

# Old School or New School We have you covered

## Digital or Analog

Raypak is the only heat pump manufacturer that offers a digital or analog control for its complete heat pump line. We have you covered with the best of both worlds. Our digital control is easy to use, has a pool and spa temperature setting as well as full diagnostics. For those that prefer analog, Raypak offers our direct set thermostat. The easy-to-read, easy-to-use dials allow you to set your water temperature just the way you like it. Gone are the days of the guesswork involved with having to choose between the 'blue & red swoosh' like on your car's A/C...now you have the temperature targets displayed right on the dial!



## Spiral "Rifled" Titanium Tube Heat Exchanger

And they said it couldn't be done...Titanium has gained world recognition in just about every industry for its "nearly unbreakable" qualities. Additionally, due to Titanium's rigidity, it has been nearly impossible to design an ultra-efficient heat exchanger using this metal. Raypak is the first company to offer the Spiral "Rifled" Titanium Tube heat exchanger. This proven technique drastically increases the surface area where super-heated gases can safely transfer heat to water. Rifling a Titanium Tube Heat Exchanger provides a truly efficient waterway that withstands the abuses of harsh pool chemistry and erosion. The spiral "rifled" exchanger also helps reduce deposit build-up, and increases efficiency by performing a "scoop-and-lift" action. While neither Titanium nor rifling is new to the heat pump industry, leave it to Raypak to bring the best of both worlds together to maximize your backyard investment!



## Heat-Cool Models

### Hot Summer Days

Raypak Heat-Cool units extend your swim season even longer! Just the right heat pump for climates that, in addition to having cooler-than-comfortable temperatures, can also have extremely hot summer months. With a Raypak Heat-Cool heat pump, your water temperature will always be comfortable. Just as households around the world have trusted us to heat their water during the colder months...Raypak will also have you relaxing in your pool during the hot days of summer with cool, refreshing, chilled pool water. Having the ability to pull out the extra degrees Mother Nature put in will make your pool the envy of the neighborhood. No matter what time of year, a Raypak Heat-Cool will have you swimming when others won't venture outside.



### How Does it Work?

Raypak Heat-Cool units have a unique reversing valve which enables the heat pump to not only take the chill out of the water, but also put it back in...Cooling your pool water during the hot summer months! Normally, a heat pump will gather heat energy from the air with its evaporator coil. Using Freon and several other components, the heat is transferred over to your pool water. By reversing this process the heat pump can actually take heat out of the water, transfer it to the Freon, and run it through the evaporator coil. The coil dissipates the heat into the air, much like a car's radiator. This is also the method of defrost for the heat-cool model. In cold ambient conditions, a heat pump will ice-up when the ambient air drops below 45 degrees. With a heat-cool unit, the ice will melt off in a matter of minutes when in defrost mode. Standard heat pumps rely on the ambient air being drawn across the coil, which could take hours to defrost the coil, depending on the air temperature.



MODEL	R5350ti	R6350ti	R6350ti HC	R8350ti
Heat BTUH Output (80,80,80)*/AHRI 1160 (80,63,80)**	95,000/92,000	117,000/113,000	110,000/104,000	133,000/125,000
C.O.P. High Ambient (80,80,80)*/AHRI 1160 (80,63,80)**	6.6/6.4	6.2/6.0	6.0/5.7	5.5/5.2
C.O.P. Low Ambient AHRI 1160 (50,63,80)**	4.0	4.0	4.1	4.0

\*Tested outside the scope of AHRI 1160 \*\*Tested to AHRI 1160



For dimensions and technical specifications, see catalog number 6000.18.2 Classic Series and 6000.18.4 Specialty Series.

In keeping with its policy of continuous progress and product improvement, Raypak reserves the right to make changes without notice.

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6000.18C Effective 2-15-10



# R410A

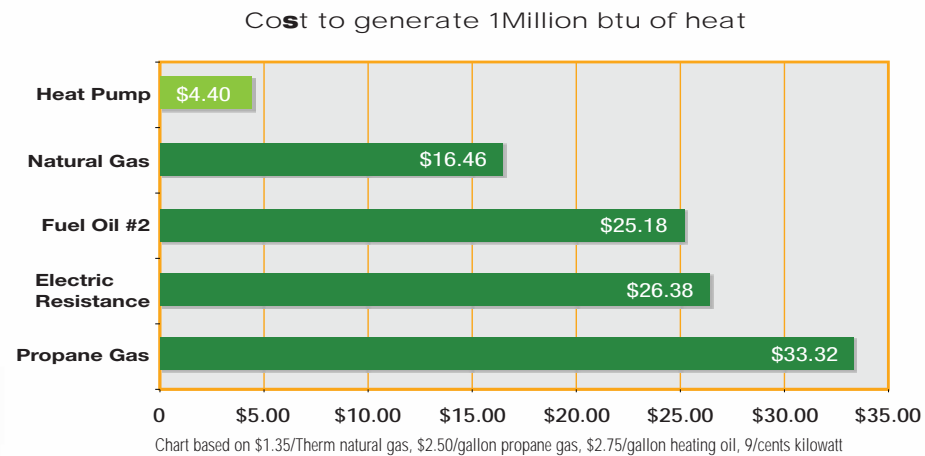
Swimming Pool and Spa Heater  
Heat Pump

# *Super Efficient* Raypak R410A Titanium Heat Pumps

## Green is Good

### High efficiency never felt so good...

Who ever thought doing something good for the environment would also save you money? It's true! A Raypak heat pump is built with the latest eco-friendly R410A refrigerant that operates more efficiently than R-22. But the most amazing aspect of a heat pump pool heater is its operating efficiency compared to gas heaters. A heat pump operates at 5 to 6 times the efficiency of a standard gas, oil or electric pool heater. If you live in an area where your natural or propane gas costs have out-paced your electricity costs, the savings can be big. The chart below illustrates just how much money can be saved using average energy cost data.



### Now you can afford to heat your pool more often...

While it's true that nothing beats a gas heater for bringing your pool or spa up to temperature rapidly, it can be expensive to operate. Keep in mind that with a gas heater, you also need to run expensive gas lines, or install an unsightly propane storage tank. Raypak units operate quietly, cleanly and most of all efficiently. Installation is no harder than installing a pool pump. Now you can trust your backyard investment to the same people who have been in homes across America for over 75 years. Your Raypak heat pump is designed to provide years of safe, reliable service, and can save you money over time compared to other heating methods. Ask your Raypak heat pump dealer for more details!

### Reliability...

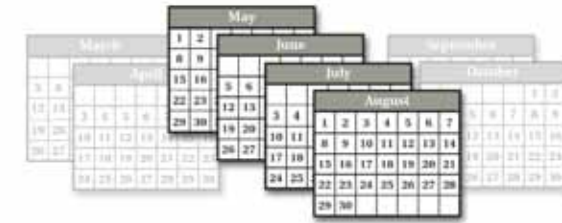
Raypak pool heater heat pumps are the **only** heat pumps manufactured by a major air conditioning company. Rheem HVAC product lines have successfully utilized heat pump technology for over 30 years. By taking our field proven technology and combining it with our industry leading pool heating products, we have developed a heat pump pool heater that is second to none. In the unlikely event that you have a service problem, one toll-free call will have your heater up and running again. It's that simple. Raypak heat pumps are truly hassle-free.

Model 6350ti shown



### Extend Your Swim Season in Comfort...

A Raypak heat pump can turn your backyard pool investment into resort style living almost year round. Get the most out of your pool by keeping it comfortable and open longer. Raypak heat pumps give you the flexibility of warming your pool water in the months before and after your normal swim season. Your backyard evening events are rarely slowed down by cool weather when you have a Raypak heat pump on duty.



### How does a heat pump work? And skip the black magic part...

Raypak air-source heat pump pool heaters work much like a refrigerator in reverse. The heat pump extracts the heat from the warm air, intensifies the heat with a compressor, delivers the heat to the water, and exhausts the cooler air out the top of the unit. Because it uses the warm ambient air temperature to do the work, it is a very efficient way to heat water. One of the biggest misconceptions about a heat pump's operation is what happens to the energy used to run the heat pump. For the most part, this energy does not go into the water. The electricity powering the unit operates the compressor and fan, along with the other controls and electronics. The electrical input energy if converted to btu's only amounts to roughly 14,000btu. The bulk of the btu output comes from the heat energy extracted from the air. That's why they operate so efficiently and the energy savings are so significant.

### What is C.O.P. and what does it mean to me, in simple terms?

C.O.P. stands for Co-efficient Of Performance. It's the way efficiency is measured for heat pump pool heaters. Believe it or not, it's a very simple calculation.  $BTU\ Output \div BTU\ Input = C.O.P.$  below is an example of the C.O.P. calculation for the Raypak model 5350ti:

$$\frac{Output = 92,000btu}{Input = 4.2kW = 14,330btu} = \frac{92,000}{14,330} = 6.4\ C.O.P.$$

So based on the calculation above, a Raypak heat pump delivers efficiencies in excess of 600%! The highest efficiency a gas pool heater can obtain is 98%. The mystery is solved!

### This sounds too good to be true, prove it!

We thought you would never ask! Raypak is a proud member of AHRI. Our heat pump pool heaters are third party tested and certified under the AHRI 1160 standard. All performance numbers are listed on the AHRI website directory. The units are tested at a high ambient temperature condition and a low ambient temperature condition. Furthermore, every Raypak unit meets or exceeds the Florida 4.0 minimum C.O.P. requirement and is listed with the California Energy Commission. Unfortunately, not all manufacturers belong to AHRI and their published test data is questionable at best. When shopping for a pool heat pump, look for the AHRI Certified logo. This ensures that you are getting what you pay for, without the smoke and mirrors. Our units are also safety tested and certified by ETL, another third party testing agency. This ensures that all components and electrical design meet or exceed the UL-1995 standard.



Quality • Reliability • Comfort