
KEGLAND REFLEX CONDENSER

Packing List

1 B79 Reflex Condenser with thermometer, two brass orifices, and chrome valve.
1 B79A Assembly Instructions
1 Q69 Condenser Chilling Tubing Kit (with complete kit only)

Needed but not included:

Electric Boiler (Robobrew, Mash & Boil, Grainfather, T500)
Distilling Lid with 47mm hole
Alcometer Hydrometer
Hydrometer Jar
Catch bucket for distillate

Assembly

See the enclosed assembly instructions and proceed. Note you will need to bend the soft copper distillate tube downwards. Now take the Kegland tubing kit if purchased and cut the 15' of tubing to make two pieces, based on the distance to your sink or garden hose connection. The cooling water hose has to reach a drain, and the cooling inlet hose has to reach a faucet. Tighten the hose clamps firmly to prevent leaks.

Cleaning

Before the first use, rinse the unit thoroughly with hot water by holding it upside down under a faucet. There is no need to rinse the chilling coils, as the distillate does not touch their insides.

Preparing Your Mash

You will first need 5 gallons or so of fermented mash that contains enough alcohol to distill. This should have a gravity drop of at least 65 points, for example, a mash that starts at 1.070 and ends at 1.005, which will give you the potential of distilling three plus quarts of final liquor with an alcohol percentage of around 45%. You can ferment anything, from a simple sugar and yeast nutrient mix, to malt extract, all grain, or even grape juice. Once your mash has fermented down to a final gravity, it is time to distill.



Preparing Your Equipment

First empty the fermented mash into your boiler, being careful not to transfer any yeast sediment, which can produce an off flavor. Plug the unit in to a GFCI outlet, and clamp down your distilling lid/condenser assembly. Attach your cooling water hose to your faucet and the other end in the drain, insert the digital thermometer into the side thermometer, and position your collection container (ideally a large plastic bucket) under the copper output tube. Now put a hydrometer jar on its floor, with the tubing running into it (see below). Now put your hydrometer into the jar, and you have your alcoholic strength measuring device. Turn the valve off on the distillate output tube for now.

Time To Distill

With the fermented mash in the sealed boiler, turn on the power and set to 210° F. (or full power which is the only setting on the T500 boiler). Alcohol will start boiling at 172° F, so watch your boiler digital display if you have one and turn on the digital thermometer when the mash reaches 174° F. It will take a while for vapors to start condensing in the condenser, but once you see your digital thermometer read 160°, turn on your cooling water so it flows at 1 gallon per minute or more. At around 170° on your digital thermometer, open the valve. Distillate will start to drip from the outlet. Collect this and discard the first half a cup (100ml) **as this is poisonous.**

Final Inpsection by: #5

WARNING!

1. Distilling alcohol without a license is illegal in the USA.
2. Do not smoke or subject your run to open flame, as alcohol vapor is flammable.
3. Your cooling water needs to be below 72° F. and run at 1 gallon per minute or more. Flammable alcohol vapor will escape from the top of the unit if it is not adequately cooled with water.
4. Plug your electric boiler into a GFCI outlet only. Keep your boiler electronics dry.

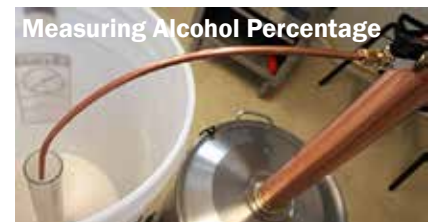
Now your run begins. Let the distillate drip into the hydrometer jar until it fills, at which point it will be around 90% alcohol. The distillate will trickle (or drip) out over a 45 minute to an hour period, and the temperature as read by the digital thermometer will stay the same for a time (172° to 180° F) during your run. This is the run temperature, and when it starts rising much over 188°, you run is over, and you want to shut off the unit to avoid getting bitter off flavor spirits.

Note that your run could be spoiled by inadequate cooling of the head. Keep the cold water flowing through the head at all times, and the colder the cooling water, the better.

If, in the middle of your run, you start to smell alcohol vapor and the run decreases, you probably do not have a cold enough still head. Increase cooling to fix this.

Finishing Up

Measure the alcohol percent of your collected distillate and dilute with clean water to desired strength, usually around 45% alcohol.



William's Brewing

800-759-6025

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