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Planning Section
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Search Keyword: Planning

The Endless Pool® Planning Guide

Design
Installation
Location
Water Depth
Deeper Pools
Accessibility
Configurations
Sizes
Equipment
Electrical
Options
Cost Control

PRODUCT INFORMATION

Endless Pools, Inc. provides a wealth of material for every aspect of an Endless Pool® project. This booklet, The Endless Pool Planning Guide assists in planning both the pool and equipment locations and the installation process. We review how to choose the appropriate water depth and pool configuration and at the same time ensure easy access to the pool. The more technical options are discussed and illustrated in detail. Please review our Options booklet for our complete range of available options. Finally, we summarize the steps customers can take to control the cost of pool installation and operation. This booklet should be used in conjunction with our other introductory and technical information. If you are missing any of the materials listed below, please call Endless Pools® at 800.732.8660 to request your own copy. Information and PDF files are also available online at www.endlesspools.com, search keyword: PDF.

INTRODUCTORY MATERIAL

An Introduction to the Endless Pool

A color brochure introducing what the Endless Pool is and how it works. This booklet also summarizes the technical aspects of an Endless Pool project.

Endless Pool Price List

This provides current pricing for the standard system, options and accessories, as well as the terms and conditions of sale.

Options Booklet

A color booklet showing the options available for you to completely customize your pool to fit your needs. From pool size to access options to our Retractable Security Cover, and many others, the Options Booklet can help you put together the pool of your dreams.

Finish Choices

A listing of finish materials available for the Endless Pool. This 8-page color booklet includes Retractable Security Cover fabric color options, Aluminum Coping, Synthetic Coping, Bullnose and Wood Receiver Coping samples, drawings and explanations.

TECHNICAL MATERIAL

Technical Specifications

This booklet provides over 30 detailed drawings of the basic components of the Endless Pool, alternate configurations, section details, anchoring details, finishing details, options and specialty details. This booklet is a must for those concerned with technical aspects of the Endless Pool project.

Pool Layout Kit

A handy vellum sketch pad with pool templates to help you make a drawing of your pool site.

Installation Instructions

An easy to follow pictorial guide to help install your Endless Pool. Designed to be used in conjunction with the Endless Pool's Owner's Manual and Full Length Installation DVD.

Endless Pool Owner's Manual

Our manual discussing pool installation in thorough detail. Product literature on each of the pool components is also included.

Customer Welcome Kit

A comprehensive collection of Endless Pool documentation, complete with actual sampler used to make final finish choices and installation plans.

AVAILABLE VIDEOS These programs are on our DVD's.

Introduction to the Endless Pool

Our benchmark video explaining the Endless Pool, with testimonials from customers.

Endless Pool Planning DVD

Our new Planning DVD features an expanded planning section with detailed information on both indoor and outdoor installations. Utilizing customer interviews, animations, photographs of completed pools and walk-through's of several projects the video touches on the most important planning details and provides suggestions, tips and advice on how to plan for your own pool. This DVD is a must for those trying to decide where and how to install their pool.

Finding Comfort Swimming

Terry Laughlin, founder of "Total Immersion" guides you through some of the basic "Total Immersion" techniques in an Endless Pool.

Endless Pool Triathlon

This video filmed at the Hawaii Ironman features interviews with triathletes who train in their personal Endless Pool as well as first time users.

Extreme Makeover: Home Edition

Endless Pools installed an outdoor pool for Robert, a quadriplegic as a result of a devastating car accident. The finished pool provides a therapeutic oasis for Robert and the entire family with fun, relaxation and exercise.

Gallery of Pools

A sampling of photographs received from our customers. It also provides useful planning and installation tips.

Endless Pool Full-Length Installation

This video begins with an overview and goes on to provide in-depth instruction; it should be viewed prior to and during installation.

PT Video

Physical therapy pools for hospitals and clinics are introduced in this video. Segments showing water running and aquatic aerobics are included.

Garage Installation

This video shows the transformation of a garage into a "year 'round, indoor aqua center in only 2 days as seen on Michael Holigan's Your New House program.

A 5-Minute Installation

Using time-lapse video, a full day install of a pool in a garage is compressed into a 5-minute segment.

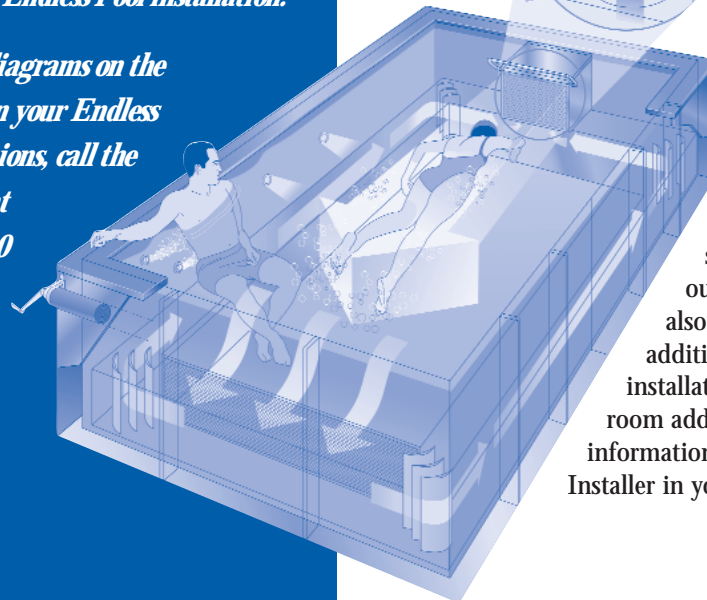
Contents

| | |
|------------------------------------|----|
| Design and Installation Assistance | 1 |
| Choosing a Location | 2 |
| Put a Pool in a Basement? | 3 |
| Water Depth | 4 |
| Planning for your Deeper Pool | 5 |
| Accessibility | 6 |
| Available Sizes | 7 |
| Endless Pool Configurations | 8 |
| Equipment Siting | 10 |
| Access After Installation | 11 |
| Electrical Requirements | 12 |
| Options | 13 |
| Controlling Costs | 17 |

The Endless Pool Planning Guide will review where your Endless Pool might be installed, different uses for your pool, and the options and configuration best suited to your needs and your site.

The Planning Guide explores why different pool sizes and depths are useful, and what installation and maintenance procedures are most economical. Other factors that should be considered to insure that your installation goes smoothly will also be highlighted. This guide should be used together with our Technical Specifications and other materials listed opposite to assist you in planning your Endless Pool installation.

Please use the advice and diagrams on the following pages to help plan your Endless Pool. If you have any questions, call the Endless Pools design staff at 800.732.8660 between 8:00 am and 8:00 pm ET. (8:00 am – 5:00 pm on Fridays)



DESIGN AND INSTALLATION ASSISTANCE

Endless Pools, Inc. (EPI) recognizes the issues that customers face in their efforts to swim at home. Our design professionals are available to assist you throughout the design and installation process.

When you are ready, please send us a sketch of the proposed pool site. We may be able to offer assistance on accessibility, location of pool equipment and other technical matters.

Many Endless Pool® customers, particularly those building new homes or home additions, utilize the services of design professionals such as architects, contractors and builders. This Planning Guide will help these professionals design the most appropriate pool installation for your budget and needs. The Guide should be reviewed with the complementary EPI literature and instructional videos listed on the opposite page.

Having sold over 10,000 pools in the last 20 years throughout North America and abroad, EPI knows that most general contractors and carpenters are capable of assembling the Endless Pool with the assistance of our detailed videos and instructions. Encourage them to contact us directly at 800.732.8660 with any questions they may have. It would be helpful if they could tell us your Customer Identification Number or your name and zip code when they call so that we can associate them with your project.

Over the years, many customers have asked us to recommend contractors with experience installing the Endless Pool. In response, we have created a nationwide network of Factory Trained Installers. Installers from around the country, and the United Kingdom, have come to our factory to learn the latest installation techniques. For a set fee a Factory Trained Installer will perform a basic installation that will have you swimming in no time. Many of our Factory Trained Installers are also qualified tradesmen who can, for additional fees, complete more involved installations, from finish work to whole room additions. Call us for additional information and to find a Factory Trained Installer in your area.

CHOOSING A LOCATION FOR YOUR ENDLESS POOL®

The unique design of the Endless Pool allows the pool to be located indoors or outdoors, aboveground or in-ground, in an existing ground floor room or in a new space. Some typical locations are shown in the table below.

| | INDOORS | OUTDOORS |
|----------------|---|---|
| Existing Space | <ul style="list-style-type: none"> • Basement • Garage • Family Room • Other Ground Floor Room • Home Gym | <ul style="list-style-type: none"> • Deck • Patio • Carport • Porch (enclosed now or later) • Garden |
| New Space | <ul style="list-style-type: none"> • Refinished Basement • Converted Garage • Sunroom • Greenhouse • Master Bathroom Suite | <ul style="list-style-type: none"> • New Landscaping • New Outdoor Space (with possible future enclosure) |

INDOOR INSTALLATION CONSIDERATIONS

Pool weight should be considered when selecting a site. When filled with water, the standard Endless Pool exerts an evenly distributed load of about 200 lbs/sq.ft. (90.7 kg/m²) with a total weight of about 10 tons (9071.8 kg). Concrete floors on grade can generally support this weight without issue. Please discuss any concerns you may have with your design professional and the EPI staff.

Endless Pools are most easily installed in a ground-floor room. Locations above ground floor require the review of a professional engineer to ensure that the upper-floor room has the structural integrity to support the weight of an Endless Pool.

Pools placed in existing rooms are usually installed above-ground, avoiding the need to excavate. The Endless Pool can be installed against a wall or in a corner of a room. EPI recommends a minimum ceiling height of 7' (213.4 cm) for rooms with aboveground pools. In some cases, it may make

sense to break through the existing floor to provide for a partial or in-ground installation, particularly if the user desires an optional deeper pool (pp. 4 and 5). Other customers have built surrounds for their pools to make the pool appear in-ground (p.8, #2 and #3).

The optional automatic or manual retractable security cover (p.14) can control 90% of the pool's humidity when the pool is not in use. Humidity is an issue only when the pool blanket (standard with every pool) or optional security cover is removed and the pool is in use. If the pool is used less than one hour a day, moisture can generally be controlled by a simple room dehumidifier, available at department stores, by a window vent fan, or by both. Some customers utilize more sophisticated commercial-grade systems, but our experience has been that a room dehumidifier is usually sufficient as long as the pool is kept covered when not in use. Please be sure to watch the humidity animation on the Planning DVD which further explains humidity considerations with an Endless Pool.

EPI highly recommends that both the pool and Water Quality System be located near a floor drain or that a sump pump be installed—necessary precautions for a 2500 gallon body of water (9,463 liters). In addition, the area surrounding the pool should be protected and appropriate floor and wall covering materials installed.

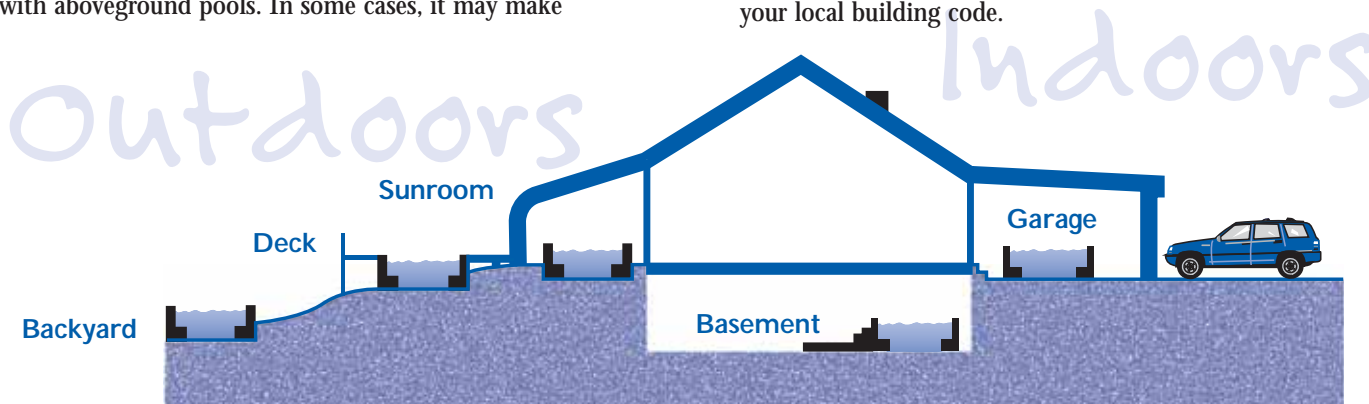
OUTDOOR INSTALLATION CONSIDERATIONS

In colder climates, outdoor Endless Pools are usually closed during the coldest winter months. The pool can, however, be super-insulated and used year-round.

To save on heating costs, customers with outdoor pools often utilize an optional gas heater (p.15) instead of the standard electric heater.

EPI strongly recommends that outdoor installations include the optional automatic or manual retractable security cover to keep out debris and leaves, reduce heat loss, and restrict unwanted access to the pool. Either outdoor cover comes with a pump to remove puddles of rain water that may pose a hazard to children or pets.

Both the automatic and manual security covers meet stringent ASTM F1346 safety standards and in some municipalities eliminates the need for additional fencing. Please check with your local building code.



PUT A POOL IN A BASEMENT OR A GARAGE?

At first glance, a basement or a garage may seem like a strange place to swim. But many of our customers have discovered that existing ground floor spaces offer excellent locations for an Endless Pool®.

Basements

- A basement provides a winterized, accessible, year-round space.
- Concrete-floor basements offer the ideal structural support for an aboveground pool.
- The standard Endless Pool can be installed free standing and above ground. The pool stands 3'6" (42" [106.7 cm]) high, with approximately 2" (5.1 cm) more of coping. It can fit easily in a room with a ceiling height as low as 7' (213.4 cm). There is no need to break through the floor.

Garages

- An Endless Pool fits easily in half of a two-car garage.
- The pool can be installed against a wall or in a corner. Access to the sides of the pool following installation is not required except to any panels where optional jets, lights or retractable security cover are located.
- Since the Endless Pool can be well insulated with rigid foam and an optional security cover, the garage need not be heated.

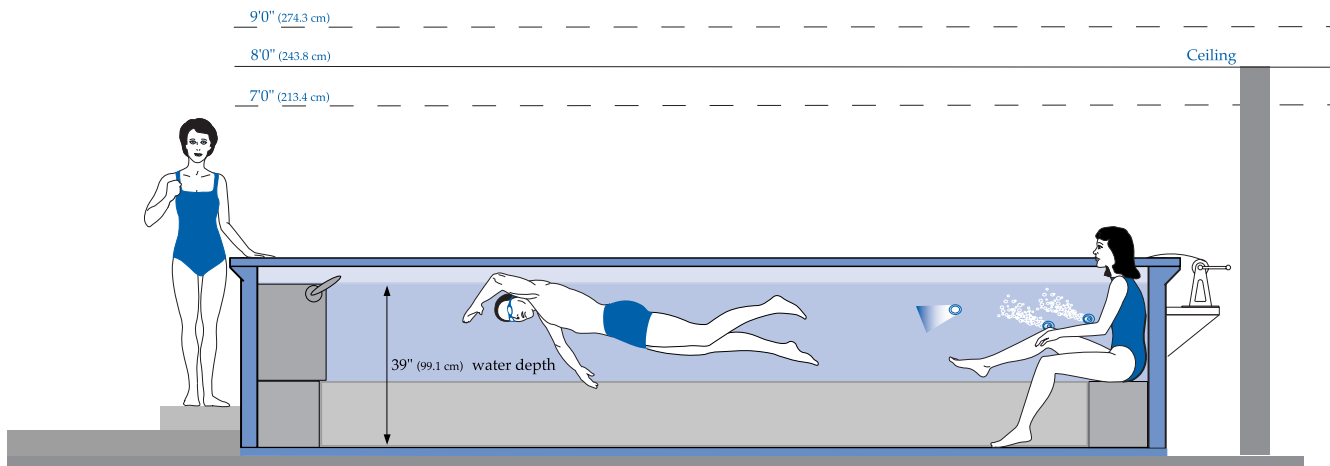
Good News

5 NOTABLE ENDLESS POOL FEATURES

1. All the components of the Endless Pool fit through a 30" doorway and up or down stairs. As a general rule, if you can get a 4' x 8' (121.9 cm x 243.8 cm) sheet of plywood through the door, you can get all Endless Pool components in also.
2. There is no connection to household plumbing. You fill the pool with a garden hose and change the water every year or two. The pool is equipped with a closed-loop plumbing system and timer that automatically pumps water out of the pool, passes the water through a filter, heater and copper/silver purification system, and returns it to the pool.
3. 90% of the humidity can be controlled when the pool is not in use by either the optional automatic or manual security cover. When closed, the cover seals in humidity and reduces heat loss. It retracts onto a roller located at one end of the pool. The cover has a lock-down mechanism and is virtually child-proof. The humidity present from a daily one-hour swim can be controlled by a simple room dehumidifier or a bathroom exhaust fan equipped with a humidistat, available for about \$300. There is no need to acquire an expensive commercial dehumidification system as long as you keep your pool covered when not in use.
4. We have greatly reduced chlorine odor and effects with our modern copper/silver purification system that comes standard with every pool. Your home will not smell like the local gym!
5. Should you decide to relocate your pool, it can be unbolted and moved. Give us a call and we will explain what is involved in relocating a pool.

▶ BE SURE TO WATCH: "Garage Installations"

This video shows the transformation of a garage into a year 'round, indoor aqua center in only 2 days as seen on Michael Holigan's Your New House program.

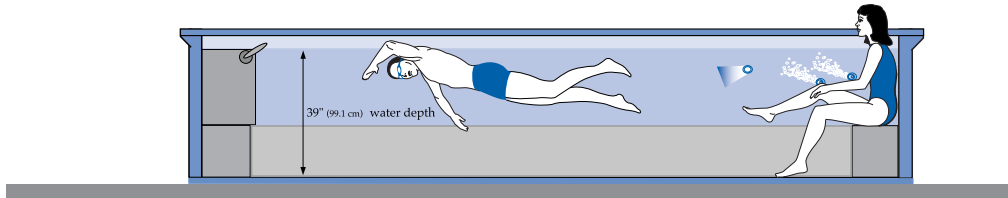


Water depth

How do you plan to use your Endless Pool®? Do you plan to swim laps, exercise while sitting or reclining in the water, perform aquatic aerobics, tread water, power walk?

The heavy-gauge steel panels that make up the walls of the Endless Pool stand 42" (106.7 cm) high. For planning purposes, you should anticipate a 2" (5.1 cm) high coping at the top of this pool wall, for a total height of 44" (111.8 cm). The pool is filled to a depth of 39" (99.1 cm)—perfect for swimming and for waist-deep training, conditioning, and rehabilitation therapy. You can also exercise while sitting on the underwater perimeter benches, which are 24" (61.0 cm) below the water surface. The standard 39" (99.1 cm) depth

accommodates the following water activities: backstroke, breaststroke, freestyle, butterfly, side stroke, and other swimming strokes; shoulder-deep aquatic aerobics while stooping in the water, kneeling on the bottom of the pool, or sitting on one of the underwater benches surrounding the pool interior; waist-deep aquatic aerobics in still or moving water. Many customers utilize the stainless-steel grab bar on the propulsion system at the front of the pool.



CUSTOM DEEPER POOLS

Deeper pools are particularly appropriate for customers who prefer aqua-jogging and other deep-water exercises.

The unique design of the Endless Pool permits customized depths up to 72" (182.9 cm). We refer to these customized depths as "deeper areas" because most customers deepen only a section of the pool floor, leaving the remainder and the area under the benches at the standard 39" (99.1 cm) water depth. This arrangement permits swimmers to use the "shallow" area of the pool as a step. It also provides a built-in safety feature, for the water current automatically pushes users from deep to shallow water.

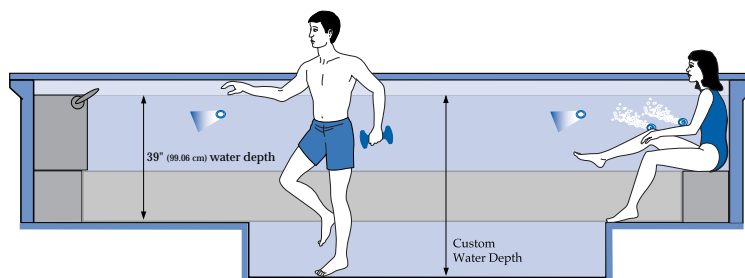
Deeper pools are feasible for most sites involving new construction. Instead of pouring a flat concrete floor, the installer pours two depths to accommodate the deeper area. In some instances, it may be possible to construct a deeper pool in an existing ground floor room by breaking through the concrete for the deeper portion.

Deeper pools allow for these additional activities:

- Chest-deep aquatic aerobics and step aerobics. Many of the same step aerobics performed on land can be

performed in chest-deep water. Water resistance increases the intensity of arm and upper-body workout. At the same time, water support eases stress to knees, hips and other joints. The male figure below depicts an average adult of 5'8" (172.7 cm).

- Deep-water conditioning, including running in water supported by a wet vest, or deep-water rehabilitation and therapy suspended by flotation equipment. Deep-water running maximizes your workout while sparing your body the pounding and jarring of land running. Since deep-water running is non-weight bearing, it is excellent for those who want to maintain fitness while avoiding the overuse injuries of land-based jogging. Use a flotation device and run against the adjustable current for the ultimate running challenge. Note that the 72" (182.9 cm) depth is necessary only if you are very tall. If two different depths are desired, in addition to the standard 39" (99.1 cm) depth, please ask one of our designers about a two-level deeper area.



The drawing on the left illustrates some of the activities of our customers in their Endless Pools, performed at the water depth necessary for an average 5'8" (172.7 cm) adult.

PLANNING FOR YOUR DEEPER POOL

As the diagram below illustrates, the part of the pool that becomes a deeper area is between the benches. This means that no matter how deep you make the pool, the benches remain 24" (61.0 cm) below the surface of the water, a comfortable depth for sitting in shoulder-deep water.

If you plan a deeper area, two basic decisions need to be made: what portion of the pool will be deeper and what depth the deeper area will be. The width of the standard pool between the two 12" (30.5 cm) side benches is 5' (152.4 cm). Some deeper areas are only 5' (152.4 cm) long, making the deeper area 5' (152.4 cm) square. Pools with this design provide easy access. To get out of the deeper area, simply step up onto the standard depth at the back or front of the pool.

Deeper areas can be made longer than 5' (152.4 cm) but should not be more than 9' (274.3 cm) for a standard 7' x 14' (213.4 cm x 426.7 cm) pool. This maximum size of 9' x 5' (274.3 cm x 152.4 cm) preserves a step at the front and back to facilitate entry and exit. These steps also provide a place to rest one's feet when sitting on the front or back benches. The optional swim mirror rests on this step at the front of the pool. If you plan an optional deeper area, you will be asked to complete the "Custom Deeper Option Liner Specification Form." As a general rule, we do not manufacture deeper liners until the concrete has been poured, the steel pool panels installed and the finished space has been measured. This ensures the closest possible liner fit. Custom-made liners are usually shipped by UPS within 15 days of ordering.

Choosing a Pool Depth

Consider how you intend to use the pool. If you are interested in a customized deeper pool for running, aqua aerobics or other deep-water exercises, you will want to establish the optimal depth for your height and needs. Perform your intended activity in a local pool to determine ideal water depth.

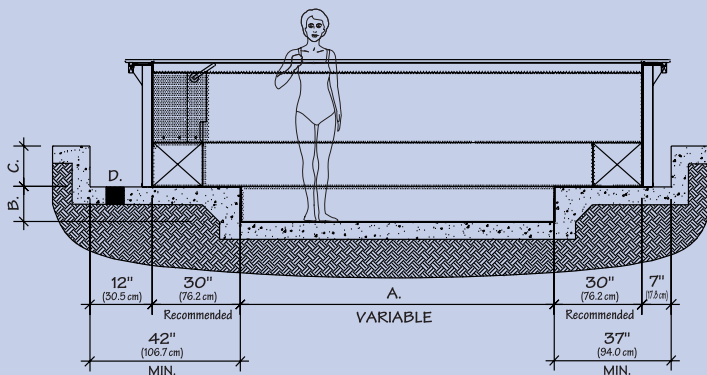
For standing activities, most people prefer the water depth to be about chest high. Running with a flotation device requires deeper water. When deep-water running, you should be able to point your toes without touching the bottom.

To establish how deep your pool should be, subtract the standard pool depth (39" [99.1 cm]) from your desired pool depth. The graph below demonstrates how to calculate the depth of the deeper area for a 51" (129.5 cm) deep pool.

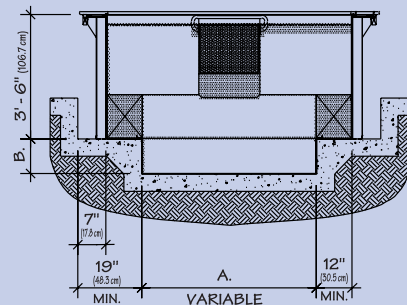
How deep?

| USE THIS EXAMPLE AS A GUIDE | |
|--------------------------------|-----------------|
| Total water depth desired | 51" (129.5 cm) |
| Standard pool water depth | - 39" (99.1 cm) |
| Necessary depth of deeper area | 12" (30.5 cm) |

Side View



End View



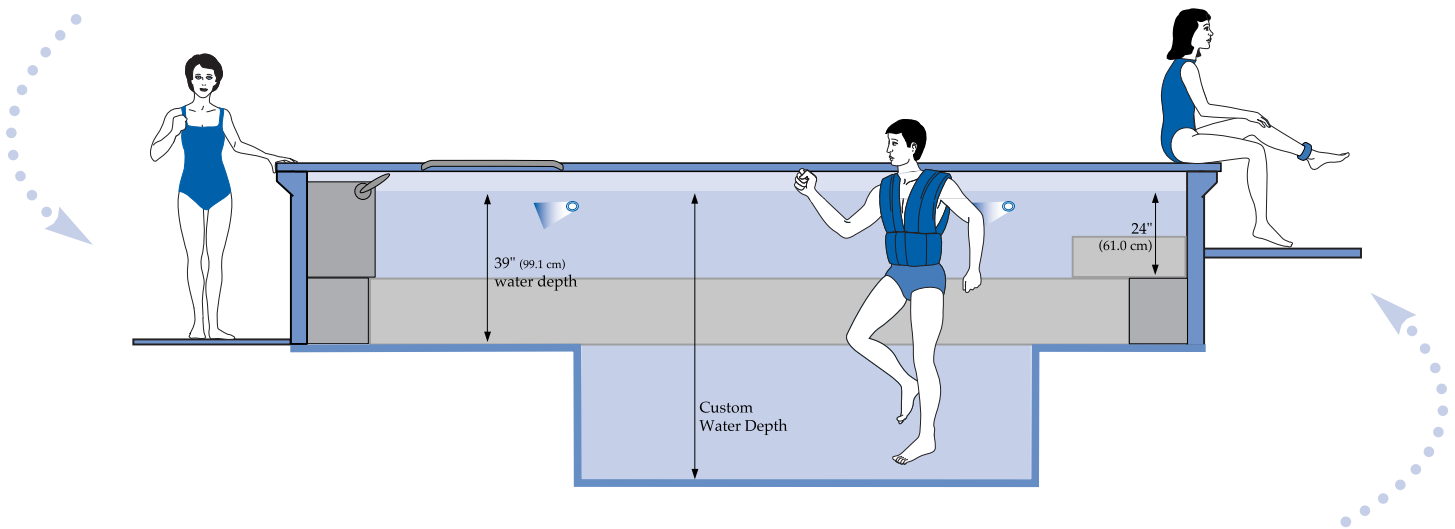
ACCESSIBILITY

The Endless Pool® offers many features to make it accessible to all users. The underwater benches serve as steps into and out of the pool. The pool walls can function as a handrail or the top edge of the walls (“coping”) as a seat. In addition, hydraulic lifts, grab bars and steps are also available. Call EPI for details.

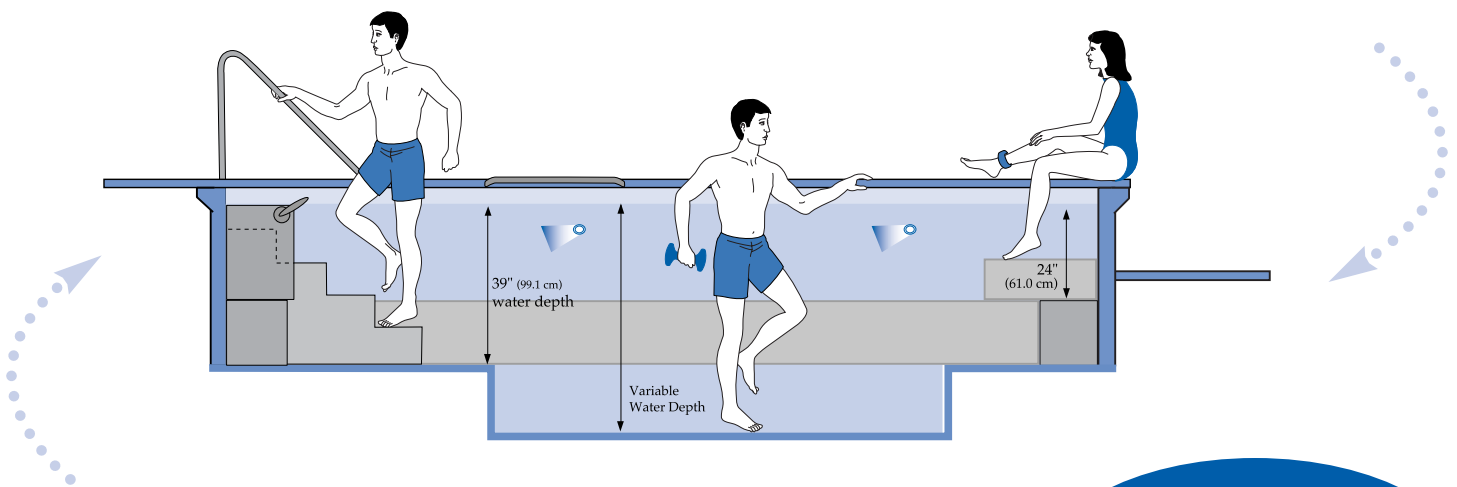
The drawings below illustrate how the Endless Pool can be installed to increase accessibility.

Aboveground Endless Pool

The distance from the floor to the top of the coping is usually about 44" (111.8 cm); 42" (106.7 cm) to top of steel side plus another 2" (5.1 cm) (approximately) for the thickness of the coping. A step or raised flooring can be constructed outside the pool wall to increase accessibility. Refer to illustrations #2 and #3 on page 8.



Partially In-ground Endless Pool Installation with pool walls 18" (45.7 cm) to 24" (61.0 cm) above walking surface. A partly in-ground installation turns the pool coping into a bench, useful in entering and exiting the water. The in-ground effect may be created without excavation by building decking around the pool.



Fully In-ground Endless Pool with pool coping flush with the finished floor. Unless optional steps are selected, the in-ground pool requires the swimmer to sit on the floor to enter the pool. This type of pool is one of the most difficult to enter and exit. EPI staff recommends our optional full-depth stair and handrail (p. 16) for an in-ground pool, particularly if access is an issue.

Be sure to watch the **Planning Gallery DVD**. It uses animated characters to explain how a deeper pool can enhance your exercise options.

AVAILABLE SIZES

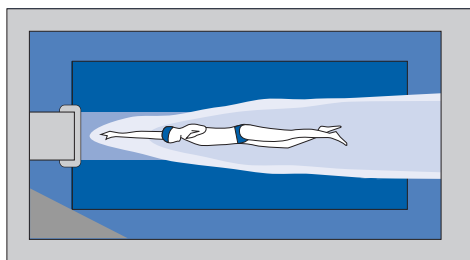
In addition to an optional deeper area, the flexible design of the Endless Pool® permits a variety of sizes. When deciding upon a length and width for your pool, you should consider such factors as how you intend to use your pool, the general dimensions of the site, your own height, and additional space requirements for options such as jets, lights and a retractable security cover.

The standard Endless Pool has inside dimensions (water surface area) of 7' x 14' (213.4 cm x 426.7 cm) and is suitable for most applications. The standard pool can be made 1' (30.5 cm) shorter or 2' (61.0 cm) shorter. We do not like to make a pool shorter than 12' (365.8 cm) inside dimension, for it impairs the operation of the swim current and the swim-current return channels. Pools 1' (30.5 cm) to 2' (61.0 cm) shorter are appropriate when the space for the pool site is constrained in some way. These shorter pools offer the same swim as the standard pool.

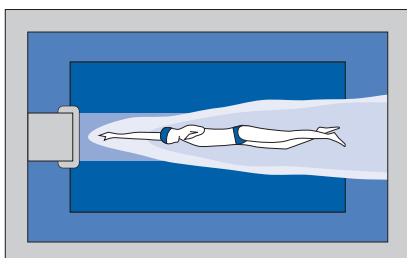
Remember, EPI recommends a minimum of 18" (45.7 cm) clearance at the front end of the pool to guarantee access to connections after construction. Optional features such as lights and jets will also require continued access. See [Technical Specifications](#) for detailed space requirements.

Wider and/or longer pools are appropriate when a number of people plan to use the pool at the same time, or if the user is very tall and swims with a wide frog kick that may touch the side benches of the standard Endless Pool. An Endless Pool can be made up to 3' (91.4 cm) wider and 2' (61.0 cm) longer.

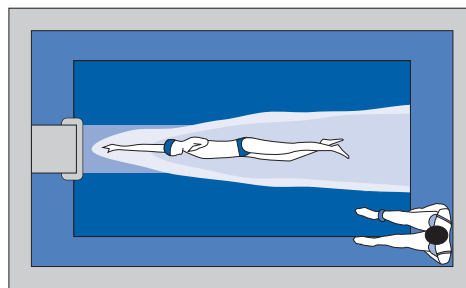
Standard Size: 7'x14' (inside dimensions)



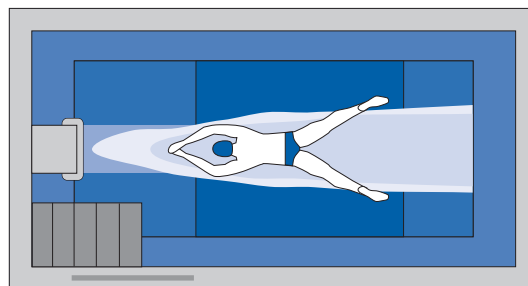
7' x 14'
213.4 cm x 426.7 cm



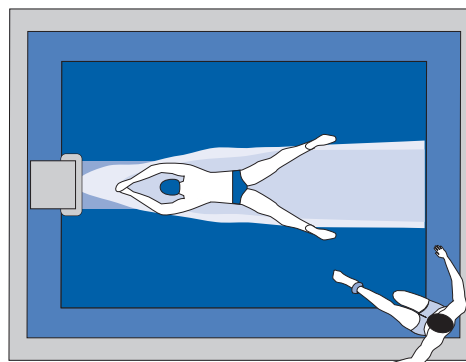
7' x 12'
213.4 cm x 365.8 cm



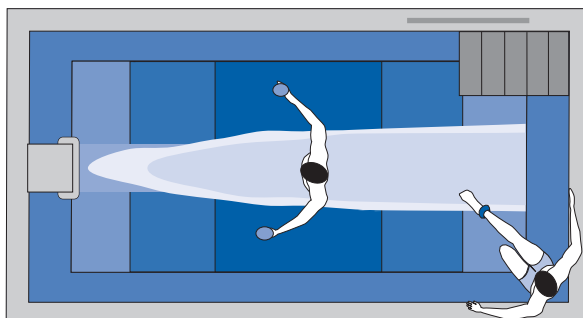
8' x 14'
243.8 cm x 426.7 cm



8' x 16'
243.8 cm x 487.7 cm



10' x 14'
274.3 cm x 426.7 cm



9' x 16'
274.3 cm x 487.7 cm

Configurations

ENDLESS POOL® CONFIGURATIONS

The "configuration" of an Endless Pool is simply the relationship of the pool frame to the floor. Eleven different configurations are illustrated below and on the next page. The configuration most appropriate to you depends on whether your pool is to have a deeper area, whether your pool will be installed in a new or existing space, how you are planning to use your pool, and how you will get into and out of the water.

Standard Endless Pool

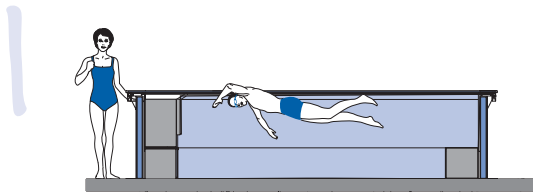
Configurations 1, 2, 3 describe a standard, flat-bottomed pool installed in an existing space such as a basement, garage, porch, or patio. The pool is installed above ground on the existing floor in each of these three cases. In cases 2 and 3 a floor or deck has been constructed that makes the pool appear recessed. Configuration 2 simulates a partly in-ground pool which is most accessible to the user because the top of the coping is at a comfortable seat height.

Configurations 4 and 5 illustrate a standard flat-bottomed pool partially lowered into the ground, 4, or all the way to make the top of the pool flush with the walking surface, 5. These two configurations are accomplished by pouring concrete at two levels—appropriate to sites featuring new construction—or by breaking through an existing floor.

Our customers tell us that while the flush installations in configurations 3 and 5 may be more pleasing aesthetically, they are less practical than configurations 2 and 4, which provide a seat and a handhold on all four sides of the pool.

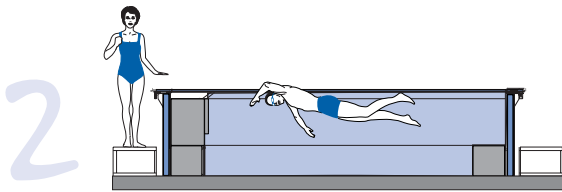
Each of the configurations illustrated here are described more fully in the [Technical Specifications](#). When you send a sketch of your pool site to EPI for comment, it would be helpful if you could specify which of the eleven possible configurations is closest to what you are planning. If you are not sure, ask our advice.

Cross-sections of 5 possible flat-bottomed pool configurations.

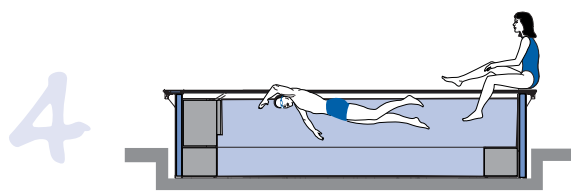


Aboveground pool with 3'6" (106.7 cm) wall fully exposed.

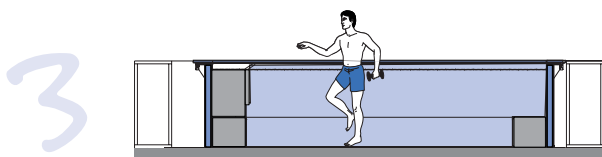
Flat-bottomed pools



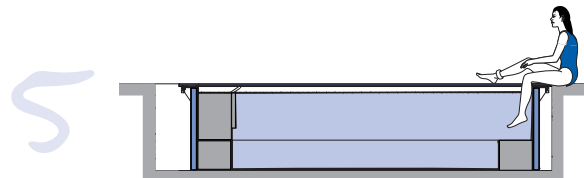
Partly in-ground pool utilizing raised decking.



Partly in-ground pool requiring excavation or new construction.



Fully in-ground pool created by decking raised to top of pool panels.



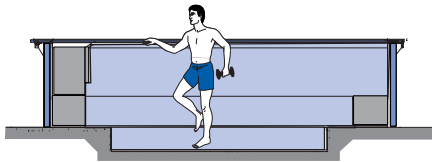
Fully in-ground pool requiring excavation or new construction.

Deeper Endless Pools®

A deeper pool can be created by breaking through an existing floor or by pouring two levels of concrete, one for the bottom of the deeper area and one for the floor that supports the steel walls and benches. Note that with configurations, 6, 7, and 8, very little excavation is required to enjoy a deep-water pool.

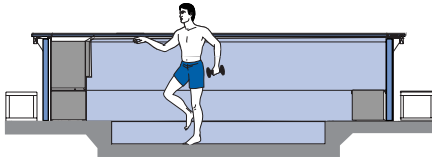
Cross-sections of 6 possible deeper pool configurations.

6



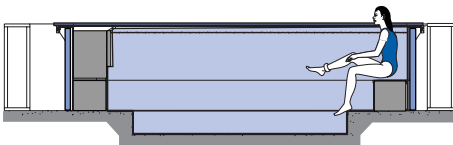
Aboveground pool with 3'6" (106.68 cm) wall fully exposed.

7



Partly in-ground pool utilizing raised decking.

8



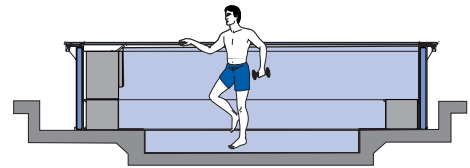
Fully in-ground pool created by decking raised to top of pool panels.

The Platform Pool

Configuration 11 offers a novel excavation-free deeper area. Most pools that are installed aboveground on a level slab utilize the standard 39" (99.1 cm) water depth. It is possible, however, to create a deeper pool on a flat slab without excavation by constructing a platform with a deeper area in the middle. For example, an 8" (20.3 cm) platform made of rot resistant wood provides 47" (119.4 cm) of water depth without excavation. Keep in mind that for every additional inch of water depth, the walls of the pool will be raised accordingly. If you are interested in increasing the depth of an aboveground installation using this method, please contact EPI.

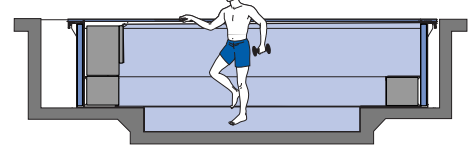
Deeper pools

9



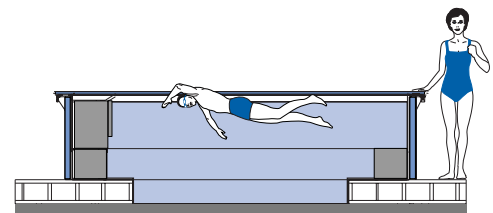
Partly in-ground pool.

10



Fully in-ground pool.

11



Aboveground pool built on a raised wooden platform to create a deep area. The platform height is variable, with a maximum height of 13.5" (34.3 cm). This is explained in detail in the animated "Deeper Pools" video.

EQUIPMENT PLACEMENT

In addition to planning for the pool site, you must also plan the location of the Water Quality System that keeps the water clean and heated, and the Hydraulic Power Unit that pumps fluid to turn the propeller that creates the swim current.

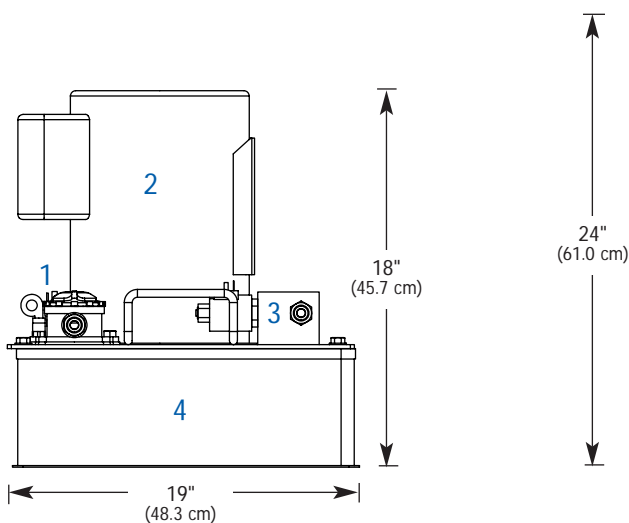
Hydraulic Power Unit

The 5 HP Power Unit pumps the hydraulic fluid (canola oil) that turns the propeller that generates the swim current. The Power Unit operates only when the swim current is on. The Power Unit can be located adjacent to the Water Quality System or in another space up to 75' (2,286.00 cm) from the pool. It should be protected from the weather. Allow an additional 6" (15.2 cm) around the unit for installation and access to the hose connections.

To turn the Power Unit and swim current on and off, the user presses an air button poolside that sends a pulse of air to activate the Power Unit or our optional wireless remote control sends a radio signal directly to the Power Unit. The speed of the swim current is adjusted by either a simple valve at the front of the pool or, by using the buttons located on the remote control. Either option controls the volume of hydraulic fluid flowing to the submerged hydraulic motor and propeller, thereby determining water speed.

Power Unit (Available in 50 and 60 Hz)

1. Return line from pool to power unit
2. Five HP electric motor (Six HP available) (1 phase, 220V, 23 amps)
3. Pressure line from power unit to propeller
4. Hydraulic fluid reservoir



Water Quality System

The Water Quality System (WQS) consists of a cartridge filter, circulating pump, timer, 5.5 kW electric heater or optional gas heater, and pool water purifier. The standard WQS with electric heater requires about 4' x 5' (121.9 cm x 152.4 cm) of floor space. The WQS equipment can be arranged horizontally or vertically to fit specific spaces. Be sure to provide enough space above the WQS to lift off the filter lid to remove the filter cartridge.

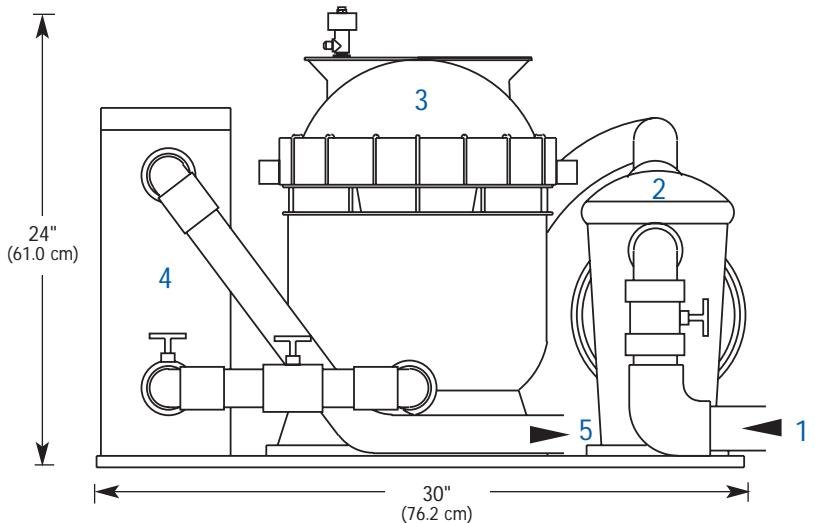
The WQS circulating pump cycles on and off with a 24-hour timer. Generally, the pump is set to run for about 6 hours a day, depending upon how many people use the pool and for how long. This heating and filtration cycle is often broken into two periods at a time of day when the sound of the pump will not be an issue. Should sound deadening be required, we recommend enclosing the equipment.

The WQS can be located in another space like a garage or utility room up to 75' (2,286.0 cm) away. Generally the system should not be installed more than 5' (152.4 cm) below nor 1' (30.5 cm) above the surface of the water in the pool. The pump will not prime and the heater pressure switch will not activate if the WQS is too high or too low. Call EPI with questions regarding this limitation.

The WQS should be located in a sheltered space with suitable drainage. The equipment and the lines running to and from the pool should be protected from freezing. As with all pool-associated electrical equipment, it must include GFCI protection on all circuits and it must be connected by a licensed electrician in accordance with local code.

Water Quality System

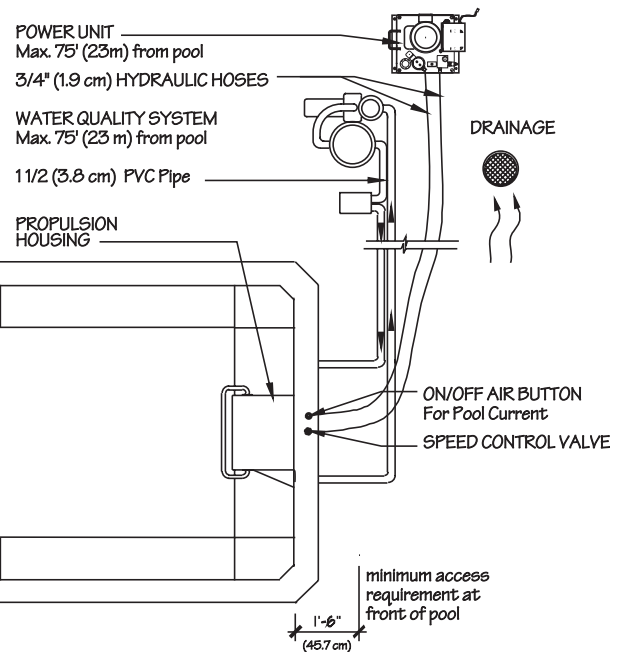
1. Suction line from pool
2. 3/4 HP circulating pump (Available in 50 and 60 Hz)
3. Cartridge filter
4. 5.5 kw electric heater (Gas or propane optional)
5. Return line to pool



EQUIPMENT ACCESS AFTER INSTALLATION

The unique design of the Endless Pool® permits installation in a corner of a room. After the pool is installed, the underwater hydraulic motor and propeller located inside the propulsion unit at the front of the pool can be serviced from inside the pool.

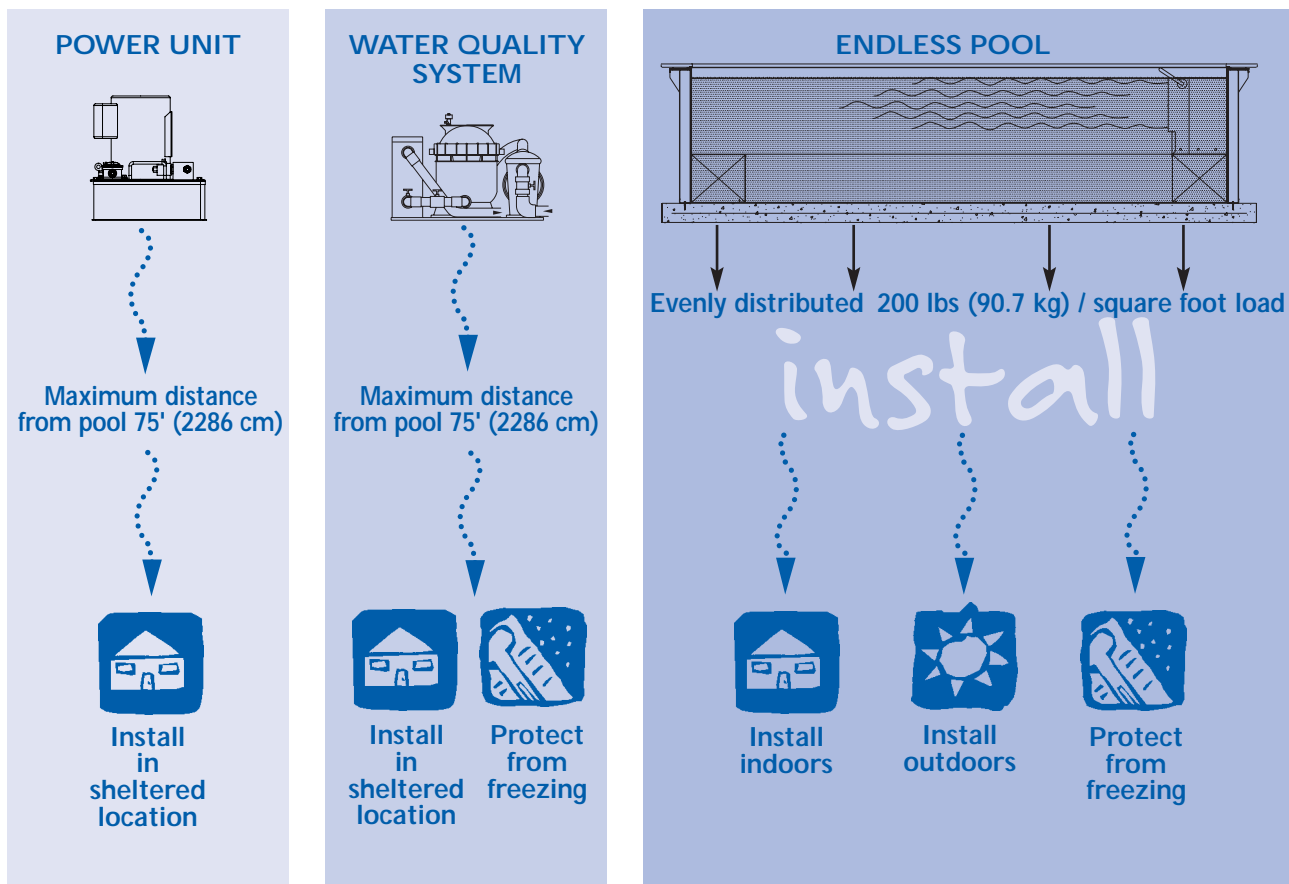
Access is required to the front of the pool for hose and PVC pipe connections to the Power Unit and Water Quality System. The exact form of access depends upon which of the 11 configurations you select for your pool (see Endless Pool Configurations, pp. 8–9). In some cases a removable panel is all that is required. The important point is that some provision be made so that any finished tile or wood surround need not be dismantled to reach the front panel. The Technical Specification drawings provide detailed information concerning access and space requirements of the Endless Pool, the ancillary equipment, and any options you select. Please review these technical drawings as necessary and call us with questions.



Plan view of connections between Water Quality System, Power Unit and the front panel of the Endless Pool.

Diagram

SCHEMATIC DIAGRAM OF THE ENDLESS POOL AND ANCILLARY EQUIPMENT



ELECTRICAL REQUIREMENTS

It is imperative that the Endless Pool® installation comply with the National Electric Code Article 680 Swimming Pools and Similar Installations and any other applicable local codes and ordinances. The entire Endless Pool system is ETL listed, Ref. #2001779 and conforms to UL Standard #1563. A licensed electrician can help with this review and must perform all electrical work. Specific requirements depend on the local classification of the Endless Pool as a pool or as a spa. Below are some of the most important considerations.

Bonding

All pool equipment, steel pool panels and fittings, and any cables and conduits within 5' (152.4 cm) horizontally of the inside wall of the pool and 12' (365.8 cm) above maximum water level must be bonded together with #8 solid copper wire. Some areas of the country may require slab reinforcing to be bonded also.

Grounding

All pool equipment, equipment within 5' (152.4 cm) of pool inside wall, junction boxes, transformer enclosures, Ground Fault Circuit Interrupters (GFCI) and panel boards must be grounded. The grounding conductor must be an insulated copper conductor not smaller than #12 solid copper.

Plug Connections

For your convenience, EPI provides a twist-lock receptacle connected to the 24 hour timer. It should be wired by your electrician. If code permits, this outlet may be used to power your circulating pump which has a 3' (91.4 cm) cord with a twist-lock plug. The timer must be powered with a GFCI circuit.

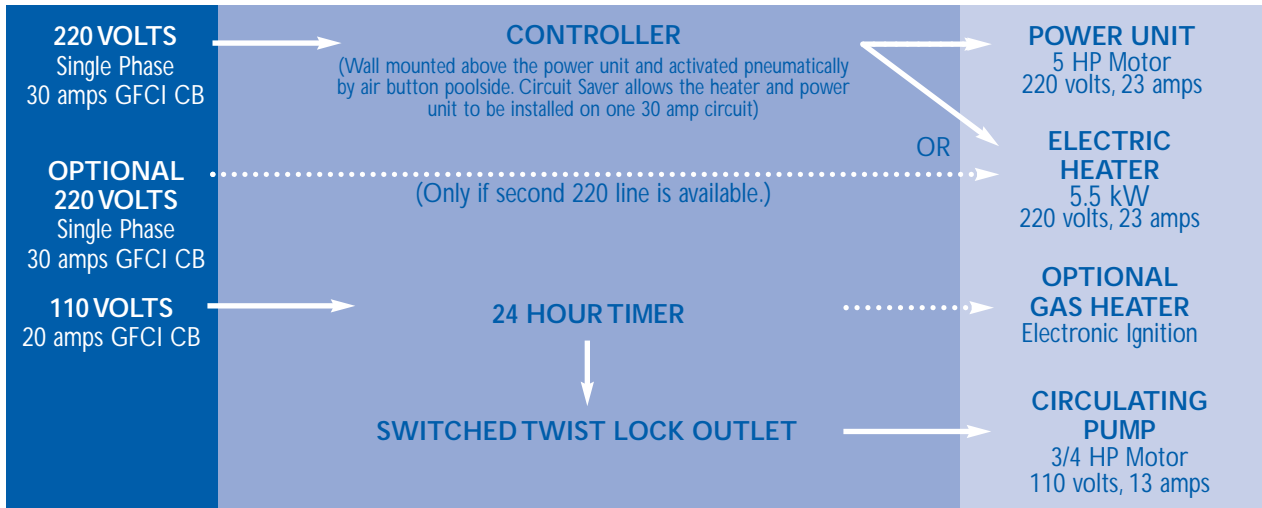
Proximity of Equipment

All wall switches, power receptacles and other electrical devices including electric wires and power lines must be at least 5' (152.4 cm) from the inside wall of a spa and at least 10' (304.8 cm) from the inside wall of a pool. Lighting fixtures, lighting outlets and ceiling fans located over the body of water within 5' (152.4 cm) of the inside wall must be protected by a GFCI. They must be a minimum of 7'6" (228.6 cm) above maximum water level if the body of water is classified as a spa and 12' (365.8 cm) above maximum water level if the body of water is classified as a pool. See the National Electric Code for details.

Ground Fault Circuit Interrupters (GFCI)

All equipment provided by EPI and all associated pool equipment must be protected by GFCI. These GFCI circuits must be tested monthly. All power receptacles within 10' (304.8 cm) of a spa or 20' (609.6 cm) of a pool must have GFCI protection. Internationally a GFCI is referred to as a Residential Current Device (RCD).

ELECTRICAL REQUIREMENTS FOR STANDARD EQUIPMENT



ELECTRICAL REQUIREMENTS FOR OPTIONS



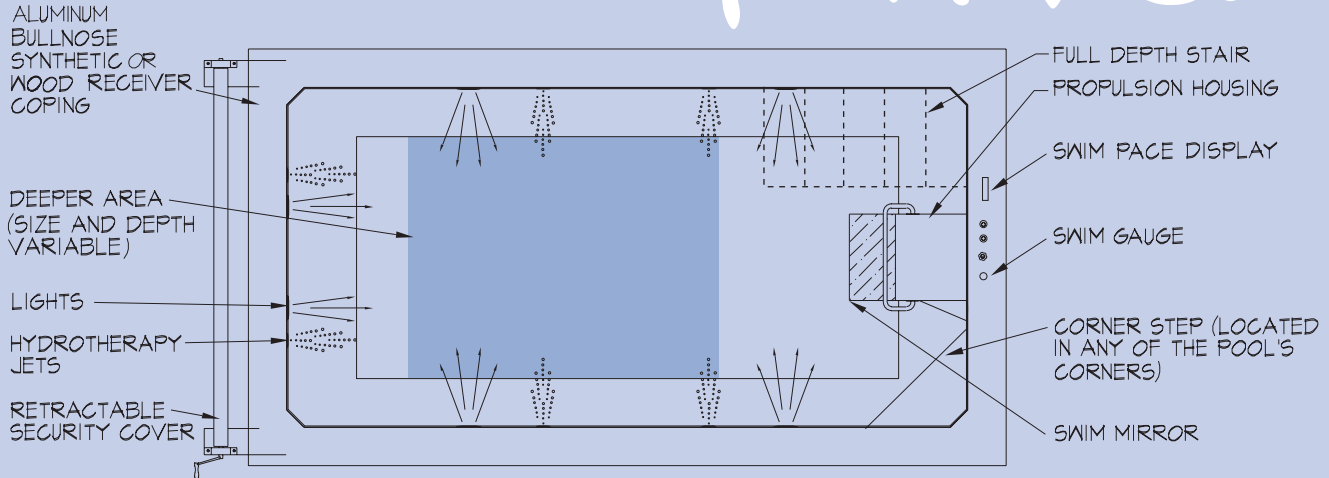
All electrical components of the Endless Pool are UL or CSA approved.

Options

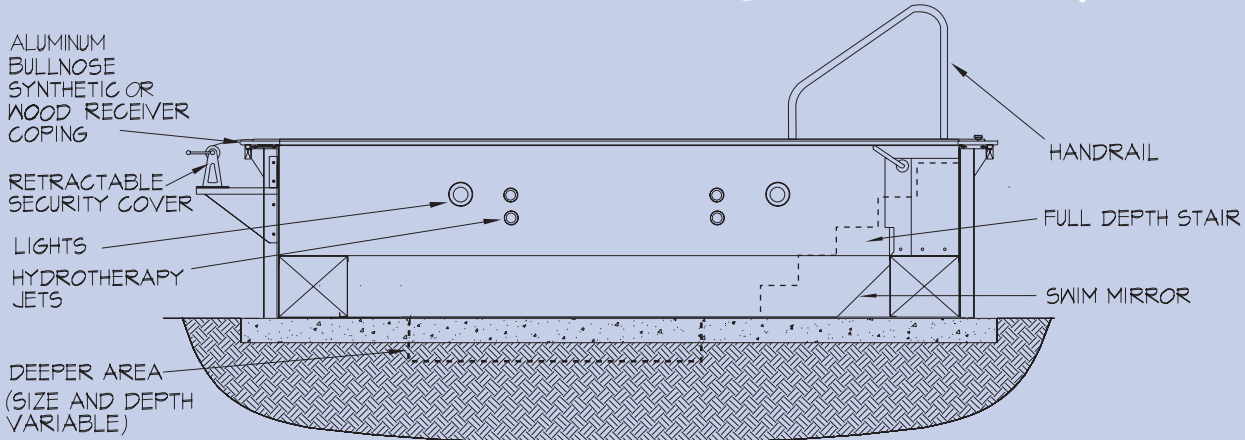
The following pages describe the options available with an Endless Pool®. Our Planning Video and the Technical Specifications present each of these options and the requirements for their installation in greater detail. Please refer to a current price list for all options pricing, or visit our website at www.endlesspools.com and search for "options".

Diagram of several Endless Pool options and their possible locations.

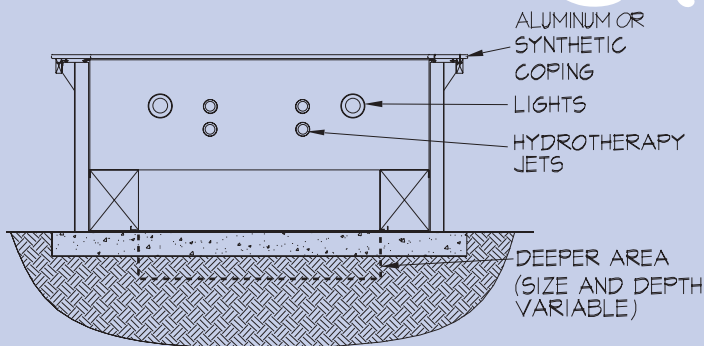
plan view



side view



end view

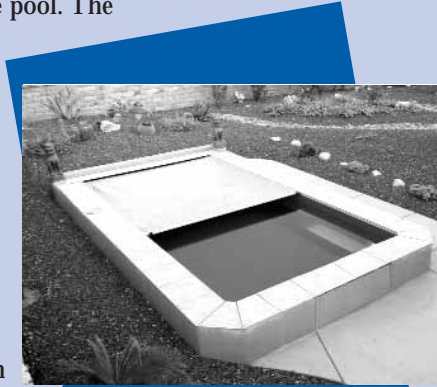


Cover

RETRACTABLE SECURITY COVERS

The optional automatic or manual retractable security covers act as a horizontal fence sealing off access to the pool. When in place the cover controls 90% of the humidity, making it ideal for indoor installations. Outdoors the cover seals out dirt, leaves and debris. The cover retracts onto a roller at one end of the pool and deploys along low-profile tracks installed on the pool coping. A lock-down mechanism is provided to secure the cover over the pool. The

cover meets stringent ASTM F1346 safety standards and is strong enough to support the weight of an adult. EPI strongly recommends a security cover for installations that are accessible to children, non-swimmers and pets, or for installations in which humidity, falling leaves, or heat loss are concerns. The cover may be installed at either end. See [Technical Specifications](#) for clearance requirements. Covers for outdoor installations come equipped with a cover pump that automatically pumps rain water off the top of the cover. Accumulated rain water is a hazard to small children and small animals.



CUSTOM POOL SIZES AND DEPTHS

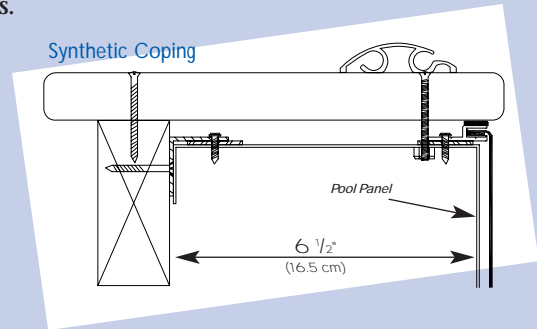
The standard Endless Pool® has a water surface of 7' x 14' (213.4 cm x 426.7 cm), and outside dimensions before coping of 8' 1" x 15' 1" (246.4 cm x 459.7 cm). Depending upon your site requirements, the pool can be 1 (30.5 cm) to 3 (91.4 cm) feet wider, 1 (30.5 cm) to 2 feet (61.0 cm) shorter or 1 (30.5 cm) to 2 feet (61.0 cm) longer. Please refer to the Available Sizes section of this Guide (p. 7) for diagrams of some of the custom sizes that are available.

The standard Endless Pool can also be customized with an optional "deeper area" to permit vertical exercises such as aqua aerobics, deep-water running, therapy, and rehabilitation. Please refer to the Water Depth portion of this Guide on pages 4-6 for details on the optional deeper area.



SYNTHETIC COPING

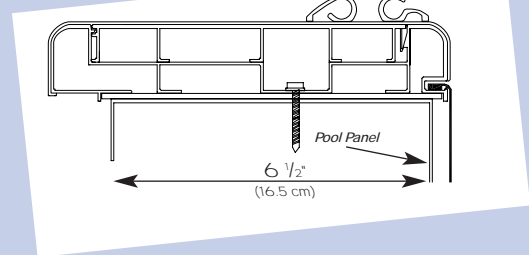
The Endless Pool synthetic coping option offers a convenient method to finish off the top edge of your indoor Endless Pool, even for tight spaces where access is limited. The coping option includes everything you need for installation. The 9.75" x 1" (24.8 cm x 2.5 cm) thick material is ideally suited for pools that are free-standing or partially recessed and have skirting below the coping. The coping is completely impermeable and comes in a variety of colors to complement any decor. The material can be cut on site if necessary. Call our design department for more details.



ALUMINUM COPING

The Endless Pool aluminum coping offers total flexibility for finishing the top edge of your indoor OR outdoor pool. It incorporates the liner hanger and can be painted in any color to enhance your decor. In addition, this new coping option can be accented with a tile or wood insert replacing the snap-in strip giving you a totally unique finish to suit your personal style and create the Endless Pool of your dreams. This coping option is 8" x 1 3/8" (20.3 cm x 3.5 cm) which works ideally for tight spaces and can be used on free standing pools. Call our design department for complete details.

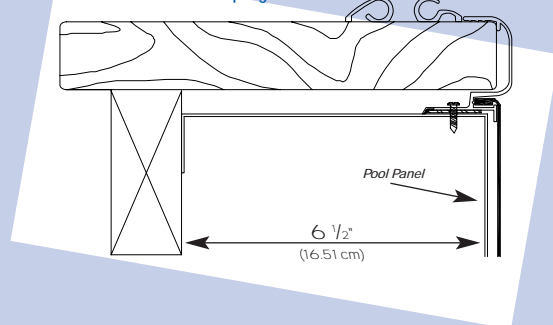
Aluminum Coping with Snap Strip Insert



WOOD RECEIVER COPING

Cedar, teak, mahogany or redwood all provide a lovely finish to the Endless Pool. Knowing our customers like to use wood, we developed this aluminum wood receiver system to accommodate standard 2" x 10" (61.0 cm x 25.4 cm) cedar provided by the homeowner. Finished with multiple coats of a suitable marine varnish, this coping system will fit any budget.

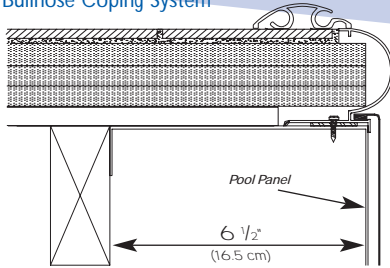
Wood Receiver Coping



BULLNOSE COPING SYSTEM

Our bullnose coping system is designed for fully in-ground installations where the concrete or tile deck is brought up to the edge of the pool. Tile can be used as shown below or concrete can be poured into this aluminum receiver. Finished in a non-slip white, the coping may be painted as required. With the bullnose coping system it is necessary to construct a support system for anything extending beyond the 6-1/2 inch (16.5 cm) wide flange of the pool panels. This is described more fully in Technical Specification 5.3.

Bullnose Coping System



SWIM PACE DISPLAY

Easy to read — even with swim goggles — the 6" high-visibility display presents the pace of the swimmer in minutes:seconds per 100 yards or 100 meters. Perfect for interval training or to monitor improvements in swim technique. Simply set the pace and swim for as long as you like. Requires our Wireless Remote Control.



Wireless Remote Control

The Wireless Remote Control replaces the Manual Value that is used to adjust the speed of the current and which must be mounted to your coping. This handy, water resistant remote turns the swim current on and off and precisely controls the speed of your swim. Able to operate up to 50' from the pool the receiver is wired directly to either the standard 5 HP or optional high-performance 6 HP power unit. 2 controls are provided.



HI-PERFORMANCE CURRENT

Designed with the athlete in mind, our new 6 HP hi-performance power unit produces a faster swim current with greater resistance for optimal training. A must for serious swimmers, the hi-performance current increases power to our propeller system by taking advantage of our revolutionary new propeller design and increasing rpm. Therapy patients can also increase their resistance level to improve rehabilitation results and speed recovery.



jets

HYDROTHERAPY JETS

The hydrotherapy benefits of the Endless Pool® swim current can be supplemented with the addition of 4 concentrated hydrotherapy jets powered by a separate 1 HP pump. The optional jets are ideal for therapy and relaxation, and may be installed above the benches on any wall of the pool. They are most commonly centered over the back bench of the pool. Jets are operated by a separate air button mounted in the pool coping. The jets and swim current can be operated at the same time, permitting one person to enjoy the jets while a second person swims against the current. Jets cannot be retrofitted easily. If you want jets, they should be ordered with your pool. Access must be maintained to the pool wall where jets are installed. Additional equipment space will be required for the 1 HP pump. If freezing is an issue extra care must be taken when planning the jets installation. Call one of our Design Representatives for further information.



UNDERWATER LIGHTS

Two underwater lights can transform your Endless Pool into a beautifully lighted "waterscape." These low-energy lights are installed by drilling through the pool wall panel using a special tool provided. These holes are fitted with watertight niches that hold a long-life LED bulb. Like jets, lights cannot be retrofitted easily. If you decide on lights, they should be included in your initial order. Access must be maintained to the outside of the pool wall where lights are installed.

lights

CORNER STEP

The optional corner step is often selected to make entry into and exit from the pool easier. The corner step provides an intermediate step between the underwater bench and the coping. The step can be installed in any of the 4 corners of the pool (see Technical Specifications). One or more corner steps can be retrofitted. For those requiring special access, custom stairs are also available (p.15).



current

stairs

FULL DEPTH STAIRS

The Endless Pool® full depth stair is designed for fully in-ground pool installations and includes a stainless steel handrail for additional stability. The stair provides “walk-in” capability for those with special needs. The 2' (61.0 cm) wide full depth stair is made of dark grey PVC with slip resistant treads that extend from the top edge of the pool coping to the standard depth pool floor. The stairs have a comfortable 7.5" (19.1 cm) riser height and a 10" (25.4 cm) tread width—similar to stairs in your home. The stair mounts with stainless steel screws to the pool walls and accommodates any coping height or material.



HANDRAILS

Satin finish stainless steel spa rails, handrails, coping rails and grab bars are available for those desiring greater stability in entering or exiting the pool and assistance for aqua aerobics and therapy. The mounting design allows both new and retrofit installations on any type of coping material. More detailed information on all of our available handrails can be found on our web site by searching on “handrails”.

UNDERWATER SWIM MIRRORS

The optional underwater swim mirror and/or floor mirror provides a unique view of your swim technique and helps you improve your stroke by providing instant feedback. The mirrors are a must for serious swimmers. Either mirror lets you monitor hand entry and pull-through as well as shoulder rolls. The smooth, bubble-free swim current produced in the Endless Pool is the best swim current available. Even at top speed, you will have no problem seeing yourself in the swim mirror or floor mirror. The mirrors also help swimmers stay centered in the pool. If you see yourself slowly slipping out of view, you need to increase your swim effort. If you see yourself traveling, you need to relax more between strokes or increase the current speed. Both the underwater swim mirror and the floor mirror are manufactured from polished stainless steel. The underwater swim mirror is mounted at a convenient angle at the front of the pool and the floor mirror rests on the pool bottom. Either swim mirror can be easily retrofitted.



liners

LINER CHOICES

The liner provided with the standard Endless Pool is dark (royal) blue in color. Optional light (sky) blue or blue-black “tie-dye” liners are also available at no charge. Endless Pools also offers several new, custom tile patterned liners which will complement any installation. Please refer to our Finish Choices brochure for samples and descriptions.

GAS HEATERS

Gas heaters are often selected for outdoor installations, or indoors in areas with high electricity rates or where less expensive “off peak” electric service is unavailable. Gas heaters are also appropriate when the owner wants a more responsive heating system. A 50,000 BTU gas heater, either natural gas or propane, can raise the pool temperature about 2° F per hour.

Once you get your pool water up to the swim temperature you want, it should be fairly easy to maintain that temperature as long as you keep the pool covered when not in use. Even on the coldest days, a properly insulated pool should not lose more than a few degrees. A timer turns on the pump that circulates water through the filter and heater. A thermostat, internal to the heater, turns the heater on and off as required.



While gas heaters are more responsive than electric and gas is often less expensive than electricity, gas heaters do add a level of complexity to your installation. Gas heaters installed indoors must be vented appropriately, either through an existing flue or with a dedicated flue. A licensed plumber must perform the installation of a gas heater.

We can provide gas heaters for US customers only. If you live outside of the US you should purchase your gas heater locally, please call your design representative for details.

STAINLESS STEEL BENCHES

The Endless Pool comes standard with continuous cast acrylic benches available in either Silver Platinum or Blue Sapphire. Acrylic is used in many of the leading Spas, Bath Tubs and Showers available today.

You can upgrade to the highest grade 316L stainless steel for the propulsion housing and interior perimeter benches.

CONTROLLING COSTS

The cost of installing an Endless Pool® varies considerably from customer to customer. Such variables as options selected, the cost of constructing the space surrounding the pool (particularly new construction) and finishing details will affect the total pool price. The technical staff at EPI has developed a number of recommendations on how to keep pool costs to a minimum.

- ✓ **Select an existing site.**
You can install an Endless Pool and start swimming now if you choose a site that requires a minimum of new construction. Consider a ground-floor location like a basement, garage, or other indoor room, or outside in the backyard or on an open porch, deck or patio.
- ✓ **Consider above ground installation.**
The Endless Pool is free standing, allowing for an above ground installation. Above ground installations are usually less expensive than partially or completely in-ground installations.
- ✓ **Assemble some of the pool yourself.**
The Endless Pool arrives in kit form for bolt-together assembly by 2 handy people in a few days. Detailed videos and written instructions are provided with the pool and telephone coaching from EPI technical staff is available if you require further assistance. No prior pool experience is required of the pool installer. If you are reasonably handy you might consider installing the pool yourself with a helper or hire a handyman and act as his assistant. Whether you install the pool yourself or hire one of our Factory Trained Installers, you should review your plans with an EPI staff architect to make certain that all the details of the site and the installation have been considered.
- ✓ **Be as specific as possible when hiring a contractor.**
If you are vague about what you want a contractor to do, the contractor will tend to increase his estimated cost to cover "uncertainties." EPI staff architects are available for consultation by telephone. Be sure to show the contractor the Planning Video. This 20-minute video shows many of the options that might be selected. With most projects site preparation and finishing require more time than the assembly of the pool.

- ✓ **Obtain multiple bids.**
If you are planning new construction such as a greenhouse or sunroom addition, try to obtain estimates from at least three prospective contractors. Multiple bids are a standard procedure in the construction industry. Contractor questions during the bidding will sharpen your understanding of the project. Encourage your prospective contractors to call EPI staff architects and engineers. Ask prospective contractors for references who you can contact. Allow adequate time to hire the contractor of your choice. Many are busy at certain times of the year.

- ✓ **Minimize pool operating costs.**
The principal expense in maintaining an Endless Pool is the cost of heating the water. During installation the pool should be well insulated. A minimum of 2" of rigid foam applied to the outside walls of the pool is recommended. Up to 6" can be installed on outdoor pools in colder climates. While the pool comes with a floating thermal blanket, the optional retractable security cover is even more effective at preventing evaporation, the main cause of heat loss.

Swim...

Call EPI for the demonstration pool nearest you, or visit EPI's factory showroom, just 15 minutes from the Philadelphia airport, 3 miles off I-95. Our factory is located between Rt. 352 and Rt. 452 on Dutton Mill Road overlooking Chester Creek. Showroom hours are 8:00 am to 5:00 pm Monday through Friday, and weekends by appointment. Please call to schedule a visit and a swim.



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