

How to – Make Your Own Water Filter

Choose the size of available square OR round **NEW stackable FOOD GRADE** plastic or metal containers (buy two of the same size **with covers** - transparent is best so you can see the water levels in both top and bottom tanks. The most commonly used are standard 5 gallon containers but you decide based on your needs. These could be as small as a few gallons or as large as 5 gallons up to 50 gallons or more using multiple filter elements. They should have enough vertical space inside for 10" (enough for the 7" tall filter(s) plus a little space). Design is up to you. One container source is **ULINE.com** (search on ULINE for "water containers", "square pails", "screw top pails", "pails", "IBC tanks" and "drums"). Up to 5 gallons you will only need one HI filter element since they have very high flow rate (calculate 2 gallons per hour per filter element). Wait until your filters and spigots arrive to put the holes in the containers to verify size of holes to drill. The hole for filter element threaded shaft is 13 mm (or ½ inch). The holes should be just large enough for the filter elements threaded end and spigot threaded end to fit through. You will order our spigot and filter element kit ([Make Your Own Filter purchase page](#)) choosing between 2, 4 or 10 packs of filter elements and we include the stainless steel spigot (note this spigot will NOT fit standard gravity filters). Drilling holes in plastic requires careful drilling. There are drill bits that are better for plastic but if you have standard drill bits, drill a small tap hole first as a guide hole and then expand out at **slow speed** using larger bits until you reach the correct size for the filter element and spigot threaded ends to fit through (heating the drill bit also helps). To begin, set the two plastic containers side by side with caps in place. One will be the top container and the other will be the bottom container. In the bottom container drill a hole about 1.5" from the bottom in the side for the spigot. The spigot comes with 2 washers one goes on the outside and one on the inside. Put the spigot through the hole and turn the wing nut finger tight (if it leaks you will have to tighten more). Next drill a hole about 2" in diameter in the center of the cover of the bottom tank (this is where the filter will fit when you put the two tanks together). The JMCC Water Filter "HI" filter elements **hang DOWN inside the lower container (see photos below)**. If your design uses many filter elements, space them as you like and drill holes accordingly but our HI high Flow filters generally you only need to use one. Calculate 2 gallons per hour per filter element. Your bottom container is done. Now for the top tank. Drill one hole in the center of the bottom large enough for the threaded filter element nipple to fit through 13 mm (= ½ inch) or multiple holes if you have more than one element in your design that will match the holes you drilled in the cover of the bottom container. To install the filter elements, leave the washer ON THE FILTER ELEMENT and put through the hole of the base of the top container. Put the plastic nut on the filter element and tighten ... finger tight. Hold the BASE of the filter element firmly and twist to tighten to a snug fit (do not over tighten you will strip the treads). Put all together on a solid area (water is heavy). It is best if the spigot is always overhanging the counter so you do not have to move every time you want to draw water. Put about 3 gallons into the top container and let the first batch of a few gallons of filtered water flow into the bottom. It should be at a constant flow rate (the new HI filters pass much more water than any other filters on the market). Discard the first few gallons of water and you are set. Do not overfill the top container to prevent the bottom container from overflowing ... what a mess!! If you do this once you probably will not do it again. ONE FINAL check ... when the top container empties make sure that there is always a little water left. If not, that means that water is leaking through the filter element washer and it is not tight. In that case tighten the filter nut more being careful not to strip the threads. Replace the filters per schedule (about 1000 gallons for each HI filter element).

Now you will have your own filtered water no matter where you are (store your filter element when moving in a plastic bag and not fastened in the filter as jarring will break the filter when traveling). One extra hint on usage. Keep a large separate water container or tank nearby to constantly fill from the filter for extra water storage. Order the water filter elements here [🔗 Make Your Own filter purchase page](#)

Installation of new “HI” filter elements that hang into the bottom container rather than vertically upwards into the top container. Some people may have our GF ceramic filters while some may use the newer technology HI filter elements as sold now (see photos next page if you have GF ceramic filter elements). Here is an explanation for why we moved to the new HI filter elements. If you plan on traveling you may wish to use the HI filters which are not subject to damage and have twice the flow rate of even the old style Imperial ceramics. We upgraded to the HI Filter from the prior ceramic filters for many reasons including 1) we can mass produce the HI filters to meet larger markets (with ceramics we were always short on production and could never grow), 2) the HI filters are the latest in filter technology, are very durable and do not break in shipping or traveling (we had many issues with broken products in shipping with the ceramic GF filters) and 3) the HI filters have a few filtration features not achievable with ceramics (10 times smaller pore size, removes gasses that can cause smell in water, etc.). If you purchased our GF ceramics in the past, they are excellent filters (I personally still use them) but we had to move ahead for these business and technology related issues.

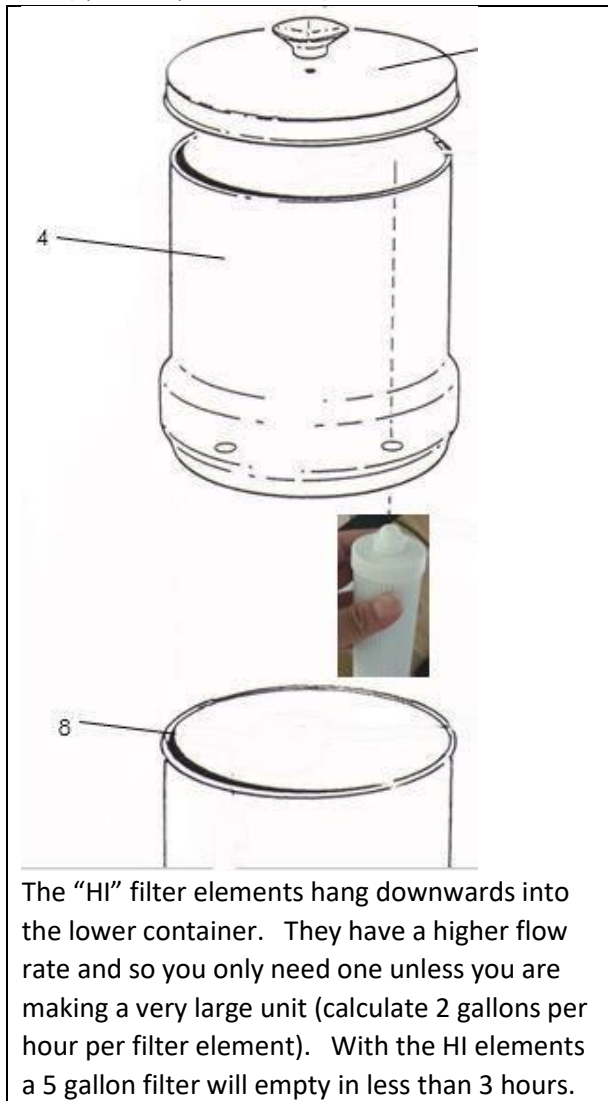


Photo showing the HI filter element hanging down from the bottom of the upper container



The stainless steel spigot for a lifetime of use

Order the water filter elements here [🔗 Make Your Own filter purchase page](#)

Photos of water filters made using JMCC GF Ceramic Water Filter Elements



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