

STILL SPIRITS

TRUSTED SINCE 1989



EZ FILTER SYSTEM

FAST, CLEAN AND EASY TO USE.

The EZ Filter System uses a specially formulated solid activated carbon cartridge to remove unwanted flavours from distilled alcohol. The cartridge eliminates the need to handle powdered or granulated carbon. The cartridge's porous design allows the spirit to pass through and the unwanted flavours to be absorbed by the activated carbon.

EZ FILTER SYSTEM INSTRUCTIONS

ASSEMBLY INSTRUCTIONS

Fit the tap to the lower reservoir. Place the lower lid on top. Remove the cartridge from its plastic wrap and the washers from their pack.

Soak the EZ Filter cartridge in a glass of clean water until the cartridge is fully submerged and air bubbles have stopped escaping from it. This is necessary to remove mineral salts from the carbon and flush out any carbon dust.

You should do this for every new cartridge.

Slide the filter spindle through the hole in the top reservoir and then slide the other components onto the spindle where it projects below the base of the reservoir in the following order:

1. Washer
2. Carbon filter cartridge
3. Washer
4. Bottom cap

Screw the bottom cap by hand onto the filter spindle, taking care not to over tighten. Sit the top reservoir onto the lid.

An 8 L (2 US Gal) batch will usually take 4-6 hours. Over tightening the cap may slow down the filtration process.

CARBON CARTRIDGE INFORMATION

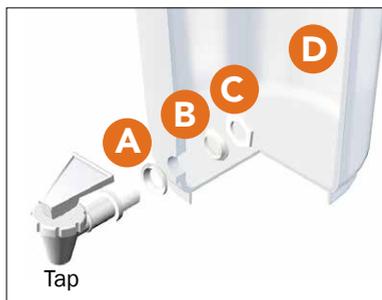
One cartridge is suitable for one batch of spirit from a 25 L (6.6 US Gal) still (about 8 L (2.1 US Gal) of 50% spirit). A fresh cartridge should be used for each batch.

The washers are reusable for up to 3 times but should be replaced if they flatten with use and no longer recover to normal thickness.

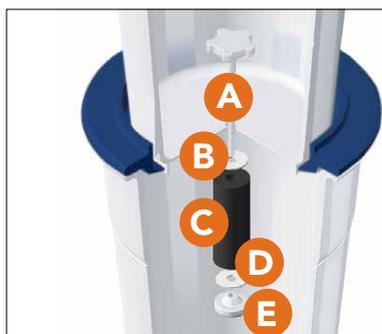
OPERATION

Adjust the alcohol level to under 50% with clean water. Check this with a Spirit Hydrometer or Alcoholmeter.

Add the diluted spirit to the top reservoir and fit the lid in place and allow the spirit to pass through the filter into a collecting reservoir.



- A** Washer #1
- B** Washer #2
- C** Nut
- D** Lower body



- A** Filter spindle
- B** Foam washer #1
- C** Carbon filter cartridge
- D** Foam washer #2
- E** Bottom cap

ADJUSTING YOUR ALCOHOL STRENGTH DOWN TO 40% ABV

After carbon purifying, the spirit should be watered down in strength to 40% ABV prior to drinking. **We strongly advise against making higher strength spirit.**

$$\frac{\text{LITRES (US GAL) COLLECTED} \times \text{ALCOHOL STRENGTH}}{\text{ALCOHOL STRENGTH}} = \text{TOTAL LITRES (US GAL) TO BE MADE UP TO}$$

EXAMPLE

To convert 45% strength alcohol to 40% use the following calculation:

$$\frac{4.5 \text{ L (1.2 US Gal)} \times 45}{40} = 5.1 \text{ L (1.3 US Gal)}$$

If you collect 4.5 L (1.2 US Gal) of spirit and this measures 45% after carbon purifying, then multiply 4.5 x 45. Divide this by 40% and you will need to make the total spirit up to 5.1 L (1.3 US Gal) with water. In other words add 600 ml (20.1 US fl oz) of water. This is a rough guide only. Watering down the spirit to 40%, or less, is very important as people who are not used to high strength spirit can easily overdose resulting in nausea and in extreme cases, death.

PURIFICATION

Activated carbon is prepared in a manner which causes the carbon crystals to become porous and develop a very large surface area. One gram of activated carbon may have 500 –1500 m² of internal surface area. This large surface area and the many internal pores in the carbon are able to adsorb many different chemical compounds including those which cause unwanted flavours in your spirit. The absorption process is very complex and depends on concentrations, molecular weight etc. In the case of alcoholic spirit the process works best if the alcohol concentration is 50% or less. This is why we recommend adjusting the alcohol level before purification.

MINERAL SALTS

Mineral salts are present in the ingredients used for manufacturing activated carbon. If these are not flushed out they can be absorbed into the spirit. Later these salts can become insoluble in the spirit, especially at lower temperatures, and can form a fine sediment or haze. These salts are not dangerous, but you do not want them in your spirit as they can form crystals or haze in the spirit. This is why we recommend flushing the filter with clean water before use. If a haze forms it will sediment out over a few days and you can decant your spirit off. If this occurs you should increase the cartridge soaking next time.

LEGAL ALCOHOL DISTILLATION

In New Zealand, it is legal to distil your own spirits and liqueurs for personal consumption. However, please note that in certain countries alcohol distillation may be illegal and you may require a licence. Ask for advice or contact your local Customs & Excise Department.

In Australia, it is illegal to use this unit to produce alcohol for consumption without a licence from the Australian Taxation Office.

In the USA and Canada, it is illegal to use this unit to produce alcohol for consumption without a licence from the relevant authorities.

In the UK, it is illegal to manufacture spirits without a distiller's licence which is required under the provisions.

ALCOHOL FOR BIO FUEL

Bio fuel can be made using the same process as distilling spirits in the T500.

On 30 June 2007, the UK Government made it legal for people to produce up to 2,500 L annually without the need to pay duty or to hold a permit. Always check with car manufacturers as to the level you can add.

The USA authorities have recently allowed distillation for fuel alcohol and you can get a permit from the Federal Government.