HOW TO STORE CARTRIDGE FILTERS BETWEEN USES

RECOMMENDED STORAGE SOLUTIONS FOR CARTRIDGE FILTERS

Just like with our backflushable lenticular filter modules, cartridge filters should be stored wet between uses. Although some cartridge filters, like absolute membranes, can't be back flushed, you can still perform a forward flow regeneration to try and dissolve the soluble compounds in the matrix.

This regeneration is done by rinsing with water in a forward flow direction about twice the speed you were filtering at. Keep this high flow for 5 – 10 minutes and then bring the water temperature up to no higher than 140 ^{0}F. At temperatures warmer than 140 ^{0}F, you start to bake some of those soluble compounds deeper into the matrix where they will stay and contribute to pressure build-up.

After 5 minutes of warm temperature high flow, switch the pump off and close the valves so that your cartridge sits in this warm environment for about 20 minutes. Then bring the temperature back down by rinsing with cold water. Drain and store or drain and reuse. Alternatively you can continue with a hot water sanitization or steam sanitization.

Some cartridge manufacturers also recommend soaking the cartridges in caustic soda followed by citric acid. We like to use Aird Destainex-LF for this purpose and you don't have to use an acid to neutralize afterwards unless the pH of your water is constantly above a pH of 8.0 or if you have high dissolved salt content in your water.

Do not let your cartridges dry out when storing them. It's important that the materials remain pliable, otherwise they may become brittle. **Always remove your o-rings before storage. Some storage solutions will cause the O-rings to expand over time while others will make them brittle and break up into small pieces.**

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The solutions we recommend are:

1. **Cheap vodka** (not denatured - isopropyl alcohol or methylated spirits)
Make sure you that the strength is at least 40 proof but no higher than 130 proof, at which point you can start to extract some of the plastic compounds from the cartridge or storage container.

Six storage tubes for 30" cartridge filters

2. **Citric Acid with SO_2**
You can use a 1 – 2% solution of citric acid so that the pH measures 2.0 or lower. You have to add some SO_2 to this solution; at least 50 ppm to make sure no bacteria changes the citric acid solution into a foul smelling bacterial soup. You also have to make sure you periodically add more SO_2 to keep the free SO_2 level at 50 ppm minimum. You can certainly go up to 200ppm but not more than 1000ppm. To periodically add some more SO_2, we like dropping an effervescent Inodose tab in the container.

3. **StarSan**
This solution is typically used by brewers and production facilities where there is a very short time lapse (less than a week) between filtrations. After this time, the StarSan can start to break down (it becomes milky) and you won't have protection from microorganisms. This solution is not recommended for long term storage.

Whichever solution you choose, make sure that you have removed the O-rings from the cartridge. You can make your own storage containers to store the submerged cartridges in. Simply use plumbing water piping and cap one end to make it leak-proof. The storage solution filled tube can be capped or covered with plastic wrap. Stand the cartridges upright in these tubes and use a bungee cord to secure them to a barrel rack or table. Make sure your cartridges are fully submerged in the storage solution.

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