



Smart Filter

Complete Instructions



Scan the QR code below for an instructional video that covers all the steps in this booklet:



This Smart Filter Kit Contains the following items:

- 2 Buckets with lids, all with different sized holes
- A stainless-steel Filter Cartridge Holder (called a spindle) that has:
 - A stainless filter holder, the spindle.
 - A silicon seal with a small hole – bottom
 - A silicon seal with a larger hole – top
 - A stainless thumbscrew with nut and O-ring
- A premium Pure Distilling Filter Cartridge
- A tap for one of the Filter Buckets
- A stainless-steel stick (its actually a plug!) with a silicon O-ring on the end.

Before first use give the top and bottom buckets and the lids a wash in warm soapy water to get rid of any manufacturing residues and rinse well. The premium Pure Distilling Filter Cartridge can be rinsed under clean running water to remove any dust and loose particles.

The Filter Cartridge needs to be soaked in diluted spirit or water until no bubbles can be seen coming from the Filter Cartridge, it will take about 20 minutes. This process removes any chance of creating an airlock in the flow through process. It should take a minimum of 6 to 8 hours to filter 10 litres of spirit at 40% ABV.

Alcohol must be below 50% ABV for activated carbon to be effective!

Setting Up the Filter System

The following steps will get the filter setup correctly, remember the thumbscrew and nut will only ever need to be fitted once, then its only a matter of fitting the soaked Filter Cartridge onto the stainless spindle and screwing it on.

The Thumbscrew, O-ring and Nut shown below make up the fitting that the spindle will screw into and will be fitted first onto the Top Bucket (the one with the small hole in the base)

Thumbscrew



O-ring



Nut

Showing recess for O-ring



1. The thumb screw fits through the bucket base, the O-ring is fitted under the bucket base.
2. The nut which is done up tight with the recess for the O-ring facing up (toward the base of the bucket as per photo below) and will tighten over the O-ring. Finger tight should ensure no leaks, do not over tighten!



The stainless spindle screws into the base of the fitting we just assembled on the top bucket, and is made up of the parts shown below.



3. This Filter Cartridge assembly allows easy replacement of the Pure Distilling Filter Cartridges. It is assembled as per below:
 - a. The silicon O-ring with the small hole fits at the base of the spindle, it is packaged like that.
 - b. Then the Pure Distilling filter cartridge slides over the spindle, after being soaked.

- c. The silicon O-ring with the large hole goes over the nut on the bottom of the bucket.
- d. This whole assembly is then screwed into the base of the fitting already in place in the top bucket, again finger tight should ensure no leaks, do not over tighten!



Setting Up Ready for filtering

4. Fit the red handled plastic tap to the bottom filter bucket with the hole in the side between the volume scale, The tap comes with two silicon washers, make sure there is a silicon washer either side of the bucket. Do up tight and test for leaks.



5. Place the filter bucket lid with the big hole on the bucket with the tap.
6. Place the top filter bucket with the filter spindle onto of the bottom bucket guiding the filter spindle carefully through the hole in the lid.
7. The Smart Filter stainless steel stick plug fits into the top of the thumbscrew and acts as a plug, stopping any flow, push it in position now ready for your batch.



8. Make sure the tap on the bottom bucket is closed!
9. You are now ready to filter your spirits, remember you need to replace the filter cartridge for each wash!
10. Once the spirit has filtered you can bottle directly from your tap or pour into a Pourmaxx measuring jug and mix your essences.



Using the Filter System

Filtering your spirit allows the activated carbon filter cartridge to attract and trap chlorine and volatile organic compounds like acetone, benzene, ethylene glycol, formaldehyde, methylene chloride, perchloroethylene, toluene and xylene. These volatile organic compounds are present in very small quantities in the tails of the distillation run.

There are two ways to run the filter system, after setting the system up as previous:

Collection point for the distilling run then at the end of the run diluted to ~40% ABV or as per a normal filter where the spirit is cut to ~40% (can be mixed in the top bucket) and filtered.

Either way the filter will need to have the stainless stick fitted into the top of the thumbscrew in the top bucket as per the photo on the previous page.



While Polypropylene is declared safe with ethanol to 96% ABV and to 80 degrees Celsius, we believe it is better practise to collect the alcohol from your still into a glass container or a scientific style measuring jug like the excellent Pourmaxx brand.

Once the alcohol has been diluted and added to the top bucket, make sure the tap in the bottom bucket is closed, and lift the stainless steel stick (the plug) and you are filtering! It should take a minimum of 6 to 8 hours to filter 10 litres of spirit at 40% ABV.

Alcohol must be below 50% ABV for activated carbon to be effective!

Pro Tip: Filtering neutral spirit is all about residency time, the longer your neutral spirit is in contact with the activated carbon the more impurities will be captured. If you slightly lift the filter plug in the filter system so it no longer seals completely it will allow the neutral spirit to drip through the filter. This will be slow but will produce very clean neutral spirit.

Alternatively, run the neutral spirit through the filter twice. Remember the filter cartridge needs to be replaced with every wash you process, so when buying another Pure Distilling Premium Yeast and accessories, pick up a new filter cartridge.

Cleaning Up

When you have finished filtering, remove and dispose of the carbon cartridge and rinse everything with warm water, allow to dry and store ready for next time.

Issues or Problems

If the spirit is flowing very slowly there may be a blockage in the stainless filter spindle, get a small needle and remove any obstruction from inside the stainless shaft (circled below).



You can contact us if you require further information at:

Email: drink@puredistilling.com

Facebook: www.facebook.com/PureDistilling

