

# Commercial Pool Heaters

Rugged, efficient heaters for large pools

Clubs. Universities.  
Municipalities. Watersport  
Centers. Large residential pools.

23 model sizes — 511,500 to  
4,000,000 BTUH inputs.

Indoor and outdoor styles.

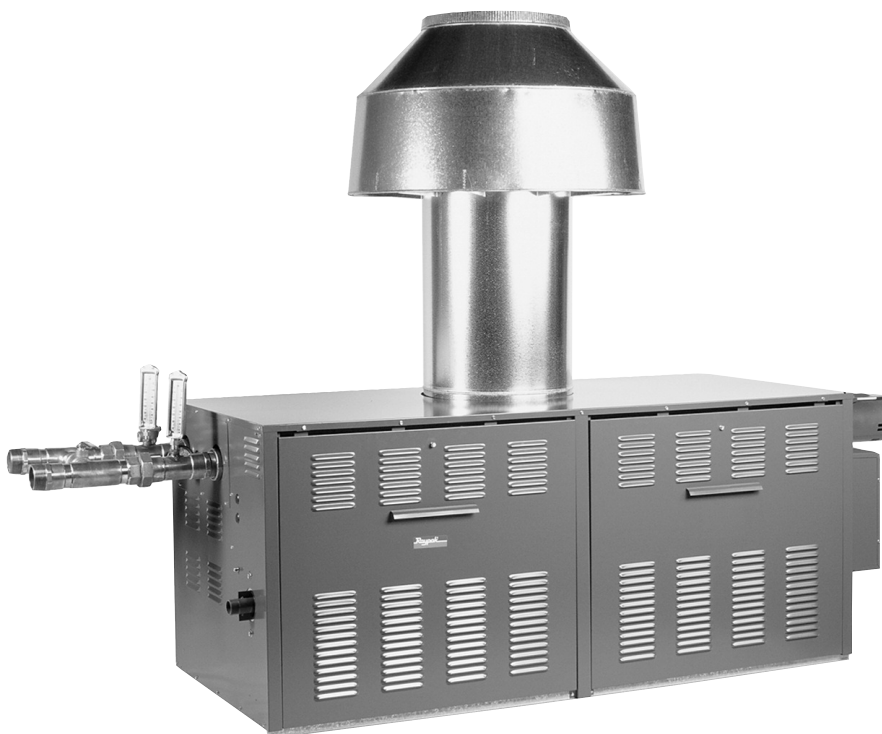
80-82% thermal efficiency.

Natural or propane gas.

Fuel-saving electronic ignition.

Precision water temperature  
control to  $\pm 1^\circ\text{F}$ .

Low operating cost. Low  
maintenance cost. Easy service.



MODEL P-1336 INDOOR

These heaters are design certified and tested under the requirements of ANSI Z21.56 / CSA 4.7 American National Standard / CSA Standard for Gas-Fired Pool Heaters. Only Raypak offers a pool heater that is not only the most efficient (up to 82% thermal efficiency) but also includes engineering and manufacturing innovations not found in other makes. As a result, a Raypak commercial pool heater is unmatched for heating efficiency, operating economy, low-cost installation and all-around dependability. And they are fired up and fully tested at the factory to ensure their on-site performance. Check these standard features and see why Raypak is the best!

**Electronic Pilot Ignition...**Saves fuel, no standing pilot.

**100% Copper And Bronze Waterways...**Bronze headers and cupro nickel finned tubes prevent corrosion and rust which can stain the pool and destroy the heater.

**1" Diameter Finned Cupro Nickel Tubes...**Better water flow, lower pressure drop through heater.

**Tough, Durable Polytuf Powdercoat Finish...**Long-lasting all-weather protection in durable Forest Green color.

**Unitherm Governor...**For Models P-514 thru P-1223, a patented 3-way valve built in the header, automatically maintains the water in the heater at the precise temperature that prevents condensation and scale.

**By-Pass Pump...**For models P-1287 thru P-4001, a properly designed bypass pump is used to control the temperature of the water entering the heater to avoid condensation and scaling.

**Interlocking Combustion Chamber...**Cuts heat loss for best efficiency. Keeps jacket cool.

**Dual Gas Valves...**For safety.

**Stainless Steel Burners...**Can't clog or corrode.

**Slide-out Burner Tray...**For easy inspection.

**Protecto Vent Top (outdoor only)...**Wind, rain and debris proof.



**Raypak**<sup>®</sup>

A Rheem<sup>®</sup> Company

# SPECIFICATION AND DIMENSIONS

MODEL	MBH NATURAL GAS (X 1000) †				DIMENSIONS (INCHES)								APPROX. SHIPPING WEIGHT (LBS)
	INDOOR		OUTDOOR		WIDTH A	HEIGHT OVERALL B	JACKET HEIGHT C	GAS CONN. G	WATER CONN. H	J	FLUE DIA. K	L	
	INPUT	OUTPUT	INPUT	OUTPUT									
P-514	511.5	419.4	511.5	419.4	32-3/4	57	33	1	2		10	25-3/8	450
P-624	627.0	514.0	627.0	514.0	37-1/2	57	33	1	2		12	29-1/2	480
P-724	726.0	595.0	726.0	595.0	41-5/8	57	33	1	2		12	34-1/4	510
P-824	825.0	676.5	825.0	676.5	45-3/4	57	33	1	2		14	38-1/2	590
P-926			926.0	759.0	52-3/8			1	**				700
P-962	961.7	788.6			52-3/8	76-1/8	33-1/2	1	**	23-5/8	14	28	650
P-1083			1083.0	888.0	59-1/4			1	**				810
P-1125	1124.7	922.0			59-1/4	78-1/8	33-1/2	1	**	23-5/8	16	32	750
P-1178			1178.0	966.0	63-5/8			1	**				800
P-1223	1222.5	1002.4			63-5/8	78-1/8	33-1/2	1	**	23-5/8	16	32	855
P-1287			1287.0	1055.0	68-5/8			1-1/4	2-1/2				975
P-1336	1336.6	1096.0			68-5/8	80-1/8	33-1/2	1-1/4	2-1/2	23-5/8	18	36	970
P-1414			1413.0	1158.5	74-7/8			1-1/4	2-1/2				1065
P-1468	1467.0	1203.0			74-7/8	80-1/8	33-1/2	1-1/4	2-1/2	23-5/8	18	36	1050
P-1571			1570.0	1287.0	81-1/8			1-1/4	2-1/2				1120
P-1631	1630.0	1336.6			81-1/8	83-1/8	36-1/2	1-1/4	2-1/2	23-5/8	18	36	1100
P-1758			1758.0	1441.5	89-3/8			1-1/4	2-1/2				1140
P-1826	1825.6	1497.0			89-3/8	85-1/8	36-1/2	1-1/4	2-1/2	23-5/8	20	40	1190
P-2100	2100.0	1722.0			61	68-1/4		1-1/2	3		24		1580
P-2500	2499.0	2049.0			70	68-1/4		1-1/2	3		26		1780
P-3001	3000.0	2460.0			81-1/4	68-1/4		2	3		28		2000
P-3500	3500.0	2870.0			92-1/2	68-1/4		2	3		30		2180
P-4001	4000.0	3280.0			103-3/4	68-1/4		2	3		32		2500

Electrical Rating: 120/24V 60 Hz less than 12 amperes.

† See gas conversion chart.

\* Manufacturers rating.

Ratings shown are for elevations up to 2000 feet. Elevations over 2000 feet ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

‡ Note: Addition of special controls for CSD-1, IRI and others may increase gas train size. Consult with the factory.

\*\* 2 NPT with UG Option. 2-1/2 NPT with H-Bypass.

## MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION

MODEL	FRONT	REAR	LEFT SIDE	RIGHT SIDE	TOP	
					INDOOR	OUTDOOR
P-514 TO P-824	24"	12"	6" *	6"	36"	UNOBSTRUCTED
P-926 TO P-1826	24"	24"	24"	24"	24"	UNOBSTRUCTED
P-2100 TO P-4001	48"	24"	24"	24"	24"	MODELS ARE INDOOR ONLY

\* 18" REQUIRED FOR SERVICING

† TO CONVERT NAT. GAS MBH TO PROPANE MBH

MODEL	MULTIPLY NAT. MBH BY
P-514 TO P-824	0.94
P-926 TO P-1828	0.92 INDOOR 0.955 OUTDOOR
P-2100 TO P-4001	1.0 (SAME AS NAT. GAS)

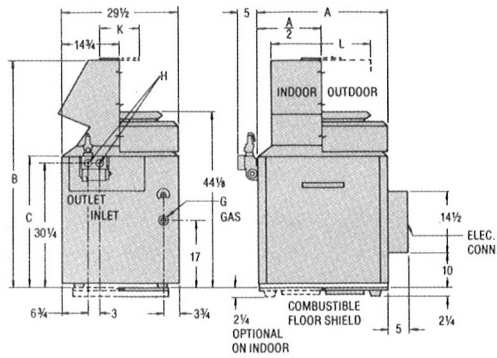
## RECOMMENDED FLOW RATES

MODELS	MINIMUM	MAXIMUM
P-514 TO P-1223	60 GPM	120 GPM
P-1287 TO P-1826	SEE FLOW RATES	
P-2100 TO P-4001	TABLE BELOW	

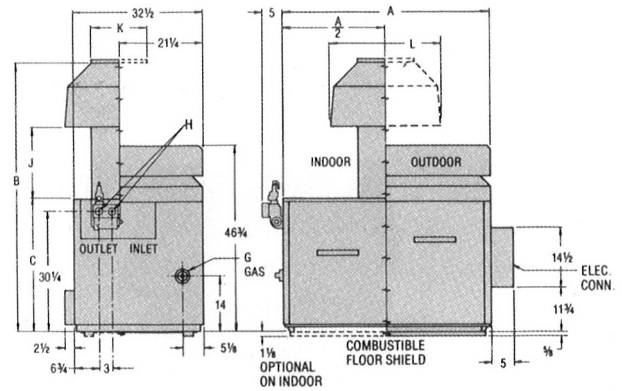
### MODELS FLOW RATES (GPM)

1287/1336	30-50
1414/1468	35-55
1571/1631	40-65
1758/1826	45-70
2100	50-80
2500	60-95
3001	75-115
3500	90-135
4001	100-150

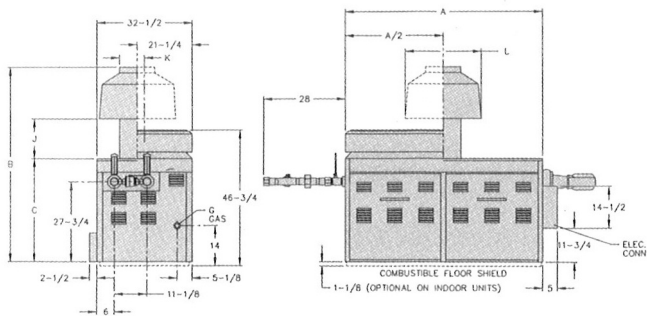
Size for maximum flow rates shown above, and adjust flow to the boiler to obtain 120°F outlet water temperature.



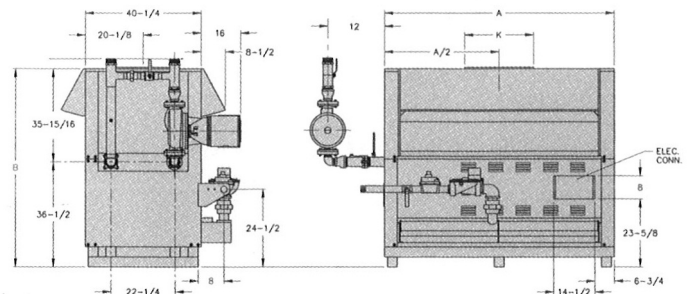
MODELS P-514 THRU P-824



MODELS P-926 THRU P-1223



MODELS P-1287 THRU P-1826



MODELS P-2100 THRU P-4001

**POOL HEATER SIZING TABLE**

**HOW TO USE THIS TABLE**

1. Select the desired swimming temperature of the pool water.
2. Determine the mean (average) temperature of the coldest month in which the pool will be used.
3. Subtract the mean temperature from the desired swimming temperature. The difference is the temperature rise.
4. Calculate the surface area of the pool in square feet.
5. Under the column headed by the temperature rise determined in Step 3, find the number close to, but not less than, the pool surface area from Step 4. On that line, in the left hand columns, will be the indoor and outdoor heater model numbers for the correct heater size. Specifications and Dimensions for all models are shown in the table on Page 2.

**SIZING FORMULA**

BTUH input required = Pool Area (Sq. Ft.) x Desired Temperature Rise x 15.

Formula is based on 1° to 1-1/4°F temperature rise per hour and 3-1/2 MPH average wind. Where high wind conditions exist, select heater one size larger than determined by formula or this table.

**FASTER HEATING**

For 1-1/2°F rise per hour: Increase BTUH input by 50%

For 2°F rise per hour: Increase BTUH input by 100%

Always select a heater equal to or larger than the requirement.

Oversizing generally reduces fuel cost.

Table is based on a nominal 24 hour recovery period. To size a commercial pool based on a nominal 30 hour recovery period multiply listed pool size ("Pool Area in Square Feet") by a factor of 1.25. For special conditions consult factory.

HEATER MODEL NO.		DESIRED TEMP. RISE IN DEGREES F.			
		20°	25°	30°	35°
INDOOR	OUTDOOR	POOL AREA IN SQUARE FEET			
P-514	P-514	1,700	1,360	1,135	970
P-624	P-624	2,090	1,670	1,390	1,190
P-724	P-724	2,420	1,935	1,610	1,380
P-824	P-824	2,750	2,200	1,830	1,570
P-962	P-926	3,085	2,465	2,055	1,760
P-1125	P-1083	3,610	2,885	2,405	2,060
P-1223	P-1178	3,925	3,140	2,615	2,240
P-1336	P-1287	4,250	3,430	2,860	2,450
P-1468	P-1414	4,710	3,765	3,140	2,690
P-1631	P-1571	5,230	4,185	3,485	2,990
P-1826	P-1758	5,860	4,685	3,905	3,345
P-2100	-	7,000	5,600	4,665	4,000
P-2500	-	8,330	6,660	5,550	4,760
P-3001	-	10,000	8,000	6,665	5,710
P-3500	-	11,665	9,330	7,775	6,665
P-4001	-	13,330	10,665	8,885	7,615

## COMMERCIAL POOL HEATERS



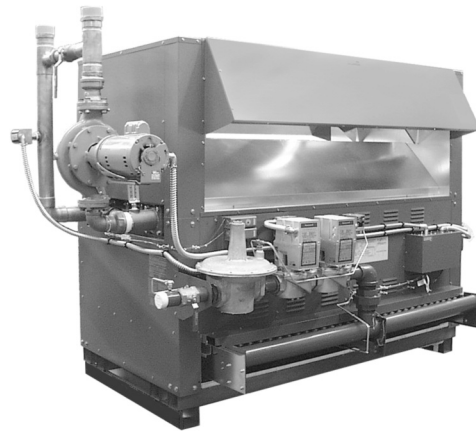
MODEL P-724 INDOOR



MODEL P-724 OUTDOOR



MODEL P-1287 OUTDOOR



MODEL P-2500 INDOOR



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