

How Much Does A Reverse Osmosis Tank Hold?

We once had a call from a local customer who complained that her reverse osmosis storage tank took up too much space under the sink but didn't hold enough water. We promised to look for a tank that was larger on the inside than on the outside, but we still haven't found it.

The only thing certain about RO (reverse osmosis) storage tanks is that they never hold as much as the stated size. RO tanks contain a thick butyl bladder as well as a pocket of air. The actual holding capacity of the tank — the amount of water that you actually have to use when you empty a full tank — depends on many variables.

These include:

- **The pressure of the air charge inside the tank.**
- **The pressure of your feed water going into the unit.**
- **The shutoff pressure of your RO unit.** — Most standard RO units stop filling the tank when tank pressure reaches about 2/3 of the incoming feed pressure. Tanks used with very large reverse osmosis units are usually controlled by a pressure switch like the switches used on wells. Typically, the latter would be shut off when the pressure inside the tank reaches 50 psi or so.

Therefore, the tank on your undersink unit holds more water if you have a permeate pump or a booster pump on the unit, or if you decrease the air pressure inside the tank. It holds less if you put too much air in the storage tank or when your household water pressure goes down while your lawn sprinkler is on. The amount it holds can vary according to the season. If you have a well, the amount of water in the tank of your undersink Ro unit can vary considerably depending on the pressure in your well tank when the RO tank is being filled.

So there really isn't an exact answer to the question, "How much does the tank hold?"

Here's one manufacturer's estimate of what you might expect in terms of real water delivery from each state tank size. **These are averages, not promises.**

Tank Description Assumed Capacity, on Average

2 gallon tank	1.2 gallons
3 gallon tank	2.2 gallons
4 gallon white tank	3.2 gallons

Tank Description Assumed Capacity, on Average

4 gallon blue tank	3.8 gallons*
11 gallon tank	7.8 gallons
14 gallon tank	10.5 gallons

*(Not really. As far as we can tell, blue tanks don't hold more than white tanks.)

In our opinion, even these estimates are a bit high for most customers. Our rule of thumb is to assume about half the manufacturer's stated size. If you need two gallons, get a four gallon tank.

Another point to consider is that you usually don't need as much water as you think you will at one time. If you draw a gallon from your "four gallon"; tank, the RO unit begins at once to replace it.

Also, if you need more than the standard tank holds, it's usually easier and more economical to add a second small tank rather than replace the original tank with a larger one. Hooking two tanks together is easy.

For really large RO tanks, in the twenty gallon and upward range, please contact us for more information at 512 758 0224

We don't guarantee capacity. There are just too many things that affect capacity that are beyond our control.