THE

essencia

SYSTEM

Introducing the *essencia* system

The *essencia* system is based on the philosophy that if products designed to produce maximum quality are used at every stage, the final product will be of an un-equalled high standard.

The four critical stages in the production of top quality spirits and liqueurs.

1. Fermentation.

The fermentation process uses a yeast and nutrient mix to convert a sugar source into alcohol. The mixture of sugar, yeast, nutrients and water is known as a 'wash'.

This process also produces unwanted by-products known as 'congeners' which add unpleasant flavours to the product. It is important to use a yeast and nutrient mix which minimizes the production of these congeners.

essencia Super 6 yeast is a specially formulated yeast and nutrient mix which is designed to keep the production of congeners to an absolute minimum during the fermentation process. This not only means that the alcohol produced is ultra clean, it also means that you get more usable alcohol from the same amount of sugar.

2. Distillation.

The distillation stage is a refining process designed to separate the desired product (ethanol) from all other products in the wash.

The higher the strength of the ethanol you get off the still, the higher the quality (ie there is a smaller amount of unwanted material in the collected product).

The maximum concentration of ethanol achievable employing this method of distillation is 96% ABV.

The standard configuration of any of the *essencia* range of Stills can produce ethanol at over 90% ABV.

When you distil a wash made with *essencia* Super 6 yeast using an *essencia* Still, the resulting product will be very clean, highly purified ethanol.

There are countries where distilling alcohol without the appropriate licence or permit is illegal. In these cases you will need to substitute distillation with one of the methods shown in the '**Making spirits and liqueurs without distilling'** section (page 4).

3. Carbon Treatment.

The carbon treatment stage uses activated carbon to remove the impurities produced during fermentation. This includes both un-distilled (wash) and distilled alcohol.

Activated carbon contains pores designed to adsorb particles of specific sizes. Different activated carbons are made with different sized pores for different applications. **It is therefore important to use activated carbon specifically designed for treating alcohol.**

The impurity particles in the distilled ethanol become more soluble at higher strengths. This means that the stronger the spirit that you are treating, the less effective the activated carbon is at removing the impurity particles. Because of this, the spirit must be 'cut' (watered down), prior to carbon treatment.

The *essencia* Carbon Filter is a unique multi stage filter system combining the highest quality activated carbon **with** ceramic filtration technology. The system provides unparalleled levels of purification yet is simple to use. One of its great advantages is that when spirit is 'cut' down to drinking strength (usually 40% ABV), then run through the Filter, it has the ability to filter and treat the **entire** product.

4. Flavouring.

Once the spirit has been distilled, 'cut' and carbon treated, it then needs to be flavoured. Making spirits simply involves adding a flavouring to the alcohol. Making liqueurs is simple using the *essencia* EziBase range of liquid liqueur bases. Simply use a flavouring, alcohol, EziBase, top up with water and it's done.

Once a spirit or liqueur has been made using a flavouring it should be left to stand for at least a week. This allows the flavour to infuse with the alcohol and produces a much better result.

essencia flavourings are all true commercial quality specifically designed for the flavouring of alcohol.

By employing all four stages of the *essencia* system you can be sure you will produce an ultra premium product.

Fermentation

Fermentation is the first step in the process of producing your own spirits and liqueurs. A good fermentation requires several things:

- A clean and sterile environment.
- The correct concentration of sugar.
- A good, live, alcohol yeast.
- The correct nutrients to allow the yeast cells to multiply and stay healthy throughout the fermentation process.
- A stable temperature within the yeast's operating range, throughout fermentation.

Step 1 – Cleaning and sterilizing equipment.

- All equipment used in the fermentation process must be clean and sterile. This includes the fermentation vessel, fermentation vessel tap, stirrer, hydrometer and airlock.
- A chlorine based cleaner/sterilizer is ideal for cleaning and sterilizing the fermentation vessel. This item can be obtained from your specialist home brew store.
- All equipment must be thoroughly rinsed with cold tap water following sterilization before being used to ensure no trace of sterilizer remains. **Remnants of cleaners or sterilizers can destroy your wash.**

Tip:

- To keep your fermentation and distillation tools (hydrometers, stirrers, trial jars etc) sterile between uses you could keep them in a bucket of Sodium Metabisulphite and water solution. A large bucket with a sealable lid is ideal for this. This will allow you quick and easy access to sterilized equipment. Simply remove them from the bucket as required, rinse well with cold water, use, rinse again and return them to the bucket for next time.

Step 2 – The Wash.

1. Pour approx. 10 L (2.5 gal) of hot tap water into a 30 L (8 gal) fermentation vessel. Add the required amount of white sugar as specified on the yeast packet, while stirring. Keep stirring the mixture until **all** the sugar is dissolved and the solution is clear.

2. Once the sugar has been **completely** dissolved, top the fermentation vessel up to 25 L (6.6 gal) with cold tap water and stir vigorously.

3. Check the temperature of the mixture. It should be between 28ºC (82ºF) and 35ºC (95ºF). Provided it is within these limits the yeast must now be added.

Note: The amount of hot tap water required will vary depending on the temperature of your hot water and the temperature of the cold tap water. While the temperature of your hot water will stay the same, the temperature of the cold water can vary greatly between summer and winter. The important thing is that immediately after adding the cold water, the temperature of the mixture is close to 30ºC (86ºF).

It is **very important** that the yeast is added **without delay** following the addition of the cold water. This is because once the temperature of the mixture is down to the level at which you can add your yeast, it is also at a temperature where a wild yeast from the environment can get in and start growing. If this happens your wash will be destroyed.

Tip:

- It is a good idea to keep a record throughout the year of the hot water amounts used to achieve a mixture close to 30ºC (86ºF). In the future you will be able to refer back to a similar time of year when the cold water temperatures were approximately the same.

4. Stir the mixture to create a gentle circular flow then sprinkle the contents of one sachet of yeast onto the surface of the mixture. Once the entire contents of the sachet have been added, give the wash a brief stir.

5. Fit the lid and airlock to the fermentation vessel immediately. Provided the ambient room temperature is **below** 26ºC (78ºF), wrap the fermentation vessel in a blanket or similar to insulate it against changes in temperature (leave the airlock protruding through the wrap and make sure you have put water in the airlock).

6. Within 2 hours carbon dioxide should start bubbling through the airlock indicating that fermentation has started correctly.

7. Throughout fermentation it is important to keep the wash temperature as constant as possible.

In cold conditions the use of a heater pad is strongly recommended. It is important that the wash temperature does not drop below 20ºC (68ºF). Below 20ºC (68ºF) yeast can become inactive and fermentation will stop. If this occurs you will need to get the wash temperature back above 20ºC (68ºF) and give it a good stir. Fermentation should start again after this.

You should not need to use the heater pad during the first 24–48 hours of fermentation because the wash will generate its own heat through this period.

Ideally, during the first 48 hours, the wash temperature will very slowly drop to around 28ºC (82ºF). You then want to try and keep it as close to this temperature as possible until fermentation has finished.

In warmer conditions it is very important to keep the wash temperature down around 28ºC (82ºF). Although the yeast can tolerate a temperature of 35ºC (95ºF), it is important to note that when fermentation occurs at a high temperature (above 28ºC (82ºF)), a lot more impurities will be produced, which will reduce the quality and amount of spirit.

Note: If the wash temperature exceeds 35ºC (95ºF) the yeast will be killed and fermentation will stop.

Tip:

- One easy way to keep the wash temperature down is to keep some clean PET plastic bottles ¾ filled with water in the freezer. Remove any labels from the bottles and clean with a sterilizer cleaner before placing them in the freezer. Simply place a frozen bottle into the wash to keep the wash temperature under control. After removing the bottle from the wash simply clean and sterilize the outside of the bottle and put it back in the freezer for next time.

8. Fermentation will take around one week. Once bubbling in the airlock has stopped for several hours remove the lid, give the wash a good stir and replace the lid. Once fermentation is complete you will see the wash start to clear.

Note: if the wash hasn't started to clear on its own, it hasn't finished. When fermentation has finished the reading on the hydrometer should be 988 or below.

9. Once fermentation has finished, use *essencia* Ultra Clear two part finings to completely clear the wash prior to distillation **or** filtering and carbon treatment.

To keep up to date with the latest products and information, or if you need questions answered, visit the website at **www.essencia.co.nz**

Distillation

WARNING

- **It is legal in New Zealand to own and operate a still for the purpose of producing alcohol for your own consumption.**
- **It is illegal to sell home distilled alcohol.**
- **In areas outside New Zealand you will need to check with the local authorities.**
- **If it is not legal to distil your own alcohol, skip this section on distillation. Refer to the section 'Making spirits and liqueurs without distilling', below.**

Making spirits and liqueurs without distilling

Although it is preferable to make your own spirits and liqueurs using your very own premium quality, distilled alcohol, there are countries where this is not an option due to legalities.

However, there **are** other options available which will enable you to make your own great tasting spirits and liqueurs without breaking the law, while still saving money.

Method one.

Purchase budget, tax paid Vodka at around 40% ABV.

Simply use this in conjunction with the *essencia* flavourings and EziBase liquid liqueur bases to produce your own excellent spirits and liqueurs.

A lot of budget Vodkas may not taste great. To remove unwanted flavours and odours simply run the Vodka through the *essencia* Carbon Filter. The unique design of this filter will transform poor Vodka into great Vodka.

Method two.

In some areas it is possible to purchase high strength alcohol. One such product is called Everclear, a grain alcohol of 95% ABV. This should absolutely NOT be consumed in its natural state!

Water down (cut) the high strength alcohol down to 40% ABV using a spirit hydrometer (alcoholmeter).

Filter this through the *essencia* Carbon Filter as per the Filter instructions.

Proceed to flavour the alcohol as normal.

Method three.

Make a wash as per the **Fermentation** instructions.

When the wash is completely finished, and cleared using *essencia* Ultra Clear finings, filter it through the *essencia* Carbon Filter.

To avoid stirring up the sediment in the fermenter and transferring it to the filter, it is recommended that you first siphon off the clear wash into a separate container.

If too much sediment is transferred to the filter it may clog up the Ceramic Cartridge, causing the filter to run very slowly. If this happens, simply clean the Ceramic Cartridge as per the instructions.

The Carbon Filter will filter and treat the wash so that what comes out will be a clear, odourless and treated low strength alcohol. This can then be used to create your own spirits and liqueurs using the flavourings and EziBases.

Note: When making liqueurs with this low strength alcohol, replace any water in the recipe with the low strength alcohol.

THE

essencia

SUPER EXPRESS STILL

27L (7 gal), 3000W

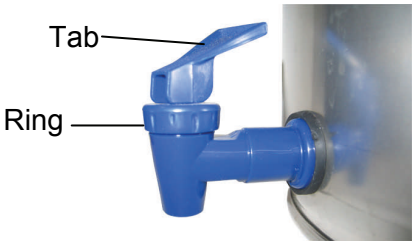
- Based on the market leading *essencia* Express Condenser which was invented by *essencia* in 2004, this still represents the next generation in distillation equipment.
- Taking 45 minutes to heat up, then producing distillate at a rate of over 3 L (3 qt) per hour, your processing time is slashed to around 2 1/4 hours from switch on.
- The *essencia* Super Express Still not only produces distillate at a very fast rate, it can also produce distillate at over 90% ABV!
- Comes supplied with a tap for easy emptying.
- When you use the *essencia* Super Express Still in conjunction with other products in the *essencia* range you will soon be producing the finest quality spirits and liqueurs available to the home distiller.

For information on the full range of *essencia* Distillation and Purification equipment, including individual instructions, go to the *essencia* website at **www.essencia.co.nz**

Distillation using the *essencia* Super Express Still

Assembly.

1. Fit the reflux column/condenser to the domed lid ensuring the silicon gasket sits between the column and the **outside** surface of the lid. Tighten until a good seal is achieved (do not over tighten).



2. Fit the supplied tap as shown. Ensure the ring below the tab is screwed down tight.

3. Fit the thermometer probe fully into the rubber bung (wetting the bung will make this easier).

4. Locate the still on a firm, heat resistant base ensuring the water hoses reach a cold water supply and drain.

Distillation.

1. Make sure the tap on the boiler is closed. Pour the fully fermented and cleared wash, (use *essencia* Ultra Clear for best results), into the boiler leaving the sediment in the fermenter. The liquid level must not rise above the top indentation ring in the boiler, ie no more than 25 L (6.6 gal).

2. Add one capful of *essencia* Foam Stop to the wash in the boiler. **Note**: Due to the power of the Super Express Still, you **must** add Foam Stop at this stage or the wash **will** boil through the condenser.

3. Place the opened clamping ring onto the boiler so it rests at the base.

4. Fit the lid and condenser unit. Fit the clamping ring to secure the lid to the boiler. Fit the bung, with thermometer probe inserted, firmly into the top of the reflux column.

5. Plug in the two elements ensuring the plugs are pushed fully and firmly into the element bases.

Note: Each element must be supplied from a separate power outlet. A double wall outlet, individually switched, is fine. **Do not** use a double adaptor, a multi board or anything similar.

From a 230 volt mains system, each element will draw 6.5 amps.

From a 115 volt mains system, each element will draw 13 amps.

Make sure that your power outlet limit is not exceeded.

Double wall outlet

Double Adaptor

Multi Board

6. The *essencia* Super Express Still will come up to temperature in approximately 45 minutes. Start running the cooling water within 35 minutes of turning on the still.

Assuming a cooling water temperature of 20ºC (68ºF), you need to set the cooling water running at 1.4 L (1.5 qt) per minute. You **must** get this right **before** the boiler gets up to temperature.

For more information see **'Notes on cooling water flow'**.

7. The temperature display during heat up will stay low. After about 45 minutes it will rise rapidly. At about 75ºC (160ºF) the distillate will start to flow.

Collect and discard the first 50 ml (1.5 fl oz) of distillate that comes off. This first 50 ml is the 'heads' and is not drinkable. **It must be discarded.**

Once the 'heads' have been removed, collect the 'heart' of the distillate in a container which is large enough to hold the expected quantity of distillate (generally a 5 L (1.3 gal) jug is ideal).

Note: It is very important that the distillate collection tube remains above the level of the collected distillate. **Never** let the distillate collection tube become immersed in the collected distillate.

8. Once you are collecting the 'heart', check your cooling water flow rate. The *essencia* Super Express Still is quite forgiving on water flow fluctuations, however you may find the flow will slowly decrease during distillation so it pays to recheck it every half hour or so.

Once the 50 ml (1.5 fl oz) of 'heads' have been collected the thermometer should be reading 79-80ºC (174-176ºF). It should stay at this temperature for about the first 1 hour of collecting.

In the next 30 minutes, the temperature will rise towards 86ºC (187ºF), the distillate flow will slow and the alcohol will be falling towards 85%. This is the end of the 'heart'.

9. Either, stop collecting and turn the still off, **or,** start collecting the distillate in a separate container as this is the 'tails'. The 'tails' from several distillations can be collected together for re-distillation.

The 'tails' should only be collected until the temperature reaches 92ºC (198ºF).

10. To achieve the highest quality drinking alcohol it is recommended that you use *essencia* Super 6 Yeast. This yeast produces virtually no volatiles during fermentation, which means the distilled product is a lot cleaner. This being the case you should now have collected over 3.5 L (3.7 qt) of distillate at around 90% ABV.

A 'Yeast Efficiency Calculator' is available from the 'downloads' page of the *essencia* website which enables you to compare the efficiency of the yeasts you use.

Notes on cooling water flow.

Cold water temperatures vary greatly between winter and summer, and in different locations. While the *essencia* Super Express Still is relatively tolerant of these changes in temperature you will have to adjust the average flow of the water to maintain optimum performance.

As a guide, for cold water temperatures of 15ºC (59ºF) and below, approx. 1 L (1 qt) per minute will do the job.
At 20ºC (68ºF), increase this to 1.4 L (1.5 qt) per minute.
At 25ºC (77ºF), increase this to 1.7 L (1.8 qt) per minute.
At 30ºC (86ºF), increase this to 2 L (2.1 qt) per minute.

The *essencia* Super Express Still is so fast, you must have everything ready before it comes up to temperature. Most importantly you must have the cooling water right. It is definitely worth investing in a cheap stopwatch and some accurate measuring jugs for this. When the cooling water flow is right, the whole process is very simple.

When making adjustments to the cooling water flow rate during distillation, make the adjustments **very** small, and always allow at least 2 minutes following an adjustment for the Still to get back to a balanced state.

Basically, during the first hour of collecting you want the temperature at 79-80ºC (174-176ºF).

Cleaning.

Your *essencia* Super Express Still should be cleaned regularly.

After running the still, turn it off and empty the boiler, via the tap, directly into a sink or tub. Rinse out the boiler.

To clean the reflux column and condenser.

1. Fit the bung (with the thermometer probe in place) firmly into the top of the reflux column.

2. Place the condenser/reflux column (still attached to the lid) upside down into the top of the empty boiler. Leave the tubing and thermometer **outside** the boiler.

3. Dissolve one teaspoon of citric acid in 600 ml (20 fl oz) of hot water. Pour this into the up-turned base of the reflux column until full. Make sure the end of the distillate collection tube is outside the boiler and higher than the edge of the up-turned lid.

4. Leave soaking for around 20 minutes. The digital thermometer will show the temperature of the fluid inside the reflux column. Do not proceed further until the temperature has dropped below 40ºC (104ºF).

5. Lift the lid from the boiler just enough to allow you to remove the bung and allow the citric acid solution to drain into the boiler. Transfer the lid, reflux column, condenser and tubing to a laundry tub or similar.

6. Keeping the lid and condenser inverted, flush the reflux column and packing thoroughly with cold water. To flush the condenser, stick the end of the distillate collection tube up the tap. Water will flow through the condenser and out the bung hole in the top of the column.

7. Empty the citric acid solution from the boiler and rinse out the boiler thoroughly.


Place into boiler


Pour into up-turned base


Remove bung and drain


Flush column and packing


Flush condenser via tube

Note: The packing will need to be replaced periodically as it does wear out and become less efficient. New *essencia* packing sets are available from your specialist *essencia* stockist.

Replacing the column packing.

1. Remove the column from the lid.

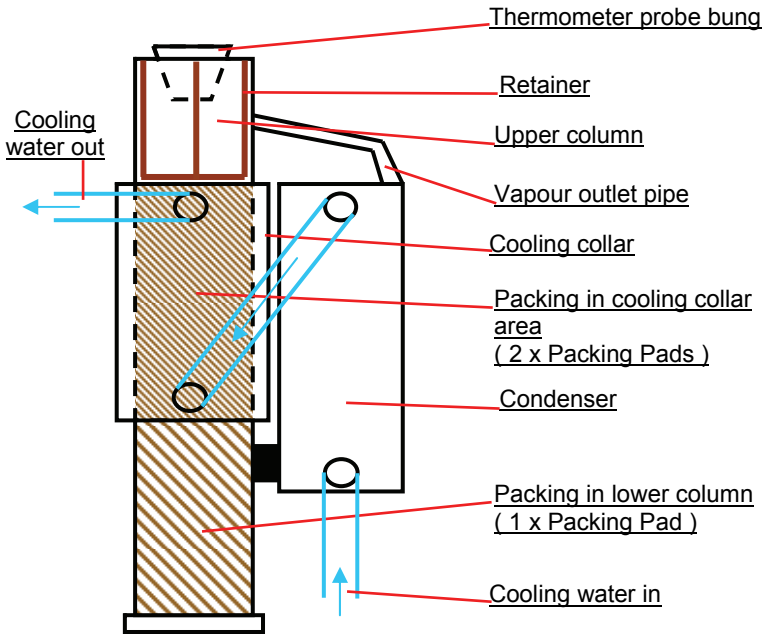
2. Remove the three packing pads through the bottom of the column. Use a large screwdriver etc through the bung hole to push the top two packing pads down.

3. Holding the column upside down, make sure the retainer is in place at the top of the column. Fit the first packing pad through the bottom of the column. Using the handle of a hammer or similar, push the pad up the column and compact it against the retainer.

4. Fit the second pad and compact it so that it is level with the **bottom** edge of the cooling collar.

5. Fit the third pad into the lower column but **do not** compact this pad.

6. Check that the packing at the top of the column is level with the **top** edge of the cooling collar.



Troubleshooting.

* **Distillate flow is slow and alcohol % is low soon after distillate starts flowing:**
- Check for vapour leaks around the lid clamping ring, the base of the reflux column or the thermometer probe bung. If a leak is found, turn off the still, check for obstructions in seal areas, rotate the lid about 45 degrees on the boiler and ensure all seals are tight. Turn on the still again and recheck for leaks once the still has come up to temperature. If leaks are still present contact your retailer.

* **Alcohol % is low (65%) when distillate starts flowing, and stays that way:**
- Turn off the still, wait for the condenser to cool and remove the lid. Take precautions to avoid scalding, as the wash will be hot. Remove the packing and re pack the column following the procedure described previously. Return the low strength distillate to the wash. Reassemble the still, and start again.

*** Alcohol % is low to mid 80's, temperature won't go below 84ºC (183ºF), distillate flow is generally slow and the cooling water flow rate needs to be high:**
- This problem occurs when the column packing pushes up past the retainer in the upper column. To rectify the problem simply turn off the still and remove the bung and thermometer probe. Push the packing down using a blunt instrument through the bung hole at the top of the column. The top of the packing should be level with, or slightly below the top of the cooling collar.

Safety Note

- **When using or troubleshooting the still, the metal body becomes very hot.**
- **Do not allow skin to come in contact with it.**
- **Be especially careful if you are disassembling the still, for any reason, that the metal parts and the liquid inside are allowed to cool to a safe temperature before handling.**

To keep up to date with the latest products and information, or if you need questions answered, visit the website at **www.essencia.co.nz**

THE essencia CARBON FILTER

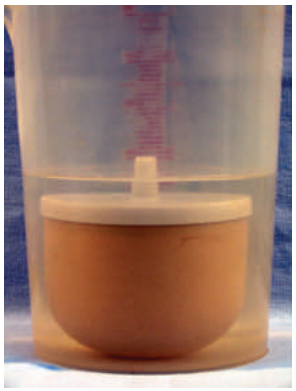
- The *essencia* Carbon Filter has revolutionized the filtering and carbon treatment of alcohol.
- Using a unique cartridge system this filter eliminates the hassle of having to handle messy carbon.
- So simple to use. Alcohol poured into the upper reservoir is filtered by the multi stage cartridge system as it makes its way to the lower reservoir.
- The *essencia* Carbon Filter combines the sub micron properties of ceramic filtration with an effectively packed bed of specially formulated activated carbon.
- As well as looking good, this filter produces results un-matched by other carbon treatment systems.
- The *essencia* Water Purifier is a version of the *essencia* Carbon Filter for those who need to clean up their drinking water.

Carbon treatment using the *essencia* Carbon Filter

Priming the Carbon Cartridge and the Ceramic Cartridge before use.

Before the two filter cartridges are used for the first time, they need to be primed as follows.

- Remove the Carbon Cartridge from the filter.
- Remove the Ceramic Cartridge from the filter. Handle the Ceramic Cartridge with care as it is fragile.
- Soak the Ceramic Cartridge in a jug or pot of cold water for 1 hour.
- Ensure the plastic nozzle of the cartridge is pointing upwards and is above the water level. This allows the air to more easily escape therefore avoiding the chance of an airlock.
- While soaking the Ceramic Cartridge, immerse the Carbon Cartridge in a jug or pot of cold water.
- Be careful when fitting the cartridges not to over tighten either cartridge.
- **Always** support the Carbon Cartridge when handling the upper reservoir with the cartridges fitted.



Soaking the Ceramic Cartridge

Soaking the Carbon Cartridge

** **If the Carbon Cartridge is over tightened, the screw thread may break off.** **

Setup.

- Place the base on a firm surface.
- Fit the lower reservoir onto the base.
- Fit the complete upper reservoir/cartridge assembly into the lower reservoir.

Testing.

- Pour water into the upper reservoir so that the Ceramic Cartridge is completely covered. Water will begin to emerge from the Carbon Cartridge.
- Leave over night or until the water has passed through both cartridges into the lower reservoir.
- Check for any leaks around the tap. Empty the upper and lower reservoirs. It may be necessary to rinse the lower reservoir as a small amount of carbon may be present.

Watering down the alcohol prior to carbon treatment.

- Unless high strength alcohol is specifically required for a liqueur etc, your alcohol should be watered down to normal drinking strength (40% ABV) before treatment using the *essencia* Carbon Filter. There are two key reasons for this:

1. The *essencia* Carbon Filter has been specially designed to treat the water as well as the alcohol, which means the entire end product has been treated to ensure maximum quality with no contaminants.

2. The highly specialized carbon used to treat the alcohol is more efficient at removing the impurity particles when the alcohol is diluted. **Note:** Activated Carbon is not capable of effectively treating alcohol if the strength of the alcohol is greater than 55% ABV.

- Whenever you water down alcohol a chemical reaction occurs which will cause the temperature of the mix to increase. It is therefore important to measure the temperature of the alcohol whenever you are measuring alcohol strength. The spirit hydrometer has a temperature displayed on it (usually 20ºC (68ºF)), this is the temperature at which the hydrometer has been calibrated. If the alcohol is warmer than this the hydrometer will read high and conversely if it is colder the hydrometer will read low.

- Below is a temperature correction table for use with a spirit hydrometer calibrated at 20ºC (68ºF). Use it to calculate the actual strength of your alcohol.

Temperature correction table for Spirit Hydrometer.

Measured alcohol strength

Measured alcohol temperature	30%	40%	50%	60%	70%	80%	90%	95%
10ºC (50ºF)	+4.12	+3.98	+3.67	+3.42	+3.19	+2.92	+2.45	+2.06
15ºC (59ºF)	+2.03	+2.00	+1.85	+1.73	+1.61	+1.47	+1.25	+1.06
20ºC (68ºF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25ºC (77ºF)	-2.01	-1.95	-1.88	-1.76	-1.65	-1.51	-1.31	-1.12
30ºC (86ºF)	-4.06	-3.94	-3.78	-3.55	-3.33	-3.05	-2.67	-2.31
35ºC (95ºF)	-6.15	-5.98	-5.82	-5.40	-5.13	-4.67	-4.07	-3.54

Example: If your spirit hydrometer reads 50% ABV and your thermometer reads 30ºC (86ºF), then by using the temperature correction table you can see that the actual alcohol strength is: 50 – 3.78 = 46.22% ABV.

Using the *essencia* Carbon Filter.

- Fill the upper reservoir. **If spirit is over 45%ABV the blue lid must not be fitted as the vapour may cause damage to the lid** (cover the filter with a dinner plate or similar if filtering high strength alcohol).

- Filtered product will emerge into the lower reservoir from the bottom of the Carbon Cartridge.

- Filtered product can be drawn off through the tap as required.

- The upper reservoir should be topped up as the level drops.

- When filtering is complete, approx 400 ml (13 fl oz) remains in the lower reservoir below the level of the tap. This must be left in the reservoir to prevent the carbon in the Carbon Cartridge from drying out. A very small amount of unfiltered product will remain in the upper reservoir. This should also be left until re-using the filter as the small amount of alcohol vapour is a good mould inhibiter.

Various ways to use.

The *essencia* Carbon Filter is a gravity system, and filters product when the fluid level in the upper reservoir is higher than the level in the lower reservoir. The system stops processing when the levels are equal.

Because of this, the *essencia* Carbon Filter can be used in several ways:

- **Batch:** Process and draw off whole batches, drawing off filtered product through the tap in the lower reservoir to keep the level in the lower reservoir lower than in the upper reservoir.

- **Storage:** Continue to top up the upper reservoir until both reservoirs are full. Draw off filtered product as required for use, topping up the upper reservoir as the level drops.

- **Continuous:** Process with the tap open. Filtered product will flow from the tap as it is filtered and can be collected in another vessel.

Maintenance.

The *essencia* Carbon Filter is virtually maintenance free. Generally the only component that requires attention is the Ceramic Cartridge, which will need cleaning periodically.

To clean the Ceramic Cartridge.

Carefully remove the Ceramic Cartridge (the Carbon Cartridge must be removed first), then clean the surface using either a hard bristle brush or a pot scrubber under running water. Care must be taken when handling the cartridge as it is fragile.

Replacement Periods.

The Carbon Cartridge has been designed to treat five batches only, or approx. 45 L (12 gal) of spirit at 40% ABV. The Carbon Cartridge must then be replaced to ensure a quality product is maintained.

The Ceramic Cartridge will treat approximately 50 batches before replacement is required.

Notes:

- **Replacement intervals will be affected by the quality of the product being filtered.**

  Best results are achieved when used in conjunction with other *essencia* products.

- **Running high strength alcohol through the filter is not more economical.**

The alcohol carbon in the Carbon Cartridge will only treat a certain amount of **alcohol**, ie 45 L (12 gal) at 40% ABV, **or** 33 L (8.7 gal) at 55% ABV. Higher strength alcohol merely reduces the effectiveness of the alcohol carbon at removing the impurities.

To replace the Carbon Cartridge.

- **Simply un-screw the used cartridge and screw in the new one (after priming), being careful not to damage the nylon thread.**
- **Do not over tighten the Cartridge.**
- **Tighten only until the 'O' ring just seals against the upper reservoir.**

Warning

- **The Carbon Cartridge is a disposable item and cannot be refilled.**
- **To enable this cartridge to work effectively, a specific and special activated carbon is used.**
- **Once five batches have been processed it may appear that the Carbon Cartridge is still working because the alcohol will smell clean. This is because the odour producing particles are removed by the Ceramic Cartridge. Failure to replace the Carbon Cartridge after five batches will result in untreated alcohol.**

Flow rate.

- The *essencia* Carbon Filter has been specially designed to ensure that spirit remains in contact with the activated carbon for the optimum period of time.

- The flow rate will alter according to the level of product in the upper reservoir. The maximum flow rate (approx 500 ml (17 fl oz) per hour) occurs when the upper reservoir is full, the tap is left open and spirit is being collected in another vessel. As the level of product in the upper reservoir drops, the flow rate will reduce accordingly.

If you are experiencing an unusually slow flow rate.

- An unusually slow flow rate is when there is no flow or almost no flow when the upper reservoir is full. This can occur if an air lock forms in the Ceramic Cartridge.

- If this occurs, perform the Ceramic Cartridge Priming procedure explained previously.

To keep up to date with the latest products and information, or if you need questions answered, visit the website at **www.essencia.co.nz**

The *essencia* Condenser Pump.

Water saver and flow control system.

The ***essencia*** Condenser Pump is a quality pump specifically developed to supply cooling water to stills.

Although it has been designed around the ***essencia*** Stills, the ***essencia*** Condenser Pump will operate with any still that requires up to 4 L (1 gal) per minute of cooling water flow.

The *essencia* Condenser Pump serves two primary functions.

1. Water Conservation.

Pump water from a large tank (swimming pool, rain water tank etc) or a heavily iced tub of water, through the condenser and return the heated water to the source.

2. Eliminating water flow fluctuations.

Use a large jug or similar as a reservoir to pump from. The heated water from the condenser returns to a drain. Cold water from a tap flows into the jug etc at such a rate as to keep it full at all times. This is particularly useful in situations where water pressure is variable or where a tap cannot maintain a constant flow.

The Pump kit consists of:

- Pump unit with power lead.
- Power supply with mains lead and pump power lead attached.
- Ball valve flow control valve.
- Tubing and fittings.

essencia Bourbon Chunks

- ***essencia*** Bourbon Chunks are specially formulated for those who love their bourbon and who want to produce their own top quality bourbon in as little as 1 week.
- A blend of **fresh** bourbon barrels from the Jim Beam, Jack Daniel's and Wild Turkey distilleries, these chunks produce bourbon of a taste and quality previously not available.
- ***essencia*** Bourbon Chunks do not merely oak your spirit, they turn your spirit into top quality bourbon.
- ***essencia*** Bourbon Chunks are so easy to use. Simply add carbon filtered spirit or vodka and wait.
- The 500g (17.5 oz) packs produce a truly excellent bourbon and allow the bourbon connoisseur the opportunity to blend and develop their very own bourbon flavour.

Making Spirits and Liqueurs

Making your own premium quality spirits and liqueurs is very easy. Simply select the flavouring you want and follow the instructions on the pack.

To make the spirits you simply add the flavour to the specified amount of filtered spirit or commercial Vodka. Leave to age for a week (this allows the flavour to infuse with the alcohol), then enjoy.

By far the easiest way to make liqueurs is to use the *essencia* EziBase liquid liqueur bases (see next page). Alternatively you can make them using the basic ingredients of sugar, glucose and cream for cream liqueurs, following the recipe that comes with the liqueur flavouring.

The *essencia* Flavour Range

The *essencia* range of flavours offers something completely new. For the first time the home user has access to a range of spirit and liqueur flavourings previously only available to commercial producers.

Spirit Flavours

Blue Sapphire Gin (Bombay Sapphire) – the classic London dry gin. An ultra smooth yet complex gin reflecting a wide range of distilled botanicals.

Bourbon (Jim Beam) – distinctive vanilla overtones and oak notes make this the sweetest sippin' whisky in the south.

Dark Jamaican Rum – smooth and mellow, a traditional dark rum.

Caribbean Rum – deep and rich Jamaican rum with a slight sweetness and a hint of spice.

Fermanagh Whiskey (Connemara) – a smoky peat single malt. With a uniquely smooth and fully rounded flavour, this Irish whiskey will appeal to the connoisseur. Long term ageing produces fantastic results.

Gin – Making 5 litres, this is the best value high quality gin available. A botanical taste experience – perfect alone or mixed with friends.

Navy Rum (Lambs) - A dark, sweet rum modelled on the original high seas 'tot'.

Rye Whisky (Crown Royal) – the royal crown of ryes – for those who enjoy the finest Canadian rye whisky. This has also proven to be a favourite with bourbon drinkers.

Scotch Whisky (Grants) – a top quality scotch with subtle peat and oak notes and the long lasting taste of the highlands. A simply superb wee dram.

Tequila (Gold) - A golden Tequila with subtle agave notes and a hint of oak.

Tequila Classico (Silver) - clear and smooth, an ultra premium tequila.

VSOP Brandy (Remy Martin) – a brandy of exceptional character. A rich, smooth and full cognac flavour with a wonderful grape aroma.

Walkers Whisky (Johnnie Walker Red) – the classic blended scotch whisky with a robust and distinctive flavour.

White Rum (Bacardi) – the classic white rum taste with an aroma that is both fresh and sweet.

Liqueur Flavours

Butterscotch Schnapps - a deliciously sweet, premium quality Schnapps. Enjoy it neat or in a dessert cocktail.

Calypso Royale - a rich medley of coffee, dark rum and caramel.

Coconut Rum (Malibu) - a light Barbados rum blending coconut and sugar cane with soft butter notes.

Coffee Liqueur (Kahlua) - capturing the essence of fresh roasted premium Mexican coffee blended with a selection of rums.

Grandier (Grand Marnier) - a delightful blend of cognac and wild tropical orange, Grandier has a taste of great character and distinction.

Melonori (Midori) - a bright green, sweet Japanese honeydew melon flavoured liqueur. Very refreshing.

Scottish Liqueur (Glayva) - a smooth and sumptuous whisky liqueur with a hint of heather honey.

Triple Sec - strong and clear with orange overtones - makes the perfect Margarita.

Cream Liqueur Flavours

Banana Cream - rich and smooth with the taste of freshly peeled bananas.

Butterscotch Cream - a deliciously sweet, easy drinking cream liqueur.

Coffee Cream - indulgent, smooth and luxurious with the taste of freshly roasted coffee beans.

Irish Cream (Baileys) - a cream liqueur with strong vanilla and whisky tones. A rich and fulsome evocation of the mystery's of old Eireann.

Melon Cream - rich, smooth and refreshing. A pleasant hot weather reviver.

Product brands named in brackets **( )** are an indication of flavour style only.

The *essencia* EziBase range of liquid Liqueur Bases

- **Another innovation from *essencia*.**
- **Making liqueurs has never been easier or as quick!**
- ***essencia* EziBases are all dairy and fat free, and come in easy-pour 1 L (34 fl oz) bottles.**

EziBase Liqueur and Schnapps Base.

Simply replace the sugar amount as shown on the flavour pack with the same amount of EziBase, add the alcohol, flavouring and top up with water …. **IT'S THAT SIMPLE!**

Each bottle of EziBase Liqueur and Schnapps Base can make up to **six** liqueurs.

EziBase Cream Liqueur Base.

Simply use 500ml (17 fl oz) of EziBase Cream, add the alcohol, flavour and top up with water. **NOTHING COULD BE EASIER!**

Each bottle of EziBase Cream Liqueur Base makes up two 1125ml (40 fl oz) cream liqueurs.

SUGAR FREE VERSIONS AVAILABLE

Both the EziBase Liqueur and Schnapps Base and the EziBase Cream Liqueur Base are also available completely **sugar free!**

This is a huge breakthrough in liqueur making especially for those people who can't have, or don't want to use, sugar.

To keep up to date with the latest products and information, or if you need questions answered, visit the website at **www.essencia.co.nz**