

Calculating Propane Usage For Your Food Truck



It is always important to understand how much propane the appliances you use in your food truck so that you don't run out at an inopportune time. In this article we provide you with the basics to calculating propane usage with the formula provided below. Each propane tank size has an approximate BTU capacity that you can use in conjunction with the combination of individual appliance's BTU rating to determine how long a full propane tank will power your truck. Any appliance's BTU rating assumes that the appliance is running at 100 percent, such as a gas grill running with all burners set on "high" or a water heater set at its maximum temperature setting.

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Your first step is to measure your propane tank's height and diameter to determine its size. The height should be measured with the tank standing on its bottom, from the floor to the base of the propane tank collar. The propane tank collar is the raised piece surrounding the tank valve. Measure the diameter at the widest point by wrapping your measuring tape around the tank.

A typical 20 lb. tank is 18 inches high and has a diameter of 12.5 inches. A 30 lb. tank is 24 inches high and has a diameter of 12.5 inches. A 40 lb. tank is 29 inches high and has a diameter of 12.5 inches. A 100 lb. tank is 48 inches high and has a diameter of 14.5 inches.

You can now use your propane tank size to determine its BTU capacity when full:

- 20 lb. propane tank has a 430,270 BTU capacity
- 30 lb. propane tank has a 649,980 BTU capacity
- 40 lb. propane tank has a 860,542 BTU capacity
- 100 lb. propane tank has a 2,160,509 BTU capacity

Now you will want to locate all of the propane using appliance BTU ratings. The BTU rating for each appliance will be found on the appliance itself or in the owner's manual (this is why we always suggest keeping these).

Now that you have added up all of the appliance BTU ratings, use a calculator to divide your propane tank's BTUs (if your truck has multiple tanks, add these numbers up first) by the total appliance BTU rating to determine how many hours your propane tank(s) will be able to power the appliances in your food truck at 100 percent.

If you are trying to determine the size or amount of propane tanks you need for your truck, you can manipulate this formula to come up with that information as well.