



OIL PRESS OPERATING MANUAL

MODEL: USSOILP1



This manual should be made available to all users of this equipment. For best results, and for maximum durability of the equipment, carefully read and follow all instructions. Failure to do so can lead to serious injury or catastrophic damage to the user, machine, supplies, or surrounding areas. All safety suggestions must be followed closely, and extreme precaution

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304 Food Grade Stainless Steel

Machine Rated Power: 400W

Maximum Starting Current: 4A

Motor Rated Power: 400W

Heating Rated Power: 100W

Supply Voltage for Use: 220V \pm 10% AC 50/60Hz (110V \pm 10% 60Hz is suitable for Taiwan, Japan, Korea, Canada, the United States. Please refer to the identity next to the power outlet in the rear part of the machine.)

Pressing Speed (reference value): 3Kg/hour; the more moisture raw materials contain, the slower the speed will be; the larger the particle size (big pumpkin seeds, camellia seeds and large peanuts) of raw materials is, the slower the speed will be.

Maximum Pressing Particle: the press barrel of U.S. Solid Oil Press is designed based on the volume of a peanut. If the particle size exceeds this, particles should be smashed before the pressing to make the volume no greater than that of peanut kernel (camellia seeds should be processed in this way).

Suitable for Pressing: flaxseed, rapeseed, unhulled black sesame, unhulled white sesame, sunflower seed kernel, walnut kernel, apricot kernel, peanut kernel, camellia seed, edible fructus perillae, (small and medium-sized) pumpkin seed, hemp seed, pine nut kernel, platycladi seed, kiwi seed, okra seed, schisandra chinensis (traditional Chinese medicine), soya bean, chaulmoogra seed (traditional Chinese medicine, removing the outer shell before the pressing) and pricklyash seed. Please do not press raw materials that are not specified in these instructions.

I. Getting Started

Hello new US Solid Oil Press user!

Thank you for choosing our US Solid Oil Press. For smooth and safe operations, please read and understand this manual. The operation and maintenance information listed within has been updated as of its printing.

In light of the ever-changing nature of technology, the company reserves the right to modify specifications or procedures for this oil press without notice. The company will not assume any responsibility for equipment damage or malfunction that is due to improper operation, incorrect repairs, or use of parts from another company.

This oil press is intended only for home and family use. Under this usage, the company provides a 12 month warranty from the date of the sale. During this first year, the company is responsible for any replacement parts needed because of manufacturing or material issues. After this 12 month period, the company will only replace parts at their current retail cost.

For businesses, the warranty period for the oil press is six months from the date of the sale. During this first six months, the company is responsible for any replacement parts needed because of manufacturing or material issues. After this six month period, the company will only replace parts at their current retail cost.

The warranty will only be in effect if all instructions in the manual are followed fully. The warranty does not cover unforeseeable forces of nature, or acts of God (fire, earthquakes, floods, etc.).

When warranty service is required, inform the company and describe the problem. When doing so, please include the following information: Purchase Date, Order Number, Consignee Name, and Delivery Address.

This manual includes basic safety precautions and instructions regarding installation, operation, and maintenance. Therefore, before operating the equipment, please read carefully and fully comply with all instructions, and fully understand the listed product requirements.

This manual does not include instructions for all possible uses of this machine.

II. Safety Notes

- Always use a grounded outlet.
- Only press raw materials discussed specifically in this manual.
- Do not press the dry residue, as it can lead to blockage in the pressing chamber.
- Never use an induction cooker, light wave stove, or electric radiant cooker to fire or heat raw materials. It will damage the raw materials and cause the press to produce only powder.
- The taphole should always remain open to allow spillage in case of overly damp raw materials.
- This machine should only be operated by adults who have read and fully understood this manual.
- Never allow operation of this equipment by children.
- Only raw materials mentioned in this guide should be placed in the pressing chamber. Hard objects or other materials could damage the machine.
- Avoid pressing wet materials. They will block the pressing chamber.
- Do not put fingers or any other objects into the pressing chamber to stir the raw materials. This could lead to serious injury and/or damage to the machine.
- Do not press materials after being overly dried out; if only powder comes out during pressing, the material is too dry. This can lead to blockages in the machine.
- When heating in the microwave, be sure to use a microwave safe plate or receptacle.
- Only camellia seeds should be fully roasted. All other raw materials can be roasted to a medium-well level. Make sure to press raw materials while still warm to maximize oil production. Once materials cool, the oil will be greatly reduced or only powder will come out.

Problem: The electric motor buzzes and shakes.

Cause:

- The motor is jammed.

Solution:

- Stop pressing immediately and remove raw material from hopper. Preheat for one hour and then press "Clean" for up to two seconds, then press "Start" for one second. Repeat and the lever will ease out. If still stuck, take out the press barrel, put it on the gas stove over a low flame, and dry the dross hole (6 cm long) of the press barrel until raw materials inside are burnt up. In the process, you will hear a squeaky sound. Then you can reinstall the press barrel on the oil press, screw on nuts, and press "Clean." USE CAUTION to avoid burns and bodily harm.

Problem: The machine is making a sharp metallic noise.

Cause:

- Materials are not entering the barrel evenly. You should allow it to continue to run two or three minutes and the noise will disappear as the raw materials redistribute in the press barrel. If the metal friction sound still occurs, then the raw materials are damp and sticking to one side of the screw.

Solutions:

- If raw materials are only partially damp, you can counteract this by adding soy beans to draw out moisture from the raw materials until the sound disappears.
- Remove the press barrel, clear away the raw materials that are stuck on the screw, and then dry the barrel.
- Replace moisture retaining raw materials with heated raw materials (according to the above method of heat pressing).

Problem: Powder begins coming out during the middle of the pressing process.

Causes:

- Too much raw materials was heated at one time.
- Raw material was allowed to cool after heating.

Solution:

Heat about two pounds each time. When the pressing is about to finish, you can heat a new batch. Cover raw materials when pressing, especially in winter.

III. Unpacking the Oil Press

Opening the Oil Press

First check whether there is damage due to transportation. Make sure the aluminum heater cover stays close to pressing chamber. Otherwise clogging will occur and no oil will come out!

As for the manufactured equipment: there may be discoloration or unevenness in the surface of the pressing chamber. This is the normal appearance of unique, wear-resistant metals and is normal with new products.

Packing items include one manual, one wrench (for removing the pressing chamber), one material hopper, one power cord, one oil cup (gift), one slag net (gift) and one hard round brush (gift); consult the website for any changes to gifts, as these can change without notice.

Parts of the Oil Press

Figure 1 shows the panel of switches. The switch on the far left can toggle between cleaning and squeezing. The red switch is the power switch. When on, the machine will be heating, or it can be turned off. The small red button is overload protection. In the bottom right, there is a label highlighting the wattage of your machine.



Figure 1

Problem: During pressing, lots of residue in the oil outlet.

Causes:

- The preheating switch is not on or was not left on long enough.
- Raw material contains too much water or the moisture was not properly removed.
- Incorrect frying where the surface is burned but internal parts are still raw.

Solutions:

- Replace raw material.
- Heat raw material according to instructions in this manual.

Problem: Oil will not properly separate, even after a few days.

Causes:

- Raw materials have been stored in excess of one year or raw materials have been treated with chemicals while in storage.
- Raw materials became brittle after being heated.
- Incorrect heating where the surface is burned and internal parts are still raw .

Solutions:

- Replace raw material.
- Heat raw material according to instructions in this manual.

Problem: Oil and residue spill simultaneously from the dross hole.

Cause:

- The raw materials contain too much moisture.

Solutions:

- Press with some soy beans to draw moisture from the raw materials. Start with a small amount and add more as needed.
- Fire the raw material according to the above method of heat pressing.

Problem: Oil flows back from the base of the press barrel during pressing.

Cause:

- Raw materials are damp.

Solution:

- Dry raw materials in the sun or heat them in the microwave or oven until they are dried out.



Figure 2

In Figure 2, the hopper will be where all raw materials are held for pressing. Take careful note of the heater, as this element can be quite hot, and lead to burns or other injuries if the user is not careful. The oil cup is where the extracted oil will fall into.

Soybeans

Soybeans contain little oil. 500g of local soybeans contains 60-90g of oil; transgenic soybeans contain 90-125g of oil. You can refer to the steps to press peanuts for hot pressing, namely, heat soybeans till their skins crack and then press them.

Rapeseeds

There are two kinds of rapeseeds, winter and spring, both of which contain 30%-40% oil in most cases. Pick fresh and plump rapeseeds. The time of heating should be reduced since rapeseeds are a small grain. Oil extraction rates of different rapeseeds in different regions are quite different. Please refer to the method for pressing camellia seeds. Make sure to drain off any water before pressing.

Safflower Seeds and Fructus Cannabis

The shell of safflower seeds or fructus cannabis is very thick and hard. It is best to shell them before pressing. If they can't be shelled, make sure to heat the raw materials and press them when they're still hot, as suggested by the "hot pressing" method introduced above.

Turn on the machine for 30 minutes to heat it up first and then turn on the pressing switch. Put in a small amount first and fill the hopper after a normal amount of slag is detected. Press them one time, and if it backs up, clean out the pressing chamber and start over.

Walnut Kernels

Put walnut kernels into a cloth bag and slightly crack them with a wooden mallet into pieces the size of a regular peanut kernel. Since walnut kernels contain lots of oil but few fibers, they are not that easy to press. Make sure to add a few soybeans while pressing walnut kernels. The amount you add should be based on getting a normal amount of slag. To get better oil, heat walnut kernels with moderate heat using the microwave oven for 2-3 minutes, or heat them for 10 minutes using the oven but only turning on the upper heating element at the temperature of 215 °F before pressing.

Good walnuts should be dark in color. Avoid walnuts that have been bleached and seem overly clean. Bleached walnuts may contain chemicals or preservatives and should not be used for oil pressing. Pick walnuts with a dark color and heavier weight for the best results in oil pressing.

It is suggested that you try a small amount first and then buy more if they're good. Store the newly pressed walnut oil at room temperature for 24 hours. If the oil separates and subsides, the walnuts were good ones. If the oil fails to separate and subside after four or five days, change the raw material and try again.

Okra Seeds

Select mature and high-quality okra seeds for pressing. Okra seeds are different from other oil plants because their shells are thick and hard. Make sure to heat them on a low heat setting in the oven, or by using the microwave oven for 2-3 minutes till they turn soft before pressing. If the shells are already off, add a few soybeans to the okra seeds. The amount you add should be based on getting a normal amount of slag.

Pumpkin Seeds

Select plump and mature pumpkin seeds in small and medium sizes (it's hard to press very big ones). You may press them cold or after heating, depending upon your preference.

Sunflower Seeds

The best sunflower seeds for oil are small and black and contain a lot of oil. They can be pressed either unshelled or shelled. More oil can be pressed if sunflower seeds are heated before pressing. Please refer to the steps to press peanuts.

IV. Installation

1. Place oil press on solid level table.
2. Install hopper according to Figure 2. Place the oil cup below the oil outlet and prepare container for slag.
3. Plug in power supply that corresponds to the socket on the machine.
4. Installation is complete.

Manufacturer tests machine before shipping and then thoroughly cleans the item. When cleaning yourself, be sure to avoid abrasive materials (toothpaste, etc.), acid, and alkaline liquid (such as soda water). After cleaning, please be sure that pressing chamber and screw are totally dry. Moisture can make material stick on the screw and produce a metal friction noise.

V. Operating the Machine

The oil press can do two types of pressing: hot pressing and cold pressing. Before beginning this process, user must make sure raw materials are dry enough for use. For highest quality oil, only high quality, fresh raw materials should be used for pressing.

Cold Pressing

If the materials are sufficiently dry, they do not need to be heated. Preheat the machine for at least 20 minutes, though more time may be necessary in the winter. Directly put the raw materials in the hopper.

Hot Pressing

Preheat machine for at least 25 minutes. Heat seeds starting with 5-7 ounces at a time and blot dry before adding to the hopper. Do not allow seeds to cool as this will create more slag and possibly cause a blockage in the pressing chamber.

Note: The aim of heating is to remove excess water and improve the concentration oil. Begin pressing after the raw materials are well heated. If the seeds are overheated, a paste or powder will come out, and the pressing chamber will make a friction noise.

Pressing for Oil

1. Turn on heating switch and wait for 25 minutes; extend the waiting time appropriately during the cold seasons (never turn it off during the oil pressing process).
2. Put dry ingredients into the hopper.
3. Press the "Pressing" switch and begin pressing oil.
4. After oil pressing ends, hold the "Cleaning" switch for 20 seconds; it will be easier to remove the screw and then clean. It is crucial to press the "Cleaning" button before the machine cools. If the cleaning switch has not been pressed, after the chamber becomes cold the residual slag hardens and the pressing rod will become blocked.

Note: In case of power outage during the process, please turn off the start switch and unplug power plug. Once power is reconnected, turn on the heating switch for at least 30 minutes before continuing the press process.

Common Issues in Pressing

When pressing, any of the following can cause mistakes during the process and lead to poor oil flow, or low quality oil:

- Raw materials have been stir-fried.
- Raw materials are overcooked (except camellia seeds).
- Raw materials are allowed to cool before pressing.
- Raw materials have been exposed to sunlight (exceptions for peanuts and camellia seeds).
- Raw materials are overly wet.
- The machine is not properly heated up.
- Heating of raw materials is done with an induction cooker, light wave stove, or electric radiant cooker.
- Freezer or refrigerator is used for storage of raw materials.
- Usage location is particularly dry.
- If oil and residue splash out at the same time in slag notch, this may be because raw materials contain too much water. It may also be associated with unsmooth incoming material or slow pressing.

White or Black Sesame Seeds

Refer to the "peanut pressing method"

White sesame and unshelled sesame must be fired till slightly yellow or half mixed with black sesame (please refer to the hot pressing method).

In many cities, there are a lot of grain stores or supermarkets that sell sesame seeds and peanuts and provide roasting and milling services at the same time. Please note that the roasted sesame seeds are intended for grinding, and can not be used for pressing oil. Only powder will come out, and could result in the pressing chamber becoming blocked. When buying sesame seeds, please choose mature, good sesame seeds with full grains to get the most oil out of them.

Attention!! The oil press is only for pressing oil. It has nothing to do with whether the oil is aromatic or not. This is decided by the type of raw material and how the raw material is heated before the pressing. Please refer to methods in the oil fragrance secret section below.

Oil Fragrance Secret

First boil a proper amount of water. Use about 35 ounces of peanuts or black sesame (white sesame is not fragrant). Cook until they have a light yellow skin, using the methods previously described. Be sure not to burn, as burnt oil has a distinctive, bitter taste.

First boil the water, and then place a clean cloth on the steamer, spread the heated peanuts or sesame evenly on it, leaving space in the middle to let the steam rise. Cover it and steam for 5-7 minutes; then take out, mix evenly, and hot press. Oil can be stored under normal temperature for a long time. This is a traditional method for creating fragrant oils.

Peanuts

First confirm the quality of peanuts. To confirm dryness, press peanut kernels and if at least one-third of the red skin falls off then they are dry enough. Fresh and dry enough peanut kernels are fit for oil pressing directly. Peanuts in storage for a long time can be recognized by a grayness to their skin, and the lack of sweet flavor. It is important to use peanuts stored for less than a year, which can be found at many rice and grain stores. You can start out buying a small amount of peanuts in several different places to determine which peanut is best for pressing out oil. As always, heat the machine for twenty minutes. With peanuts, then proceed to cold pressing. There are several possible outcomes for oil pressing with peanuts:

- Oil output is normal; oil separates after being placed at room temperature for 24 hours or more. This shows the peanuts were good.
- Oil output is normal; the oil does not separate after 24 hours. This means the peanuts were bad. Replace them and try again.
- Only powder comes out, showing that there is no water at all; this situation prone to occur in dry areas and winter time. Please add water by soaking your hands, then stirring the peanuts with your soaked hands. If there are a lot of peanuts, undertake this process repeatedly.

You can press oil normally after confirmation of proper functioning.

Notice: When rinsing peanuts, the longest rinse time must not exceed 5 minutes. After draining, remove moisture through heating before use. Press all of them while they are still warm. Otherwise, peanuts will absorb too much water and oil will inject in slag notch. It is hard to dry out washed peanuts in the sun, and it can ruin the peanuts. This tends to cause more slag and oil injection. It is best to directly cook the washed peanuts until dry.

Note: When heating with a microwave oven, many plates will absorb the heat resulting in a plate that is hot and peanuts that are not. To avoid this, please use microwavable plates.

Peanuts should be heated in a microwave oven on medium heat. They should be heated until one minute after hearing a 'pop-pop' noise. This usually takes about three minutes, but will vary with experience. If the materials are wet, increase time accordingly.

If heating, instead, with an oven, use an oven with a rotating cage and only turn on the upper heater. Adjust the time to about 20 minutes if using this heating style. Time will be increased or decreased depending on dryness of the raw material. Ovens without cages tend to lead to burnt or otherwise unusable raw materials.

VI. Cleaning the Machine

1. Shut off the power and unplug the machine.
2. If pressing chamber is hot, wear cotton, heat-protective gloves to prevent burns. Alternatively, wait for 60 minutes to let the pressing chamber cool down completely.
3. According to the graphic below, remove the four nuts from the pressing chamber with a wrench.
4. Take out the pressing rod.
5. Clean it and then rinse.
6. Clean the pressing chamber with water.



Putting the Machine Back Together

- Screw the stem casting into the bearing.
- Attach the external pressing chamber.
- Screw the four nuts on by hand.
- Gently tighten them with the wrench.

Note: Never over-tighten the four nuts.

VII. Processing and Storing Oil

Because the oil that is pressed out contains liquid from the raw materials, the coloration of the oil will vary with the material used. Peanut oil, walnut oil, and white sesame oil should appear a light ivory. Black sesame oil will appear a light black. The colors of these liquids will change depending on heat used during the drying out process.

Once the oil is pressed from the raw material, store it at room temperature overnight. The oil will naturally separate from the other liquids without any filtering. The longer you store your mixture at room temperature, the more complete the separation will be. Once the oil is completely separated, you can bottle it and store in your fridge, or keep it at room temperature. It is recommended to use oils within 60 days of pressing.

Note: The oil quality will be a reflection of the raw materials used. Raw materials of low quality, aged, or kept in poor conditions, will yield cloudier and lower quality oil. Therefore it is important to use the best quality raw materials possible for oil pressing.

VIII. Preparing the Raw Materials

the process. Microwave ovens are the preferred method for heating. Items should be heated until soft to the bite. A 3 minute heating is a good start time, though times will vary dependent on the raw material used and the age of the material.

Raw materials should never be put into the machine when wet. This will lead to damage of the machine, and inefficacy of oil extraction. Similarly, overly dry materials will not produce oil, instead a dry powder. If this happens, stop pressing immediately.

To avoid these occurrences, start with small quantities of raw materials, to make sure the heating time you use is appropriate.

Additionally, limit the quantities of raw materials used. Using an excessive amount will allow some to cool while in the hopper, which will lead to malfunction.

IX. Raw Material Guide

Camellia seeds

Camellia seeds are special. They can be dried out enough for pressing with only exposure to sunlight. In case this does not do the trick, or there is no ample sunlight, they can be put into the microwave and heated for 3-4 minutes, roughly 35 oz. at a time. Before pressing these seeds, larger pieces should be broken into pieces the size of a peanut kernel. Do not crush the seeds to be too small, as they will be unable to enter the chamber themselves. For camellia seeds, press them after they have cooled, but use a small amount at first. There can be large variations in moisture content in camellia seeds, and using small batches reduces this problem. There should be no water left in the camellia seeds during pressing, and it should produce yellow colored slag, which is an indication of optimal oil extraction.

Flaxseed

Flaxseed differ from other seeds because they also contain a layer of jelly. The longer they are stored, the higher the viscosity of the flaxseed gum becomes. Lower temperatures also contribute to higher viscosity and less oil extraction. If either of these conditions are present, there is a possibility of no oil being extracted, instead only powder.

When pressing flaxseed, first turn on the heating switch and heat for 20 minutes. You can turn off the heating during hot days (just don't shut off it during cold days or if the flaxseed have been stored for a long period, otherwise only powder comes out). Put raw materials in and start pressing. Because of their layer of jelly, during cold days, even though you heat them, powder tends to come out at the oil outlet. You can first pre-heat the raw materials and then press them. If oil overflows in the slag notch or outflows from the four screws at the pressing chamber, please dry the flaxseeds or mix them with 10-20% cooked soybeans (eating raw soybean oil can cause diarrhea). Add a suitable proportion of soybeans until there is no overflow. Slowly add more soybeans if necessary and take advantage of the characteristics (less oil) of soybeans to bring the water out.

Note: No matter which raw material is used, if oil overflows in the slag notch, or overflows from the 4 screws of the pressing chamber, the raw material contain too much water. Clean the pressing chamber, dry the moisture, and then remove moisture from the raw material according to the "hot pressing" method.