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PoolSpaForum Special Edition

BACKYARD HEAVEN

IMMERSE YOURSELF
IN A DAILY RETREAT
YOU DESERVE

Photo



PICKING THE
PERFECT POOL.
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YOU: SEE OUR
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COMPARISON



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POOLSPAFORUM SPECIAL EDITION



Built by Bradbury's Waterin' Hole, Inc., of Columbus, Ind., this fully-automated, vinyl-lined pool won a bronze medal in the Association of Pool & Spa Professionals' Awards of Excellence.



Photo: Dougherty Pools



Photo: Bi-State Pool & Spa, St. Louis

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POOLSEARCH Accuracy

POOLSEARCH has consolidated our buyer's guide to summarise the major players in the industry. Due to obvious logistics, we do not conduct individual independent product evaluations of each exercise pool or hot tub featured in our magazine; instead we rely on information provided by our editors, auditors, homeowners and other third parties to evaluate products before printing our magazine. Because of the inherent delay and risk of inadvertently omitting or misprinting information in our publication, we recommend each homeowner conduct a thorough evaluation of their manufacturer or retailer before purchasing.



A Swimming Pool Survival Guide Just for the PoolSpaForum.com Family

I would like to welcome you to a special edition of POOLSEARCH, designed exclusively for the PoolSpaForum.com audience. This swimming pool survival guide provides local and company-specific information and commentary that you won't find anywhere else.

In this guide, you will find out how to pick the best type of pool to suit the needs and wants of your family (page 9), all the basics of in-ground pool construction (page 21), how learning to swim and keeping a regimen can dramatically change your health and well being (page 28) and much, much more. PoolSpaForum.com seeks nothing but the best for its members, and this special guide goes a long way to prove it.

As always, I welcome your feedback and comments.

Warm regards,

David T. Wood
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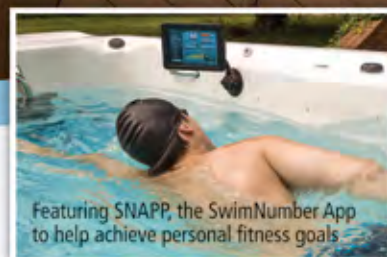
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SCAN FOR BOOKLET



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This vinyl-lined pool installed by Chaffee's Swimming Pools in Campbell Hall, N.Y., won an honorable mention in the Association of Pool & Spa Professionals' Awards of Excellence.

Picking the Perfect Pool

Dissecting the pros and cons of the types of swimming pools available for your family

Some pools will suit certain lifestyles and backyards better than others. While your builder can help you determine what kind of pool works best with your climate and soil conditions, let us help you find a pool that will meet your needs and desires.



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You can customize your pool by adding color, tile, mosaics, and lighting to make your pool reflect your style and personality.



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Welcome the
Spirit of Aloha
into your backyard

In-Ground Concrete

The most customizable and common type of swimming pool.

The most common type of in-ground pool homeowners purchase, a concrete pool, is custom-built to your specifications. There are two main methods of forming the concrete that will make up its walls: gunite and shotcrete. Regional variations might dictate the type of application used in construction, and your pool builder may have an opinion as to the longest-lasting material.

Concrete pools are constructed in stages: The layout and excavation, then the installation or application of the steel, plumbing, equipment-set gunite or shotcrete, tile coping and the interior finish. Although they take longer to construct than fiberglass pools, the choices of shape, size and design of concrete pools are virtually unlimited. Construction time typically takes three to 12 weeks.

Concrete pools can incorporate a variety of decorative materials, interior surfaces and decks. Many home and landscape designers see today's in-ground pools as the centerpieces of dramatic outdoor living environments. Concrete pools are a big part of this burgeoning trend, so it's important to discuss the myriad options with your builder. Be sure to have final approval on all plans and sketches from your township and/or homeowners association before construction begins.

R'nelle Lazlo, vice president of national marketing for Blue Haven Pools & Spas, a national swimming pool contractor, says its customers are looking for "maximum pleasure with minimum effort. They want an automated, water- and energy-efficient backyard resort that makes pool ownership a fuss-free experience."

Concrete pool buyers are buying into a long-term lifestyle decision. "In ground pool buyers are seeking the highest quality pools to fulfill their long held dream of owning a pool and being able to entertain family and friends," says Mark Koide, vice president of marketing for Anthony & Sylvan Pools, a national pool builder. "In addition to creating a lifetime of memories for their families an in-ground pool adds value to their home as well."

If you can abide backhoes, bulldozers and dump trucks in your yard during the initial construction stages, you will have weathered the worst of it. "During construction, there is some organized chaos that goes on in the backyard," Palmer says. The rest of the process is relatively painless and involves installing steel walls that will brace the weight of the concrete and the water, as well as the plumbing that will support the drain system. After that, the base is installed according to your specifications, and tiling is completed.

With a concrete pool, you have the option of enhancing the rest of your yard with landscaping. Lazlo says the typical homeowners in search of a concrete pool "are more tech-savvy, environmentally friendly and time-conscious than ever before. They drive a car that's loaded with the latest gadgets, and they want a high-tech backyard oasis with all the bells and whistles, too."

If well-maintained, a concrete pool's structure can last a lifetime. The building process will not be quick, but it will be solid.



This 1,390-square-foot pool, installed by Pool Stop Custom Pools of Rockwall, Texas, features a catch basin and vanishing edge spa with glass tile. The design won a bronze medal in the Association of Pool & Spa Professionals' Awards of Excellence.



Concrete Finishes

There are endless options, colors and materials available to achieve the perfect look for your swimming pool.

The last two decades reveal a rapid evolution in pool-finish techniques and materials, resulting in increased durability, easier maintenance and an almost limitless selection of possibilities. Nonplaster finishes utilize stones, pebbles, quartz crystals and even crushed shells to deliver the desired color, sheen and texture. In many cases, the mix can be adjusted to create a truly customized product.

For centuries, plaster was the standard finish for the interior of a fountain, trough, spa or pool. However, approximately 20 years ago, the concept of exposed-aggregate finishes first appeared in the marketplace and changed the face of pool finishes forever.

Jay Eaton, president of Cal Plastering in Phoenix and a veteran with more than 30 years in the industry, says finishes historically were made of plaster, but that currently, a very small percentage of pool interiors use this older technology. "Plaster is susceptible to staining, and the exposed aggregate finishes are more maintenance-friendly and stronger," he explains.

Glass Tile

"About 30 percent of all of our projects are all tile and most of those are glass tile," says Brian Van Bower, president of Aquatic Consultants, Inc. "Within the glass tile there's a wide variety of materials. We're using some of the translucent glass tiles that add to the depth of the pool and we're using some textured tiles. On one side they have a discernable texture that is iridescent and has an oil slick-like look on it. The other side is a smooth finish but lumpy. It looks polished but still has movement to it. That's a very beautiful look."

Pebble Tec

Pebble Tec, whose products have been on the market for almost 20 years, says brilliant riverbeds and spotless beaches inspire its finishes. Its product line includes Pebble Tec, Pebble Sheen and Pebble Fina, all of which incorporate various sizes of pebbles, allowing the customer to choose a level of surface texture from pebbly to fine. The company recently added PTx colors as an option to its Pebble Fina product. "We juiced the base material up in the Pebble Fina and fortified it with the ability to hold color better and make the colors brighter," says Bob Haning, executive vice president for Pebble Technology International. Using PTx, you can pick virtually any color for your pool finish.

Wow Factors

Another finish option is granite or marble. Van Bower has installed some pools using either tiles or custom-cut slabs of the natural products.

If you've spent time looking at swimming pools on websites Pinterest or Houzz, you've likely ran across pools that have clear, window like sides or cut-outs. "We have a project on the bay in south Florida that has a vanishing edge on the bay side and the water overflows and runs down the outside of the acrylic into the base," Van Bower says. "If you drive by in a boat you can look into the pool and if you're in the pool you can look out into the bay. It's not for everybody but it will be a big wow factor."

Dressing Up The Waterline

Many of the pebble, quartz and marble interior finishes allow for optional customization on the pool's bottom or sides with mosaic inlays or other specialty tile work. One place where tile work is an absolute necessity is at the waterline as most interior surfaces, whether plaster or an exposed aggregate, will degrade if exposed to air or direct sun.

A note on climate and location: Just because you live in an area of the country that gets severe winter weather or a large amount of rainfall doesn't mean you can't install or resurface a pool in the off-season, allowing it to be ready when the weather changes. Eaton has seen pool work done in almost every climate. "Often a portable plastic dome, sort of like a big plastic tent, can be erected over the pool so that work can take place in snowy or rainy weather," he says. ●



Photo: Aquatic Consulting, Inc. design; marble on all pool interior walls and vanishing edge.

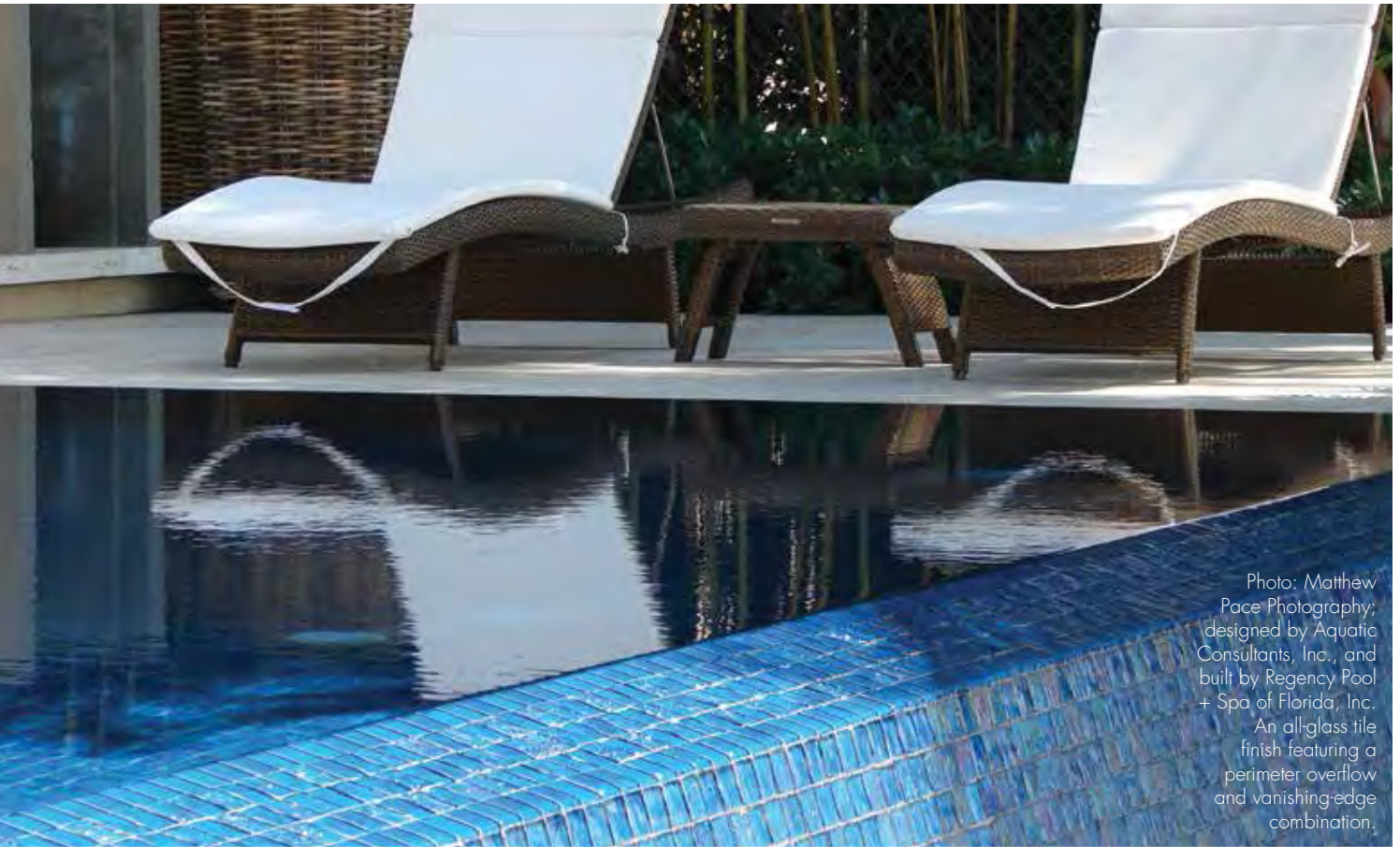


Photo: Matthew Pace Photography; designed by Aquatic Consultants, Inc., and built by Regency Pool + Spa of Florida, Inc. An all-glass tile finish featuring a perimeter overflow and vanishing-edge combination.



Photo: PTx Colors



Photo: Greg Wilson Photography, DWY Landscape Architects and Aquatic Consultants, Inc. design. An all-tile project with clear panels in the floor.



Built by Bradbury's Waterin' Hole, Inc., of Columbus, Ind., this fully-automated, vinyl-lined pool won a bronze medal in the Association of Pool & Spa Professionals' Awards of Excellence.



In-Ground Vinyl

The soft, flexible walls of a vinyl-lined pool now offer multiple design and pattern options.

“Vinyl pools have come a long way,” says Gary Kieser, manager at Backyard Living in Illinois. “They are usually less money up front and offer endless possibilities on size, shape and floor patterns.”

A vinyl-lined pool comes to the installer in kit form and requires an excavated hole (this can entail bulldozers or front-end loaders).

“Most vinyl builders require four to six weeks to complete the project,” says Gary McClure, owner of McClure Pools in Illinois. “The vinyl pool requires 20 percent more excavation but that should not be a consideration.”

After the reinforcing walls of steel or plastic polymer are inserted, skimmers, jets, steps, plumbing or gas lines may be added. The sand bottom of a vinyl liner pool must be floated — smoothed over with trowels — to the right specifications before the liner can be dropped in and attached. The vinyl liner is then spread over the interior of the pool to cover the excavated floor and paneled walls; it is then connected to the top of the panel walls by a vinyl rib at the outside edge of the liner. Once this is accomplished, you can see the depth and shape of your pool, and imagine what it will look like upon completion.

ULTRA-SEAM

While there are many benefits of owning a vinyl-liner pool, there has always been one visual detractor — the seam. Depending on the size of the pool, the liner is several pieces welded together leaving a visible seam where they meet.

Latham International, manufacturers of vinyl-liner Pacific Pools, Fort Wayne Pools and Kafko Pool Products, recently developed a new type of weld called Ultra-Seam that makes the liner seam invisible.

“This is the greatest thing that’s happen to liners in the 38 years that I’ve been building them,” says Ray Bradbury, owner of Bradbury’s Waterin’ Hole in Columbus, Ind. “[The seam] just disappears.”

In addition to making the liner look better in the pool, the new welding process also makes the liner last longer.

“When we start a seam [the weld] doesn’t stop until we get to the other side,” says Will Cappiello, product director at Latham. “So you have about 30 percent fewer opportunities or exposures to have a potential liner failure [according to the company’s internal testing].”

According to Cappiello, this continuous weld process isn’t a new technology but this is the first use with vinyl liners.

“I’ve put in several of them and they’re amazing,” says Mike Giovanone, owner of Concord Pools in Latham, N.Y. “You step back and you cannot see any seams in the pool.”

For more information: LATHAMINT.COM

Built by Johnson's Pools & Spas LLC of Owego, N.Y., this vinyl-lined pool designed for play and lounging won a bronze medal in the Association of Pool & Spa Professionals' Awards of Excellence.



"A steel wall vinyl or a concrete pool require more BTUs to heat over a polymer, graphex vinyl lined or fiberglass pool," says Tom Esser, sales manager at Alpine Pools Inc. in Pittsburgh.

Most liners are treated with fungicides that keep them clean. UV inhibitors also are built into many of them; by blocking out the worst of the sun's rays, your liner will look newer for longer. A liner typically holds its quality and durability for seven to 10 years, at which time it will need to be replaced. Be sure to ask your dealer how frequently liners have to be replaced in your area, as climate can make a big difference.

"In Virginia, we mostly have vinyl-liner pools with a mix of some fiberglass and concrete," says Jessica Coyner, owner at Signature Pools in Chesapeake, Va. "Where we live is below sea level, so ground water is a concern. Vinyl-liner pools are able to handle ground water better with a liner that is flexible and a pool that is more affordable than the other types."

A vinyl liner fits your pool shape like a wetsuit on a swimmer's body. Its smooth texture prevents little ones from scraping their hands and feet on the walls or floor, making it a good alternative for homeowners with children or grandchildren. A challenge of the vinyl liner, however, is the possibility of tearing if sharp objects enter into the pool.

"A vinyl pool can be customized just like a concrete pool," Esser says. "Most of our customization is done with options and hardscapes. The beauty is in the design and landscaping, not so much in what pool you go with."

A BUILDER'S VIEW: WHY I SELL VINYL-LINER POOLS

The weather in upstate New York is unpredictable, which is why Mike Giovanone, owner of Concord Pools and a member of the industry for more than 40 years, believes that vinyl-liner pools are the best choice for his customers.

"We can have three inches of rain one day and two feet of snow the next," Giovanone says. As the ground freezes and unfreezes, it expands and contracts, doing the same to whatever is buried in it.

"You can have a pool move a quarter of an inch, in and out," Giovanone says. "The vinyl liner obviously moves with that. You can have a little bit of torque and torsion in a frost laden vinyl-liner pool. Vinyl-liner pools are definitely the most climate forgiving pools out there."

Giovanone says that's not the only way vinyl is forgiving. "If you take your knuckles and you rub it on a concrete wall pool, it's not going to be a good experience," Giovanone says. "If you buy a \$200 bathing suit and you sit on a set of steps, get up and it pulls the material, that's not a good experience. The texture and feel of a vinyl-liner pool is the number one consumer choice."

Unlike when Giovanone got started in the industry (he jokes that 40 years ago your vinyl-liner options were boundless, as long as you wanted a blue rectangle), today's technology makes almost anything possible. He mentions benches, steps, swim-in grottos, beach entries and negative edges as a few of the layout and design options Concord builds for its customers.

Advances haven't come just in the pool design, but also in the building components. For example, vinyl liners are typically susceptible to sun damage, but new protective coatings can now diminish UV affects.

Additionally, liners are now cut to size using a computerized process. "I think the quality assurance and the quality consistency of computerization has helped tremendously," Giovanone says.

In the past, Giovanone built pools using steel walls for the structure. While steel is still a good cost-effective option, Concord now uses polymer walls.

"Polymer is using advanced technology," Giovanone says. "It allows us to step aside from any corrosion problems."

What Giovanone finds most exciting is the new Ultra-Seam technology from Latham International. "It is the biggest advancement I've seen in liners in my 41 years of doing this," he says. "It's an invisible seam and they're amazing. You step back and you cannot see any seams in that pool."

Giovanone's Tips to Building a Vinyl-Liner Pool

- Investigate the accomplishments and history of the builder. Make sure the company is licensed and a Certified Building Professional (CBP).
- Buy a pool from someone who gets walls, steps, liners and bracing all from one company.
- Require a personal in-yard layout and an elevation typography scale prior to sales.
- Prior to any excavation, ask for a certificate of insurance and proof of compensation insurance.
- Before the builder starts digging, make sure you're provided with an underground utility locator number.



Photo: Concord Pools, Latham, N.Y.

Flying Over Hurdles

Award-winning design came from policy of communication.

EACH SWIMMING POOL INSTALLATION has its own set of challenges. For the silver-medal Awards of Excellence winner built by Concord Pools in Latham, N.Y., it was the location of the backyard and the soil.

“It was a challenging yard in the respect that almost everything had to be craned in,” says Mike Giovanone, president and CEO of Concord. Once they started digging the hole for the vinyl-liner pool, they found

that the backyard had once been essentially a tree dump. “There was a lot of organic soil that had to be removed and several hundred ton of stone product had to be brought in for stabilization.”

Fortunately, Concord was up for the job, and the company’s policy of daily communication with the homeowners kept them relaxed.

“We always tell people there are going to be hurdles, but we’re going to fly over them and we’re going to address each and every one together,” Giovanone says. “If there’s a problem, we’re going to sit and we’re not going to get up until it’s solved and it’s remediated.” ●



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All of the stone used around this fiberglass pool was procured from the farm where the pool is located. Built by Anderson Pools of Murfreesboro, Tenn., this design won a silver medal in the Association of Pool & Spa Professionals' Awards of Excellence.



Photo: Blue Hawaiian

In-Ground Fiberglass

Just because it's quickest to install doesn't mean it has to look dull and boring.

If affordability and timeliness are what you're after, consider a fiberglass in-ground swimming pool. A fiberglass pool is factory-manufactured and resembles a giant bathtub. After an excavation, a crane is used to install it in one (big!) piece due to its weight and size. A fiberglass pool's construction time is one to two weeks, sometimes less.

"A fiberglass pool installation is like dropping a large bathtub in your yard," says Matt Rozeski, owner, Penguin Pools in Wisconsin. "The prep time takes longer [than a vinyl-liner installation] because it has to fit perfectly. However, the fiberglass pool is less labor intensive."

Previously, the lack of shape customization would discourage prospective pool owners from choosing fiberglass. However, with industry leaders such as Viking Pools and Trilogy Pools using



modular technologies, such drawbacks are less prevalent. There are also many new one-piece shapes available, including rectangles, variations on ovals and circles and even L-shaped fiberglass pools. More shapes are added annually.

“In the past, the only limitation with a fiberglass pool was size and shape,” says Todd Stahl, senior advisor to Viking Pools. “We have minimized that obstacle with our modular units, which are sections of fiberglass that are built separately and installed at the job site to create a unique design.” Stahl adds that Viking’s customers understand that fiberglass pools are technologically sound, cost-effective and eco-friendly.

Fiberglass pools ordinarily require fewer chemicals and less maintenance than concrete pools. Unlike a plaster finish, a fiberglass shell does not change the chemistry of the water, so you will likely use less acid. In addition, because of the nonporous surface, you don’t need to brush the pool nearly as often as a plaster-finish concrete pool.

Those who live along fault lines frequently ask what happens to a fiberglass pool if the earth moves. Experts tell us fiberglass has a shock-absorbing ability that allows it to flex up to two feet. However, new concrete construction techniques allow concrete to flex as well, so if you live in an earthquake-prone area, have your dealer explain the features, benefits and the possible pitfalls of both fiberglass and concrete construction.

“The beauty of fiberglass is that it’s suitable for just about any location, from the frozen north all the way to the desert southwest,” says Ted Baudendistel, general manager of fiberglass manufacturer Trilogy Pools. “Fiberglass pools are not affected by extremes in temperature or exposure. Other than the challenges that would be encountered with any other pool construction,

like changes in elevation, rocks, things of that nature, we’re no less suited for any of those environments than a gunite or a vinyl pool would.”

Fiberglass pools come complete with skimmers, drains and stairs, and as soon as the water has secured the pool into its sand base, a fiberglass pool is practically ready to use. Many fiberglass aficionados love them because the interior surface is smooth and nonporous, rendering it all but resistant to algae. If well-maintained, most fiberglass pools will indefinitely stand up to constant use and rarely, if ever, require resurfacing.

“We can compete with some very exotic designs with fiberglass pools now,” Baudendistel says. His company has created fiberglass forms that can be bolted on to the pool to quickly create some popular pool design features like raised spas, tanning ledges and other water features.

After installation, you can add a slide and/or diving board. Standard decking tends to be some type of concrete, but if you prefer brick or grass, for instance, your pool builder can work with you. Some Viking fiberglass pools have fiber-optic and LED lighting, perimeter tile, tiled skimmers, inlaid tile on the steps, seats and floor, inlaid mosaic tile, built-in cascades, vanishing edges and even aromatherapy.

Baudendistel says that if there are features you think you may want in the future, but don’t want to add now, ask the builder to prep your pool so they can easily be installed at a later time.

“It’s so simple and inexpensive to plumb for lights, automatic cleaners, waterfalls, slides and other types of water features at the time the pool is being built,” Baudendistel says. “For a couple hundred dollars, you can outfit any pool for a variety of options later on.”



Photo: Bi-State Pool & Spa, St. Louis

A Simple Project That Looks Like a Million Bucks

You don't have to spend big money to make a big impact.

FIBERGLASS IS RICK WOEMMEL'S favorite type of pool. For Woemmel, president of Bi-State Pool & Spa in St. Louis, it was the perfect kind of pool to install in his neighbor's yard. The result of their collaboration was a bronze medal from the Association of Pool & Spa Professionals' Awards of Excellence.

"This customer is out of town a lot," Woemmel says, "so he was looking for something with easy maintenance. In this circumstance, the Viking [brand] fiberglass pool worked out great."

Woemmel says fiberglass pools offer extensive options and bang for your buck. Besides being low maintenance, it's also a quick and easy install.

While most of Bi-State's other award-winning projects have budgets of more than six figures, the cost of this installation was much more modest.

"This customer didn't have a super high-end budget, but he loves his backyard," Woemmel says. "It wasn't low-end either. But it's a pretty reasonable project, and that guy enjoys it just as much if not more than the people swimming in their fancy backyards." ●

A BUILDER'S VIEW: WHY I SELL FIBERGLASS POOLS

Joe Ordini, owner of Joe Ordini's Best Fiberglass Pools in Bristol, Penn., has worked in the pool industry his entire life. About 18 years ago, he had an epiphany when an industry counterpart told him he was installing fiberglass pools — in a single day. Ordini, who sold all types of pools over the years, was skeptical and insisted on seeing it for himself.

"The guy started the hole early in the morning and by late that afternoon he was grating," Ordini says. "Then the water trucks came in. It was a marvel. To me, it's absolutely the best thing going."

Now, fiberglass pools are the only he sells. Besides the quick installation, Ordini says that the warranty is the biggest benefit to his customers. For instance, the Viking fiberglass pools he sells have a lifetime structural warranty and up to a 20-year warranty on certain colors and finishes.

"Fiberglass pools are touted as being 17 times stronger than a concrete pool and that's because they'll flex instead of crack," Ordini says, explaining why the warranties are possible.

He keeps between 30 and 50 pools in stock, with even more available to order, so options are plentiful.

The smooth surface of fiberglass is enjoyable for swimmers but it has a hidden benefit. "It's virtually a maintenance free product because nothing can stick to it," Ordini says. "Any algae that starts to form on that pool would slide right to the bottom because there's nothing for it to grab onto. I tell my clients they're going to spend 15 minutes a week [doing maintenance] on this pool. That's it."

Because of the nonporous surface the pool also requires fewer chemicals to keep the water balanced. Additionally, fiberglass insulates the water, helping to retain heat.

"Fiberglass is a no-brainer for me," Ordini says.

Ordini's Tips to Building a Fiberglass Pool

- Get everything in writing. This also helps when you're going over multiple bids. You will know if it's an even comparison.
- Use a builder who will handle the permit process for you.
- Be sure to check the veracity of all licenses.
- Buy from someone who invests in a retail location and the community. That company will be around to take care of you for years to come.



Photo: Viking

Above-Ground Pools

Affordable and easy to install, above-ground swimming pools can bring the pleasures of water to any backyard.

For those who don't want to make the commitment of an in-ground pool, above-ground pools are an exciting and healthy solution. Today's models feature levels of automation and entertainment that can equal those of their in-ground counterparts, encompassing automatic vacuums, automatic chemical balancers, built-in fountains and lights and even surround sound systems. Innovations like space-saving, side-support systems help accommodate larger pools in smaller backyards, giving you more room to swim.

In 1945, Arkansas-based Doughboy forever changed outdoor family entertainment with the introduction of the first portable, storable, above-ground swimming pool. More than 60 years later, the company is still developing and building new pools.

One of the most oft-heard complaints with above-ground pools has been the weakness of top rails that don't stand up to kids' rough treatment. Though there's a perfectly nice ladder nearby, when a ball bounces out of the pool, enthusiastic youngsters are inclined to take the most direct route to go get it: grabbing onto the top rail and pulling themselves over the wall. On a lower-cost above-ground pool, you might end up with bent top rails.

To ensure this doesn't happen to one of its models, Doughboy uses high-tech, state-of-the-art materials, both in their support systems and in their liners, which are well above the industry standard. "We are so confident in our products that we are the only manufacturer to offer a premier warranty, giving the consumer a five-year, 100 percent limited warranty against manufacturer defects," says Doug Hollowell, president of Doughboy.

The selection of materials for the pool frame is often dictated by climate or budget. Metal frames are common, using various methods to avoid corrosion, condensation and rust. Doughboy tackles these problems by using an additional coating on walls and frames. When checking out an above-ground pool, ask about the thickness of the steel — you can actually feel the difference — and the heaviness of a pool, as these are both excellent barometers of quality.

Above-ground pools lend themselves to the do-it-yourselfer. By following installation directions, a handy homeowner can set the pool up in a weekend, but if you

have doubts, a seasoned installer can help you avoid less-obvious installation pitfalls, such as grass that can snake its way through the bottom of the liner. Installers will most likely use power equipment that makes the manual labor of ground-leveling quick and precise, being careful to avoid gas lines and septic tanks.

Once set up and full of water, the above-ground pool is tended like any other. Water chemistry is tested routinely during the swimming season, filters are cleaned and debris is removed when needed.

For many years, the shape of above-ground pools was limited to just one: round. How things have changed: High-tech materials have been incorporated into pool walls, enabling above-ground pools to grow in size and water capacity, meaning huge rectangular and oval above-ground pools are possible — and still for a lot less money than the cost of an in-ground pool.

A person who buys an above-ground pool should carefully read the instruction book, which the law requires to be included with the pool. The sheer height of the pool walls, for example, meets some safety codes, but only if steps and ladders are removed. Pools installed flush with a deck should be treated as an in-ground pool, using fencing or automatic door closers with high latches.

Above-ground pools are intended for swimming and wading only, not diving. Parents should stress this to their children and all visitors, regardless of age. Basketball, volleyball and other water games are fine as long as they are monitored by a responsible adult. ●



Photo: Doughboy



After a year of searching and research, the Ficetti family chose to install a Doughboy above-ground pool. For them an above-ground pool was ideal.

"We didn't want to go with the great investment of the in-ground," says Sharon Ficetti. "Just in case down the line we ever wanted or needed to expand on the house or anything like that, we had that option of removing it if we had to."

John and Sharon Ficetti wanted a pool that their four children, ages 9 to 18, could all enjoy. So they chose a large oval pool, with all the add-ons.

"We ended up going with all the different options that in the beginning we weren't going to go with," Sharon says. "And it was well worth it."

Now that their pool has been installed, Ficetti says that she is able to keep better track of her children and that they interact more with each other.

"They spend more time together doing something other than fighting," Sharon says. "It seems like they get along better out there than they do in the house. Then they spend more time at home. They have friends over every day."

Ficetti says their friends and family of all ages enjoy their pool. "It was a good investment," she says.

Swim Spas & Hot Tubs

Whether you build a hot tub that's attached to your pool or purchase a portable spa to place elsewhere in your backyard, hot tubs offer a bevy of health benefits.

The National Swimming Pool Foundation has released the results of year one of a two-year study on the effects of hot tub immersion. When you're submerged up to your shoulders in warm water, it found, more blood is forced to your central organs.

"To accommodate that increased amount of blood, your heart also has to stretch to pump more of that blood," says Dr. Tom Lachocki, CEO of the NSPF. "Stretching your heart muscle is just as important as increasing your heart rate when it comes to cardiac health."

For people who haven't exercised for a long time or who are unable to exercise, these results can have a significant impact on health.

To help get the message out, the Foundation has published *Hot Water & Healthy Living*, by Dr. J. B. Smith of Indiana University in Pennsylvania. The book pares down the science of the study and explains how hot-water immersion creates healthier bodies, hearts, minds and lifestyles.

In addition, a study in the scientific journal *Sleep* showed soaking in a hot tub before bedtime can help achieve a deeper, more relaxing sleep for the more than 70 million Americans who, according to the National Institutes of Health, suffer from mild to chronic insomnia.

Swim spas, or exercise spas, can be up to 18 feet long and are equipped with a propulsion system, so you can swim and exercise against a stream of water. Some swim spas come with separate therapy seating, meaning you still get the benefits of a hot tub.

Whether it's swimming, rowing or using another installed fitness apparatus, a swim spa means your very own "underwater gym," says Bob Hallam, founder of Dimension One Spas. "You can vary the exercises — you could swim one day, row one day, aerobics one day."

Bob Lauter, president of Master Spas, says swim spas are often sold in place of backyard pools. "This is a place that kids and grandkids are going to love to be in," Lauter says. "It's the perfect temperature; it's never too cold. My grandkids love our swim spa — they'd as soon go in that as a pool."

If your backyard is too small for a swimming pool, or if you live in climates where a pool can only be used a few months a year, a swim spa can be a great option. ●



Photo: Pacific Pools

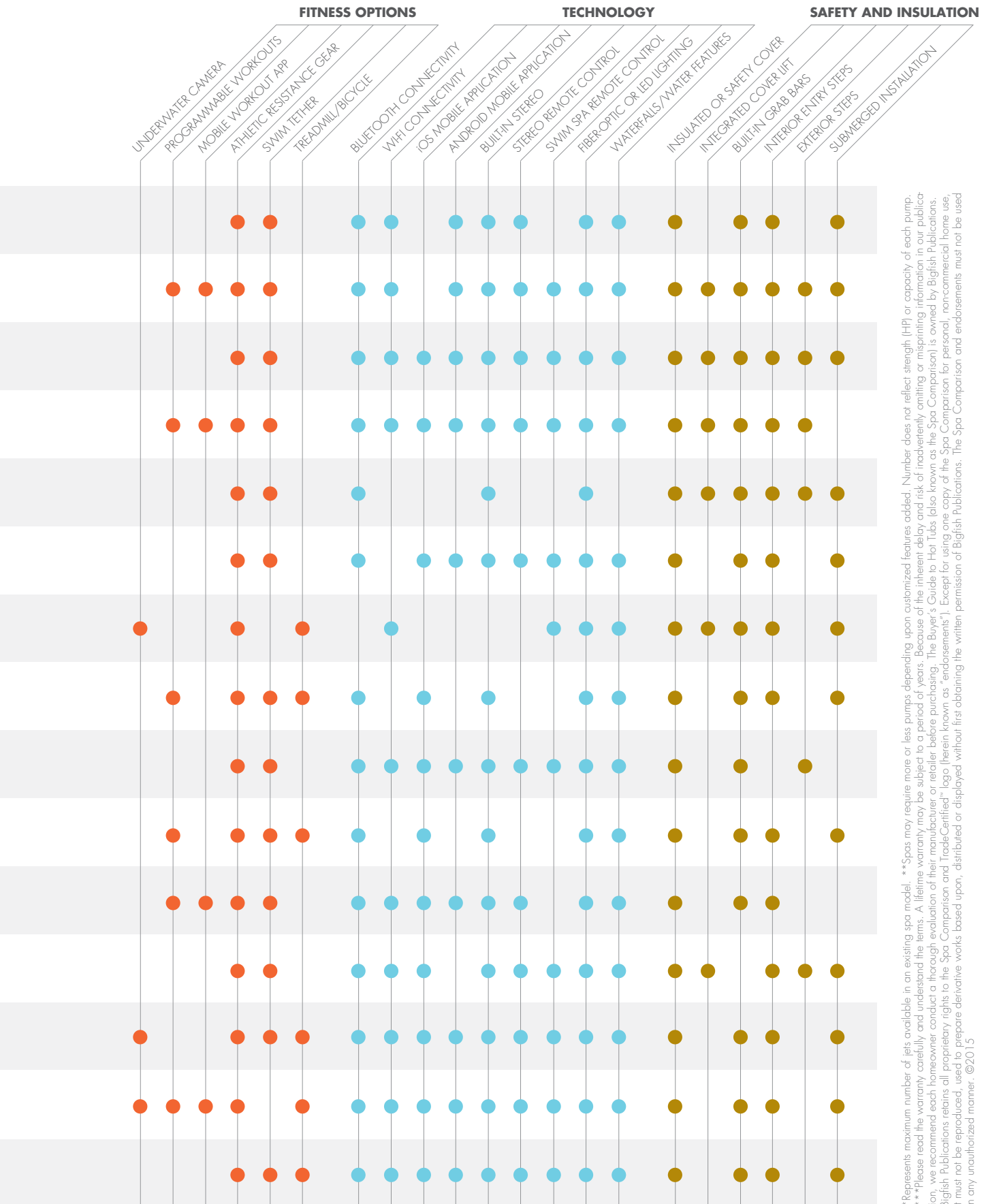


Poolsearch

SWIM SPA COMPARISON

	AWARDS				SHELL & DESIGN				JETS AND CURRENT				WATER CARE			
	2015 TRACERTIFIED™	CONSECUTIVE YEARS WON	HYDROSEAT IN SWIM SPA SHELL	DUAL ZONE	BENCH SEATING	LENGTHS (IN INCHES)	WATER DEPTHS (IN INCHES)	MAX NO. OF HYDROTHERAPY JETS	MAX NO. OF PUMPS	WATER PUMP STRENGTHS	CURRENT STRENGTHS	ADJUSTABLE SPEEDS	SALT SANITIZER	UV-C SANITIZER	OZONATOR	CHEMICAL FEEDER
ARTESIAN SPAS 702-307-5124 TIDALFIT.COM ARTESIANSPPAS.COM			●		●	168 180 192	44 52	30	4	4-5 HP	500-3500			●	●	
CAL SPAS 877-491-8108 CALSPAS.COM	●	10	●	●	●	144-204	45	77	5	6 HP	900 GPM	●	●	●	●	
COAST SPAS 604-514-8111 COASTSPAS.COM			●	●	●	151 207 229	48.5 51 52	75	5	4 HP	3000 GPM	●	●	●	●	
COLEMAN SPAS 877-331-7924 COLEMANSPAS.COM			●	●	●	144-204	45	70	5	6 HP	900 GPM	●	●	●	●	
D1 AQUAFIT 877-712-9039 AQUAFITSYSTEMS.COM	●	10	●	●	●	156 192 228	48 60	17	5	5 HP	600 GPM	●			●	
DYNASTY SPAS 800-951-6224 DYNASTYSPAS.COM			●	●	●	144-228	45	76	5	5BHP 7BHP	1050 GPM				●	
ENDLESS POOLS 800-732-8660 ENDLESSPOOLS.COM			●	●		120-228	49-51	6-55	1	5 HP	5000 GPM	●		●		
HYDROPOOL INC. 905-565-6810 HYDROPOOLSWIMSPAS.COM			●	●		176-226	48-52	61	6	3-5 HP	11 MPH	●	●		●	●
L.A. SPAS 877-267-5166 LASPAS.COM	●	8	●	●		228 192 156	47	14-67	5-6	7 BHP 3 HP	850 GPM	●	●		●	
LA-Z-BOY 877-296-6530 LAZBOYSPAS.COM			●	●		176-226	48-52	61	6	3-5 HP	11 MPH	●	●		●	●
POWERPOOL BY MAAK SPAS 866-835-9150 MAAXSPAS.COM			●	●	●	144 168 198	43	70	4	3-4 HP	600 GPM	●		●	●	
MARQUIS ATVS 877-271-2052 MARQUISPAS.COM	●	10	●			168	48	32	3	6 HP	480 GPM	●			●	
H2X BY MASTER SPAS 877-278-1786 H2XSWIMSPA.COM	●	10	●	●	●	144-231	41 50	55	4	3-6 HP	600 GPM	●			●	
MICHAEL PHELPS SWIM SPAS BY MASTER SPAS MICHAELPHELPSWIMSPA.COM	●	10	●	●	●	174-231	41 50	51	3	3-6 HP	1:09/100Y - 0:49/100Y	●			●	
PREMIUM LEISURE LLC 727-573-9611 PREMIUMLEISURE.COM	●	1	●	●	●	216	48	39	7	5 HP	300-4000	●	●	●	●	

Poolsearch SWIM SPA COMPARISON



*Represents maximum number of jets available in an existing spa model. **Spas may require more or less pumps depending upon customized features added. Number does not reflect strength (HP) or capacity of each pump. ***Please read the warranty carefully and understand the terms. A lifetime warranty may be subject to a period of years. Because of the inherent delay and risk of inadvertently omitting or misprinting information in our publications, we recommend each homeowner conduct a thorough evaluation of their manufacturer or retailer before purchasing. The Buyer's Guide to Hot Tubs (also known as the Spa Comparison) is owned by English Publications. English Publications retains all proprietary rights to the Spa Comparison and TradeCertified™ logo (herein known as "endorsements"). Except for using one copy of the Spa Comparison for personal, noncommercial home use, it must not be reproduced, used to prepare derivative works based upon, distributed or displayed without first obtaining the written permission of English Publications. The Spa Comparison and endorsements must not be used in any unauthorized manner. ©2015

	WARRANTY					
	SPA CABINET	SPA INTERIOR SURFACE	SPA EQUIPMENT	SPA FRAME	PRICE (MSRP)	CURRENT AND SPECIAL FEATURES
ARTESIAN SPAS 702-307-5124 TIDALFIT.COM ARTESIANSPPAS.COM	5 YR	LIFE	5 YR	LIFE	\$12,900-\$35,000	Current Technology: Built in the USA and recently featured on ABC's <i>Extreme Makeover Weight Loss Edition</i> ; the TidalFit® features a powerful Quad Swim Jet System that produces resistance for intermediate to pro level swimmers, while providing a heightened experience with the DIRECTFLOW™ after-workout massage seat.
CAL SPAS 800-CAL-SPAS CALSPAS.COM	10 YR	7 YR	7 YR	7 YR	\$13,000-\$25,000	Current Technology: SwimJet Propulsion System; Shell Material: Acrylic with exclusive fiberglass reinforcement; Water Filtration Method: Cartridge filters; Insulation Method: high-density thermo-fill or thermo-layer blanket
COAST SPAS 604-514-8111 COASTSPAS.COM	5 YR	LIFE	5 YR	5 YR	\$11,895-\$39,895	Current Technology: powerful river jets, buoyancy simulating levitator jets; Special Features: detachable row bars, commercial-grade pressurized filtration, large/deep workout and swim area, hydrotherapy massage seats, ISO Certified quality construction with steel reinforced shell, pressure treated frame and durable slate cabinet finish
COLEMAN SPAS 888-672-3815 COLEMANSPAS.COM	10 YR	7 YR	7 YR	7 YR	\$13,000-\$25,000	Current Technology: SwimJet Propulsion System; Shell Material: Acrylic with exclusive fiberglass reinforcement; Water Filtration Method: Cartridge filters; Insulation Method: High-density thermo-fill or thermo-layer blanket
D1 AQUAFIT 800-345-7727 AQUAFITSYSTEMS.COM	5 YR	5 YR	5 YR	LIFE	\$27,995-\$41,595	Current Technology: High Volume Swim Jets; Special Features: AquaFit comes standard with a UV-resistant Duratex Shell, five stunning, woodlike Terracina skirt options, UltraPure Water Management, strong thru-wall OptiMounts for fitness attachments, LED lighting and a durable six-gauge steel frame.
DYNASTY SPAS 800-951-6224 DYNASTYSPAS.COM	3 YR	10 YR	5 YR	5 YR	\$15,999-\$40,999	Current Technology: River Jets; Special Features: Seven models available, LED lighting, dual temp zones, exercise and rowing system, Bluetooth stereo system
ENDLESS POOLS 800-732-8660 ENDLESSPOOLS.COM	2 YR	5 YR	2 YR	10 YR	\$15,900-\$31,900	Current Technology: Resistance jets; or variable-speed, laminar Endless Pool® swim current. The swim current is generated by a 16-inch propeller inside a protective stainless-steel housing and powered by hydraulic pumps. Special Features: Arrives preplumbed, prewired and ready to use. Includes lifetime toll-free support.
HYDROPOOL INC. 905-565-6810 HYDROPOOLSWIMSPAS.COM	5 YR	5 YR	3 YR	10 YR	\$19,999-\$40,000	Current Technology: AquaFlex Swim Current with adjustable speed 0-11MPH/0-18 KPH flow rate; AquaFlo Swim Jet Design provides a wide, deep and smooth current; Special Features: HydroPool's Self Cleaning Technology; Hydrowise Thermal Shield Technology keeps operating costs to a minimum
L.A. SPAS 877-267-5166 LASPAS.COM	1 YR	7 YR	5 YR	15 YR	\$12,495-\$34,995	Current technology: Designed to serve as a complete aquatic gym in addition to providing an excellent swim workout; full suite of exercise equipment included. Special Features: Swim lane enhanced with unique lit leveler jet, tile marker, multiple lane lights; suitable for everyone from novice to tri-athlete in training.
LAY-Z-BOY 800-465-2933 LAZBOYSPAS.COM	5 YR	5 YR	3 YR	10 YR	\$19,999-\$40,000	Current Technology: AquaFlo Swim Current with adjustable speed 0-11MPH/0-18 KPH flow rate; AquaFlo Swim Jet Design provides a wide, deep and smooth current; Special Features: HydroPool's Self-Cleaning Technology; Hydrowise Thermal Shield Technology keeps operating costs to a minimum
POWERPOOL BY MAAX SPAS 480-895-0598 MAAXSPAS.COM	2 YR	5 YR	5 YR	LIFE	\$14,999-\$29,999	Current Technology: TheraMAAX Current System; Special Features: Steel structure and green insulation, both with lifetime warranty
MARQUIS ATVS 877-271-2052 MARQUISSPAS.COM	5 YR	7 YR	5 YR	10 YR	\$24,999	Current Technology: Six turbo paired jets off of three two-speed pumps for personally customized flow design; Special Features: industry's toughest shell with high-tech polymer resins and unique colors; structural unibody gusseted frame for superior rigidity; six-time Ironman champion Dave Scott health and fitness program
H2X BY MASTER SPAS 877-278-1786 H2XSWIMSPA.COM	LIFE	7 YR	5 YR	10 YR	\$24,500-\$35,900	Current Technology: Swim Jets; Special Features: Fiberglass and acrylic shell, EcoPur Filtration System, environmentally friendly icynene insulation, energy efficient
MICHAEL PHELPS SWIM SPAS BY MASTER SPAS MICHAELPHELPSWIMSPA.COM	LIFE	7 YR	5 YR	10 YR	\$42,000-\$49,000	Current Technology: Patented Wave Propulsion Technology; Special Features: Fiberglass and acrylic shell, EcoPur Filtration System, environmentally friendly icynene insulation, Wi-Fi custom workout app: SwimNumber App for the iPad; energy efficient
PREMIUM LEISURE LLC 727-573-9611 PREMIUMLEISURE.COM	1 YR	5 YR	2.5 YR		\$10,995-\$35,000	Current Technology: Standard, River Stream, Turbine Driven; Special Features: Premium Leisure has entry-level to top-of-the-line swim spas. The AQ11, 12, 14 and Dual Zone16 models launched the company's line, the Swimmer's Edge has easily become its most well-known model.



INTERESTED IN A SWIMMING POOL TO GO WITH YOUR HOT TUB?

CHECK OUT OUR SISTER PUBLICATION *POOLSEARCH*.

POOLSEARCH.ORG

Poolsearch
YOUR INDEPENDENT SWIMMING POOL SOURCEBOOK



Construction Zone

Building an in-ground pool is a huge decision, and we're here to help

Our version of Construction 101 provides guidance and information to ensure your in-ground pool remains a worthwhile investment. From planning a layout to adding the final touches, the following tips will help make the construction process easier and give you the backyard of your dreams.

POOL PREP

The contractor will draw a spray-paint outline of the pool in the yard to show where the wall of the pool begins; this means your pool will be slightly smaller than the outline. Stakes or spikes with bright ribbons generally are driven into the ground on top of the paint.

Avoid any disturbances to the construction site, including moving the outline or the stakes. This could end up costing you extra money.

WHAT KIND OF POOL ARE YOU BUILDING?

CONCRETE

EXCAVATION

Bender boards appear. These boards, made from redwood or fiberboard, do not determine the finished dimension of the pool — instead they determine the bond wide, which is usually a foot wide, and gives stability and rigidity to the pool.

FIBERGLASS

EXCAVATION

Overexcavation is necessary to set forms and allow for the placing of the pool. Additional costs may occur due to soil conditions and water tables.

Excavators prepare the ground by compacting the sand with water or, sometimes, with gasoline-operated devices called whackers. They rake and grade the ground to conform it to the contour of the pool's bottom.

VINYL-LINER

INSTALLATION

The pool is lowered gently into the space and is leveled using laser transits or a water level. A hose fills the pool while it gets backfilled with a mixture of sand and water. As the water level and backfill material gets higher, the fiberglass pool becomes more secure and locks into place.

WALL CONSTRUCTION

Walls are constructed from polymer or steel panels, concrete forms, concrete blocks or wood. The bottom is made of compacted sand, vermiculite or concrete, depending on the soil conditions.

REBAR

These steel reinforcing rods are bent to form a cage or grid that approximates the shape of the finished pool.

PLUMBING: THE PLUMBER WILL INSTALL FLOOR AND WALL RETURNS, SKIMMERS, MAIN DRAINS, AND PLUMBING AND FILTERING EQUIPMENT.

ELECTRICAL: THE ELECTRICIAN HOOKS UP THE PUMP MOTOR AND POOL LIGHTS. HE ENSURES EQUIPMENT IS FAR ENOUGH FROM THE POOL TO BE COMPLIANT AND THAT GFCI (GROUND FAULT CIRCUIT INTERRUPTER) PROTECTION IS IN USE AS NEEDED.

CONCRETE POURED

Shotcrete: concrete premixed at the plant is then pumped into the pool on site.

Gunite: dry materials are pumped into the pool, then water is added on site.

FINISHES

Crews will arrive and apply materials such as plaster, marcite, pebble-bearing coating, fiberglass resin or tile to the inside of the pool.

Once the application is complete, the builder will instruct on when to fill the pool. Typically, with plaster or marcite coatings, filling begins within an hour. Pebble or fiberglass applications take a few days or more. Pools with tiles take several days.

FINISHES

Coping made from metal or plastic will be attached to make the transition from the pool shell to the deck.

A pool purchased with tiles will come with them preinstalled with flexible adhesives. If your pool design includes raised areas, the crew will apply mortar to adhere the tiles to the structural building material.

INSTALLATION

Footings are poured and the area surrounding the pool is backfilled.

FINISHES

Crews will attach coping to the top of the wall panels. Standard coping holds the liner in place and is the transition to the deck.

If the pool design includes a raised wall, the liner track will remain at the deck level with tile or stone adhered to the raised wall above it.

LINER INSTALLATION

The liner is installed the air is sucked from behind the liner.

GET STARTED

Once the pool is full, prime and start the pump. The time clock on your pump should allow the pool to run 24 hours a day until the water clears.

Sweep the pool several times a day. Filters may require cleaning as plaster dust collects.

Have a pool store equipped with a test laboratory analyze your source water. They will advise you on which chemicals you will need to treat the fill water.

Chemical startup will vary among localities. The pool store where you had your fill water analyzed will probably have startup directions for you. Follow them exactly.



Photo: Coverstar

The Inner Workings

The products that make your pool work also make your life easier

Once you've chosen the right type of pool for you, it's time to customize. The technological advances in pumps, filters, cleaners and covers make choosing these parts of your pool an exciting adventure.



Photo: Coverstar

Got You Covered

A cover is the most essential safety and energy-saving product you can add to your pool.

A pool without a cover is like a house without a roof. That is an apt metaphor for a product that brings many essential benefits in a single package, combining safety with energy savings, decreased maintenance and longer plaster or liner life.

Pool covers fall into three general categories: solar covers, winter covers and safety covers. Solar covers are commonly sold in pool stores, characterized by their blue color with bubbles on the underside. Intended to extend the swimming season, these covers trap solar energy, preventing evaporative heat loss. They also assist in maintaining heat in pools that use external heating from pool heaters or solar collectors. They are inexpensive and expendable after a few years of service. Cut to fit with a knife or scissors, owners should never consider them a safety feature because they generally float on the pool surface rather than forming an entry barrier. As a heat-saver, however, they are very cost effective.

Winter covers are custom manufactured solid vinyl and mesh polyester devices that attach to anchors around the pool with latches or with special weights. These covers come in a wide variety of quality and provide freeze protection for winterized pools. They also keep debris out of the water. Like solar covers, owners should never consider winter covers a safety feature.

Safety covers provide the attributes of solar and winter covers with one important difference: they protect children, guests and pets from unauthorized or accidental entry to the pool. They operate by using a track on the deck or tile line of the pool that allows the rolled fabric to

draw fully across the entire surface of the pool or tensioned latches to prevent entry, essentially sealing it off from the outside. These covers can be pulled manually or operated by a switch-controlled motor. A key-controlled switch is also available to operate several types of safety covers.

Safety covers should always meet or exceed ASTM (American Society for Testing and Materials) specifications for strength, intended to reduce the risk of drowning by inhibiting the access of children under 5 to the water.

“With automation systems now you can be alerted if the cover is opened at any time,” says Ted Baudendistel, Trilogy Pools general manager. “You can get an alert on your phone, you can get a text message or an email that lets you know something needs attention.”

Costs for covers vary from around \$100 for the smallest solar blankets to several thousand dollars for the largest motorized safety covers. All covers will provide energy savings. Most companies agree the use of a safety cover can achieve a 70 percent heat savings, a 60 to 70 percent chemical savings and a 90 percent savings in evaporative water loss. These returns can be substantial, perhaps even paying for the cover in reduced costs.

“If the budget allows, install an automatic cover that will further reduce the evaporation of water, loss of chemicals, energy to heat the water and save time,” says Gary McClure, owner of McClure Pools in Fairview Heights, Ill. “The auto cover will pay for itself within three to five years depending on which region of the country you live.”

Reduced maintenance can also mean increased longevity for the pool itself. “While the automatic cover does require some maintenance, it will dramatically reduce the amount of maintenance on the pool,” says Kevin Losee, cover-products director at Latham Pool Products, Inc. “When closed, a Coverstar automatic pool cover will keep the dirt, leaves, bugs etc. out of the pool allowing the pool owner more time to enjoy the pool and less time maintaining it.”

Solar and winter covers can be added to a pool at any time. For winter covers it is best to do some shopping before making the purchase. Using a reliable pool store is a good start because they will have product knowledge suitable for the local weather conditions. Mild winter areas, for example, may require a less elaborate cover than places with long, cold weather and heavy snow accumulation. Anchors in the deck with mechanical latches are preferable to weights or bungee cord restraints.

It is best to have safety covers installed along with the construction of the pool, although they can be installed after a pool is built. Licensed and bonded pool contractors are knowledgeable in the installation and maintenance of retractable covers. These covers will often be installed to comply with local barrier code requirements, so you will have the assurance of an independent inspection of the product by the building department inspector. ●

Ask the Experts: Covers

What are the advantages of having a pool cover? Why should a consumer purchase one?

LeeAnn Donaton-Pesta, Loop-Loc

Safety, safety, safety — that is the main advantage and reason why consumers purchase a cover. Safety pool covers provide a high level of security around a pool area. They also maintain a beautiful, clean look all winter long by laying tight across the pool, allowing leaves and debris to blow off the cover.

Wes Mathis, Pool Cover Specialists

First, automatic pool covers provide effective barrier protection to help prevent unauthorized access to a swimming pool. Second, an automatic cover can help ensure an environmentally friendly pool by keeping heat in the pool, lowering costs. Third, owners may have the additional benefit of a clean pool, while using at least 70 percent less chlorine than uncovered pools. Last, an automatic cover provides the least amount of [visual] distraction to the pool environment.

John St. Clair, Coverstar

Whether it's a lake, a pool or a pond, kids are attracted to water. With safety, first and foremost, parental supervision is key, but then you need to layer on protections or backup plans, and a cover is a great backup plan. Another key element is savings. It's like sealing the pool with a Tupperware container. There's no evaporation, plus the cold rainwater, dirt and debris do not penetrate the cover. That's where the energy savings come from, and with energy costs being so high, you can see tremendous savings.

What should a consumer consider/look for when shopping for a cover?

Rick Clark, Cover-Pools Inc.

A pool owner should look for a cover that is convenient to use and certified to meet ASTM standards for safety covers. Look for a quality manufacturer with technological experience and time-tested warranties. Find a local installer or representative who is factory-trained and reputable.

LeeAnn Donaton-Pesta, Loop-Loc

It is important that a homeowner does some research. Speak with your local swimming pool professional and review online materials. Make sure the cover meets ASTM requirements and is UL approved. Before buying, a homeowner should know how the cover works and its life expectancy. Investigate the manufacturer; find out how long the company has been in business, if the company will stand behind its product and if it offers technical support. It is also important that a homeowner use a local dealer who has experience in measuring and installing safety covers.

John St. Clair, Coverstar

The reputation of cover manufacturers is very important. Are they introducing new products and are they on the cutting edge of new technology? Warranty is important, but look at what kind of warranty the manufacturer is willing to give. Are the fabric, rope and motor covered under the warranty? These are key elements that could potentially lead to service calls down the road. Are there local installation and service centers available to you? Finally, what information does the company have available to you online? For instance, tutorials on how to care for your cover, a parts catalog, etc., allowing you to search for the information yourself.

How does one maintain a pool cover?

Rick Clark, Cover-Pools Inc.

The cover fabric and mechanism should be periodically hosed off throughout the year. We also recommend an annual spring tune-up to lubricate the mechanism.

Richard Rayner, Rayner Covering Systems

For a safety cover, it's pretty easily maintained. During the winter months when the cover is on the pool constantly, there is nothing to be done. But when you take the cover off in the spring, the best thing to do is wash it down with a hose to get the chlorine off of the threads and material. Just doing that simple task will lengthen the life of a cover by four to five years.

What options do customers have for nonstandard/custom-shaped pools?

Richard Rayner, Rayner Covering Systems

We can custom-make a cover to any size, go around any obstacle. Whether it's a fountain, waterfalls, poles or handrails that don't remove, we can make a cover that would go around those without any difficulty. You can choose from five types of coloring to match the deck and stone walkways without an additional charge. Our solid covers have pumps or drain panels that you can put in to get the rainwater off the top of the cover.

Wes Mathis, Pool Cover Specialists

There are several track options for freeform pools, all designed to minimize the aesthetic distraction of the pool environment. Many pool owners have the false impression that automatic covers only work on rectangular pools. Auto covers can actually be installed on pools of just about every size and configuration and, thanks to numerous track options, automatic covers can be installed on freeform pools without detracting from the elegance of the pool environment.

John St. Clair, Coverstar

You can cover any pool if you can form two parallel lines, because we are utilizing a rectangular cover for an irregularly shaped pool. It's definitely easier to consider a cover during the construction process than after the fact because planters, slides, diving boards and ladders could potentially be in the way. But, during new construction, shape doesn't have to dictate the ability to have a cover.

What is unique about your brand of pool covers?

LeeAnn Donaton-Pesta, Loop-Loc

The key, as Bill Donaton, founder of Loop-Loc, envisioned, was to create a new type of pool cover that would allow water to drain through, rather than collect on top of the cover, since standing water on a pool cover can create a potentially dangerous drowning situation. We are proud of Loop-Loc's commitment to safety around swimming pool areas.

Rick Clark, Cover-Pools Inc.

Our durable, premium vinyl fabric is one of the most time-tested formulas in the industry and is exclusive to Cover-Pools. We also offer a comprehensive array of controls that allow automatic pool covers to work in conjunction with features, such as waterfalls and fiber-optic lighting.

Richard Rayner, Rayner Covering Systems

Our covers are the standard established as a safety cover in the original ASTM specifications. We strap the top and the bottom of the cover, both the length and the width. There are covers that strap just the bottom and not the top. Our method gives it additional strength and additional life.

Wes Mathis, Pool Cover Specialists

Pool Cover Specialists is responsible for developing numerous innovations now considered standard to the industry. Aside from that, our reputation has been built around a commitment to provide not only the best products, but also the best service.

John St. Clair, Coverstar

Coverstar does several unique things. One of them is our patented, heat-sealed webbing that runs along the side of the cover and the tracks. This webbing doesn't deteriorate or break down like some nylon webbings. Our ropes have a two-year, no-break warranty. We have two factories in the U.S., in Indiana and Utah, so our shipping times are greatly reduced. We are a company on the cutting edge for introducing new and innovative products on the marketplace.



This vinyl-lined pool built by True Blue Swimming Pools of Dix Hills, N.Y., won a silver medal in the Association of Pool & Spa Professionals' Awards of Excellence.

Pool Pumps

The workhorse of your pool has undergone a major revolution.

Let's talk physics, shall we? The affinity laws tell us a whole bunch about motors, pumps and fans. If you didn't adore science class, you likely found them in textbooks flanked by daunting terminology like "nominal speed," "shaft power" and "volumetric flow rate." But even with poor marks in high school physics, if you're shopping for a swimming pool pump, you should know that affinity laws can save you money.

"Tremendous, tremendous energy savings," says Zack Pickard, Pentair Pumps product manager, "on the order of hundreds or even thousands of watts."

The technology that makes these savings possible has existed for more than 50 years, and is used in such things as elevators and conveyor belts. And recently it's available in swimming pool pumps. The idea behind the advancement is simple: When you decrease the speed of a motor,

the amount of energy the motor needs to turn declines.

"It comes down to physics," says Scott Petty, products manager of pumps and above-ground equipment for Hayward Pool.

The affinity laws call this a cubic function. So, if a motor's speed decreases by half, the motor uses one-eighth the power. Thus, a motor that can run at more than two speeds and tailor its speed to the situation allows for significant energy savings. Stick that motor in a swimming pool pump, and the pool owner can cut his energy costs by up to 90 percent.

"Sometimes the pool pump is the largest electrical load in your house," says Jeff Farlow, program manager of energy initiatives for Pentair Aquatic Systems.

The rate of payback on a variable-speed pump varies based on utility costs, but Pickard says Pentair's variable-speed models often pay for themselves within the first year.

"I'm a skeptical person in my personal life," he says. "I'd be like, 'Come on. There has to be a catch.' But the

truth of it is, there is no catch. If anything, there are side benefits that are almost as good or compelling.”

A lower velocity of water places less stress on the equipment, leading variable-speed pumps to last longer. It also means the unit makes less noise.

“Quieter is a huge unintended benefit of this,” Farlow says. “It’s hard to sell that on the front end, but once it’s installed, you’re like, ‘Oh, my gosh.’ You get some of these homes with small lots, and often the only place to put your equipment panel is under your bedroom window.”

Furthering the case for variable-speed pumps, in February 2013 Energy Star began certifying the pumps. Managed by the U.S. Environmental Protection Agency, Energy Star is a domestic labeling program dedicated to helping individuals protect the environment through superior energy efficiency. ●

CHOOSING THE PERFECT PUMP

Your pool builder will still be the ultimate authority on pump selection. There are qualities of each type of pump that make its use appropriate for a specific application. A pump for in-floor cleaning, for example, requires high gallonage at relatively high pressure in fairly restrictive plumbing. Conversely, a waterfall pump may need high gallonage in a nonrestrictive environment, but has special needs of lifting water several feet.

Energy Efficiency

Choose a fully rated pump so it is capable of delivering maximum gallonage for each kilowatt of electrical power consumed. Team up with your builder and compare flow rates for pumps based on the restrictions of your specific pool design. This comparison will show which family of pumps is appropriate for your pool design.

Quiet Operation

Obviously, the more stealthy the pump, the more desirable it is. Odd as it may seem, this feature translates into real dollar savings when the pump can run at night without disturbing you or your neighbors. Since most parts of the country enjoy lower electric rates at night, you’re likely to see reduced electric bills this way.

Clear Lid

Using a clear lid allows you to see debris in the pump basket without removing the lid, which means you’re more likely to clean it, ensuring a more free-flowing pump.

Air Cooling Fan

Heat is not good for motors. A cooling fan helps the motor last longer.

Large Pump Basket

The bigger the basket, the more debris it can trap before starving the pump for water. As a side benefit, the pump will be easier to prime because the contained water capacity surrounding the basket is greater.

Tall Base

In areas with lots of rain or in yards with standing water, it is desirable to have the pump, and especially the motor, as high off the ground as possible.

ENERGY STAR RATINGS

As with many advanced, more efficient products, Energy Star certified pool pumps cost more to purchase. However, that incremental cost is easily recovered in energy savings in less than two years. Energy Star has created a savings calculator to make it easy for home owners to see the benefits of an Energy Star certified pool pump. The calculator is available at ENERGYSTAR.GOV/POOLPUMPS.

TOP PRODUCTS | ENERGY STAR PUMPS



Hayward Industries, Inc.

haywardindustries.com

The variable-speed Super Pump claims up to 80 percent energy savings over traditional single-speed pumps. The Super Pump can be used in new construction and as a replacement on existing pools. Not only is the pump Energy Star rated, but the programmable timers and enclosed permanent magnet motor also meet efficiency standards for Title 20 and APSP 15.



Pentair Aquatic Systems

pentairpool.com

According to Pentair, the IntelliFlo VS+SVRS pumps can reduce energy costs up to 90 percent over traditional pumps. The pump employs digital intelligence with variable-speed technology and permanent magnet motors to increase efficiency. The programmable pump also has built-in diagnostics to protect it from common problems.



Waterway Plastics

waterwayplastics.com

The Econo-Flo VSA pump from Waterway Plastics is Energy Star rated and meets Title 20 and Title 24 regulations. The user-friendly programming allows for installation and programming of additional loads, such as a booster pump or chlorine generator. It comes with an adjustable base so that it adapts to existing pool setups. The pumps pressure is testable up to 50 psi and has built-in freeze protection.



Zodiac Pool Systems

zodiacpoolsystems.com

Zodiac’s Jandy-branded ePump + SVRS pool pump has eight variable speeds. It features Jandy’s Pro Series’ Quiet Technology for smooth, quiet function. The ePump comes with many user-friendly features like a large trap basket, easy-to-read indicators and ergonomic handles. The pump is completely programmable and meets Title 20 and APSP 15 standards.



Cleaners

Maximize your me time: install a pool cleaner.

The prevailing wisdom is that a pool should take no longer to tend than the same area of landscaping. If you spend 20 minutes caring for a 20-square-foot plot in your backyard, you should spend 20 minutes caring for 20 square feet of your pool.

Years ago, they would laugh you out of the pool-supply store with that statement. During that time, homeowners cleaned pools by sweeping dirt and debris

into the main drain with a brush. This included labor-intensive sweeping of the walls, floor, steps, benches, lights and fittings. This process proved fairly effective at keeping the pool clean, but it was only as good as the skill and “elbow grease” of the person sweeping, and the frequency of the process.

Early attempts at providing automatic pool cleaning involved the use of flexible tubing with a nozzle and weights, known as wearings, which used pressurized filtered water to stir up suspended dirt; the idea was to push debris in the direction of the main drains. Known as a ‘whip’ or ‘snake,’ this tubing had an undulating and sweeping motion.

The tubing sometimes served as a source of amusement because it was prone to periodically swinging out of the water and squirting an unsuspecting guest. They also had the irritating habit of spraying nearby windows and were known to occasionally leap out of the pool and flood the yard. The first category of modern automatic pool cleaners was born from these humble beginnings.

Today, most swimming pools incorporate one of four technologically advanced cleaning systems, pressure, suction, in-floor and robotic devices that provide consistent and maintenance-free care for your pool. As a group, pool cleaners provide a vital function, enabling you to enjoy your pool and keep caring for it as simple as possible.

Pressure Cleaners

Since filtered water returns to the pool, manufacturers reasoned that this water would be useful for driving devices that would sweep the pool and vacuum leaves and debris. Some of these cleaners use separate booster pumps to add additional power to the cleaning effectiveness; they pull debris into containment areas while using tailing whips to stir up dirt. Since these cleaners operate while the

pump is running, the pool receives constant cleaning unless the homeowner removes them while the pool is in use.

Suction Cleaners

Since circulation systems draw water from the pool, some cleaners use this suction as their primary force, the thought being similar to a constantly moving main drain. As such, these cleaners travel around the pool sucking up dirt and debris. As a group, they are the least expensive type of cleaner because they do not require extra pumps. They also retrofit well by using the existing skimmer as a point of installation, but they work better with a dedicated suction line. They deposit debris directly in the pump basket.

In-Floor Cleaners

Most in-floor systems use floor-mounted cleaning heads or nozzles to inject a large volume of high pressure filtered water across the pool floor. The turbulence from this water stirs up dirt and debris so the circulation system can remove it. The intention of these systems is installation on new pools because of the extensive plumbing that runs from an actuator valve, located at or near the pool equipment, to each cleaning head. Water directed to a particular set of cleaning nozzles causes the cleaning heads to ratchet 30 degrees in order to direct water to a different place in the pool. Every 12 round-trips, a sweep of the entire pool is accomplished.

Robotic Cleaners

Robotic cleaners became popular over the years because they operate independently of the pool pump and filter. You simply take the cleaner out of the box, plug it in and most are ready to go. The cleaners either have pre-programming for the size and shape of your pool, or they automatically sense the way they should travel. Some even come with remote controls, so you can make sure all areas of the pool are clean. Robotic cleaners are incredibly energy efficient since they are powered by low-voltage electricity instead of your pool pump.

While it is a lot to consider, there are manufacturers that do an admirable job at simplifying the often mundane process of selecting pool equipment. This is mostly because a prospective pool buyer can now purchase all of his pool equipment from the same source. Consider the advantages: one-stop shopping, equipment that plays well together, and in the unlikely event your equipment requires servicing, a single source for your service needs. ●

TOP PRODUCTS POOL CLEANERS



Hayward Pool Products

PoolVac XL
hayward-pool.com

The PoolVac XL is powered by the existing circulation pump, so there's no additional expense of a booster pump. It has the AquaPilot Automatic Pre-Programmed Steering, which allows it to move in predetermined series of right and left turns to systematically provide more thorough coverage of the pool's surface area.



Pentair

Kreepy Krauly Racer
pentairpool.com

The Kreepy Krauly Racer cleaner cleans 30 percent faster than any other pressure-side cleaner. It uses one-third more cleaning power, a massive intake and a builtin rotating brush to tackle dirt and debris with ease. The Night Cruise LED Lights add intrigue after dark. Just attach the Racer to your dedicated pressure line and watch it go to work.



Paramount

PCC 2000
1paramount.com

The PCC 2000 is a self-cleaning system built right into a pool's floor. Builders install pop-up jets on the pool's floor, steps and benches which rotate to help dirt flow to a debris collection zone, also installed in pool's floor. It has the added benefit of improving water circulation, which helps save heat energy and lowers chemical usage.



Polaris

9550 Sport
polarispool.com

The 4WD 9550 Sport robotic pool cleaner features has a seven-day programmable timer, with fully customizable cleaning cycles that allows you to set it and forget it. A dirty canister indicator lets you know when it's time to empty the filter canister and the Easy Lift System brings the cleaner to the surface of the pool for you to easily remove it.



This pool renovation included a complete renovation of the pool pipes, interior, finish and the incorporation of new swim outs in the deep end. A new spa with a stone surround was added on top of Techo Bloc slab patios. Renovated by Deck and Patio Company Huntington Station, N.Y., the project won a bronze medal in the Association of Pool & Spa Professionals' Awards of Excellence.

Filters & Heaters

Geography matters when choosing the most efficient way to keep water clean and warm.

Filters

Pool filters remove dirt from pool water. They do not remove algae, algae spores, bacteria, viruses or minerals. They constitute the part of the pool equipment that involves the attention of pool owners more often than any other. The choice of filter becomes one that really should be made by the owner.

Filters come in three types: sand, diatomaceous earth (D.E.) and cartridge (modular media).

Sand Filter

These filters are suitable for households where minimal maintenance is a major factor. When sand filters become dirty, they become more restrictive to water flow, so the pressure gauge on the filter shows higher than normal

pressure. The pool owner simply reverses the water flow through the filter in a process called backwashing, and dirty water is pumped into the yard through a waste hose. When the water runs clear, the filter is put back into a normal running mode again.

Sand filters, while providing the easiest maintenance, perform filtration to approximately 60 microns, allowing some particulates other filters remove to pass by freely.

Diatomaceous Earth Filter

D.E. filters offer filtration down to five microns, meaning exceptional cleaning power. These filters offer the side-benefit of being very free-flowing, meaning the pump does not have to work hard at getting water through the filter. They are backwashed just like a sand filter, but less frequently.

When backwash water is discharged, a milky powder residue flows from the hose. This is the used D.E. powder that must be tolerated or washed into the landscape. Replace the scent powder in the filter by adding it to the skimmer. Additionally, the filter must be disassembled on

a routine basis for manual cleaning.

D.E. filters provide the best water quality of all the filters, but you must use precautions when handling the powder as it has been found to be carcinogenic. In fact, some municipalities now require that the backwash residue be disposed of, not left in the environment.

Cartridge Filters

Technical advances in the past few years make cartridge filters a very attractive choice for many pool owners. Using long-lasting elements, these filters require no backwashing. Filtration is in the 20-micron range and resistance to water flow is almost as good as a D.E. filter.

When cartridge filters require cleaning, the pressure gauge reads higher than normal. Shut off the pump, secure the circuit breaker, then remove the filter top and extract the filter. Unless otherwise instructed by your pool builder or the filter manufacturer, hose off the filter to remove dirt and soak it in detergent to remove oily deposits. Once it is thoroughly rinsed, the filter is reassembled.

Depending on pool and filter size and the amount of airborne dirt in the area, these filters may be able to run all year without cleaning. Since cartridge filters don't require routine attention, they become an attractive choice for households where annual maintenance becomes a ritual marking the beginning or end of the swimming season.

Heaters

Pool heating involves four main types of devices that have advantages for some applications, but not for others.

These types of heaters are: natural gas, propane gas (L.P.), heat pumps and solar.

Natural Gas

With relatively low-cost installation and operation, natural-gas heaters offer rapid heating times if the pool use is occasional or when the swimming season needs to be extended

by a few weeks in spring and fall. They can also be used to maintain heat throughout the year. Since natural gas heaters no longer use standing pilot lights, they are safe for residential applications and better for the environment.

Propane Gas

The use of a propane-gas heater is exactly the same as a natural gas heater in areas where natural gas is not available. With propane it is critical to ensure the propane tank corresponds to the size of the heater. Using a too-small tank can lead to icing, which will prevent the heater from operating properly, if at all.

Heat Pumps

A viable means for maintaining heat, heat pumps work well in areas that enjoy warm days and moderate nights. They do not heat water rapidly, but are effective in returning lost heat to the pool. Their big advantage is the use of free energy to do the heating, expressly heat contained in the air. The heat pump draws air in and across a collector that transfers it to pool water. Obviously, the warmer the air the more heat it contains, and the more efficiently the unit runs, so it will perform better in October than January.

Solar

Upon installation of a solar heating system, a pool owner receives virtually free energy. The only expense is the cost to run a small recirculation pump. The system draws water from the pool, runs it through a series of solar collectors and returns it, heated, to the pool. This type of system works well for families who want to extend their swim season to include all warm and sunny days. Most homeowners in the Sun Belt can use a pool equipped with a properly engineered solar system in November and March. Some years, they may even work in December and February. ●

TYPES OF FILTERS

The type of filter on your pool will determine how often and what kind of maintenance it will need. These offerings from Hayward are great examples of what is on the market. Check HAYWARD-POOL.COM to see all its latest models.



VL Series

A pump/sand filter combo made for above-ground pools.



SwimClear and Pro-Grid

The SwimClear cartridge filter requires no backwashing. The Pro-Grid D.E. filter is designed for easy servicing.



ProSeries

The Pro-Series sand filter can work with any type of pool layout and cleaning systems.



Saltwater

A popular option for water care, be sure you understand how to properly care for a salt chlorinator.

The first time you heard the words “saltwater pool,” it’s possible you imagined a mini-ocean in your backyard; in fact, the salt content in a saltwater pool is far lower than even that of a human teardrop.

Just like the ocean, saltwater pool water feels very different on your skin and eyes. While a standard chlorine pool without proper chemical balance can cause dry skin and red eyes, a saltwater pool makes skin feel soft and refreshed. The odor and irritation some people experience in common pools is not from chlorine, but from the chloramines that result from additives in manufactured chlorine reacting to sweat, oil and other solutions. A saltwater chlorinator produces 100 percent pure chlorine, so these byproducts do not exist.

The benefits don’t stop there. Saltwater chlorinators, also called chlorine generators, are easy to install, environmentally friendly and simple to operate. Most units are plumbed right into the filter of your existing system. The system delivers a consistent level of chlorine directly to the pool, so the need to purchase and transport pool chemicals is eliminated. Since the system continuously reuses the salt and generates chlorine naturally, there are no chemicals to flush and virtually no impact on the environment.

According to industry statistics, just five years ago fewer than 250,000 saltwater pools existed in the United States. Today, there are more than 1.3 million and counting. Some reports estimate 70 percent of all new pools have

a saltwater system. These systems can be used on both above-ground and in-ground pools, with above-ground pools using a smaller saltwater generator. How do these systems work? How are they maintained? And what is the driving force behind the recent boom? Why is there no salty taste? And why does the water feel so smooth and silky?

It’s all about chemistry. The ocean has a salt concentration between 31,000 and 35,000 parts per million. A human teardrop is about 7,200ppm. The ideal level for a saltwater sanitized pool is between 2,000 and 4,000ppm, with salt content equivalent to one teaspoon per gallon of water — not enough to taste or dry out your skin, but enough to kill bacteria, viruses and algae.

The way it works is simple. There are two main components of a saltwater chlorinator: the electrolytic power cell and the power generator. With the majority of systems, salt is added to the pool water in the form of crystals — similar to water softener or table salt. Once the salty water passes through the electrolytic cell, a small charge from the power generator separates the salt (sodium chloride) into pure chlorine gas, hydrogen and a small dose of ozone. The chlorine gas dissolves into the water, sanitizing the pool. When the chlorine finishes its job, it reverts into salt and the process begins again.

Because it recycles, very little replenishing of the salt is necessary after the initial dose. Usually, only splashing, water evaporation and rainwater dilution result in lost salt content, incurring a replacement cost of \$10 to \$20 per year.

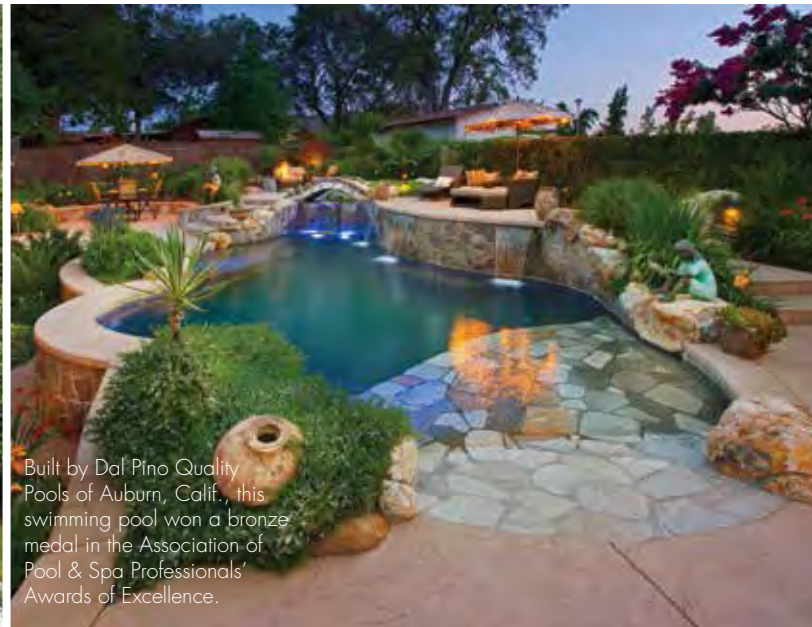
Chlorine generators lessen the amount of daily maintenance and testing needed, but do not eliminate maintenance altogether. Owners should still monitor the chlorine, pH, alkalinity and stabilizer regularly, as these levels still have an impact on the effectiveness of the system. In addition, owners should test the salt content at least twice per year.

As with any pool, bather load and/or heavy rain could require shocking the water, known as ‘superchlorinating’ in a saltwater system. Most units have a superchlorination button right on the control panel. Other models will automatically superchlorinate when the system senses the balance is off.

The cost of water maintenance on a saltwater pool is significantly less than other methods because of the recycled chlorine. Pool owners will usually break even on maintenance costs in as little as two years. But while the cost to maintain the water is lower, saltwater is corrosive and can sometimes cause problems with the other pool equipment. Maintaining proper water balance and regularly cleaning your pool equipment, should help lessen this risk. ●



Built by Caribbean Blue Pools & Spas of Pompton Plains, N.J., the slide goes from the first to second level of the pool. This design won a gold medal in the Association of Pool & Spa Professionals' Awards of Excellence.



Built by Dal Pino Quality Pools of Auburn, Calif., this swimming pool won a bronze medal in the Association of Pool & Spa Professionals' Awards of Excellence.

Don't Forget, This is Fun!

You want a pool that is built correctly, but be sure to think about features that are purely for your pleasure.

You want to get the most enjoyment possible out of your new pool, so think about how it will fit into your lifestyle.

AROUND THE POOL

You may not picture yourself swimming in your pool, well, much at all. Mike Giovanone, owner of Concord Pools in Latham, N.Y., says the owner of one of the most high-end installations his company has ever done doesn't use the pool very often.

"He said, 'You know, I haven't been in the pool for probably a year, but I spend at least two hours a day, my quiet time while I'm doing my thinking, outside next to the pool,' " Giovanone says.

If your swimming pool will serve as a place to relax and entertain next to, not necessarily in, consider water and fire features that will enhance your backyard landscape. You may even want to think about showpiece pool designs such as a vanishing edge, deck-level overflows or elevated perimeter overflows.

Most pool builders offer much more than pool design. They can often help you design and build your entire backyard. In addition, things like outdoor kitchens, fire pits and decks can help create the perfect outdoor living space.

"What's around the pool is just as important as what's in the pool," Giovanone says. "We don't want this yard

to be used only on 90-degree sunny days; we want it to be used to sit around the fire pit, around the BBQ, around the outside kitchens or the swimming pool. We want it to be a complete environment for family fun, entertaining and peace of mind."

IN THE POOL

Chris Cipriano, president of Cipriano Landscape Design and Custom Swimming Pools in Mahwah, N.J., says it's important for a swimming pool to be both fun and functional. One of the most popular options his clients choose is a sun shelf, which is a very shallow raised section or entry point to the pool.

"It's great because the mother can be in the water with a young child," Cipriano says. "Once the children become teenagers, they put the lounge chairs and the beach chairs in that area. Adults tend to sit on a chaise lounge reading a book with their feet in the water, watching the rest of the family enjoy other aspects of the pool."

Another sought-after feature are water slides. But these days, slides don't have to be the eyesore bolted onto the pool deck that they were in years past. Slides can be integrated into the surrounding landscape or covered with rock so as to enhance, not detract from, the overall look of the backyard.

"Everybody loves the slides," Cipriano says, "and what's critical is how they integrate into the pool. We want to know what the entry point into the water is, how the kids are coming out of the water, how they're getting back to the slide and how it relates to the adults. You don't want kids running through the adult area to get to the slide. You want to make it aesthetically pleasing, functional and interact with the other goals of the pool." ●



Clean Sweep

Routine upkeep will
keep your pool
beautiful and tidy

Adhering to a maintenance schedule and caring for your pool equipment will save you time and money over the life of your swimming pool.

REGULAR MAINTENANCE

Preventing problems with your pool equipment can be as simple as keeping your pool clean. As needed, use a skimmer to remove dirt and debris floating in your pool, and empty your strainer basket at least once a week to prevent clogging. You should also check the strainer basket of your pump every three to six weeks; many pumps have clear plastic covering the strainer basket so you can see if debris is filling it up.

If leaves or debris too large for your automatic cleaner settle on the bottom of your pool, use a pool vacuum to suck it out. This is a good time to brush the sides of your pool to remove any dirt that's stuck, which should be done once a week.

Your filter also requires routine maintenance (read more about filters on page 52). Backwash sand and D.E. filters regularly. Not backwashing your filter will cause it to work less efficiently — you may not get enough water flow for your cleaner to move or your in-floor cleaner heads may not pop up all the way.

You should backwash your filter every two to four weeks during the swim season and every three to five weeks during the offseason. If the PSI reaches 10 above its starting point on your filter, it's time to backwash even if you've done it recently. Always check with the manufacturer of your filter or your builder to see how often they recommend a backwash.

"The maintenance [on a sand filter] is more of an as-needed basis," says certified service professional Steve Ravizza, proprietor of Arizona-based Lake Tahoe Pools. "Sand filters filter better when they have a little dirt in them. All filters have a pressure gauge, and as pressure increases that means the filter is getting dirty. When it increases past a certain point, it's time to backwash and clean it and pick your flow back up."

Every pool's base PSI will be different. You can determine what it is by cleaning all of the debris out of the pool, making sure all skimmer baskets are empty and backwashing the filter. When you turn the pump on, the reading on the pressure gauge will be your baseline PSI.

Eventually you will need to replace the sand in your sand filter, typically every three to five years. A professional should break down and clean your D.E. filter about once a year. Some states require a separation tank to catch the backwash water coming from a D.E. filter, but if you backwash it onto the ground, be careful not to let you or your pets breathe in the powder.

If you have a cartridge filter on your pool, you won't need to backwash. However, you must take the filters out and clean them every three to six months, depending on the size of your pool and filtering system. Cleaning the filters usually involves hosing off any dirt and debris. Soak the filter in a cleaning solution recommended by your manufacturer. Again, check with your builder and filter manufacturer to find out the best cleaning schedule, cleaning method and cleansing solution for your particular model.

"All cartridge filters come apart a little bit differently," Ravizza says. "The common way is shutting down the system via the main pump, opening up the air release valve on top of the filter on the pressure gauge and then disassembling the filter and removing the cartridges and hosing them off individually. And reversing the process to get yourself back up and running."

Most manufacturers and builders recommend having two filters that you can rotate — one filtering the pool while cleansing the other. This increases the life of the filters and you'll always have a clean filter on hand. How long a filter will last depends on how you maintain it, how often and how many people use your pool and how much dirt it has to filter on a regular basis. Replace your filter when the time between cleanings becomes shorter; the flow rate becomes low and the differential pressure is high; or if the filter tears or rips.

OPENING/CLOSING

You will need to do several things to prepare your pool for the cold months.

"In areas where you have a hard freeze, you drain the water below all the pipe openings so all the underground pipes can drain," Ravizza says. Some equipment will need plugging. Add algaecides to the remaining water and then cover the pool.

Different areas will have specific needs for a proper pool closing, so be sure to ask a local builder or maintenance professional.

To open your pool for the summer, reverse all processes done for closing. Have your filter serviced, refill the pool with water and have it treated to return it to usable condition.

MAINTAINING THE WATER

"I would say the most common problem that homeowners have is water chemistry," Ravizza says.

Water care doesn't have to be complicated, but you do need to be diligent, Ravizza says.

"It's no different from a guy who wants to tune up the engine on a car to save money from taking it to the shop. You've got to know all the little stuff, the fine-tuning," he says. "It's not just putting tablets in it and going about your day. I do repairs for people who we don't do service for, and the pools are quite old but in really good shape and are taken care of solely by the owner."

Not maintaining your water can lead to extra maintenance on heaters, filters and the interior surface of the pool.

"The water may be clear, it's healthy to swim in, but you end up resurfacing your pool or really taking the value out of the pool by not watching the water chemistry," Ravizza says. "I can get plaster to last 10 to sometimes as many as 15 years and not look bad. Someone who's [resurfacing their pool] at five years saves a lot of money on service [by doing it themselves], but that money would've saved their plaster and returned a lot more repair money."

HIRING A PRO

"Water maintenance isn't hard, provided you actually do it," says Matt Rozeski, owner of Penguin Pools in Wisconsin. "For us to come out and clean and maintain your pool is only \$65 a week. People pay that for lawn service, why not for your pool?"

There are many reputable companies that offer weekly water chemistry and pool maintenance

services. Ravizza encourages people who want to hire a professional to do their homework.

"Make sure that they're licensed for the work they do and their reputation is clean," Ravizza says. "Interview two or three and judge their level of knowledge. There are plenty of nice people who really don't know the business very well."

Be sure you are comfortable with how they communicate with you. Most good companies will leave service slips to indicate they've stopped by. While it's smart to shop around, keep in mind the lowest-priced company will not always save you money in the long run. ●



TOP PRODUCTS FILTERS



Pleatco
877-293-0139
pleatco.com

Pleatco's new Pleatco Advanced filter fabric has more fibers per unit area than an average filter, reducing the pore size distribution and capturing dirt particles easily. A pool professional can help you find the correct cartridge filter for your swimming pool.



Unicel
800-345-6650
unicelfilters.com

Unicel makes replacement filter cartridges for swimming pools. While Unicel does not sell directly to consumers, you can search for the filter you need on its website, and the company will put you in contact with a local professional you can purchase it from.

TRADECERTIFIED™

To find a reputable company to do your pool service check out the list of TradeCertified™ service professionals on page 60.



Swimming for Your Health

HOW LEARNING TO SWIM (AND STICKING WITH IT) CAN CHANGE YOUR OVERALL WELL-BEING.

BY ROCHELLE BELSITO

Swimming is a water-based aerobic exercise that you can participate in throughout your entire life.

It has many health benefits and various scientific studies have shown that swimming positively impacts the body. Nonetheless, in order to reap these benefits one must first learn how to swim.

Learning how to swim can be a fun and invigorating activity, and it also can make you water safe. Age does not matter when learning how to swim. It is suggested for infants and young children to take lessons at a well-known institute, while adults can enroll in private or semi-private classes at these same facilities.

According to Pat Hogan, managing director for club development at USA Swimming, infants can become water safe between six and 12 months. By that age, they should be able to float on their backs and get themselves to the edge of the water receptacle (i.e. pool or bathtub). It is important to supervise children while they are in water and, depending on their age, an adult should stay next to the child in the water. Hogan notes, “It is probably about age three that most kids get to the point where they have the coordination and development to actually learn how to swim.”

However, to become a confident swimmer, you need to practice. “With any skill you learn for the first time, you’re doing it at a conscious level. As you practice and develop those skills and they become automatic and something you don’t have to think about at the conscious level, that’s when you get comfortable and that’s when you are safest in the water,” Hogan says.

Mel Goldstein, director of club development and coaches services at US Masters Swimming, adds in an e-mail, “Building confidence comes with learning how to swim with proper technique; understanding the physics of the water and your body [and] knowing that air in your lungs and in your body actually keeps you afloat.”

SWIMMING FOR EXERCISE

Swimming is a workout that engages almost every muscle in the body. USA Swimming National Team Performance Support Consultant Dan McCarthy states, “Every single stroke is a full-body exercise, the more proficient and the better you are at a given stroke and the easier you move through the water...the more that you’re connected from top to bottom.” This is important because swimming with your entire body should give you a more effective workout.

Regardless, the four strokes – freestyle, breaststroke, backstroke and butterfly – have a different muscle group that is engaged more dominantly when performing. According to McCarthy, freestyle, butterfly and backstroke are more upper body strokes while breaststroke focuses on the lower body. For the upper body, the trapezoids, back muscles, pectorals and other upper body areas tend to be exercised more often while the lower body uses the quadriceps, hamstrings, hip flexors along with others, particularly between the mid-section and the knees. The butterfly also predominantly works the lower back muscles.

While many people that swim for exercise are interested

in speed and distance, it is important to recognize that all strokes are beneficial. “I don’t know that any stroke is better than any other stroke,” states Professor Joel Stager, Ph.D. from the Department of Kinesiology at Indiana University Bloomington. “You can obviously travel greater distances freestyle, but I am not sure that distance is the best measure of the benefit of the workout. Some of the other strokes require greater technical or stroke finesse maybe more so than freestyle.” Improving your technical abilities for each stroke comes with practice and it may help to work your arms and legs separately; however, do not solely focus on one area since you may become fatigued faster.

HEALTH BENEFITS

Jim Miller, immediate past president of US Master Swimming states, “Aerobic fitness, regardless of the type, improves cardiovascular health, raises HDL cholesterol (good cholesterol), heightens the immune system and improves metabolic rate. Improvement in metabolism helps with weight control, which in turn has benefits in the fight against hypertension, diabetes and a host of other common diseases.”

Along with helping the body from an aerobic respect, swimming builds muscle mass – something that Stager has studied for a number of years. “Our data basically shows that regardless of the age, people who swim have a greater muscle mass as opposed to people who are in a general population and that’s important and that becomes more important the older you get,” he says. “There’s a scientific term, sarcopenia, which is the gradual loss of muscles affiliated with age. Swimming has been shown to retard the loss of muscle mass virtually independent of age, so that is pretty important.” Since swimming can help reduce the loss of muscle mass, you may have the ability to stay more active in the later years of life as well as maintain your health.

If you suffer from chronic pain, swimming may be your answer as water relieves the stress on muscles and joints. In water, humans weigh one-tenth of their actual body weight and, therefore, exercise can cause less strain. The buoyancy of the water also helps since it lets you glide across the surface rather than remain with your feet planted on the ground. In the long run, this could be beneficial for them.

Miller, who also serves as a physician for the USA Swimming National Team, notes, “It is also significant that the [individual] is suspended in water. This makes

involved. Many athletes find the water to be a very kind environment if they have arthritis or have suffered losses due to a stroke or any impairment that may affect balance.”

BEYOND THE LANES

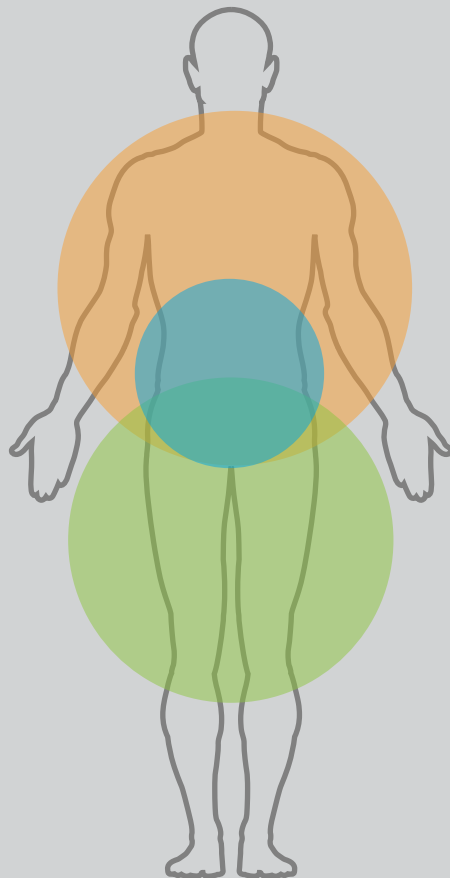
There are many sports and recreational activities that someone can take up once they know how to swim. Besides the obvious – swimming – an individual can participate in synchronized swimming, diving, water skiing, jet skiing, water polo, kayaking, canoeing, boating or triathlons, to name a few.

Since water may be therapeutic for pain, if someone knows how to swim and they participate in any physical activity, they might be able to use the water for reconditioning. For example, if a runner suffers a knee injury or a sprain they can continue practicing in the water since there is buoyancy. Since we weigh less in

water, there becomes less pressure when we run against the floor of a pool. Or there can be floating activities done such as treading water that can strengthen areas that are hard to workout outside of the pool.

Swimming is an activity that you can participate in at any age. It is one that may develop muscles and improve health while soothing aches and pains. So, while swimming may seem like it is just a sport, there are many other valuable traits to learning how to swim and becoming a swimmer. McCarthy says, “You’ll always be able to swim for your health and the health benefits that come with it. There are very few other sports that fall into that category.” ●

Please consult with your doctor before beginning any new water workout or rehabilitation regime.



Work Out Your Troublespots

When you swim, you engage your entire body. However, each of the four strokes – freestyle, breaststroke, backstroke and butterfly – work particular muscle groups more intensely than others.

FOR YOUR UPPER BODY:

According to McCarthy, freestyle, butterfly and backstroke utilize the upper body more often including the trapezoids, back muscles and pectorals.

FOR YOUR CORE:

The butterfly stroke uses the abdominal and the lower back muscles more frequently than the other strokes, so it is important to have a strong core.

FOR YOUR LOWER BODY:

The breaststroke focuses on the lower body – the quadriceps, hamstrings and hip flexors among others.



Safety First

Take these steps to prevent accidents in your new pool.

SWIMMING POOLS today offer a variety of high-tech, visually appealing safety features. Some of these things may even be required by your local code authority.

Adult supervision is the only truly effective way to prevent a child drowning. A responsible adult should never take his or her eyes off a child whenever they are near, or could get near, a body of water. Unfortunately, most accidents occur when there is a break in supervision, even a short one. That is why safety experts and the Association of Pool & Spa Professionals widely embrace layers of protection for pools and spas.

When paired with supervision, layers of protection equips the pool or spa with several devices to delay a child's unsupervised access, or warn of the child's presence. Studies show that children are most at risk in their own backyard, when parents believe the young ones are safely inside the house. Therefore, these layers should aim at protecting the area between the house and the pool.

BARRIERS

Traditional layers of protection include permanent fences with self-closing and self-latching gates, removable mesh barriers, pool covers and pool alarms, including alarms on doors and windows leading to the pool.

Many experts believe it's imperative to install a barrier around the entire pool to block every method a child may have to gain access to the pool, such as with a simple fence. A safety

fence should be at least four feet high and no more than four inches off the ground, with any spaces or gaps no longer than four inches wide. Because many states have fencing codes, check with local officials about the specific laws and guidelines in your area.

No matter what form of fencing you choose, the area adjacent to the outside of the barrier should be free of objects — such as chairs, tables and tree branches — that may tempt a child to climb over the fence.

COVERS

A pool safety cover is an impenetrable covering that completely encases the pool, blocking access to water. While there are many types of covers for swimming pools, not all are safety covers.

Types of safety pool covers include a manual anchored system, a manual tracked system and an automatic cover. According to ASTM Standard F1346-91, a cover must hold a minimum of 485 pounds per five square feet to qualify as a safety device — the weight of approximately two adults and a child. The standard also requires the quick removal of accumulated water on the cover, as children can drown in just inches of water.

For a more in-depth article on pool covers, see page 44.

ALARMS

A pool alarm can act as an additional layer of protection in residential pools. Generally there are four types of alarms for swimming pools: surface, perimeter, underwater alarms and alarms that are affixed to the child.

Surface alarms trigger when the alarm's electronic sensor detects waves or ripples on the water surface. In an effort to minimize false alarms, the ASTM says water alarms must sound when a minimum of 18 pounds hits the water.

A perimeter alarm creates an invisible laser beam around the pool. If the beam is broken, an alarm will sound at the pool. Many perimeter laser alarms also offer an optional unit that will sound inside or on your phone as well.

Underwater alarms detect movement under the water's surface. A transmitter sends out underwater sonar waves. The alarm sounds if there is an interruption in rebounding waves.

Similar to burglar alarms, gate, door and window alarms for pools go off when someone enters the pool area, or when a door or window near the pool opens. Additionally, install wireless alarms that sense heat and movement.

While pool alarm systems can be effective at catching a curious toddler, these designs are not immune to a false alarm. Use pool alarms with other methods of protection to be doubly sure your child is safe. Since pool alarms rely on a responsible party to activate and monitor them, they can never be relied upon as a substitute for adult supervision. ●

POOL SAFELY

To learn more about how to enjoy your swimming pool safely visit POOLSAFELY.COM.



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For years we have helped direct people to quality hot tub manufacturers through our certified endorsement award. Now we have expanded that independent, audited endorsement to include local builders, dealers and service professionals. But being a Certified Pool Builder means more than just being able to slap a sticker on the front door. The retailers who win this award have to adhere to a strict set of criteria, criteria that ensures that someone who buys a swimming pool from these retailers has selected the best builder in their local market.

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THEY'VE STOOD THE TEST OF TIME.

We've heard the sad tales during this economic downturn of people buying goods from retailers who had to close their doors before making good on all of their promises. Not only do Certified Pool Builders have to be in business for a certain number of years in order to be considered for the award, but also their affiliation with this endorsement as well as other required national and local trade and business groups exhibit their devotion to their customers, the hot tub industry and local community.

THEY ARE COMMITTED TO THEIR CUSTOMERS.

In order to become a Certified Pool Builder, pool builders must have a proven track record of customer satisfaction. Through written testimonials and a customer satisfaction survey, *Poolsearch* makes sure that customer happiness isn't just lip service. Certified winners must also sign and adhere to a Customer Bill of Rights which outlines how all customers should be treated before, after and during a hot tub sale.

THEY KNOW WHAT THEY'RE DOING.

Certified winners must engage in a certain number of education hours for their employees, which means that from the sales team to the service technicians, you should be in good hands. Their service department must also meet standards set forth by various industry organizations or local state licensing to qualify for the award. Beyond that, Certified Pool Builders must sell a superior product – a Poolsearch or Spasearch Certified manufacturer.

CUSTOMER BILL OF RIGHTS

Preamble

Our goal is to serve you, the consumer, in a manner that speaks to the way we all would like to be treated: with honesty, fairness, respect and openness. While we certainly do this "behind the scenes," we feel it is important to specifically and openly address these issues that show our deep-seated commitment to you. To that end, we subscribe to the Poolsearch Certified™ Pool Builder standards and Consumer Bill of Rights, a rigorous guide established to ensure your purchase, ownership and service experience meets and exceeds your expectations.

Sales

- A friendly, non-aggressive and courteous sales environment
- A considerate and knowledgeable professional consultant
- Truthful and accurate marketing materials
- The opportunity to privately wet test a product prior to purchase
- A complete explanation of all costs associated with purchase
- A full and confidential discussion of payment/financing options

Delivery

- Timely and prompt delivery and/or installation
- Thorough on-site inspection and testing of all products delivered
- A comprehensive discussion related to the maintenance and recommended service schedules

- An understandable explanation and written copies of warranties on all products sold

Facilities

- Clean, well-maintained and appealing showroom facilities
- Private, sanitary wet test facilities
- A variety of well-stocked product lines that enhance the ownership experience
- Convenient operating hours, with after-hour appointments available if necessary

Service

- Timely, scheduled and prompt service calls
- A professional technician who is easily identifiable and shows identification upon request
- A full explanation of your service/maintenance issues, including estimated time and costs to complete

- Your approval of charges prior to work being started
- A complete description of all work performed and an itemized list of applicable charges

Satisfaction

- Our pledge to always act in good faith
- Our commitment to the highest standards of ethics and integrity
- Our belief in honest and fair treatment for every customer, without discrimination
- Our passion to provide timely and accurate responses to inquiries and requests
- Our dedication to maintaining customer records with the utmost care in privacy and confidentiality

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