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China RoHS Hazardous Material Declaration

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr6)	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
All brass fittings	X	0	0	0	0	0
<p>0: Indicates that this toxic or hazardous substance contained in all the homogeneous materials for this part, according to EIP-A, EIP-B, EIP-C is below the limit requirement in SJ/T11363-2006.</p> <p>X: Indicates that this toxic or hazardous substance contained in all the homogeneous materials for this part, according to EIP-A, EIP-B, EIP-C is above the limit requirement in SJ/T11363-2006.</p>						

Introduction

The MC600M System is a gear-type pump that provides consistent fluid feed to the MC800 system.

Features include a 6 gallon capacity fluid tank, low fluid level detection switch, removable filter screen, lubrication in-line filter and fluid regulator. To obtain the maximum performance from your MC600M, please read through these instructions carefully.

Our goal is to build not only the finest equipment but also to build a long-term customer relationship founded on superb quality, service, value and trust.

Specifications

Tank size: 23.0 W x 26.9 H x 41.0 D cm
(9.0" x 10.6" x 16.0")

Weight: 14.8 kg (32.6 lb)

Capacity: 22.7 L (6 gallons)

Construction:

Tank: 18 gauge steel

Gears: hardened steel

Bearings: bronze oilite

Level switch: type 304 stainless steel

Note: Specifications and technical details are subject to engineering changes without prior notification.

Motor: Voltage: 90-125 VAC 50/60 Hz (MC600M-120)
208-230 VAC 50/60 Hz (MC600M-220)

HP: 1/8

Phase: Single

Amps: 2.4 maximum

Service factor: 1.0

Ratings: UL - E6312, CSA - LR37479, NEMA Class B

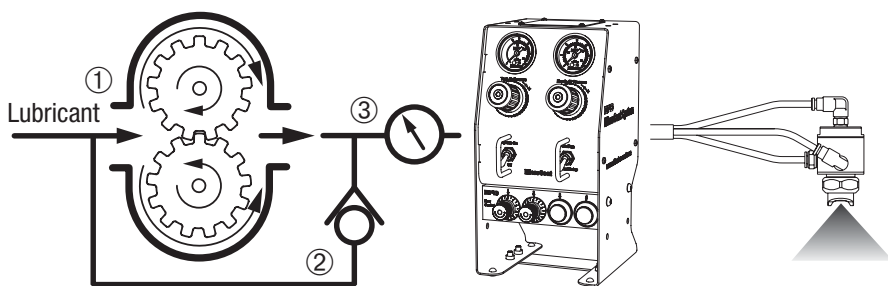
Operating pressure: 30 psi (2.07 bar) maximum

Low level switch rating: 20VA, 50W

How the System Operates

The MC600M pump system is a low pressure gear-type pump. Lubricant is drawn in on one side of the gears ①, carried around to the outside and forced to the output. If flow capacity of the pump is not used, the excess lubricant will bypass an internal relief valve ② and recirculate back into the tank.

The 30 psi pump output is further reduced by a pilot-operated fluid regulator ③ controlled by the tank pressure regulator on the MC800 controller. The fluid regulator provides an operating range of 15 psi (1.03 bar) to 30 psi (2.07 bar).



Important Notice: Caution should be used when selecting a lubricant to use with the MC600M system. Fluids with a flash point lower than 38°C (100°F) are not recommended, as they could present a fire hazard. Examples of products with low flash points are kerosene, acetone, general mineral spirits, naphtha and other solvents. Please check the product MSDS sheet carefully before using the intended product in this equipment.

Pump Tank Features

1. Low Level Switch

Prevents the system from operating without lubricant when connected to the emergency stop circuit. Switch opens when the tank level is near empty.

2. Fluid Bypass Valve

Automatically bypasses excess flow capacity of the pump. Bypass lubricant recirculates into the storage tank.

3. Inlet Filter Screen

Screens out contaminants that may enter the inlet of the pump.

4. Fill Hole Cover

Prevents contaminants from entering the tank.

5. Removable Filter Screen

Screens out contaminants that may enter during the tank filling process.

6. Shut-off Valve

Used to block fluid flow when servicing the filter.

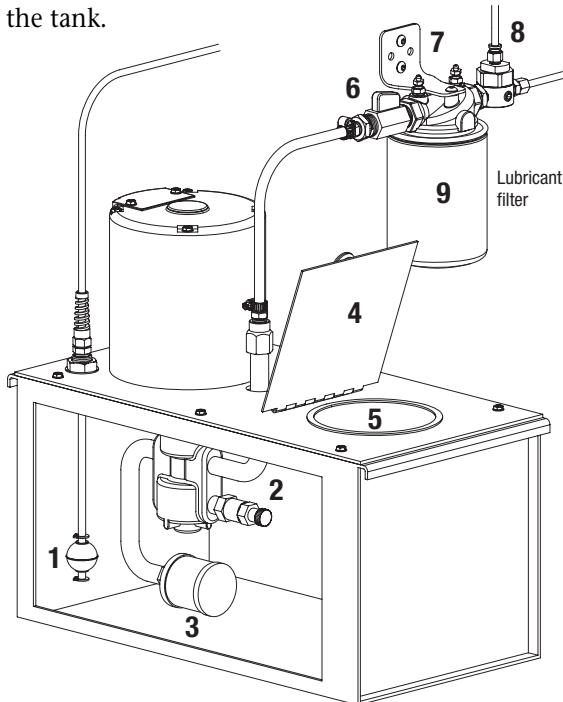
7. Bleed Valve

Used to purge air when priming the system.

8. Fluid Regulator

Pilot-operated regulator provides control of fluid pressure.

9. Lubricant Filter



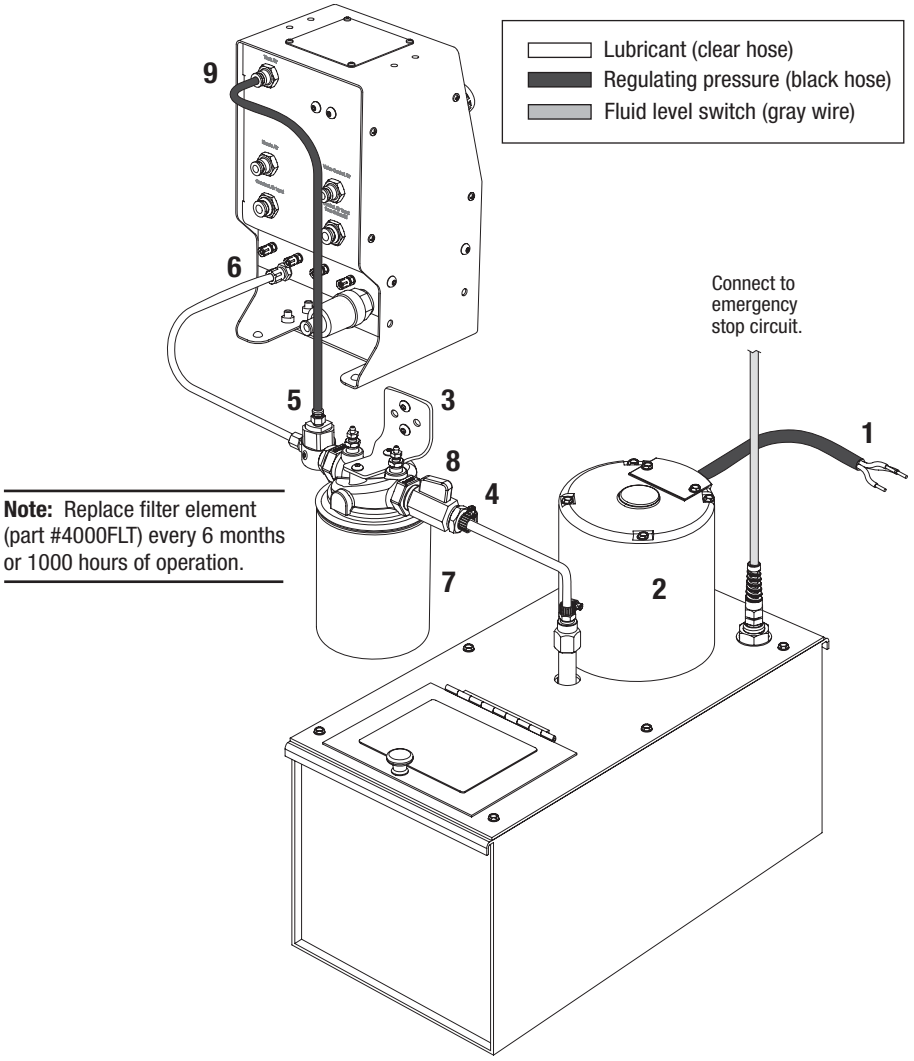
System Assembly

First, place the MC600M system away from traffic areas and position the tank to allow for convenient refilling.

DANGER: HIGH VOLTAGE! Pump must be wired, grounded and fused in accordance with local regulatory requirements.

1. Before connecting the power, view the label located on the motor to ensure that the voltage matches your input voltage. If not, reconfigure the wiring inside of the motor terminal cover to match the schematic on the side of the motor.
2. Connect the power.
3. Mount the filter and regulator assembly on the MicroCoat stand or other suitable mounting location. Ensure that the filter hangs vertically as illustrated.
4. Connect the fluid feed line from the MC600M to the shut-off valve on the inlet side of the filter housing. Secure with clamps supplied.
5. Connect the black air line connection from the MC800 controller tank air outlet to the fluid regulator air inlet as shown.
6. Connect the fluid feed line from the regulator output to the fluid inlet of the MC800 controller as shown.
7. Lubricate the oil filter gasket lightly and install the filter onto the housing. Tighten the filter 3/4 turn by hand. Do not overtighten.
8. Rotate the inlet shut-off valve to the **"OFF"** position.
9. Refer to the MicroCoat system operating manual for wiring the press emergency stop circuit and connecting the low level switch cable to the controller.

System Diagram



System Setup

Check all connections.

WARNING: DO NOT RUN PUMP DRY.

1. Check that all connections are correct and secure.
2. Lift the cover of the MC600M and fill the tank with clean lubricant.

Caution: See note on page 4 regarding fluid flash point.

3. Close the cover.
4. Place the “**System Pressure**” on the MC800 to the “**ON**” position.
5. Set the MC800 tank pressure regulator to a minimum of 15 psi (1.03 bar).
6. Start the MC600M to begin lubricant flow to the filter assembly.
7. Slowly open the shut-off valve. Check for leaks.
8. Install the filter housing purge line into the bleed valves as shown in the system diagram. Open each bleed valve and direct the purge flow into a container. Purge slowly until all air is eliminated. Do this for both bleed valves.

Preventive Maintenance

The MC600M is designed for long life with minimal maintenance. To ensure trouble-free performance, follow these precautions and preventive maintenance steps.

1. Always use clean lubricant.
2. Check for residue at the bottom of the tank and clean if necessary. Keep cleaners away from the motor, lower motor bearing and wiring.
3. The electric motor requires no lubrication.
4. Do not restrict the vents on the motor. Keep oil and debris from accumulating around the motor.
5. Do not remove the filter screen from the pump intake in order to avoid pump damage.
6. Replace the lubricant filter (part# 4000FLT) every 6 months or 1000 hours of operation.

CAUTION: Before performing any maintenance, set the “System Pressure” to the “OFF” position and disconnect power.

Troubleshooting Guide

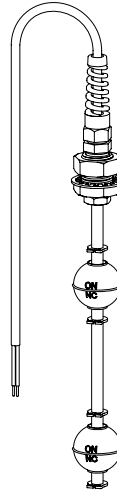
Problem	Corrections
Lubrication flow is reduced.	<ol style="list-style-type: none">1. Ensure that tank air pressure is set at a minimum of 15 psi (1.03 bar).2. Replace the oil filter.3. Ensure that the shut-off valve is fully open.4. Check the fluid inlet screen to ensure that there is no debris blocking the inlet.5. Check the hoses to ensure there are no bends or restrictions.6. Viscosity of the lubricant is too heavy (500 SUS maximum).7. Check the voltage, cycle and phase to ensure that the pump is operating on the right electrical current.8. Ensure that the pump inlet is submersed.9. Check the relief valve for dirt or chips lodging on the valve seat, preventing the ball from closing and causing liquid to constantly bypass.10. Check that motor rotation is free and does not bind. The motor and pump may not be aligned. If there is binding, loosen the (2) nuts that hold the motor to the pump casting, rotate the pump casting until it is aligned and the pump runs freely. Retighten the nuts carefully.

If trouble cannot be corrected, or if you need further assistance, **please call**. In the U.S., **800-556-3484**. In Europe, call +44 (0) 1582 666334. In Asia, call +86 (21) 5854 2345. In all other areas, call your authorized EFD distributor or +1-401-434-1680.

Accessories

Dual Float Switch

#68821: For tank autofill applications. Mounts directly in the plugged hole on the MC600M. Includes (1) dual float switch, (1) bulkhead union and (1) cord strain relief.



Replacement Part Numbers

2024-6MM	6mm OD urethane tubing, blue
8134	Push-in fitting
2316	3/8" OD x 1/4" ID tubing, polyethylene
8146	Bleed valve
4053	Shut-off valve
4054	Fluid regulator
4056	Fluid regulator repair kit
4078	Gear replacement kit
4079	Filter assembly gear pump intake
2009L	Oil resistant power cord
4000FLT	Lubricant filter element (4) per box
68822	Float switch kit
8103	MicroCoat filter assembly