Gravity Filter Systems

Explanation on how gravity filter systems work

All gravity filter systems perform in the same manner, they all rely on gravity (outward force) to push the water to be treated/filtered through the filter elements and into the lower reservoir that holds the filtered water. Gravity systems rely on the head pressure, this is the level of water above the filter elements in the upper reservoir, as the water in the upper reservoir goes down, so does the head pressure as the water level drops. As the head pressure drops, so does the flow through the filters as the pressure needed to push the water through the filter has dropped. In order to achieve optimum flow through the filters, the water in the upper reservoir should be topped off periodically to keep adequate head pressure on the filters. When the water in the upper reservoir is not topped off, flow through the filters will drop considerably to essentially zero flow. Refilling the upper reservoir will restore the flow and the head pressure required for the filters to flow again. Water must be drawn (emptied) from the lower reservoir when the upper reservoir is filled or the unit will overflow. This is normal as the water in the upper reservoir has more force (gravitational pressure) pushing the water through the filters into the lower reservoir.

The filter elements are installed into the upper reservoir with the threaded end of the filter facing down. The picture to the left shows 4 ceramic filter elements installed in the upper reservoir in a stainless housing. The rubber washers should be placed on the threaded end of the filter element before inserting the filter through the hole(s) in the upper reservoir. Once the filters have been placed into the holes, screw the wingnut onto the filter to hold them in place. Take care to only hand tighten the wingnut, over-tightening can damage or break the threaded end of the filter.

Once the filters are installed, the upper reservoir should be placed on top of the lower reservoir. The unit can now be filled with water. The initial flow will be slow as the filters need to fully saturate. Follow the flushing procedure outlined in the instructions prior to use. After the flushing procedure is complete, simply refill the upper reservoir and the unit is ready for use. Our filters should never be primed by forcing water through the filter backwards through the threaded end of the filter.

Weekly inspection of the housing and filters is recommended, we also suggest cleaning the gravity housing at least monthly. Simply disassemble the system and wash the housing with soap and water, do not use soap or detergents on the filter elements, follow the cleaning instructions for the ceramics. Only the ceramic filter elements can be cleaned.

Allow the housing to fully dry before reassembly. Inspect the filter elements to ensure they are not damaged. Cleaning frequency of the ceramics will vary greatly depending on the source of the water being run through the system. Cleaning of the ceramics should only be done when the flow rate through the filters has dropped off from when they were new. Over cleaning of the ceramics can shorten the life and cause the ceramic to crack due to the wall thickness being compromised. The ceramics should not be cleaned on a regular basis unless the water flow has dropped in the same period. Only regular cleaning of the housing is recommended.

We offer different types of gravity filter systems depending on how the system is going to be used, and by how many people. We offer both stainless steel housings and stoneware housings. All of the systems operate in the same manner, only difference is the material the housing is made from.

The different systems hold differing numbers of filters, the more filters installed allows for more water to be filtered, more filters does not equate to better water. More filters simply means more flow.

Our standard length filter for our gravity systems is 7", this is because gravity systems require head pressure to operate and we've found that between 6-7" is the optimal height for both surface area of the filter, and head pressure required for normal flow/operation. We do offer other lengths, including a 9", but we do not recommend using the taller 9" filters as they remove the necessary head pressure in the upper reservoir. A 7" filter will flow better than a 9" filter in the same housing, filled at the same time.

For any questions or concerns, please email or call us, we're happy to answer any questions.

ceramic
filters
company
inc.