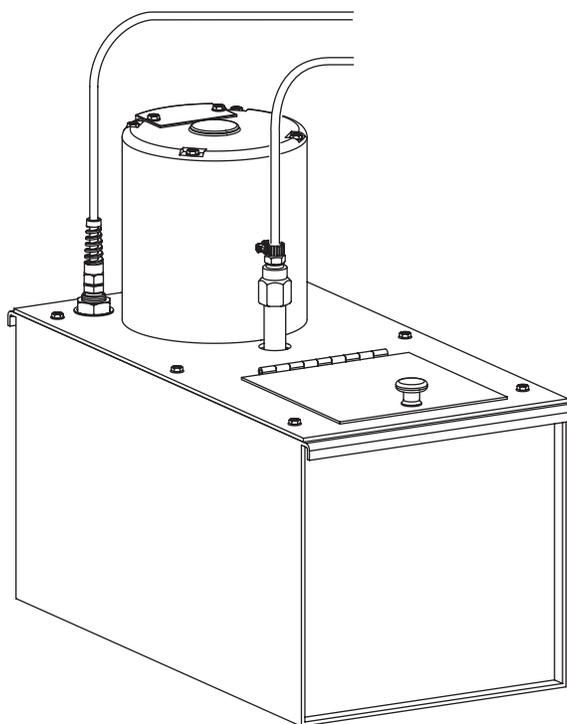


# MicroCoat MC600 Pump System

## Operating Manual



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## 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

**NOTE:** Specifications and technical details are subject to change without prior notification.

Item	Specification
Tank size	23.0W x 26.9H x 41.0D cm (9.0W x 10.6H x 16.0D")
Weight	14.8 kg (32.6 lb)
Capacity	22.7 L (6 gal)
Construction	Tank: 18 gauge steel Gears: Hardened steel Bearings: Bronze oilite Level switch: Type 304 stainless steel
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	2.07 bar (30 psi) maximum
Low level switch rating	20 VA, 50 W

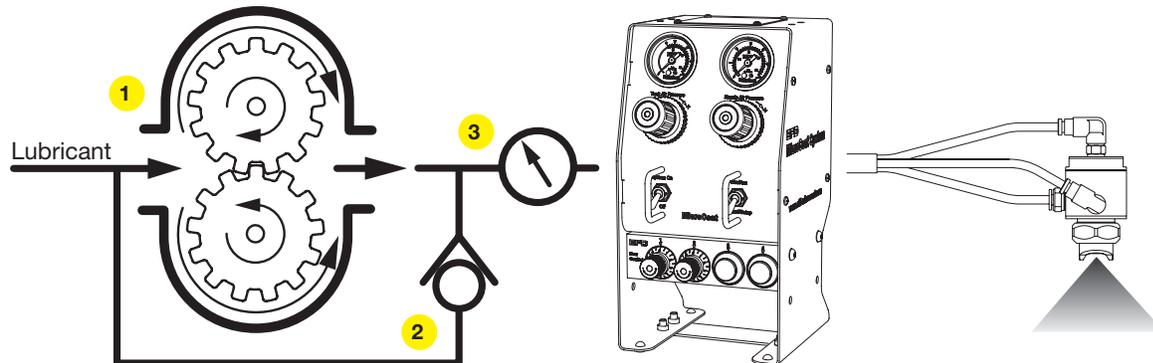
### RoHS标准相关声明 (China RoHS Hazardous Material Declaration)

产品名称 Part Name	有害物质及元素 Toxic or Hazardous Substances and Elements					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr6)	多溴联苯 Polybrominated Biphenyls (PBB)	多溴联苯醚 Polybrominated Diphenyl Ethers (PBDE)
外部接口 External Electrical Connectors	X	0	0	0	0	0
<p><b>0:</b> 表示该产品所含有的危险成分或有害物质含量依照EIP-A, EIP-B, EIP-C的标准低于SJ/T11363-2006 限定要求。 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><b>X:</b> 表示该产品所含有的危险成分或有害物质含量依照EIP-A, EIP-B, EIP-C的标准高于SJ/T11363-2006 限定要求。 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>						

## 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 the 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 1.03 bar (15 psi) to 2.07 bar (30 psi).




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**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 SDS carefully before using the intended product in this system.

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# 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.

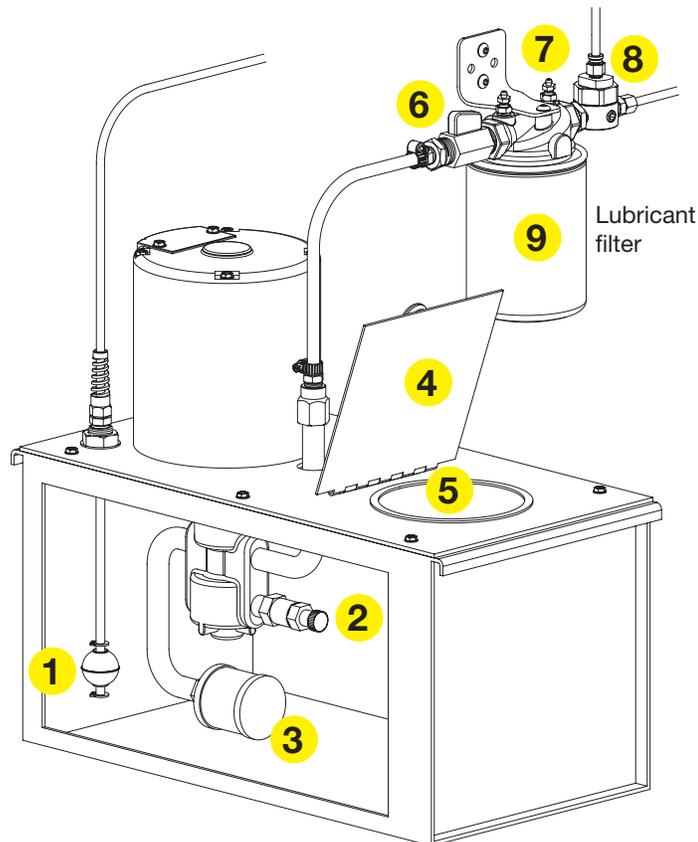
## 7. Bleed Valve

Used to purge air when priming the system.

## 8. Fluid Regulator

Pilot-operated regulator provides control of fluid pressure.

## 9. Lubricant Filter



## System Assembly

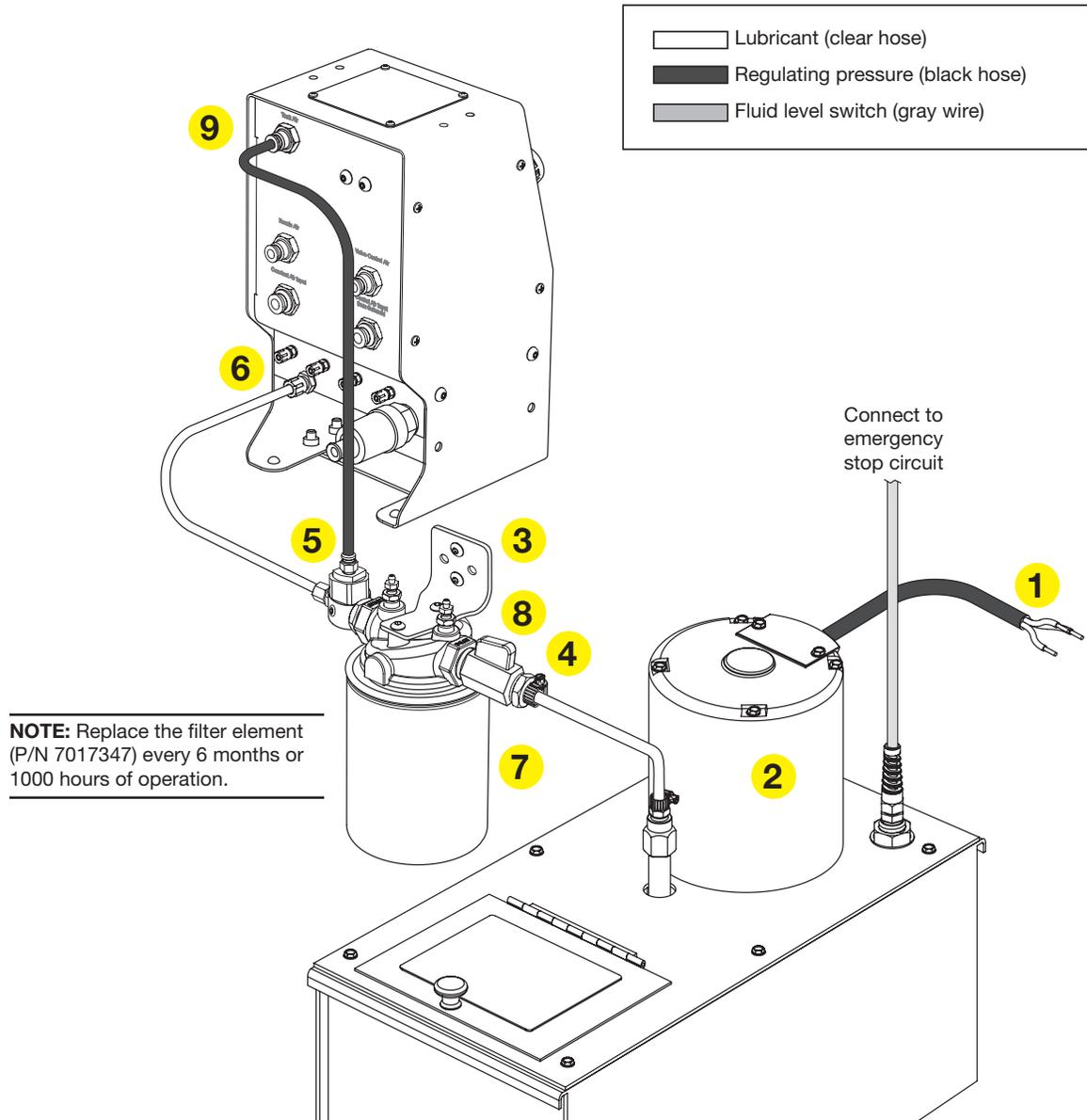
First, place the MC600M system away from traffic areas and position the tank to allow for convenient refilling.

### 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, see the diagram on page 7. 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 the 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 on 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

#### CAUTION

DO NOT RUN THE 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 the note on page 4 regarding the fluid flash point.

3. Close the cover.
4. Place the “System Pressure” on the MC800 controller in the “ON” position.
5. Set the MC800 tank pressure regulator to a minimum of 1.03 bar (15 psi).
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

#### WARNING

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

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

- Always use clean lubricant.
- Check for residue at the bottom of the tank and clean if necessary. Keep cleaners away from the motor, lower motor bearing and wiring.
- The electric motor requires no lubrication.
- Do not restrict the vents on the motor. Keep oil and debris from accumulating around the motor.
- To avoid pump damage, do not remove the filter screen from the pump intake.
- Replace the lubricant filter (P/N 7017347) every 6 months or 1000 hours of operation.

## Part Numbers

Part #	Description
7023843	MC685M, 3.8 liter (1 gal) acrylic see-through tank
7023846	MC686M, 7.5 liter (2 gal) acrylic see-through tank

## Replacement Parts

Part #	Description
7002004	6 mm OD urethane tubing, blue
7022195	Push-in fitting
7017038	3/8" OD x 1/4" ID tubing, polyethylene
7016693	Oil resistant power cord
7017347	Lubricant filter element (4) per box
7022156	MicroCoat filter assembly

## Troubleshooting

Problem	Corrections
Lubrication flow reduced	<ol style="list-style-type: none"> <li>1. Ensure that tank air pressure is set at a minimum of 1.03 bar (15 psi).</li> <li>2. Replace the oil filter.</li> <li>3. Ensure that the shut-off valve is fully open.</li> <li>4. Check the fluid inlet screen to ensure that there is no debris blocking the inlet.</li> <li>5. Check the hoses to ensure there are no bends or restrictions.</li> <li>6. Viscosity of the lubricant is too heavy (500 SUS maximum).</li> <li>7. Check the voltage, cycle and phase to ensure that the pump is operating on the right electrical current.</li> <li>8. Ensure that the pump inlet is submersed.</li> <li>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.</li> <li>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.</li> </ol>



## NORDSON EFD ONE YEAR LIMITED WARRANTY

This Nordson EFD product is warranted for one year from the date of purchase to be free from defects in material and workmanship (but not against damage caused by misuse, abrasion, corrosion, negligence, accident, faulty installation, or by dispensing material incompatible with equipment) when the equipment is installed and operated in accordance with factory recommendations and instructions.

Nordson EFD will repair or replace free of charge any defective part upon authorized return of the part prepaid to our factory during the warranty period. The only exceptions are those parts which normally wear and must be replaced routinely, such as, but not limited to, valve diaphragms, seals, valve heads, needles, and nozzles.

In no event shall any liability or obligation of Nordson EFD arising from this warranty exceed the purchase price of the equipment.

Before operation, the user shall determine the suitability of this product for its intended use, and the user assumes all risk and liability whatsoever in connection therewith. Nordson EFD makes no warranty of merchantability or fitness for a particular purpose. In no event shall Nordson EFD be liable for incidental or consequential damages.

This warranty is valid only when oil-free, clean, dry, filtered air is used, where applicable.



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