

# Pool Heater and Heat Pump Sizing



## POOL HEATER

### Pro's



- Lower initial investment
- Works in any temperature
- Heats Pool quickly (with high enough BTU)

### Cons



- Higher operating costs (uses more gas)
- More Moving Parts That Can Potentially Break

## HEAT PUMP

### Pro's



- Low Operating Cost
- Environmentally Friendly
- No Need to Run Gas Lines

### Cons



- Higher Initial Cost
- Only Works Above 50 Degrees Fahrenheit



Pool Size (ft)



Est. Gallons\*



Pool Heater BTU  
(to raise temp 1 degree/  
hour)



Pool Heater BTU  
(to raise temp 1 degree/  
hour)

12 x 20	10,000	110k BTU	50k BTU
15 x 25	15,000	165k BTU	90k BTU
16 x 32	20,000	220k BTU	120k BTU
20 x 32	25,000	275k BTU	140k BTU**
20 x 40	30,000	330k BTU	140k BTU**

\*Gallons are estimated using 3.5ft shallow end and 7ft deep end. You can calculate the exact number of gallons for your pool here.

\*\*Heat pumps only go up to 140k BTU. For pools over 25k gal, a 140k BTU heat pump will raise temp closer to  $\frac{1}{2}$  or  $\frac{3}{4}$  degrees per hr.

## TIP

Whether you choose to use a Pool Heater or Heat Pump, it is strongly advised that you also use a solar cover to prevent heat loss through evaporation. A solar cover will increase the efficiency of a heater or heat pump, and keep your pool water warmer. [Click HERE to get one.](#)

## HEAT PUMP SIZING



Heat pumps offer an alternative heating method for your pool. However, heat pumps will only work when the ambient temperature is above 50 degrees Fahrenheit.

Sizing based on a temperature rise of 1 – 1 ¼ degree per hour. Large pools will heat slower, closer to ½ – ¾ degrees per hour.

Length x Width x Desired Temperature Rise x 12 = Required BTU

Example (10 x 20 ft. pool; desired temp rise of 20 degrees Fahrenheit):

$$10 \times 20 \times 20 \times 12 = 48k \text{ BTU}$$

## [BROWSE HEAT PUMPS](#)

## POOL HEATER SIZING

When you are deciding what size pool heater to purchase, it is important to understand that a larger heater will heat the water faster. A 400k BTU heater will burn gas twice as fast as a 200k BTU heater, but will also heat the pool (roughly) twice as fast.

However, you should also be aware that if your heater does not get enough gas, it will not function properly. Check with your gas company to determine the size of your gas meter, and the pressure in your gas lines.

(Gallons + 10%) X 10 = BTU needed to raise temp 1 degree per hour

Example: 30,000 gallon pool

$$(30,000 + 10\%) \times 10 = 330k \text{ BTU}$$



## [BROWSE POOL HEATERS](#)