

Basic Hot Tub Equipment Package

Our Basic Equipment System includes a Minimax 100, 100k BTU natural gas or propane heater (optional Raypak 5.5kw or 11kw Electric Heater), Pentair Superflo 1 ½ hp 2 spd 240v. Pump, Pentair 100 Clean & Clear Cartridge Filter, Len Gordon ASTC (air switch / timeclock) & P13 Ionizer



MiniMax[®] 100

The MiniMax[®] 100 is a compact, lightweight and efficient gas fired high performance aboveground pool and spa heater. It can be connected to schedule 40 CPVC or ABS pipe and has a built-in top. Reliable direct-spark ignition (DSI) system is available in propane or natural gas versions.

Protected by U.S. Patent Number 5,201,307

Features

- Millivolt standing pilot versions in propane or natural gas
- Quiet and dependable operation from packaged burner system
- Bronze Headers
- Quick Flange allow 1-1/2 in. FIP connect
- The controls have been designed for very easy access and are user friendly
- Installs to 3,500 ft. altitude



SPAPAK ELECTRIC HEATERS



When gas is not available the Raypak **SpaPak**, electric spa heater is the way to go.

A compact, dependable electric heater specifically designed for spas and hot tubs (11kw heater measures 6" x 9" x 23"). Features, corrosion-free copper and bronze waterways, a power indicator lamp that tells when the heating elements are energized, and an on-off switch for convenience and safety.

This heater comes in your choice of 5.5 kW, 240 volts, 30 amps, single phase, **or** 11kW, 240 volts, 60 amps, single phase models.



SuperFlo[®]

Pumps

Efficient, quiet, rugged and versatile

The SuperFlo[®] Pumps are a product of nearly 50 years of innovative hydraulic engineering. The result is an ability to move more water more efficiently for lower operating cost and super-quiet operation. Plus, by performing with less effort, there's simply less wear and tear – and that means longer life for a higher return on your pump investment.

Features

- SuperFlo by Pentair Pool Products[®] is a direct replacement for the Hayward[®] Super Pump^{®*}
 - Extremely quiet operation
 - Unionized fittings (1.5 in. internal slip and 2 in. external slip)
 - Cam and Ramp[™] Lid
 - Heavy-duty, high service factor 56 square flange motor
 - Integral volute and pot reduce hydraulic noise
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Clean & Clear®

Filters

Crystal clarity with cartridge convenience

Clean & Clear® Filters feature a chemical resistant tank with no-tool servicing and a coreless cartridge for easier cleaning. All models are equipped with easy spin-on unions for plumbing hook-ups. These filters are NSF listed for commercial applications and are available in 50, 75, 100, 150, and 200 square foot sizes.

Features

- NSF listed
- Unionized connections
- Integrated continuous High Flow™ internal air relief*
- Chemical resistant tank body
- Lock ring with spring-loaded safety latches
- Coreless cartridge for easy cleaning
- High Flow manual air relief valve
- 1 in. drain and wash out
- Single piece base and body design

Len Gordon AS-TC-94

On/Off control with built-in time clock. Operates single piece of equipment. Will control single or two speed pump. (Neutral required) 120/240V, 20A

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P15 Ionizer

The P15 ionizer is the most versatile and affordable hot tub and spa ionizer available.



- Weatherproof for outdoor installation
- 115v / 240v switchable
- Automatic polarity reversal
- Adjustable mineral ion control
- Automatic Control Center
- Automatic polarity reversal
- Adjustable mineral ion control
- Adapts to 2" or 1-1/2" plumbing
- Cold rolled oxygen free electrodes
- 5 year electronics and 1 year cell warranty
- Eliminates eye and skin irritation
- Substantial reduction in chemical use and dosing
- Strong residual purifier unaffected by heat or UV
- Constant supply of mineral ions
- Reduces corrosion to pool and equipment
- Reduced maintenance
- Technology: Hydrolysis

Ionization Purification

This technology utilizes minerals to purify water naturally and applies a principle known as electrolysis. The purification process begins by an ultra-low voltage charge running through a sacrificial mineral electrode installed in the return line. This direct current causes the release of mineral ions into the flow of water which aids in the destruction of algae, bacteria, viruses and mold.

California Cooperage Round Wooden Hot Tub Assembly Procedure

Important:

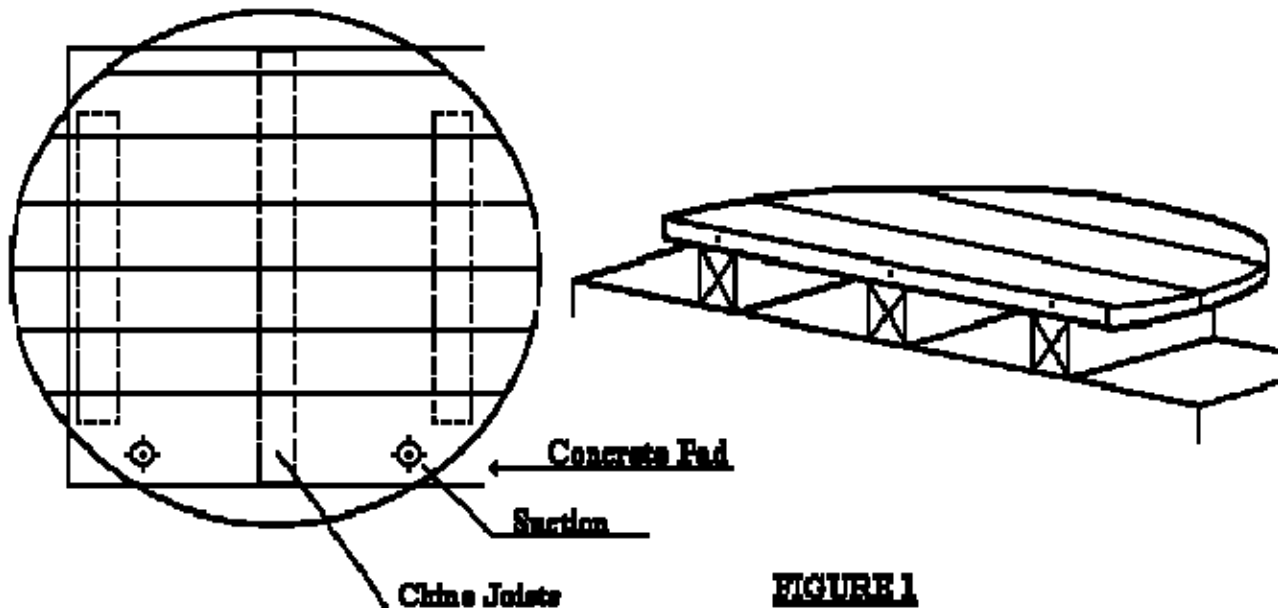
Please read through the entire procedure
Carefully before beginning the first step

To assure a long-lived and structurally safe tub, a properly designed foundation is essential! To withstand the weight of the tub and water we recommend a minimum 4" thick reinforced concrete pad. If you have any questions please contact us for proper and adequate site preparation.

Step 1: Assembling the Base

Place the chine joists on the concrete pad so that they are 5 ½" tall and arranged as shown in Figure 1. Check the chine joists with a level and make any necessary adjustments. Next, put the three dowel pins in one half of the bottom and place the bottom-half on top of the chine joists. Be sure the side of the bottom that is nicely sanded is the side that faces up.

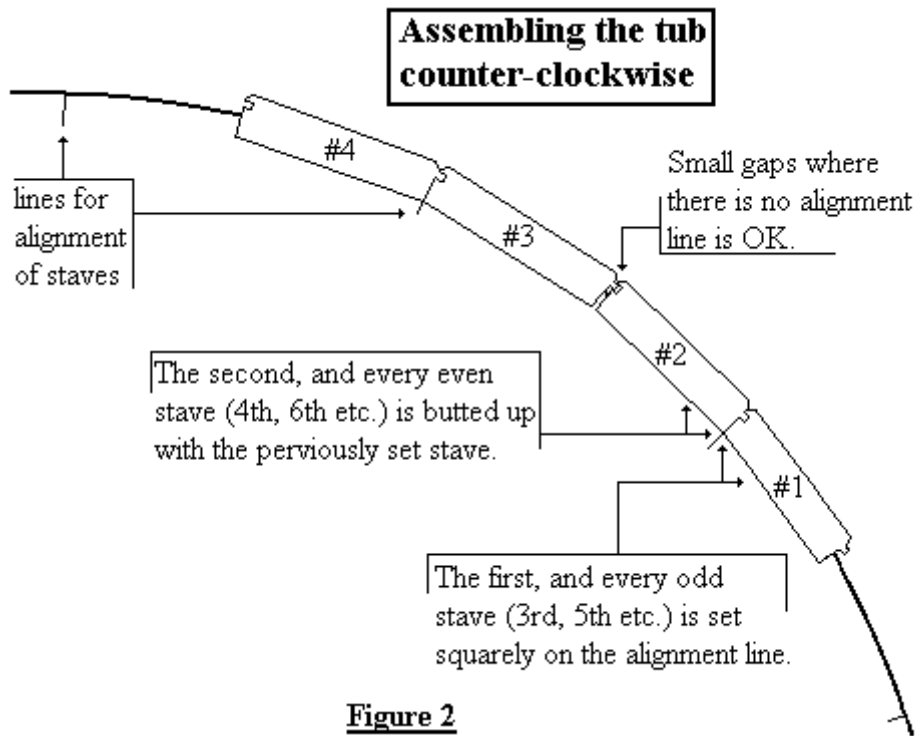
Put the other half of the bottom on the chine joists and then slide the two bottom halves together, pushing them together as tightly as possible. Note that the bottom boards are placed perpendicular to the chine joists as shown in Figure 1. After the bottom is in place the two plywood strips supplied with the hot tub must be screwed down across the seam of the bottom halves. Place the strips about 3" in from either end of the perimeter of the tub. Use four 1" screws to secure each strip. Remove these strips after the hot tub is fully assembled. **Please Note:** Failure to use the plywood strips will cause trouble in later procedures. If suction cups are to be installed in the base you will need to do this prior to the next step.



Step 2: Fitting the Staves to the Base

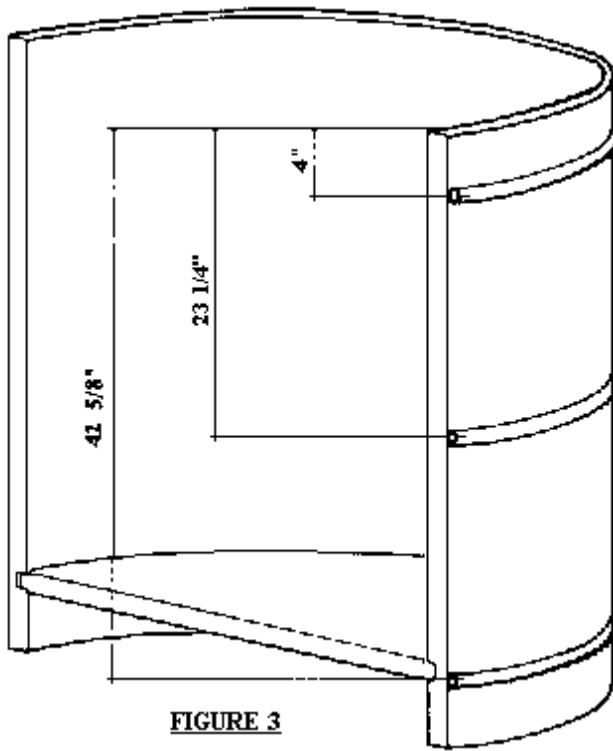
Each stave must be properly positioned between the alignment notches located around the perimeter of the bottom. You will note that in Figure 2, the side of the stave that has a tongue is centered directly on

the alignment notch. The side of the stave that has a groove does not line up perfectly on the center of the alignment notch. All the staves go on in this fashion. There will be gaps between every stave put on the tub. Do not worry about these gaps and do not drive the staves on with a mallet. The staves may be lightly tapped on with enough force to keep them from falling off. Once all the staves are on, the tub is ready for the bottom band.



Step 3: Applying and Tightening the Bands

Figure 3 shows the bottom band at 42 5/8" down from the top. Drop the band over the top, lower it into position and tension the nuts a little so that the band does not fall off. Go around the tub with a tape measure and check the height of the band. Once the band is properly leveled, you may begin to tighten the band. This process is best performed by two people. While one person tightens the bands, the other person strikes the band with a soft face mallet. A metal mallet will also work but to not strike the band directly. Use a block of wood as a buffer. The stave boards should be driven on **slowly**. Start by **gently** pounding on each stave all the way around the tub. Make another revolution around the tub, pounding a **little** harder. And then another revolution pounding harder. The object is to drive the boards on evenly all around the tub. It usually takes 4 or 5 times around the tub to accomplish this. The bottom band requires a lot of tension. Tighten the bottom band nuts to the point where you meet a lot of resistance. Try to avoid stripping the nuts from overtightening. After the first band is completely installed, put the second band on 23 1/4" down from the top and tighten the nuts. The top band is placed 4" down from the top. This band does not require as much tensioning as the bottom band.



Step 4: Finishing the Tank Top Rim

Go around the top rim of the tank with either an electric hand plane or a belt sander to level the top edge. If you use an electric plane, it's a good idea to smooth the planed surface after-wards with a belt sander. Finally, round off the inside and outside edges of the top rim, using a router with a quarter-round-over bit.

