

Solid Copper Alembic Stills

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Distributed by:



Iberian Coppers S.A. thank you for the confidence you have placed in our official Al-Ambiq® distributor by purchasing one of our fine hand-crafted products. Our distributors are always at your disposal should you need any assistance whatsoever. If you need more information in addition to the assistance provided by our distributor please contact us by e-mail at info@al-ambiq.com

Destilarias Eau-de-Vie, its collaborators or representatives shall not be liable for damages or bodily harm caused by the improper use of our equipments. This comprehensive limitation of liability applies to any damage sustained, including compensation, direct, indirect or consequential damages, loss of or damage to property and third party claims or personal injury resulting from the buyer's negligence or improper use of the equipments. Furthermore, our company absolves itself of any liability relating to the consumption and use of the products resulting from distillations.



Handmade by Portuguese Artisans
we still do it the old fashion way

Guarantee

All Al-Ambiq® products have a 2 year guarantee as from the date of purchase. This warranty does not apply to any defects in the goods arising due to improper use of items or if distillation guidelines and procedures are not respected. We have the sole right to pass judgement and take action in any such scenario. Should you not be entirely satisfied with your purchase you may request a refund within a 14 day period from the date of acquisition of item. It is the customer's obligation to preserve goods in good condition. The consumer would bear the cost of returning the goods in such a case.



Dear Friend,

Thank you for purchasing one of our Al-Ambiq® products. We have prepared this small booklet so as to get you started in the age old tradition of distilling essential oils or alcoholic spirits and hope you will find much enjoyment as you embark on this new

adventure.

Please read this booklet through carefully before your venture into the world of distillation. Distillation is as much a science as it is an art and requires a responsible attitude, we advise you to read up on distillation as much as possible beforehand and to follow instructions carefully. We strive to establish a long lasting relationship of trust with our clients and are always on hand to offer any assistance you may need to get the best out of our products.

Best wishes from all of us at Iberian Coppers S.A.

Dustin Hoffman and based on the internationally acclaimed best selling novel by Patrick Süskind.

The movie is set in the pungent back alleys of 18th century Paris and tells the story of Jean-Baptiste Grenouille born with no personal body odour but with an acute sense of smell. Grenouille apprentices himself to a perfumer and becomes murderously obsessed with procuring the perfect scent that will make him fully human.

To recreate the perfumers' workshop our services were called upon to manufacture alembic units and accessories true to that era and according to specifications. This called for some historical background work on our part prior to their creation and we were fortunate enough to find some alembics from that era for a comparative study.

At the time copper sheeting was not available in the larger sizes we have today and riveted unions were used extensively to join the copper sheets and the different parts of the alembic together. This technique has been employed since ancient Egyptian times and still employed by ourselves to join the top, belly and bottom of some of our alembic stills together. In addition these units were chemically treated to give them an antique finish.



The pestilent odours exuding from the fish market and murky backstreets of Paris in this film scenario contrast with the exquisite scents associated with the art of the Master Perfumer. The distillation of these exotic essences with the aid of the characteristic copper alembics, add to the seductive allure of this mystical art.

Certified Al-Ambiq® Products

How do you recognise genuine Al-Ambiq® products and distinguish them from similar products on offer in the market?

Our products have a an identifying Al-Ambiq® plaque which distinguishes them from other poorly made ones that may not conform to our standards of quality. When buying Al-Ambiq® products you are assured peace of mind and avoid the health risks associated with buying cheap imitations.

We have taken care to earn a good name and ensure that our distinctive trademark is recognised as being synonymous with superior quality and craftsmanship.

Genuine Al-Ambiq® products are available from official Al-Ambiq® distributors and retailers. Get the real thing and don't settle for cheap imitations.

This is the identifying Al-Ambiq® plaque



Because of their reduced size some of our decorative units may have a tag identifying them as Al-Ambiq® originals.

If you would like to know more about the quality of our alembics please consult or site at:



www.al-ambiq.com

Iberian Coppers S.A. have a great tradition in the creation and sale of high quality copper distillation systems. Our mission is to ensure customer satisfaction by offering high quality products at affordable prices. We have distinguished ourselves by our wide selection of beautifully handcrafted copper products.

We have available:

- Decorative pieces ideal for decorating your home or for surprising your friends and family with a unique gift;
- Practical and completely functional, small distilling units and distilling appliances;
- Soldered or riveted distillation units;
- Reflux or rotating column alembics;
- Graceful Charentais alembics,
- Water sealing distillation units;
- Diverse professional and continuous distillation systems;
- A wide range of accessories (essenciers, sieve plates, drain pipes, copper parrot spout, alcoholmeters and mustimeters amongst others.

Our products are made from 100% copper which grants them great resistance and durability. All soldering, wherever applied is guaranteed to be non-toxic and perfectly suitable for distillation. Copper has well documented anti-bacterial and anti-corrosive properties which make it the preferred material for the manufacture of distillation units for distilling essential oils, floral waters and alcoholic spirits.



Perfume the Movie

Iberian Coppers S.A. is a Portuguese Company that holds the trademark for Al-Ambiq@. We have a proud and ancient tradition in the manufacture of quality handcrafted copper distilling units. Recently we were commissioned to create several alembic units for the movie "Perfume: The Story of a Murderer" directed by Tom Tykwer starring



An alternative method is the use of silicon tape – as can be seen in the picture, or any other sealing tape that will sustain high temperatures. Take care not to tape the alembic joints excessively as the objective is to seal off escaping vapours and allow the alembic hood to pop off should an obstruction in the piping cause excessive pressure build up.

Sealing Technique

Hand-made and hammered from sheets of copper to form gentle and gracious curves, there are no two pot stills that are identical in diameter. Each lid is specially made to fit into each pot. Being hand-made there might be some slight slack between the separate pieces. To seal off any eventual vapour leaks a very simple technique may be used - rye flour and water. Simply mix the rye flour with some water to make wet soft dough in a small recipient. Then with your fingers simply push and rub this mixture into the joints of all the items.

When assembling your pot still, insert the swan neck into the pot with gentle pressure. Also connect the swan neck (and/or any other parts) to the condensing recipient. When vapours start to rise, should a leak occur simply add some dough to this leaking area.

After years of usage some natural slack may occur between the copper pot and the swan neck lid and should be sealed off to prevent the escape of vapours.



To loosen the separate parts of the still for cleaning once distillation is complete, simply give a direct blow with the heel of your palm upwards to the rim of the separate pieces. The rye dough comes off easily. To separate the tubes simply pull these apart carefully (where brass connectors are not provided) Vapours will always search for an easy way out - through the piping - so there is no great need to apply thick quantities of the flour mixture.

Our copper units can be used to distil numerous organic materials for making alcoholic spirits (from various fruits, wine, cereals and plants), essential oils or floral waters. For such there are 4 different distilling processes: simple, steam, fractional and continuous distillation. Independently of the material to be distilled do remember to consider the basic distillation laws so as to avoid any harm.

You should clean your alembic regularly so as to get the best out of it for many years to come and use the sealing technique to keep vapours from escaping.

We hope you will find complete satisfaction with the item you have acquired.

For more information please consult the attached documentation or contact the distributor from which you purchased our products. If you are unable to source the information you need by these means please e-mail us at info@al-ambiq.com

Basic Distillation Laws

Our copper stills can be used to distill an endless list of substances. If your intention is to obtain alcohol for human consumption, independent of what you are distilling, it is important to respect basic chemical distillation laws in order to avoid personal injury, blindness or even death which can be caused by continuous consumption of poor results. The following are some basic principles of the distillation process.

The principle of distillation is simple. The important aspect remains the means of separating alcohol from an alcohol containing liquid. When distilling at sea level, alcohol starts to evaporate at 78.3°C and water at 100°C, therefore when an alcohol containing liquid is heated to that temperature the alcohol starts to vaporize. The result of any distillation is divided into three separate parts in the following order: Heads, Hearts and Tails. The best and desired portion of the distillation is obtained from the Hearts- you want to obtain ethanol alcohol which boils off between 78-82°C (between 45% and 65% in alcoholic percentage- if measuring with an alcohol-meter).

The most volatile products are the first to come out as they have low boiling points. They are known as the Heads. In general these are substances such as acetone, methanol and various esters which must be separated and discarded (or saved for adding to the next batch) as it is the methanol alcohol that can cause blindness. It is common to separate the first 50ml per 5L wash if using a reflux still or 100ml per 20L wash from the rest of the batch if using a traditional alembic.



With regular use and in time, copper oxidizes and will gradually take on an overall dark red colour. Should you wish to polish the exterior we suggest you use an appropriate non-toxic polish. It is important not to use abrasive cleaners. You may also clean your pot with one of two traditional methods: rub with a cloth dampened in a salt and lemon solution; or use the ashes from the wood fire (if you used this as your heating source) on a damp cloth. This last method can be used for both the interior and exterior of the still.

If you are using your still to make essential oils - be aware that the oils will stick to the walls of the pot and copper coil and will start to form a sticky crust. You should always clean all the parts of your still with warm to hot water to eliminate the grease, especially in the condensing coil or it may clog with time.

Please note that alembics used to produce essential oils should not be used to make alcoholic spirits as oils will naturally become impregnated into the copper with time and may influence the spirits which may become improper for human consumption.

Cleaning & Maintenance

Before you use your still for the first time, independent of its model, we recommend that you process a distillation of water to clean away any impurities that have been left behind from the manufacturing process. Afterwards, just like with any other piece of machinery or hardware, it is essential that you maintain your still clean to last years.

If you use your still just once a year, you should make sure that it is thoroughly cleaned before storing it away for next year's distillation, which is what happens here in the Iberian Peninsula after the harvesting season. The cleaning process will eliminate sulphuric acids and other harmful substances that have collected and deposited on the walls of your still, from the pot to the coil. You can carry out a cleaning distillation with a mixture of rye flour and water. It is quite simple. Fill 40% of your pot's capacity with water and 5% with rye flour. Prior to commencing cleaning distillation you should verify that there is no obstruction in the swan neck pipe and serpentine coil. The joints of the alembic should be sealed using a traditional sealing technique once you have placed the hood on the alembic pot.



If however, you use your still quite frequently, say every other month, you do not have to clean it out with rye flour and water. A single distillation using only water will be sufficient.

You can prevent the heads from contaminating the rest of the product by watching the temperature (these boil off at temperatures below 70°C) but many experienced distillers carefully monitor the taste (it usually has a very sharp taste) and smell the first distillate to insure that all the heads have boiled off before they begin to collect the body of the spirit – the Hearts (the ethanol) which is totally transparent. A similar distillation cut off point is also needed with the ethanol. This phase is commonly referred to as the Tails. The Tails contain a large amount of compounds with higher boiling points, such as the higher alcohols and furfural. These compounds can spoil the taste of the spirit if the collection is carried on too long. It is necessary to have a cut off point. Again this point can be identified by watching the temperature (82°C or higher) or monitoring the taste (diluted eau de vie or watered down), smell and milky colour of the distillate by collecting a few drops on the back of a spoon every so often and checking what it tastes or looks like on a regular basis. The tails are usually saved to include in the next batch as a considerable amount of ethanol alcohol can be recovered.

Safety Precautions

Distillation is not child's play and could prove dangerous if you do not know what you are doing and do not pay constant attention to the process. Please read these safety precautions through carefully before starting off.

- Allow sufficient space to work in. Your distillation area should be well lit, clean and well ventilated to prevent the accumulation of alcoholic vapours.
- When working with flammable liquids such as ethanol care should be taken to eliminate any fire hazards. Keep a fire extinguisher handy and collect the distillate securely so the risk of spilling it is reduced. Don't smoke!

- Before any distillation, please ensure that there is no obstruction in the piping that could cause excessive pressure build up in the still and cause it to burst. You may risk burning yourself if the vapours do not have an easy exit point. For this reason we frequently emphasise that the alembic head should be placed loosely on the pot, for appropriate models, so it may easily pop off in such a case.
- Perform a cleaning distillation first. (see Cleaning and maintenance)

- See Basic distillation laws for some guidelines before performing a distillation.
- Apply rye putty to seal off any leaks as they occur. (see Sealing technique)

- Don't overfill your alembic, allow enough headroom for the vapours to collect in. The liquid volume in the alembic may expand or foam if the heat source is not carefully monitored and boil over or cause an obstruction in the piping. For this same reason, when distilling a thick mash dilute it sufficiently to give it a liquid consistency. As a general rule do not fill your pot more than $\frac{3}{4}$ of its capacity.

- Monitor the temperature constantly. Do not allow the liquid in the alembic to boil uncontrollably. The heat source should be at high strength at the beginning of the distillation to start off and reduced when approaching boiling point. Try to maintain the wash at a slow boil or simmer.

- If using electrical heating, try to install an RCD on the line (residual current device - or circuit breaker) if at all possible.

- Control the temperature of the condensation water so no vapours are exiting the condenser spout and calculate the ratio wash to distillate so as not to boil your still dry.

- We encourage a temperate attitude towards drinking. You should remain sober during the distillation process.

- We do not claim to be the ultimate authoritative guide to distillation and may have inadvertently included some inaccuracies. Please read up on the distillation process as much as possible. There are many good books available on the distillation process. You may also join a discussion group such as at

<http://groups.yahoo.com/group/new-distillers/>
or
<http://groups.yahoo.com/group/Distilling/>

for free exchange of information on distillation.