



Pot Still

User Instruction Manual



Designed & Engineered by Keg King

Warnings and General Safety



Please read the entire manual before operating.



WARNINGS

- ARISK OF FIRE! Stills can produce highly flammable liquids and vapour.
- ALWAYS operate in a well-ventilated area away from naked flames
- NEVER leave your still unattended when in operation.
- Keep a fire extinguisher on hand. Foam, dry powder, sand, or CO2 variety extinguishers will be suitable.
- Use a certified, approved boiler.
- DO NOT boil your boiler's wash dry.
- RISK OF BURNS! During and after operation, DO NOT touch the Pot Still or the boiler's metal parts without gloves.
- RISK OF BURNS! NEVER overfill the boiler.
 Overfilled boilers may eject boiling liquid.
- To avoid a vacuum effect when in operation, DO NOT distil above 40% ABV.
- Clean up spills immediately and thoroughly with appropriate absorbent materials ensuring to mop with excess water. Shut off all possible sources of ignition.
- Air drafts will affect distillation efficiency.



Table of Contents

Warnings and General Safety	2
Keg King	4
Introduction	5
The Keg King Difference	5
Unboxing	6
Included Items	6
Additional Required Items (not included)	6
Optional Extras (not included)	7
Getting to Know the Unit	8
Initial Set Up	8
Assembly	9
Operation	9
Cleaning and Maintenance	11
Troubleshooting	
Specifications	

Keg King



Whether you're a brewer or someone wanting to put drinks on tap in your own home, cafe or office, Keg King offers beverage creation and keg dispense solutions for amateurs and pros!

We don't just sell products, we innovate, design, and manufacture our equipment to bring your beverage ambitions to life!

Our brands include:

- King Kegs, our Australian Made P.E.T. kegs
- Apollo P.E.T. Pressure Fermenters & Unitanks
- KegMaster[™] Kegerators
- Atomic 15 Brewery Cleaners
- UltraTap Twist FC Faucets
- Spundy spunding valves
- the KegMaster[™] Solstice Fridge
- and more!

Check the resellers map on our website to find where our products are available in North America, the United Kingdom, Europe, Australia, New Zealand and South Africa. https://www.kegking.com.au/retailers

Since 2009, Keg King's mission is to make the best brewing & dispensing equipment in the world!

Check out our helpful instructional videos on the **Keg King YouTube Channel** https://www.youtube.com/c/KegKingvideos

Enjoy your Keg King Pot Still!



Introduction

Keg King Stills are perfect for anyone wanting to produce clean, pure distillates.

To use this product, you will require a boiler unit with a condensing lid.

Ensure your boiler unit is certified and approved for use in your region or country.

For best performance and safe operation, it is IMPORTANT that you read these instructions thoroughly.



NOTE: Distilling spirits can be unlawful in some regions. Please check your area's laws and regulations before you begin.

Please check our web site product pages for updated versions of Instruction Manuals. https://www.kegking.com.au/

The Keg King Difference

Cleaner - Better - Ditch the Brass

Keg King stills are manufactured for a higher level of performance and quality that is built to last. We use only **copper and stainless-steel** in the construction to achieve a cleaner, more sanitary still.

Users will note the welding between the copper and stainless parts is superior to cheaper still designs.

Our tri-clover compatible bottom is easy to mount on almost any 47mm wide hole in a condensing lid.

The new stainless steel universal posts are suitable for garden hoses and disconnects making the still easier to cool with simple garden variety hoses.

The new Double helix copper condenser coil will provide users with fast-cooling maximum efficiency.

Lead free silver soldering ensures the stills remain food safe.

Our materials and construction provide a super smooth surface inside for efficient passage and collection of vapor and liquids.

For greater higher proof output with a pot still check out our optional tri-clover extension.



Features

- Manufactured from copper, stainless-steel, and lead-free silver solder
- Tri-clover or threaded condensing lid mounting options
- A double-helix copper condenser coil, providing a large cooling capacity
- Stainless-steel universal "garden hose" connection posts that accept both Liquid disconnects and 12mm garden hose fittings



Unboxing

Please check that the unit is free of damage.

Included Items



The Keg King Pot Still



USB rechargeable Digital Thermometer

Additional Required Items (not included)

A Boiler such as



35L Boiler - 2300W (comes with suitable condensing lid) Keg King part code 5113



50L Guten Brewery System
(comes with suitable condensing lid)
Keg King part code 8013

A Condensing Lid

A Collection Flask

OR

A Silicone lid Seal



<u>Lid for Turbo Boiler - 47mm hole</u> SKU RET8166



5L Conical Flask SKU 6165



Silicone Seal for Turbo Boiler Lid SKU RET9217

Optional Extras (not included)

Liquid Connections







Premium Barbed Liquid Ball Lock Disconnect

(SKU 8275)

Available with either a Barb or MFL these will block any flow through the tubing when disconnected.

Duo Quick Disconnect

(SKU 12814/12807)

Easily disconnect two lines at the same time. Disconnects dry on both sides to minimize mess.

Hose Connector With Ball Valve

(SKU 10133)

This disconnect adds a convenient ball valve to the cooling loop, making for easy flow adjustments at the head.







Silicone Tube 10mm x 6mm (SKU 10858)

This silicone hose fits over the spout of the still perfectly, making for an easy way to get your distilate into your container

Heavy Duty Silicone Tube Hose

18.5mm x 12.5mm (SKU 5496)

This heavy duty silicone hose is much more durable that the typical garden hose. Fits nicely into a standard garden hose quick-connect 2 inch Tri Clover Silicone Oring Beaded Seal Single Sided (SKU RET6582)

Replacement triclamp seal



Getting to Know the Unit



- 1. Cooling water inlet & outlet standard garden hose or Liquid disconnect (SKU 8275) connections.
- 2. Thermometer / temperature sensor thermowell (3.5mm)
- 3. Distillate outlet (OD: 6 mm)
- 4. Tri-Clover mount for tri-clover condensing lids
- 5. Silicone washer
- 6. Threaded insert for non-tri-clover condensing lids

Initial Set Up

NOTE: Before using for the first time, the Pot Still needs rinsing to wash out any unwanted manufacturing oils or material. Turn the Still upside-down and run plenty of warm water through the interior surfaces.

You will first need a boiler unit with a suitable condensing lid to attach the Pot Still. We recommend our easy-to-use 35L 2300W Boiler, which includes a suitable condensing lid with 47mm mounting hole.

Our Brewery systems are also suitable as boiling units when fitted with condensing lids. The condensing lid requires a 47mm diameter mounting hole for attaching the pot still. Check that your lid has a silicone seal between the lid and the boiler lip, to ensure vapor does not escape from under the lid.

Alternatively, using the tri-clover mount, with a tri-clover seal and clamp, the pot still can be mounted onto 2inch tri-clover equipment.



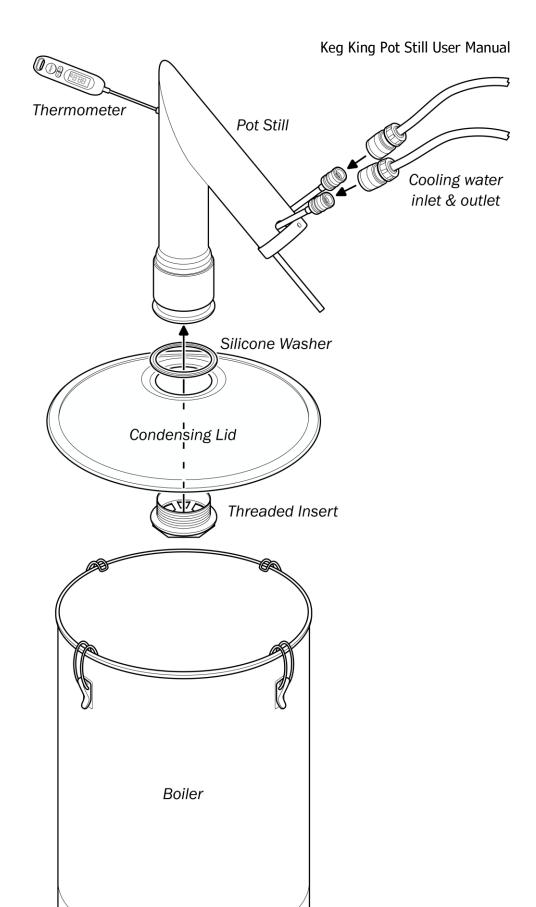
Assembly

- 1. Unscrew the threaded insert (6) with silicon washer (5) from the base of the Still. Insert the threaded insert through the bottom of the boiler lid, and through the silicon washer, (as illustrated next page) and screw the threaded insert back into the base of the Still.
- 2. Place the boiler on a secure, stable, heatproof surface where there is convenient access to water hoses for the cooling water supply and drainage.
- 3. Place the condenser lid (with attached Still) on top of the boiler and clamp in place with the boiler's clips, ensuring the lid's silicon is seated properly.
- 4. Connect hoses to the cooling water inlet and outlet with standard garden hose connections (available from hardware stores). It does not matter which connection is the inlet or outlet. Connect the inlet hose to an appropriate water source that can supply adequate flow (approximately 1.5 liters per minute). Ensure that the other end of the outlet hose will run cooling water to a suitable draining point, i.e. a drain, water tank, sink
- 5. Insert the thermometer into the Pot Still's thermowell as shown in the diagram. The thermowell might be tight, but the thermometer should be inserted about 4 cm.

Operation

- 1. Test water connections for leaks by carefully starting the water flow. Fix any leaks before proceeding.
- 2. Test the water flow rate by collecting water from the outlet for 20 seconds. Adjust flow and repeat as necessary, aiming for approximately 500ml of water per 20 seconds for cooling water under 20C.
- 3. Power your boiler A lower power will take longer, but typically results in a better product.
- **4.** Collect the first 50ml of distillate or until it stops smelling like nail polish in a separate container. **Discard this part. It could be poisonous.**
- 5. Collect the rest of the distillate in a clean glass or stainless-steel container. It can be helpful to use a few different containers throughout the run so you can blend in the flavors you like, and discard or redistill those you do not. This is call *making cuts*.
- 6. When you have collected the required distillate, switch off the boiler and turn off the cooling water.
- 7. Once both the Boiler and Still have cooled down, follow the "Cleaning and Maintenance" instructions below to keep the equipment in good working order.







Cleaning and Maintenance

After the distilling is completed, it is important to rinse out the boiler and the inside of the Still, as the liquid being distilled can be corrosive.

Once the boiler and Still Head have cooled down...

- 1. Disconnect the hoses and drain them carefully.
- 2. Power off the thermometer. Remove it from the still. Store in a safe place.
- 3. Remove the condenser lid and detach the Still Head from the boiler.
- 4. Rinse the Still Head by running hot tap water through it, making sure that water exits through the holes near the cooling water connections.
- 5. Make sure the Still Head is drained and dry before storing.
- 6. Disconnect the boiler's power cord.
- 7. Remove the remaining liquid from the boiler, dispose of the liquid responsibly.
- 8. Rinse out the boiler with warm tap water, using a cloth to wipe it. DO NOT user a scourer or any form of abrasive cleaner.
- 9. If necessary, use some Sodium Percarbonate for cleaning stainless-steel boilers. Rinse with warm water after soaking with Sodium Percarbonate.
- 10. Allow it to drain and dry before storing.

If not cleaned properly, your next distillation may produce blue liquid and/or crystals.

If this happens.

- 1. Using a ratio of 13g per liter of warm water, make enough Citric Acid to submerge the Still Head in a large plastic container.
- 2. Let the Still Head soak for 30 minutes.
- 3. Rinse the Still Head with hot tap water for 5 minutes.
- 4. Make sure the Still Head is drained and dry before storing.

Troubleshooting

By following this troubleshooting guide, you can address common issues that may arise when using pot and reflux stills on the Keg King 2300 Watt 35L boilers. Remember, distillation can be a complex process, and it often requires experimentation and adjustments to achieve the desired results. Always prioritize safety and follow local regulations and laws when engaging in home distillation.

Issue	Remedy
Poor Distillation Output	Ensure Proper Seal: Check all connections and seals in the still setup to ensure there are no leaks. Leaks can result in vapor loss and inefficiency.
	Adjust Heat Input: Increase or decrease the heat input to achieve the desired distillation rate. Experiment with different power settings to find the optimal balance.
	For reflux stills, adjust the ratio of liquid returning to the column to vapor rising through the column. This will affect the purity of the final product.
Overheating or Boiling Issues	Heat Control: Adjust the power setting on the boiler to regulate the heat input. Start with a lower setting and gradually increase if needed.
	Cooling: Ensure the condenser is functioning properly and effectively cooling the vapor. Clean the condenser if necessary.
	Foaming Control: Use antifoaming agents or control the foaming by adjusting the heat input or using additives like copper mesh or ceramic boiling stones.
No Distillate Production	Check Water Supply: Make sure the cooling water supply to the condenser is sufficient and the water flow rate is appropriate.
	Clogged Piping or Condenser: Inspect the piping and condenser for any clogs or obstructions. Clean them if necessary.
	Ensure the still is not blocked. A blocked vent can create a vacuum and impede distillate production.
Unpleasant Smells or Off-Flavors	Cleaning and Sanitization: Thoroughly clean and sanitize all parts of the still before each distillation run. Residual impurities can affect the flavor and aroma of the final product.
	Discard Initial Output: For pot stills, discard the initial distillate (foreshots) that may contain volatile compounds. Collect the main distillate for consumption.
	Heads, Hearts, Tails Separation: In reflux stills, separate the distillate into heads, hearts, and tails, discarding the heads and tails to obtain the desired flavor profile.



Specifications

Name: KEG KING Pot Still

SKU: 11787

Material: 304 Stainless Steel and Pure Copper

Net Weight: ~1.55kg

Product packaging Size: 540*390*240mm

Bottom Connection: 2" Tri clamp with threaded bulkhead

Bottom Thread clearance hole: 47mm

Thermowell Size: 3.5mm max (1/8")

Liquid Connections: 13mm Garden hose fitting (SKU 10133) or Liquid disconnect (SKU 8275)

Overall height: 300mm Still Diameter: 50mm Collection spout OD: 6mm

