

# Super Cascade Filtration Systems (CE) Operation Manual



**CE ONLY**

 **Frymaster**<sup>®</sup>

**CFESA**  
Commercial Food Equipment Service Association

Frymaster, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

**24-Hour Service Hotline 1-800-551-8633**

**Price: \$6.00**  
819-5726  
10-99

Please read all sections of this manual and retain for future reference.

Installation, maintenance, and repairs should be performed by your Frymaster Factory Authorized Service Agency.

**CAUTION**

INSTRUCTIONS TO BE FOLLOWED IN CASE THE USER SMELLS GAS ARE TO BE POSTED IN A PROMINENT LOCATION. THIS INFORMATION SHALL BE OBTAINED BY CONTACTING THE LOCAL GAS COMPANY OR GAS SUPPLIER.

**CAUTION**

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER GAS APPLIANCE

**WARNING!**

**SAFE AND SATISFACTORY OPERATION OF YOUR EQUIPMENT DEPENDS ON ITS PROPER INSTALLATION. INSTALLATION MUST CONFORM TO LOCAL CODES, OR IN THE ABSENCE OF LOCAL CODES, WITH THE NATIONAL ELECTRIC CODE, NFPA 70-1984 (OR LATEST EDITIONS).**

**CAUTION**

**DO NOT FILTER MORE THAN ONE FRY TANK AT A TIME. HOT FLUID – DO NOT FILL BEYOND MAXIMUM FILL LINE LOCATED ON THE OIL CONTAINER.**

**WARNING!**

**ELECTRICAL GROUNDING INSTRUCTIONS**

**THIS FILTER IS EQUIPPED WITH A THREE-PRONG, GROUNDED PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED, THREE-HOLE RECEPTACLE. DO NOT CUT OFF, REMOVE OR OTHERWISE BYPASS THE GROUNDING PRONG ON THIS PLUG.**

*Cover Photo*

Shown is a fryer battery composed of a Flatbottom 24G gas (CE) fryer, Super Cascade Filter system, and H250 gas fryers with Solid State Controllers.

**NOTICE**

The Commonwealth of Massachusetts requires any and all gas products to be installed by a licensed plumber or pipe fitter.

# SUPER CASCADE FILTRATION SYSTEM

## *OPERATION MANUAL*

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## **1. PARTS ORDERING AND SERVICE INFORMATION**

### **1.1 ORDERING PARTS:**

Customers may order parts directly from their local Authorized Parts Distributor. For this address and phone number, contact your Maintenance & Repair Center or call the factory. The factory address and phone number are on the cover of this manual.

To speed up your order, the following information is required:

Model Number \_\_\_\_\_  
Type \_\_\_\_\_  
Serial Number \_\_\_\_\_  
With/Without Heater \_\_\_\_\_  
Optional Equipment \_\_\_\_\_  
Item Part Number \_\_\_\_\_  
Quantity Needed \_\_\_\_\_

### **1.2 SERVICE INFORMATION:**

Call the “800” number on the cover of this manual for the location of your nearest Maintenance & Repair Center or contact the factory direct. Always give the model and serial numbers of your filter and fryer.

To assist you more efficiently, the following information will be needed:

Model Number \_\_\_\_\_  
Type \_\_\_\_\_  
Serial Number \_\_\_\_\_  
With/Without Heater \_\_\_\_\_  
Optional Equipment \_\_\_\_\_  
Nature of Problem \_\_\_\_\_

Any other information which may be helpful in solving your service problem

## 2. GENERAL:

- a. The Flatbottom 24G (CE)/H250 Fryer System is equipped with the Super Cascade Filter Model 99.
- b. For consistent product quality, convenience and long-term savings, use a high-quality liquid frying compound.
- c. The frying compound should be filtered at least daily or even more frequently if cooking is heavy. This ensures the longest life possible for the frying compound, gives better taste to the food being prepared, and minimizes flavors being transferred from batch to batch.
- d. If using solid shortening, always make sure the return lines are clear before turning off the filter motor and hang any flexible lines up to drain. Solid shortening will solidify as it cools and clog the lines.

### **CAUTION**

**The on-site supervisor is responsible for ensuring that operators are made aware of the inherent dangers of operating a hot oil filter system, particularly aspects of oil filtration, draining, and cleaning of the filter.**

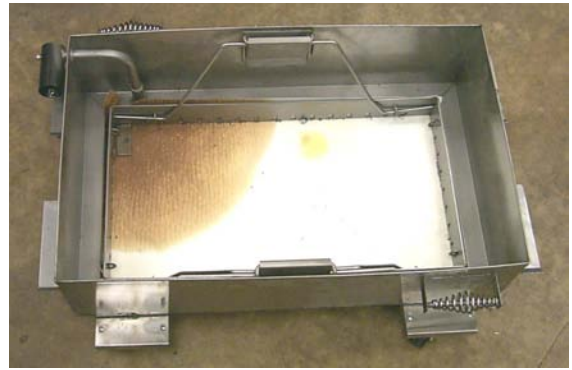
## 3. FILTER PREPARATION:

- a. Assemble tools to be used for filtering. These are supplied with the filter starter kit:
  1. L-shaped Teflon Brush - used to clean the frypot while filtering.
  2. Clean-Out Rod - long rod used if needed to dislodge heavy debris in the drain tube.
  3. Filter Powder, Frymaster Part No. 803-0002.
  4. Filter Paper, Frymaster Part No. 803-0170 (100 sheets) or 803-0173 (25 sheets).

***Note:*** *Use only genuine Frymaster filter paper and filter powder for best results. Use of other filter powder may clog filter paper causing longer refill times and could cause premature motor failure.*

- b. The following tools are not required, but are recommended to make the filtering task easier.
  1. Measuring Cup - used to measure filter powder.
  2. Stainless Steel Crumb Scoop - for scraping debris from the filter paper.
- c. **Always wear oil-resistant, insulated gloves and/or protective gear when working with hot oil.**
- d. Put on protective gear.
- e. Pull the filter pan out from the Flatbottom 24G fryer/ filter cabinet. Remove cover.

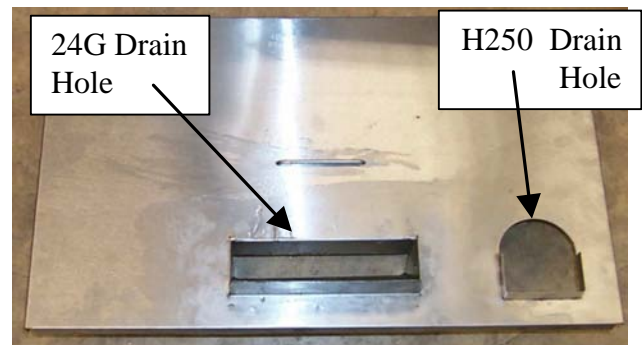
- f. Unlatch and remove the hold down ring. Remove and discard old filter paper sheet from the filter pan.
- g. Clean out the filter pan.
- h. Place one sheet of filter paper in the bottom of the filter pan. Reinstall and latch the hold down ring into position.
- i. Sprinkle 8 ounces (1 cup)/ 227 grams evenly over the paper. Return cover to the filter pan.
- j. Return filter pan to fryer cabinet, making sure the two drain pipe extensions are directly over openings in filter pan cover.
- k. Ensure the oil pickup tube fits snugly in the filter pan connector.



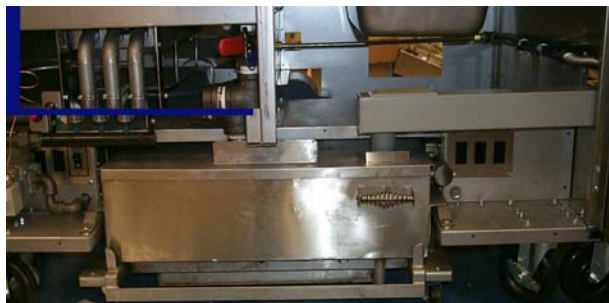
*Hold down ring latched into position.*

**CAUTION**

**Filter one frypot at a time. The filter pan is designed to safely hold the oil from one fryer only.**



*Filter Pan Lid Drain Holes*



*SCF99 ready for operation.*



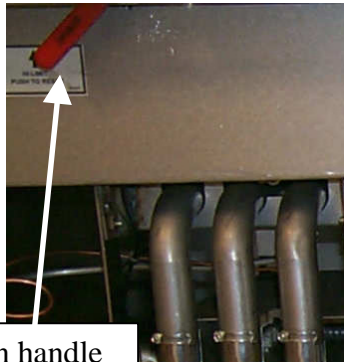
*Oil Pickup Tube*

#### 4. FILTER OPERATIONS:

##### a. Flatbottom 24G:

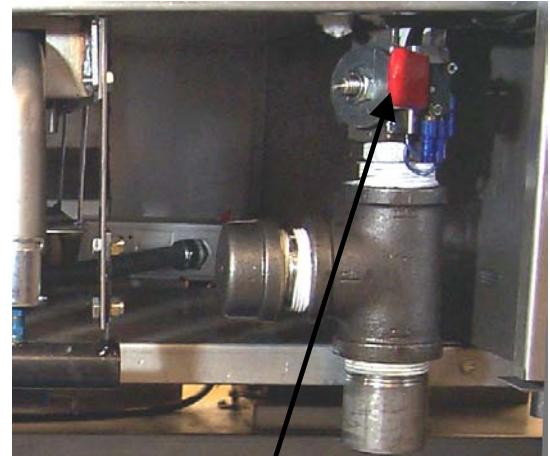
1. Stir the oil in the frypot with the L-shaped teflon brush.
2. Open the flatbottom frypot drain valve by turning the large red drain handle from the 9:00 o'clock position to the 6:00 o'clock position.
3. Continue stirring the oil in the frypot with the L-shaped teflon brush as the oil drains into the filter pan. Brush down the vessel sides to remove debris. Use the clean-out rod to clear the drain if necessary.

4. Open the oil return valve by turning the smaller red handle located under the control panel of the fryer. Move the handle left to right to open the oil return line. This will activate the filter pump also.



Oil return handle

Flatbottom 24G



Flatbottom Drain Valve in Closed Position

5. If the circuit breaker kicks out, this often means that there is an obstruction in the oil return lines.

***Note:*** *The filter circuit is protected by a 5-amp circuit breaker located under the control panel of the filter cabinet. If the circuit breaker trips, the filter pump will stop, manually reset breaker, and continue.*

6. **Polishing:** If desired, the oil can be polished. Leave the fryer drain valve open for approximately 5 minutes and allow the oil to circulate from the frypot into the filter and return to the frypot several times before closing the drain valve. The circulating oil will be cleansed repeatedly and polished by the micro filtering powder. Polishing extends oil life and improves cooking flavor.
7. Close the fryer drain valve. To close the flatbottom frypot drain valve, turn the large red drain handle from the 6:00 o'clock position to the 9:00 o'clock position. The frypot will begin to fill up with filtered oil.

***Note:*** *After filtering it may be necessary to discard filter paper before filtering another fryer. Replace filter paper when it becomes dark or scuffed in appearance or if refill time becomes extended.*

8. Allow the filter to pump bubbles into the fryer for approximately 10-15 seconds to ensure the evacuation of all oil from the filter pan and the oil return lines.
9. Turn the filter off by turning the oil return handle from right to left. This closes the oil return line to the filtered frypot and shuts down the filter pump motor.

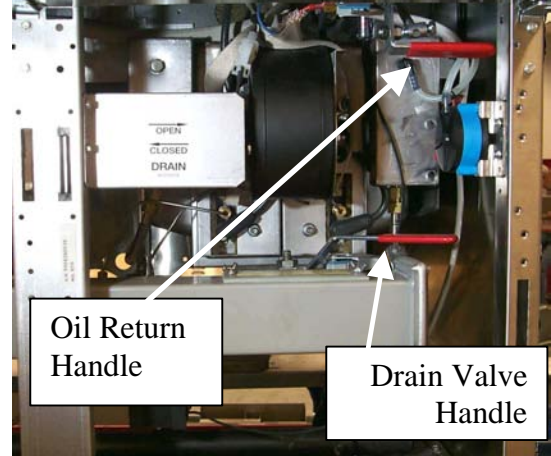


Air bubbles from the Oil Return Line



**b. H250 Fryers:**

1. Turn the lower red drain valve handle from left to right to open the drain valve. The photo below shows the drain valve in the open position.
2. Stir the oil in the frypot with the L-shaped teflon brush as the oil drains into the filter pan. Brush down the vessel sides to remove debris. Use the clean-out rod to clear the drain if necessary.
3. Open the oil return valve by turning the smaller red handles located under the frypot. The oil return handle is located above the drain valve handle. Push this handle away from you to open the oil return line. This will activate the filter pump also.
4. If the circuit breaker kicks out, this often means that there is an obstruction in the oil return lines.



*H250 Drain & Oil Return Handles*

***Note:*** *The filter circuit is protected by a 5-amp circuit breaker located under the control panel of the filter cabinet. If the circuit breaker trips, the filter pump will stop, manually reset breaker and continue.*

5. **Polishing:** If desired, the oil can be polished. Leave the fryer drain valve open for approximately 5 minutes and allow the oil to circulate from the frypot into the filter and return to the frypot several times before closing the drain valve. The circulating oil will be cleansed repeatedly and polished by the micro filtering powder. Polishing extends oil life and improves cooking flavor.
6. Close the fryer drain valve. Turn the lower red drain valve handle from right to left to close the drain valve. The frypot will begin to fill up with filtered oil.

***Note:*** *After filtering it may be necessary to discard filter paper before filtering another fryer. Replace filter paper when it becomes dark or scuffed in appearance or if refill times become extended.*

7. Allow the filter to pump bubbles into the fryer for approximately 10-15 seconds to ensure the evacuation of all oil from the filter pan and the oil return lines.
8. Turn the filter off by pulling the oil return handle towards you to close the oil return line. This shuts down the filter pump motor also.



*Air bubbles from the Oil Return Line*

## 5. FILTER TROUBLESHOOTING:

The problems and possible solutions covered are those most commonly encountered.

To troubleshoot, perform the test set-up at the beginning of each condition. Start at the top of the diagram. Arrows direct the troubleshooter through the sequence. Follow each step in sequence as shown in the troubleshooting diagrams.

### Troubleshooting Diagram Index

Section	Problem	Page
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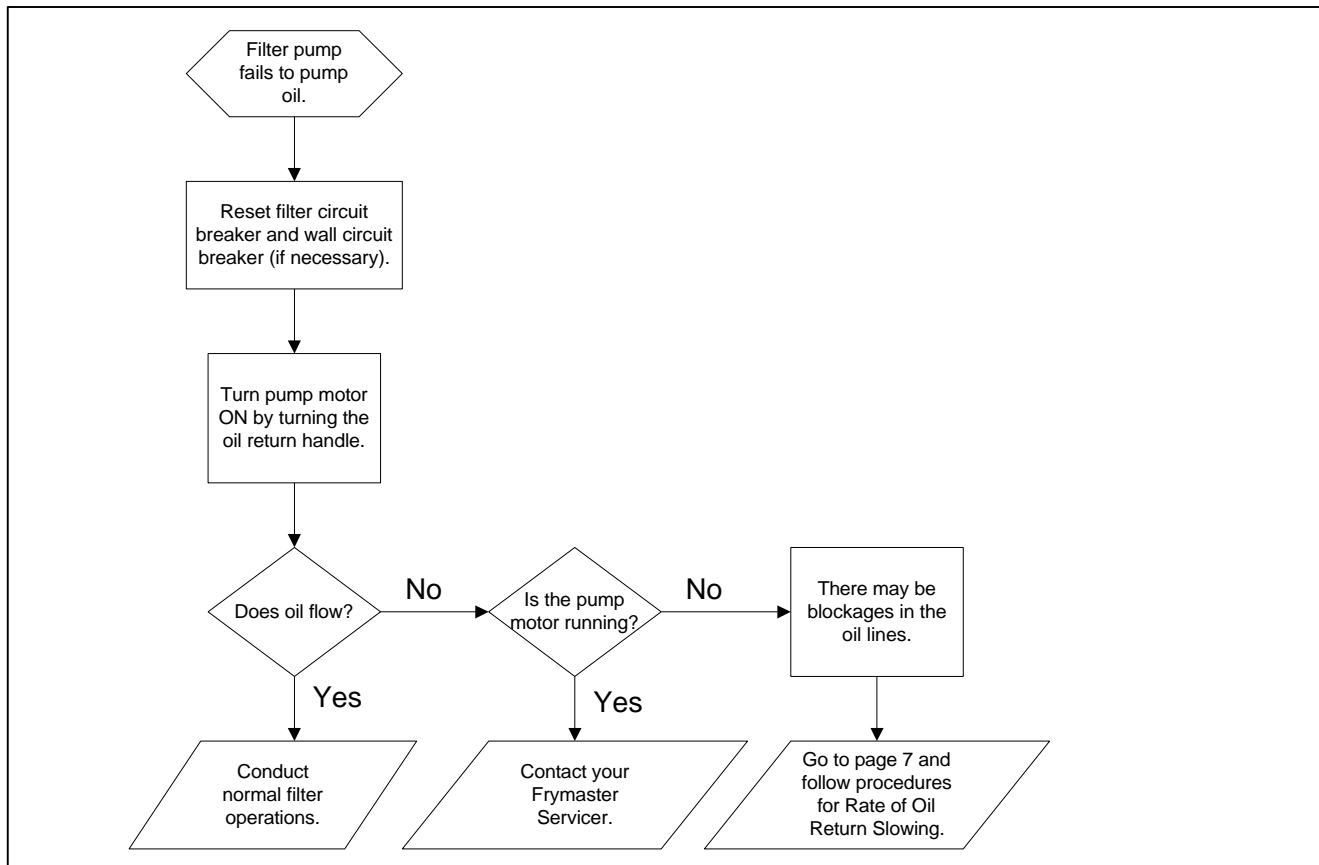


### WARNINGS!

**INSPECTION, TESTING, AND REPAIR OF GAS OR ELECTRICAL EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED PERSONNEL.**

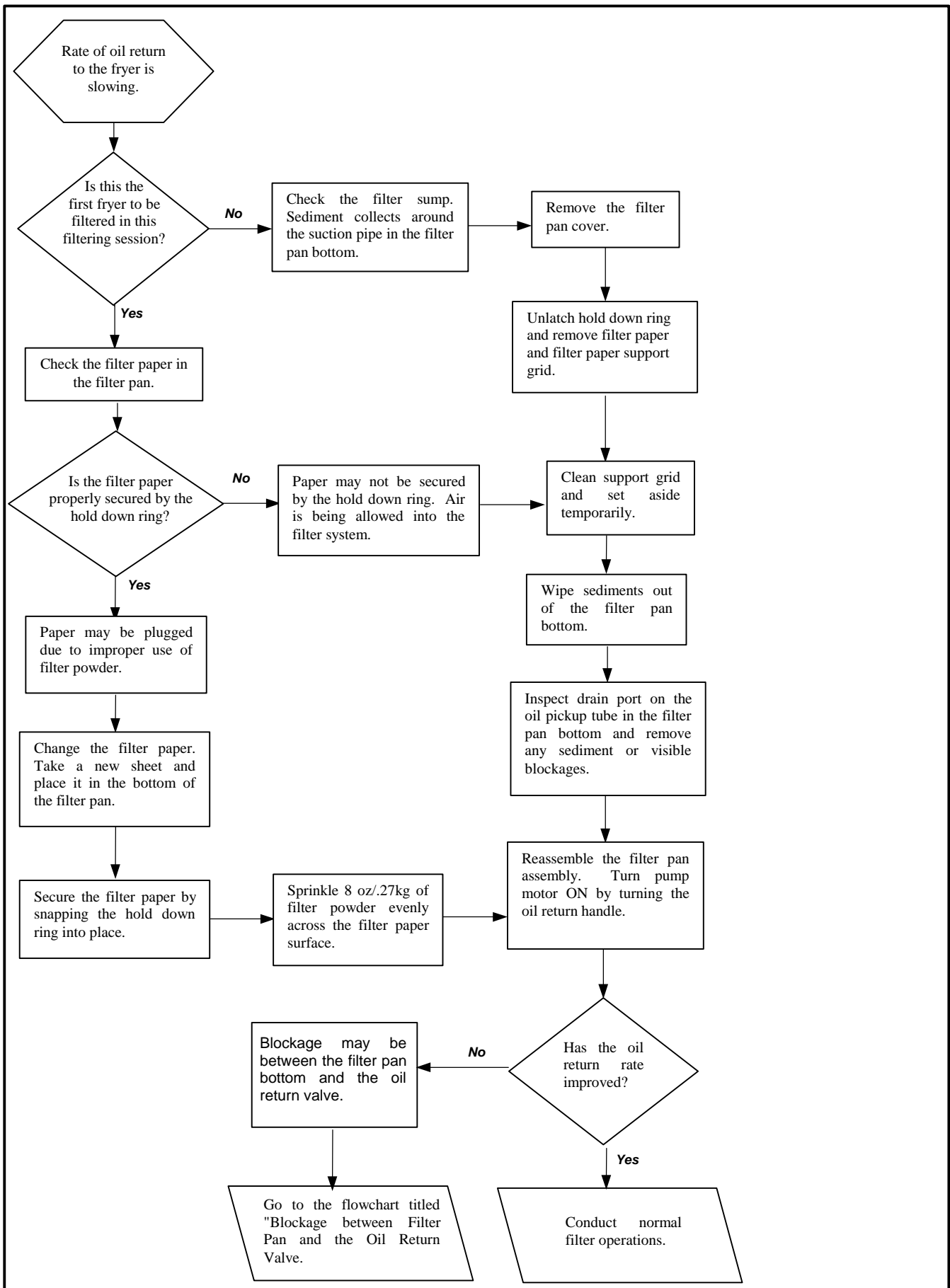
**USE EXTREME CARE DURING ELECTRICAL CIRCUIT TESTS. LIVE CIRCUIT WILL BE EXPOSED.**

### 5.1 SUPER CASCADE FILTER PUMP FAILS TO PUMP OIL?

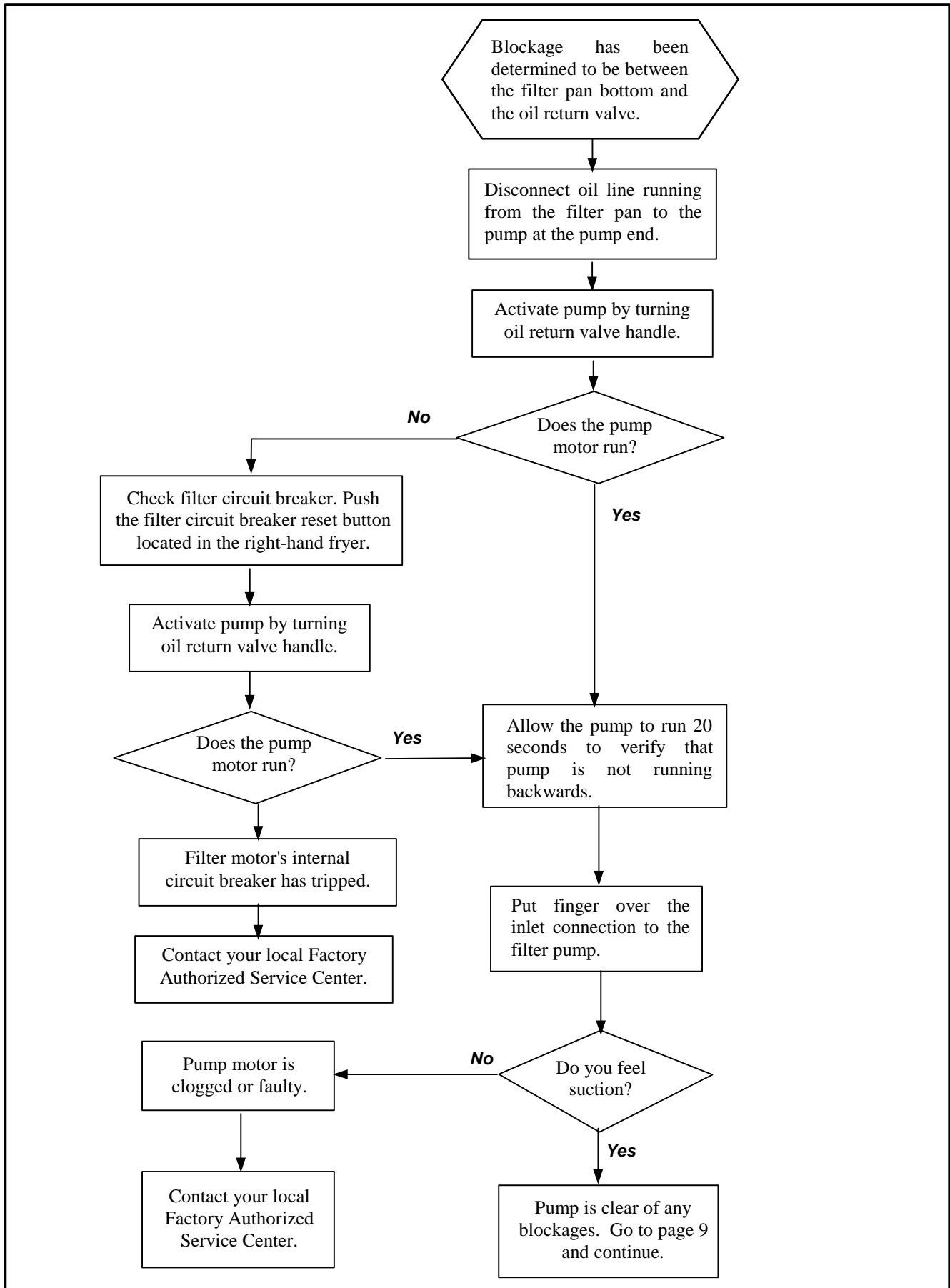


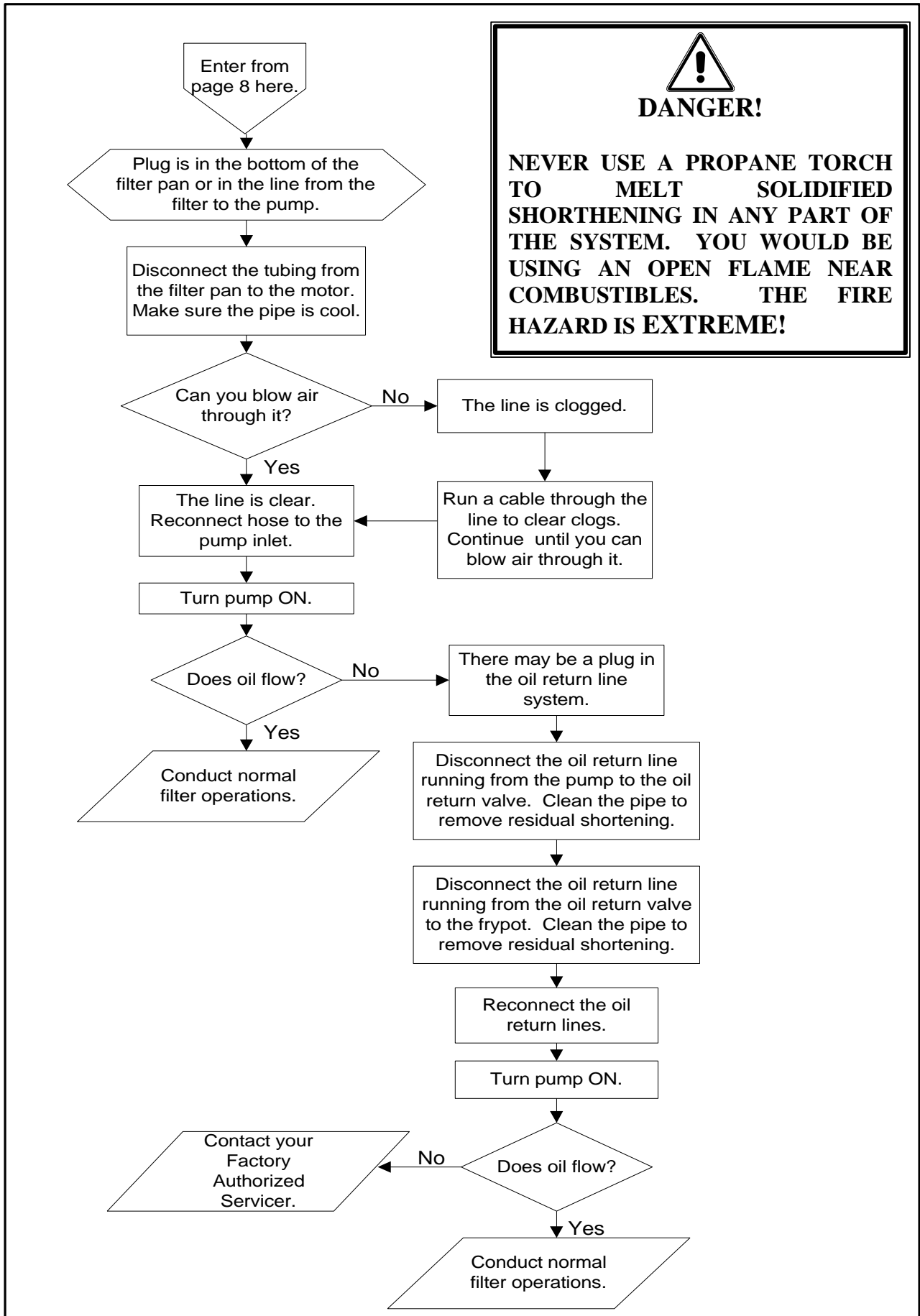



## 5.2 RATE OF OIL RETURN SLOWING?



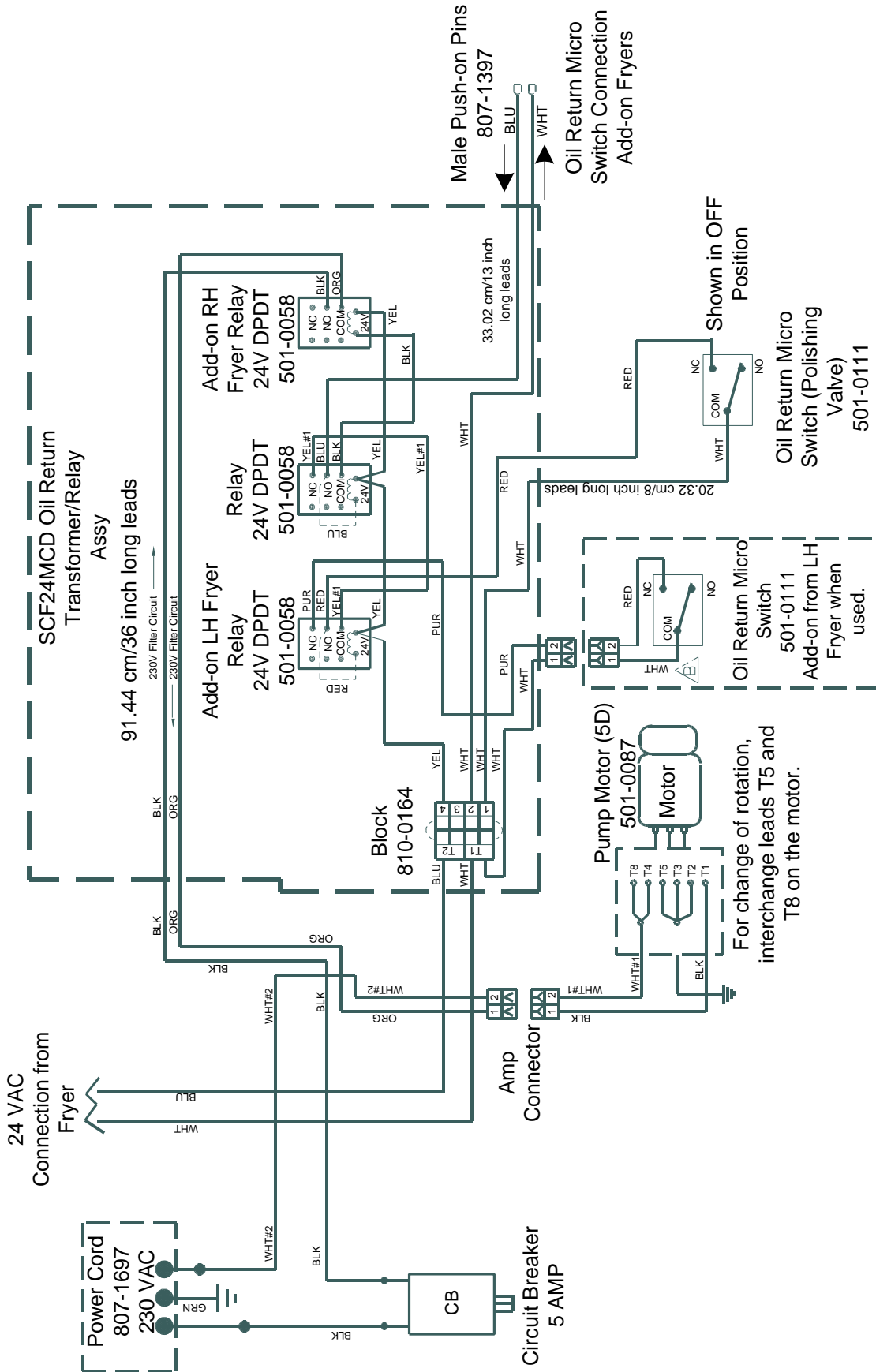
### 5.3 BLOCKAGE BETWEEN FILTER PAN AND OIL RETURN VALVE?





  
**DANGER!**  
**NEVER USE A PROPANE TORCH TO MELT SHORTENING IN ANY PART OF THE SYSTEM. YOU WOULD BE USING AN OPEN FLAME NEAR COMBUSTIBLES. THE FIRE HAZARD IS EXTREME!**

# 6. WIRING DIAGRAM (Super Cascade Filter (CE), 230VAC/50Hz)





Frymaster, L.L.C., 8700 Line Avenue, PO Box 51000, Shreveport, Louisiana 71135-1000  
Shipping Address: 8700 Line Avenue, Shreveport, Louisiana 71106

TEL 1-318-865-1711

FAX (Parts) 1-318-219-7140

(Tech Support) 1-318-219-7135

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