



NEW
PLUMBING
INSTRUCTIONS
for the
Euro 5 Reflux and
Euro 5 Pot Still

Follow as
illustrated in the
photograph, short
hose with white
rubber hose end is
for example only,
use the 1 metre
hose supplied

EURO 5



Glamorgan St, Moeraki, RD
Palmerston, East Otago
New Zealand

Reflux Still 5 litre

Operating Instructions
Patent Application
No. 331170

Welcome to the world of home produced spirits. Using your Spirits Unlimited EURO 5 Reflux Pot Still you will be able to produce high quality spirits and liqueurs at a very low cost. Technical support is available at your local Spirits Unlimited stockist. Follow the instructions below to create clean, safe spirits. Happy distilling.

Step 1 - Sterilisation

Sterilisation is one of the keys to producing high quality spirits. Before starting a brew it is important to thoroughly wash and sterilise ALL equipment. A solution of sodium metabisulphate (2 tablespoons per 5 litres of water) or preferably sodium hypochlorate (Janola bleach - 250ml per 5 litres of water) is made up and all items soaked overnight, then rinsed and reassembled the following day. NOTE stills should not be cleaned with sterilising solution, use clean hot water only.



Ingredient's



Thoroughly wash then sterilise all equipment

Step 2 - Fermentation

Using a Fermenting Barrel

1. To Make 10L - In a fermentor dissolve 2.25-2.5Kg of sugar in 5-6 litres of water at 30° Celsius.
To Make 20L - In a fermentor dissolve 4.5-5Kg of sugar in 10-12 litres of water at 30° Celsius.

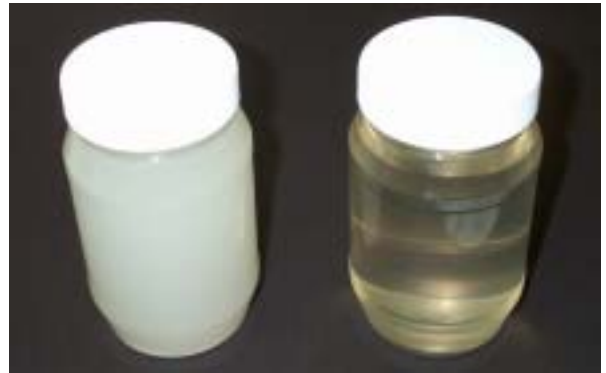
2. When sugar has dissolved add contents to Spirits Unlimited SUPERBREW. Mix well and top up to 10 litres with water. Or if making 20 litres, as above top up to 20 litres.

3. Seal fermentor under an airlock.

4. Place the fermentor in a warm place away from drafts and in 3 to 4 days the fermentation process will cease (in colder weather this may take a few more days.) Temp best around 22°C.

5. Allow 1 to 2 days for the wash to clear.

6. After wash has cleared use a plastic hose to syphon wash to fill the base of still to within 90-100mm of the rim (4.7 litres). Avoid syphoning the dead yeast cells from the bottom of the fermentor. A container pre-measured to 4.7 litres can assist accurate filling. The left over wash will be distilled later. Seal container again to stop any contamination occurring.



Cleared Wash



Step 3 - Distillation

1. Fit the stainless steel condenser pipe to the top of the reflux tower. Soften with hot water the high density polypropylene plug in the top of the tower if necessary.

Note: Once the condenser pipe has been attached to the reflux tower it should remain permanently assembled.

2. Slip the reflux tower into the polypropylene fitting.

Important: Do not clean your still with Sodium Metabisulphate. Flushing the still with hot water only is all that is necessary



3. Using hot water fit the rubber sleeve to the thermometer leaving only the red bulb protruding.



4. Fill the Spirits Unlimited Euro 5 with 4.7 litres of wash. The level should be 90-100mm from the top of the reflux collar. If below this level add water to bring to the correct level.
5. Wet the rubber seal and slide onto the tower, place the tower into the polypropylene flange then press down on the rubber seal to ensure a good fit. After the still has cycled the rubber seal will stick in place.
6. Put the thermometer into the hole in the top of the reflux tower next to the condenser. Fit cold water connector to the tap and trial flow to fill hoses. Make sure the water flows as this is essential to proper cooling of the tower. You are ready to start.
7. Place still on a non-combustible surface which has sufficient height to allow for a container to collect the source and direct the outlet flow into a sink. Turn the power on and then turn cooling water to a low flow. It will not indicate the rate the wash is preheating and is only observed when the still commence to distill.

Collect and DISCARD the first 1/4 cup or 2 tablespoons (30mls). This is methanol and is harmful and must be discarded.

NOTE: As the still heats up and starts to distill check the water outlet temperature from the still. If the water starts to feel warm increase the cold water flow rate.



8. Use the cold water flow to hold the still temperature at 78-80° Celsius or as close as you can. **NOTE** In very hot conditions an airflow directed onto the cooling tower from a small domestic fan can assist. When the temperature can no longer be controlled and reaches 88-90° Celsius, turn the still off. Still output will be approximately 700mls of spirit. Clean out the still as soon as it is cool enough to handle, the old wash is very acidic and must be discarded as soon as possible.

IMPORTANT Flush the tower with hot water before further use.

DO NOT EXCEED 90° CELSIUS WITH THIS STILL.

PLEASE TURN OFF POWER AND CEASE COLLECTING DISTILLATE.

SPIRIT COLLECTED OVER 90° WILL BE CONTAMINATED

Step 4 - Spirits Unlimited Treatment Carbon



Post distillation treatment can make the difference between an average brew and something very special. Spirits Unlimited Carbon Treatment quickly strips unwanted flavour from fresh alcohol.

The raw spirit does not need to be diluted before adding Spirits Unlimited Carbon Treatment. The Euro 5 reflux still will produce 70-80% ethanol per volume (note for an accurate measure a spirit hydrometer needs to be used and the amount of initial alcohol produced in the wash will determine final spirit strength).

1. To a suitable container add raw spirit.
2. Add one pack of Spirits Unlimited Treatment Carbon to the spirit. Bubbling will occur immediately. Rinse any left over carbon from the pack with a little water and add to raw spirit (one container of Spirits Unlimited Treatment Carbon will treat 5 litres of spirit).

3. Let stand for 24 hours with the lid on loosely to allow the spirit to "breathe".
 4. Drain the spirit off after 48 hours. Note : Longer is better. To improve the quality leave the carbon in for 2 weeks Throw the spent carbon away it cannot be reused.
- Once the spirit has been "cleaned" it can be diluted to 40% and flavouring added. The raw spirit treatment process can be further improved by using Spirits Unlimited Twin Carbon Treatment Process. Talk to your local stockist for further information.

Step 5 - Spirit Dilution

Having treated the spirit the last step before adding flavouring is cutting it. Spirits Unlimited recommend the use of a water/spirit hydrometer to accurately measure and dilute your spirit to 40% by volume.

1 LITRE UNCUT SPIRIT STRENGTH % ALCOHOL	MIX OF WATER TO BE ADDED TO EACH LITRE OF UNCUT SPIRIT TO GIVE A 40% PRODUCT
50	250
55	315
60	500
65	625
70	750
75	875
80	1000

For best results use a carbon filtered water supply or if not available cool boiled water.
If you do not have a spirit hydrometer assume your alcohol strength is 80% and dilute accordingly.



Step 6 - Finishing up

After producing a cleared soft tasting neutral spirit, flavour is added to produce good flavoursome spirits, liqueurs and cocktails. Spirits Unlimited produces an extensive range of flavours available from your local stockist.



Spirits Unlimited Flavours

1. Using measure shake the Spirits Unlimited flavour to mix thoroughly. Follow directions on label to make required spirit flavour.
2. Can be enjoyed immediately, best left for 2 days to blend. Cheers.



Step 7 - Spirit Dilution

Repeat the process with the remaining wash. Note this still produces 70-80% alcohol strength.

For further information, Spirits Unlimited flavours or concentrates and product accessories contact your local Spirits Unlimited stockist.

Your Local Stockist: