



PROFESSIONAL SERIES GAS HEATERS



84 Professional

84 PROFESSIONAL - IN A CATEGORY ALL ITS OWN



MICROPROCESSOR

control is more precise than mechanical systems. It controls temperatures for pool and spa settings and stores diagnostic information for service technicians.



STAINLESS STEEL

is used liberally throughout the 84 Professional pool heater. Raypak spared no expense to ensure that any area that could be compromised by harsh environments would stand the test of time.



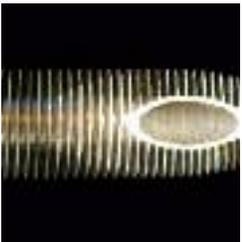
HEAT EXCHANGER

with brass header and cupro-nickel tube for maximum protection against the toughest pool applications. Excellent for salt chlorine generated pools.



PLUMBING CONNECTIONS

are included for a complete and professional looking installation. CPVC stub outs and half union connectors supplied. No need to buy additional fittings.



CUPRO-NICKEL FIN TUBE

is at the heart of the Raypak 84 Professional heater. The competition doesn't stand a chance against its fat .065 tubing walls. Raypak also uses integral fin tube, meaning it's all one piece of material.



DIRECT SPARK IGNITION

High voltage spark provides a quick and smooth burner light off. Flame sensing and rectification are provided by the spark electrode and built-in sensing probe.



DIRECT VENT CAPABLE

The 84 Professional offers true application flexibility. Flue exhaust can be vented up to 80 feet without the use of an extractor. Inlet air can be ducted through 4" steel or PVC tubing.



84% EFFICIENCY

The 84 Professional is listed at 84% thermal efficiency. This provides the highest efficiency in a non-condensing appliance. The 84 Professional is also low NO_x compliant in all 50 states.



FLOW SWITCH, T&P and PRV

This makes the unit 50 state ASME compliant right out of the box. Also, having a flow switch eliminates possible "false" water flow issues from elevated pools.



ROBUST BURNER

Our single burner design provides 360° of smooth and stable combustion. The all stainless steel burner is built to last and operates precisely with as little as 4" w.c. of supply gas pressure.



WIRING SHEATH

is standard construction on all exposed wiring. This helps prevent rodent damage and other associated issues that can damage the wiring. Not to mention it looks very clean and tight.

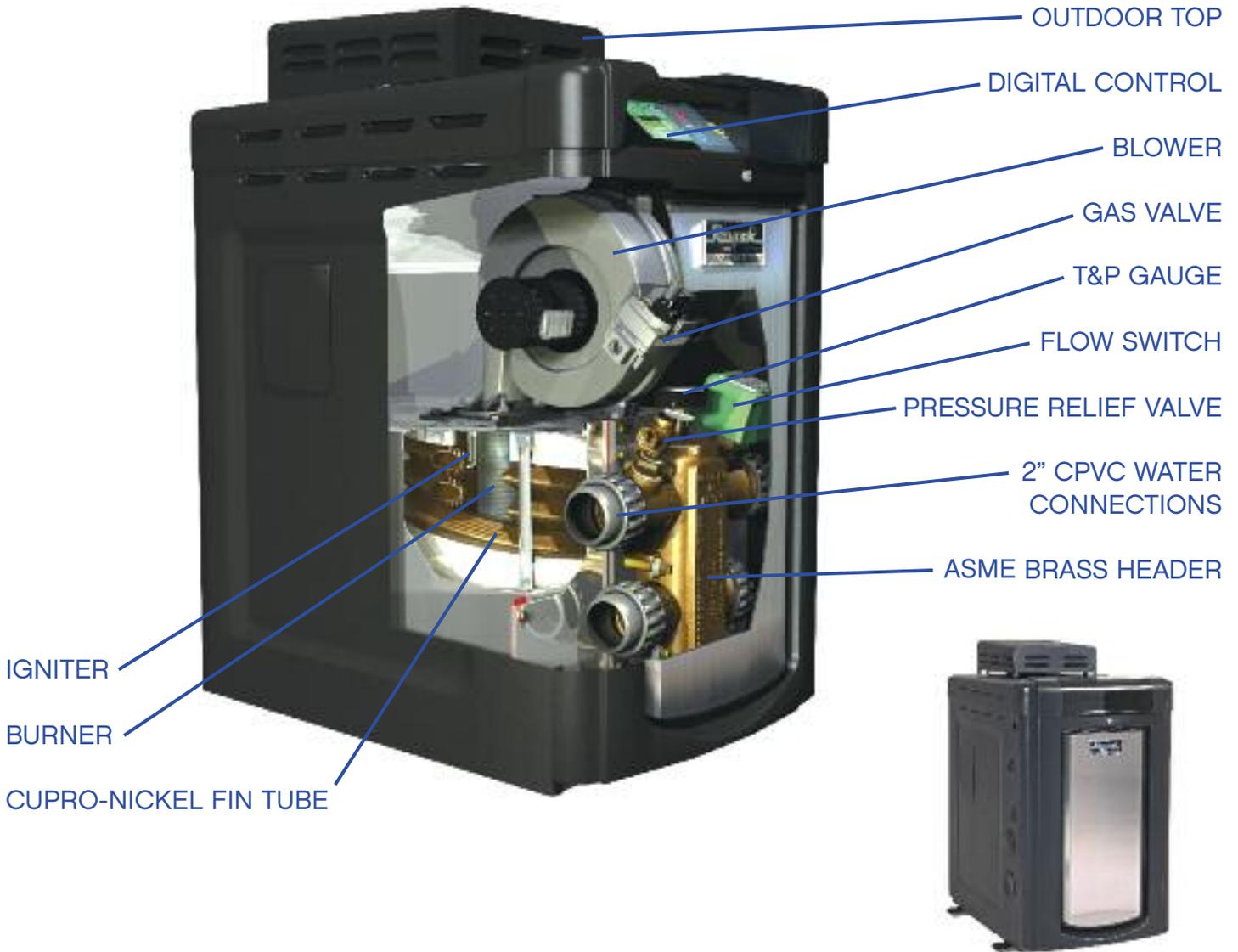


WARRANTY

The Raypak Professional is unmatched in warranty for commercial applications: Three years parts and labor. We stand behind what we believe in.

NO ONE PUTS MORE INTO THEIR POOL HEATERS

Introducing the Raypak 84 Professional series pool heater, designed specifically for commercial properties such as apartments, condos, hotels, motels, schools, parks, community and high-end private pools. It's also the perfect heater for tough coastal weather conditions where salt air challenges durability. When your reputation is on the line every day, you've got to work smart and come prepared with strength, experience, and the guts to lead the way. In a word, it demands a Raypak Professional series pool heater.



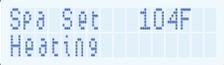
PROFESSIONAL HERITAGE



Built by a company dedicated to water heating, and refined through more than six decades of year-round demanding use in commercial boiler rooms, Raypak heaters embody the durability, longevity and flexibility that the true pool professional expects. Many of the 84 Professional pool heater features come directly from our years of commercial boiler experience. This knowledge and experience is unmatched in the pool heating industry.

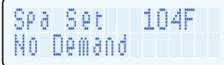
A DIGITAL CONTROL SO SOPHISTICATED, YET SO SIMPLE TO USE

Microprocessor-Controlled Thermostat



The Raypak 84 Professional gas heater is equipped with a microprocessor-based control. This control allows you to set your pool and spa temperature precisely at your preferred setting just by pressing an up or down temperature

control button. The digital display tells you when the water is being heated and notifies you when your target temperature has been reached.

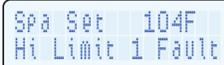


Self-Diagnostic



Troubleshooting a Raypak gas heater has never been easier. The Raypak Professional has on-board diagnostic controls that let the user

and the service professional know what is going on with the heater at all times. The display uses real English, with no cryptic codes to decipher.



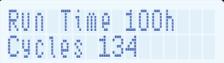
Remote-Compatible



The Raypak 84 Professional is compatible with most major pool controls and remote systems on the market today. Any two- or three-wire remote can connect to the

Raypak 84 Professional and be integrated into the pool control system of your choice. The display clearly shows the heater is under control of a remote system.

Run Time and Cycle Meter



In yet another industry first, the Raypak pool heater can report how long it has run and how many times it has fired. This is valuable feedback for the service professional.

Multi-unit installations can monitor the run time of each unit and balance out the duty load, thus avoiding over working one individual heater.



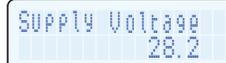
Flame Strength Indicator



Raypak leads the way with the first control in the pool industry to monitor and measure the flame signal.

Known for our high quality, leading edge commercial boilers, it just made sense for Raypak to use this existing commercial technology on our residential pool heaters. This little tool is a service tech's dream. Raypak also uses this function on the end-of-line test, making sure every heater leaves with a robust flame signal.

On Board Voltmeter



The Raypak 84 Professional monitors the low voltage electrical supply from the transformer. This helps ensure the heater is wired properly

during installation. The heater will also let you know if the voltage has dropped too low to function properly. No other pool heater takes care of you like a Raypak.

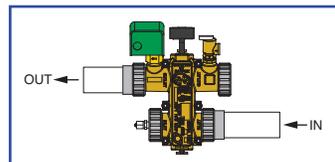
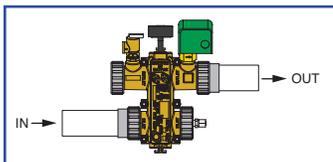
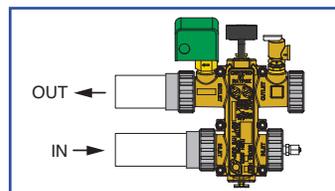
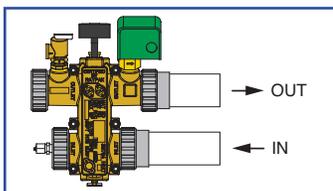


INSTALLATION FLEXIBILITY



Multiple Venting Options

The 84 Professional offers the most venting options of any gas pool heater on the market today. The unit is shipped from the factory in an outdoor top-vented configuration, but can be top or rear vented for indoor or outdoor installations. The heater can also be installed with 4" PVC or metal pipe duct to bring fresh combustion air from outside the equipment room. This is absolutely the perfect solution when chemicals are stored in the equipment room.



Multiple Plumbing Options

Another industry first from Raypak - 4 possible water connection configurations. Not only do you have right handed and left handed options, but now you have through-the-cabinet options as well. You can place the heater in series with your equipment plumbing. The clean, straight piping eliminates or reduces the number of elbows needed, offering you the lowest possible pressure drop. The 84 Professional comes with all of the necessary CPVC plumbing fittings to hook up to your 2" PVC system piping.

THE HEART AND SOUL OF THE RAYPAK 84 PROFESSIONAL

Rust-Free Waterways

Raypak has applied its years of commercial boiler experience to the design of this new brass header. A metal header design allows for the higher working pressures required by ASME. Only after the material meets the stress analysis and metal composition tests is it approved for use in an ASME unit.

ASME Cupro-Nickel Fin Tube

The Raypak 84 Professional is designed specifically to meet State and local code requirements for public pools and commercial applications. The heater is equipped with a thicker walled fin tube allowing it to meet the ASME requirements. The Raypak 84 Professional comes standard with a cupro-nickel fin tube heat exchanger for added protection against aggressive water chemistry. Although rare, there are certain applications, like health club spas, where copper is just not the best choice. Cupro-nickel offers superior tolerance to bad and fluctuating water chemistry, thanks to a harder surface and a thicker walled fin tube. Cupro-nickel has also shown superior corrosion resistance in salt chlorine generated pools.



Brass header and Cupro-nickel tube-standard

THE MYSTERY OF ASME UNCOVERED

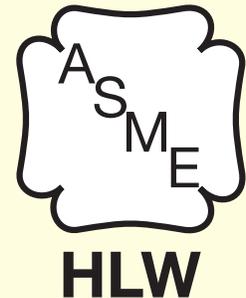


On-site state inspectors

ASME stands for **American Society of Mechanical Engineers**, a non-profit group which sets many industrial and manufacturing standards. A pool heater that is made to ASME standards must conform to a set of specifications as determined by ASME, specifically in relation to the operating water pressure the appliance can handle. Each and every ASME heat exchanger that goes into a Raypak Professional heater is inspected by a state inspector to make sure it complies with ASME Code for pool heaters.

That's why Raypak is the only pool heater manufacturer to supply a flow switch, PRV and T&P gauge standard with every Professional series gas heater under 400MBTU. We know what it takes to make a unit 50-state ASME compliant right out of the box. Does your heater company make sure all the little details are taken care of like Raypak does?

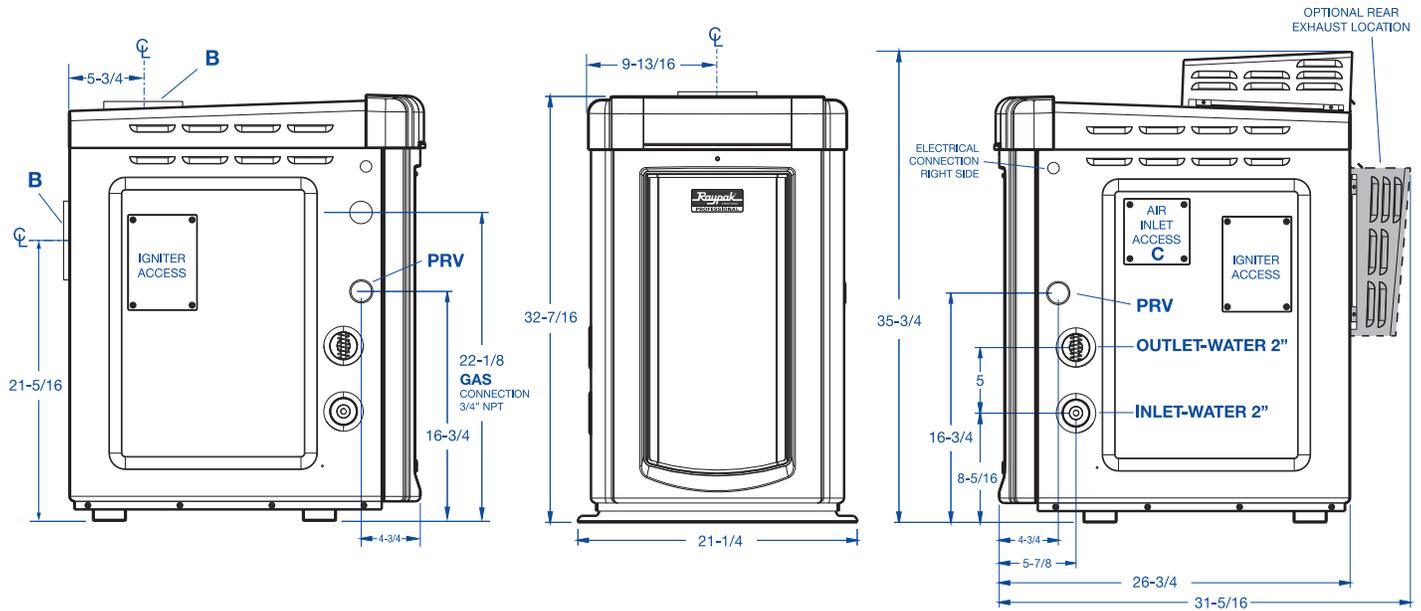
The Raypak 84 Professional heater comes standard as an ASME stamped unit. Raypak has state inspectors on-site daily performing inspections for our pool heater and commercial boiler production that require ASME. Being in the boiler business for over 60 years truly makes Raypak the leader for your commercial needs. Why ASME? Most local codes require that public pools, pools that are in condominiums, apartments, or other commercial applications, be in compliance with ASME Section IV.



Flow switch, PRV and T&P gauge-standard

Technical Data

84 Professional Gas Pool Heaters



Amp Draw	
120 volt	240 volt
2	1

Heater Model	BTUH Input (000)	(B) Flue Diameter	(C) Air Inlet	Gas Connection	Water Connection	Minimum Flow (gpm)	Maximum Flow (gpm)	Shipping Weights (lbs)
								w/ Brass Headers and Stackless Top
R259	250.0	6"	4"	3/4"	2"	25	125	168
R409	399.0	6"	4"	3/4"	2"	40	125	180

Designation for a Professional heater using propane gas is "EP"; a Professional heater using natural gas is "EN". Prefix "B" is for brass (ASME) headers.

Suffix "X" is for cupro-nickel tubing

Example: B-R409-EN-X = Brass headers, 409 model size, digital, natural gas, cupro-nickel

Reduce input 4% for each 1000 feet above sea level when installed above 2000 feet elevation.

Manufactured under Patent No. 3,623,458.

Heater can be installed directly on a combustible surface.

Flue gases must be properly vented with 6" CAT I vertical venting or CAT III horizontal venting

Inlet air can be ducted with 4" metal or PVC pipe-See I/O manual for complete venting details