



Super Reflux Still

25 litres

instructions for use

Welcome to the fascinating world of distilling. This '**age old art**' is a favourite pastime for many New Zealanders.

On 1 October 1996, the New Zealand Customs Act was changed to exempt people who run stills in their own home, for their own use, from paying Excise Tax. Although it is now legal to run a still for your own use, it is illegal to sell home-distilled spirit. Outside New Zealand it may be illegal to own or operate a still. Please check with your local authorities.

Using your **Super Reflux Still** at home with **Still Spirits** ingredients, you can produce the finest quality spirits and liqueurs at a fraction of the normal retail cost. Amaze friends with your own home made spirits and liqueurs within one week of beginning this fascinating hobby. Full technical backup is available from the distilling specialist at your local Brewing Supplies Store.

This Super Reflux Still produces 6-7 litres of 40% /vol alcohol each time it is used. Please read all of these instructions carefully before using your still.



Fermentation

Stage 1 - Sterilisation

1. Everything used in the fermentation process must be cleaned and sterilised before and after use. This includes the fermenter (pail), airlock, hydrometer and stirrer.
2. For optimum cleaning, we recommend **Fermtech Steriliser Cleaner**. Note: Do not use this on your still. Stills should be cleaned with warm water immediately after use.
3. After sterilising, the fermenter and equipment should be rinsed several times with cold tap water, taking care to run some water through the tap, to ensure no trace of the steriliser remains.

▶ After rinsing, seal the fermenter to prevent any contamination.

Stage 2 - Fermenting the Alcoholic Wash using the Standard Still Spirits Turbo Yeast.

1. Add 7 kg of Dextrose to a **Fermtech 30 litre Fermenter** or similar and add cold water while mixing to the 25 litre level. White sugar can also be used but yields inferior results. If using white sugar add 6 kg to 3 litres of boiling water and dissolve before topping up with cold water to the 25-litre mark. Try to use a combination of boiling and cold water to ensure a temperature of between 20° and 30°C.

▶ Dextrose makes a cleaner spirit and ferments faster than white sugar.

▶ Dextrose is easier to use than sugar because it dissolves easily in cold water.

▶ If using Turbo Extra use 9 kg of dextrose or 8 kg of white sugar.

2. When the Wash temperature is between 20° - 30° Celsius, add one sachet of **Still Spirits Turbo Yeast** to produce an alcoholic Wash.

▶ If the Wash is too hot the yeast may be killed or weakened, and therefore may not be able to ferment out all the sugar. In warmer climates, the **Still Spirits Temperature Tolerant Yeast** can be used.

▶ If the wash is too hot then cool as quickly as possible and add the yeast as any delays can result in contamination resulting in poor quality results.

▶ Each pack of Still Spirits Turbo Yeast contains a mix of yeast and nutrients, to make 25 litres of Wash and produce alcohol which is extremely low in by-products.

3. Part 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 brew is working correctly and if 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.
- ▶ 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.

4. The wash should ferment in an area where the room temperature is between 20° - 25° C.

- ▶ At a higher temperature, extra by-products may be made. Using **Still Spirits Temperature Tolerant Turbo** 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.
- ▶ If you are fermenting in a hot climate, Try filling some PET soft drink bottles with ice and freeze these. These can be added 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). If it is still too hot, turn a fan onto the fermenter.

5. 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 by the fermentation process. After this period a Brewcraft or Analog Heating Pad may be used in cooler weather to maintain the temperature. Do not use a Heating Pad in the first 24 - 48 hours.

6. Fermentation is complete when the yeast has used up all the dextrose/sugar. All sign of fermentation should be finished and the hydrometer reading has remained static for two days. If in doubt, leave the wash for an extra day or two.

- ▶ Wash and sterilise the Wash, Wine & Beer Hydrometer in cold water.
- ▶ 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.
- ▶ If you wish to further improve the quality of your spirit, you should allow the fermented wash to clear completely before distillation. **Still Spirits Turbo Clear** may be used to speed up this process.

Points to watch out for:

- 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 1005 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 up. 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 Heating Pad, can be purchased from your local Brewing Specialist Store.*

If for any reason something has not gone to plan, relax, and check out our [FAQ's on Yeast and Fermentation](http://www.stillspirits.com) page at www.stillspirits.com.

Distilling

using the Still Spirits 25 litre Super Reflux Still

To assemble a 25 litre Super Reflux Still:

Your Super Reflux Still comes complete with 250ml of Still Spirit Ceramic Saddles

1. Add the **Still Spirits Ceramic Saddles** to the condenser making sure that the wire mesh is sitting flat in the condenser chamber. Fit Bung.
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 by 20mm. Then refit the bung & thermometer into the top of the condenser.

Distillation:

1. Pour the wash into the still being careful to leave the sediment behind.
2. Fit the lid, complete with condenser and hoses, onto 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 20° 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 50 mls and discard this. This is the **Head**. It is non-drinkable and must be discarded as it may contain by-products that will substantially reduce the quality of your spirit.
6. Collect 3 litres 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 **do not** collect more than 3 litres of distillate. Any spirit collected after this amount will reduce the quality of your spirit.
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 need. (*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 500 mls per minute may result in a loss of alcohol through steaming from the spirit outlet. If you run more than 600 mls 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°. The flow will slow toward the end of the distillation.

From a standard 25-litre wash produced with 7 kg of Dextrose and **Still Spirits Turbo** you should collect 3 litres of alcohol at 80% strength in 4.5 hours. Remember to always measure the strength of your spirit at 16° 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.
nb. This makes a fine garden fertiliser but should be cooled before pouring over your plants.

Points to watch out for:

a. 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.

b. If you have not collected the full amount of alcohol, check you have:

used the correct amount of sugar/ dextrose in the Wash; **and/or**

the specific gravity is below 990 before distilling; **and/or**

there is no steam leak during distillation.

c. A typical wash will take about 4.5 hours to run through the still. It will take about 1 hour and 35 minutes to heat up before any condensate will run out of the condenser. It will then take about 5 minutes to collect the Head, and nearly 3 hours to collect 3 litres of alcohol at 80%. This is a rough guide only.

d. 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 **Distilling Conditioner** can be used to increase yield or avoid problems.

Sugar used & Alcohol yield for 25 Litre Reflux Still

Temperature range	Turbo Used	Sugar type	Sugar kg	Spirit Collected	Spirit Strength
20° - 30° Celsius	Standard Turbo	Dextrose	7	3	80%
20° - 30° Celsius	Standard Turbo	White Sugar	6	3	80%
20° - 40° Celsius	TT Turbo	Dextrose	7	3	80%
20° - 40° Celsius	TT Turbo	White Sugar	6	3	80%
20° - 25° Celsius	Turbo Extra	Dextrose	9	5	80%
20° - 25° Celsius	Turbo Extra	White Sugar	8	5	80%

Please refer to the FAQ's and Troubleshooting guide on Distilling at www.stillspirits.com for more information or answers to questions not covered above.

Carbon Purification. Using the Still Spirits Z Filter Carbon Filter Process.

The collected distillate (Body) should be watered down to under 50% /V, before it is cleaned with the carbon process to remove any unwanted flavours. This does not need to be absolutely precise as you will water your alcohol down further to 40% V, after filtering. If you are using a pot still or a Sears Water Distiller to make your alcohol then your spirit may already be 50% or less.

- ▶ It is important to water the spirit down before filtering as the unwanted flavours are dissolved by the alcohol and are very difficult to remove in higher strength distillate.

The **Z Carbon Filter** uses an advanced treatment system designed to treat the spirit in one stage and gives excellent results in a very short time.

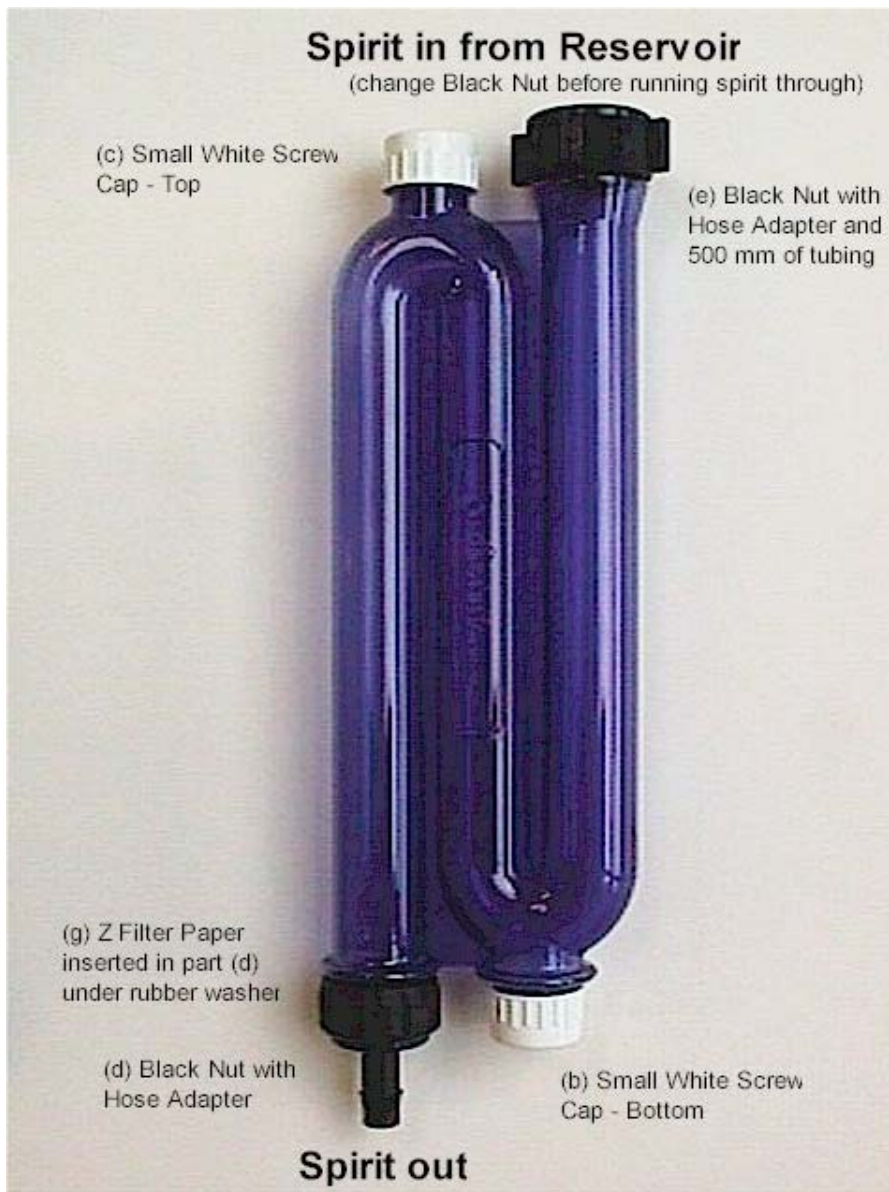
The **Z Carbon Filter** is designed to provide the maximum carbon treatment possible. It achieves this by ensuring that all of your distillate comes into contact with all of your carbon. The 750mm continuous length of this unique filter system ensures the maximum contact time for the spirit with the carbon.

While we talk of filtering, a process that strictly speaking refers to removal of particles by passing them through a material finer than the particles we want to remove, what we are really doing is absorbing the by-products into microscopic holes in our carbon. As the carbon is full of impurities after spirit is passed through it, the carbons cannot be reused.

- ▶ Once your spirit is 50% or under, ensure that the tap on the 10 litre reservoir is in the off position and pour your spirit into the reservoir.
- ▶ Unscrew the Black Nut with hose adapter from the bottom of the Z cartridge and remove the rubber washer. Insert one Z Filter Paper and replace the rubber washer. After making sure that there are no pieces of carbon in the thread, screw tightly back onto the Z Cartridge.
- ▶ Check that the white plastic cap at the bottom of your Z Cartridge is securely tightened.
- ▶ Unscrew the white plastic cap from the top of the Z Cartridge and the Black Nut also on the top of your cartridge.
- ▶ Using a funnel, fill each chamber with carbon, leaving about 10mm at the top of each chamber to allow for the expansion of the carbon that occurs when the carbon is wet.
- ▶ Securely refit the white cap and the black nut. Your Z Filter is supplied with the Z Filter Stainless Steel Mesh Disc correctly inserted inside the black nut between the washer and the black nut.

The carbon needs to be rinsed with clean water to remove mineral salts from the carbon. This process removes the salts and prevents them from appearing as fine crystals in your spirit a couple of days after carbon treatment. The Z Filter makes this task clean and easy, by simply back-washing the filter using a garden hose.

- ▶ With the hose-fitting removed from it, a garden hose will fit easily onto the black adapter on the bottom of the Z Filter. Holding the Z Filter upside down, run water through the filter until the outflow runs clear for 30 seconds. Stop the water flow briefly, then again run water through the filter until the outflow again runs clear for 30 seconds. Repeat this one more time so that the water runs clear for 30 seconds for the third time. Three flushes is sufficient to remove the mineral salts.
- ▶ Once the carbon has been rinsed, turn the Z Filter upright, with the black nut and mesh to the top. Tap the Z Filter to drop the carbon from the top. Carefully remove the black nut and mesh. Ensuring there is no carbon in the thread on the Z Filter, screw the filter into the black nut attached to the reservoir containing the spirit.
- ▶ Place a 10-litre pail underneath the filter to collect the filtered spirit.
- ▶ Open the tap on the reservoir and wait while the spirit makes its way through the tube. This will take a few minutes. Collect the first 50 – 100 ml, as this may contain some carbon, and return this to the reservoir.
- ▶ Fit the end of the filter into the hole in the lid of your collecting pail. You may need to adjust the length of the syphon hose to suit your distilling environment. Once all the spirit has run through, tilt the reservoir to get the last spirit into the filter.
- ▶ Check the strength of the filtered spirit, adding clean tap water to bring it to the desired strength for drinking. We recommend 40% or less.
- ▶ After use, remove all nuts and caps and shake out the spent carbon. Rinse out the Z Cartridge with cold water taking care to remove any carbon from the threads.



Other points

Your Z Carbon Filter comes ready to use with part (f) correctly assembled and attached. Remember for future usage that the stainless steel mesh needs to be inserted between the black plastic nut and the rubber washer.

Your Z Carbon Filter comes with a pottle of Z Carbon Universal (initially released as Pot Carbon). This carbon removes a wider spectrum of impurities and as such can be used to treat any distilled spirit. Reflux Carbon should only be used to treat spirit made with a reflux still.

We recommend using garden hose when flushing your carbon with water prior to carbon treatment as it is flexible enough to easily fit on and off the hose adapter on the black nut (d). A small section of hose with a tap adapter fitted may be the most convenient system for you.

A word about mineral salts

Mineral salts are present in the raw materials used to make activated carbon. When spirit runs over activated carbon some mineral salts can be absorbed into the spirit. Later, once the temperature has dropped, these mineral salts start to become insoluble in the spirit and after a few days a fine sediment appears in the spirit. This fine sediment (which first appears as a milky haze and then drops to the bottom of the bottle) is the mineral salts originally from the activated carbon. These mineral salts are absolutely 100% safe (in fact essential for life!) but you don't want them in your spirit. This is why we recommend flushing the carbon with clean water. If you notice this problem in your spirit you can decant the spirit from the sediment and your spirit is safe to drink. Ensure that next time you increase the amount of water you flush the carbon with.

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

Float a **Spirit Hydrometer** or **Alcometer** in the spirit and 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 a temperature of 16° C or refer to the Temperature Correction Chart below. Taking readings of warmer liquids may damage your hydrometer.
- Float the spirit hydrometer in the spirit to measure the alcohol content. As alcohol is thinner than water, the higher in strength the alcohol is, the further down the hydrometer floats.

Temperature Correction for Spirit Hydrometer

Temp	%V	30	40	50	60	70	80	90
10		2.47	2.39	2.20	2.07	1.91	1.75	1.47
15		0.41	0.40	0.37	0.35	0.32	0.29	0.25
20		-1.64	-1.59	-1.47	-1.38	-1.28	-1.17	-0.98
25		-3.70	-3.58	-3.30	-3.11	-2.87	-2.63	-2.21
30		-5.75	-5.57	-5.14	-4.83	-4.47	-4.09	-3.43
35		-7.81	-7.56	-6.97	-6.56	-6.06	-5.55	-4.66

e.g. If your Spirit Hydrometer reads 50%V at a temperature of 20° Celsius, then you should read the Correction Adjustment from the chart and subtract 1.47 to give a realistic reading of 48.53% V (50.00 - 1.47).

- Take good care of your Spirit Hydrometer as it is very fragile. Wash & sterilise with cold water only.
- 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 required = Total litres to be made up to.

e.g 4.5 litres x 45 / 37.5 = 5.4 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 37.5% and you will need to make the total spirit up to 5.4 litres with water. In other words add .9 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.

Making Spirits and Liqueurs

Modern 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.

Helpful Hints.

1. Some flavours need a few weeks to age. All liqueurs become "smoother" over time.
2. **Liquid Glucose** - can be added to slightly thicken liqueurs, without sweetening, and give a smoother mouth feel. A powdered version, **Liqueur Thick**, is also available for easy mixing. Dissolve, (perhaps in a little boiling water), before adding to your spirit base.
3. **Top Shelf Mellow Oak Extract** - can be used to add an oak flavour if required. Add 5-10mls per 5 litres. This is particularly appropriate for Whisky, Brandy, Bourbon and Dark Rum.
4. **Distillers Caramel** - This is a special caramel that is stable in spirits and can be used to darken any spirit if required.
5. **Glycerine** - Improves texture and mouth feel in liqueurs and spirits. Use about 5ml per litre.

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

Top Shelf Classic

A 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 - 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 - 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, single malt 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. (*Special care needs to be taken with this essence that the spirit is 40% /V or above prior to mixing to ensure the essence dissolves in the spirit.*)

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.

Top Shelf 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.

Top Shelf 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 Coca Cola.

Top Shelf Classic Tennessee Bourbon - A full flavoured sour mash Whisky with distinctive aromas and yet mellow and smooth. Great over ice but traditionally drunk with coke and ice.

Top Shelf Classic Finest Reserve Scotch Whisky - A unique blend of several of the best distillations from fermented grains combine to give this Whisky outstanding flavour and aroma. Unique smoky and peaty qualities. (*Special care needs to be taken with this essence that the spirit is 40% /V or above and that the spirit and essence is warmed prior to mixing*)

Top Shelf Spirits

A range developed for the connoisseur who is working within a budget. Each 50 ml bottle will flavour 2.25 litres (2 x 40 oz bottles) of filtered alcohol.

Top Shelf Bourbon - a favourite for many discerning Bourbon drinkers. Variations can be made by adding sugar to taste.

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 a sensation

Top Shelf Rye Whiskey - a light refreshing Canadian style whiskey.

Top Shelf English Gin - this is one of the finest Dry Gin essences that we have been able to source.

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.

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

Original (formerly known as Still Spirits)

This range is produced for the cost conscious consumer. We have taken care to select these essences for their widespread appeal. Each 50ml bottle will flavour 5 litres of filtered alcohol.

Blended Whisky - a quality whisky can be drunk neat or on the rocks. Has a slight peaty flavour.

Gin - a refreshing mellow Gin with a clean finish. This can be softened by adding a little sugar to taste.

Bourbon - a Bourbon that would stand up well in the Southern States. Make subtle variations by adding a little sugar for sweetness & a little oak to mellow.

Brandy - a popular Brandy with a large following. Not as sweet as the Top Shelf or Royal Piper brandies and can be further improved with a little Oak Essence.

London Dry Gin - a dry complex Gin reminiscent of quality Gins from the London area.

Tequila - typical Mexican style ideal with salt & lemon or for making Margaritas.

Citrus Vodka - this flavour is self explanatory really we have copied the commercial lemon Vodka's that have become very popular over the last year or two. If overseas trends are followed this will be very popular over the summer. Best drunk on the rocks and served from the freezer.

Vodka - this essence replaces some of the subtle esters required in a good Vodka. The filtering process removes some of these esters together with all the unwanted flavours.

Whisky - a popular Whisky ideal for drinking with splits.

Chilli Vodka - this pepper/chilli vodka is a very trendy drink at present & may well do better in the winter. Not only do you receive a warmth from the Vodka you also get a lovely hot after taste from the chilli's.

Dark Rum - Jamaican rum ideal for drinking with splits

White Rum - a good, easy drinking variety best suited for drinking with mixes.

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.

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

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

Black Sambuca - Purple liqueur with a strong aniseed taste balanced by a delicate licorice aftertaste.

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

Butterscotch Cream - Very popular, easy drinking, cream liqueur.

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

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

Candy Shots - Sweet confectionery flavour.

Cappucino - A cream liqueur with a rich coffee & delicate chocolate 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.

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

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

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

Macadamia Nut - This liqueur has a delicate macadamia nut flavour.

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.

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

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.

Strawberry Schnapps - Tastes and looks like fresh strawberries

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

If you require any other instructions then please refer to our [downloads](#) page at www.stillspirits.com.



Super Reflux Still Summary Sheet

25 litre Still



- Can produce 6 -7 litres of 40%V alcohol.
- Temperatures are shown on Celsius scale.
- The instruction booklet has more complete details.

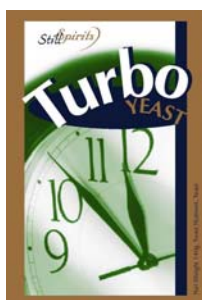
1. Sterilise		Sterilise & clean everything using FermTech Steriliser Cleaner .
2. Ferment		<ol style="list-style-type: none"> 1. Mix 7kgs of dextrose, (or 6kgs sugar), in 3 litres of boiling water. 2. Pour into fermenter. Add cold water up to 25 litre mark. 3. At 18°-22° add sachet of Still Spirits Turbo Yeast to wash. 4. Half-fill airlock with water. Fit to fermenter. Keep the wash between 20°-25°. Fermentation should take 3-7 days. 5. Wash hydrometer should read 990. At this stage add Still Spirits Turbo Clear to remove yeast cells prior to distilling
3. Distill <i>Guide - it roughly takes:</i> <ul style="list-style-type: none"> ◆ 95 minutes to heat up; ◆ 5 mins to collect Head, ◆ 170 mins to collect (up to) 3 litres of Body at 80%V. 		<ol style="list-style-type: none"> 1. Pour wash into still body, then fit lid complete with Super Reflux condenser, secure with span ring, turn on the power. Before thermometer reads 50°, start running cold water through the condenser at about 500mls per minute. 2. Discard the first 50mls of Head. Collect up to 3 litres of drinkable alcohol at about 80% /vol. The temperature will slowly rise during distillation. Cease collecting spirit when you have collected 3 litres. See chart overleaf for amounts to collect with different yeasts. Cease collecting spirit if your temperature reaches 92°. 3. Always measure the strength of your spirit at 16° C.
4. Carbon Purify Z Carbon Filter Method <ul style="list-style-type: none"> - The Carbon needs to be rinsed with water to remove mineral salts from the carbon - Water down your spirit to below 50%, before filtering, for best results. 		<ol style="list-style-type: none"> 1. Add a single filter paper to Black Nut with hose adaptor replace washer, secure back on to the Z filter cartridge, secure white cap. 2. Turn over unscrew white cap and black nut with mesh. Fill Z Filter with Still Spirits Universal Carbon to 10mm from the top securely refit black nut with stainless steel mesh disc and washer. Secure white cap. 3. Ensure tap in reservoir is turned off. Add your watered-down spirit to the 10-litre reservoir. 4. Holding the Z filter upside down, run water through the filter from the outlet nut until the water-flow out through the steel mesh runs clear for 30 seconds. Repeat 3 times in total. Turn upright remove black nut and mesh, screw the filter into the black nut attached to the reservoir. 5. Open tap and allow spirit to flow through the Z filter this will take a few minutes, collect the first 50 –100ml as this may contain carbon. Add this back to the filter reservoir.
5. Set Alcohol Strength		Add clean water until spirit hydrometer measures 40 % alcohol.
6. Flavour & Bottle		Use Top Shelf Classic, Top Shelf or Original essences to create your favourite drinks. Liquid glucose, Top Shelf Mellow Oak, Distillers Caramel or Glycerine can provide the finishing touches.

The following chart has been prepared to assist distillers, as there are so many different distilling combinations using different:

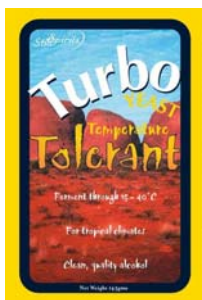
- **Volumes;**
- **Condenser types;**
- **Turbo types; or**
- **Sugar types.**

Super Reflux Still Chart			
Combination	Sugar Type	Kgs	Litres from Still
25 litre wash with Still Spirits Turbo	Dextrose	7	3
25 litre wash with Still Spirits Turbo	White Sugar	6	3
25 litre wash with Turbo EXTRA	Dextrose	9	5
25 litre wash with Turbo EXTRA	White Sugar	8	5

Still Spirits Turbo Yeasts



Turbo Yeast is the first Turbo released by Still Spirits and it's tried and true combination of high alcohol yeast and yeast nutrients produces a 25 litre wash at approximately 13%. Which will distil into 7 and a half litres of spirit at 37%. It requires a temperature of between 15 and 25 degrees Celsius for it to ferment efficiently.



Temperature Tolerant Turbo Yeast produces the same yield as the Turbo Yeast but is capable of fermenting at a temperature of up to 40 degrees Celsius without either being killed by the high temperature or producing the many unwanted by-products created when other yeasts ferment in such high temperatures.



Turbo Extra Yeast uses a higher alcohol tolerant yeast and the right nutrient mix to produce a 25 litre wash at approximately 20%. Which will distil into 11 and a half litres of spirit at 37%. Turbo Extra Yeast requires care and attention during the fermentation stage to ensure that it doesn't get too hot, as it has a very vigorous fermentation cycle which produces a lot of its own heat.