



## 5 Litre Super Reflux



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Please note: It is illegal to use this unit in Australia to produce alcohol for consumption without a license from the Customs & Excise Department

To find your nearest Still Spirits stockist visit [www.stillspirits.com](http://www.stillspirits.com)



## Fermentation

### Step 1 – Sterilisation

- 1) Everything used in the fermentation process must be cleaned and sanitised before and after use. This includes the fermenter (pail), airlock and stirrer.
- 2) For optimum cleaning, we recommend **Still Spirits “No Rinse” Steriliser**. Note: Do not use this on your still. Stills should be cleaned with warm water immediately after use.
- 3) If you are not using ‘No Rinse’ Steriliser, the fermenter and equipment should be rinsed several times with cold tap water (This is not necessary if using “No Rinse” steriliser), taking care to run some water through the tap.

### Step 2 - Fermenting the Alcoholic Wash - Still Spirits Classic Turbo Yeast with 6kgs Turbo Sugar

- 1) Add 21 litres of water at 40°C to a sterilized **Brewcraft 30 litre Fermenter** or similar. Add 6kgs of **Still Spirits Turbo Sugar** and stir until dissolved. Once the sugar has been added to the water it should have settled at 35°C.
- 2) Add one sachet of **Still Spirits Classic Turbo Yeast** to produce an alcoholic Wash. Each pack of **Still Spirits Turbo Yeast** contains a mix of yeast and nutrients to make 25 litres of Wash and produce alcohol that is extremely low in by-products.
- 3) Half fill the U of the Airlock with water and fit to the fermenter to prevent any oxygen, bacteria or insects getting in during fermentation. Within 24 hours carbon dioxide should start bubbling through the airlock if the wash is working correctly and the fermenter is sealed properly. If the gas does not start to bubble through the airlock, then loosen the top and have a look inside. The wash should be bubbling and will probably have a foam or froth on top. If the wash is not bubbling and there is no froth around the top of the wash then check the temperature is in the recommended range.
- 4) A vigorous stir at this stage with a sterilised paddle (not wooden) will speed up fermentation. Stir gently to start with, to avoid a froth build-up. The wash should ferment in an area where the room temperature is between 15°C to 35°C. At a higher temperature, extra by-products may be made or fermentation may stop altogether. Using **Still Spirits Heatwave Turbo Yeast** will produce a wash with low by-product levels at higher room temperatures. At a lower temperature, the wash will take longer to ferment, or in extreme cases may stop working altogether.
- 5) If you are fermenting in a hot climate, try filling some PET soft drink bottles with water and freeze, then add throughout fermentation to control the temperature. Another method is to use the evaporation technique. Sit the fermenter in a tray with about 25mm of water. Drape some fabric over the fermenter so it dangles in the water (towelling or an old sweatshirt is ideal). The water is drawn up the fabric and evaporates causing slight refrigeration. If it is still too hot, turn a fan onto the fermenter.
- 6) Fermentation can take as little as 3 days. In cooler weather it could take up to 7 days. For the first 24-48 hours, heat is generated from the fermentation process. **DO NOT ADD ANY HEAT DURING THIS TIME**. After this period a **Brewcraft Heater Pad** may be used in cooler weather to maintain the temperature. Fermentation is complete when the yeast has used up all the sugar. There will be no bubbles rising through the wash and the wash hydrometer reading will have been static for two days. Float the hydrometer into the wash, and take the reading where the line of the liquid cuts across the scale on the hydrometer; the reading should be about 990. Remember to take care when handling hydrometers, they are very delicate. To remove excess gas and avoid mixing the yeast bed back into the wash it is recommended that you rack the wash into another container prior to adding **Still Spirits Turbo Clear**. Turbo Clear will treat the wash and remove all carbon and unwanted spent yeast cells prior to distilling. Add part A by mixing in thoroughly and let stand for 2 hours then add part B by gently stirring in evenly at the surface and let stand for 24 hours.

### Hints & Tips

- If the airlock is not bubbling after 24 hours it is most likely that the fermenter is not sealed properly. Ensure you have pressed the lid on correctly. Check you have a good seal by lightly pressing the sides of the fermenter to force some air out through the airlock. When you release the pressure on the barrel the air should try to get back in through the airlock. If sealed properly the water level should remain uneven in the airlock (more water on one side than the other).



- In some circumstances the yeast can stop working before all the sugar is used. This will be indicated by a final hydrometer reading higher than 990. Any reading above 1000 on a standard Wash, Wine & Beer Hydrometer suggests that something has gone wrong. In most cases a good stir to get the yeast back into circulation should get the wash fermenting again. The most common cause of stuck fermentation is low temperature. In this case simply move the fermenter to a warmer place and stir the yeast back into the liquid. An inexpensive stick-on thermometer, available from your Brewing Specialist Store, will help monitor the temperature. If you are having problems maintaining temperature, a purpose designed Brewcraft Heating Pad, can be purchased from your local Brewing Specialist Store.

## Distilling using the Still Spirits 5 litre Super Reflux Still

### Step 1 – Assembly

- 1) Your Super Reflux Still comes complete with 250ml of Still Spirits Ceramic Saddles. Add the **Still Spirits Ceramic Saddles** to the condenser making sure that the wire mesh is sitting flat in the base of the condenser chamber.
- 2) Fit the condenser to the domed lid and tighten securely.
- 3) Situate the still on a firm **heat resistant** base close by a cold water tap, drain and power socket.
- 4) Fit the thermometer so that the bulb appears on the inside of the black bung. Then fit the bung & thermometer to the top of the condenser. Make sure the thermometer is not touching the ceramic saddles, if it is remove some of the saddles.

### Step 2 - Distillation

- 1) Pour 5L of the turbo clear treated wash into the still while being careful to leave the sediment behind.  
**NOTE:** If your final gravity did not get down to 990 it is important to add 1 cap of **Still Spirits Distilling Conditioner** to the still with the wash at this point to control foaming.
- 2) Fit the lid complete with condenser and hoses on to the Still.
- 3) Plug the element in. When the wash has warmed up, but before thermometer reads 50°C, start the cold water running through the condenser. (You can start running the water through at the beginning)
- 4) During most of the distillation process the cooling water flowing through the condenser should be flowing at about 500 mls per minute. To measure the flow, fill a calibrated jug from the outlet pipe for one minute. *nb. 500 mls per minute is the ideal flow rate for cooling water that is under 20o Celsius. If your cold water supply is warmer than this then a higher flow rate may be required alternately cooling the incoming water by connecting it via a copper tube and submersing this in a container of iced water.*
- 5) Collect the first 50mls and put this aside, this is the **Head** and is undrinkable.
- 6) Collect 600 mls of the **Body**, which contains the Ethanol (drinkable alcohol) at about 80%/V. Make sure that the spirit outlet tube from the condenser stays well above the level of the spirit.
- 7) If using a standard Turbo Yeast **do not** collect more than 600mls litres of distillate (650mls if the head is added to the wash). Any spirit collected after this amount will be poor quality.
- 8) The more cooling water that flows through the condenser the lower the temperature in the reflux column, this will show on the thermometer. The temperature of your water also influences the amount you require. (*i.e. In summer you may need more water than in winter when the water is cooler*). The slower the cooling water flows through the condenser, the higher the temperature will rise producing a faster flow of spirit. Running the cooling water at less than 500mls per minute may result in a loss of alcohol through steaming from the spirit outlet. If you run more than 600mls of cooling water through the condenser then this will slow the process down.
- 9) The thermometer temperature will slowly rise as the alcohol is boiled off. Increase the flow of water through the condenser to hold the temperature under 92°C. The flow will slow toward the end of the distillation.
- 10) Repeat steps 1 - 8 with the other 4 batches of 5 litres that you have fermented. With each subsequent batch you can add the 50 mls of head collected from the batch prior, along with the 5 litres of wash, to the still. If you do this you can increase the quantity of condensate collected to 650 mls. After the last 5 litre batch has been run, discard the 50 mls head.

From a standard 25 litre wash produced with 6kg of Turbo Sugar and **Still Spirits Classic Turbo** you should collect 3 litres of alcohol at 80% strength. Remember to always measure the strength of your spirit at 20° Celsius or refer to the **Temperature Correction Chart** to make the relevant adjustments. Remember that you



have extracted the alcohol so the rest of the wash contains fermentation by-products and water and should be discarded.

## Distillation Water Saver

This pump recycles cooling water through your still to completely eliminate water wastage. Save well over 150 litres every time. The water saver is used in conjunction with a water drum or tank (60 litres or larger) and frozen ice blocks to keep the water at a constant temperature below 50°C.

## Hints & Tips

- If for any reason the wash has not fermented completely, (i.e. above 990 SG all the sugar has not been converted to alcohol), then you will not collect the full amount of distillate through the Still.
- If you have not collected the full amount of alcohol, check you have:
  - 1) used the correct amount of Turbo sugar/ dextrose in the Wash; and/or
  - 2) the specific gravity is below 990 before distilling; and/or
  - 3) there is no steam leak during distillation.
- A typical 5L wash will take about 45 minutes to run through the still. This is a rough guide only.
- If the wash is not fully fermented out, then the unfermented sugars can foam causing the wash to come through the condenser with the distillate. In this instance **Top Shelf Distilling Conditioner** can be used to increase yield or avoid problems.

## Sugar & Alcohol Yield for 25 Litre Super Reflux Still

Temperature Range	Turbo Used	Sugar Type	Sugar (kgs)	Spirit Collected	Spirit Strength
18°C - 30°C	Turbo Classic	Turbo Sugar	6	3.1 Litres	80%
16°C - 23°C	Turbo Classic	Turbo Sugar	8	4.8 Litres	80%
20°C - 30°C	Turbo Express	Turbo Sugar	6	2.9 Litres	80%
20°C - 30°C	Turbo Express	Dextrose	6	2.8 Litres	80%
20°C - 40°C	Heatwave Turbo	Turbo Sugar	6	3 Litres	80%
20°C - 40°C	Heatwave Turbo	Dextrose	6	2.9 Litres	80%
18°C - 24°C	Triple Distilled Turbo	Turbo Sugar	6	3 Litres	80%
18°C - 24°C	Triple Distilled Turbo	Dextrose	7	3.2 Litres	80%
18°C - 24°C	Power 23 Turbo	Dextrose	10.5	6.5 Litres	80%

## Cleaning:

Your 5 litre Super Reflux Still is made from Stainless Steel. It is very important that you empty the Still after each use and rinse it out with clean water and then **dry it thoroughly**. Do not use corrosive cleaners on your still.



## EZ Filter System

The **EZ Filter** is a new development in alcohol filtration. It 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.

### Step 1 - Assembly

The filter is supplied with 2 reservoir bodies, the filter spindle, the filter cap, the cartridge and the foam washers.

Fit the tap to the lower reservoir and place the lower lid on top.

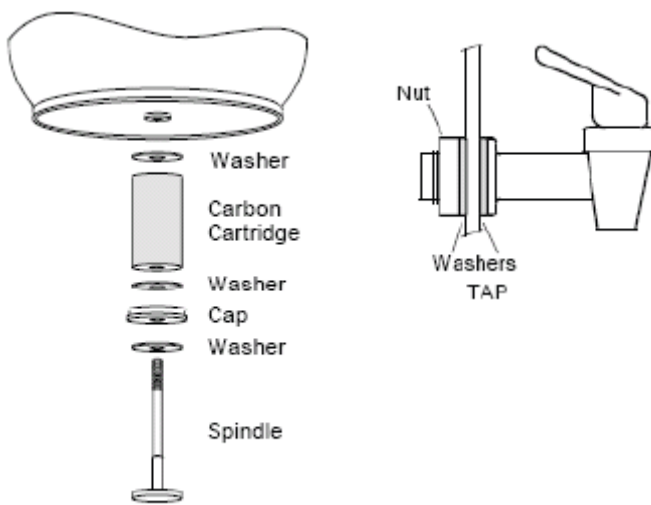
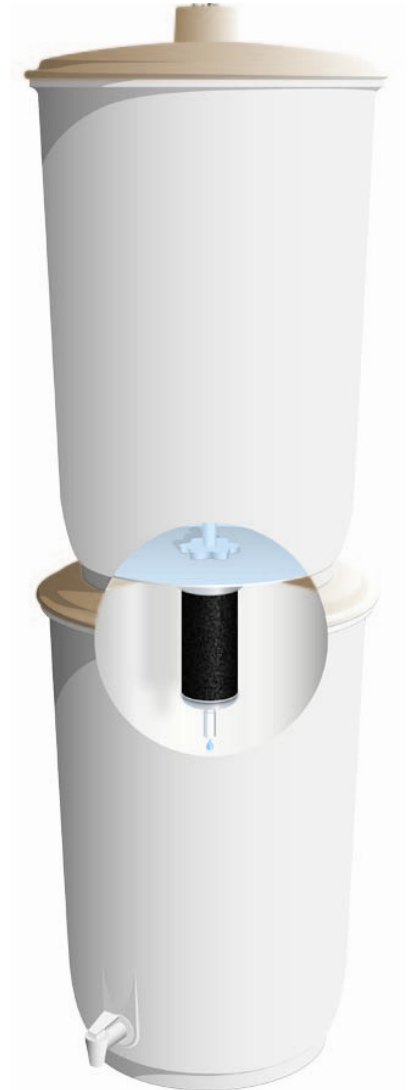
Remove the cartridge from its plastic wrap and the 3 washers from their pack.

Slide the other components onto the spindle where it projects below the base of the reservoir in the following order:

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

Screw the spindle into the base of the top reservoir by hand, taking care not to over tighten.

Sit the top reservoir onto the lid.



FILTER COMPONENTS



## Step 2 - Operation

1. Pour 1 litre of clean water into the top reservoir and allow the water to drain through the filter. This is necessary to remove mineral salts from the carbon and to flush out any carbon dust.
2. Drain this water and wash out any carbon residue from the lower reservoir.
3. Adjust the alcohol level to under 50% with clean water. Check this with a Spirit Hydrometer or Alcometer.
4. 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.

## Hints & Tips

- One cartridge is suitable for one batch of spirit from a 25 litre still (about 8L 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.

## A word about 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 water flush volume 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 – 1500 square metres 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.

## Watering alcohol down and mixing up the spirits and liqueurs

Float a **Spirit Hydrometer** or **Alcometer** in the spirit to measure the alcohol content. Alcohol is thinner than water so the higher in strength the alcohol is, the further down the hydrometer floats. Read the line where the level of the spirit cuts across the hydrometer. Additives such as flavouring and **Liquid Glucose** will distort the hydrometer readings.

Spirit hydrometers should only be used to test spirit in the following conditions:

- Before any additives such as flavouring or liquid glucose are mixed
- At the calibrated temperature. Still Spirits Spirit Hydrometers are calibrated at a temperature of 20°C if the spirit is a different temperature to this then you can refer to the Temperature Correction Chart below. Taking readings of warmer liquids may damage your hydrometer.

Take good care of your Spirit Hydrometer as it is very fragile. Wash & sterilise with cold water only.



## Temperature Correction Adjustment Chart

20 °C	Alcohol % / Volume							
	30	40	50	60	70	80	90	98
<b>Temp</b>								
10 °C	4.12	3.98	3.67	3.42	3.19	2.92	2.45	2.06
15 °C	2.03	2.00	1.85	1.73	1.61	1.47	1.25	1.06
20 °C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 °C	-2.01	-1.95	-1.88	-1.76	-1.65	-1.51	-1.31	-1.12
30 °C	-4.06	-3.94	-3.78	-3.55	-3.33	-3.05	-2.67	-2.31
35 °C	-6.15	-5.98	-5.82	-5.4	-5.13	-4.67	-4.07	-3.54
40 °C	-8.29	-8.05	-7.92	-7.41	-7.03	-6.35	-5.5	-4.8

**Example** Your Spirit Hydrometer reads 50%V at a temperature of 25°C, look up the Correction Adjustment chart and you will see the value is minus 1.88. You then adjust your reading by that number – in this case subtract 1.88 from your reading of 50% A/v which will give you a realistic reading of 48.12% a/v.

### Adjusting your alcohol strength down to 40% by volume

After carbon purifying, the spirit should be watered down in strength to 40 % by volume prior to drinking. **It is very important not to make higher strength spirit.**

#### Calculation:

LITRES COLLECTED **X** ALCOHOL STRENGTH / ALCOHOL STRENGTH = Total Litres to be made up to

**Example** To convert 45% strength alcohol to 40% use the following calculation.  
**4.5 litres x 45 / 40 = 5.06 litres.**

If you collect 4.5 litres 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 litres with water. In other words add .56 of a litre of water. This is a rough guide only. Watering down the spirit to 40%, or less, is very important as people unused to high strength spirit can easily overdose resulting in nausea and in extreme cases death.

You can find a simple to use calculator for adjusting the alcohol % of your spirit at:  
[http://www.brewcraftwa.com.au/spirit\\_calculators.html](http://www.brewcraftwa.com.au/spirit_calculators.html).



## The Still Spirits Turbo Yeast System

### Still Spirits Classic Turbo Yeast

Classic Turbo is the best selling Turbo Yeast world-wide, performing excellently under most conditions. It's fast – capable of fermenting 6kg of sugar in 36 hours. It reaches 18% ABV where 8kg of sugar is used and has excellent temperature tolerance. Classic has been further improved with the inclusion of new mineral absorbents for improved distillate quality.

### Still Spirits Triple Distilled Turbo Yeast

Triple Distilled Turbo should be used where ultimate alcohol **quality** is of primary importance. Only use where cool air temperature (between 18-24°C) can be maintained. This is a revolutionary breakthrough in Turbo Yeast development making it possible to produce “triple distilled” quality alcohol in the home.

### Still Spirits Power 23 Turbo Yeast

Power23 should be used where **high alcohol strength** is the most important thing. Fermenting to 23% ABV in the wash will increase the still yield by nearly one third! Only use where cool air temperature (between 18-24°C) can be maintained. Remember, the more alcohol produced by the yeast, the lower the final distillate quality.

### Still Spirits Express Turbo

Express is the **fastest** Turbo on the planet, fermenting out 6kg of sugar in less than 24 hours and producing very good distillate quality. It is important that water start temperature is correct and only 6kg of sugar is used to get maximum speed.

### Still Spirits Heat Wave Turbo Yeast

Heat Wave is the only Turbo to use when the air temperature is above 33°C. It delivers excellent quality alcohol in hot conditions. Heat Wave is also the only yeast we recommend for “stacking”. Up to a 200 Litre volume can be fermented using 8 sachets (providing the start liquid temperature and air temperature are both 20°C).

### Still Spirits Turbo Sugar

This blend of sugars and carbon has been developed specifically for use with Still Spirits Turbo Yeasts. The special blend of carbons continually treats the wash during fermentation to ensure fewer unwanted by-products in the final wash for improved distillate quality. Activated carbons used have tightly controlled pore size distribution to trap those by-product compounds known to produce off flavours in the wash which will carry over in distillation. Distilling a cleaner wash not only reduces the direct distilling by-products but also reduces off flavours from cooked by-products. For best results the wash should be treated with Turbo Clear prior to distilling.

### Still Spirits Turbo Clear

Turbo Clear transforms you alcohol quality! For this reason Turbo Clear should always be used to clear the wash before distillation. Within 24 hours over 95% of the yeast cells, solids and other unwanted compounds are removed from the wash. If yeast cells are not removed they will break open during boiling, releasing off-flavours and aromas into the distillation process and reducing distillate quality. Likewise, absorbent materials such as powdered activated carbon and clays must also be removed from the wash before distillation, otherwise what they have absorbed will simply be released again during boiling.

### Turbo Production Packs

The packs contain Still Spirits Turbo Yeast, Turbo Sugar, Turbo Clear, and EZ Filter Replacement Cartridge. Available in Turbo Classic 6kg, Turbo Classic 8kg, Triple Distilled and Heat Wave 6kg varieties.



## The Still Spirits System - Making Spirits and Liqueurs

### Essences

Today's essences are an extremely close match on the equivalent commercial spirits and liqueurs. All you need to do is add them to your filtered spirit or commercial vodka to recreate your favourite tippie. Instructions are on each pack or bottle and you should read these before using the essence. Some ranges of essences produce different quantities than others. When making spirits you simply add the essence to the appropriate volume of filtered alcohol. When making liqueurs you need to mix liquid glucose, sugar, alcohol, water and the essence. In the case of cream liqueurs you need to add cream as well. First warm the liquid glucose and mix with any water. Using boiling water will help with the dissolving. Add the sugar to this and any alcohol. Mix well until dissolved then add the essence. In the case of cream liqueurs, the cream should be added last to the cool mixture. Using shelf stable cream will lengthen the life of the liqueur. Any cream liqueurs should be stored in the refrigerator and consumed while fresh. Some flavours need a few weeks to age. All liqueurs become "smoother" over time.

### Liqueur Base Packs

Still Spirits Top Shelf Liqueur Base Packs are the perfect complement to the Top Shelf Liqueurs essence range. Simply select the matched base pack as indicated on each essence bottle. **Liqueur bases A, B, C, Schnapps and Cream** are carefully matched to each liqueur's sweetness and viscosity requirements. On the label of each flavour essence bottle the correct liqueur base pack to use is identified.

### Liqueur Kits

**Still Spirits Liqueur Kits** make mixing liqueurs simple and fun. They are available in 5 variations and designed to match each liqueur. Choose from Irish Cream, Melon Liqueur, Cafelua, Black Sambuca and Coconut Rum.

### Essence Additives

#### **Top Shelf Mellow Oak Extract**

Adds extra oak flavour when wanted, great for Whiskey, Brandy, Bourbon and Dark Rum. Use 5-10mls per 5L.

#### **Top Shelf Premium French Oak**

Gives that "oak aged" effect to spirits and wines where a distinctive French oak flavour is desired. Great for brandy, whiskey, dark rum and bourbon. Add depending on taste and store spirit for 7-10 days to allow oak character to fully develop.

#### **Top Shelf Distillers Caramel**

This is a commercial caramel that is stable in spirits and can be used to darken any spirit if required.

#### **Top Shelf Glycerine**

Improves texture and mouth feel in liqueurs and spirits. Use about 5ml per litre.

### Hints & Tips

Adjust the essences to your own taste by increasing or decreasing the amount you add, or by using some liquid glucose or even mixing essences to get the exact taste you require.



## Still Spirits Top Shelf Classic Flavour Range

Top Shelf Classic is the range of spirit essences, for people who want the very best. These are commercial essences not previously available to the home user. Each sachet will flavour 2.25 litres (2 x 40 oz bottles) of filtered alcohol. Each sachet varies in volume as this range is prepared without any of the fillers required when making the essences to a certain fill volume as is the case when marketed in 50ml bottles.

**Classic American Bourbon.....**a smooth, rich, bourbon with the strong aroma of peach wood barrel oak. A superior bourbon ideal for drinking straight over ice.

**Classic Navy Dark Rum.....**a dark sweet, mellow rum styled on the seafaring rums of old. Try making this with 50%/V spirit for an overproof variation.

**Classic Scotch Whisky.....**a rich, golden, full flavoured, blended whisky style. As you sip this you can almost hear the sound of bagpipes & smell the peat fires burning.

**Classic Gin.....**a distinctive refreshing gin of outstanding character. This very concentrated essence produces a clean tasting, clean smelling gin with a strong juniper flavour & a touch of coriander.

**Classic Brandy.....**a mellow, well aged, brandy style. A subtle blend of grape & fruit flavours give this connoisseur's brandy a distinctive place in any liquor cabinet.

**Classic Queensland Gold Rum.....**A mellow rum with subtle tones of liquorice, golden syrup and molasses. The distinctive taste of American white oak gives this rum a complex yet smooth aftertaste. A favourite with Australians.

**Classic Calypso Rum.....**A rich, dark molasses style rum which first found popularity in the Caribbean. Great with rum based cocktails but most often consumed with CocaCola.

**Classic Tennessee Bourbon.....**A full flavoured sour mash Whisky with distinctive aromas and yet mellow and smooth. **Classic Finest Reserve Scotch**

**Whiskey.....**A unique blend of several of the best distillations from fermented grains long with unique smoky and peat qualities, combine to give this Whisky outstanding flavour and aroma.

**Classic Jamaican Dark Rum.....**As close as you can get to a Caribbean Dark Rum. If you like a dark rum with full flavour then this is the one for you.

**Classic V.S.O.P.....**A smooth rounded flavour, with subtle fragrances and delicate colour. With its distinctive grape and fruit notes this premium spirit is best enjoyed neat in a tulip shaped glass.

## Still Spirits Top Shelf Spirits

**Top Shelf Kentucky Bourbon.....**a rich, fruity complex Bourbon reminiscent of famous American Bourbons. Sweeter in taste than Top Shelf Bourbon.

**Top Shelf Dark Rum.....**an Australian style Dark Rum. Mix 50% Original & 50% Top Shelf Dark Rum for an interesting variation.

**Top Shelf Rye Whiskey.....**a light refreshing Canadian style Whiskey.

**Top Shelf English Gin.....**a clean full flavoured English style Dry Gin.

**Top Shelf Scotch Whisky.....**a complex Whisky with rich oak and subtle peat tones. Very good on the rocks.

**Top Shelf French Brandy.....**an excellent complex Napoleon Brandy style. Very smooth.

**Top Shelf Smokey Malt.....**a distinctive, single malt style with strong peat undertones.

**Top Shelf Jamaican Dark Rum.....**as the name suggests, this rich, dark Rum has the rich molasses tones and full flavour of a traditional Jamaican style. This essence does however drop some sediment in the bottle.

**Top Shelf White Rum.....**the very best Caribbean style White Rum available.

**Top Shelf Tequila** – A full flavoured Mexican style Tequila. The only thing missing is the worm.

**Top Shelf Vodka** – contains some of the delicate esters and aromas stripped by the carbon process.

**Top Shelf Ouzo.....**a Greek specialty derived from star anise and other secret ingredients passed down over the generations.



## Still Spirits Top Shelf Liqueurs

This range has been carefully matched to its commercial equivalents in flavour, sweetness, thickness, colour and resultant alcohol strength. Each 50ml bottle will flavour a 1.125 litre (40oz) bottle of liqueur. The instructions for mixing are on the bottle.

**Amaretto.....**For those who enjoy a sweet, rich almond flavour from Northern Italy.

**Apricot Brandy.....**This brandy has been infused with apricots.

**Black Sambuca.....**Purple liqueur with a strong aniseed taste balanced by a delicate liquorice aftertaste.

**Blue Curacao.....**Bright blue liqueur with a strong citrus orange flavour.

**Cafelua.....**Rich, fresh coffee flavour from Mexico. A must for coffee drinkers.

**Candy Shots.....**Sweet confectionery flavour.

**Cherry Brandy.....**Brandy flavoured with cherries.

**Chocolate Mint.....**Chocolate based with a clean refreshing mint aftertaste.

**Coconut Rum.....**Based on white rum and has a strong taste of fresh coconut.

**Coffee Maria.....**Similar to the rum based, coffee flavoured liqueur from Jamaica.

**Crème de Cacao.....**Sweet, dark brown liqueur with a rich cocoa and vanilla flavour.

**Crème de Menthe.....**Green liqueur with a clean refreshing peppermint flavour.

**Dictine.....**This is a brandy based herbal liqueur with a clean refreshing flavour; a unique blend of herbs, spices, blossoms and peel.

**Dry Vermouth.....**Ideal for Dry Martinee's made with wine or spirit.

**Hazelnut.....**Boasts a pleasant hazelnut flavour.

**Italiano.....**A gold coloured sweet Italian liqueur with the flavours of vanilla, aniseed & liquorice.

**Melon Liqueur.....**A light green liqueur with a delicate honeydew melon flavour.

**Orange Brandy.....**Amber liqueur, of French origin, which delicately combines brandy and fresh oranges in one of the best known styles of Triple Sec.

**Parfait Amour.....**A popular sweet, purple, fragrant liqueur with a hint of citrus fruits and butterscotch.

**Red Sambuca.....**An aniseed liqueur with a rich red colour.

**Rum Liqueur.....**A rum based liqueur with chocolate, caramel and coffee notes.

**Southern Smooth.....**As the name suggests, this bourbon liqueur is very popular in the southern states of America. Has a sweet, fruity, aftertaste.

**Skyebuie.....**A herbal liqueur based on whisky with notes of honey. Very popular in Scotland.

**Swiss Chocolate Almond.....**A sweet, nutty, chocolate liqueur with a smooth almond aftertaste.

**Triple Sec.....**Clear liqueur with a rich, strong & dry, citrus orange taste. Often used in cocktails.

**White Sambuca.....**Aniseed based liqueur that (depending on alcohol content) is clear to opaque.

**Yaegar.....**A reddish brown 35% A/V German herbal liqueur. Serve extremely cold. Often mixed with Red Bull.

## Still Spirits Top Shelf Cream Liqueurs

Try these Cream Liqueurs with Still Spirits Cream Base. This pack replaces the sugar and cream recommended on the essence bottle.

**Ambrosia Cream** – Honey and caramel combine to make this cream liqueur a delicious sweet desert liqueur.

**Banana Cream.....**Rich creamy bananas give this liqueur a distinctive smooth sweet flavour.

**Butterscotch Cream.....**Very popular, easy drinking, cream liqueur with a rich Butterscotch flavour and aroma.

**Cappuccino.....**A cream liqueur with a rich coffee & delicate chocolate flavour.

**Chocolate Cream.....**Chocoholics will love this full flavoured double chocolate hocolate cream Liqueur.

**Irish Cream.....**Cream liqueur with a strong vanilla flavour & delicate whisky tones. An old favourite.

**Irish Mint Cream.....**Whisky based cream liqueur with a strong vanilla flavour and a delectable hint of mint.

**Pina Colada Cream Based Liqueur** – a rich pineapple flavour balanced with a delicate Coconut background.

## Still Spirits Top Shelf Schnapps

Try these Schnapps with Still Spirits Schnapps Base. This pack replaces the sugar and liquid Glucose recommended on the essence bottle.

**Apple Schnapps** – Crisp and clean tasting, Granny Smiths apples are the predominant flavour.

**Banana Schnapps.....**Rich yellow schnapps with the flavour of fresh bananas.

**Blackberry Schnapps.....**A sweet purple schnapps with the full taste of blackberries.

**Butterscotch Schnapps.....**A clear schnapps with the flavour of butterscotch.

**Hot Cinnamon Schnapps.....**Think of the fragrant flavours of hot cinnamon.

**Pear Schnapps** – Crisp and delicate flavour of ripe pears.

**Peach Schnapps.....**Sweet, clear liqueur with the soft flavour and aroma of fresh peaches.

**Pineapple Schnapps** – bursting with pineapple flavour this is a real favourite in Queensland.

**Strawberry Schnapps.....**Tastes and looks like fresh strawberries



## Whisky Profile Kit

Still Spirits have developed the Premium Whiskey Profile Kit in response to so many home distillers who wanted to truly hand craft their own whiskey.

The Profile Kit provides all the flavour notes that make up a whiskey and the home distiller can adjust the flavour profile to exactly their own taste. Flavours like peat, oak, sherry, grain and fruity esters are just some of the notes that you can experiment with. The Profile Kit contains all the measuring equipment you will require for accurate dosing.

The Whiskey Profile Kit Recipe Book is included with a wide range of premium whiskey recipes to appeal to a wide range of connoisseurs and features approximate formulations of famous brands. Alternately advanced users may like to design their own whiskey to taste and the Recipe Book contains a full description of the attributes of the different flavour notes to assist you with your design.



## Frequently Asked Questions

### Fermentation

PROBLEM	CAUSES / REMEDY
<p><b>My wash failed to start fermenting?</b></p>	<ol style="list-style-type: none"> <li><b>1. Fermenter not sealing</b> – remove the lid of the fermenter to check to see if there are any bubbles rising through the liquid or any froth on the surface or around the sides. If there are signs, then seal the fermenter.</li> <li><b>2. Too cold</b> – Fermentation should start as low as 15°C. If the wash is below this add heat using a Brewcraft Heater Pad.</li> <li><b>3. Too Hot</b> – If you added the yeast to the wash when it was too hot you may have killed the yeast. In this situation you should not add more Turbo Yeast as this will result in too much nutrient. Obtain an EC1118 Wine Yeast and add this to the wash when the temperature is 20°C.</li> </ol>
<p><b>My wash started to ferment but stopped and my hydrometer reading is not down to 990 SG?</b></p>	<ol style="list-style-type: none"> <li><b>1. The temperature rose to high in the first 24 hours of fermentation.</b> (Note that yeast activity can raise the wash temperature by as much as 8°C in the first 24 hours of fermentation. It is important to start the wash at around 20°C and not use any heat in the first 24 hours. If the wash overheats during this period the yeast may not have the energy to finish fermenting) – First stir the wash vigorously to stir the yeast back into circulation. If the SG has not lowered within 24 hours then obtain an EC1118 Wine Yeast. As there is alcohol present you should first start the yeast working in 200mls of water. Once the yeast has dissolved, add a teaspoon of dextrose. When this is fermenting, add 200mls of wash. When this is fermenting add half of this back to the stuck wash and top back up with wash. Continue this until the wash starts fermenting.</li> <li><b>2. The wash has cooled down below 15°C</b> – Warm the wash up and stir vigorously to get the yeast back into circulation. Once the wash is warm fermentation should continue normally.</li> <li><b>3. I have tried to get the wash going again but nothing seems to start it</b> – Distill it anyway. You will not get as much alcohol as you would from a normally fermented wash. Watch the temperature on the condenser and stop when you have reached the appropriate maximum temperature for your model. Use distilling conditioner to control foaming.</li> </ol>



## Distilling

PROBLEM	CAUSES / REMEDY
<p><b>I did not get as much alcohol as the instructions said I would?</b></p>	<ol style="list-style-type: none"> <li>1. <b>Incorrect quantity of sugar used</b> – Check that you have used the right quantity and type of sugar.</li> <li>2. <b>Steam leak from the still</b> – fix the leak.</li> <li>3. <b>Wash has not fermented out</b> – See fermentation section.</li> <li>4. <b>Running still too hot</b> – Keep the still below 92°C, make sure ceramic saddles are not touching the thermometer or you will get an incorrect temperature reading.</li> </ol>
<p><b>My alcohol is not as strong as the instructions said it would be?</b></p>	<ol style="list-style-type: none"> <li>1. <b>Check in above section</b> – Make sure you do not exceed the maximum temperature allowed at the top of the condenser. If the alcohol is not in the wash then you can't distill it.</li> </ol>
<p><b>My distillate is blue?</b></p>	<ol style="list-style-type: none"> <li>1. <b>Ensure you have used Still Spirits Turbo System products</b> – Some brands produce a blue spirit due to an imbalance of nutrients.</li> <li>2. <b>Use only one Turbo Yeast sachet per 25 Litre wash</b> – If the fermentation sticks do not another Turbo sachet as this will result in an imbalance of nutrients.</li> </ol>
<p><b>My distillate is cloudy when it comes out of the still?</b></p>	<ol style="list-style-type: none"> <li>1. <b>The wash has frothed and come out the condenser</b> - Use Turbo Clear prior to distilling and/or Distilling Conditioner.</li> </ol>
<p><b>My distillate is clear when it comes out of the still and has been filtered but it goes cloudy after a few days?</b></p>	<ol style="list-style-type: none"> <li>1. <b>Mineral Salts have been washed out of the carbon and have reformed in the distillate. These are harmless but unsightly. This problem can also appear as coloured sediment when flavour has been added as the salts pick up the colouring from the flavouring</b> – Flush the carbon in the EZ Filter prior to use. Ensure that the temperature is kept as close as possible to 20°C during fermentation of wash. Filter spirit containing sediment with a wine filter. Leave until sediment has all dropped out (cold temperatures will accelerate process) and decant off sediment.</li> <li>2. <b>Fermentation temperature is too high causing the production of unwanted but harmless proteins</b> - see points above.</li> </ol>
<p><b>My distillate comes out of the condenser discoloured or has dark flecks in it?</b></p>	<ol style="list-style-type: none"> <li>1. <b>If the condenser is used for the first time then this could be residue from the manufacturing process</b> – Soak with White Vinegar or flat CocaCola to clean this away then rinse with a weak solution of dishwashing liquid and warm water.</li> <li>2. <b>If this has not occurred the first time the condenser has been used but occurs on subsequent uses then it can be traced to collecting too much distillate. This will result the problem showing up next time the condenser is used</b> – Clean as above and only collect the correct amount of distillate. Before distilling ensure that the SG is down to 990 otherwise make sure that you do not distill above the temperature limits of your condenser.</li> </ol>



<p><b>The condenser seems to overheat even though I am running far more water through it than is recommended?</b></p>	<ol style="list-style-type: none"> <li><b>1. The condenser may not be plumbed correctly</b> - Fill the condenser with warm water then pull the hoses off the base of the main condenser. One of these will be the inlet for the water and the other will be the hose that transfers the water into the reflux condenser. The water should flow out of the condenser through the pipe that the inlet water pipe is connected to. If it flows out of the other one then the hoses have been fitted the wrong way around.</li> <li><b>2. The internal overflow outlet is missing or loose</b> – Take the saddles out of the reflux condenser and shake the whole condenser. There should not be any rattling. If there is the overflow pipe may be loose.</li> <li><b>3. Water temperature too hot</b> – Make sure your tap water isn't coming out too hot.</li> </ol>
<p><b>The spirit from my reflux condenser is not as strong as it should be?</b></p>	<ol style="list-style-type: none"> <li><b>1. The marble is not in the Reflux Condenser</b> – There should be a marble in the Reflux Condenser. This should be resting on four indentations in the inside of the Reflux chamber. The marble ensures that all the alcohol laden steam comes in contact with the inside of the Reflux chamber. It can happen that the marble is too small and drops right through the Reflux chamber and comes to rest over the nut at the bottom of the condenser where it screws onto the dome lid of the still. This cuts off the flow of steam into the condenser altogether stopping it from working. If the marble is missing then the Reflux condenser works more like a Pot Still Condenser.</li> </ol>
<p><b>No spirit comes out of my condenser and the lid pushes off?</b></p>	<ol style="list-style-type: none"> <li><b>1. There is a blockage in the condenser</b> – When the condenser is removed from the still it should be easy to blow in through the spirit outlet tube. Any resistance here would indicate a blockage that will most likely be at the back of the nipple that the outlet tube is attached to. Using a 4mm flat punch and a hammer just tap the punch up the outlet to push the inside wall of the main condenser away from the back end of the nipple. This should clear any blockage.</li> </ol>
<p><b>How do I know how much water flow the condenser needs to run correctly?</b></p>	<ol style="list-style-type: none"> <li><b>1. Water flow is extremely important for the correct operation of the condenser. First the water runs through the main condenser, then into the reflux condenser. The water warms up in the main condenser as it removes heat from the condensing spirit. This hot water is then fed into the reflux condenser. If the flow of water is too high then the reflux condenser becomes too efficient which reduces the flow of steam into the main condenser. The reduced flow will also result in a higher alcohol content as more of the heavier molecules like water are returned to the Still and what does get past the reflux condenser is the lighter molecules or the alcohol</b> – When a condenser is running properly the top two bands of the main condenser should be very hot. The bottom band of the spiral should be cool and the one above it should be hot but not too hot to touch.</li> </ol>
<p><b>Can I fit my condenser from my 5 Litre Still onto a larger boiler?</b></p>	<ol style="list-style-type: none"> <li><b>1. Yes you can fit the condenser from a 5 Litre Still onto a “3 in 1” fermenter. This will make a 25 Litre Still</b> – Please note that it is illegal to own and operate a still over 5 Litres Capacity in Australia.</li> </ol>



## Essences

PROBLEM	CAUSES / REMEDY
<b>Classic Finest Reserve Scotch Whiskey goes cloudy when I mix it?</b>	<ol style="list-style-type: none"><li><b>1. This essence is prone to going cloudy if the alcohol content is below 40% or the spirits is very cold</b> - Make sure the alcohol content is above 40% when mixing. If possible mix it in at 50% then slowly water the spirit down. Make sure the spirit is warmer than 25°C.</li></ol>
<b>My spirit tastes like methylated spirits even after I have filtered the alcohol?</b>	<ol style="list-style-type: none"><li><b>1. This could be caused by too high a fermentation temperature.</b></li><li><b>2. Make sure you water your distillate down to below 50% prior to filtering.</b></li><li><b>3. Make sure you are using the EZ Filter to filter your spirit.</b></li><li><b>4. Use the Still Spirits Turbo Sugar in the wash</b></li><li><b>5. Use Still Spirits Turbo Clear prior to distilling.</b></li><li><b>6. Try Still Spirits Heat Wave Turbo Yeast as this gives the cleanest spirit in warm climates.</b></li></ol>