

General Installation Guide

Site Considerations/Preparation:

Prior to receiving your Hydrother hot tub, be sure you have a path which is wide enough to accommodate the tub and is clear of obstructions to the final location of the tub.

If you are pouring a concrete pad you will require sleeves to be formed into the walls or floor of the concrete pad to run lines from the tub to the mechanical package. A 1.5" and 2" line will require a 3" sleeve. A 3" line will require a 4" sleeve. Refer to the appropriate hot tub drawing for the number of sleeves required. You may download it from our website or contact us at info@hydrother.com

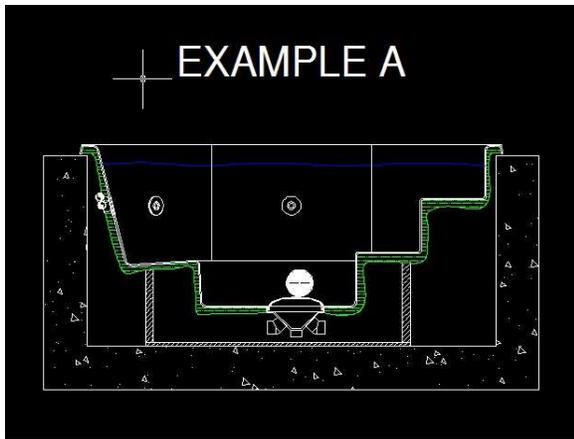


A drain should be installed in the floor of the pad in case leaks form and allow moisture build up to escape due to condensation. This should be connected to your sanitary lines going to the sewer system.

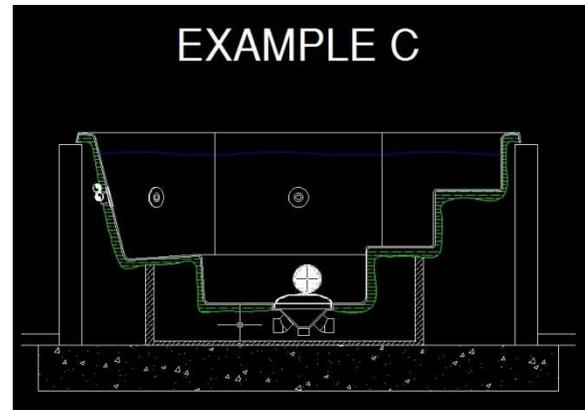
Concrete is porous and must therefore be waterproofed to prevent any water/condensation from leaking into any nearby rooms or hallways.

Review the drawing of the appropriate hot tub to see required dimensions of the concrete pad to be poured. You may download it from our website or contact us at info@hydrother.com

There are several ways which the pad may be created.

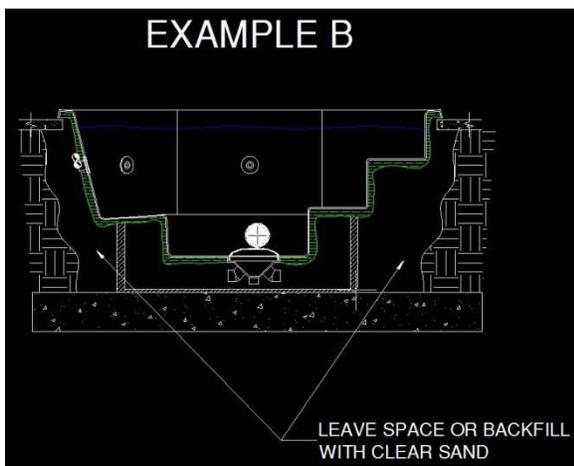


Example A is probably one of the most common methods of creating the concrete pad for new installations. It is in ground and has walls poured as well. This may also be similar when replacing an old concrete hot tub with a pre-plumbed acrylic shell where rather than pouring a pad the existing concrete shell is reused.

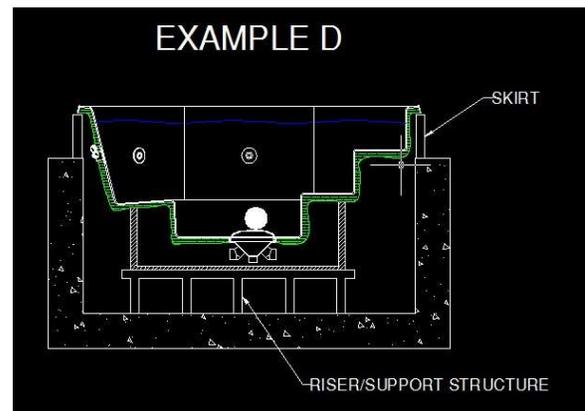


Example C is a hot tub which is on the floor slab. The tub is simply placed on the slab and a "skirt" is built up around the shell on the slab.

On some occasions you may be required to build a riser/support structure to raise a tub higher than normal as seen in example D. You may wish to build this way if you plan on doing a skirt/platform around the shell using an existing pad.



Example B is outdoor and in-ground. A concrete floor is poured for the tub, but no walls are poured and the floor slab would extend to the edges of the tub. The space under the tub may be left empty or back filled. If you choose to back fill install a barrier between the PVC fittings and the backfilled sand. This is to protect the fittings from being damaged by the pressure of the sand. Use clear sand in all cases.



It is recommended that an access hatch is built into the pad under the stairs so a person may be able to access the underside of the tub for inspection/maintenance.

If this is a renovation you may be required to dig trenches in order to run pipe to and from the tub and mechanical equipment room.

Due to the size of the mechanical equipment it cannot be contained under the hot tub. A separate location will be required. The mechanical equipment

would ideally be 50 ft or less away and not more than 75 ft away.

We recommend the mechanical room be no less than 6' x 8' to allow for sufficient space for maintenance, drains and electrical.

The mechanical room will require a drain connected to your sanitary lines going to the sewer system to drain your hot tub and a fresh water line for water make up/filling. **Consult your local building codes for requirements.**

Proper ventilation for the mechanical room is required. **Consult your local building codes for requirements.**

An electrical panel is required to operate the pumps and heater. A standard wall plug is required if you have a chemical controller. Review Hydrother's drawing of the appropriate hot tub. You may download it from our website or contact us at info@hydrother.com. **Consult your local building codes for requirements.**

Hydrother hot tubs are built with a support cradle made of pressure treated and waterproofed wood. For outdoor, in ground installations back filling is not required and not recommended due to maintenance considerations.

Receiving/Moving/Delivering Your Hot Tub:

Your Hydrother hot tub will arrive via common LTL carrier. When you receive your hot tub it will be shrink wrapped and strapped to a skid. A forklift with extended forks will be required to off load it from the trailer safely.



Do not remove packaging or skid until the tub is at its final location or unless it is absolutely necessary.

If the tub is not delivered straight to the job site, you may load the hot tub on a large open trailer and strap it down securely. If the hot tub is one of the smaller models you may be able to strap it to the back of a pick-up truck.





If a forklift is not available you will require 4 – 12 people to lift and move the hot tub to the final location. Another option would be to roll the hot tub on several pieces of 4" piping.



In some cases a crane will be required to lift the hot tub to higher levels of a building. If you must do this be sure the straps are spaced to evenly spread its weight. Also be careful that nothing is touching any of the plumbing or the outside edges of the tub so it will not be damaged during the lift.



Installing Your Hot Tub:

If you are not using the automatic water level controller which comes standard with the hot tub, be sure to cap it prior to lowering it onto the pad.

You may manually drop the tub into its final location with the help of 4 to 12 men depending on the size of the hot tub.

If you do not have sufficient manpower to place the hot tub you may use several chain hoists anchored to the ceiling to drop the hot tub into its final location. Use the rope loops which has been fiber glassed to the inside shell to lift it.



If there is no ceiling with which to install anchors then you may wish to set up scaffolding with which you can extend steel bars across and attach the chain hoists onto.



Prior to lowering the hot tub, place long 1" thick pieces of wood around the sides of the pad. Lower the tub onto the wooden beams. This will allow you to easily shift the tub to straighten it. Once this is complete you can remove the beams.



Once all final finishing of the floor around the hot tub is completed a bead of silicone should be placed around the outside bottom edge of the tub. This is to prevent any excess water in the surrounding area from going into the pad.

Electrical/Wiring

HOT TUBS

If supplied with factory skid-mounted mechanical packages the following will apply:

There will be two electric motors, the first is a circulating. The other is a jet pump. In addition there may also be an electric heater.

All three will require power fed through controls to be provided by other contractors and independent wires run from a main panel. The electrician should read the labels on each piece of equipment to determine phase, voltage and amp draw so the proper size and type of wire can be purchased according to the length of wire run.

Note: when connecting and first starting three phase pumps it is critical that the rotation of the pump be correct as indicated by the rotation arrow located on the pump. Failure to ensure that the pump is in proper phase and rotation will result in improper performance and damage to equipment.

Where mandatory individual GFCI's can be installed for each piece of equipment or a large GFCI that controls the entire hot tub sub panel can be installed.

Please note that it is the electrician's responsibility to provide starters and where required by Law to also provide grounding current collectors, hi-limit switches, ground fault circuit protection and push/pull emergency shutoff switches. The placement of these controls must be so that the operator of the equipment has direct and easy access to them during daily operations. Magnetic

contactors and disconnects for pumps and heater must be located beside the related equipment.

In the event that there are any handrails, the installation of a grounding wire will also be required.

The smaller circulation pump is designed to run 24 hrs a day. The larger jet pump requires a 15 minute timer which should be installed on a wall at least 10 feet from the hot tub water.

The filter pump should be powered with the appropriate voltage and phase power through a magnetic contactor with "MANUAL/OFF/AUTO" settings to allow for the control loop of the emergency stop switch where required. The control circuit of the emergency stop switch must be wired through the AUTO side of the contactor so that when the control side of the AUTO side is interrupted, the pump will shut off. The contactor must be suitable for the control side voltage as well as the line voltage for the pump. The electrician is to confirm magnetic contactor is equipped with overloads to accommodate the start up and operational amp draw of the pump.

The jet pump(s) are to be wired the same as immediately above but to accommodate the additional control loop of the timer. The jet pump will therefore be controlled by the emergency stop switch (where required) and by the timer for the jet pump. The Jet pump will be normally activated only by the timer and deactivated by the expiration of the timer cycle unless the emergency stop button is activated.

If the spa mechanical package is supplied with an electric heater; the heater will have to be wired through a disconnect of sufficient overload capacity to accommodate the amp draw during operation. The Heater has its own operational thermostat and internal high limit thermostat. On the inside lid of the heater are the full wiring diagram for reference of the electrician.

Where a chemical feeder is involved the electrician must provide two dual 110v single phase receptacles on a dedicated 15 amp circuit for plugging in the Link

103- F chemical controller and one to two feed pumps. The extra receptacle will prove to be handy for service technician purposes.

Swim-in-Place Exercise Pools

As above however will most likely have a total of three pumps, one for circulation/filtration, the other two for jet pumps. The Intermatic timer should be wired to operate both jet pumps at once.

Please note that the installation of electrical equipment will be governed by local or state/provincial code. Permits, inspections and governance of the equipment listed within this or other directions must be in compliance with all applicable codes.