TURBO 500 COMPLETE DISTILLERY GETTING STARTED

TURBO 500 COMPLETE DISTILLERY KIT

Still Spirits Turbo 500 Condenser & Turbo 500 Boiler (these are boxed individually and sold separately to the boxed complete distillery kit items).

Turbo 500 DVD Distilling Instructions

Still Spirits Turbo Production Pack which contains 6 kg of Turbo sugar, a Classic Turbo Yeast, a Turbo Clear Sachet, a Turbo Carbon sachet and an EZ Filter Carbon Cartridge.

30 Litre Fermenter complete with tap, sediment reducer, airlock, grommet and stick on thermometer.

Still Spirits EZ Filter System

5 Litre measuring jug/collector.

50 cm stirrer spoon.

Wash Hydrometer

Still Spirits 1 Litre Classic Spirit Essences: Whiskey, American Bourbon, Gin, Brandy, Jamaican Dark Rum, Still Spirits Icon Liqueur Essences (2)

FERMENTER ASSEMBLY

1. Ensure that the back of the threaded hole has been drilled out. If not then drill it out with a 22mm hole saw, being careful not to damage the thread. Peel off the back of the thermometer and attach to a convenient position on the fermenter.

2. Fit the sediment reducer into the tap and then screw the tap into the threaded hole. Tighten securely and fill fermenter with water to ensure it does not leak.

3. Use the No Rinse Steriliser found in the Imake fermenter box. Dissolve this in 5 litres of water and swirl around in the fermenter making sure it comes in contact with all the inside walls and lid, also run some through the tap. Also sterilise the stirring spoon with this mixture. **For all subsequent use, clean with Cold Water Cleaner Detergent before sterilising.**

Refer to the Turbo 500 Still Distillation System Manual for instructions on how to assemble and use the still.

After distilling refer to the EZ Filter System Manual for instructions on how to filter your spirits.

WATERING THE ALCOHOL DOWN

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. Take good care of your Spirit Hydrometer as it is very fragile. Wash & sterilise with cold water only. See over for a simple formula to help you work out how much water to add.

Spirit hydrometers should only be used to test spirit before any additives such as flavouring or liquid glucose are mixed and at the calibrated temperature. Still Spirits Spirit Hydrometers are calibrated at a temperature of 20°C (68°F). If the spirit is a different temperature to this then you can refer to the Temperature Correction Chart on the following page. Taking readings of warmer liquids may damage your hydrometer.

MIXING UP THE SPIRITS AND LIQUEURS

Once you have completed filtering your spirit, check the strength and water down as needed Usually this is to 40% A/V or less. There are a few exceptions with some of the higher strength spirits and liqueurs.

SPIRITS: Measure out the amount of alcohol required and add the essence to it. Use some of the spirit to rinse out the sachet or bottle. Mix well and serve.

ICON LIQUEURS:

Check the back of the pack and add alcohol and water as required. Please note the Irish Cream requires the Icon Cream Base.

LIQUEURS: Check the liqueur essence bottle and follow the instructions. They will require a base pack which is a mixture of sugar and modified starch that will add sweetness and mouth feel to the liqueur. For the non-cream liqueurs mix the base with the alcohol and top up to the required volume with water. For the cream liqueurs, mix up the cream base with any water required then add the alcohol. Again top up to the target volume with water.

TEMPERATURE CORRECTION

ADJUSTMENT CHART EXAMPLE

Your Spirit Hydrometer reads 50% A/V at a temperature of 25°C (77°F) , 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.

20°C (68°F)	Alcohol % / Volume							
	30	40	50	60	70	80	90	98
Temp								
10°C (50°F)	4.12	3.98	3.67	3.42	3.19	2.92	2.45	2.06
15°C (59°F)	2.03	2.00	1.85	1.73	1.61	1.47	1.25	1.06
20°C (68°F)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25°C (77°F)	-2.01	-1.95	-1.88	-1.76	-1.65	-1.51	-1.31	-1.12
30°C (86°F)	-4.06	-3.94	-3.78	-3.55	-3.33	-3.05	-2.67	-2.31
35°C (95°F)	-6.15	-5.98	-5.82	-5.40	-5.13	-4.67	-4.07	-3.54
40°C (104°F)	-8.29	-8.05	-7.92	-7.41	-7.03	-6.35	-5.50	-4.80

ADJUSTING YOUR ALCOHOL STRENGTH DOWN TO 40% A/V

After carbon purifying, the spirit should be watered down in strength to 40% A/V prior to drinking. We strongly advise against making higher strength spirit.

$$\frac{\text{LITRES (US Gallons) COLLECTED} \times \text{ALCOHOL STRENGTH}}{\text{ALCOHOL STRENGTH}} = \text{TOTAL LITRES (US GALLONS) TO BE MADE UP TO}$$

EXAMPLE

To convert 45% strength alcohol to 40% use the following calculation

4.5 Litres (1.2 US Gallons) x 45 / 40 = 5.06 litres (1.33 US Gallons).

If you collect 4.5 litres (1.2 US Gallons) 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 (1.33 US Gallons) with water. In other words add 590mls (20 US fl oz) of water. This is a rough guide only. Watering down the spirit to 40%, or less, is very important as people unused to high strength spirit can easily overdose resulting in nausea and in extreme cases death.