the internet and visiting spa dealers, but the in overload can leave you more confused than before you started. My advice: Take a deep breath, consider how you're going to use your spa so that you don't pay for superfluous amenities, and stay focused on comfort and hydrotherapy.

To that end, it helps to know the construction and operation of a hot tub, which can be easily understood if you look at it piece by piece.

INNER WORKINGS

CHOOSING THE RIGHT SPA

Purchasing a spa or hot tub is an extremely personal affair, like selecting an automobile or ordering a specialty coffee. One person's nirvana is another person's nightmare. Yet all spas have a few things in common, and knowing what those are will come in handy when it's time to comparison shop.

Essentially, every spa is composed of a shell that holds water, a cabinet that surrounds the shell, some jets that provide hydrotherapy, a circulating system that pumps and filters the water, and some controls that make the whole thing work. As with owning a car, you don't need to know how every component is manufactured, but it helps to know the steering wheel from the stereo and the tires from the transmission. So here's a quick rundown of the major spa components you should be familiar with if you plan to own one.

The Shell

When you look at a spa, the first thing you notice is the shell, the vessel that holds the water. Though you can still find traditional hot tubs made from wood, most of today's prefabricated spas are made from acrylic, thermoplastic, fiberglass, tile, or soft vinyl. Custom concrete spas are also popular and can be installed alone or in combination with a swimming pool. If your vision for a spa environment simply doesn't mesh with any of the prefabricated spas on the market, you'll have to look at custom spa construction, which is likely to carry a price tag double or triple the cost of a prefabricated version.

By far, the most popular material for factory-made spas is acrylic, which comes in an array of appealing colors, from midnight blue to Caribbean sand. Acrylic also comes in several surface styles, from smooth, glossy finishes that resemble shiny new cars to faux granite surfaces that make the spa look as though it's been carved from stone. This vast selection of colors and styles makes it possible to find a spa that perfectly complements your indoor or outdoor decor.

The acrylic sheets used to form spa shells are differentiated by their thickness, the way they are backed for structural support, and the method used in forming them into spa shells. Most spa manufacturers use a single acrylic sheet and reinforce it with a layer of fiberglass or thermoplastic. Only a few companies supply acrylic sheeting to the spa industry, which is why

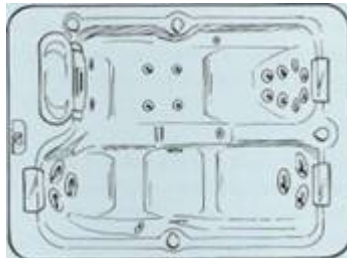
spas from two different spa manufacturers may look similar.

So what truly differentiates one acrylic spa shell from another? Simply put, it's the seating configuration. Hot tubs are designed to accommodate anywhere from one to more than ten bathers, although the average seating capacity is five or six adults. Among these sizes you'll find a vast array of seating configurations using various combinations of lounges, bucket seats, and benches.

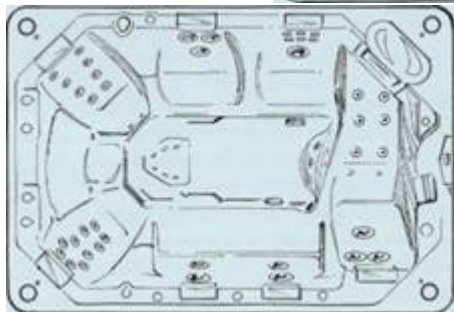
To determine the shell configuration that is right for you, think about how you plan to use your spa. On the one hand, if you're imagining intimate, moonlit soaks with a significant other, you might want a small two person spa with dual lounges. On the other hand, if you're dreaming of wild hot tub parties with your posse of friends, then you'll want as much seating room as possible. And if your spa is going indoors, you'll want to restrict your choices to models that will fit through your doorways.

Meanwhile, don't overlook the growing trend of fitness spas and **swim spas**, which provide warm-water therapy and enough space for a cardiovascular and strength training workout. A fitness spa incorporates resistance equipment for strength training, and a swim spa is equipped with a powerful swim jet that creates an adjustable current that you can swim against. (For more information, **see *Swim & Fitness Spas***).

SIZE MATTERS



Two-person spa with dual lounges.



Whether your looking for an intimate spa for two or a party of ten, there's a spa out there for you. And we at Tubbies will help you find the right combination of seats, benches, loungers etc consequently you will have an ideal spa that meets all of your therapeutic and leisure needs.

Eight-person spa with bucket, bench, and lounge seating.



Six-person spa with a variety of seating options.

As you search for that perfect spa shell design, don't underestimate the importance of comfort. You will be using your new spa for many years, so you will want one that is relaxing.

THE CABINET

Another highly visible part of the hot tub is the cabinet that encloses all of the plumbing and equipment. Traditionally, spa manufacturers have made spa skirts out of redwood or cedar, both of which look beautiful when new but require annual refinishing to maintain their luster – more often if the wood is exposed to direct sunlight. Also, wood eventually weakens and succumbs to the elements, especially if a spa cover removal device is attached to the cabinet, which puts extra strain on the wood.

To offer more durable and maintenance free cabinets, manufacturers have begun using simulated wood made of polymers. An embossed wood grain and warm colouring give some of these faux wood skirts a natural appearance. Best of all the polymer material is maintenance free and often comes with a very long manufacturers warranty. Durawood is one example of material used for hot tub cabinets.

A few spas today eliminate the wood skirt altogether by making the cabinet out of the same materials used to make the shell. A cabinet that matches the shell can give a uniform appearance to a spa installation and is a nice option if you don't like the look of wood or don't want the hassle of maintaining it.

THE JETS

While the shell is important for reasons of aesthetics and comfort, the hydrotherapy jets a spa has s deserve equal, if not more, attention. Spa jets have the power to transform an oversized tub of stagnant water into a therapeutic oasis.

Jets come in many styles, and new ones are being designed and introduced every year if not every month. So you'll want to look carefully at the types of jets a spa has before making your purchase. Some popular types are neck jets, foot jets, stationary jets, cluster jets, oscillating or rotary jets, directional jets, whirlpool jets and hand held jets. If a spa model you like doesn't have the type of jet configuration that meets your needs, you might be able to have the spa customized with the kind of jets you require. We at Tubbies will assist you in acquiring the type of spa configuration that best suits you and your family.

Some manufacturers have developed their spas with jet pack seating. The jet pack is removable and can be placed where you most desire. So if you are the type of person who like to move your furniture about frequently this feature will be of interest to you.

HYDROTHERAPY

Air mixes with water to increase the intensity of the jet action
Strategically placed jets target major back muscles, the outer thighs, and the calves.
Large, rotating jets target the back while smaller jets zero in on shoulder muscles.
Powerful floor jets massage the feet. .
Jets should target key body parts to produce the greatest hydrotherapy effects.
More is not necessarily better if they don't produce the massaging action you want.

A FEW OTHER THINGS TO CONSIDER ABOUT JETS

- Don't choose quantity over quality. As a new spa buyer, it's easy to be wooed by the number of spa jets a particular model boasts. However, pay attention to the types of jets that are included and where they are placed. For example, a single jet perfectly placed to provide the lower back pain relief you're seeking is worth a dozen jets that hit you in the wrong places.
- Take a wettest. If possible it's the surest way to make sure a spa's jets are providing the hydrotherapy you want is to try it out.
- Don't forget the aerator. The typical spa comes equipped with a blower or aerator that allows you to control the amount of air that is mixed with the water streaming from the jets. The more air you introduce, the more powerful the jet action.

Experiment with this feature so that you can experience the full range of hydrotherapy a particular jet or cluster of jets provides.

With the right jet configuration, you won't want to leave your tub. On the flip side, the wrong jet configuration — even with comfortable, ergonomically styled seating — won't provide a satisfactory hydro-massage. So explore your options and shop wisely.

THE PUMP

One of the greatest mistakes people make with spa pumps is assuming that bigger is better. Dealers often promote bigger pumps as evidence of the quality of their spas. In fact, a pump that is oversized can wreak havoc on a spa's plumbing system and waste energy to boot. With a prefabricated spa, the manufacturer has already sized the pump that comes with the spa to work at maximum efficiency for that particular spa model. Trouble can arise, however, when a pump needs to be replaced and the spa owner thinks he or she should get a more powerful pump to make the jet action stronger. When purchasing a replacement pump, note that there are two ways to rate a pump's horsepower: start-up horsepower and continuous operating horsepower. Make sure you're comparing apples to apples when you go shopping and that you select the size of pump recommended by the spas manufacturer. The start-up horsepower is the power required to initially start the pump. It takes less power to keep the pump running, and this is called continuous operating horsepower. A pump rated 3 hp at start-up may not run as strongly as a pump rated 3 hp for continuous operation.

SWIM & FITNESS SPAS

Aquatic exercise has always been promoted as a healthful fitness activity, especially for those with weak joints or who are overweight. An estimated six million people currently take part in some form of aquatic exercise other than swimming. Rehab centres have long used aquatic therapy to speed the recovery process after surgery, and the Arthritis Foundation has offered a warm-water aquatic exercise program for years. "Water is a safe, ideal environment for relieving arthritis pain and stiffness," the organization says. "Water exercise is especially good for people with arthritis because it allows you to exercise without putting excess strain on your joints and muscles."

To take advantage of aquatic exercise in the comfort of your own home, you may want to consider a swim spa or fitness spa. Swim spas are large, deep spas with a swim jet on one end that creates a continuous current for users to swim against. The current can be dialled up or down to customize the workout. Fitness spas may have a swim jet, but they also incorporate exercise equipment for stretching and strength training. And when you're finished with your workout, you can relax in the spa's built-in seating, which includes hydrotherapy jets.

A swim or exercise spa allows you to swim against a current of water or to use aquatic exercise equipment in the large area. The small area holds warmer water and provides the hydrotherapy of a traditional hot tub.

Fitness spas really offer something for the entire family. Indeed, with the growing popularity of water aerobics and aquatic exercise, an array of related products and accessories has made its way into the market. In other words, there's no need to get bored doing the same exercises over and over again. Here is a sampling of products that can help you vary your warm-water workouts so you stay motivated to exercise:

- *Aqua gloves* which have webbing between the fingers for greater resistance
- *Aqua shoes* for better traction when water walking
- *Aqua weights* which attach to your waist, ankles, and wrists for strength training
- *Kickboards* which support your upper body while you are exercising your legs
- *Balance boards* which enable swimmers to stand, sit, or kneel with their heads out of the water while they perform dynamic movements with the arms, legs, and waist
- *Inflatable collars and pillows*, which help swimmers float on their backs while exercising
- *Exercise balls* for stretching, resistance training, and improving hand-eye coordination
- *Flotation devices* such as belts for added buoyancy, especially during aqua jogging.
- *Resistance devices* such as arm and leg splints, paddles, fins, and bands.
- *Underwater Steps* for aerobics exercise and strength training.
- *Underwater Treadmills*
- *Floating barbells* for strength training.

For those concerned about keeping such a large spa don't worry. Like a traditional spa, fitness, strength training, swim spa is fully insulated and has a cover that traps in heat when the spa is not in use.

CHOOSING THE RIGHT SPA

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Tubbies Hot Tub & Spas

"HELP! What's the best hot tub or spa? Why hasn't Consumer Reports come out with a hot tub or spa rating guide? Where are the honest hot tub and spa ratings?"

Of all the different aspects to look at and considered when shopping for a spa or hot tub, there are two things that should be considered as most important.

1. **Comfort in the Spa:**

No matter how good or high a quality the spa may be, if you're not comfortable in it you won't be happy with it. The main reason most people get a hot tub is for relaxation and enjoyment.

2. **Dealer Trust and integrity:**

The dealer you get a spa from can be as important or even more important than the manufacturer of the spa. It's the dealer that will have the best advice of care, and the dealer that will be providing timely service and taking care of warranty issues.

There are a great many hot tub choices available. In fact there are well over 200 different spas (and of course each thinks they're the best). This means there's surely something for every lifestyle and every space. Explore your options before buying, take stock of what's most important to you and you'll be certain to get the spa perfectly suited for your needs.

Spa Buyers Guide INTRODUCTION

This section presents most, if not all of the various aspects of a hot tub or spa. The intent is simply to give as much information as possible as to what may be available you, along with some possible advantages or disadvantages. Due to constant changes, improvements and new innovations throughout the spa industry there's always the possibility of something we've missed or aren't aware of, yet. If you know of anything we've overlooked, or have additional information that could be useful, please feel free to [contact us](#).

Many many of the features and options of a spa are completely open to personal preferences and desires

The various aspects of a self-contained, or portable spa covered in this section include;

The Shell Material*:

The spa shell holds the water and gives you a place to sit. Most spa shells today are made of some type of plastic, and there's quite a variety.

The Spa Cabinet*:

The cabinet is the exterior surrounding the spa. Wood is the most popular, but composite materials are quickly catching up.

Jets & Therapy*:

There's a wide variety of spinning, whirling, pulsating jets. How they work and how they're plumbed, along with the rest of the spa, can effect the therapy and physical satisfaction you experience.

Spa Pumps*:

Bigger isn't always better.

Spa Filters:

Keeping the water crystal clear and clean.

Spa Controllers:

Turning everything on and off.

Insulation:

An important aspect of controlling operating costs, and sometimes one of the most controversial issues.

Spa Covers*:

The **most** important aspect of controlling operating costs, often overlooked by consumers, frequently skimped on by spa manufacturers.

Warranties:

Understand the different areas and what is, and what is not covered.

Installation Considerations*:

Things you may have not considered in preparing for delivery and installation of a new portable spa.

Buyers Anxiety*:

Purchasing a spa doesn't need to invoke the stress and anxiety many suffer.

Maintenance Issues:

Some of the chores you can look forward to once you own a hot tub or spa.

SHELL MATERIALS

Traditional wooden hot tubs can still be found, but most of today's portable spas are made from acrylic, thermoplastic or soft vinyl. Manufacturers offer a wide spectrum of colour choices. Surface styles vary from smooth, glossy finishes to faux granite surfaces that make the hot tub/spa look like it has been carved from stone. Spanning every colour in the rainbow, there are solid colours, marbled colours, some with tile and even some that look like hand painted murals. This means that you can select a hot tub that matches your indoor or outdoor decor, and your personality.

The spa shell is one of the most important parts to consider when purchasing a hot tub. Other elements, such as pumps or heaters, are fairly easy to repair or replace if something goes wrong. However, if the spa shell malfunctions, a repair could be extremely costly, or even require complete replacing.

Most spa shells are made up of two components, sandwiched together. The shell surface and some type of under structure. The shell surface determines the aesthetic look and feel as well as resistant to chemicals and abuse. The understructure provides the structural integrity and strength.

There are a variety of different materials used for spa shells. Each had their own problems when initially used, but in a short time **were** perfected. If any one material was better than the rest, you can be assured that **every** spa manufacturer would be using it.

Below is a brief description of each.

Vinyl:

Vinyl is typically used in inexpensive soft sided tubs. As a shell material vinyl is easy to damage, especially if the chemical balance of the water remains out of ideal range for very long. In most markets where this type of tub is available, it will be, if not the lowest, one of the lowest priced tubs. The thing to keep in mind here is that "**You get what you pay for.**"

Acrylic backed by Fibreglass:

Acrylic is the most widely used shell material and offers the greatest selection of colours and patterns. For the most part acrylic spas are backed by a fibreglass compound, which is adhered to the acrylic with bonding resins. While these bonding resins (think of them like glue) have greatly improved in recent years, acrylic spas backed by fibreglass in the past were prone to "delaminating", where upon the acrylic and the fibreglass separate and cause unsightly bubbles and bubbles. The quality of this type of design is directly related to a number of things.

The Thickness of the Acrylic:

Thicker is obviously better, but it can be difficult to determine how thick a particular spa shell is. Many retailers will have a small cross-section of a spa to show you, but know that in the manufacturing process a flat acrylic sheet is heated and vacuum formed (sucked down into) into a mould. This can leave very thin areas, especially on vertical walls, if done improperly.

The Understructure:

Ideally the each layer of the fibreglass would be hand rolled. This assures there are no air bubbles remaining which can lead to delamination.

It is important when purchasing a hot tub like this to look at the "**Surface Warranty**" rather than the structural shell warranty. These two are usually separated issues in the **warranty** coverage.

Acrylic backed by ABS plastic:

This material on the surface looks much like the acrylic that is backed by fibreglass, but rather than adding a stiffening agent such as fibreglass, the surface material is backed by (co-extruded with) a sheet of ABS plastic. ABS plastic is impact resistant and when co-extruded properly, rarely separates from the acrylic surface. This type of spa shell is not as strong as fibreglass backed acrylic and typically the space between the shell and cabinet needs to be filled with foam for additional support.

In many cases spas that are foamed this way will have cabinets that cannot be removed. This can possibly complicate future

repairs involving plumbing that are buried in the foam. Also if the tub cracks, it can be virtually impossible to repair. If you go with this type of shell make sure it has a long structural [warranty](#)...

Other Plastics Backed by ABS:

There are a few other plastics that are used in the same manner as acrylic backed by ABS. They are marketed with too many names to list here but they are usually a white or cream colour with a slight texture. They have all the same up-and-downs as acrylic / ABS. Plus some can stain with high concentrations of chemical, for instance if a bromine tablet sits on the floor for an extended period of time.

Thermal Plastics:

These are relatively new in their use in the spa industry, yet this type of shell seems to have great merit. In many cases the manufacturer will put a lifetime surface and structural warranty on this material (be wary of "lifetime" [warranties](#)). This product is thicker than acrylic, which can be both good and bad. Being thicker tends to make it more durable, yet its thickness can make it more difficult form into the shape of the spa. This difficulty can cause areas to become very thin during manufacturing. It should be noted that the shell can and will turn a brownish colour if low pH, high disinfectant levels and the presence of Iron oxide (rust) are allowed for an extended period of time. Because fibreglass does not adhere well to this product, the understructure typically consists of dense sprayed in insulating foam.

With all of these types of shells, it is worth noting, that the smooth shiny acrylics should be waxed occasionally. It will help keep water line build-up to a minimum, reduce the possibility of staining and will help to erase some of the fine scratches that can form during normal use. The textured materials can usually be cleaned with a plastic scrub brush. Because they hide scratches, the long-term appearance of these materials is generally better.

Also worth noting about shell materials, the acrylic material is generally less affected by improper water chemistry. Some of the softer plastic materials can be yellowed or faded by high disinfectant levels and prolonged exposure to sunlight in some instances. Damage like this is usually not covered under manufacturer's warranties.

All "plastic type" shell materials can be damaged by direct sun exposure. When your spa is empty be keep it covered.

One other material used in the construction of spa shells is worth noting, **Stainless Steel**.

Although not as common as the various plastics, stainless steel offers many advantages, which make it an excellent, though **expensive** choice for many spa applications.

Appearance:

Due to its unique properties and aesthetic value, the use of stainless steel is increasing throughout many industries. The bright, easily cleaned surface looks and feels like no other spa, giving a modern appearance to any home. A non-directional polish can create a distinctive lustre finish that will maintain its appearance for the life of the spa.

Longevity:

Stainless steel won't crack, blister or delaminate as materials can. Direct sunlight doesn't affect it and it's also completely non-porous, so it can't absorb any stains, germs or odours.

Corrosion Resistance:

Architects, engineers, designers have long been advocates of Stainless Steel because of its appearance, strength and high corrosion resistance. It is one of the most durable materials used in architecture and construction today. Made up of low carbon steel, which contains chromium, Stainless steel does not deteriorate. Because stainless steels are inherently corrosion resistant, no protective coatings are needed, and the adverse environmental impact associated with coatings is eliminated.

Unlike traditional acrylic where a vacuum mould must be used to create the spa shape, stainless steel spas are individually made by joining (welding) flat sheets together. This eliminates any thin or weak-spots that can sometimes occur with acrylic spas.

Also important to consider, is the interior shape and style of the shell. Some have moulded individual seating, and some an "open bench" style. Either can be equally enjoyable depending on your personal preferences. An "open bench" style can be easier to move around in, less restrictive, give a feeling of more room, and make "cuddling" easier. Individual moulded seats can make for more varied seating positions, allow jets to wrap around your body and more firmly hold you in place. And don't forget to check the foot well and if there's going to be enough room for everyone's feet and legs.

SPA CABINETS

The first thing most people generally notice when they see a spa is the cabinet. The appearance of an elegant, textured cabinet will not only add to the aesthetic appeal of the spa, but will also add to the feeling that the spa is quality furniture.

Wood cabinets are most common, but it should be remembered that all wooden cabinets will require some kind of care and maintenance in order to prolong their life and maintain their beauty. There can also be many different qualities of materials and methods of construction. Some manufacturers may cut costs by manufacturing very thin cabinets or using woods of very low quality. These cabinets can be prone to quickly deteriorating when exposed to the elements.

Redwood Cabinets:

Perhaps the most popular, but be aware, the quality of redwood is quickly declining. As the price of "quality" redwood skyrockets, and it becomes scarcer, manufacturers that continue to use it may have to turn to a much lower quality. Lower quality redwood can have little or no rot resistance that is normally associated with redwood. True quality redwood should be all pink in colour and have tight grain. Because most spa cabinets are stained it can be difficult to tell from the outside the quality of the wood. Looking at the inside of the cabinet, redwood should be all pink in colour. Anything white, or light yellow in colour is "sap wood" (from the outer part of the tree) and has very little rot resistance. The grain of the wood should also tight and close together. Wide grain indicates trees that have grown very quickly and have not had enough time to build up a sufficient amount of their natural resistance to decay.

Cedar Cabinets:

Cedar is becoming more and more popular, and with routine maintenance can be kept looking quite nice. Western Red Cedar is lighter coloured than Redwood and technically has more rot resistance. It's also slightly softer and weighs less than redwood.

Mahogany Cabinets:

Currently used by at least one manufacturer, with lots of attention mahogany can be one of the most beautiful of woods used. Like all natural woods it too needs to be maintained. Without attention it can deteriorate quicker than redwood or cedar. As a rule mahogany is more labour intensive when treating, when compared to redwood or cedar, due to its propensity toward fading and the need of extensive sanding prior to staining. Also mahogany has been found to be more prone to warping than redwood or cedar.

Regardless of the type of wood use for the cabinet, the thickness of the wood is also important. The thinner the wood the more prone it can be to cracking, warping and just plain falling apart. Also, thin cabinets make it difficult to attach many types of cover lifters.

Polymer / Plastic:

Composite cabinets are quickly establishing themselves as a strong presence in spa manufacturing. The new synthetics can look like wood and really do require very little maintenance. These plastic cabinets usually require much less maintenance than their wooden counterparts, but some can be prone to fading or yellowing from sunlight. Before purchasing one of these checks with your dealer about not only the length of the [warranty](#) but specifically about sun

damage and warpage.

Over the lip vs. Drop in cabinets.

There are two basic types of cabinet designs, one where the shell of the spa comes over the top edge of the cabinet (lip-over style) and the other where the shell rests on a rail of wood that sticks out from the lip of the shell. (deck-style)

While as a rule the deck-style style requires more precision and is more expensive to manufacture, when done properly, with a strong sub-frame, the lip-over style can be just as strong. The argument for the lip-over style is generally be that spa water does not rest on the rail, found in the deck-style, and therefore is less prone to water rot. While the argument for the deck style will be that it is protective of the lip of the spa by providing a rail for things to bump into rather than directly into the spa shell.

Realistically though the difference between the two is only physical appearance. The amount of spa water that the lip of a cabinet is exposed to is far less than the abuse that mother nature dishes out to the sides of the cabinet. If the cabinet is made of a high quality wood either should last equally long.

Spa Cabinet Construction

Just as important as the type of material used in a spa cabinet, the way in which the cabinet is constructed is as important.

Removable Walls:

Removable panels allow for removal from the hot tub in case repairs are needed. Just imagine trying to repair a car without having the ability to open the hood. The repairing process becomes nearly impossible, extremely time consuming, and expensive. With this design, your spa can be easily checked and serviced when needed.

Interior Frame Construction:

Having removable wall panels is only part of the solution to your spa's "serviceability". Another key is having solid 2 x 4 construction. This provides enough strength to hold 200-300 gallons of water (between 1,600 and 2,400 lbs.) when the wall panels are removed.

Many manufacturers save money by only using 1x2's or 2x3's to construct their frames. This dimension stock may not provide the adequate strength required to support a spa full of water without the wall panels attached. When the wall panels are removed, stress can be added to an already weak frame. Some manufacturers tout having removable walls, but that benefit is rather compromised if the construction can't support itself. 2 x 4 construction provides plenty of strength to support a spa full of water, even when the panel walls are removed. A few manufacturers tout 2 x 6 constructions, but this really is overkill.

Pressure Treated Base:

Wherever you choose to install your hot tub, it is strongly recommended that your spa have a pressure treated base - a critical requirement if your spa is outdoors. Since an outdoor spa is subjected to harsh elements detrimental to any type of wood, a pressure treated base will prolong the life of your spa's cabinet.

Some manufacturers are now using a plastic or polymer base. This type of base will far outlast even the best pressure treated wood base. Besides being impervious to rot and decay, a polymer type base can also do a better job at keeping bugs, rodents and other beasties from making a home inside your spas cabinetry.

Spa Jets & Therapy

Some of the first portable spas had as few as four jets. When the first industry started, with traditional wooden hot tubs, some of them had but one single jet! With advancements in warm water therapy, jet,

plumbing, pumps and engineering, some of today's hot tubs have over 100 jets! More important than the number of jets, are the variety of jets and the various effects they elicit. Even more important than the variety, is the actual **location** of the jets. 1000 jets will do little good if not a one hits you in the place(s) you need it most.

Traditionally, the only jets utilized were a standard directional jet, which in itself, did provided satisfactory physical therapy. But today, there are many types of jets available to enhance your spa experience. Some people may prefer an invigorating, powerful massage, while others a mild massage and others may choose to simply relax in calm water. You should be able to receive the type of massage **you** want, as opposed to the type of massage that the manufacturer decides to give you. The perfect combination of jets can make relaxing in a hot tub after a strenuous day release muscle tension, relieve stress and renew energy.

The physical therapy provided by various jets is **totally** subjective. What one person might find perfect, someone else may consider painfully too powerful, or wispily underpowered.

Directional Jets:

These are basically the original jet design. This is a jet where the nozzle may be manually moved, to position the stream of water where you desire. They may or may not be able to be adjusted to control the volume of water flow.

Mini Jets:

These jets are significantly smaller than standard or directional jets and so provide the opportunity to cluster many of them together. When mini jets are clustered together and positioned properly, you will receive a one-of-a-kind, multi-action massage. The aggressive massaging action they provide can be quite therapeutic, though many people find their skin irritated after a short time of use.

Swirl Jets:

These jets are identical in size to standard jets, but swirl the water around in a circular pattern providing an overall massage in a wide area. Typically they have a single nozzle (water outlet), but may have 2 or 3 to increase the effect.

Pulsing Jets:

With 2 or more nozzle that rotate water flow between them. Pulsing jet's providing a pulsing massage action that's great at helping to relax tight muscles.

Whirlpool Jets:

This large round jet, typically placed out of the way of the seating area, provides a tremendous amount of pressure in a concentrated area. Whirlpool jets are designed to create a large rushing water effect around the perimeter of the tub. It should always be positioned midway into the tub so you can manoeuvre your body and massage a specific area. This form of hydrotherapy results in the same type of whirlpool action that can be found in a therapist's offices and can be very beneficial for those who have sprains or muscular injuries. It should be noted that because these jets require an extreme volume of water to operate, water for other jets in the spa need to be temporarily diverted to operate a whirlpool jet.

Volcano Jets:

A large jet that's positioned at the bottom of the tub and aimed upward for a water effect that's similar to a volcano erupting. These jets can be great for easing the aches and pains in feet.

Moving Massage Jets:

Some manufacturers have designed elongated oval jets that oscillate the water in either a vertical or horizontal fashion. They work by fanning the water back and forth in a pulsating manner. They can ideal because they can provide a tremendous amount of therapy to a large area of the back, or any other specific area of the body. Some manufacturers put them in a sequence, usually two or three in a row, to provide a deep and thorough massage to the entire back area.

Shoulder/Neck Jets:

These jets are designed to be installed in pairs above the water line providing targeted massage action to the neck shoulder area. Some manufacturers have even designed them to be directional because of peoples differing heights. If designed improperly, these type of jets have the ability to splash tremendous amounts of water out of the spa

Pillow Jets:

This feature combines the comfort of a pillow with the massaging pressure of a jet, allowing for a complete neck massage. Massage therapists have often indicated that the neck area is the place where most people hold in all their stress and tension. This unique jet eliminates the need to submerge your head underwater in order to receive a neck massage.

Venturi Air Injection:

Almost all jets have venturi air injection. This allows for air to mix with the water before it's shot out into the tub. By mixing air with the water, the total volume at the jets is increased to give a more powerful feeling to the jets. A small valve (air dial) can be opened and closed to adjust the amount of air allowed to enter. Ideally there should be an individual "air dial" for each jet, or cluster of jets, and it should be easily accessible while sitting in front of the jet(s) it controls. This gives the user complete independent control over the force and feeling of the jet. Some manufacturers may supercharge the air venturis with forced air from the blower, which may increase the power of the jets, when done properly.

Air Bubbling Jet Therapy:

Spas with air bubbling systems include an air blower that pushes a powerful burst of air into the spa through a variety of inlets, or air injectors, to create a bubbling action. Where water jet therapy provides powerful hydro massage, air bubbling therapy provides completely different benefits and effects. Air bubbling systems can be both entertaining and stress relieving, and thus appealing to those of all ages. It not only creates bubbling action, but also creates an emotional appeal. Kids love it because the bubbles are very entertaining, as well as providing the type of bubbling action that they tend to expect of hot tubs. Adults enjoy it because it provides stress relief with an overall light, tingling feeling. Some have described the sensation as "sitting in a bucket of champagne". While some people prefer the powerful, invigorating massage that is typical of water jet therapy, others prefer the light sensation provided by an air bubbling system.

Air bubbler systems can be controversial. Some say that they offer limited therapeutic value, are noisy, and/or that they because overall power consumption to increase due to the fact that blowing air through the water in such volumes causes faster heat loss. Other manufacturers may feel that eliminating a blower will decrease the size of the required electrical circuit, thereby cutting the cost of installing the spa. All these things may or may not be true, but it's your decision as what you find therapeutic, enjoyable and desirable in the spa you'll own for many years.

Spa Seating

The hot tubs of the twenty-first century feature a wide array of seating options, all of which pamper users in spa style. From sprawling lounges to accommodating captain's chairs, the latest hot tub seats may give La-Z-Boys a run for their money. To better understand the layout and design features that differentiate one seat from the next, it helps to conduct a side-by-side comparison of the most popular seating types found in the hot tub market.

Bucket seat. Common in many hot tubs, the bucket seat is a low individual seat, similar to those found in various sports cars. A depression in the seat surface allows the lower half of the body to rest comfortably in a sedentary position. Any number of jets may be located in the

seat back to massage aches and pains away.

Bench seating. As its name implies, bench seating provides more of a platform upon which people can sit. The size of the bench determines whether one, two, or more spa-goers can rest on this type of seating area. Because the body's posterior rests on the seat, rather than in the seat, users can usually stretch out a bit and rest their hands behind them if desired. Based on original hot tub designs, some companies still offer hot tubs that consist solely of barrier-free benches for a traditional hot tub effect.

Loveseat. Depending on the manufacturer, a loveseat often qualifies as bench seating -- the only difference being that the loveseat accommodates only two people. If you want to cuddle in the bubbles with your loved one, a loveseat provides a great spot to settle for intimacy.

Lounge. Lounge seating has recently become one of the most sought-after features topping hot tub shoppers' wish lists. A lounge is designed to resemble a recliner, allowing its user to stretch out his or her entire body, from head to toe. Jet placements vary, depending on the manufacturer, but most lounges include a headrest as well as armrests. The degrees to which the seat back and the leg area of the lounge are angled differ, based on the maker and the model of the hot tub.

Reversible lounge. Gaining popularity as a type of hot tub seating, the reversible lounge refers to a lounge that is just that -- reversible. A bather can recline facing either direction, his or her head at one end of the lounge or the other. Reversible lounges usually offer two different headrests and seating depths on opposite sides. The centre of the lounge sometimes consists of raised bench seating that keeps legs elevated when the lounge is in use and also doubles as a separate seat when the lounge is vacant.

Doublewide reversible lounge. This type of seating provides all of the conveniences afforded by the reversible lounge and then some. Its roominess and versatile design enables two people to lie side by side or stretch out face to face for easy conversation. It is common for these lounges to feature convenient grab bars for safe movement from one seat to the next. In addition, oversized headrests can accommodate couples that choose to soak beside one another.

Captains chair. The design of a captain's chair is not as easily explained as other types of seating, because it varies based on the manufacturer. In fact, some hot tub companies do not even use the name captain's chair to describe comparable seats in their own models. Therapy seat is a frequently used alternative. Prominent features that define these types of seats typically include headrests, wide moulded armrests, oversized seats and more jets. Captain's chairs are almost always located in one of the spas four corners, to create a tucked-away feeling.

Cool-down seat. What could be more convenient than an above-the-waterline seat that lets bathers gradually adjust to the air temperature when entering or exiting their hot tubs? In many models, this seat also doubles as a step area leading into and out of the spa.

Reverse-moulded seats. Reverse moulding is a sophisticated technique used by some manufacturers to create a contoured ledge that cradles the neck and positions it for jetted action. These seats boast extremely comfortable upper body massage since most have built-in padded neck collars for further support. Although hot tub and spa seating may differ in composition and in design features, each resting spot offers equivalent "roundtable" status. With so many multifunctional places to sit down and relax, playing favourites is the only challenge.

Spa Pumps and Motors

Pumps and their horsepower can be rated differently by different manufacturers and therefore a great marketing "ploy" for many salesmen. Two pumps of the same horse power can differ in design such that one will move more water than the other, or move water at a greater pressure. The volume of water and the pressure at which it comes out of the jets is what determines the actual therapy you'll experience. This is definitely a case where, size doesn't matter.

Since there seems to be a tendency to tout horsepower, perhaps it's best to start with what horsepower is, or how it's determined.

The term horsepower was invented by the engineer James Watt (the same Watt as in "60 **watt**" light bulb) towards the middle 1700's. The "story" is that Mr. Watt was working in a coal mine with ponies and wanted a way to express the amount of power they exerted. He determined that on average a horse could do 33,000 foot-pounds of work in one minute. As arbitrary as it may seem, this unit of measure has made its way down through the centuries to everything from cars to spa pumps.

Because horsepower is a unit of energy, it can easily be converted to any other unit of energy, and one horsepower is equal to 746 watts. The science of it all is this; The basic equation exists saying Amps times Volts equals Watts. Dividing the Watts by 746 then gives the horsepower of a motor. Sound simple? I wish it were! All of this is based upon the amount of actual work a motor is doing. A 5 hp motor, while capable of producing 5 hp of force, if spinning freely, may be exerting **less** than 1 hp.

Over the years, spa manufacturers have been putting larger and larger pumps on smaller and smaller motors. At one point, one manufacturer was putting a 3 hp pump on a 1 hp motor. Needless to say, the motors didn't have a very long life span... But they were marketed as 3 horsepower.

To make it even **more** confusing, there are two ways to rate the hp of a motor. Typically a motor is rated at what's called "running horsepower", or how much energy a motor is capable of producing during normal operation. There is though, something called "break horsepower". To initially start the motor spinning, it has to momentarily exert a **great** amount of energy. This split second boost of power, termed "break horsepower", is normal, and required to get the motor started. Though it is not the force (horsepower) the motor is capable of normally maintaining, it is not unheard of to be quoted this, as the horsepower of a pump.

While the number given to the size of the pump may sound impressive, what's really important is how the jets **feel** to you! With the proper design and engineering it's possible to have stronger feeling jets with a smaller horsepower pump, as compared to a poorly designed system with a larger "pump".

Spas with more than one pump are becoming more and more common. Having more than one pump can mean you can have more jets. You also can "turn on" only the jets you want to use at that time. This can reduce both the overall noise of the spa, and the total operating cost of running it, since you don't have to operate all of the jets all of the time.

If a spa has the variety jets and the amount of hydro-therapy you want, the size of the pump isn't relevant.

Hot Tub and Spa Covers

The spa cover is perhaps the most important aspect for retaining heat and minimizing overall operating costs. Besides heat retention, the cover helps to protect the water from dirt and debris as well as from evaporation. The cover is also one of the greatest security assets, preventing small children and pets from falling into the spa. Oddly, as important as the spa cover is, it's overlooked by most consumers and passed over by many salesmen.

Determining the actual quality of a cover can be rather difficult. From the outside they pretty much all look the same, making it difficult to determine a quality cover. Regardless of quality, the spa cover will almost certainly be the first thing that will need replacing on a spa, so it is important to look for one of quality.

Following is a list of spa cover features worth considering;

Foam Density:

The insulating foam core of almost all covers is "expanded polystyrene" (Styrofoam). The strength and insulating ability of the foam is determined by its "density". Foam density refers to the weight of one cubic foot of foam. The higher the density, the greater the strength. Higher density also has a slightly higher insulating factor, but only slight. Typically covers are made of 1#, 1-1/2# or 2# foam. For any spa outdoors in the rain and snow and over about 6-1/2' across, 1# foam is not acceptably strong enough. 2# foam can be rather heavy, but in areas that get lots of snow that could accumulate on the cover, is most recommended. 1-1/2# density foam is an excellent all around choice.

The thickness of the foam of course had a direct impact on the strength and insulating ability as well. The vast majority of spa covers are tapered, to allow water to easily run off, from 4" to 2". Be careful though, it's not unusual for a cover to be called 4", and yet be as thin as 3-1/2" thick. There are a few manufacturers using thicker covers, up to 6" thick, and with these, lighter density foam is more than acceptable. With the larger and heavier covers, a cover lifter may become more of a necessity.

Hinge Sealing Gasket:

Most spa covers fold in half and the two halves have a gap between them. Typically the covers have some type of "sealing gasket" at the edges of the hinge to seal the two halves and prevent steam from escaping. High quality covers will actually have a single "gasket" running the entire length of the hinge. This single gasket can actually add 3% - 5% to the overall insulating ability of the cover.

Vapour Barrier:

The foam cores are protected from absorbing water by wrapping them in polyethylene plastic. Higher quality covers will have this "plastic" heat sealed rather than being taped closed. Normal chemical use in the spa will slowly degrade the plastic to the point of becoming porous, thereby allowing water to enter and begin being absorbed into the foam cores. The thicker the polyethylene the better and the thickness can run from 2mil to 6mil thick.

Some or even many spa manufacturers use the least expensive spa cover available to them. It's not unusual to have to replace an original low quality cover within the first 2 or 3 years.

Handles and Tie-Downs:

These are perhaps the weakest parts of most spa covers. Most handles are not designed nor intended to be used for lifting and moving the cover. Tie-downs that are sewn into only the bottom of the covers skirt tend to fail in windy areas. Handles and Tie-Downs made of nylon webbing and sewn in at multiple points tend to be significantly stronger.

Delivery & Installation of a Portable Spa

If your spa will be coming from an established, reputable dealer, most times delivery is included in the purchase of the spa. Many dealers will make a pre-delivery inspection to determine what may be required to deliver your spa, and some may even suggest and/or make recommendations for you to consider regarding placement and location for the

spa. Dealers that charge extra for delivery, typically charge less for the spa. Some dealers are capable of doing everything that may be required to install the spa, including creating a pad for the spa to sit on and running a proper electrical circuit. Others may only be able to refer you to the proper qualified contractors. Some spa manufacturers will even provide you with a "pre-delivery manual" with important guidelines. If purchasing from a "big box store", or over the internet, you're basically on your own.

Site Selection and Preparation

Where to locate your spa is completely up to you, but there are some things worth considering that may have been overlooked.

A filled spa is **extremely** heavy and needs to sit on a structurally sound, flat, level surface. Uneven settling could cause a spa to crack, and quite possibly would **not** be covered under warranty. Reinforced concrete or a deck engineered to carry the weight is preferred. In some areas where the soil is mostly sand and the water table is very high, pavers may be the only way to go. Be sure to check the owner's manual/warranty for what's acceptable and if in doubt contact the manufacturer (more than once a dealer has mistakenly given the wrong advice on this).

The door to the equipment compartment needs to be accessible for general maintenance and repairs. Usually 2' of clearance is the **minimum** required. More is better.

An electrical disconnect switch will need to be located within visible sight and at least 5' from the spa.

The closer the spa is to the house, the more likely it will be used. Most don't want to walk 1/4 mile through the rain, sleet and snow to use the spa, when in fact that can be one of the most enjoyable times.

If a cover lifter is going to be used, most require some side clearance for installation and operation. Some distance between the side of the spa and a fence or wall may be necessary. If a cover lifter is not being used, a place to set the cover when using the spa will need to be determined.

Spas being placed on an existing deck will probably require the deck be reinforced. Consultation with a qualified building contractor or structural engineer is advisable.

Spas located indoors have some special considerations.

- A great deal of "splash out" and spill over can occur and *eventually* a spa will probably leak. An indoor location should be able to accommodate the entire contents of the spa without causing damage. A centre floor drain or large catch basin is worth considering.
- Flooring materials should be non-slip and not effected by becoming moist.
- Steam and evaporation needs to be accounted for. This excess moisture could cause damage to the surrounding structure or mould and mildew. Proper ventilation is required to prevent this.

Mineral purification systems are another form of consumer-friendly, automated pool and spa water treatment that is gaining popularity. For hot tubs, mineral purification systems are comprised of specially designed cartridges that slide into spa filters. As the water is filtered and circulated, it is also sanitized by the proprietary combination of minerals inside the cartridges. For pools, mineral purification systems can be standalone units or cartridge filter inserts.

Hot tubs come in all manners of styles and designs. Some hot tubs are rather plain in their design while others boarder on being what you might call downright elegant. In either case, there are a wide array of accoutrements that a person like you can purchase to spruce up a hot tub and the area in which your hot tub is located.

Seating around a hot tub is an important consideration. And, by this we are not referring to seating within the hot tub itself. Rather, here we are discussing seating options around the hot tub. In the interests of safety and practicality, a person can only spend a certain amount of time in a hot tub. A person cannot sit in a hot tub indefinitely -- they simply are not designed for such due to the high water temperatures involved. Thus, it is important for a hot tub owner to make certain that there is some sort

of alternate seating available around the hot tub perimeter that is functional and practical as well as stylish and good looking.

Home spas come in many styles and shapes, but generally there are three different types to choose from:

Portable Spas - Portable spas consist of a moulded fibreglass spa, heater, pump, filter and bubbler or hydro-jets in a single assembly. All that is required to install a portable spa is an acceptable location, an electrical outlet and a nearby source of water.

Pool Spas are ideal for those that enjoy a cool dip in their swimming pool. Refresh yourself after with a hot soak in the connecting spa. If both a swimming pool and spa are connected, the two can share the same filtration unit. But if the spa is too far from the pool then a separate filtration system is required. It's fairly easy to add a home spa to an existing pool.

Swim Spas are best for those that might not have the space for a large swimming pool but still want to swim for exercise. Swim spas are swim in-place pools that are larger than a hot tub and feature propelled waves for swimming. They also have heating and sitting functions so that they can be used for relaxation.

Spa-Tubs are a recent innovation and combine the best qualities of the hot tub and the home spa. A spa-tub has a wooden tub with a vinyl liner, offering the rustic beauty of a hot tub with the cleaner interior lines of a fibreglass spa.

Spa Fragrances

Spa fragrances can produce a flavourful mood; and even add to the ambiance of a home spa. Bath bead and salt fragrances come in all kinds of attractive scents like floral, fruit, spice, or evergreen flavours. Add a splash of excitement with eucalyptus, strawberry or lemon fragrance.

Spa skin softeners are products that you can purchase to make the water feel soft and smooth. Hot tub crystals improve soaking pleasure with their various scents.

Aromatherapy uses fragrances to produce a more pleasing state of mind. Like incense, aromatherapy bath crystals are designed to dissolve in the heated water

and delight the senses. States like harmony, renewal, and healing, tranquillity, invigorating, euphoria and stress relief are all possibilities. Consider holding an aromatherapy spa party and have your guests guess each scent's curative benefits!

When purchasing spa fragrance and aromatherapy products, it is imperative to buy those that are suitable for hot tub and spa water. Only consider fragrances, softeners and crystals that won't affect the balance of your water or cause damage to the wall and floor of your hot tub or equipment.

Hot Tub Covers

Spa covers keep hot water in and protect unwanted visitors from entering. Spa covers provide a safe and secure environment while keeping your heated water insulated - which will preserve energy needed to maintain the recommended temperature.

Hardened hot tub and spa covers can seal the tub below with locks to prevent accidents involving children or unauthorized visitors or animals. Hot tub lifts are often attached to the hard covers, this makes pulling them up and back a much simpler process.

Rolling spa and hot tub covers are popular because they can easily roll away to one corner of a spa or hot tub. When needed, rolling covers expand from their compact form and rigidly protect the hot tub. Rolling covers are often made of wooden slats that roll up.

Insulating spa and hot tub covers are designed to provide the highest energy-saving opportunity. The best insulating covers will carry an R-21 rating.

Aluminium hot tub and spa covers have tremendous strength and are designed to hold up extremely well to children, animals and even excess amounts of snow. Consider this option when your hot tub or spa is left untended for long periods of time.

Spa solar covers are inexpensive and ideal for outdoor hot tubs. Often made of bubble material, these help keep heat and water in the spa, although solar covers offer no protection against unwanted soakers.

Hot Tub Chemicals

Hot tub owners are accustomed to dealing with the competing claims of water-treatment products that go by a variety of names: sanitizers, cleansers, oxidizers, clarifiers, balancers, ionizers, defoamers and more.

Spa owners need to do two things to their tub water - keep it clean and keep the pH level balanced. The most common approach to hot tub treatment is to use chemicals to do the job.

Granulated chlorine (sodium dichlor) is often used in spas and hot tubs. Some prefer bromine as an alternative because even though it is more expensive than

chlorine some prefer the smell and feel.

Hot tub owners who prefer a more natural approach can experiment with a variety of enzyme formulations that kill bacteria. Their downfall is that they are often hard to find and more costly than chemicals.

Alternative sanitizers such as ozone generators or ionizers can also treat hot tub water. Ozonators work with the tub's air pump to inject bacteria-killing ozone into the water, while ionizers use copper and silver electrodes to kill organisms. Both are quite effective, though many tub users are discouraged by the initial cost of purchasing either unit.

Whichever form of water treatment you choose is usually a matter of personal preference and budget. So take the time to learn about the options available, since you'll benefit from your research for years to come!

To reach some of the leading online suppliers of hot tub chemicals and treatment devices, check out the links in the box at the top of this page.

Hot Tub Sanitizers

Hot tub sanitizers are one of the most important choices a hot tub owner can make. Essentially a sanitizer is the primary product that you will need to keep your hot tub spa clean.

There are stand-alone systems that can be used on their own such as chlorine, bromine or biguanide products. Co-dependent systems are those that assist in cleaning the water, but do not have the ability to perform all functions required for healthy water.

Stand-Alone Sanitizers

Chlorine recommended for spas is granulated chlorine (sodium dichlor). All other types of chlorine are only for swimming pools.

Bromine tablets specifically made for spa use are an effective but expensive alternative to chlorine.

Biguanide products are also available to clean the water. Biguanide sanitization systems are not compatible with many other products on the market (i.e. chlorine or bromine). For this reason, there are complete biguanide product lines that include shock, testing strips, filter cleaner and defoamers, to name a few.

Chlorine generators for spas and hot tubs are also available. They are devices that transform salt into chlorine to sanitize the water.

Co-dependant Systems

Spa ozonators or ozone generators are units that change air to ozone and release this natural bacteria destroyer into the spa's water.

Mineral purifiers are devices often with replaceable cartridges that use minerals to sanitize water.

Spa ionizers or ionization systems are devices that electronically dispense metallic ions. Ions naturally kill algae and other bacteria in water.

Hot tubs and spas are more conducive to disease and germs as a result of the very high temperatures and smaller water per person ratios. For this reason it is imperative that regular testing and a cleaning regime is followed to ensure the water is clean and balanced. Spa owners must find a balance as using too many chemicals or too few can be detrimental.

Spa owners should read equipment and chemical manufacturer's directions carefully before dispensing any products. Incompatible chemicals and sanitization systems can be dangerous to you and your hot tub.

Spa Ozonators

Spa ozonators or ozone generators are not stand alone systems but can assist in cleansing spa water. Spa owners often use the ozone generators with smaller amounts of either chlorine or bromine. Ozone, a natural sanitizer is released from the device to kill bacteria.

Corona discharge (CD) ozonators use electrical currents to convert air to ozone.

UV ozone generators tend to be the more common than CD generation systems. UV ozonators use ultraviolet lighting using a bulb to do the same thing. Anyone purchasing a UV ozonator should factor in the additional expense of replacing the bulb and for a CD model, most require replacement chips.

Hot tubs sold today are often equipped with ozone generators. Many hot tubs have the ability to easily hook up to an ozone generator and for older hot tubs there are many ozone installation kits available to assist with hook up. Hiring an electrical or pool specialist is a good idea as the process can be detailed.

Spa size will determine what type and size of spa ozone generator you should purchase. Be sure to check if the ozone generator can be used for spas indoors, as some cannot.

Ozone generators are not stand alone systems in pools or spas. Because of this bromine or chlorine is often recommended to be used in conjunction with the ozone generator to ensure the water is properly disinfected.

Home Spa Equipment

To properly regulate heating, water flow and filtration, you can purchase support equipment separately or in a package usually called a skid pack.

Your support equipment will include:

A water pump that circulates water through the spa system and powers the hydrojets.

A filter that removes debris, algae and other dirt particles.

An air blower that presses air through tiny holes in the bottom of the spa - the "bubbler ring" - to give the water its massaging quality.

A heater to regulate water temperature.

Assorted pieces of plumbing and hardware for the initial installation.

Home Spa Skid Packs

Skid Packs are a relatively new innovation to spas and hot tubs.

Previously, spa owners had a difficult time trying to decide which support equipment would fit their spa. Often equipment would not connect because of wrong sizes or an incompatible design. Placing these mismatched pieces together can, more often than not, result in a mess.

Skid packs provide components that are electrically and hydraulically matched. Skid packs are best suited to spas with a capacity up to 800 gallons. If you have a larger spa, you will probably need to purchase separate support equipment.

Skid packs generally cost more than the same parts purchased individually, but are a lot easier to install and maintain.

Pre-plumbed skid packs are the easiest to install, and usually include a pump, filter and electric heater. Two simple lines connect the water from the equipment to the spa or hot tub and a suction line draws water out.

Hot Tub Stairs

Hot tub stairs can be straight and simple or curved. Spa steps can be found with one, two or three rungs. More importantly, hot tub stairs should be the appropriate height and should be made of materials that offers good traction.

Hot tubs stairs can be found in portable models. These lean against the hot tub. Some hot tub steps easily open so you can store items in them.

Hot tub steps rarely come with handrails, although some offer them as an additional feature. To match your hot tub or deck, you can find stairs made of redwood, cedar and durable plastics.

Built in spa steps are another option if you are current looking for a hot tub. Some manufacturers now include built in steps with railings as a feature of their hot tubs.

Plastic hot tub steps are the least expensive option.

Spa Thermometers

Spa thermometers are not just an ornamental piece but are important safety feature for a spa. Thermometers keep careful watch on hot water temperature so that the heater control is accurate and the best temperature range is maintained for your guests.

Pool Spas

Pool spa combinations are essentially a swimming pool and a spa attached. Because many people enjoy a cool dip in their swimming pool and are refreshed after by a hot soak in a spa, a pool and spa combination is practical and offers a distinct look.

In-ground spas

Pool spa combinations that are built in-ground can be on the same level or tiered for a different effect. Today's most unique designs have the spa spill hot water flow over into the pool. Although this looks great, it requires a large pump and can waste a lot of water.

Above-ground spas

Some in-ground and above-ground pool owners prefer to have an above-ground hot tub installed in close proximity to their pool.

Swimming pools and spas, if connected, are often able to share the same filtration unit and heaters but this is only if they are situated close enough to one another.

Swim Spas

Swim Spas are sometimes referred to as swim-in-place or exercise pools. Swim spas offer the benefits of a pool, without the space required for a larger version. Swim spas combine the element of exercise with that of relaxation. A true swim spa doubles as an exercise pool and then has seating, a comprehensive heating system and jets with massaging attributes similar to a hot tub.

Swim spas use a current that is produced by a machine. A person in the swim spa exercises while virtually staying in one spot - as they move their arms and legs against the current.

Swim spas most often come equipped with all relevant pumping and heating systems as well as the device that thrusts water forward and circulates it. Swim spas also have extensive temperature and water flow gauge controls for comfort enhancement and to ensure the workout isn't too strenuous.

Most swim spas or exercise pools currently on the market are for those wanting an outdoor or indoor pool. Although they are freestanding structures, some can easily be installed in-ground for a different look.

Hot Tub & Spa Accessory

Hot tub and spa accessories will enhance your enjoyment. Whether you want relaxation, fun, practicality or an increased atmosphere, consider these great hot tub accessories.

Spa pillows can affix to the side of a spa and provide a more comfortable rest. They come in different sizes and are usually shaped in a crescent or concave fashion to provide proper support to the head and neck when leaning back in a home spa.

Spa planters come in different textures and materials. Find the right planter that will provide a sense of natural ambiance to your home spa. Consider choosing pottery, polyethylene or a similar durable plastic to keep your planter longer in the moist environment.

Citronella Candles can provide a romantic outdoor setting while keeping insects at bay. A variety of shapes and sizes are available. To further enhance the atmosphere, if you don't already have an entertainment centre built into your spa, you could always consider a floatable radio. Specifically designed floating radios are sold for spa use.

Massagers can add an almost guilty pleasure to your spa or hot tub. These portable, waterproof, sometimes battery-powered units mechanically massage tired muscles. Many versions are hand held with rollers and require a friend to apply them to the tightened muscles in your back. Make sure you've got a volunteer who will gladly give and receive a massage before purchasing one of these units!

Drink trays that can be fastened to the side of a spa are available, along with drink trays that are weighed down with sand or water and sit on the spa's floor. Larger floating trays that accommodate many drinks are a great to house party refreshments.

Water proof playing cards for hot tub use are practical and fun.

Signs & Tub Aids

Novelty signs of every colour and shape are a favourite accessory for home spas and hot tubs. Classic signs about skinny-dipping rules and spa-related jokes can help lighten the atmosphere.

Spa Trays and Side Tables usually affix or connect to a hot tub or spa's side, wall, pole, or stairs and provide a flat surface to place food, towels or reading material.

Water Pumps can aid in bailing out home spas or hot tubs as needed.

Oil Absorbers can reduce the amount of time you need to clean a hot tub or home spa. By absorbing the oil, your heated waters can remain fresher longer.

Steps and Bars can be placed as additions to aid elderly patrons, the physically handicapped, or just to provide extra safety. Some companies offer modular

steps, or surrounding steps or bar struts that fit to the curve of your spa or hot tub.

Some steps are custom-made to be used for storage and flip open to allow for pool cleaning supplies, aids or even just towels. Find steps and bars that will fit your setup!

Hot Tub Lighting

Hot tub spa lighting is a recent and hot trend in the spa industry. Whether you prefer to create ambience with one colour or many different colours you can find lighting that flashes, changes colour or both. Built-in lights are currently a very common feature when purchasing a spa or hot tub. Some manufacturers even combine flowing water, water arcs and fountains to make the lighting even more dramatic.

Fibre optic lighting for spa use consists of a clear cable that illuminates fluorescent lights. Fibre optic fixtures are also available. Either built into the system underwater or surrounding the hot tub's frame, fibre optic lights are available with remote systems that allow the user to change the colour or light dance at the flick of a button.

Underwater lights that are built right into the hot tub or spa are also common. Most of these lighting systems feature stainless steel or other metal housings and a strong glass cover. Coloured lenses are also sold to place over the glass in order to transform the colour.

LED lights or light-emitting diodes are the most recent technological trend to hit the hot tub industry. LEDs are found on TV remotes, cars and bicycle lights and are becoming more common because they last a long time and are efficient. LED bulbs and systems can feature one or more colours which may remain constant or blink depending on the type.

Entertainment Options

Hot tub entertainment systems have recently become very popular. Now a relaxing soak in your hot tub can be enjoyed while listening to your favourites CD, watching TV or even popping in your favourites DVD.

Hot tub stereo systems and CD players are the most common entertainment unit found today. Many dealers even offer a promotional stereo system with their tubs. Some feature CD players that hook into the systems, although built-in CD players are also available.

Hot tub TVs can feature automatic lifting flat screen televisions. Be sure that you purchase a system that won't fog from the steam of the hot tub though - because no matter how big the screen is, you want to see it.

Speakers for your spa are an important consideration. Water proof speakers can be built in externally (often in the shell) - some are visible while others are pop-up versions. Some speakers will project sound through water, while others project out of the hot tub's sides. Some speaker systems feature both features. Surround sound systems and subwoofers (a machine that amplifies lowers

frequencies) are offered on some systems as well.

Remote controls that mount and are built into the hot tub are popular, although remotes that float are also all the rage.

Built in home theatre and entertainment systems are normally found on features of luxury models by manufacturers. Other systems can be purchased as ad-ons to existing tubs. The most crucial part of choosing entertainment for your spa or hot tub is to ensure all units are hooked up properly and are suitable for spa use and outdoors.

THIS MEANS THAT YOU WILL NEED TO TAKE STOCK OF WHAT IS IMPORTANT TO YOU AND THEN FIND THE HOT TUB THAT OFFERS THE BEST COMBINATION OF SOLUTIONS AT THE FAIREST PRICE.

PRE DELIVERY INSTRUCTIONS

Positioning of your Spa:

When selecting a site for your spa, take into account the following:

(A) LOCAL CODES:

There may be certain restrictions and/or requirements that are particular to your locality. If in doubt check with your local council.

(B) DELIVERY AND PASSAGEWAY:

The spa will arrive as a unit, and in most cases cannot be dismantled. Ideally the spa will be placed on a trolley either on its side or on its base. The unit will then be rolled into place easily crossing grass, gravel and small terrain anomalies.

For safe and non-intrusive installation, we require an opening not less than the size of your spa (See Spa Size) plus at least 40cm for the trolley and a minimum of 4cm clearance on all sides.

If your access does not meet these conditions, or in the case of other obstacles (steps, walls, steep hills etc.) contact Canadian Spa Company Ltd for advice and conditions.

(C) LOCATION AND BASE:

A sheltered environment can result in lower operating and maintenance costs.

You must allow 1 meter clearance for access to the spas access panel for servicing.

- The site you select for your spa **MUST** be a flat, level continuous surface that contacts the bottom of the spa fully.
- Your new spa weighs between 300 and 450 kg's dry, and when filled to capacity weighs between 900 to 2300 kg's. Therefore, a solid support is essential when the spa is mounted on a deck or ground level patio/floor. It is recommended that you install your spa at ground level, this allows easy access to equipment.
- A 10 to 15 cm thick re-enforced concrete slab is ideal, but not required. In most cases your spa can be placed on existing patios.
- The base should be at least the size of the bottom of your spa (See Spa sizes).
- Water should always drain away from the spa. **DO NOT** locate your spa in a low run-off area since melting snow or rain could flood the area and cause pump and equipment damage.
- **DO NOT** locate the spa near or under overhead wires, keeping clear of all electrical appliances.
- For Gazebos the pad sizes are as follows:
 - 10x10 pad size 11' 2" x 11' 2"
 - 10x14 pad size 11' 2" x 14' 6"
 - 10x20 pad size 11' 2" x 21' 4"

INSTALLATION AND ELECTRICAL CONNECTION

Have a licensed electrician run the required 230-volt power line to the spa installation site. This power line must be permanently connected (hard-wired) to the mains supply. Do not use extension cords or plug in type connections. At the site where the spa is to be located leave 4 meters of cable and the appropriate cable gland. All electrical wiring to a spa **MUST** be installed by a qualified, licensed electrician and approved by local building electrical inspectors.

• **PLEASE NOTE:** *‘Failure to supply the recommended power will void the Manufacturer’s warranty.’*