



Shortening Filter SF18/24/34

Operator's Manual and Technical Supplement

Belshaw Bros., Inc.
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Shortening Filter SF18, SF24 & SF34

Operator's Manual

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If you accept the machine from the shipping company, you are, in effect, saying that the machine is in good condition, and you must pay for the machine. Belshaw cannot pay for shipping damage, because the freight company has accepted the machine from Belshaw in good condition, and is responsible for its safe delivery. **For your protection,** inspect the machine to see that no parts are bent, scratched, or otherwise damaged. If any damage has occurred in shipping, file a freight claim with the shipping company immediately.

To unpack the Shortening Filter and transport it to the workstation:

1. In the kettle is a carton containing the motor. Remove this carton and take it to the workstation.
2. Remove the kettle from the frame assembly and take it to the workstation.
3. Move the rest of the Shortening Filter to the workstation.
4. Remove and discard all packing materials.

IMPORTANT

Keep this manual for future reference.

EQUIPMENT RECORD

Please provide the information below when you correspond with us about your machine.

Purchased by _____

Installed by _____

Date of Installation _____

Model number _____

Serial number _____

052009

MN-1407EN

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Preface

The Shortening Filter is designed to do the following things:

- To filter shortening
- To pump filtered shortening into fryer kettles
- To rinse fryer kettles with shortening

It is not designed to melt shortening or to filter or pump anything other than shortening.

The machine is available with the following electrical configurations:

- 115 volts, 1 phase, 50/60 hertz
- 220/240 volts, 1 phase, 50/60 hertz

The Shortening Filter is designed to be used on a flat, dry floor, underneath the drain of a fryer kettle. The operator must work safely at all times and read this manual and follow its instructions and warnings.

Study the instructions and warnings in this manual carefully. A thorough understanding of how to install, maintain, and safely operate the Shortening Filter will prevent production delays and injuries.

To use the Shortening Filter safely, heed the following warnings and all other warnings that appear in this manual:

- Never let water and hot shortening come in contact with each other. Moisture causes hot shortening to spatter, which may cause serious burns.
- Do not overfill the kettle of the Shortening Filter with shortening. If shortening overflows the kettle, it could cause serious burns or could cause someone to slip on the floor and be seriously injured.

- Hot shortening can cause serious burns. Make sure that proper protective gear (face shield, gloves and apron) are worn before filtering, disassembly and cleaning.
- To avoid electrocution or other injury, unplug the machine before attempting any adjustment, repair, disassembly, or cleaning.
- To avoid damaging the machine, never use force to assemble, disassemble, operate, clean, or maintain it.
- Be careful never to get shortening, water, or other materials on the floor. If anything does get spilled on the floor, mop it up immediately. Materials on the floor can cause people to slip or fall, resulting in serious injury or loss of life.
- To prevent unintentional startup and possible shortening spillage or fire, unplug the machine if there is a local power outage. When the power is restored, it is safe to plug the machine in again.
- To avoid electrocution, make sure that all electrical cords are not frayed or cracked and that they do not pass through any water or shortening.
- Make sure that all electrical cords are routed so that no one will trip over them.

1

Operation

To help familiarize yourself with the basic parts of the Shortening Filter, please study the photograph below.

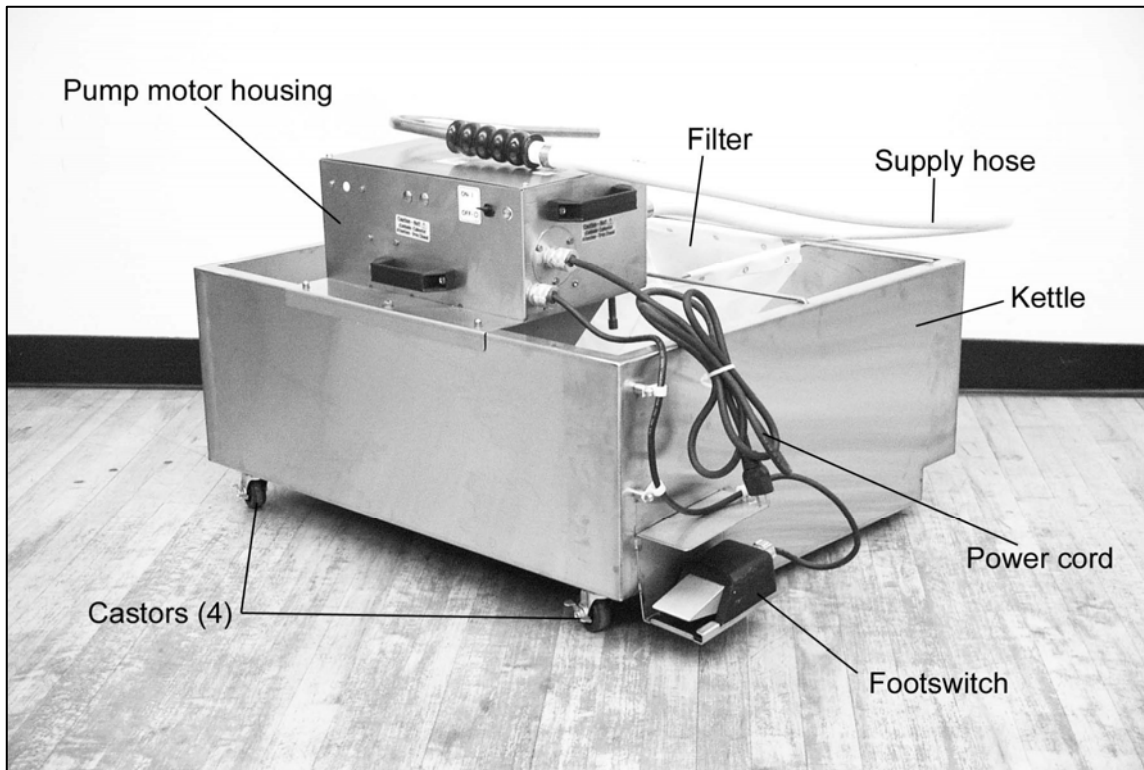


Figure 1-1. Shortening Filter, Model SF34.

WARNING

Be careful with hot shortening. Always wear proper protective gear (face shield, apron and gloves) when filtering, disassembling and cleaning

Read each step **completely** before doing what it tells you to do.

1. Turn off the fryer (heat/thermostat).

2. Wait for the shortening to cool to the right temperature for filtering, as indicated by the fryer's thermometer.

Shortening should be cooled to 250°F/121°C.

WARNING

Maximum filtering temperature is 325°F/163°C

Because hot shortening is dangerous, **FILTER SHORTENING AT THE LOWEST TEMPERATURE THAT WORKS.** Hot shortening may also trip the pump motor.

WARNING

Be careful with hot shortening. It can cause serious burns.

3. When the shortening has cooled to the right temperature for filtering, position the Shortening Filter so its filter bag is directly underneath the drain of the fryer.
4. Place the outlet nozzle of the hose into the fryer kettle.
5. Connect the Shortening Filter to an appropriate power source, as specified on the data plate.

WARNING

Make sure the filter is directly under the fryer's drain valve before you open the valve. If it is not, shortening will get on the floor, possibly resulting in slips, falls, injury, or even death. If the shortening is hot, someone could be seriously burned.

6. Slowly open the fryer's drain valve. The shortening will drain into the Shortening Filter. **Note: Do not open the valve completely, as shortening may splash.**
7. To rinse the fryer kettle with shortening, grasp the hose by the black handle, direct the nozzle into the fryer kettle, and turn on the filter pump.
8. After the power has been turned on, the footswitch (see Figure 2-1) must be depressed in order to start the pump.

9. When you are done rinsing the fryer kettle, turn off the filter pump and allow the fryer kettle to drain into the Shortening Filter.
10. When all the shortening has drained into the Shortening Filter, close the fryer's drain valve.
11. Being sure that the nozzle of the hose is in the fryer's kettle, turn on the filter pump and depress the footswitch to transfer the filtered shortening to the fryer.
12. When you are done transferring shortening, turn off the filter pump.
13. Unplug the machine.

2

Cleaning

WARNING

Be careful with hot shortening. Always wear proper protective gear (face shield, apron and gloves) when filtering, disassembling and cleaning

When preparing to clean the shortening filter, always follow these steps before cleaning.

1. Turn off the filter pump, unplug the machine.
2. Slide the Shortening Filter out from under the fryer.

CAUTION

If debris are picked up by the Shortening Filter's pump, the pump or motor might fail or be seriously damaged. To keep this from happening, clean the Shortening Filter at least once a week.

Daily Cleaning

1. Disconnect the filter hose assembly while still hot and drain any remaining shortening back into the filter kettle to prevent shortening from hardening in the hose.
2. Store the hose hanging vertically with the lower end of the hose in a metal container to catch any shortening that may drip.
3. Remove the filter frame assembly, with the filter bag attached, from the kettle.
4. Turn the filter bag upside down and empty the sediment from the bag into a waste container.

5. Back wash the filter bag with hot soapy water to remove food particles trapped in filter.
6. Wash filter bag using commercial dishwasher (water temperature 150°F/65°C minimum)
7. Dry the filter bag completely before reinstalling over the kettle.

Weekly Cleaning

Clean the Shortening Filter unit once a week, as follows:

WARNING

Turn off the filter pump before you disconnect the hose. If you fail to do so, you may be splattered with hot shortening.

1. Perform daily cleaning as previously described.

WARNING

Thoroughly clean and dry the floor if shortening, water, or other materials are spilled. Materials spilled on the floor may cause serious injury and loss of life.

2. Remove any remaining shortening from the kettle.
3. Remove the pump/motor housing assembly:
 - b) Remove the footswitch from the bracket (See Figure 2-1).
 - c) Detach the cord from the plastic retainer clips (See Figure 2-1).
 - d) Remove the hex bolt (See Figure 2-2).
 - e) Lift the pump/motor housing off of the locating pins (See Figure 2-2).

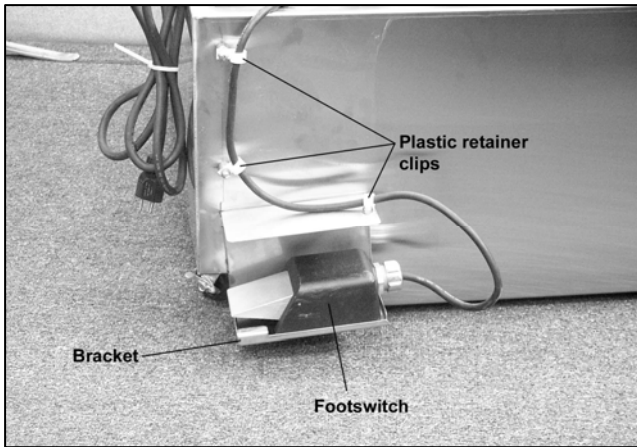


Figure 2-1. Footswitch.

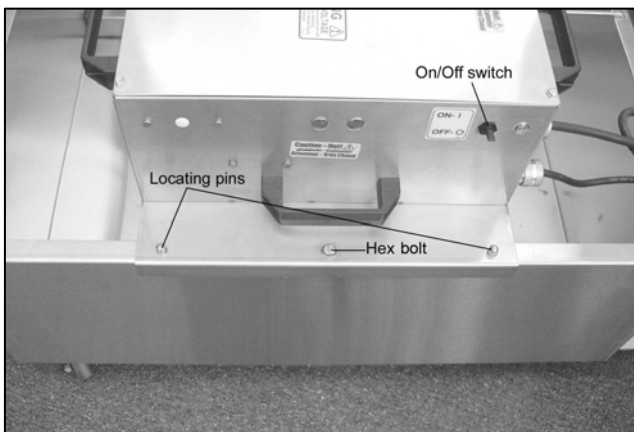


Figure 2-2. Pump motor housing.

2. Wash the kettle with household dishwashing detergent, rinse, and dry thoroughly.
3. Wipe the pump/motor housing and footswitch with a damp cloth. Never wash down the pump/motor housing or the footswitch. Dry thoroughly.
4. Reassemble the footswitch and housing.

CAUTION

Never allow water, steam, or any other liquid to enter the pump motor.

5. Dry all parts thoroughly.

WARNING

You must dry all parts thoroughly. Failure to dry the kettle completely will cause an eruption. Shortening will overflow the sides of the filter and may result in fire, injury or death.



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1. In the kettle is a carton containing the motor. Remove this carton and take it to the workstation.
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IMPORTANT

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Purchased by _____

Installed by _____

Date of Installation _____

Model number _____

Serial number _____

011108

MN-1408EN

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Preface

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Study the instructions and warnings in this manual carefully. A thorough understanding of how to install, maintain, and safely operate the Shortening Filter will prevent production delays and injuries.

To use the Shortening Filter safely, heed the following warnings and all other warnings that appear in this manual:

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- Hot shortening can cause serious burns. Make sure that proper protective gear (face shield, gloves and apron) are worn before filtering, disassembly and cleaning.
- To avoid electrocution or other injury, unplug the machine before attempting any adjustment, repair, disassembly, or cleaning.
- To avoid damaging the machine, never use force to assemble, disassemble, operate, clean, or maintain it.
- Be careful never to get shortening, water, or other materials on the floor. If anything does get spilled on the floor, mop it up immediately. Materials on the floor can cause people to slip or fall, resulting in serious injury or loss of life.
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1

Installation

To help familiarize yourself with the basic parts of the Shortening Filter, please study the photograph below.

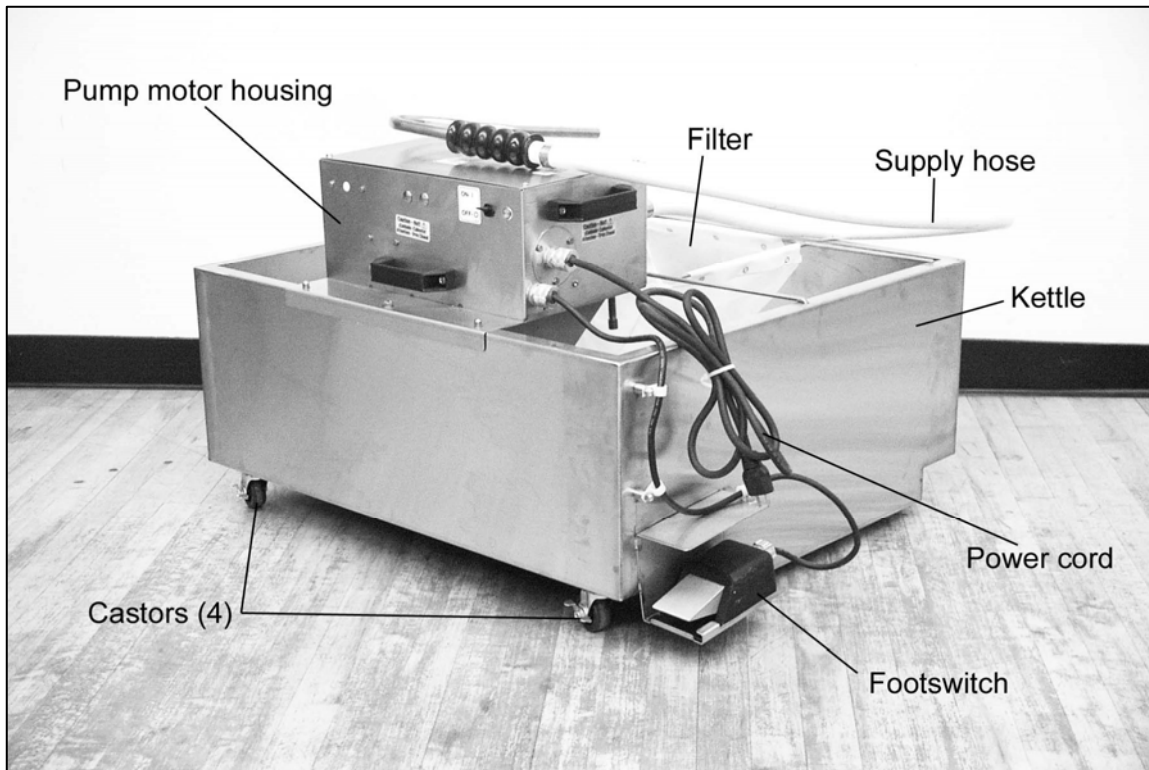


Figure 1-1. Shortening Filter, Model SF34.

Initial Cleaning

Before using your new Shortening Filter, clean it as follows:

1. Remove all packing materials.
2. Remove the pump/motor housing assembly:
 - a. Remove the footswitch from the bracket (See Figure 1-2).
 - b. Detach the cord from the plastic retainer clips (See Figure 1-2).
 - c. Remove the hex bolt (See Figure 1-3).
 - d. Lift the pump/motor housing off of the locating pins (See Figure 1-3).

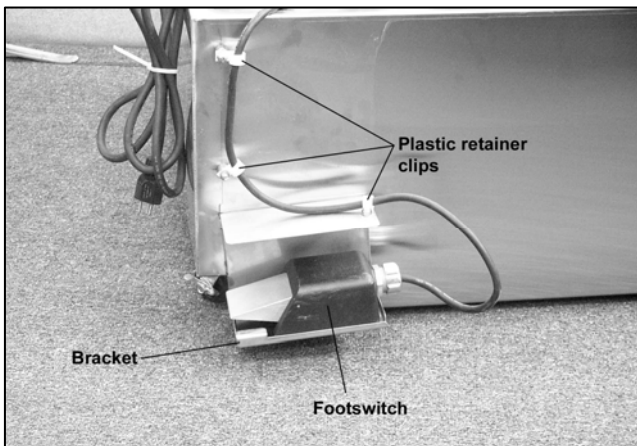


Figure 1-2. Footswitch.

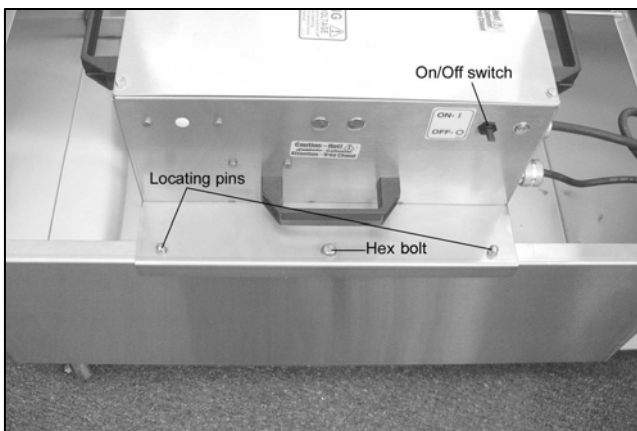


Figure 1-3. Pump motor housing.

CAUTION

Never allow water, steam, or any other liquid to come into contact with the pump motor.

3. Wash the kettle with household dishwashing detergent, rinse, and dry thoroughly.
4. Wipe the pump/motor housing and footswitch with a damp cloth. Never wash down the pump/motor housing or the footswitch. Dry thoroughly.
5. Reassemble the footswitch and housing.

WARNING

You must dry all parts thoroughly. Moisture causes hot shortening to splatter, which could cause serious burns.

Assembling the Shortening Filter

1. Install the filter bag as follows:
2. With the filter frame in hand, take the filter bag and attach it to the frame using the snaps. See Figure 1-4.

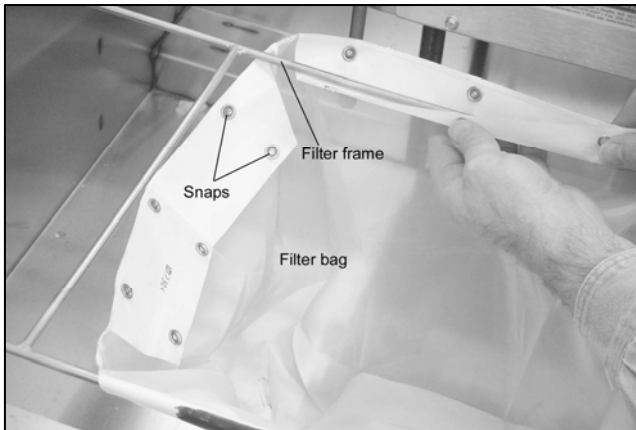


Figure 1-4. Installing the filter bag.

3. Install the filter assembly (the frame with the filter bag attached) onto the kettle. See Figure 1-5.

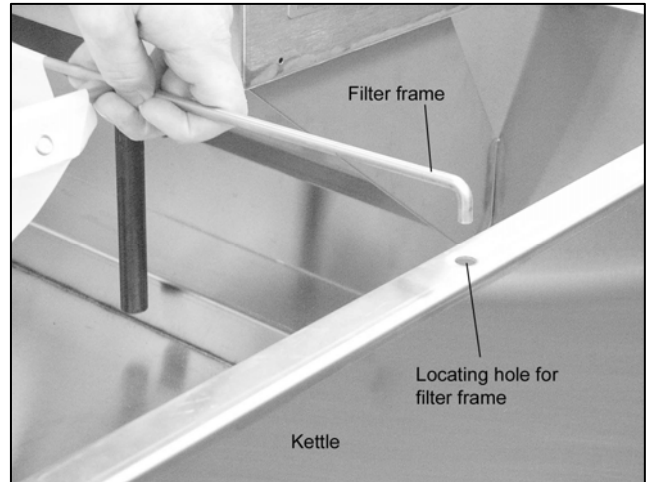


Figure 1-5. Installing the filter frame.

4. Install the filter hose assembly. Thread the coupling nut onto the end of the hose assembly as shown in Figure 1-6.

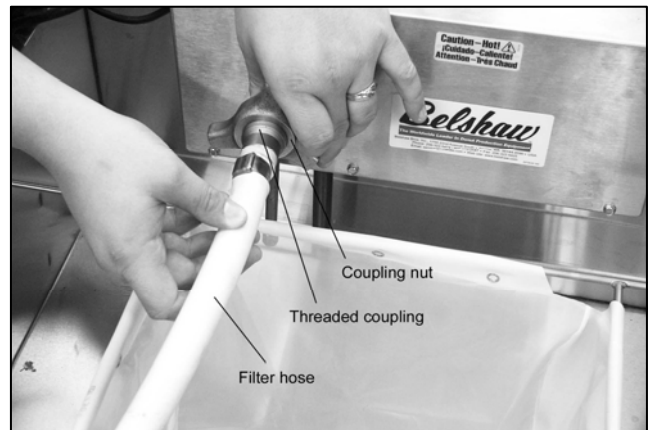


Figure 1-6. Installing the filter hose.

2

Troubleshooting

If you have problems with your Shortening Filter, call your dealer or another qualified technician.

If your dealer cannot help you, please call Belshaw at 206-322-5474. When you call, please specify the following:

- The model number of the machine.
- The serial number of the machine.
- The voltage, phase, and cycle of the machine.

CAUTION

If you perform repairs yourself or have them performed by anyone other than a service technician authorized by Belshaw Bros., you do so at your own risk.

If your dealer or another local, qualified technician cannot provide service for your machine, Belshaw can provide factory service. First call us for a return goods authorization. Then send your machine to us, freight prepaid,

with your instructions for service, your phone number, and the name of the person for us to contact when we have made a cost estimate. In most cases, the machine can be shipped back, freight collect, within five days.

To avoid down time, call us to see whether we have a machine we can loan to you while your machine is being serviced.

Ship machines in need of servicing to:

Belshaw Bros., Inc.
814 44th Street NW, Suite 103
Auburn, WA 98001 USA

On the following page is a troubleshooting chart to help you identify and solve some basic problems.

WARNING

Disconnect the machine from the power source before disassembling, repairing, or wiring.

THE PUMP MOTOR WILL NOT OPERATE.	
Possible Causes	What To Do
The power cord is not connected to the power supply.	Connect the power cord to the power supply.
The power supply does not match the power requirements of the machine as specified on the data plate.	Connect the machine to a proper power supply.
The circuit breaker has been tripped.	Push the reset button.
	WARNING
	Before doing the following, turn off the machine, allow it to cool, and disconnect it from the power source.
The wiring is faulty.	Correct the wiring. Call Belshaw for help.
The power switch is defective.	Repair or replace the power switch.
The motor is defective.	Repair or replace the motor.
THE SHORTENING FLOW THROUGH THE SYSTEM IS SLOW OR RESTRICTED.	
Possible Causes	What To Do
The hose is crimped.	Straighten the hose.
Solid shortening is building up inside the hose and pump	Filter shortening at a higher temperature.
	WARNING
	Before doing any of the following, turn off the machine and allow it to cool.
The hose is plugged.	Clean the hose.
The pickup tube is plugged.	Clean the pickup tube.
The bleeder tube is plugged.	Clean the bleeder tube.

Parts List Drawing Insert Page