



Oil-MAX

Cooking Oil Filtration

GENERAL INFORMATION

Oil-Max Systems

Model:

SOF 50

Capacity:

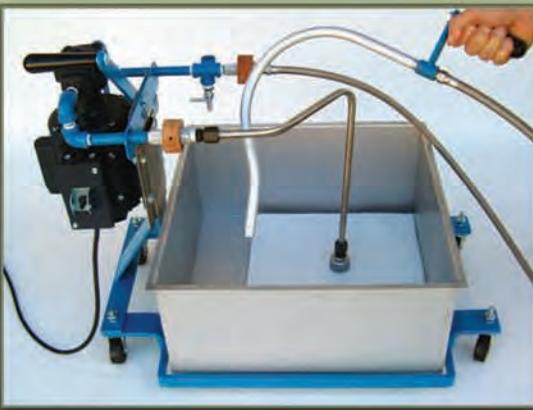
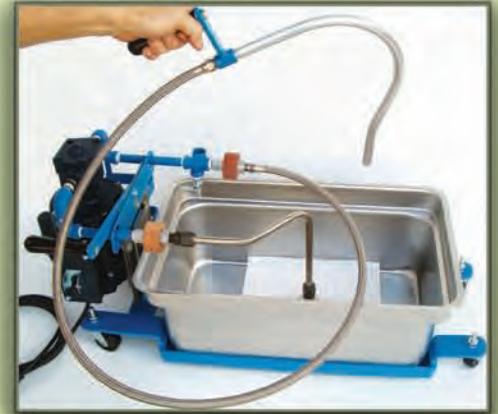
50lbs shortening / approximately 6.5 gallons

Uses:

Small, single fryers

Comments:

Smallest available unit.



Model:

SOF 90

Capacity:

90lbs shortening / approximately 11.5 gallons

Uses:

Medium single fryer or (2) small fryers

Comments:

Our most popular unit.

Model:

SOF 150

Capacity:

150lbs shortening / approximately 19.5 gallons

Uses:

Large single fryer or (2) medium size fryers

Comments:

Designed for use in heavy frying.



Model:

SOF 250

Capacity:

250lbs shortening / approximately 32.5 gallons

Uses:

Large industrial/commercial applications

Comments:

Our largest unit. Great for donut fryers.



SOF Introduction



- Motor** 1/3 H.P. 60 cycle 110-V 5 amp 1 phase temperature 400° F heavy duty.
- Pump** High vacuum gear pump suction coupled directly to motor for simplicity and long life -- no coupling problems, no leakage and simple to maintain.
- Pot** Constructed of non-corrosive stainless steel, the pot is designed for ease of use, safe operation, durability, easy cleaning and fryer accommodation.
- Frame** The motor, pump and pot are assembled on the frame without bolts or screws. Sanitary casters make it easy to move the filter around for use and storage.
- Hose** Braided stainless steel designed for high temperature durability. Flexible and smooth internal and external surfaces. Equipped with insulated handle that can be held with bare hands, regardless of oil temperature.
- Pipe Couplings** The stainless steel filter plate is designed to last as long as the filter, and to support the filter medium exposed to any pressure and temperature.
- Filter Plate** Quick connect snap-tite couplings come with a safety lock feature that ensures hose will not come loose during operation.
- Filter Paper** The filter envelope has been selected for optimum porosity, ease of installation, and ease of REPLACEMENT AFTER EVERY USE in the interest of sanitary operation.
- Sparklaid®** Our Sparklaid® filter aid has been carefully formulated for its ability to absorb free fatty acids, adsorb discoloration, and form a dynamic media to capture all particulate matter larger than 1 micron.



HOW IT WORKS

From the moment cooking oil is placed in the fryer it begins to deteriorate. This is because cooking oil is composed of triglycerides and fatty acids, whose natural enemies are heat, water, light and oxygen.

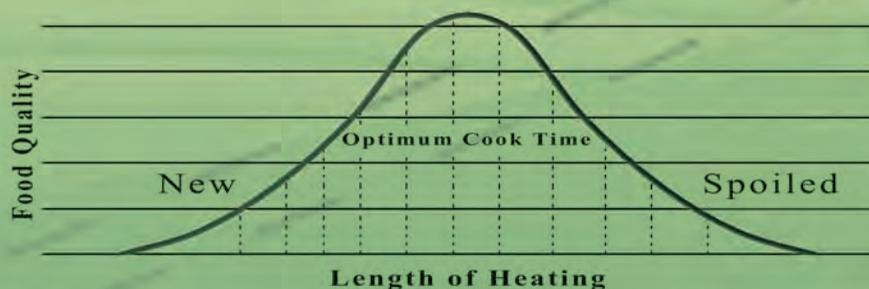


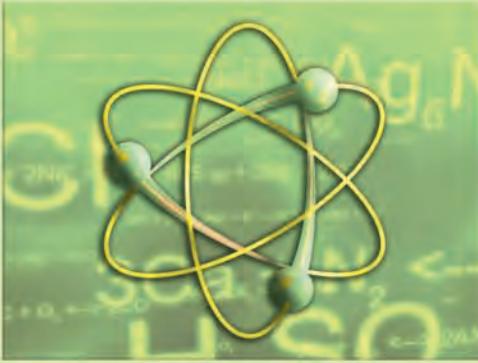
As the result of exposure to these enemies, triglycerides and fatty acids begin to break down into smaller chains called Free Fatty Acids (FFA's) and Oxidative substances such as aldehydes and ketones. As this process continues, hydrogen atoms form a bond with other chemical chains within the oil. These chains continue to grow as more hydrogen atoms are introduced to the oil through water, resulting in a process accelerating the rate of deterioration.



Studies show that up to 55% of the deterioration of cooking oil can be attributed to oxygen, heat and light without frying a thing! Adding water contained by all foods greatly accelerates this deterioration. For example, raw chicken can contain 69% water. French fries contain 85% water. H₂O can break down quickly, which triggers hydrogen atoms to start a chain reaction.

In the Food Service industry it is important to note the life cycle of cooking fats. Best results result from optimal use of cooking oil. If all of your oil is brand new, the product you are frying can become overcooked and not have its desired color. If it is aged too long, or "spent", then the color is too dark without properly cooking its interior. This is due to the amount of broken down chemical chains from water, heat, light and oxygen.

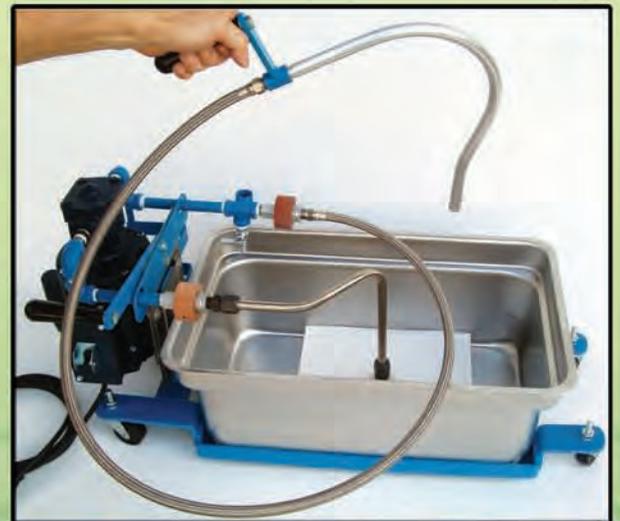




The Oil-Max System is designed to work in two processes. These stages are carried out by our 100% Organic Sparklaid® and our Oil-Max Filters. When used concurrently these two processes can improve the quality of your food by extending your optimum cooking time, reduce unwanted aromas, remove unwanted char, lighten the color of your oil and extend the life of your oil.

Our Sparklaid® has found acceptance in all aspects of the hospitality industry, from food-service and Quick Service Restaurants to convenient stores and hotels. Completely organic, every component in Sparklaid® is specifically selected to attack these oil deteriorating chains on a chemical level through ion exchange and adsorption, as well as water absorption. Sparklaid® accomplishes this through a combination of positive and negative charges that bind to acids and toxins, which helps maintain the PH level and allows for a more effective overall filtration of harmful chains. The natural chemical properties of Sparklaid® also restore the color and natural aromas of the oil.

As a filter, the Oil-Max System is engineered to work with the Sparklaid® to ensure the most efficient and durable micro-filtration possible. When used in conjunction with Sparklaid®, the Oil-Max system can filter particles 100x smaller than the human eye can see.



Actual Test Results



Resulting in a consistently fresher, cleaner oil day after day!





INSTRUCTIONS FOR USE

NOTE: Always use extreme caution when working with hot oil as serious injuries can occur. We recommend using heat resistance gloves during the filtration process. Always hold nozzle tight and secure. Read all instructions and safety information prior to the use of this system.

- 1. Heat fryer to 350°F (please note that depending on the oil you are using this temperature can exceed your smoke point. Check your smoke point for the oil you are using and do not exceed it).**
- 2. Place filter plate inside envelope, fold envelope twice at open end and staple.**



- 3. Attach suction pipe and plate with top and bottom plate coupling. Make sure coupling is completely fastened. You should not be able to turn the envelope when coupling is secure.**



- 4. Slip motor and pump assembly on motor mounting bracket.**

- 5. Connect suction pipe and pump inlet (standing behind the pump, this is on the right hand side) with snap-tite coupling. The snap-tite coupling has a safety lock feature, you must pull and twist until this feature is unlocked, allowing you to securely fasten coupling. Once you securely fasten coupling to pump inlet, twist coupling 180 degrees clockwise and give the suction tube a firm tug. This will ensure that it will not come loose during operation. Figure 1 shows the snap-tite coupling unlocked. Figure 2 shows the snap-tite coupling attached to the pump inlet prior to locking.**



Figure 1.



Figure 2.



6. Connect discharge hose to pump outlet pipe with snap-tite coupling. Once you securely fasten coupling to pump outlet, twist coupling 180 degrees clockwise and give it a tug.



7. Slowly stir in Sparklaid powder directly to the oil in the fryer. You will see a color change within the first few seconds. As you continue to stir, the oil will begin to turn darker as more impurities are removed. For best results continue stirring for at least 5 minutes, but not to exceed 10 minutes.



Sparklaid Usage-

1/4lb for every 20lbs of oil. For heavy frying use 1/3lb for every 20lbs of oil.

8. Turn fryer off. Drain hot oil into SOF pot. Hold the discharge hose securely over the fryer. Switch pump motor to “On” position.

9. Wash fryer with hot oil using discharge hose. Wash all remaining Sparklaid from bottom of fryer and wash all sides of the fryer to ensure residual food particles and char are completely filtered. Leave drain to fryer open so the oil will drain back into the filter pot during this process.

10. Once all residue is out of fryer and oil is clear, close drain on fryer and filter oil back into fryer. Turn pump off when complete.

*FOR SHORTENING- Open relief valve, hold discharge hose up and let excess oil drain into filter pot (relief valve will be HOT, use of heat resistant glove is required). This keeps oil from solidifying and clogging up the pipes. Place discharge hose back in holder. Switch motor on and let pump a few seconds with the relief valve still open to kick the remainder of the oil out of the pump. Turn off motor and close valve.

Valve Closed



Valve Open





Oil-Max Safety Information



****Read all instructions and safety information to ensure a clear understanding of potential hazards prior to use of the Oil-Max System. Hot oil may splash or spill at any point during the filtration process.****

General Operation Safety-

1. **ALWAYS** Wear appropriate and approved personal protective equipment (PPE).
 - a. Heat/Chemical Resistant Gloves- Approved heat resistant gloves capable of withstanding temperatures in excess of 400 degrees Fahrenheit. Gloves must be chemically resistant to the cooking oil as cooking oil is capable of dissolving and melting gloves not chemically approved for use with cooking oil.
 - b. Personal Respirator- When using Sparklaid® always use an MSHA approved respirator
 - c. Goggles- Should be worn at all times to ensure hot oil does not burn eyes and keep Sparklaid® out of eyes.
 - d. Slip Resistant Shoes- Should be worn at all times when using the Oil-Max System.
 - e. Appropriate clothing- Should be worn for burn protection and fire safety
2. **ALWAYS** hold handle tight and secure.
3. **ALWAYS** make sure the oil is discharging in the fryer at all times while the Oil-Max Cooking Oil Filtration system is running. Hot oil will continually discharge from hose as long as pump and motor is on and oil is inside the SOF Pot.
4. Keep fryer/filter in FULL VIEW at all times during the filtration process.
5. **Be on alert!** If you are sleepy or have consumed alcohol, medication (prescription or non), or any illegal substances don't use the Oil-Max Cooking Oil Filtration System.. Using this product while under the influence of any of these substances may result in serious injury or death.
6. Check all aspects of SOF system to ensure all fittings are tight and secure.
7. Ensure that the relief valve is closed prior to turning on the pump and motor.
8. Check snap-tite coupling to ensure safety lock feature is enables and will not come loose during operation.
9. Remove all items from fryer prior to filtration to reduce potential splash.
10. Check the oil temperature frequently to ensure thermostat is in working order.
11. Center the SOF pot directly under the drainage pump and ensure stability.
12. Keep liquids, beverages, and all other objects away from fryer and SOF Filter Pot.
13. **Do not** stand too close or lean over hot oil at any time.
14. **Do not** overfill the fryer or the SOF Pot.
15. **Do not** carry hot oil or attempt to move hot oil in the SOF Pot at any time.
16. **Do not** attempt to strain hot oil.
17. **Do not** store hot oil in SOF Pot.
18. **Do not** leave hot oil or grease unattended.
19. **Do not** move filtration system during operation
20. **Do not** use this product if you have a history of seizures, impaired vision, equilibrium impairments, dizziness or any health attributes that would impair your ability to safely and effectively operate the Oil-Max System.



Burn Safety-



1. Add Sparklaid® slowly and mix carefully. Adding Sparklaid® too quickly or mixing forcefully can cause severe burns.
2. ASSUME that all parts of the Oil-Max System are hot, even after filtration, and pose a severe burn hazard if not properly handled. The Plastic handle and the switch on the pump and motor are the only parts of the system that need to be touched during operation.
3. Never let children near the Oil-Max System, even if it is not in use. The majority of the Oil-Max System is stainless steel, which can remain dangerously hot hours after use.
4. Cover bare skin to reduce likelihood and severity of burns
5. Wear close fitting, tight clothing as loose clothing can dangle causing burns if in contact with cooking oil.

Kitchen Safety-



1. Thoroughly inspect kitchen area around fryer. Ensure area is properly cleaned up and no hazards are visible. Identify possible fire concerns, equipment, accessories, electrical and potential slip spots.
2. Spillage around the fryer area should be promptly cleaned up to prevent slipping.
3. Make sure the SOF System is placed on a flat surface to reduce accidental tipping and spillage.
4. Keep the floor clean and dry.
5. Do not work closely to hot fryers when the floor is wet.

Heat Safety-



Kitchens are physically hot places to work. Use of the Oil-Max System requires user to be by hot oil for the system to be successful. All precautionary efforts should be taken to prevent a potential heat stroke.

1. If equipment is available, turn on commercial vent used for ventilation.
2. Take an opportunity to cool down prior to and after use of the Oil-Max System.
3. Make sure to be well hydrated prior to use.
4. Wear clothes that are reasonably cool

Fire Safety-



1. Keep an all-purpose Class K fire extinguisher nearby. Never use water to extinguish a grease fire. If the fire is manageable, use your all-purpose fire extinguisher. If the fire increases, immediately call the fire department for help.
2. Never use fryer IN, ON, or UNDER any structure that can catch fire.
3. Cooking oil is combustible, at very high temperatures exceeding its recommended heating temperature, its vapors can ignite. Overheating can occur if temperature controls are defective, or if the appliance has no temperature controls.
4. Overheated cooking oil will start to bubble or froth excessively and/or smoke. The bubbling might cause the oil to overflow and ignite if in contact with flame.
5. Understand the fire safety procedures in your workplace, including how to call for help, and follow them in a fire or other emergency.

Electrical Safety-



Use only 120 volt, 3 prong grounded, type B North American Outlets.

1. Look for telltale signs of electrical problems such as dimming of lights, frequent circuit breaker trips or blown fuses.
2. Never use damaged cords
3. Use ground fault circuit interrupters (GFCIs). GFCIs will interrupt the electrical circuit before current sufficient to cause death or serious injury has passed through a body.
4. Do not use extension cords

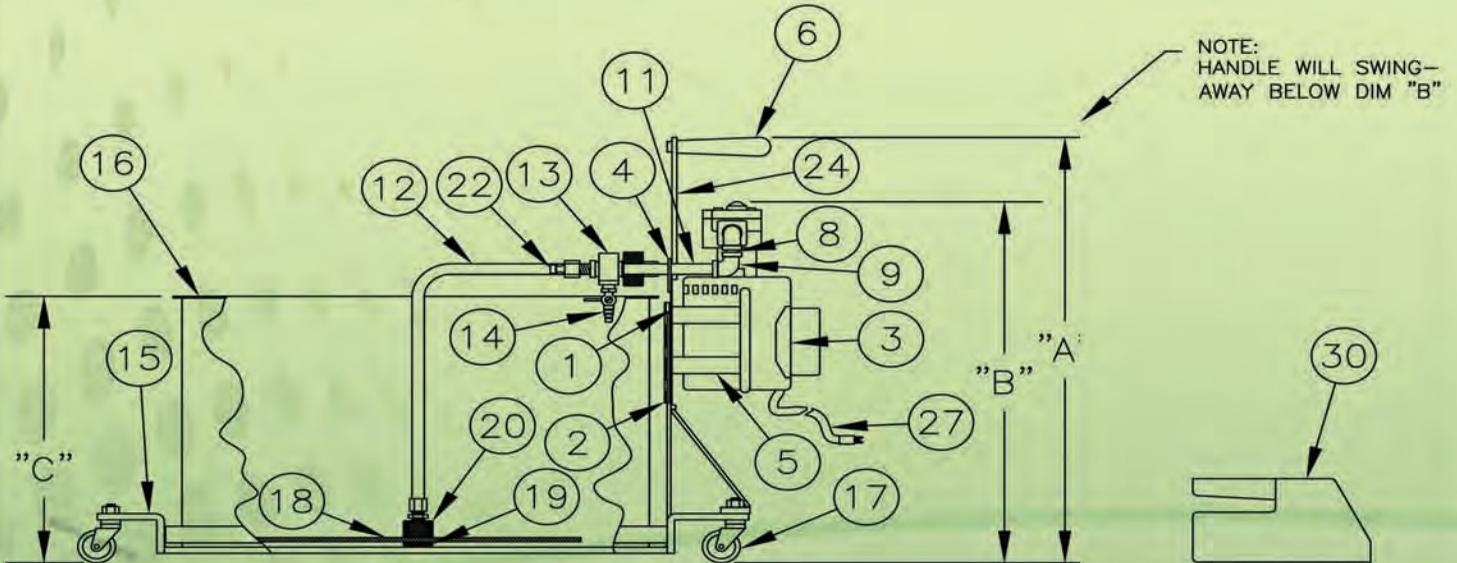
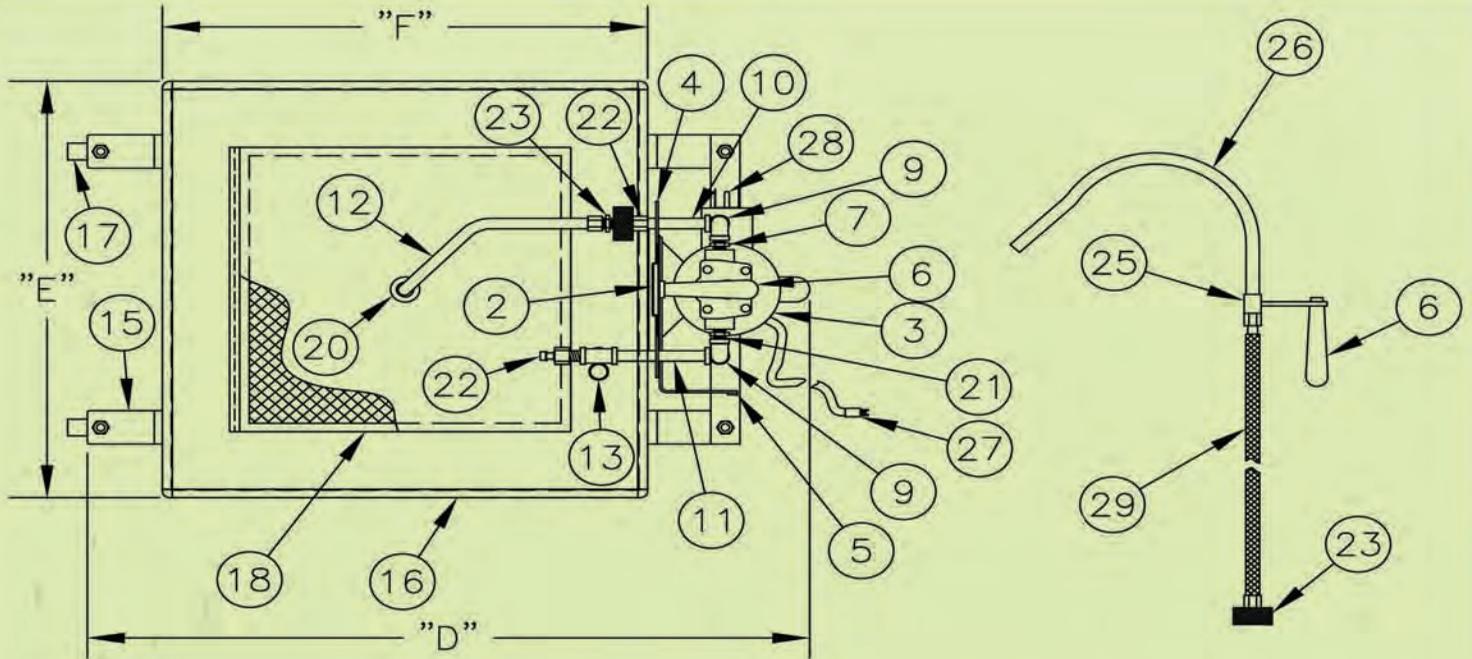


What Employers Can Do to Protect Employees

1. **Follow** OSHA Standards for compliance and general safety.
2. **Train** employees properly to use the Oil-Max System safely and effectively. Also train employees in fryer safety and fire prevention.
3. **Put down non-slip mats.** If mats are not suitable to use on floors where grease is present, use no-skid waxes and surfaces coated with grit to create non-slip surfaces.
4. **Regularly inspect** vent hoods if available to ensure proper ventilation.
5. **Have a Class K fire extinguisher** nearby fryer at all times.
6. **Inspect** electrical compatibility to ensure that electrical conditions are safe and proper voltage is distributed.
7. **Encourage** workers to drink plenty of water when around hot oil and fryers to help them keep cool.
8. **Acclimatize**, or gradually introduce, employees to hot environments.
9. **Eliminate** cluttered or obstructed work areas.
10. **Keep burn cream** and proper first aid close by and available.



Parts/Specs



PARTS LIST NO.	ITEM	PARTS LIST NO.	ITEM
1	MOTOR MOUNTING PLATE	16	POT
2	MOTOR MOUNTING BRACKET	17	CASTER
3	PUMP AND MOTOR ASS'Y.	18	FILTER PLATE
4	PIPE SUPPORT	19	BOTTOM PLATE COUPLING
5	CORD BRACKET	20	TOP PLATE COUPLING
6	HANDLE (HEAT RESISTANT)	21	PUMP NIPPLE
7	PUMP BUSHING	22	SNAP-TITE NIPPLE
8	CLOSE NIPPLE	23	SNAP-TITE COUPLER W/ INSULATOR
9	ELBOW	24	HANDLE BRACKET
10	SUCTION NIPPLE	25	HANDLE ADAPTER
11	DISCHARGE NIPPLE	26	DISCHARGE NOZZLE
12	SUCTION TUBE ASS'Y.	27	ELECTRIC CORD
13	NOZZLE TEE	28	POWER SWITCH
14	RELIEF VALVE	29	HOSE (BRAIDED, FLEXIBLE)
15	BASE ASSEMBLY	30	SPARKLAID SCOOP

MODEL NO.	"A"	"B"	"C"	"D"	"E"	"F"
50	20 1/2"	15 15/16"	8 15/16"	33 1/16"	14"	21 3/4"
90	26 1/8"	21 9/16"	9 15/16"	31 1/4"	18 7/8"	18 7/8"
150	26 1/8"	21 9/16"	9 15/16"	37 3/16"	24 7/8"	24 7/8"
250	26 1/8"	21 9/16"	15 15/16"	37 3/16"	24 7/8"	24 7/8"



Oil-MAX
Cooking Oil Filtration





SPARKLER FILTERS INC.

Allaying separation anxiety since 1927



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