

Calculating Spa Volume



Method #1: Fill Time

The most accurate way to determine the volume of a spa, without fancy equipment, is by fill time. First, using a stopwatch or wristwatch, time how long it takes to fill your spa. Convert minutes and seconds to total seconds and write it down. Then, using the same hose and pressure, time how many seconds it takes to fill a 1-gallon bucket.

Now divide the number of seconds it took to fill your spa, by the number of seconds it took to fill the gallon container and you will have the approximate water volume! For example: You filled your spa in 30 minutes (1800 seconds) and filled the 1-gallon container in 6 seconds. $1800 \div 6 = 300$ gallons.

Using a five gallon bucket will result in an even smaller margin of error. Using the above example with a five gallon bucket: You filled your spa in 1800 seconds, and filled the five gallon bucket in 30 seconds. $1800 \div 30 = 60$ five gallon buckets, or 300 gallons.

Method #2: Dimensional

The dimensional method is not as accurate as the fill-time method, but is a quicker way to determine the approximate volume of any spa.

Portable Acrylic-Fiberglass Spas:

(Take all measurements in inches)

Our formulas make it easy because you use the outside dimensions of your portable spa cabinet.

For Square of Rectangular portable acrylic spas:

$$\frac{\text{LENGTH} \times \text{WIDTH} \times \text{DEPTH} \times 2.4}{1728} = \text{GALLONS}$$

For Round or Multi-sided portable acrylic spas:

$$\frac{\text{DIAMETER} \times \text{DIAMETER} \times \text{HEIGHT} \times 2.4}{1728} = \text{GALLONS}$$

In Ground Spas, Soft Spas & Wooden Hot Tubs:

(Take all measurements in inches)

These types have fewer interior water-displacing features, so this formula takes that into account.

For Square or Rectangular types:

$$\frac{\text{LENGTH} \times \text{WIDTH} \times \text{DEPTH} \times 4.8}{1728} = \text{GALLONS}$$

For Round, Irregular or Multi-sided types:

$$\frac{\text{DIAMETER} \times \text{DIAMETER} \times \text{DEPTH} \times 4.8}{1728} = \text{GALLONS}$$

* Results are estimated volume only. Consult with manufacturer.

