MF90 Series Portable Filters

Installation & Operation Manual

MF90-65, -80, -110, -126, -160 & -172
"U" & "AU" CONFIGURATIONS

DEAN

CFESA

Dean Industries, 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

819-5808
10-00

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

Installation, maintenance, and repairs should be performed by your Dean Factory Authorized Service Center.

⚠ CAUTION

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

⚠ WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE, OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

⚠ 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 LATEST EDITION OF THE NATIONAL ELECTRIC CODE, N.F.P.A. 70.

MF90 Series Portable Filters

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DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 1: INTRODUCTION

1.1 Ordering Parts

Customers may order parts directly from their local Factory Authorized Service Center (FASC). See the numbers listed in section 1.2 for information of your nearest FASC.

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

Model Number		**Type**	
Serial Number		**With/Without Heater**	
Optional Features			
Item Part Number		**Quantity Needed**	

1.2 Service Information

Call the 1-800-551-8633 or (318) 865-1711 Service Hotline number for the location of your nearest Factory Authorized Service Center. Always give the model and serial numbers of your filter unit. Also, identify if your unit is supplied with or without a heater.

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

Model Number		**Type**	
Serial Number			
With/Without Heater			
Optional Features			
Nature of Problem:			

Additional information (i.e. oil temperature at filter time, time of day and other pertinent information) may be helpful in solving your service problem. Communicate with your service technician.

1.3 After Purchase

In order to improve service, have the following chart filled in by the Dean Authorized Service Technician who installed this equipment.

Authorized Service Technician/FASC	
Address	
Telephone/Fax	
Model Number	
Serial Number	

1.4 Safety Information

Before attempting to operate your unit, read the instructions in this manual thoroughly.

Throughout this manual, you will find notations enclosed in double-bordered boxes similar to the ones below.

CAUTION boxes contain information about actions or conditions that ***may cause or result in a malfunction of your system*.**

⚠ CAUTION
Example of a CAUTION box.

WARNING boxes contain information about actions or conditions that ***may cause or result in damage to your system***, and which may cause your system to malfunction.

⚠ WARNING
Example of a WARNING box.

DANGER boxes contain information about actions or conditions that ***may cause or result in injury to personnel***, and which may cause damage to your system and/or cause your system to malfunction.

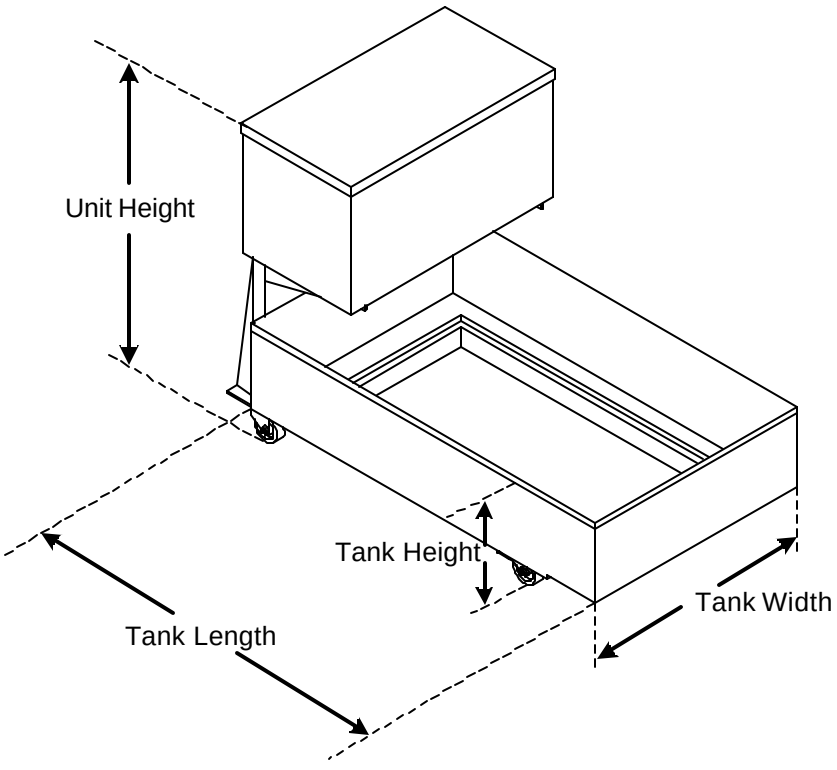
⚠ DANGER
Example of a DANGER box.

DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 2: IMPORTANT INFORMATION

2.1 General

The MF-90 portable oil filters may be used with a variety of Dean fryers, as well as other manufacturers' equipment. Oil capacity ranges from 65 to 172 pounds of oil, depending on the model. Length, width, height and tank depth dimensions for all units are listed in the table below.

Model	Unit Height (inches)	Tank Width (inches)	Tank Length (inches)	Tank Height (inches)	Oil Capacity (pounds)
MF-90/65	26.87	14	29.5	14	65
MF-90/80	24.12	18.25	24.75	11.25	80
MF-90/80 LP	24	18	34.75	9.63	105
MF-90/110	26.37	18.25	24.75	13.25	110
MF-90/160	25.25	18.25	37	11.5	160
MF-90/172	31	18	29	15	172



MF90 Series filter unit dimensions (unit and tank heights are measured from bottom of casters to top of unit and tank, respectively).

2.1 General (cont.)

The used oil may be drained by gravity from the fryer into the filter pan, or removed from the fryer by use of a suction/return hose, according to model. The oil is pumped back into the fryer vessel using the same suction/return hose.

Oil or shortening is filtered through replaceable filter paper. Filter powder, which enhances the filtering process, is distributed over the paper prior to filtering.

All units are shipped completely assembled with accessories packed inside the frypots. All units are adjusted, tested and inspected at the factory before shipment.

⚠ 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 the aspects of oil filtration, and draining/cleaning procedures.

A 7-amp (115V-domestic), or 5-amp (230V-international) circuit breaker installed on the filter unit switches the power OFF if an overload occurs.

***NOTE**: If the circuit breaker is triggered, depress the reset button to activate the circuit after the failure has been detected and repaired.*

2.2 Rating Plate

Information on the rating plate includes model and serial numbers, as well as electrical requirements. Have the rating plate information handy when communicating with the factory about a unit or requesting special parts or information. Without this information, proper identification of the unit cannot be confirmed.

2.3 Pre-Installation

NOTE: Failure to use qualified service personnel will void the Dean warranty.

A. Standards: Use of this filter unit must be in accordance with all applicable state and local codes.

B. Electrical Connections: Domestic MF90 filter units require a 115V 60 Hz., 15 amp electrical supply. Units are equipped with a grounded male receptacle for use with a flexible six-foot, 16-3 SJT power cord set. If an extension cord is required, it must be a three-conductor, grounded power cord of at least 16 gauge.

2.4 Unpacking the Filter System

Ensure the container is upright. Unpack the filter carefully and remove all accessories from the carton. Do not discard or misplace parts and/or accessories; they will be needed. Any accessories or starter kits included with the unit will be packaged inside the filter tank strapped to the shipping frame.

After unpacking, immediately check the equipment for visible signs of shipping damage. If such damage has occurred, contact the carrier and file the appropriate freight claims. Do not contact the factory, as the responsibility of shipping damage is between the carrier and dealer or end-user.

If your equipment arrives damaged:

a. File claim for damages immediately – Regardless of extent of damage.

b. Visible loss or damage – Be sure this is noted on the freight bill or express receipt and is signed by the person making the delivery.

c. Concealed loss or damage – If damage is unnoticed until equipment is unpacked, notify freight company or carrier immediately, and file a concealed damage claim. This should be done within 15 days of date of delivery. Retain the shipping container for inspection.

NOTE: Dean does not assume responsibility for damage or loss incurred in transit.

DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 3: INSTALLATION INSTRUCTIONS

3.1 Assembling The Filter System

On initial installation and before each use, remove all loose parts from the filter, wash the filter pan and all accessories in hot, soapy water and dry thoroughly.

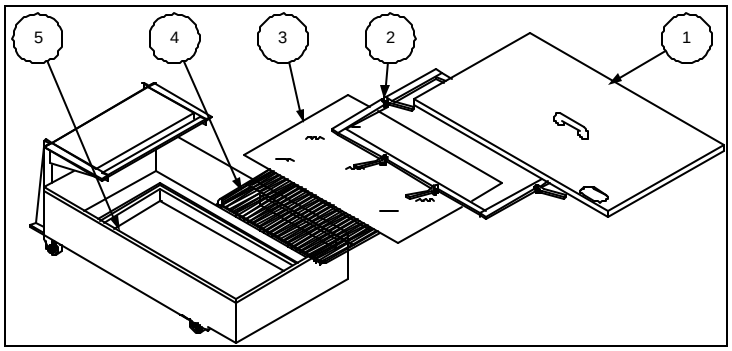
⚠ WARNING!
Water or boil-out solution MUST not be allowed to drain into the filter pan or filter system. Irreversible damage will result if water is allowed into the system, and the warranty will be voided.

The MF90 filtration system uses a filter support grid, two sheets of filter paper and a hold-down ring to secure the filter paper in place.

3.1.1 Filter Paper Configuration

See illustration for proper assembly.

1. Filter Pan Cover
2. Hold-Down Ring
3. Filter Paper (2 sheets)
4. Screen/Support Grid
5. Filter Pan Assembly



A. First, place the support grid in the bottom of filter pan.

B. Put two filter paper sheets on top of the support grid. Be sure the paper covers the whole filter pan bottom.

C. Position the hold-down ring on top of the filter papers and latch the hold-down ring and filter papers securely against the filter pan bottom, forming a tight seal.

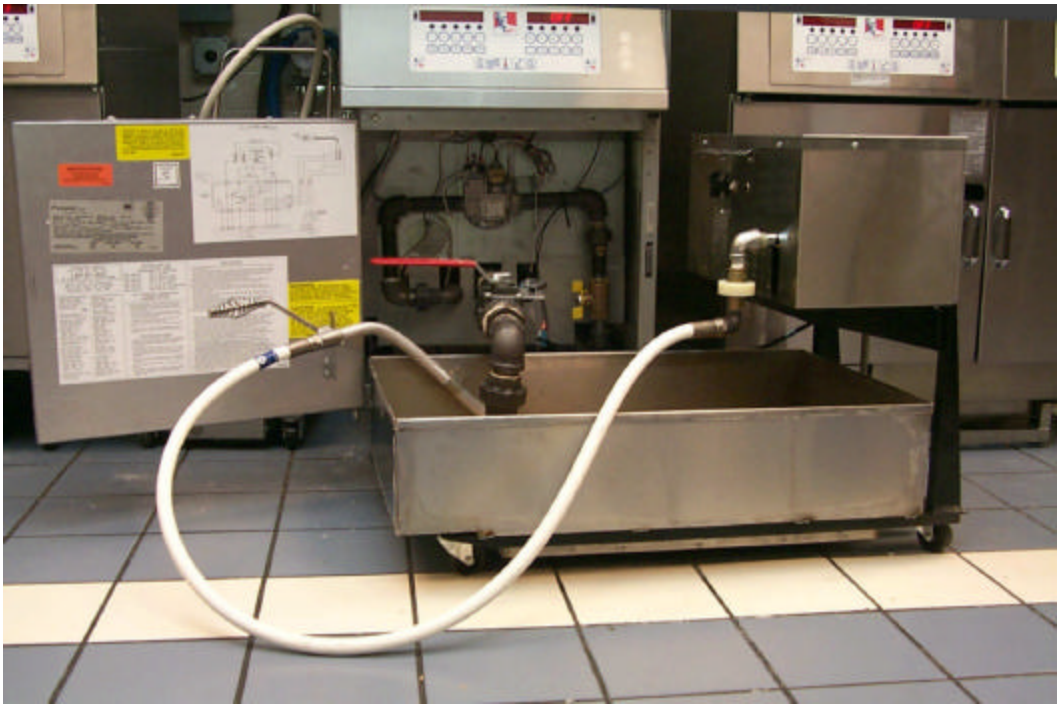
3.1.1 Filter Paper Configuration (cont.)

D. Sprinkle 16 ounces of filter powder on the top filter sheet. Distribute the powder over the filter paper as evenly as possible. If filtering a second frypot immediately after the first, add only 8 ounces of filter powder for the second filtering.

E. Place the crumb catcher screen (if used) in the filter pan. Allow the crumb catcher to rest on the top edges of the hold-down ring.

F. Place filter pan cover onto the filter pan assembly.

G. Position filter under the fryer drainpipe for gravity drain operations, or nearby for suction operations. Lock rear casters to prevent filter from moving out of position during the filtering process.

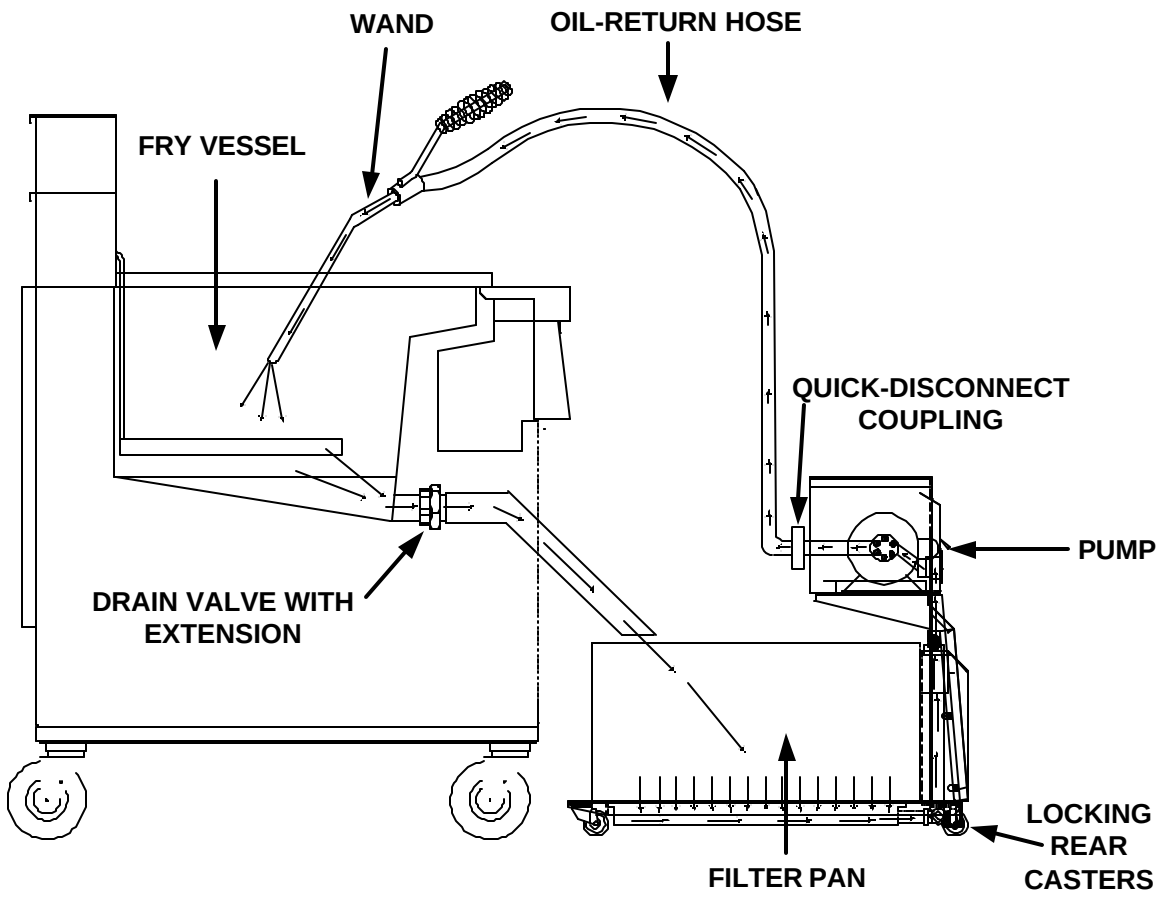


MF-90 portable filter positioned correctly next to fryer drain valve, with rear casters locked in place.

DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 4: FILTER OPERATION

4.1 General

The Dean Portable Filters are designed to operate primarily as an independent filter unit. Operations always start by ensuring the unit is properly plugged in, then rolling the filter to the fryer to be filtered. The filter will work directly under the fryers' drain valves. The general layout of a generic MF90 Series Portable Filter System with major components identified is illustrated below.



Arrows indicate direction of oil flow during the filtration process.

4.2 Filtering Tools

These tools are not required, but are recommended to make the filtering task easier.

A. Measuring Cup: Used to measure eight ounces by volume of filter powder.

B. Scrub Brush: To clean sediment and residue from the filter pan and fry vessel.

C. Appropriate Clothing.

4.3 Filter Preparation

1. Position the MF-90 filter next to the fryer. Remove filter pan lid and position filter unit under frypot drain-valve extension
2. Ensure the filter power switch is in "OFF" position prior to connecting to power supply.
3. Plug power cord into electrical outlet. The filter unit is ready for filtering. If equipped, turn on heater switch to allow pan to preheat. After filtering, follow instructions in Section 4.4, Changing Filter Paper.

⚠ CAUTION

The crumb tray (if equipped) in portable filter systems must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

4.4 Changing Filter Paper

The top sheet of filter paper should be replaced after each filter session, and most certainly at the beginning of each workday. If filter paper is replaced once per day, excess sediment should be scraped from the top filter paper after each frypot is filtered (see photo). Filter at closing if possible. This ensures the oil/shortening is at proper filtering temperature.

Scrape excess sediment from top filter paper sheet after filtering.

4.4 Changing Filter Paper (cont.)

Remove and replace the paper as follows:

1. Remove filter cover.

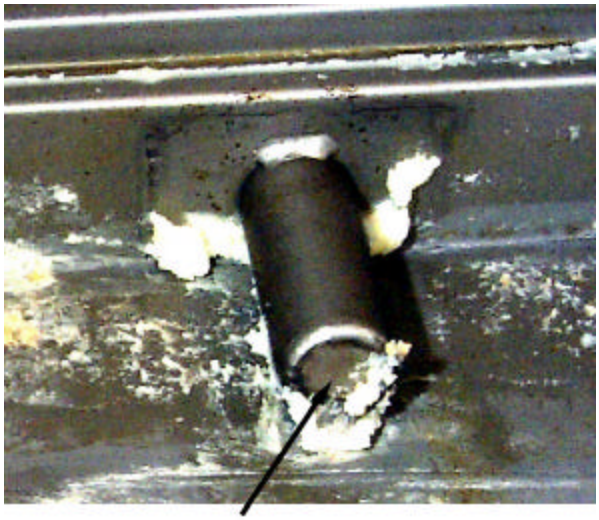
2. Open the locking clips of the hold-down ring and lift the ring out of the filter tank.

3. Roll both ends of the top filter paper into the center, making sure no sediment falls out, and discard. Remove the second sheet of filter paper and retain for re-use.

4.4 Changing Filter Paper (cont.)

4. Remove and check the support screen for cleanliness and scrub if necessary. Ensure there is no build-up of shortening around the nipple assembly.

5. Check the filter-pan for cleanliness and scrub if necessary; check the drain ports at the bottom rear of the filter pan also.



Solidified shortening build-up around and in nipple-pipe assembly.

6. Replace the filter support screen and place a new sheet of filter paper on top of the screen. Place the previously used sheet of filter paper over the new sheet.

4.4 Changing Filter Paper (cont.)

7. Replace the hold-down ring and secure.

8. Replace filter pan cover.

4.5 Unit Operation

1. When filtering, follow these steps:

2. Follow the appropriate Sections 4.3 and 4.4 to prepare your filter for operation.

3. Then position filter under fryer drain valve extension for gravity drain, or near the fryer if the unit is an "AU" unit.

4. Turn the fryer main power switch to the "OFF" position.

⚠ WARNING

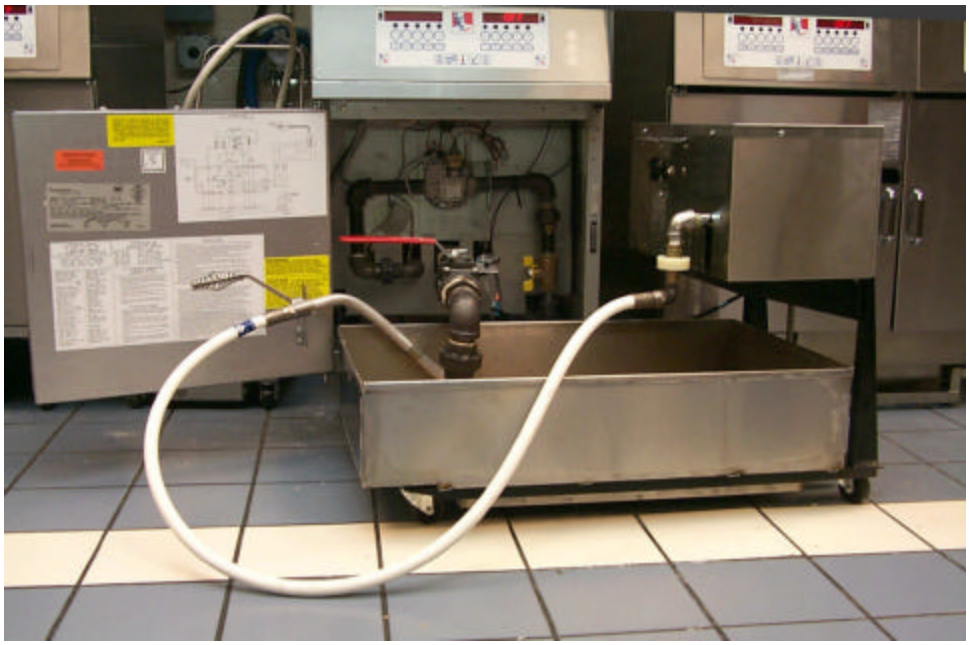
Do not leave filter unit unattended during the filtering operation. Pressurized oil moving through the lines can cause the flexible return hose and wand assembly to pop loose and leak hot oil.

Avoid spilling hot oil onto floor surfaces. Never drain more than the maximum amount of oil listed on the filter pan.

5. If filter is equipped with an optional heater, turn the filter switch to the heater position for 20 minutes before filtering in order to melt any solid shortening in the pump lines.

4.5 Unit Operation (cont.)

6. Open the fryer door and ensure the filter is in the proper position under the fryer drain valve extension. Lock rear casters to prevent filter movement during the filtering process.



⚠ WARNING
The oil temperature of the fryer to be filtered should be approximately 350°F (175°C). Position drain handles properly prior to operating the filter unit. Failure to do this can result in burn injury to the user.

7. Open the drain-valve and allow the fry vessel oil to drain into the filter pan.

4.5 Unit Operation (cont.)

8. With oil return nozzle in the vessel, turn filter switch "ON" to begin pumping clean oil into the fryer. Allow the oil to recycle through the fryer for a few seconds to wash out sediment on the bottom of the cooking vessel before closing the drain valve.

9. Close the drain valve handle. It takes approximately 5 to 7 minutes for the filter to pump all the oil back into the fryer.

10. Allow the pump to run for 10-15 seconds after air starts to flow through the wand, before shutting off the filter. Clearing residual shortening/oil from the return lines reduces the likelihood of clogged lines.

⚠ CAUTION

Operating the fryer without oil in the fryer vessel will cause damage to the fryer and the warranty will be voided.

4.5 Unit Operation (cont.)

NOTE: ***After filtering, scrape off debris and sediment accumulated on the filter paper and discard.***

⚠ CAUTION

If using solid shortening, the return hose must be completely drained after filtering, or the shortening will solidify and plug the hose or oil return lines as it cools.

NOTE: ***If filtration operations problems are encountered during use, please refer to Chapter 6 in this manual.***

DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 5: CLEANING AND MAINTENANCE

5.1 General

Cleaning operations fall into three general categories:

- ?? Wiping unit clean after each filter session;
- ?? Cleaning, changing filter paper and preparing the unit for the next day's business.
- ?? Weekly cleaning to remove oil deposits and other particles that were previously missed.

⚠ WARNING
Do not use water jets to clean this equipment.

⚠ CAUTION
Never operate the filter unit unless cooking oil is at operating temperature.

5.2 Each Filter Use

Every time your Portable Filter System is used:

- ?? Wash down the insides of the filter pan with hot oil.
- ?? Change the top filter paper sheet after each filter session or at the end of the day. Scrape sediment from the top sheet after each frypot is filtered within a filter session.
- ?? Wipe up any oil which may have splashed or spilled.
- ?? Wipe all exterior surfaces of the filter unit.

⚠ CAUTION
Do not run water or boil-out solution through the filtration system. Doing so will cause irreparable damage to the pump, and the warranty will be voided.

5.3 Daily- Close Of Business

At the close of a working day, the last order of business should be to filter the oil in all fryers. When the last fryer is finished, follow these steps:

1. Ensure the flexible hose and pump lines are clear by running the filter pump for an additional 10–15 seconds after air bubbles start coming from the oil return line. Then drain the flexible hose.
2. Remove the filter pan cover and hold-down ring assembly, then remove the filter paper and filter support screen.
3. Discard the top filter paper sheet and retain bottom filter paper sheet for re-use.
4. Wash all filter components with soapy water and rinse.
5. Dry all filter parts and filter pan thoroughly before reassembling.
6. Check all fittings at the rear of the filter unit; ensure that all fittings are properly tightened.

⚠ CAUTION

The crumb tray in portable filter systems must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

5.4 Weekly

Follow the same procedure as for "Daily", with these additional steps:

?? Wash the filter pan with hot, soapy water and a brush. Dry and reassemble with new filter paper.

?? Clean thoroughly under, around, and behind the fryers and filtering area.

?? Do not operate motor/pump until all traces of water have been removed from the pan. Under no circumstances should water or boil-out solution be allowed to enter the pump housing.

?? Check the connections of the inlet lines and tighten if lines become loose or start to leak oil.

DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 6: TROUBLESHOOTING

6.1 Operating Problems

Plugged lines and plugged filter paper account for over 90% of filtration system malfunctions. Troubleshooting flowcharts included in this chapter, provide step-by-step instructions to assist the operator in diagnosing common malfunctions.

A. **Plugged Lines**

1. If solid shortening is used, and the portable filter is operated improperly, the motor may deactivate before hot shortening is completely pumped back into the fryer. Solidification of shortening in the lines will occur as the shortening cools. It is very important to pump all hot shortening out of the lines to prevent plugging.

2. Hot oil/shortening drains from the frypot into the filter pan, then is drawn through the filter paper, exits the pan through the ports on the filter pan bottom, then flows through a rigid tube to the filter pump. From the pump, oil returns to the fryer through the flexible oil return hose.

3. A solid-shortening plug can exist anywhere in this path; locate the plug using the procedures found in the flowcharts at the end of this chapter

4. To guard against plugged lines when using solid shortening, follow these guidelines:

    a. At the end of the filtering cycle, let the filter bubble into the fryer through the flexible hose for about 10-15 seconds. If it is blowing bubbles, air is moving through the lines and the filter is less likely to be plugged.

    b. If your filter is equipped with a pan heater, use it <u>each time</u> before you filter.

    c. When pumping hot shortening back into the fryer, tilt the filter machine to the rear for about ten seconds at the end of the filtering cycle. This will remove about three cups of hot shortening remaining in the bottom port area.

    d. When filtering is completed, disconnect the flexible line and drain any remaining shortening from the line.

B. **Plugged Paper**

Improper use of the filter pre-coat powder will cause a slow oil flow return rate. The first indication of paper plugging is a surging, jerking movement of the hose. To correct this, review the instructions for the correct use of filter powders, and change the filter paper more frequently. When filtering several fryers prior to changing paper, ensure that excess sediment is scraped off the filter paper after filtering each frypot. If plugged paper remains a problem, review the following flowcharts for proper diagnosis.

6.2 Troubleshooting Flowcharts

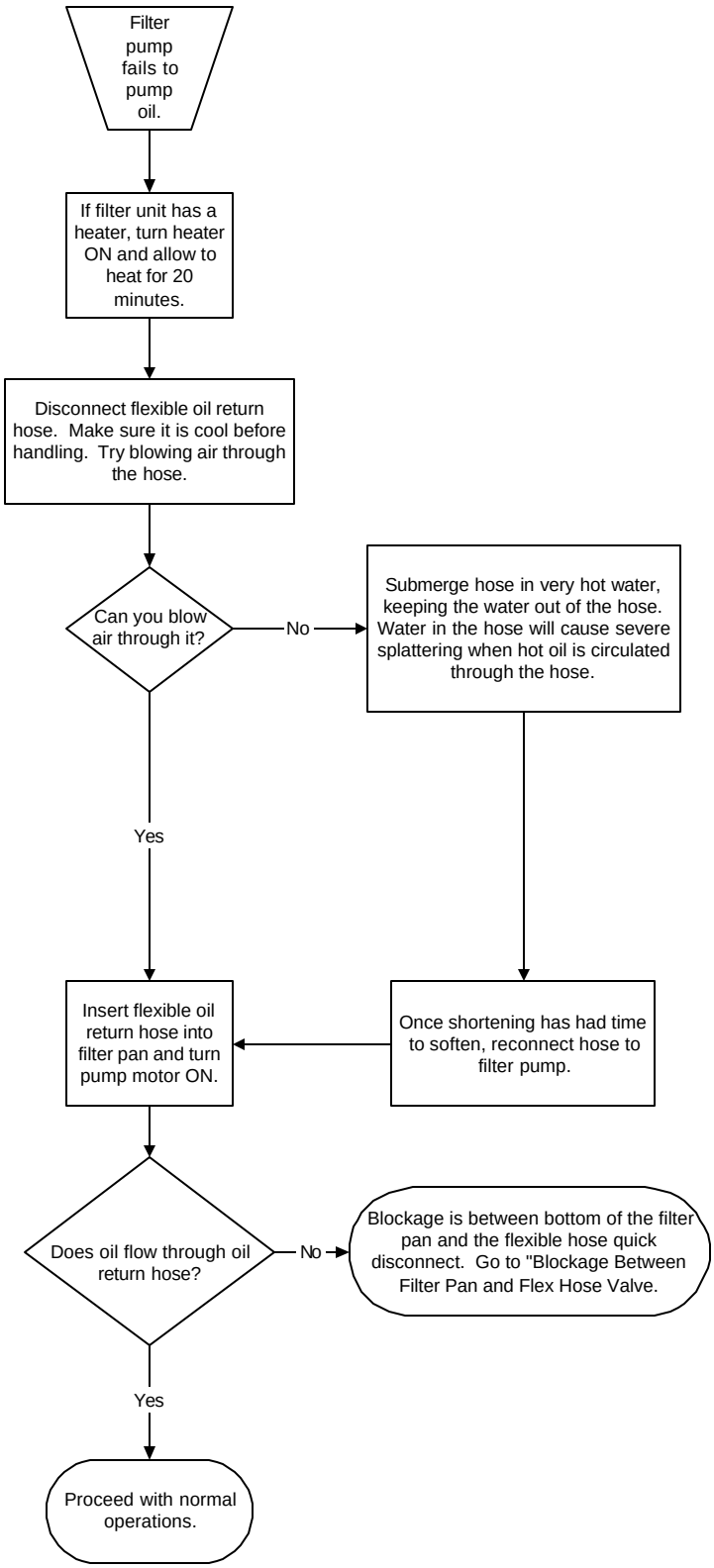
The following flowcharts contain information to assist the user in diagnosing the most common malfunctions with portable filtration systems. Possible solutions and/or corrective actions are given for each scenario.

When utilizing these flowcharts, begin at the top of the diagram, then follow each step in sequence. Follow the arrows directing you through the sequence of steps, until you find the cause of the problem. If the malfunction cannot be diagnosed using the flowcharts, contact your Factory Authorized Service Agent for repairs.

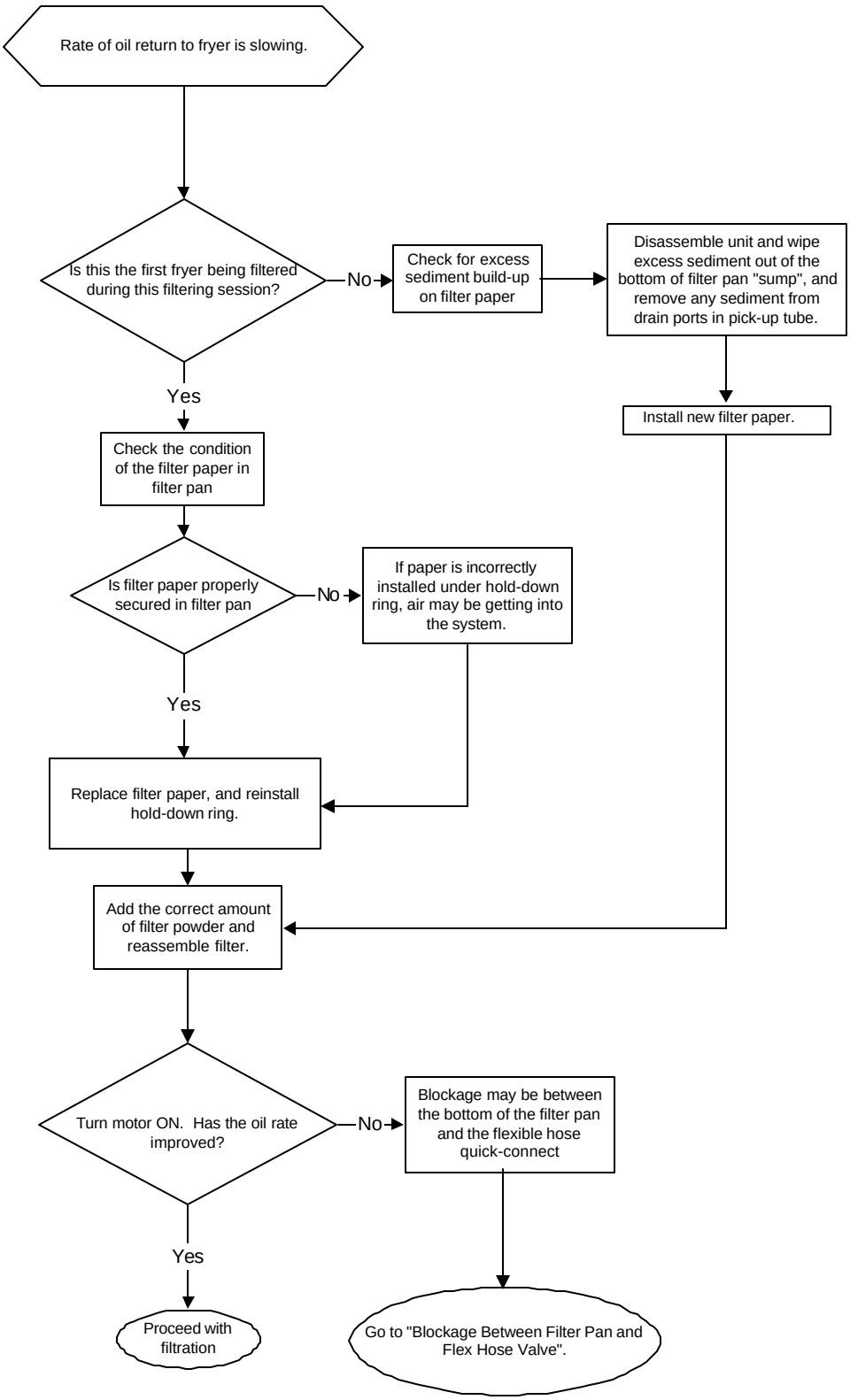
⚠ DANGER
Use extreme care when working with or during electrical circuit tests. Live circuits will be exposed.

⚠ DANGER
Inspection, testing and repair of gas or electrical equipment should be performed by qualified personnel.

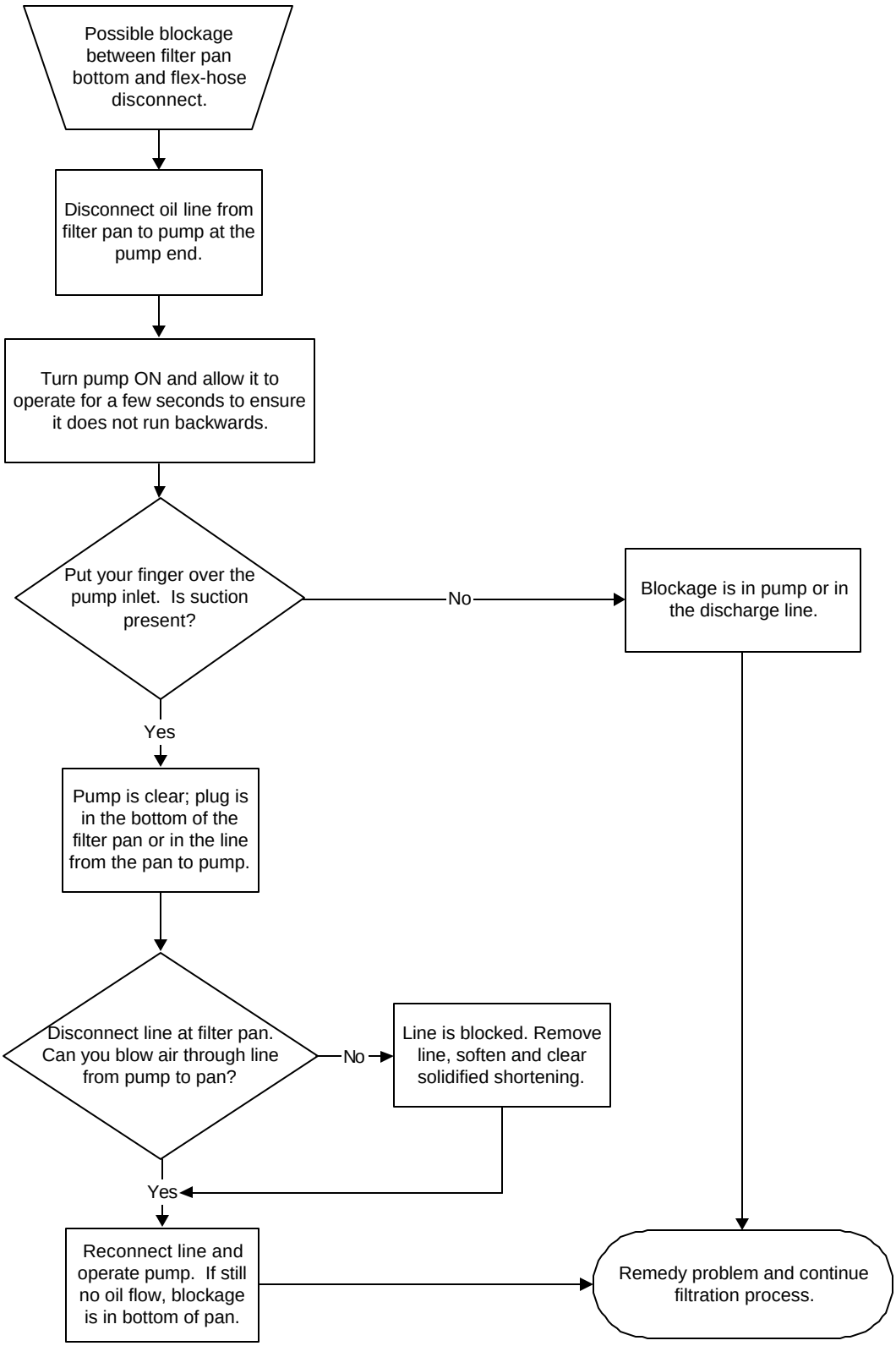
Filter Pump Fails To Pump Oil



Rate Of Oil Return Slowing

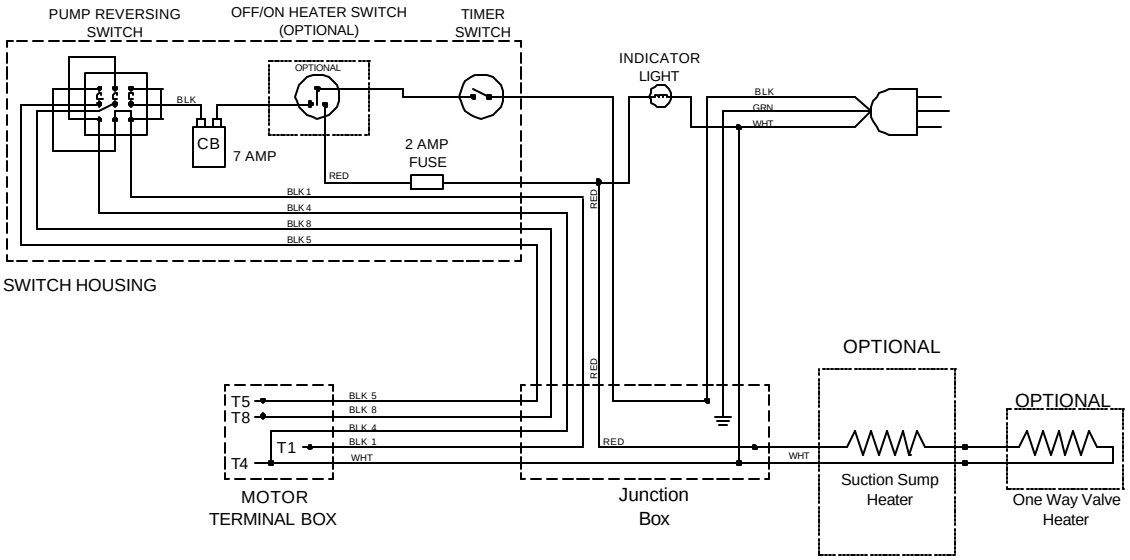


Blockage Between Filter Pan and Flex-Hose Valve

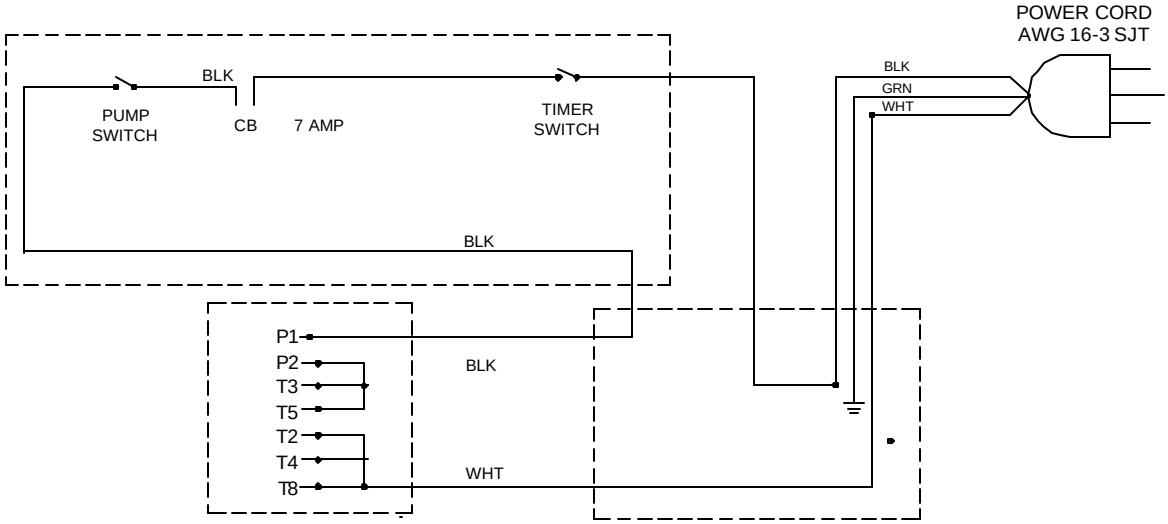


6.3 Wiring Diagrams

MF90 Filter Wiring (AU)

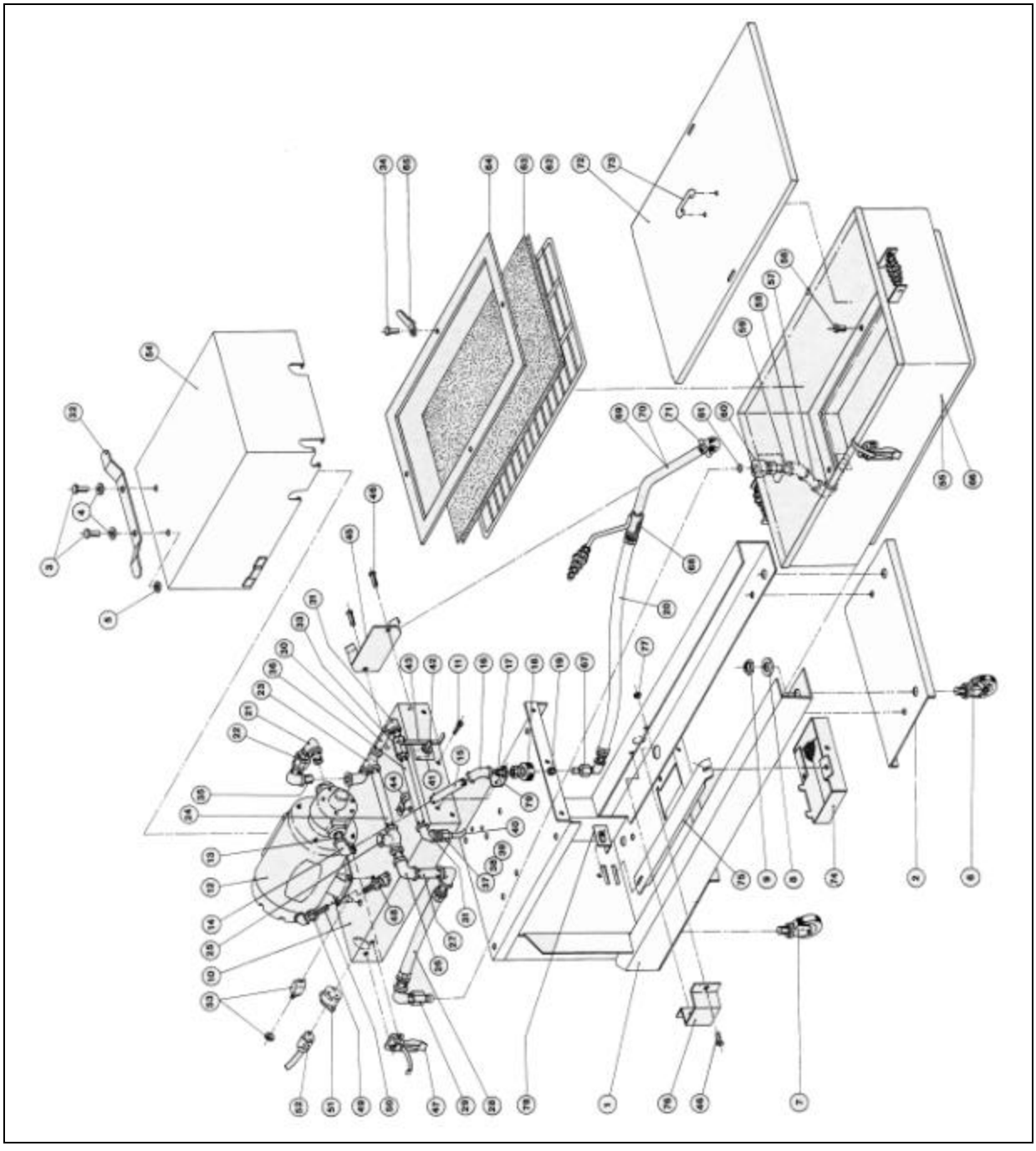


MF90 Filter Wiring (U)



DEAN PORTABLE MICRO-FLO OIL FILTRATION SYSTEMS
CHAPTER 7: PARTS LIST

7.1 MF-90/65, U and AU Configuration



7.1 MF-90/65, U and AU Configuration (cont.)

ITEM	PART #	COMPONENT
1	44272-1	Frame Assembly
2	44-0409	Caster Channel
3	1004	Bolt, ¼ - 20 x ½-inch Hex
4	1008	Washer, Flat ¼-inch
5	1005	Nut, Nylock ¼-20
6	2376	Caster, 3-inch, w/o Brake
7	2736	Caster, 3-inch w/Brake
8	1832	Washer, Flat, ½-inch
9	1709	Nut, ½-13 Hex
10	44267	Electric Box Assembly (U65 w/o Heater)
*	44267-2	Electric Box Assembly (AU/65 w/Heater)
*	44267-1	Electric Box Assembly (U/65 w/Heater)
11	1025	Screw, #8 x ½ Type B
12	1892-2	Motor, 1/3HP 230/120V/50/60Hz
*	1726-1	Pump, 5 GPM (18 LPM)
13	1059	Nipple, Black Pipe ½ x 1-½-inch
14	1013	Elbow, ½ x 3/8-inch 90° Black Pipe
15	2083	Nipple, 3/8 x 3-½ -inch
16	1989	Elbow, 3/8 x 45°
17	1014	Nipple, Black Pipe, 3/8" x Close
18	55016	Couple Assembly (Snap-Tight)
19	1350	Seal, Viton Quick-Disconnect
20	44287	Nozzle and Hose Assembly, Complete
*	55220	Nozzle and Hose Assembly
21	1687	Elbow, Street, Black Pipe, ½-inch x 90°
22	1061	Union, Black Pipe, ½-inch
23	1765	Tee, Black Pipe, ½ x 3/8 x ½-inch
24	1012	Nipple, Black Pipe [½ NPT x 6-inch]
25	1057-SC	Check Valve, Swing ½-(Plated)
26	1011	Elbow, Black Pipe, ½-inch x 90°
27	1076	Nipple, Black Pipe ½NPT x 3-½-inch
28	44291	Hose Assembly w/Fitting (L= 11.75-inch)
29	1644	Quick-Disconnect Male ½-inch
30	1798	Nipple, Black Pipe, [3/8NPT x 2-inch]
*	1799	Nipple, Black Pipe [3/8NPT x2-½-inch]
31	1043	Elbow, 3/8-inch x 90°
32	44-0379	Holder, Power Cord
33	1100A	Valve, Ball- 3/8-inch
34	55-0004	Bolt, Hold-down Handle
35	1010	Nipple, Black Pipe, ½-inch x Close
36	2124	Nipple, Black Pipe[3/8 NPT x 7-inch]
37	1985	Flare Fitting 3/8-inch NPT

7.1 MF-90/65, U and AU Configuration (cont.)

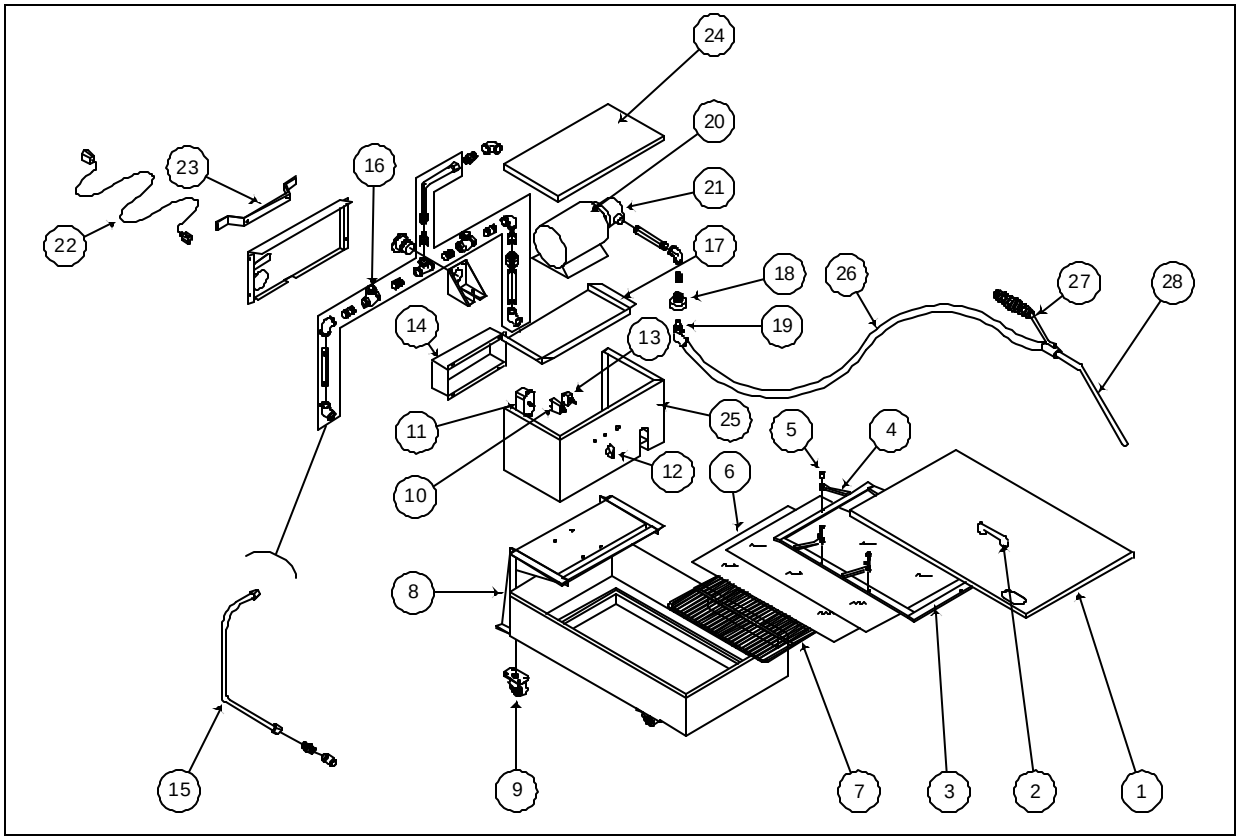
ITEM	PART #	COMPONENT
38	1036	Nut, ½-inch Flare 37°
39	1037	Tubing Sleeve ½-inch 37°
40	1034	Tube, SS, [½-inch Diameter x Feet]
41	55-0007	Plate, IN-OFF-OUT (AU Only)
*	1081	Plate, PUMP-OFF-HEAT (with Heater Option)
*	1678	Plate, ON-OFF (U Only)
42	1385	Switch, 3PDT 90 Amp Push ON
*	1083	Switch, Toggle SPDT (U Only, With Heater Option)
*	1541	Switch, Toggle (U Only, No Heater Option)
43	44-0443	Handle, Ball Valve, (3/8-inch)
44	1856	Clamp, Pipe ½-inch (Jiffy H-40)
45	44268	Holster, Hose Assembly
46	1032	Screw, 10-32 x ½-inch Round Slotted Head
47	2081	Clamp, Draw (HR-1)
48	1096	Connector, 3/8-inch x 45°
49	1092	Connector, 3/8-inch x 90°
50	1098	Conduit, 3/8-inch Flex
51	2053	Inlet Flanged Base 120V
52	2059	Power Cord,1613 SJTO
53	2036	Circuit Breaker (7 Amp- 120V Applications)
*	2175	Circuit Breaker (5 Amp- 230V Applications)
54	44282	Motor/Pump Cover Assembly (AU-65)
55	44285	Filter Pan Assembly (U/AU-65 /Clamp)
56	1033	Screw, ¼-28 x ½ Round Phillips Head
57	2009	Nipple, Black Pipe [½ NPT x 2-½ -inch]
58	1391	Elbow, ½-inch, 45° Black Pipe
59	1075	Nipple, Black Pipe ½NPT x 3-inch
60	55191	Quick Disconnect Assembly (½-inch)
61	1645-1	O-Ring
62	55156	Wire Grid and Channel Assembly (#12)
63	1334-PK	Filter Paper, 11 x 22-5/8 (20 Sheets/Pack)
*	1334	Filter Paper, 11 x 22-5/8 (100 Sheets/Pack)
64	55127	Hold-Down Ring w/Handle Assembly
65	55-0011	Lever, Hold-Down Ring
66	44262	Pan Assembly, w/o clamps
67	1016	Connector, Male 3/8”
68	55228-SC	Handle Assembly
69	55-0121	Nozzle, Threaded (One End)
70	44-0450	Nozzle, Threaded (Both Ends)
71	55-0264	Pipe Screen
72	44286	Pan, Lid Assembly
*	44-0447	Pan Lid Only
73	1039	Handle, Filter Pan Lid (w/Screws)

7.1 MF-90/65, U and AU Configuration (cont.)

ITEM	PART #	COMPONENT
74	44273	Heater Junction Box
75	44561	8" Strip Heater w/Bracket Weld Assembly**
76	44-0425	Pan Slide, Electric Motor
77	1031	Nut, Nylock (#10-32
*	44274	Rear Heater Guard Assembly
79	44-0828	Pipe Support
*	44-0837	Back , Filter Cover
*	55546	Crumb Basket, MF90/65
*	2174	Glove, Neoprene, (Hot-oil)
*	8030002	Filter Powder
*	1049	Measuring Cup, 16 Oz.
*	55030	Scoop Assembly (Small)

* Not Illustrated
** For probe heater components, see Section 7.2.1.

7.2 MF-90/80, 80-LP, 110, 126, 160 and 172 Series, U and AU Configurations



7.2 MF-90/80, 80-LP, 110, 126, 160 and 172 Series, U and AU Configurations (cont.)

ITEM	PART #	COMPONENT
1	55084	Lid, Filter Pan Assembly, (**80 and 110 Series Only**)
*	55086	Lid, Filter Pan Assembly, (**126 and 172 Series Only**)
*	55135	Lid, Filter Pan Assembly (**160 Series Only**)
*	55438	Lid, Filter Pan Assembly (**80-LP Series Only**)
2	1039	Handle, Cover
3	55083	Hold-Down Ring with Handle Assembly Standard **(80 and 110 Series Only**)
*	55033	Hold-Down Ring with Handle Assembly, Jumbo (**126, 160 and 172 Series Only**)
*	55308	Hold-Down Ring with Handle Assembly (**80-LP Series Only**)
4	55-0011	Locking Lever, Hold Down Ring
5	55-0004	Latch Bolt
6	1038	Filter Paper 16-3/8 x 18-3/8" **(80, 80-LP And 110 Only**)
*	1054	Filter Paper, 16-3/8 x 24-3/8 (**126, 160 And 172**)
*	1053	Filter Powder, 22,7kg (50 lb.) bag
7	55120	Grid and Channel Assembly, Standard [**80, 80-LP (UL AND CE Only) and 110 Series Only**]
*	55121	Grid and Channel Assembly, Jumbo (**80-LP, 126, 160 and 172 Only**)
8	55190	Pan Assembly (**80 Series Only**)
*	55437	Pan Assembly (**80-LP Series Only**)
*	55189	Pan Assembly (**110 Series Only**)
*	55059	Pan Assembly (**126 Series Only**)
*	55187	Pan Assembly (**160 Series Only**)
*	55186	Pan Assembly (**172 Series Only**)
*	55019	Filter Frame Assembly (**80 Series Only**)
*	55020	Filter Frame Assembly (**110 Series Only**)
*	55021	Filter Frame Assembly (**80-LP and 126 Series Only**)
*	55046	Filter Frame Assembly (**160 Series Only**)
*	55022	Filter Frame Assembly (**172 Series Only**)
9	1003	Caster, Filter Pan— 2-inch
*	2734	Caster, Filter Pan—2-inch w/Brake
10	2175	Circuit Breaker (5 Amp)
11	1026	Switch, Timer (60 Min.)
12	1026-1	Knob, Timer Switch
13	1385	Switch, IN/OFF/OUT (MF90-AU)
*	1083	Switch, ON/OFF (MF90-U)
*	55-0007	Plate, Switch IN-OFF-OUT
14	55-0029	Switch Housing

7.2 MF-90/80, 80-LP, 110, 126, 160 and 172 Series, U and AU Configurations (cont.)

ITEM	PART #	COMPONENT
15	55217	Suction Tube, Pan to Filter Pump ("U" Series Only)
*	55246	Suction Tube, Pan to Check Valve ("AU" Series Only)
16	1057-SC	Valve, Swing Check 1/2"(Plated) ("AU" Series Only)
17	55-0064	Motor Mount Tray
18	55016	Coupler Assembly (Snap-Tight)
19	1016	Male Coupler
20	1726-1	Pump, 5 GPM (18 LPM)
21	1892-2	Motor, 1/3HP 230/120V/50/60Hz
22	1021	Power Cord 10' 16/3 SJTO Black
*	6136	Power Cord 16/3 SJTO(W)
*	2563	Receptacle, 230V, 3-Prong
23	55-0070	Bracket, Handle Cord
24	55-0065	Housing, Top Cover
*	55-0066	Housing, Back Cover
25	55-0068	Motor Housing
26	55210	Hose Only, with Fittings
27	55228-SC	Handle Assembly
28	55115	Nozzle with Handle
*	55220	Nozzle and Hose Assembly, Portable Filter
*	55245	Harness Assembly, "A" Type Filter
*	1004	Bolt, ¼ - 20 x ½-inch Hex
*	1005	Nut, Nylock ¼-20
*	1008	Washer, Flat ¼-inch
*	1009	Washer, Lock ¼-inch
*	1010	Nipple, Black Pipe, ½-inch x Close
*	1011	Elbow, Black Pipe, ½-inch x 90°
*	1013	Elbow, ½ x 3/8-inch 90° Black Pipe
*	1014	Nipple, Black Pipe, 3/8" x Close
*	1019	Ring Terminal #8
*	1020	Connector, Romex— 3/8"
*	1022	Ring Terminal #10
*	1025	Screw, #8 x ½ Type B
*	1027	Screw 8-32 x ½ Round Slotted Head
*	1028	Lock-nut, #8-32 Hex
*	1029	Plug Button ½-inch Nickel-Plated
*	1030	Wire Joint RC-6
*	1031	Nut, Nylock, #10-32
*	1032	Screw, 10-32 x ½-inch Round Slotted Head
*	1035	Fitting, 37°, Flare, ½-inch
*	1058	Tee, Black Pipe ½
*	1059	Nipple, Black Pipe ½ x 1-½-inch

7.2 MF-90/80, 80-LP, 110, 126, 160 and 172 Series, U and AU Configurations (cont.)

ITEM	PART #	COMPONENT
*	1061	Union, Black Pipe, ½-inch
*	1063	Wire 16 AWM/TEW Black
*	1074	Nipple, Black Tube—½ x 5-inch
*	1173	Push-On Terminal, RB 250
*	2165	Kep-Nut #10-32 Hex
*	2174	Glove, Neoprene, Hot-Oil
*	55030	Scoop Assembly, Small
*	55218	Tubing Assembly (**80, 80-LP, 126 and 160 Series Only**)
*	8030002	Filter Powder, FM/Dean Filters
*	55-0130	Bracket, Strain Relief
*	55089-1	Housing Assembly, Filter— MF-90
*	55089-2	Housing Assembly, Filter— MF-90A
* Not Illustrated		

7.2.1 Probe Heater Components, All MF90 U and AU

ITEM	PART #	COMPONENT
*	1957	Probe Heater ¼ x 6 x ¼ NPT 120V
*	X-424-1	Support, Probe Heater Housing
*	X-424-2	Housing, Probe Heater
*	X-424-3	Cover, Probe Heater Housing
*	1095	Connector, Lt, 3/8" Straight
*	1098	Conduit, 3/8 Flex Lt
*	1096	Connector, Lt, 3/8" x 45°
*	1678	Plate, ON-OFF
*	1082	Light, Indicator (Red)
*	1541	Switch, Toggle
*	1960	Tee, Black Pipe, ½ x ¼ x ½
*	1081	Plate, PUMP-OFF-HEAT
* Not Illustrated		

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