STILL SPIRITS

Home
Essential Oil Extractor
and
Water Purifier

25 Litre - 7 US Gallons

Introduction

Congratulations on your choice of this **Still Spirits** unit. As the name implies, this is a multifunctional unit that can be used for many purposes, but is particularly suitable for **Essential Oil extraction** and the **purification of water**.

Many people are discovering and enjoying the art of **Aromatherapy** and the use of **Essential Oils**. This unit will enable you to create and experiment with your own recipes and variations.

There is also growing concern over the **quality of water** we drink. Water filters may reduce or remove varying levels of the chemicals, heavy metals and micro-organisms that can contaminate our water. Freshly distilled water is totally **safe, pure water**.

The **Still Spirits** brand is based on quality. This unit is a good example. The body of the boiling unit is constructed of **stainless steel**, the condenser unit of **copper**. The internal electric element eliminates the dangers created by the use of external heat sources.

The **Super Reflux Condenser** that comes with this unit is particularly versatile as it can be used as either a traditional '**Pot**' condenser, or in the more advanced '**Reflux**' mode. The change between modes is very **quick and simple**. It requires only the rearrangement of two hose outlets and the addition or removal of the special ceramic saddles in the reflux chamber. Full details are contained later in this booklet.

Important Notes

Avoid Electric Shock. This unit is powered by **electricity** and normal safety precautions should be observed. Do not operate this unit if the power cord or sockets are wet, damp or damaged in any way. It is recommended that this unit be used in conjunction with a residual power safety outlet.

In New Zealand and other certain countries, it is legal to also use this unit for the home distillation of alcohol. In many countries this is not the case. Please check your local regulations. Instructions on how to use this unit for home distillation of alcohol will only be distributed with the unit in regions or countries where that activity is known to be fully legal. Under current law it is a Federal offence to use this device to home distil alcohol.

This unit was designed in New Zealand to work with the Still Spirits range of products. However, it is not necessary to use this device when using the Still Spirits range of products. The manufacturer provides alternate directions that comply with regulations in locations where the home distilling of alcohol is illegal. The manufacturers and distributors of these products accept no responsibility should you use this unit for illegal purposes, the instructions not be adhered to or Still Spirits products and methods not be used.

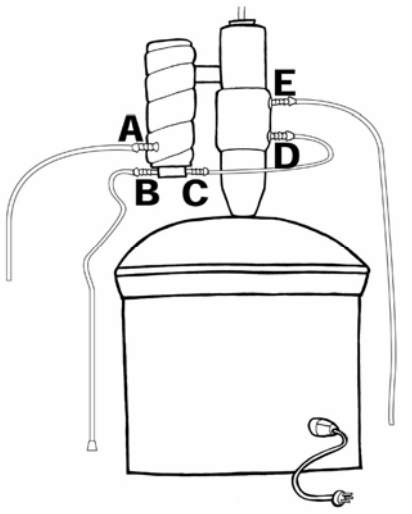
To avoid the risk of boiler implosion (boiler walls being sucked in) ensure the end of the outlet hose from the condenser remains above liquid level at all times.

Equipment Set-up

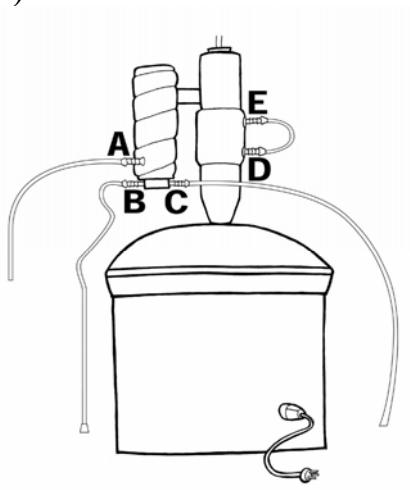
This unit comprises a 25 litre (7 US gallon) stainless steel boiling chamber, with an internal 1380 watt 110 volt element. The raised stainless steel lid is clamped in place with the span ring provided. The condenser is attached to the lid with the nut provided.
All the required tubing is already assembled on the condenser.
The glass thermometer provided should be inserted through the hole in the bung at the top of the condenser so that the bulb of the thermometer sits inside the thermometer, level with the top tube that connects the two halves of the condenser.
The ceramic saddles provided are used when the condenser is in 'reflux' mode (for water purifying). They are placed in the first chamber below the thermometer bung. To accommodate the base of the thermometer, not all the saddles will be required.

Water Purification (Reflux Mode)

The Super Reflux Condenser is pre-assembled in this mode. Water from the tap is connected to the condenser inlet (B), is heated then moves between chambers from the condenser outlet (C) to the reflux inlet (D) then to waste from the reflux outlet (E). Distillate is collected through the tube (A). Ceramic Saddles are used in the reflux chamber (on the right in the illustration, where D & E are connected).



Essential Oil Extraction (Pot or Traditional Mode)



In this mode, the water does not flow through the reflux chamber. To achieve this, the outlet to waste, attached to (E) in reflux mode above, is attached directly to the condenser outlet (C), with the tube previously attached to (C) being attached to (E) to create a loop between (D) and (E). The ceramic saddles are not used in the condenser when in this mode.

Extracting Essential Oils.

There are two different methods to extract essential oils with this unit:

Method 1. Water dissolvable oils.

Soak the material containing the oils to be extracted in water for 24 to 48 hours. Strain off the solids leaving just the liquid behind.
Add this liquid to the boiling chamber and bring to the boil. Make sure there is enough water flowing through the condenser to condense any steam which comes out of the condenser. Collect the distillate in 100 ml (4 fl oz) quantities. Test each 100 ml batch before combining to ensure quality is acceptable. As the condensate is driven off the nature of the oils will vary.

Method 2. Steam dissolvable oils.

Fill the boiling chamber with 15 litres (4 gallons) of water. Suspend the material containing the oils in a wire basket above the level of the water. Bring to the boil and collect the condensate which is produced. As the steam passes through the material, it will pick up the oils and carry them through with the condensate. Make sure there is enough water flowing through the condenser to condense any steam which comes out of the condenser.

Purifying Water

Fill boiling chamber with 25 litres (7 gallons) of water. To speed up the process use water from the hot tap. Fit the bung and thermometer to the condenser and fit this to the lid. Connect the inlet pipe to a cold water supply. You will need to adjust the water flow through the condenser to between 400 and 500 mls (1½ -2 cups) per minute.

1. Discard the first 50 mls (2 fl oz) collected from the Still. This could contain volatiles like chlorine, herbicides and insecticides.
2. Collect 10 litres (2½ gallons) of distillate then stop collecting and discard anything else.
3. The 10 litres (2½ gallons) of distillate that you have collected should then be filtered through the Still Spirits Z-carbon Filter to ensure maximum purity.

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