

MIES FILTER MACHINE MANUAL

ASSEMBLY, OPERATION, SERVICE, & PARTS
For G50, G80, & G100 Models



ALL OPERATORS SHOULD THOROUGHLY READ AND UNDERSTAND THIS MANUAL
BEFORE OPERATING YOUR MIES FILTER MACHINE.

LIMITED WARRANTY

Mies Products, Inc. ("Mies") warrants this filter machine and its parts to be free from manufacturing defects for a period of six months after the original date of consumer purchase.

This warranty does not include damage to the product resulting from transportation, accident, abuse, neglect, improper assembly or maintenance, modification, normal wear and use, or similar incidents.

Mies' obligation under this limited warranty is limited to making good at an authorized Mies Dealer or at Mies Products, Inc., 505 Commerce St., West Bend, WI 53090, for repair or replacement at our option. Transportation charges or labor charges are not covered by this limited warranty. Must include name, address, prepaid postage, telephone number, written explanation of problem, and proof of purchase or copy of original bill of sale when returning product for warranty service.

Any modification to the machine or its parts makes this warranty null and void.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, APPLICABLE TO MIES FILTER MACHINES AND PARTS, OTHER THAN THE LIMITED WARRANTY OUTLINED ABOVE. MIES SPECIFICALLY DISCLAIMS AND EXCLUDES ANY AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

MIES' LIABILITY TO BUYER UNDER THESE WARRANTIES FOR THE PRODUCT IS LIMITED AS SET FORTH HEREIN, WHETHER IN CONTRACT, TORT, OR ANY OTHER THEORY OF LIABILITY, INCLUDING BUT NOT LIMITED TO FRAUD, MISREPRESENTATION, BREACH OF CONTRACT, PERSONAL INJURY, PRODUCTS LIABILITY OR ANY OTHER THEORY, AND MIES SHALL NOT BE LIABLE FOR ANY SPECIAL, DIRECT, COMMERCIAL, EXEMPLARY, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES, OR DAMAGES FOR LOSS OF USE, LOSS OF ANTICIPATED PROFITS, INCOME, OR ECONOMIC LOSSES OF ANY KIND. MIES' LIABILITY UNDER ANY WARRANTY HEREUNDER, WHETHER EXPRESS OR IMPLIED, SHALL NOT EXCEED THE COST OF REPAIR OR REPLACEMENT OF DEFECTIVE PARTS OF THE PRODUCT OR THE PRODUCT. BUYER MAY NOT BRING ANY ACTION UNDER THESE WARRANTIES MORE THAN ONE YEAR AFTER THE CAUSE OF ACTION HAS ACCRUED.

This warranty gives you specified legal rights, and you may have other rights which vary from state to state.

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INTRODUCTION

This manual has been produced to provide persons responsible for the operation of a Mies Filter Machine with a simple but thorough understanding of its proper use. We urge that the manual be thoroughly read and understood prior to putting the unit into operation.

Simple care and maintenance procedures are outlined and cleaning procedures pointed out.

Should repair or adjustment of the unit become necessary, we suggest that you contact your local Mies Dealer or Mies Products for assistance.

ABOUT YOUR MIES FILTER MACHINE

Your new Mies Filter Machine is designed primarily to filter out particles of food which remain in shortening (cooking oil) after it is used. These particles, if not routinely removed, will ultimately ruin shortening.

You can measurably extend the useful life of your shortening by the regular and proper use of the Mies Filter Machine you have just purchased.

IMPORTANT.....Always use genuine Mies Karbonaid XX Filter Aid Power and Mies Filter Paper (50 Lb. Weight) for best filtering results (must be used as directed).

SPECIFICATIONS

MIES FILTER MACHINES	G50P	G50PS	G80S **	G100	G100S
Tank Capacity	30-50 lbs.	30-50 lbs.	50-80 lbs.	100-150 lbs.	100-150 lbs.
Tank Height	10"	10"	9 1/2"	12 3/4"	12 3/4"
Height Assembled <i>*Add 8 1/2" for pump & motor</i>	11"	11"	9 3/4"	13"	13"
Tank Diameter	23"	23"	25"	25"	25"
Pump	5 G.P.M	5 G.P.M	5 G.P.M	5 G.P.M	5 G.P.M
Filter Paper Size	13 3/4"	13 3/4"	18 3/8"	18 3/8"	18 3/8"
Approximate Shipping Weights	86 lbs.	98 lbs.	110 lbs.	98 lbs.	112 lbs.

****NOTE:** Model G80S is no longer available for purchase Replacement parts for this model are still available but on a limited basis.

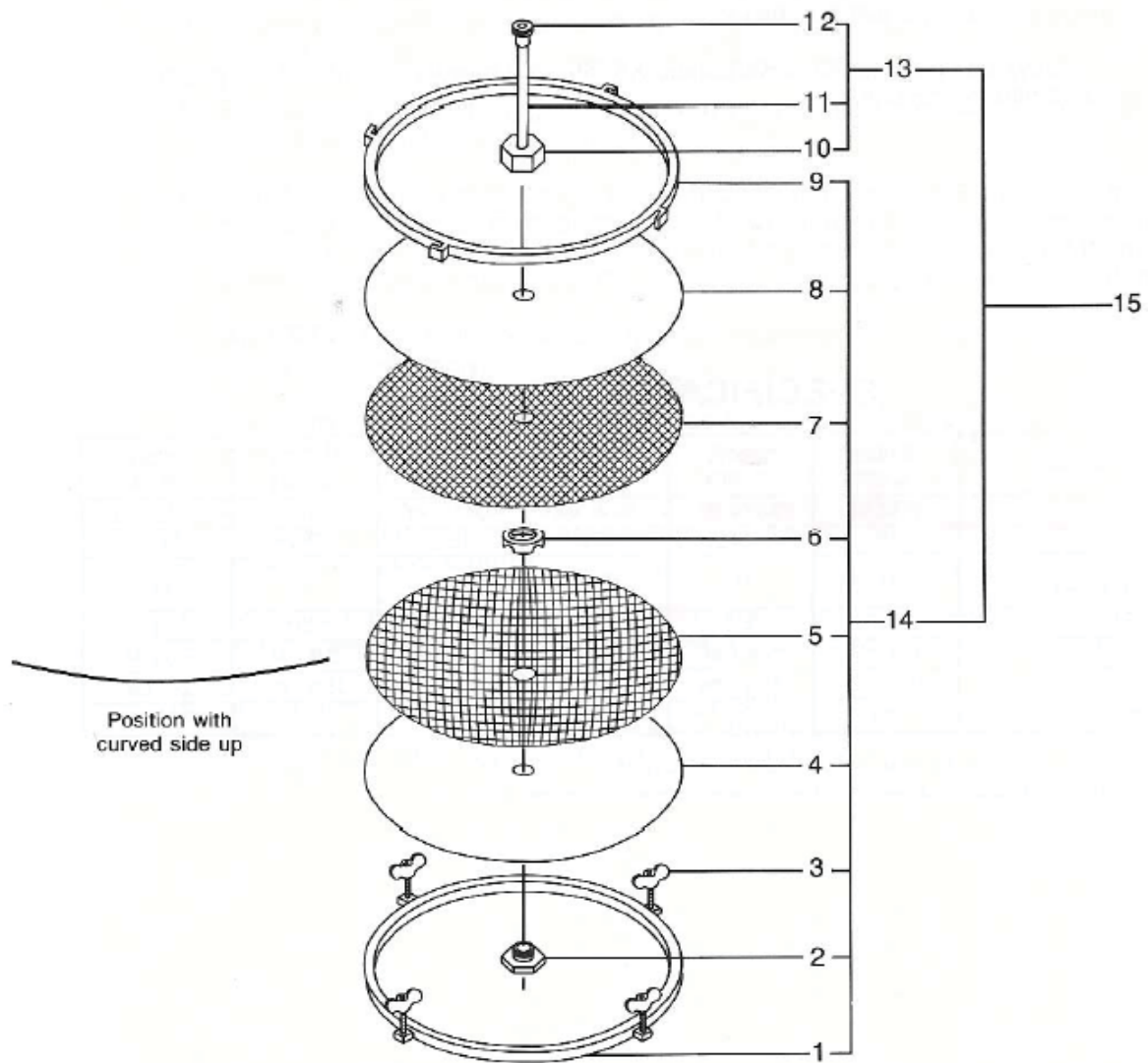
SAFETY PRECAUTIONS

1. Use extreme caution when working with hot shortening.
2. **WARNING!** Tank guard must be in position at all times to help prevent accidental burns from hot shortening.
3. Never direct nozzle toward anyone or allow this machine to run unattended.
4. Always wear protective gear such as heavy duty gloves, face shield, and apron at start of filtering process.
5. Before starting the filtering process always check hose connection and hose fittings to make certain that all are secure.
6. **WARNING!** Before each use, a visual inspection of the HOSE should be made for loose covers, cracks, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and if there is any sign of movement of the hose from the couplings, the hose should be removed from service.

IMPORTANT! If return hose is in need of replacement – replace only with a Mies Return Hose Assembly (Item 3R or 3RQ).

7. Do not move filter machine by pulling on the electrical cord. This could result in damage to service cord connection on the motor unit.
8. Do not move filter machine by pulling on the return hose. This could result in damage to the hose and loosen the hose fittings, causing it to leak hot shortening and create the possibility of severe burns.
9. Do not turn motor switch on unless Mies Return Hose is properly connected to pump fitting. And make certain that nozzle is positioned solidly in nozzle holder.
10. Do not make any modifications or design changes on the Mies Return Hose, nozzle, standpipe assembly, pump and motor, or any other parts on the Mies Filter Machine, nor use it for any other purpose than its intended use.

DIAGRAM - FILTER PLATE ASSEMBLY WITH STANDPIPE



NOTE: Model G50 Series has only (3) Wing Nut fasteners.

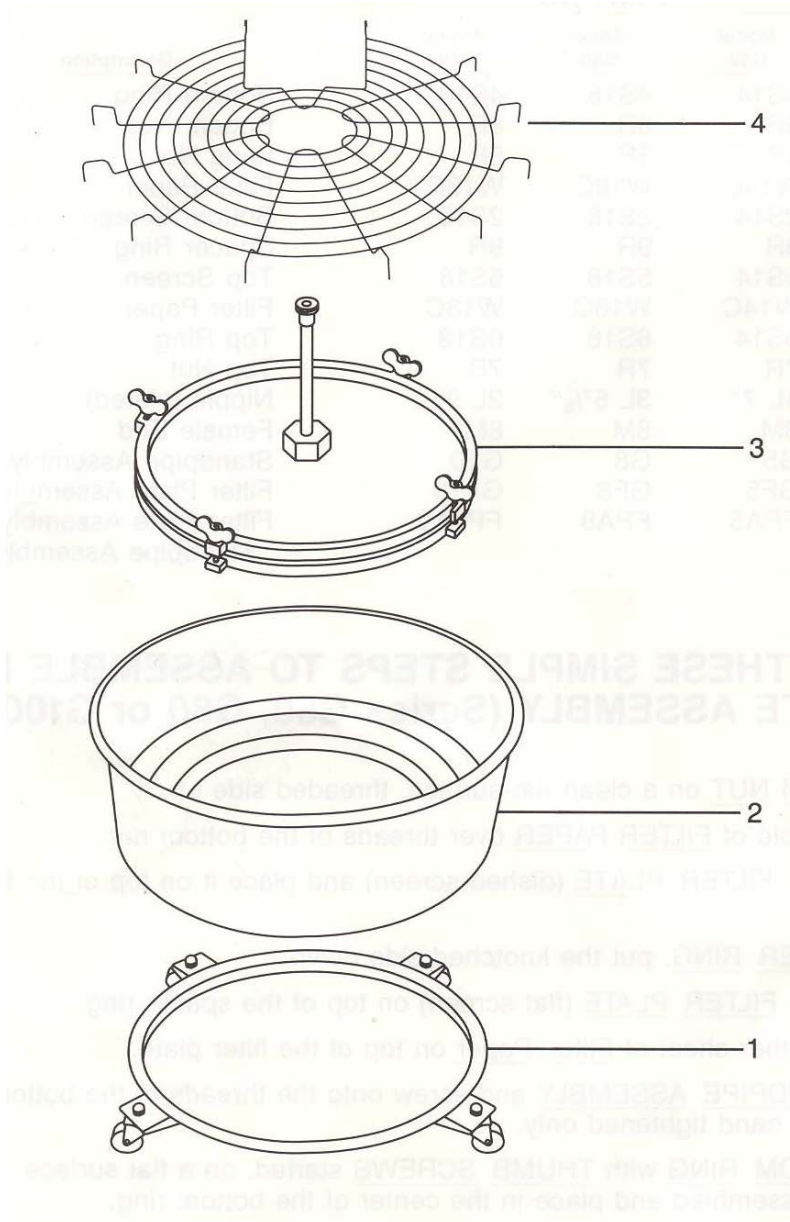
FOLLOW THESE SIMPLE STEPS TO ASSEMBLE THE FILTER PLATE ASSEMBLY

1. Place Bottom Nut on a clean flat surface, threaded side up.
2. Place center hole of Filter Paper over threads of the Bottom Nut.
3. Take Bottom Filter Plate (dished screen) and place it on top of the Filter Paper, curved side up.
4. Add the Spacer Ring, put the notched side down.
5. Place the Top Filter Plate (flat screen) on top of the Spacer Ring.
6. Now place another sheet of Filter Paper on top of the Filter Plate.
7. Take the Standpipe Assembly and screw onto the thread on the Bottom Nut. This should be hand tightened only.
8. Lay the Bottom Ring with Wing Nuts started, on a flat surface. Take parts that are now assembled and place in the center of the Bottom Ring.
9. Place the Top Ring in position (with open end of guides facing clockwise) and tighten Wing Nuts.
10. Your Filter Plate Assembly is now ready to be placed in the Filter Tank.

PARTS LIST

KEY NO.	PART NO.			DESCRIPTION
	MODEL G50	MODEL G80	MODEL G100	
1	4S14	4S18	4S18	Bottom Ring
2	8R	8R	8R	Bottom Nut
3	5P	5P	5P	Wing Nut
4	100W14C	100W18C	100W18C	Filter Paper
5	2S14	2S18	2S18	Bottom Screen
6	9R	9R	9R	Spacer Ring
7	5S14	5S18	5S18	Top Screen
8	100W14C	100W18C	100W18C	Filter Paper
9	6S14	6S18	6S18	Top Ring
10	7R	7R	7R	Top Nut
11	4L	3L	2L	Nipple (plated)
12	8M	8M	8M	Female End
13	G5	G8	G10	Standpipe Assembly
14	GF5	GF8	GF10	Filter Plate Assembly
15	FPA5	FPA8	FPA10	Filter Plate Assembly & Standpipe Assembly

DIAGRAM - FILTER MACHINE



NOTE: Model G50 Series has only (3) Wing Nut fasteners.

FOLLOW THESE SIMPLE STEPS TO ASSEMBLE THE FILTER MACHINE

1. Assemble Filter Plate Assembly and Standpipe – See Page 5 & 6.
2. Place Filter Tank in Dolly Ring.
3. Place assembled Filter Plate Assembly and Standpipe in Filter Tank.
4. Place Tank Guard on top of Filter Tank.

WARNING! The safety Tank Guard must be in position at all times to help prevent accidental burns from hot shortening.

5. Set the Pump and Motor Unit on edge of Filter Tank (fits in square opening on Tank Guard) and screw union to Standpipe – See Figure 3 below. Make sure that the Standpipe fitting and Bottom Pump fitting are properly mated before hand tightening the handle bar union.
6. Insert nozzle in nozzle holder provided on the motor. Then, screw hose fitting to pump union – see Figure 4 below. Make sure that the hose fitting and Top Pump fitting are properly mated before hand tightening the handle bar union.

Figure 3



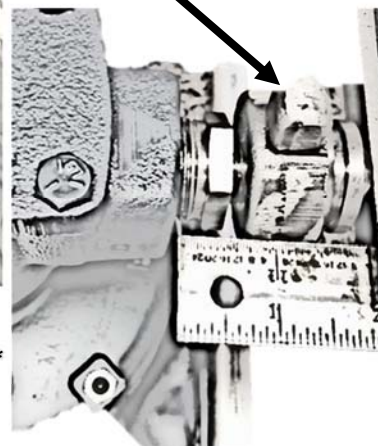
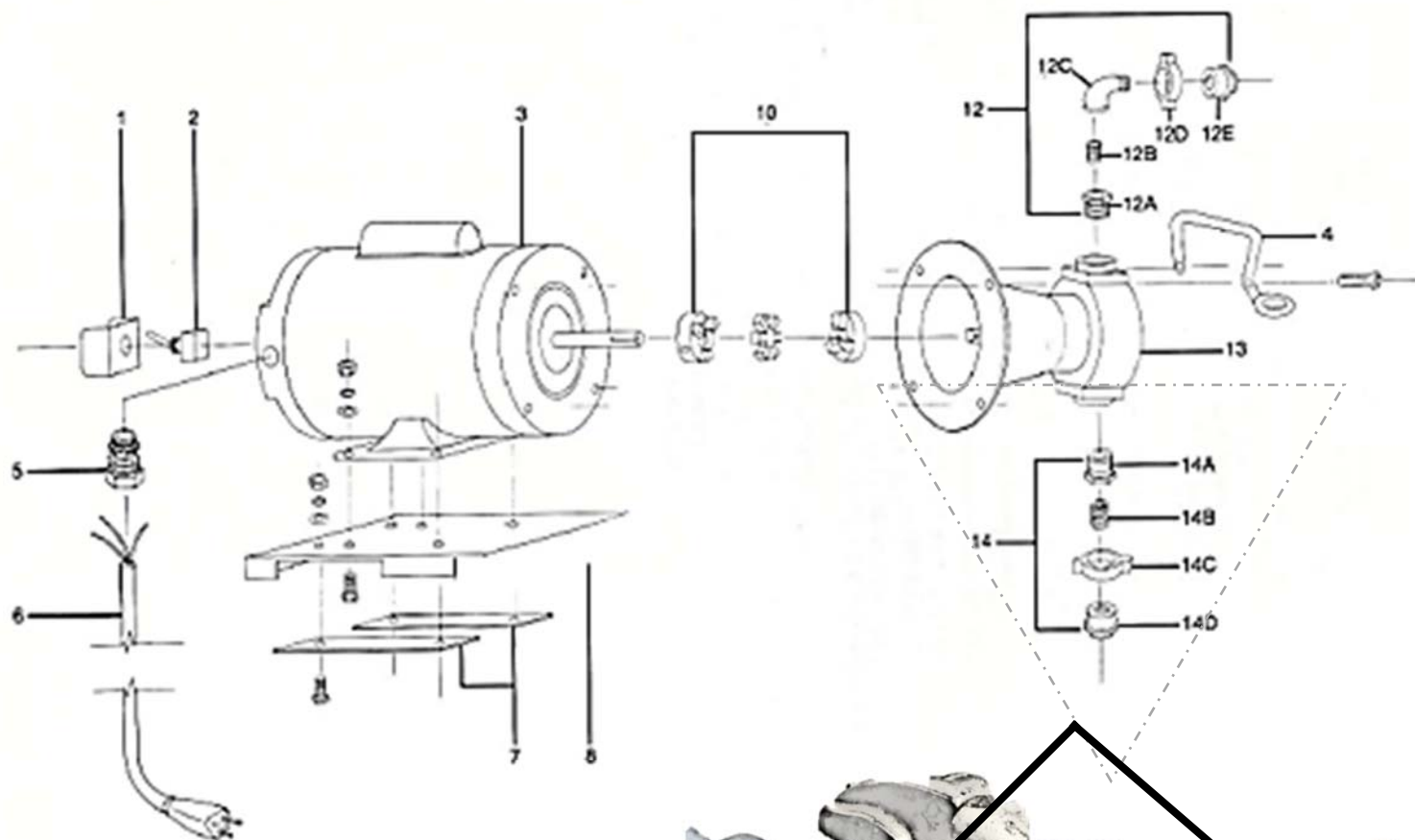
Figure 4



PARTS LIST

KEY NO.	PART NO.			DESCRIPTION
	MODEL G50	MODEL G80	MODEL G100	
1	5T	6T	6T	Dolly Assembly
2	1U50S	1U80S	1U100S	Filter Tank (Steel)
	1U50	-	1U100	Filter Tank (Aluminum)
3	FPA5	FPA8	FPA10	Filter Plate Assembly & Standpipe Assembly
4	8T	7T	7T	Tank Guard

PUMP & MOTOR UNIT (GRAY MOTOR)



****Hand tighten #14 to #13 -
so #14 measures at 1- 7/8 Inches.****

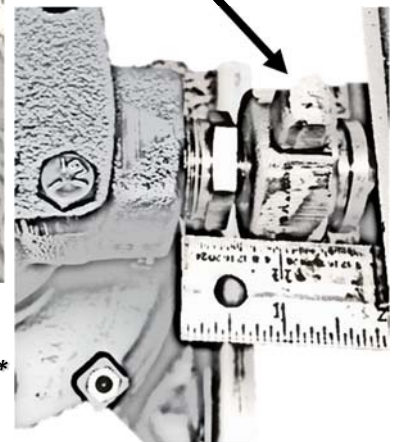
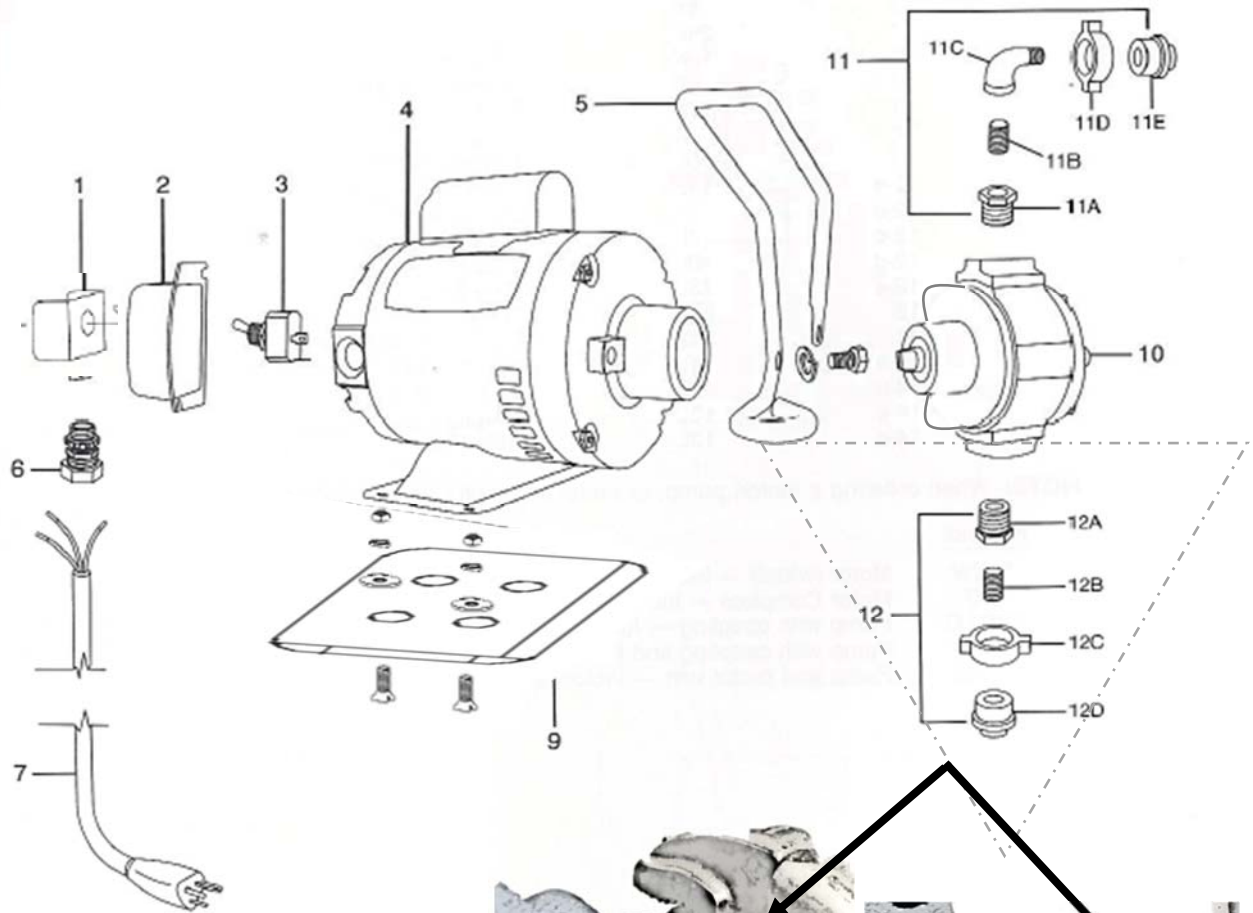
PARTS LIST

KEY NO.	PART NO.	DESCRIPTION
1	6K	Switch Guard
2	14K	Motor Switch
*3	1K	Motor
4	3K	Motor Handle
5	1-7K	Strain Relief
6	8K	Cord with Plug
7	26KR	Rubber Strip (Each)
8	12K	Motor Base Plate
10	2K	Coupler Kit
12	25L	Top Pump Fitting
12A	14L	Hex Head Bushing
12B	7L	Closed Nipple
12C	17L	Street Elbow
12D	10L	Coupler
12E	13L	Male End
*13	21L	Pump
14	24L	Bottom Pump Fittings
14A	14L	Hex Head Bushing
14B	7L	Closed Nipple
14C	10L	Coupler
14D	13L	Male End

**Item Not Sold Individually – See Below For Units Sold*

PART NO.	DESCRIPTION
1KW	Motor (Wired) - Includes Items 1, 2, 3, 5, 6, & 9
1KF	Motor Complete - Includes Items 1, 2, 3, 5, 6, 7, 8, & 9
21LC	Pump with Coupling - Includes Items 11 & 13
21LF	Pump with Coupling & Fittings - Includes Items 11, 12, 13, & 14
1PM	Pump & Motor Unit - Includes All Parts

PUMP & MOTOR UNIT (BLUE MOTOR)



****Hand tighten #12 to #10 -
so #12 measures at 1- 7/8 Inches.****

PARTS LIST

KEY NO.	PART NO.	DESCRIPTION
1	6K	Switch Guard
2	7H	Switch Cover
3	5H	Motor Switch
*4	1H	Motor
5	4H	Motor Handle
6	1-7K	Strain Relief
7	8K	Cored with Plug
9	3H	Motor Base Plate
*10	2H	Pump
11	25L	Top Pump Fitting
11A	14L	Hex Head Bushing (3/8" x 3/4")
11B	7L	Closed Nipple (3/8")
11C	17L	Street Elbow (3/8")
11D	10L	Coupler
11E	13L	Male End
12	24L	Bottom Pump Fittings
12A	14L	Hex Head Bushing (3/8" x 3/4")
12B	7L	Closed Nipple (3/8")
12C	10L	Coupler
12D	13L	Male End

**Item Not Sold Individually – See Below For Units Sold*

PART NO.	DESCRIPTION
1HW	Motor (Wired) - Includes Items 1, 2, 3, 4, 6, & 7
1HF	Motor Complete - Includes Items 1, 2, 3, 4, 6, 7, 8, & 9
2HF	Pump with Fittings - Includes Items 10, 11, & 12
8H	Pump & Motor Unit - Includes All Parts

RETURN HOSE

WARNING! Before each use, a visual inspection of the HOSE should be made for loose covers, cracks, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and if there is any sign of movement of the hose from the couplings, the hose should be removed from service.

IMPORTANT! If return hose is in need of replacement – replace only with a Mies Return Hose Assembly (Item 3R or 3RQ).

CAUTION! Return Hose Assembly rated for filtering shortening at 325°F or below. Do not filter above 325°.



PART NO.	DESCRIPTION
3R	Return Hose with Fittings (Swivel on Handle End Only)
3RQ	Return Hose with Fittings (Swivel on Both Ends)

FILTERING TIPS

Filter all shortening at least once a day – at end of day.

1. Use new Filter Paper at the start of the filtering process.
2. Add approximately 1 Lb. of Karbonaid XX Filter Aid Powder for 50 Lbs. of shortening.
3. Ideal shortening temperature for filtering is approximately 325°F.
4. It is recommended that a strainer be used to catch loose particles when draining hot shortening into filter tank, to facilitate fast, efficient flow of shortening during the filtering process.

IMPORTANT.....Always use genuine Mies Karbonaid XX Filter Aid Powder and Mies Filter Paper (50 Lb. Weight) for best filtering results (must be used as directed).

DIRECTIONS FOR FILTERING

CAUTION! Wear protective equipment such as heavy duty gloves, face shield, and apron at the start of the filtering process.

1. Shortening must be hot (approximately 325°F) in order to assure proper degree of shortening viscosity for quick, efficient filtering.
2. Roll assembled Filter Machine in position under fryer drain. Open drain and allow hot shortening to drain into filter tank.

NOTE! It is recommended that a strainer be used to catch large particles when draining hot shortening into filter tank.

3. When fryer is empty, leave drain open. Direct hose nozzle into fryer and turn on motor switch. Flush sediment from fryer with hot shortening.
4. When fryer is clear of all sediment, turn off motor, insert nozzle in holder and proceed to clean fryer vat according to manufacturer's instructions.
5. Add Mies Karbonaid XX Filter Aid Powder (approximately 1 Lb. for 50 Lbs. of shortening) into hot shortening in Filter Tank.
6. Stir Karbonaid XX Filter Aid Powder gently throughout hot shortening with stir stick (rated to withstand 325°).

CAUTION! Check to make certain that nozzle is positioned solidly in nozzle holder before filtering to avoid nozzle from slipping out and spraying hot shortening, causing severe burns.

7. Turn on motor and allow hot shortening to recirculate through the filter. Continue filtering until the shortening looks clear. This usually takes 3 to 5 minutes.
8. After completing filtering process, turn off motor. Then direct nozzle into fryer (make sure fryer drain is closed), turn on motor and return all of the filtered shortening.
9. When all of the shortening is pumped into fryer, turn off motor. Then unplug electric cord and **immediately disconnect hose from the pump and allow hose to drain into the filter machine** to remove shortening from the hose and prevent possible solidification.

TROUBLE SHOOTING

PROBLEM	CAUSE	REMEDY
Filter will not pump shortening.	Solidified shortening in pump.	Clean pump gear.
	Return Hose clogged. Hose was not drained at finish of previous filter operation.	Flush Return Hose with hot water.
	Dirt or nick on Standpipe Assembly and Pump Assembly fittings.	Clean off dirt or replace Standpipe Coupling – Part 10L.
	Spacer Ring in upside down or not installed.	Position Spacer Ring with notched side down.
	Leaking Pump Gaskets.	Replace Pump Gaskets – Part 22L.
	Oil Seal leaking.	Replace Oil Seal – Part 22LS.
	Pump not operating.	Clean pump of debris.
	Pump and/or Standpipe Couplings loose.	Hand tighten loose Couplings.
Motor will not start.	On/off switch inoperable.	Replace on/off switch – Part 14K (gray motor) or 5H (blue motor).
	Line cord broken.	Replace line cord – Part 8K.
	Loose wire connection.	Reconnect loose wires.
	Motor stopped on thermal overload.	Allow motor to cool and press reset button.
	Circuit tripped.	Reset circuit breaker and check power supply.
Motor hums but will not start.	Solidified shortening in pump and/or debris.	Clean pump gear.
Hose cracked, kinked, bubbled, or loose fittings.	Return Hose worn out.	Replace Return Hose Assembly – Part 3R or 3RQ.
Filter powder being pumped back into fryer.	Filter Paper torn.	Replace Filter Paper.
	Wing Nuts loose.	Tighten Wing Nuts.
	Screen assembly bent.	Straighten or replace.

COMPREHENSIVE PARTS LIST

PART NO.	DESCRIPTION
1HW	Motor (Wired)
1HF	Motor (Complete)
2H	Pump (Only)
2HF	Pump with Fittings
3H	Motor Base Plate
4H	Motor Handle
5H	Motor Switch
6H	Switch Guard
7H	Switch Cover
8H	Pump & Motor Unit (Blue)
1KW	Motor (Wired)
1KF	Motor (Complete)
2K	Coupler Kit
3K	Motor Handle
6K	Switch Guard
1-7K	Stain Relief
8K	Cord & Plug
9KR	Spade Terminal (Each)
10KR	Bolt - Flat Head 1/4" x 3/4" (Each)
11KR	Bolt - Hex Head 1/4" x 3/4" (Each)
12K	Motor Base Plate
13K	Switch Cover
14K	Toggle Switch (Motor)
15KR	Wire Nut (Each)
17KR	Bolt 3/8-16 x 1-1/4" (Each)
26KR	Rubber Base Plate Strip (Each)
27KR	Lock Washer 1/4" (Each)
28KR	Nut - Hex Head 1/4"-20 (Each)
29KR	Flat Washer 1/4" (Each)
2L	Nipple (Plated) G100 3/8" x 9"
3L	Nipple (Plated) G80 3/8" x 5-7/8"
4L	Nipple (Plated) G50 3/8" x 7"
7L	Closed Nipple 3/8"
10L	Coupler
13L	Male End
14L	Hex Bushing 3/8" x 3/4"
17L	Street Elbow 3/8"
18L	Handle Bar Union 3/8"
21LC	Filter Pump with Coupling
21LF	Filter Pump with Coupling & Fittings

PART NO.	DESCRIPTION
22L	Pump O-Ring
22LS	Pump Oil Seal
24L	Bottom Pump Fittings
25L	Top Pump Fittings
8M	Female End
1PM	Pump & Motor Unit (Gray)
5P	Wing Nut 3/8-16 x 1"
3R	Return Hose with Fittings
3RQ	Return Hose with Fittings (Swivel on Both Ends)
7R	Top Nut
8R	Bottom Nut
9R	Spacer Ring
2T	Dolly Casters (Set of 4)
5T	Dolly Assembly (G50)
6T	Dolly Assembly (G80 & G100)
7T	Tank Guard (G80 & G100)
8T	Tank Guard (G50)
1U50	Tank (G50) Aluminum
1U100	Tank (G100) Aluminum
1U50S	Tank (G50) Steel
1U80S	Tank (G80) Steel
1U100S	Tank (G100) Steel
2S14	Bottom Dished Screen (G50)
2S18	Bottom Dished Screen (G80 & G100)
4S14	Bottom Ring (G50)
4S18	Bottom Ring (G80 & G100)
5S14	Top Flat Screen (G50)
5S18	Top Flat Screen (G80 & G100)
6S14	Top Ring (G50)
6S18	Top Ring (G80 & G100)
GF5	Filter Plate Assembly (G50)
FPA5	Filter Plate Assembly with Standpipe (G50)
GF8	Filter Plate Assembly (G80)
FPA8	Filter Plate Assembly with Standpipe (G80)
GF10	Filter Plate Assembly (G100)
FPA10	Filter Plate Assembly with Standpipe (G100)
G5	Standpipe (G50)
G8	Standpipe (G80)
G10	Standpipe (G100)
G10	Standpipe (G100)
G10	Standpipe (G100)

CLEANING PROCEDURE

CAUTION! Parts are hot. Handle with care. Use heavy duty gloves.

NOTE! It is recommended to clean your filter machine once all parts are back to room temperature.

1. Unplug electric cord. Immediately DISCONNECT HOSE FROM THE PUMP AND ALLOW HOSE TO DRAIN INTO THE FILTER MACHINE to remove shortening from hose and prevent possible solidification.
2. Uncouple Pump from Standpipe and lift Pump & Motor Unit assembly from Filter Tank.

NOTE! When the Pump and Motor Unit is removed from the Filter Machine, use care when setting it down to avoid damaging the Bottom Pump Fitting.

3. Using protective gloves, remove Tank Guard.
4. Grasp Standpipe (using gloves) and lift out complete Filter Plate Assembly.
5. Disassemble Filter Plate Assembly and discard Filter Paper.
6. Wash Filter Plate Assembly and Standpipe with hot water. Do not use soap. Wipe down with dry cloth.
7. Then throw away any remaining shortening in the Filter Tank and clean thoroughly with hot water (do not use soap) and wipe down with a dry cloth.
8. Filter Machine should be stored in a protected area. Pump & Motor Unit and Return Hose should be stored in a cool place.

NOTE! In order to avoid damage to your Filter Paper, do not replace and reassemble until you are ready to use the unit.

CAUTION! Do not move Filter Machine by pulling on the electrical cord. This could result in damage to service cord connection on the motor unit.

CAUTION! Do not move Filter Machine by pulling on the Return Hose. This could result in damage to the hose and loosen the hose fittings, causing it to leak hot shortening and create the possibility of severe burns.

KARBONAIID XX FILTER AID POWDER

A unique filter aid powder, **Karbonaid XX** extends the life of cooking oil by filtering out soluble contaminants and impurities.

WHAT IS **KARBONAIID XX**?

Karbonaid XX is an inert material with billions of microscopically fine spaces to collect impurities. Its unique particle structure allows for the greatest degree of filtration available. Its porous nature traps even the smallest particles as they pass through the filter cake....”polishing” or cleaning cooking oil.

Note: **Karbonaid XX** is also ideal for scouring and cleaning fryers and cooking vessels.

WHY DO I NEED **KARBONAIID XX**?

Karbonaid XX will remove most soluble food juices and soluble fat breakdown products from your cooking oil, which can't be accomplished with filter paper alone. The capability of filter paper is limited to straining and removal of water from cooking oil.

HOW DO YOU USE **KARBONAIID XX**?

STEP 1. Prepare your filter equipment for operation according to manufacturer's instructions.

STEP 2. Measure approximately ½ Lb. of **Karbonaid XX** for every 25 Lbs. of cooking oil.

STEP 3. Carefully add **Karbonaid XX** to hot cooking oil and stir in gently. **Karbonaid XX** should be added directly to the filter tank.

STEP 4. Start filtering immediately and recirculate hot oil through your filter equipment. Continue filtering until the oil looks clear. This should take 3 to 5 minutes.

Note: Cooking oil must be hot (approximately 325°F) in order to assure proper degree of oil viscosity for quick, efficient filtering.

