

2022 Fitness Series INSTALLATION GUIDE







14' SWIM SPA



12' AQUACISOR



AQUACISOR



CAUTION: THIS GUIDE IS FOR REFERENCE ONLY! All installations must follow local electrical and building codes. Please consult your local business and planning division for your codes in your area.

THERMOSPAS WILL NOT BE RESPONSIBLE FOR ANY ERRORS IN INSTALLATIONS OR CODE INFRACTIONS.

EFFECTIVE DATE: January 1, 2022 (supersedes all others)

Table of Contents:

1	Types of installations	1	12' A	quacisor Cross Section End View	
1.1	Free Standing with cabinet above ground	1		Full & Partial Inground Install	17
1.2	Free Standing in Deck	1	12' A		
1.3	Below Grade Outdoor	1		Inground Install	18-19
1.4	Below Grade Indoor	1	14' S	wim Spa Cross Section Topside View	
				Inground Install	20
2	Model Series, Specification and Electrical	2	14' S	wim Spa Cross Section End View	
2.1	Model Specifications	2		Full & Partial Inground Install	21
2.2	Electrical Specifications	3	14' S	wim Spa Cross Section Side View	
2.3	Wiring Size - North American	3		Inground Install	22-23
2.4	GFCI Installation - North American	4	17' S	wim Spa Cross Section Topside View	
			•	Inground Install	24
3	Delivery and Handling Considerations	5	17' S	wim Spa Cross Section End View	
3.1	Crane Deliveries	5	17 0	Full & Partial Inground Install	25
3.2	Fork Lift Deliveries	5	17' S	wim Spa Cross Section Side View	20
3.3	Roller Deliveries	5	17 0	Inground Install	26-27
3.4	Warnings!	5	5.7	Service Access	28
			5. <i>1</i> 5.8	Water Test	28
4	Above Grade (Base Of Support –				28
1 1	Load Specifications)	6	5.9 5.10	Overall Support Insulation	26 28
4.1	Preparation	6			
4.2	Concrete	6	5.11	Equipment Protection	28
4.3	Second Level/Balcony Installation	6	6	Serviceability, Accessibility and	
Aqua	acisor Cross Section Side View	_		Protection	29
	Above Ground Install	7	6.1	Equipment Protection	29
Aqua	acisor Cross Section Topside View		6.2	Serviceability	29
401.4	Above Ground Install	8		•	
12′ A	quacisor Cross Section Side View		7	Filling and Draining	30
	Above Ground Install	9	7.1	General Considerations	30
12' A	quacisor Cross Section Topside View		7.2	Indoor installations	30
	Above Ground Install	10	7.3	Outdoor Installations	30
14' S	wim Spa Cross Section Side View				
	Above Ground Install	11	8.0	Humidity-Ventilation	0.4
14' S	wim Spa Cross Section Topside View		0.4	Other Indoor Considerations	31
	Above Ground Install	12	8.1	Humidity	31
17' S	wim Spa Cross Section Side View		8.2	Ventilation	31
	Above Ground Install	13	8.3	Covers	31
17' S	wim Spa Cross Section Topside View		8.4	Floor Drainage	31
	Above Ground Install	14	9	Hardcover Storage	32
_			9.1	Hardcover	32
5	Below Grade or Partial In Grade	45		Cover Lifters	32
- <i>1</i>	Installations	15	9.2	Cover Litters	32
5.1	Backfilling Exclusion	15	10	By Laws and Disclaimers	33
5.2	Excavation	15	10.1	_	33
5.3	Vault/Bunker Specifications	15		Excavation	33
5.4	Base of Support	15		Recommendations & Preparation	55
5.5	Crawl Space	15	10.5	Guidelines	33
5.6	Ground Water	15	10 4	Professionals	33
12' A	quacisor Cross Section Topside View			Sunlight	33
	Inground Install	16	10.0	ou.mgm.	50

1 Types of installations

1.1 Free Standing with cabinet above ground

This installation refers to a Fitness Spa that is placed on a concrete pad, above ground and with a spa cabinet. Can be adjacent to a deck or butted up to a deck.

1.2 Free Standing in Deck

This installation refers to a Fitness Spa that is placed on a concrete pad, above ground and with or without a spa cabinet. This spa is surrounded on 1 or 2 sides by deck.

1.3 Below Grade Outdoor

This installation refers to a Fitness Spa that is placed on a concrete pad, below grade and without a spa cabinet. Can be partially or fully recessed in the ground.

1.4 Below Grade Indoor

Indoor installations of a Fitness Spa must be placed on a concrete pad. Fitness Spas can be partially or fully recessed in the floor.



2 Model Series, Specification and Electrical

2.1 Model Specifications



Diamond model pictured for exterior visual

Diamond model pictured for exterior visual





17ft. Swim Spa

Shell Dimensions: 210" x 93"

Height: 52.75"

Volume: 2,400 US gallons Weight Full: 22,990 lbs. Weight Empty: 2,890 lbs.

14ft. Swim Spa

Shell Dimensions: 174" x 93"

Height: 52.75"

Volume: 1,900 US gallons Weight Full: 18,445 lbs. Weight Empty: 2,532 lbs.

12ft. Aquacisor

Shell Dimensions: 150" x 93"

Height: 48.75"

Volume: 1,229 US gallons Weight Full: 12,825 lbs. Weight Empty: 2,532 lbs.

Aquacisor

Shell Dimensions: 91" x 86"

Height: 48.75"

Volume: 646 US gallons
Weight Full: 6,548 lbs.
Weight Empty: 1,138 lbs.

2.2 Electrical Specifications

SAFETY COMES FIRST. WHEN INSTALLING & USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS MUST ALWAYS BE FOLLOWED!

1. READ AND FOLLOW ALL INSTRUCTIONS

- **2.** Electrical installation must be completed by a qualified electrician in accordance with all National, Regional and Local Codes and Regulations in effect at the time of installation.
- **3.** Connect only to a dedicated circuit protected by a class 'A' two-pole ground fault circuit interrupter (GFCI)

4. <u>Use copper conductors only!</u>

- **5.** The Fitness Spa equipment and all electrical plugs, outlets and lights within 5 ft. of the unit must be G.F.C.I protected. Consult your electrician or local electrical authority for further details.
- **6.** A green colored terminal or a terminal marked "G", "GR", "Ground", or "Grounding" is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding by means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
- 7. At least two lugs marked "BONDING LUGS" are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the Fitness Spa to these terminals with an insulated or bare copper conductor not smaller than No. 6 AWG.
- **8.** All field installed metal components such as rails, ladders, drains or other similar hardware within 10 ft. of the hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.

2.3 Wiring Size - North American

Please consult your applicable electrical codes related to the size of the breakers and the wire. Take into consideration the length of the cable and increase as required.

G.F.C.I. APPL	ICATION GUIDE FOR
THERMOSPAS	FITNESS SPA SERIES
NORTH AMERICA	

Aquacisor Gold Series Aquacisor Diamond Series1 12' Aquacisor* 14' and 17' Platinum Series* 14' and 17' Diamond Series	50A 60A 50A 50A 60A
*upgraded w/Dual Heaters	60A

IMPORTANT NOTE:

This guide is for standard installations where the wire run is 50 ft. or less. For longer wire runs, consult a qualified electrician.



NOTICE

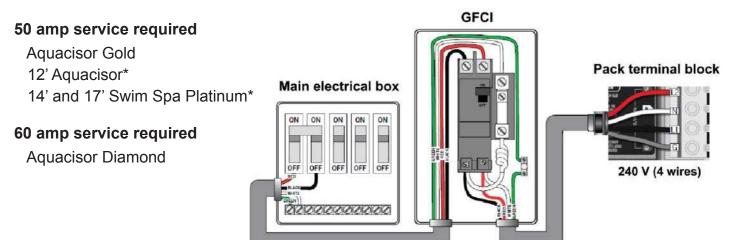
2.4 GFCI Installation - North American

Installation of the GFCI - Circuit Breaker, including ampere sizing and selection of conductor size and type, must be performed by a qualified electrician in accordance with the National Electrical Code, all Federal, State, and local codes and regulations in effect at the time of installation.

ThermoSpas highly recommends the use of a new GFCI breaker for all of its products. Older GFCI's may have tripping issues. Customer/electrician is responsible for providing all wiring materials.

Single Heater

240 volt G.F.C.I. Dedicated Circuit

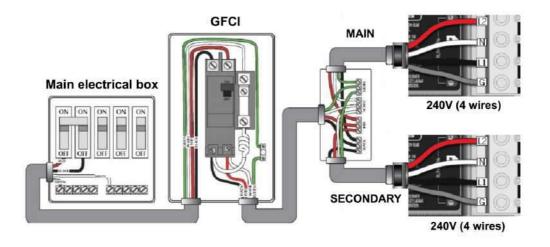


Dual Heater

240 volt G.F.C.I. Dedicated Circuit 60 amp service required

14' and 17' Swim Spa Diamond (Standard)

*Optional upgrade on 14' and 17' Swim Spa Platinum Model & 12' Aquacisor



3 Delivery and Handling Considerations

3.1 Crane Deliveries

Most installations require the use of a crane. When a crane is used for lifting, place the straps under the Fitness Spa, ensuring that the plumbing lines and fittings are not stressed and/or damaged and a spreader is used. The straps should be secured so that they will not slip in any direction and strap spreaders utilized to prevent undue structural side load on the Fitness Spa shell.

3.2 Fork Lift Deliveries

If you are removing the Fitness Spa using a forklift, please make sure to use 8-10' extended forks and pick up spa at the equipment end.

3.3 Roller Deliveries

Although it is recommended to install your Fitness Spa by crane, it may be pushed along rollers by 10 to 12 ablebodied adults (see image). If rollers are to be utilized, we recommend that at least six 4" diameter pipes, 8' long, be placed under the shell to move it across a soft lawn, down a path, etc.

3.4 Warnings!

- Do not move or place the Fitness Spa on its side.
- Never lift or handle the Fitness Spa by its plumbing.
- The Fitness Spas dry weight is in excess of 2,890 lbs for for the 17ft. Swim Spa, 2,532 lbs for the 14ft. Swim Spa, 1,984 lbs for the 12ft. Aquacisor, and 1,138 lbs for the Aquacisor.
- Please ensure lifting equipment is sufficient for the job.
 Manually lifting of the Fitness Spa should be done with the proper manpower.





4 Above Grade (Base Of Support - Load Specifications)

4.1 Preparation

Installation of a level concrete pad is mandatory. Dig out and level the ground 8 -12 in. below your desired base level. Install 8-10 in. of crushed stone. If there is a possibility that the pad could shift by freezing/thawing ground movement (such as in clay regions, and/or areas with high water tables) concrete footings extending below the frost line are recommended.

4.2 Concrete

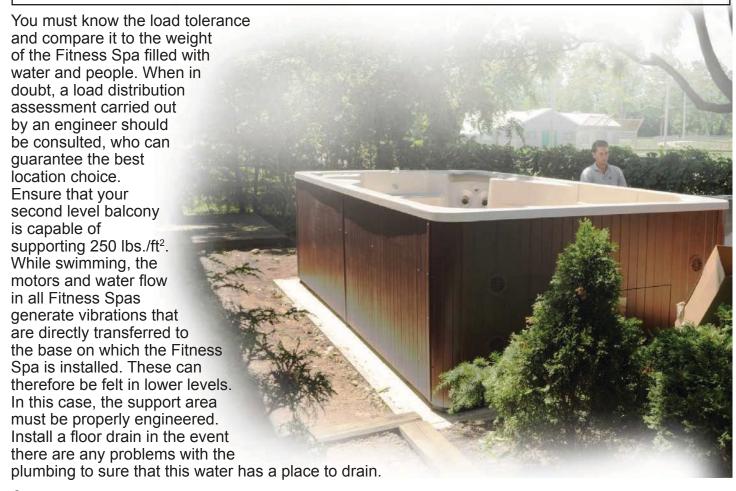
Install 4 - 6 in. of poured concrete. The concrete support slab must be flat and level in-order to properly level the Fitness Spa during installation. The concrete pad should be slightly larger than the dimensions for the Fitness Spa, but it may be expanded even further for esthetic purposes or to allow more space for walking around the Fitness Spa. Ensure that your concrete pad is capable of supporting 250 lbs./ft². If the Fitness Spa is purchased with steps your concrete pad should be made large enough to accommodate the size of the step.

Always make sure that the slab is perfectly flat before having the spa installed. You can use a garden hose and spray water on the slab and look for water puddles. If there is formation of puddles, you must re-work the surface, by adding self-leveling concrete or by buffing down the un-even area.

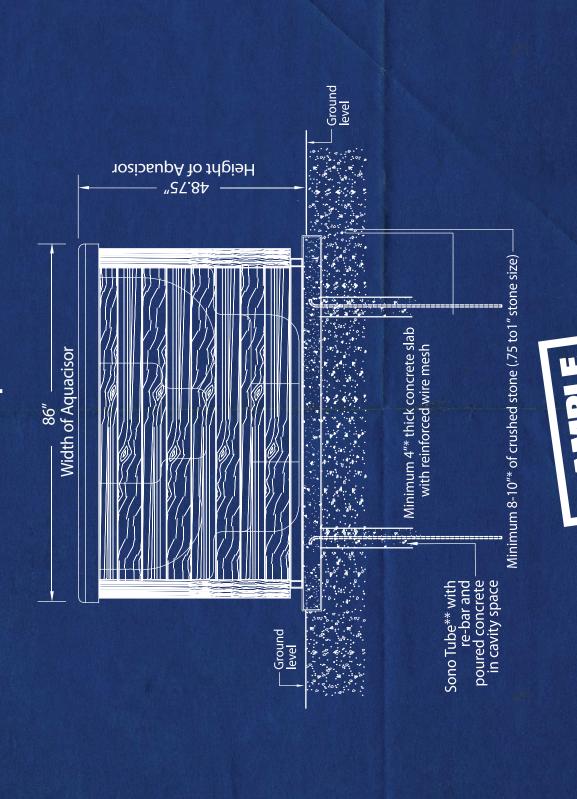
4.3 Second Level/Balcony Installation



WARNING: For spas that are to rest on balconies, roofs or other platforms not specifically tied into main structural support, consult a professional Structural Engineer with experience in this type of application.



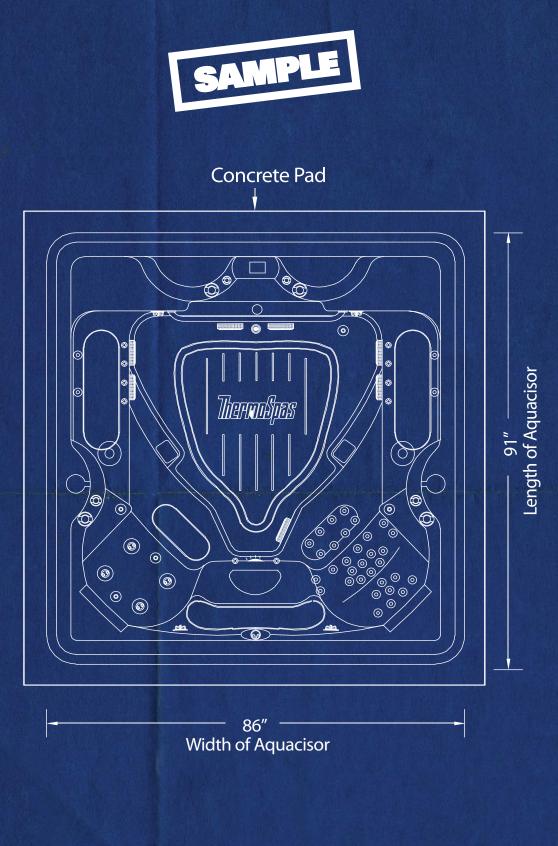
Cross Section Side View of Aquacisor Install Above Ground



ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only. **Sono Tubes are required in installations in regions that experience freezing and thawing.

Cross Section Topside View of Aquacisor Install Above Ground

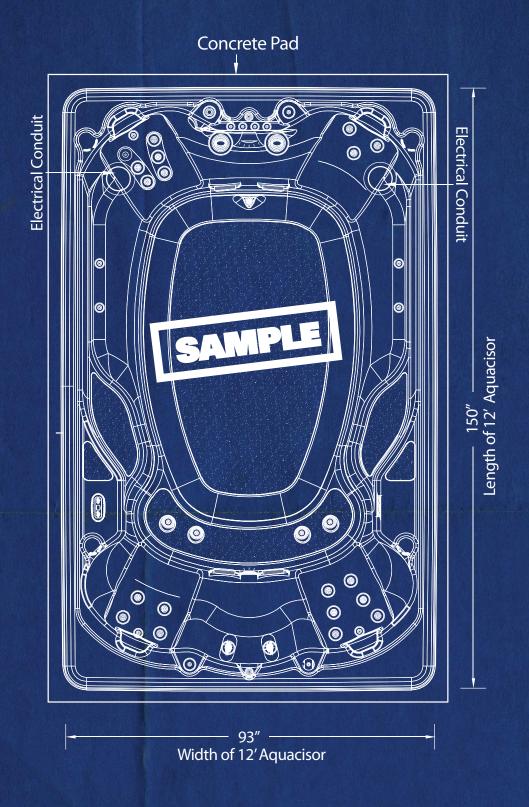
Note: Before building the concrete pad, take into consideration the need to make the pad larger if adding any steps or other accessories. This will keep everything on a level surface.



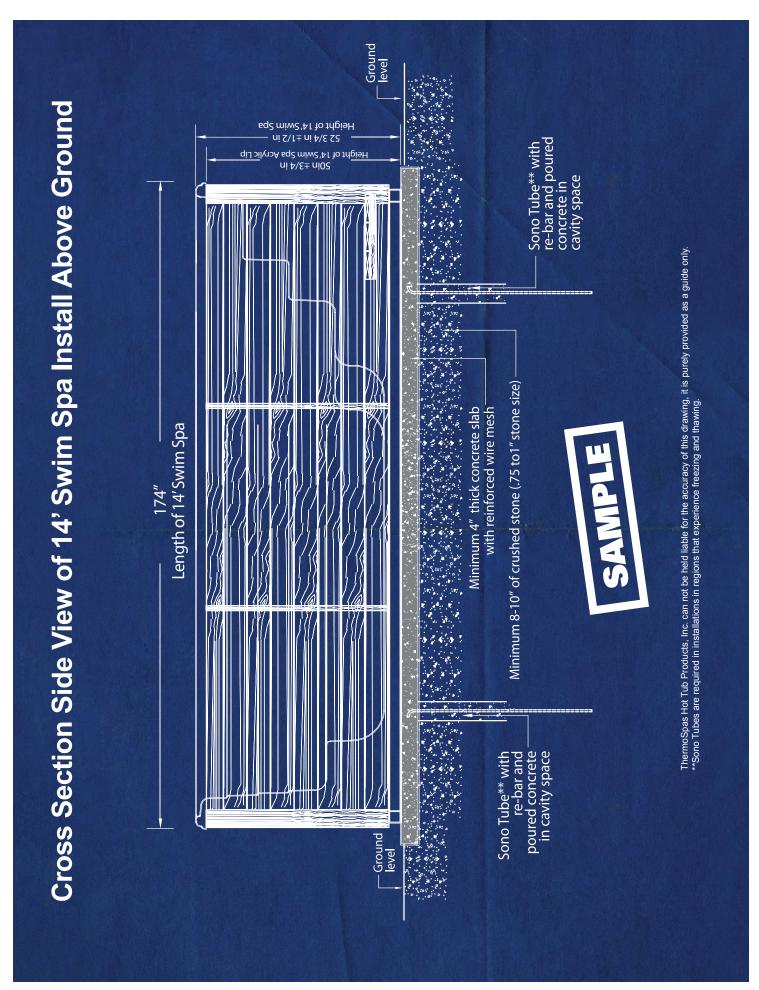
Cross Section Side View of 12' Aquacisor Install Above Ground - Sono Tube** with re-bar and poured concrete in cavity space Height of 12' Aquacison ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only. **Sono Tubes are required in installations in regions that experience freezing and thawing. Minimum 8-10" of crushed stone (.75 to1" stone size) Length of 12' Aquacisor Minimum 4" thick concrete slab with reinforced wire mesh poured concrete in cavity space Sono Tube** with re-bar and - Ground level

Cross Section Topside View of 12' Aquacisor Install Above Ground

Note: Before building the concrete pad, take into consideration the need to make the pad larger if adding any steps or other accessories. This will keep everything on a level surface.

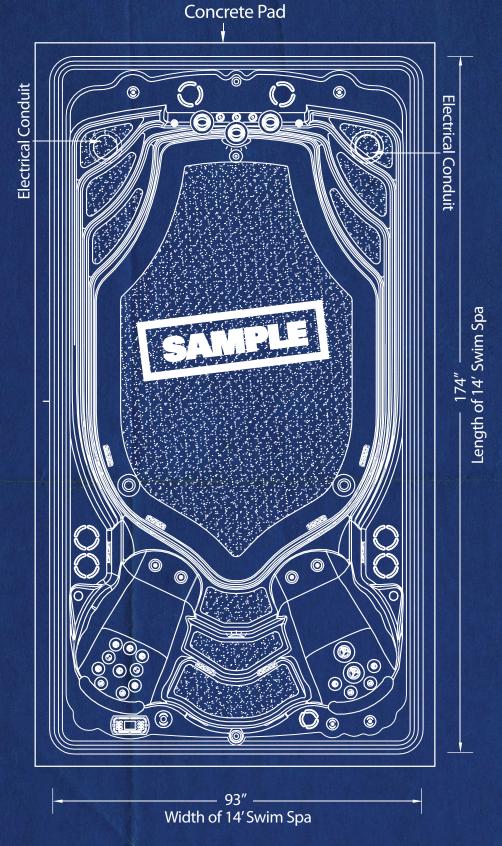


ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only.



Cross Section Topside View of 14' Swim Spa Install Above Ground

Note: Before building the concrete pad, take into consideration the need to make the pad larger if adding any steps or other accessories. This will keep everything on a level surface.

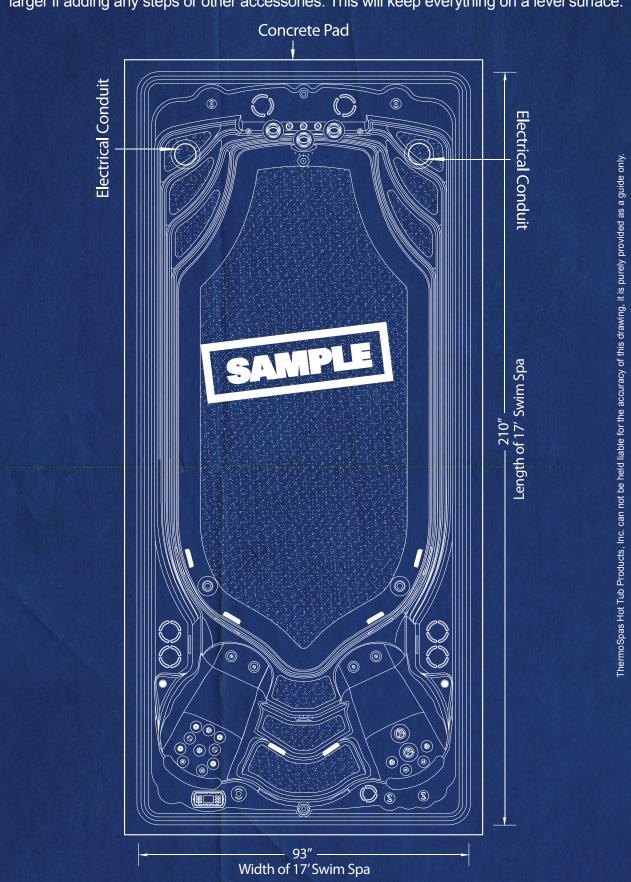


ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only.



Cross Section Topside View of 17' Swim Spa Install Above Ground

Note: Before building the concrete pad, take into consideration the need to make the pad larger if adding any steps or other accessories. This will keep everything on a level surface.



5 Below Grade or Partial In Grade Installations

5.1 Backfilling Exclusion

ThermoSpas Fitness Spas will void any warranty of Fitness Spas that are back-filled.

5.2 Excavation

Call before you dig! Please make sure you have any permits in place that are required from your municipality.

5.3 Vault/Bunker Specifications

When recessing the Fitness Spa all or part way below ground level, a concrete base along with a concrete retaining wall to hold back the earth is required. This forms a vault or 'bunker', in which the Fitness Spa is placed.

5.4 Base of Support

It is necessary that a concrete base be poured level and reinforced in order to support the Fitness Spa. In addition, if you are in an area that experiences freezing and thawing concrete footings should be added as outlined in section 4 of this guide.

5.5 Crawl Space

It is recommended leaving a 24 in. wide crawl-space around the entire unit to ensure adequate accessibility on the all sides for service access. At the equipment end it is recommended to have a 3 ft. crawl space for work space.

5.6 Ground Water

The vault will be the lowest part of your backyard and therefore good drainage is essential. A properly designed drain system and sump pump complete with a float switch should be constructed as part of the crib and should be located at the equipment end of the Fitness Spa. This should prevent flood damage from ground water that may enter the crib.

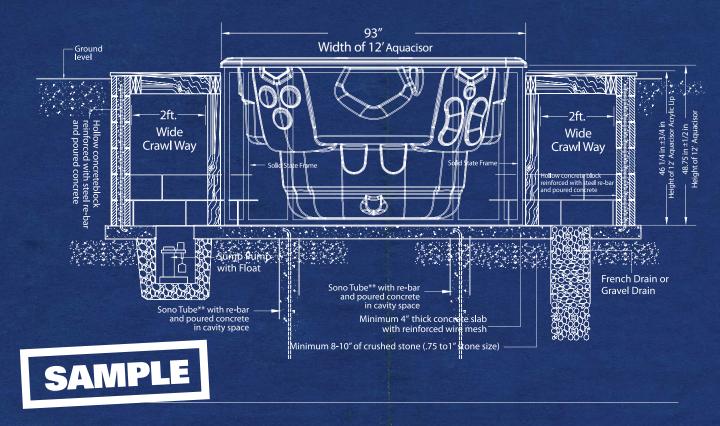


Cross Section Top View of 12' Aquacisor Inground

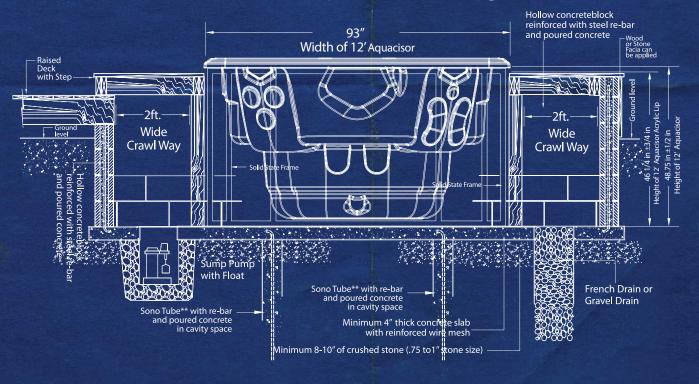


ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only.

Cross Section End View of 12' Aquacisor Full Inground Installation



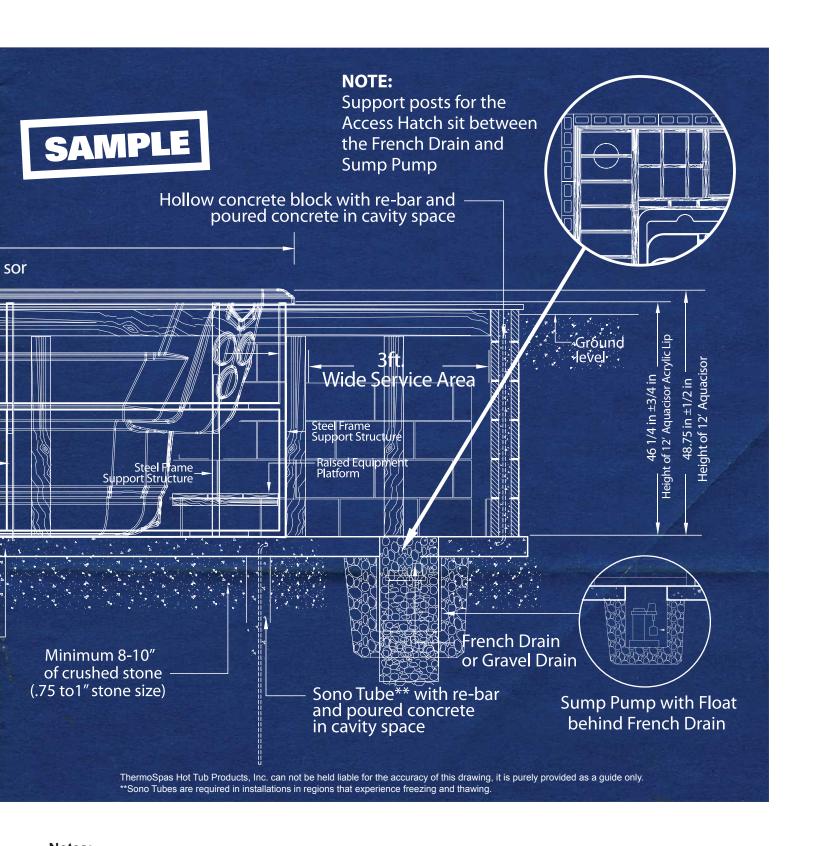
Cross Section End View of 12' Aquacisor Partial Inground Installation



ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only. **Sono Tubes are required in installations in regions that experience freezing and thawing.

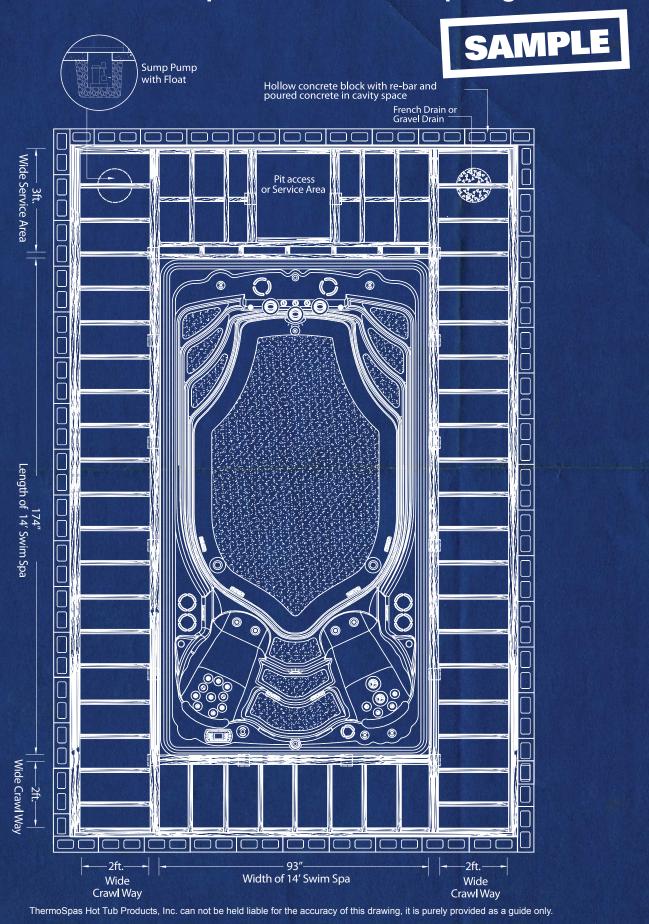
Cross Section Side View of 12' Aquacisor Install Inground Hollow concrete block with re-bar and poured concrete in cavity space 150" Length of 12' Aquaci Ground level 2ft. Wide Crawl Way Steel Frame Support Structure Steel Frame Support Structure Minimum 4" thick concrete slab with reinforced wire mesh Sono Tube** with re-bar and poured concrete in cavity space

Notes:			
			_

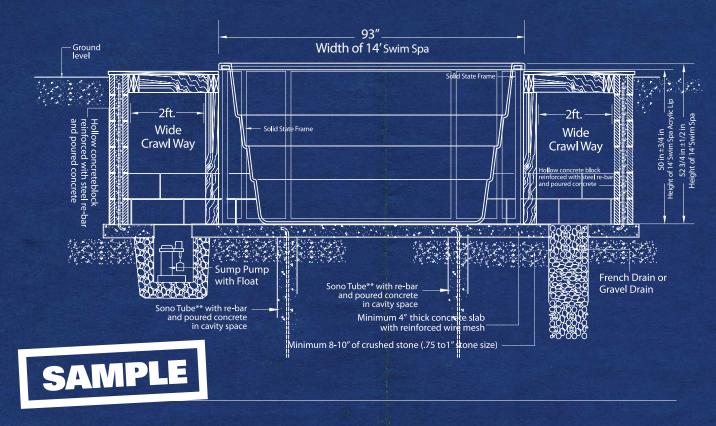


Notes: ————		
·		

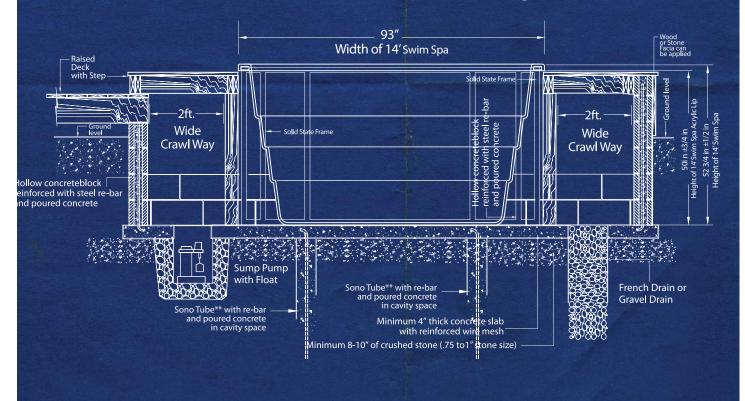
Cross Section Top View of 14' Swim Spa Inground



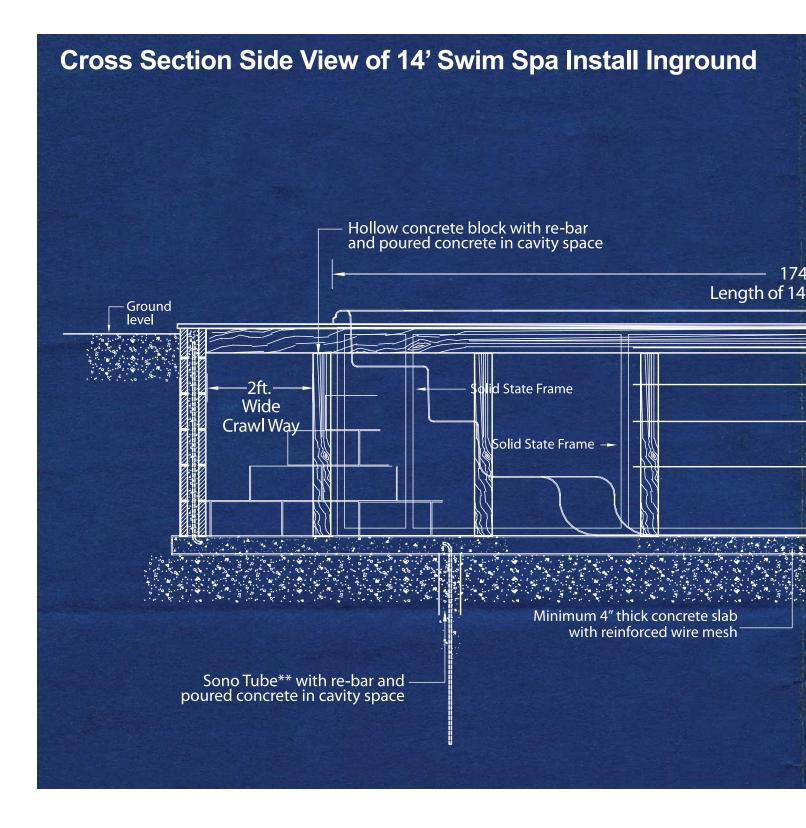
Cross Section End View of 14' Swim Spa Full Inground Installation



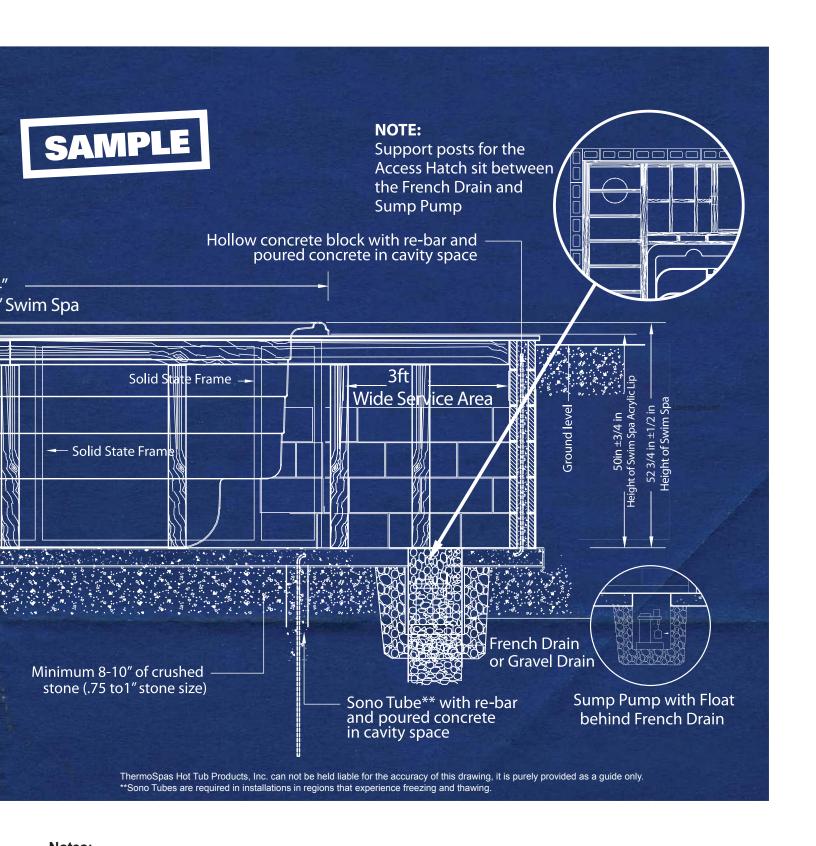
Cross Section End View of 14' Swim Spa Partial Inground Installation



ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only. **Sono Tubes are required in installations in regions that experience freezing and thawing.

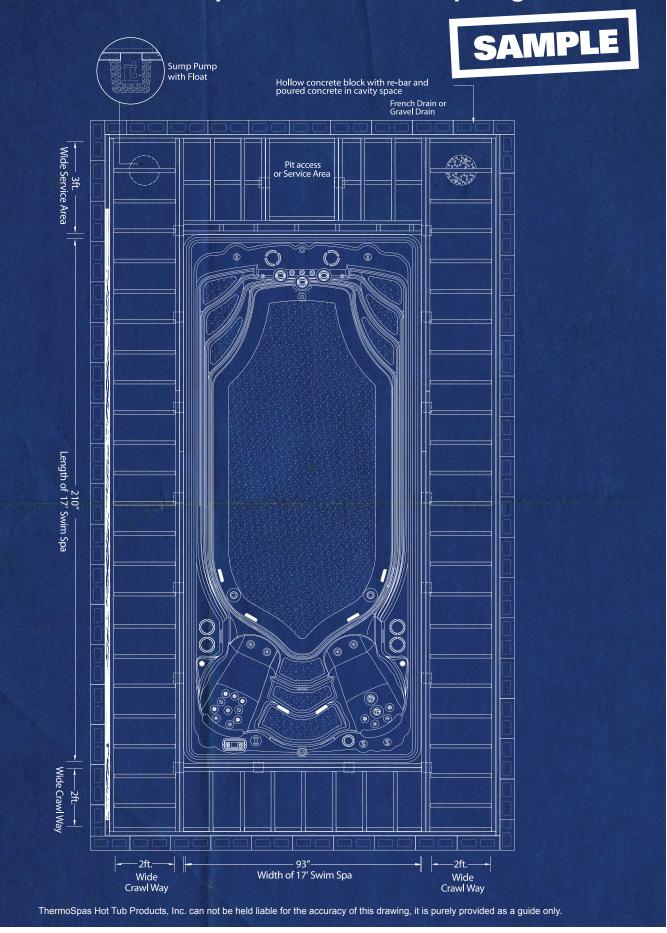


Notes:		



Notes: ———			

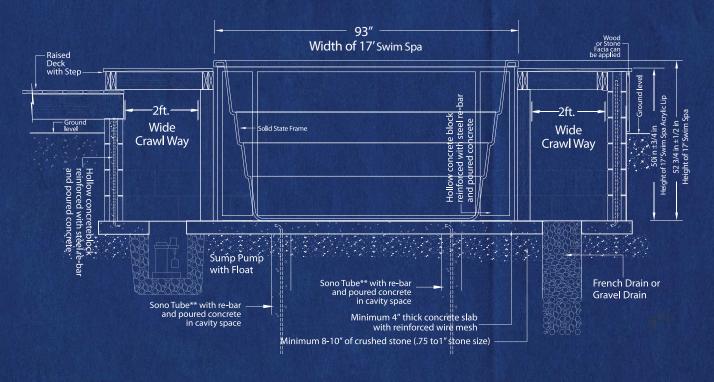
Cross Section Top View of 17' Swim Spa Inground



Cross Section End View of 17' Swim Spa Full Inground Installation



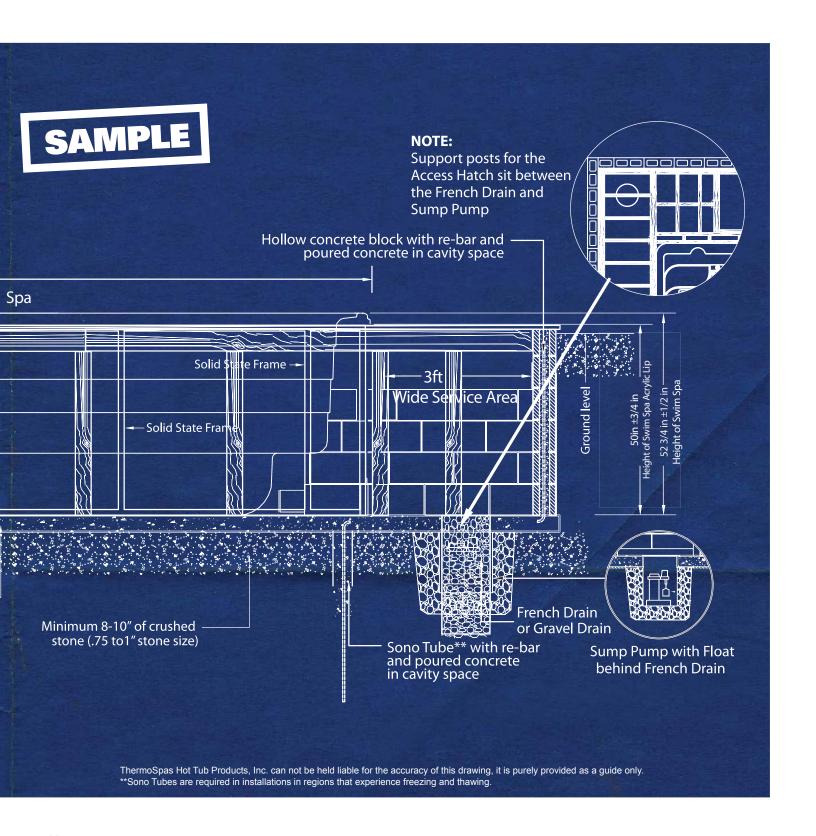
Cross Section End View of 17' Swim Spa Partial Inground Installation



ThermoSpas Hot Tub Products, Inc. can not be held liable for the accuracy of this drawing, it is purely provided as a guide only. **Sono Tubes are required in installations in regions that experience freezing and thawing.

Cross Section Side View of 17' Swim Spa Install Inground Hollow concrete block with re-bar and poured concrete in cavity space 210" Length of 17' Swim Ground level Solid State Frame 2ft.-State Frame Wide **Crawl Way** Solid State Frame -Minimum 4" thick concrete slab with reinforced wire mesh Sono Tube** with re-bar and poured concrete in cavity space

Notes:			



Notes: ———			
	•		

5 Below Grade or Partial In Grade Installations (Cont'd...)

5.7 Service Access

Future service must be considered at the time of design and installation. You must be able to access all sides and areas of your Fitness Spa. Difficult access will result in supplemental service labour charges not covered by the factory warranty. Consider easily removable deck materials.

5.8 Water Test

During shipping and handling some of the components may have shifted. Please ensure the Fitness Spa is tested for 48 hours before you prepare the installation of the surrounding/finish deck around your Fitness Spa. Even though all units are tested in our plant, some transport/site handling damage may occur and we suggest you make sure the Fitness Spa is perfectly waterproof before finalizing your installation.

5.9 Overall Support

Your Fitness Spa is equipped with a factory installed load support substructure, which distributes the weight of the water over the entire foot print area of the Fitness Spa. The supporting floor must be even and level. Although the lip of the Fitness Spa must be supported to ensure it remains level, **NEVER SUSPEND** a Fitness Spa from a deck or floor by the outer acrylic edge, as this will lead to product damage and/or serious personal injury.

5.10 Insulation

It is important to create a well-insulated vault when installing a Fitness Spa in ground. Use insulated concrete forms when pouring the walls of the vault. This will accomplish two things, one it will provide the wall support needed to build a deck and two it will give the insulation required to keep the running costs to a minimum

5.11 Equipment Protection

The equipment must be located in an area where it will remain dry and will not be exposed to rain, snow or ground water. When your Fitness Spa is to be installed above ground, the factory cabinet is designed for both protection, insulation and accessibility. When your Fitness Spa is to be installed fully or partially in the ground, or if you have ordered a Fitness Spa without a cabinet: it is necessary that the equipment be installed in an area that is dry, protected from the elements, has proper ventilation, and is easily accessible for service.



6 Serviceability, Accessibility and Protection

6.1 Equipment Protection

The equipment must be located in an area where it will remain dry and will not be exposed to rain, snow or ground water. When your Fitness Spa is to be installed above ground, the factory cabinet is designed for both protection, insulation and accessibility. When your Fitness Spa is to be installed fully or partially in the ground, or if you have ordered a Fitness Spa without a cabinet, it is necessary that the equipment be installed in an area that is dry, protected from the elements, has proper ventilation, and is easily accessible for service.

6.2 Serviceability

Ensure that access to the equipment, and the working area around the equipment, is large enough to accommodate a service person.





7 Filling and Draining

7.1 General Considerations

- · Be sure to check with your local by-laws regarding disposal of waste water from your Fitness Spa
- · Filling through the skimmer is optimal for reducing/eliminating any air locks

7.2 Indoor installations

There will be water lost in the Fitness Spa due to splash out, hence, you will need to top up the Fitness Spas periodically. When building the room for the Fitness Spa consider plumbing a water tap location nearby to facilitate filling. You will need to drain your Fitness Spa periodically, so please make sure to install a drain in the room that can handle the volume of water in a Fitness Spa.

NOTICE: ThermoSpas recommends contacting Customer Support at 1-800-876-0158 to discuss requirements prior to proceeding with any indoor installations.

7.3 Outdoor Installations

Draining and filling is easy with an outdoor Fitness Spa. Use a garden hose to fill the Fitness Spa and use the hose provided to drain it. Do not plumb a permanent fill or drain line to the Fitness Spa if you are in an area where the temperature drops below freezing.





8.0 Humidity-Ventilation Other Indoor Considerations

8.1 Humidity

All Fitness Spas emit quantities of moisture into the surrounding air. In fact, evaporation will increase proportionally with the difference between the temperature of the surrounding air and of the water. To prevent this from happening, heat the air to more than 79° F if the Fitness Spa is located inside a dedicated room. This will make bathing more comfortable and will limit evaporation.

8.2 Ventilation

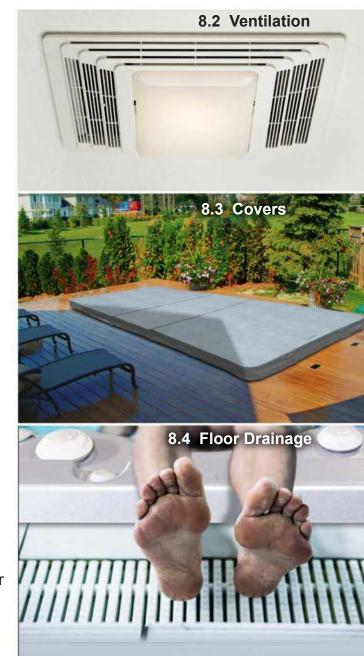
The Fitness Spa room should have a window, and a humidistat controlled exhaust fan for ventilation. Some rooms may require a mechanical air extraction system in order to potentially dehumidify the air during and after swimming. Consult your local Building Codes.

8.3 Covers

If you decide to purchase the hardcover put it on when you are not using the Fitness Spa. This will reduce evaporation and limit your water heating costs. Use your hard cover as much as possible or purchase a floating summer cover for easier use.

8.4 Floor Drainage

It is very important to install a non-slip surface/tile for your indoor installation as the floors will become very slick with water on it. It is also important to install floor drains around the Fitness Spa to help with the splash out.



9 Hardcover Storage

9.1 Hardcover

If your Fitness Spa comes with a Hardcover, make sure to prepare storage area for when the Fitness Spa is being used. The Fitness Spa cover comes standard in a number of sections that are velcroed together depending on the size.

9.2 Cover Lifters

Cover Lifters are a great addition. Attached to both ends of the Fitness Spa, Cover lifters make it easy to get in and out of the Fitness Spa.

WARNING: If you install a Cover Lifter on the end of the Fitness Spa, it will block entry to the step area.

10 By Laws and Disclaimers

10.1 Building Code

Contact your local building code department to determine if a building permit is necessary and for information on applicable bylaws (distance from property lines, buildings, fencing requirements, etc.)

10.2 Excavation

Prior to any excavation contact your local gas, electric, and cable company to ensure that there are no underground lines.

10.3 Recommendations & Preparation Guidelines

This an integral part of your order, and it contains the recommendations and guidelines for preparing your work site. It is important that you take the time to carefully read this document in your capacity of Project Manager.

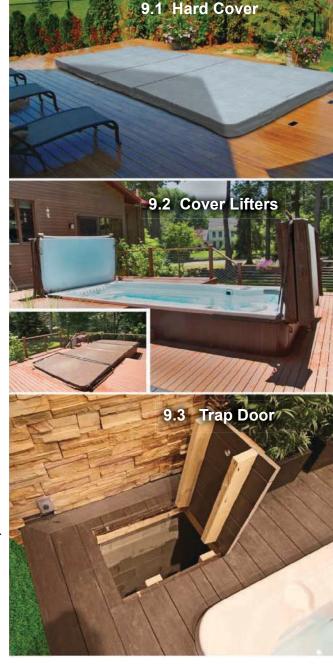
10.4 Professionals

Attention: You must enlist professionals to complete the preparation work, and provide a copy of this document to each of them. This work will be carried out under their sole responsibility. Furthermore, if you plan to use a delegated Project Manager, you must also provide him or her with this document, and we recommend that you ensure its proper care in order to guarantee compliance with the regulations. Of course, we are available to answer all of your questions regarding the installation of your spa. The specifications described in this document are intended for professionals and are for informational purposes only. The Project Manager must consider these specifications while performing the work in accordance with the regulations and standards for the specific model.

10.5 Sunlight

DO NOT leave the Fitness Spa out in the sunlight for extended periods of time with no water. The cabinet may bend slightly if exposed to sunlight for extended periods of time or the acrylic may crack.

CAUTION: Covers must be kept on the Fitness Spa at all times when unit is drained or winterized. Direct exposure to sunlight can damage plastic parts and interior space, jets, or any interior components. Damage caused by exposure to sun will not be covered under warranty.





2022 Fitness Series INSTALLATION GUIDE







14' SWIM SPA



12' AQUACISOR



AQUACISOR



CAUTION: THIS GUIDE IS FOR REFERENCE ONLY! All installations must follow local electrical and building codes. Please consult your local business and planning division for your codes in your area.

THERMOSPAS WILL NOT BE RESPONSIBLE FOR ANY ERRORS IN INSTALLATIONS OR CODE INFRACTIONS.

EFFECTIVE DATE: January 1, 2022 (supersedes all others)