



TRUSTED SINCE 1989



# EZ INLINE FILTER

Fast, clean, easy to use.  
Specifically designed for  
optimal purification of  
water and alcohol.

Your EZ Inline Filter comes assembled ready to use. Each carbon cartridge is suitable for one batch of alcohol from a 25 L (6.6 US Gal) Still, or for 300 L (79.3 US Gal) of water, after which it should be replaced. It is a simple matter to replace the used cartridge, see assembly detail.

## **CARBON CARTRIDGE TECHNOLOGY**

The unique EZ Inline Filter Carbon Cartridge is constructed from a specially formulated blend of carbons designed to deliver optimal performance.

This blend of carbons has been selected with pore sizes ideal for removing impurities in distilled spirit or unwanted chemicals from water and is fast, clean and easy to use.

## **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.

## **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 500–1,500 m<sup>2</sup> 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.

## **OPERATION**

1. Soak the EZ Inline Filter Carbon 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.
2. Connect the filter to the tap on the reservoir (not supplied) with a short length of clear PVC tube. The tube should not be more than 100 mm (3.9") long.
3. Close the tap and add your spirit to the reservoir.
4. Adjust the alcohol level to under 50% with clean water. Check this with a spirit hydrometer or alcoholmeter.
5. Open the tap and allow the spirit to pass through the filter into a collecting pail.

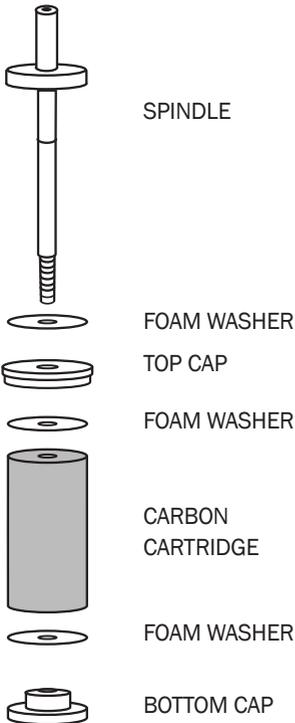
## REPLACING THE CARTRIDGE

Foam washers are reusable for up to 3 times but should be replaced if they flatten with use and no longer recover to normal thickness. It is a simple matter to replace the used cartridge.

Components are assembled in the following order on the spindle:

1. Foam Washer
2. Top Cap
3. Foam Washer
4. Carbon Cartridge
5. Foam Washer
6. Bottom Cap

Screw up by hand, taking care not to over tighten. Press the outer plastic housing onto the top 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:

$$4.5 \text{ L (1.2 US Gal)} \times 45 / 40 = 5.06 \text{ L (1.33 US Gal)}$$

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 5.06 L (1.33 US Gal) with water. In other words add 590 ml (20 US fl oz) of water. This is a rough guide only. Watering down the spirit to 40%, or less, is very important as people not used to high strength spirit can easily overdose resulting in nausea and in extreme cases death.

# 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.

## STILL SPIRITS WEBSITE

Filled with comprehensive information for both the experienced distiller and the novice just starting out plus an extensive recipe section of over 60 drinks!

  
**STILL SPIRITS**

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[www.stillspirits.com](http://www.stillspirits.com)

