



**CottageTub assembly, installation and
owner's manual**

Outdoor use only



Section 1. General Information

Electrical Requirements: Install all equipment in accordance with the National electrical code and all applicable local codes and ordinances. Refer to the pump install guide and consult with an electrician.

Location of heater and tub:

Locate the heater and the Cottage Tub in an area where a leaking heat exchanger or tub or connection leak will not result in damage to the area adjacent to the heater or structure. **The heater must be installed at least 5-6 feet from combustible structures. The cottage tub HEATER IS FOR OUTDOOR USE ONLY.**

Water Piping:

This heater is designed for use with pool and spa hot tub water only. The warranty does not cover heater use with mineral water, sea salt or other non-potable waters. Do not install any restriction in the water pipe between heater outlet and pool/spa. Blockage of water flow from heater return to pool may result in fire or explosion causing property damage, personal injury or loss of life.

Condensation:

Condensation will occur on NEW POOL HEATERS until the pool water is approximately 72 degrees F; this is Science! Once your water warms up and the stove becomes accustomed to the fire the condensation will slow to a stop. Please understand you will see water coming off the inside of your stove until your hot tub temp is over 72-degree F and the stainless steel becomes accustomed to heating and cooling. **No, your stove is not leaking!**

Curing of the stove: (Water must be running through the stove at all times when having a fire)

To comply with the warranty and to ensure your stove has a long-life expectancy it is recommended that you follow the curing instructions below

1. Crumple single sheets of newspaper into small loose balls and fill the bed of the stove with the crumpled balls.
2. Add small pieces of kindling (very dry small pieces of wood, twigs, etc. No leaves, or pine needles) on top of the newspaper balls.
3. Light the paper balls with a match. **DO NOT USE FLAMMABLE AGENTS SUCH AS GASOLINE OR KEROSENE** to ignite the paper balls.



4. Once the paper balls and kindling are established, add 2 small 1" to 3" diameter logs to the fire.

5. Once the logs are established, close the stove lid and allow the fire to burn out completely.

Let the stove cool down **entirely**, then repeat steps one through five THREE times, **always allowing the stove to cool completely between repeats.**

PLEASE NOTE: The natural properties of stainless-steel cause the steel to expand and contract when heated. You may hear some popping sounds which is the stainless-steel contracting especially when water is first put into the system. This is normal and does not pose a safety hazard or damage the stove. **NEVER TRAP THE WATER INSIDE THE STOVE WHEN HAVING A FIRE.** Over time the stainless Steel will also blacken; this is also a natural property of stainless steel when heated. The staining of the stainless steel is not covered under our limited warranty program.



Section 2. Unpacking the cottage tub

The CottageTub is shipped on an L-shaped skid, standing upright (see picture below).



Step 1:

When you first receive your CottageTub unpack all parts and wood from the skid and then remove the tub from its stand-up position and place on the ground for now

Step 2:

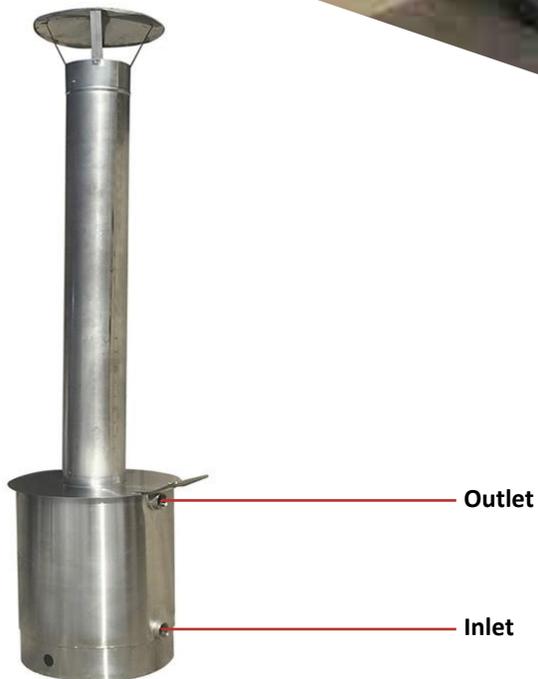
Remove the wood supports (2x4's) off the bottom of the tub

Step 3:

remove the screws from the vertical section of the skid

step 4:

Refer to Section 3. Site preparation below



Section 3. Site Preparation

Site preparation is probably the most difficult of all the tasks involved with the installation of the CottageTub. A firm stable and level foundation is important, as the CottageTub weighs roughly 5500 pounds when full of water. It is very important, that rain runoff, a leaking PVC connection, or draining the Cottage tub, does not erode the ground under the tub, as this will result in the tub not being level over time. Take great care and time in prepping the site.

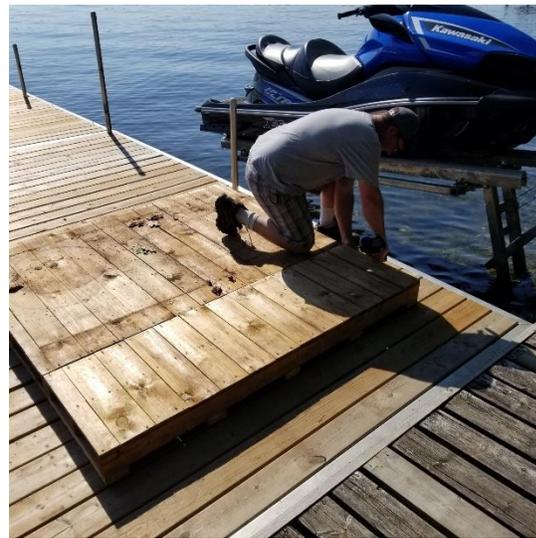
The CottageTub is shipped on an L-shaped skid, standing upright. Refer to unpacking the CottageTub above. This skid, now becomes the base for the CottageTub, it is very important the skid is used for installation, especially if hooking up the CottageTub through thermal-siphoning.

***** Note - Decide which plumbing configuration is going to be used – if using thermal-siphoning option ensure the tub return jet (top jet of the CottageTub) is at least 3-4” higher than the heater outlet*****

Once the ground has been prepared and levelled, both sections of the shipping skid should be placed on a level surface screwed together. It may be easiest, to take both sections of the skid, and screw them together on a nice level surface.



Avoid screwing the skid together on a surface shown above, this will cause you problems in the next steps



Screwing the 2 sections of skids together on a level ground is much easier and will save a lot of



Position the skid/base in its permanent location and ensure it's level.



Installing the CottageTub into Decks

Fitting the hot tub into or on a deck is probably one of the most aesthetically pleasing installations. The possibilities for deck installations are just about endless, the CottageTub itself can be recessed down into a deck either partially or completely. The support structure of the deck must be able to handle the weight of the filled CottageTub with the safety margin. Local codes should be checked as a can be helpful and may govern your deck.

If the hot tub is recessed down into the deck, make sure you plan for adequate access to the CottageTub plumbing. If you're using a jet system and if a leak or other issue develops in the plumbing, it will almost certainly be the most inaccessible location. Also think about winterizing the CottageTub, you will want access to all jet connections, pump, filter, etc. as mentioned earlier, it is very important your deck meets building code in your area and can handle at least 5500 pounds, which is the weight of the CottageTub, when filled with water. **Like many customers do, they choose to put the CottageTub into their deck, it is very important, that the wood burning heater, is 5 to 6 feet away from anything combustible.**



Section 4. Installation of the Cottage Tub

Now that the shipping skid is put in place, is level and secure, it is ready for the CottageTub to be placed on top of it, the pressure-treated skid, acts as a perfect base. The stainless-steel tub is light enough for 2 people to carry into place.



Centring the CottageTub onto the level base

The easiest way to centre the CottageTub onto the base, is to grab 8 of the pre-cut cedar siding boards. The cedar siding boards will slide up underneath the top lip of the CottageTub. You will feel a groove which allows the cedar siding to perfectly tuck up under the lip of the tub without falling over. You're going to install temporarily one cedar board on each side of the corners.



(Only required if the drain plug location board has not been removed at the factory).

Once you have the tub centred on the base, with 2 boards on each corner, as shown in the picture above. It is now time to mark the drain plug location, as well as the outside edge of the tub on the skid, see below. Don't forget to mark the outside of the tub on the skid so its easy to find its centre location again. Push the tub to the side and cut out the area for your drain plug. DON'T BE SCARED TO CUT A NICE SIZE HOLE, AS IT WILL MAKE INSTALLING THE DRAIN MUCH EASIER.



The tub can now be slide back into place, double check for level and permanently fastened to the skid with some screws and washers or with the packing nuts and bolts holding the tub onto the shipping skid.



Section 5. Plumbing (Make a decision on which plumbing configuration you are going with and ignore the other two).

There are **3 different** plumbing configurations that can be applied to the CottageTub.

1. **Most popular** and like a conventional hot tub where the pump circulates the water through the heater.
2. **2nd most popular – Thermal-siphoning**-no pump or filter the water natural circulates as its heated.
3. **3rd most popular – Thermal-siphoning-but a pump and filter** are used only when you want to circulate the water and filter the water.

Gluing the PVC Fittings: Each PVC fitting should be primed and glued, as per the instructions on the PVC glue and primer. **Note: the PVC glue and primer are not provided.** Any threaded fitting (inlet/outlet on stove, drain on stove and drain after the filter) should be wrapped with plumbers' tape or pipe dope.

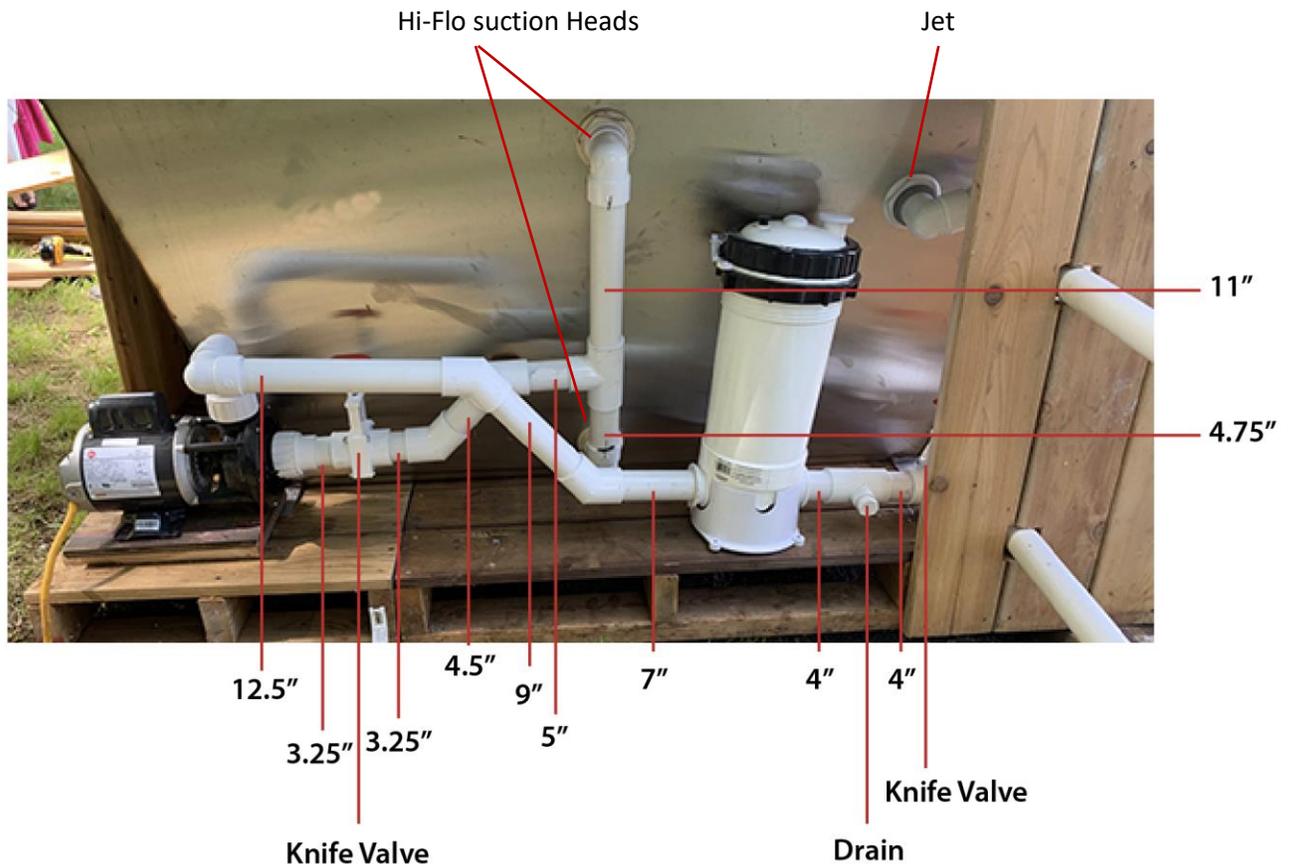
1st configuration – (Most Popular), where the pump and filter are hooked into the heater, and the pump must run when having a fire. This set-up is also our fastest way to heat your CottageTub with the least amount of wood.

Inside your PVC box you will find the following:

- Pump,
- Filter & filter base (Filter base is screwed into the top of the skid)
- 2 x jet body's with gaskets and nuts,
- 7 x 90 degree PVC,
- 4 x 45 degree PVC
- 1 x PVC T,
- 12 feet of 1.5" PVC (3 x 4-foot sections)
- 2 spigot manifold
- 3 x 2" to 1.5" reducer (1 for each side of the filter and 1 for the 2-spigot manifold)
- 2 x 1.5" to ¾" reducer (1 for each jet body)
- ¾" barb (glues into the reducer outside of the jet body)
- 4 x metal clamps, (2 for clear water line onto the 2-spigot manifold and 1 each of the ¾ barb)
- 2 x knife valves (1 before the pump and 1 after the filter. It allows the pump and filter to be serviced without draining the CottageTub)
- 1x drain assembly with ¾" ball valve and 3 feet of ¾" flex for the drain
- 12 feet of ¾" clear vinyl water line
- 1 x PVC "T" with ¾" nut to be installed after the filter, acts as a drain
- 2 x Hi-Flo suction Heads with rubber gasket or jets
- 2 x stainless steel caps/plugs with gasket to plug the holes on the opposite site of the Hi-Flo suction heads



The pieces listed above will allow you to create the exact same set-up as shown in the picture below. The dimensions listed will also create the exact same set-up. The set-up shown below is showing the pump sucking water from the CottageTub, from the Hi-Flo suction Heads, pushing the water through the filter, through the heater and back to the CottageTub through the jets.



2 x Hi-Flo suction Heads with rubber gasket or jets, both are suitable, it depends on our PVC supplier. Rubber gasket goes on the inside of the Cottage Tub



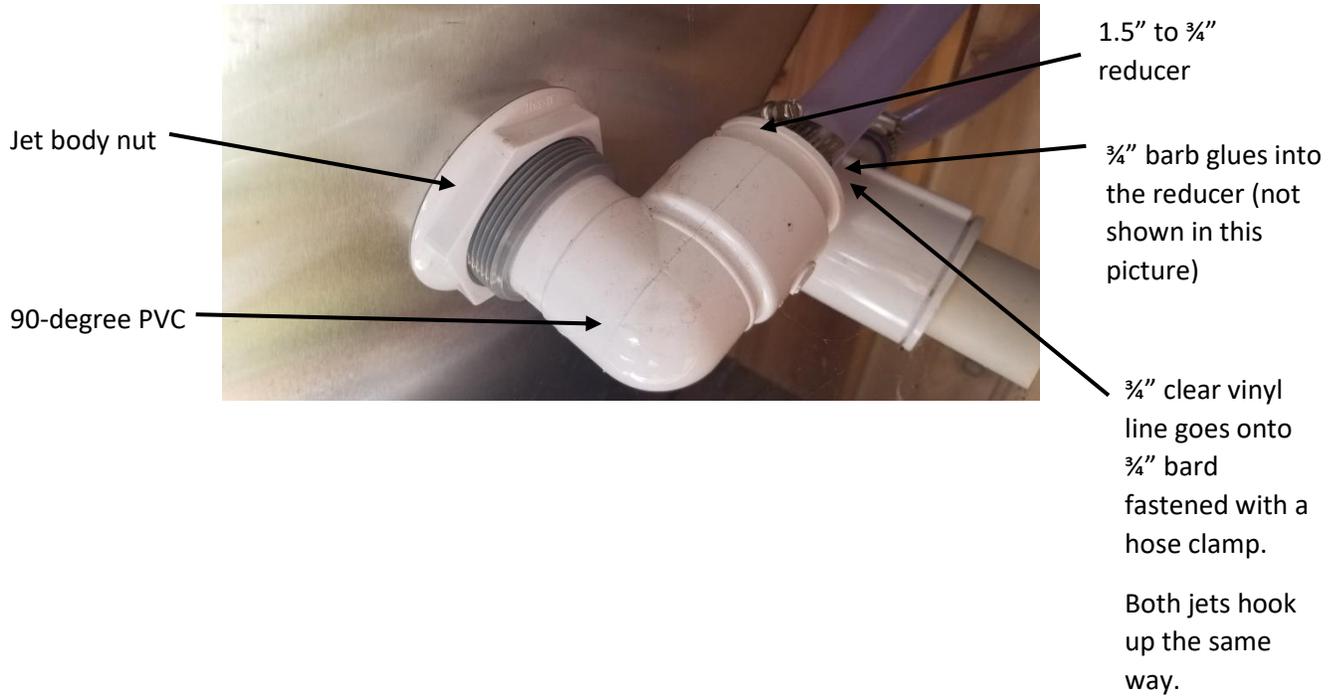
2 x stainless-steel plugs/caps with rubber gasket and nuts. These plugs/caps will plug the 2 holes which are on the opposite side of the Hi-Flo suction Heads. Gasket goes on the inside of the tub and the plate with nut will fasten on the outside of the tub.



2 x jets are installed the same way the Hi-Flo suction Heads are installed with the Rubber gasket on the inside of the Cottage Tub. The pre cut jet holes are to the left of the 2 pre cut holes above each other (see picture below)

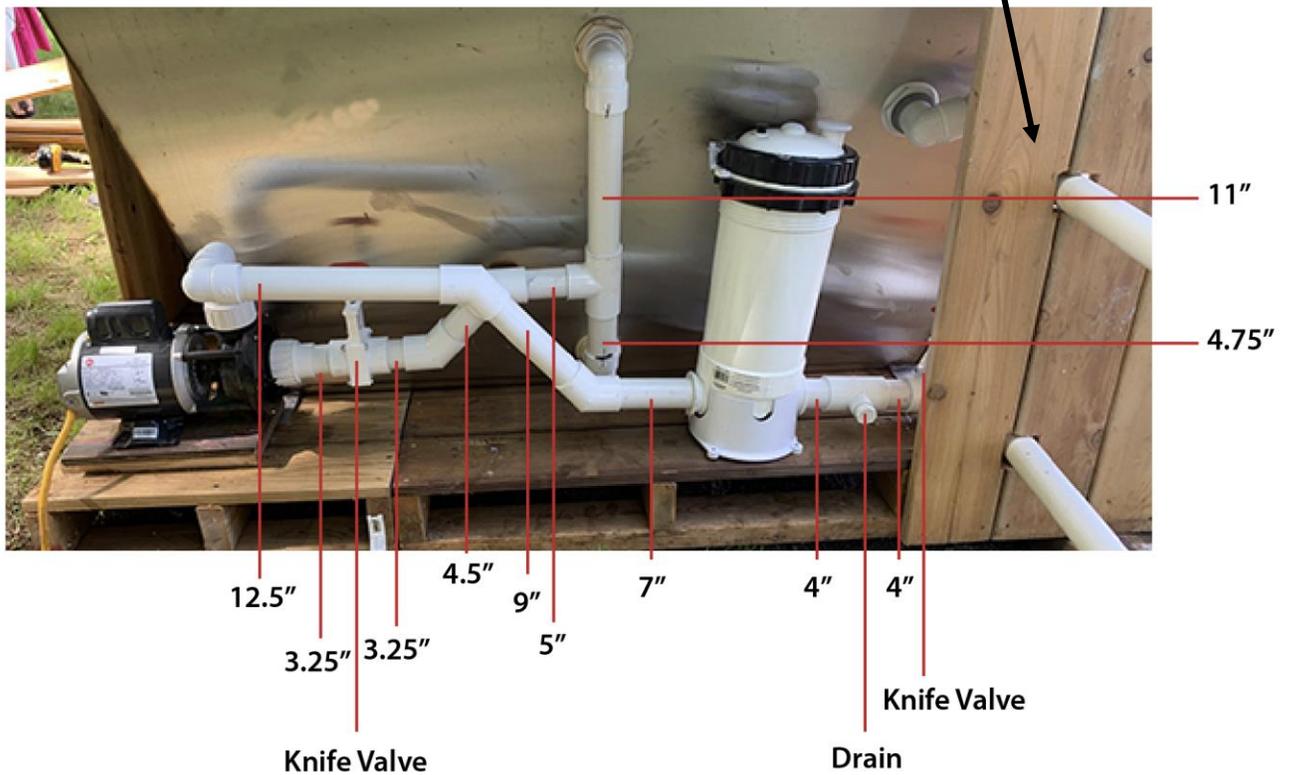


The image below shows the jet body on the outside of the CottageTub and the PVC parts needed to plumb



1 x 2-Spigot manifold install

The image to the right shows the 2-spigot manifold & 2" to 1.5" reducer, which is joining to the 1.5" rigid PVC coming from the heaters outlet (The 2-spigot manifold is behind the cedar siding in the image below). The 2-spigot manifold will feed the jets using the 3/4" clear vinyl hose provided. Hose clamps are used to fasten the clear vinyl water line to the manifolds spigots



1 x Drain assembly

As shown in the picture below; if the skid has not been provided with the drain location cut out or you want to use a different side of the skid for the drain assembly, **don't be scared to cut a nice size hole or remove part of the 1x6 board where the drain aligns.** This will make your install of the drain much easier.



The drain assembly consists of a 2-piece drain. The grill portion inserts through the inside of the CottageTub and the 90-degree elbow screws into the grill of the drain from the underside of the skid (the black gasket goes on the inside of the CottageTub). The 3 feet of $\frac{3}{4}$ " white flex water line will glue into the drain assemble. The $\frac{3}{4}$ " ball valve will glue into the other end, acting as your drain control.

Reminder – there is a PVC drain on the outlet side of the filter and a brass drain plug on the bottom of the wood burning heater opposite of the inlet and outlet.



2nd configuration – likely for those customers off grid

1. Thermal-siphoning – (no pump or filter provided, just plumbing for the heater)

WARNING – FOLLOW THESE STEPS WHEN SETTING UP & OPERATING THE COTTAGETUB USING THERMAL-SIPHONING

- The tub must be installed on the shipping skid provided in order to give it height. Alternatively, you can build your own platform as long as the return jet (higher jet) in the tub is 3-4" higher than the outlet of the heater.
- The heater should not be any further than 3 to 3.5 feet from the tub. This is to prevent sag in the return line. If this is not followed then the return line will need to be supported to prevent sag (Not a bad idea to support it anyways).
- **Stove Outlet** (Top fitting on the heater should be at least 3-4" lower than the tub return jet, the greater difference in height the better the results and less likelihood of sag)
- **Stove Inlet** (Bottom fitting on the heater coming from the bottom port on the tub).
- **Warning – only use a couple of pieces of wood until you figure out that your install is successful. The water coming into the tub can be very hot if too much wood is added.**
- **Avoid sticking your fingers inside the return jet as this water could be very hot.**
- **The CottageTub water will need to be manually circulated with an oar in order to effectively mix the cold water on the bottom with the hot water on the top. This will also give you better heating results.**



Inside your PVC box you will find the following:

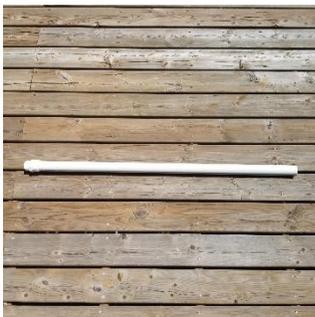
2 x thread PVC connecting pieces that thread into the stove. You will need to wrap the threads with plumbers' tape or pipe dope



2 x Hi-Flo suction Heads with rubber gasket or return jets, both are suitable, it depends on our PVC supplier. Rubber gasket goes on the inside of the Cottage Tub



2 x 4 foot 1.5" ridge PVC, which glues into the 1.5" threaded PVC and the Hi-Flo suction heads/ return jets



4 x stainless-steel plugs/caps with rubber gasket and nuts. These plugs/caps will plug the remaining holes outside of the 2 thermal-siphoning ports you are using. Gasket goes on the inside of the tub and the plate with nut will fasten on the outside of the tub.



The final Thermal siphoning set-up will look as follows (picture to the left) It is not recommended to go further than 4 feet as the pipe will heat up and may want to sag. Even at 3 feet it may be wise to build a brace/support for the ridge PVC in the middle from the heater to the tub.



1 x Drain assembly

As shown in the picture below; if the skid has not been provided with the drain location cut out or you want to use a different side of the skid for the drain assembly, **don't be scared to cut a nice size hole or remove part of the 1x6 board where the drain aligns.** This will make your install of the drain much easier.



The drain assembly consists of a 2-piece drain. The grill portion inserts through the inside of the CottageTub and the 90-degree elbow screws into the grill of the drain from the underside of the skid (the black gasket goes on the inside of the CottageTub). The 3 feet of 3/4" white flex water line will glue into the drain assemble. The 3/4" ball valve will glue into the other end, acting as your drain control.

Reminder – there is a brass drain plug on the bottom of the wood burning heater opposite of the inlet and outlet.



3rd configuration – (Least popular Setup) likely for those customers that are off grid or have some/limited power through a generator

2. Thermal-siphoning – (But with a pump and filter provided)

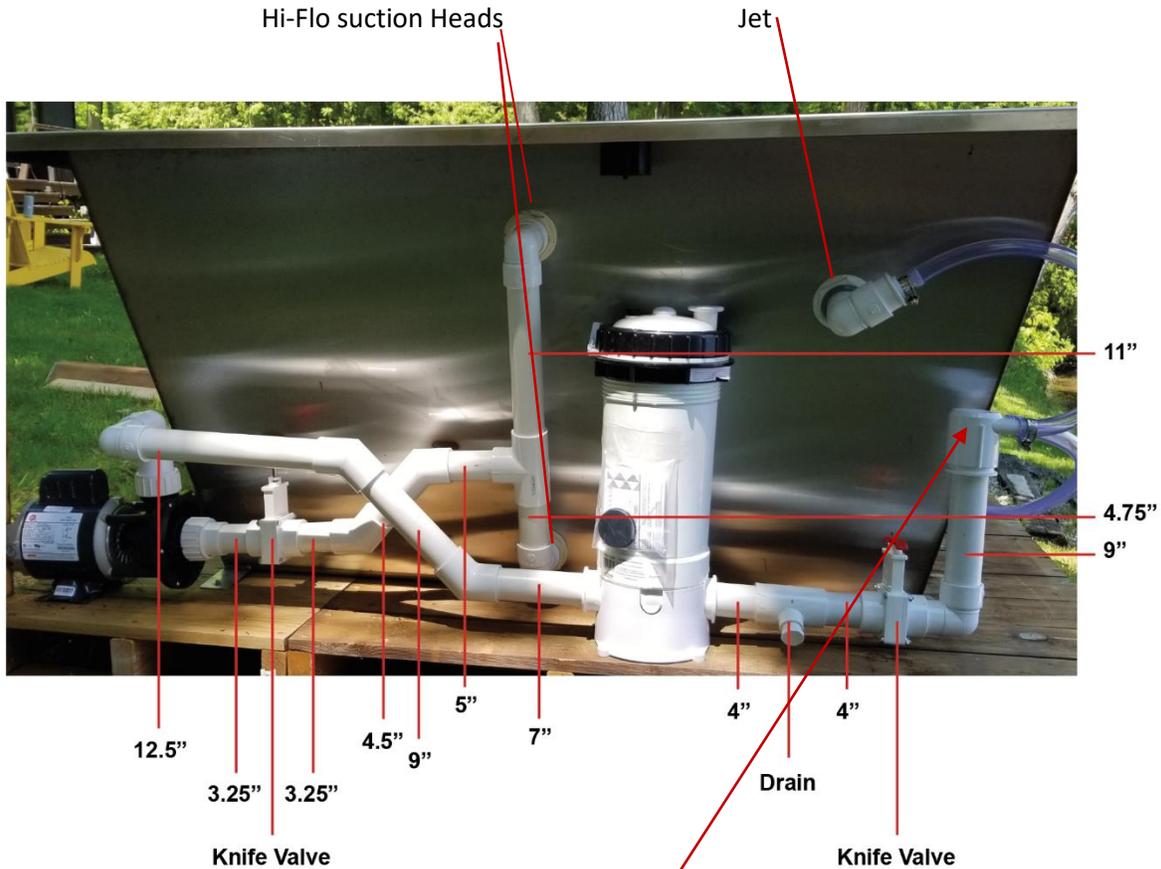
- a. In this particular set-up the pump and filter are not tied into the heater. The heater will function exactly the same as set-up # 2 described above. The pump and filter can be turned on to circulate and filter the water as desired.
- b. Follow the exact same set-up above for your heater

Inside your PVC box you will find the following outside of the plumbing described above in the thermal-siphoning option.:

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- 1 x PVC T,
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- 2 x 1.5" to 3/4" reducer (1 for each jet body)
- 3/4" barb (glues into the reducer outside of the jet body)
- 4 x metal clamps, (2 for the clear water line onto the 2-spigot manifold and 1 each of the 3/4" barb)
- 2 x knife valves (1 before the pump and 1 after the filter. It allows the pump and filter to be serviced without draining the CottageTub)
- 1x drain assembly with 3/4" ball valve and 3 feet of 3/4" flex for the drain
- 12 feet of 3/4" clear vinyl water line
- 1 x PVC "T" with 3/4" nut to be installed after the filter, acts as a drain.
- 2 x stainless steel caps/plugs with gasket to plug the holes on the opposite site of the Hi-Flo suction heads



The pieces listed above will allow you to create the exact same set-up as shown in the picture below. The dimensions listed will also create the exact same set-up. The set-up shown below is a full thermal siphoning set-up with pump and filter installed but separate from the heater. The set-up shown below is showing the pump sucking water from the CottageTub, from the Hi-Flo suction Heads, pushing the water through the filter, and then back to the CottageTub through the jets.



The image above shows the 2-spigot manifold & 2" to 1.5" reducer, which is joining to the pump and filter set-up. The 2-spigot manifold will feed the jets using the 3/4" clear vinyl hose provided. Hose clamps are used to fasten the clear vinyl water line to the manifolds spigots



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The image below shows the jet body on the outside of the CottageTub and the PVC parts needed to plumb



The final Thermal siphoning set-up will look as follows (picture to the left) It is not recommended to go further than 4 feet as the pipe will heat up and may want to sag. Even at 3 feet it may be wise to build a brace/support for the ridge PVC in the middle from the heater to the tub.



Section 6. Miscellaneous

Gluing the PVC Fittings: Each PVC fitting should be primed and glued, as per the instructions on the PVC glue and primer. **Note: the PVC glue and primer are not provided. Any threaded fitting should be wrapped with plumbers' tape or pipe dope.**

Drain Plugs: There are 2 threaded drain plugs that will require plumbers' tape, one is on the back and bottom of the wood burning pool heater and the other is a PVC drain which is to be installed on the outlet side of the filter. Both drain plugs will fully drain the CottageTub and it's plumbing, if winterizing the tub, the pump can be removed by undoing the inlet and outlet unions connecting to the unions.

Installing the ¾" Clear Vinyl Water line: When installing the ¾" clear vinyl water line from the 2-spigot manifold to the jets, take special attention to install in a manor so the lines are higher than the jets so they drain on their own while the CottageTub is drained. If this is not possible then you will need to undo the vinyl line from the jet and 2-spigot manifold to avoid freezing and potential splitting of the vinyl line.

Wiring the pump: Install all equipment in accordance with the National electrical code and all applicable local codes and ordinances. Refer to the pump install guide and consult with an electrician.

Hot tub cover: The cover provided is similar to a conventional hot tub cover. Follow the hot tub cover instructions on how to fasten the clips to the cedar sides. If leaving the CottageTub for an extended period of time over the winter you may want to remove the cover and replace with some plywood to avoid damage to the cover with snow load.

Securing the chimney: Use 4 self tapping screws to fasten the chimney to the collar on the wood burning heater at, 12, 3, 6 & 9 o'clock

Installing the cedar sides: Start the installation of the pre cut cedar sides in one corner and work your way across the sides of the tub. Each board will slide up into the groove and fasten at the bottom to the skid provided. Each side of the CottageTub requires 12 full width boards and 1 ripped board, measure each board to be ripped on each side prior to ripping. The side where the pump and filter reside should have an access panel so the pump and filter can be serviced. The design of the access panel is up to the individual.

Cleaning the filter: the filter cartridge should be cleaned periodical, by removing it from the filter housing and sprayed with a hose. There are specific filter cartridge cleaning methods that your local pool or hot tub store can provide. Ideally the cartridge is replaced yearly but this is depended on the CottageTub usage.

