



# INSTRUCTIONS

FOR

# HYDRAULIC FILTER UNITS

**NEF11-610-603**

**MM4-610-603**



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**PLASTIC PROCESS EQUIPMENT, INC.**

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### **RECEIVING:**

Please thoroughly inspect your PPE Hydraulic Oil Filtration System and report any damage to the motor freight carrier before uncrating for setup. They are responsible for any damage incurred during transit. Make note of model and serial numbers. These numbers must be used when ordering parts or accessories from PPE.

### **ELECTRICAL:**

The PPE Hydraulic Oil Filtration System comes pre-wired for 115V/1/60 power. Always use a grounded 120 volt outlet. If you must use an extension cord, ensure that the extension cord's rating is of the proper size. Failure to do so could cause a low voltage condition and premature failure of the unit.

### **INTRODUCTION:**

The PPE Hydraulic Oil Filtration Systems are self contained oil filtration systems. They use replaceable filters. The units operate by recirculation, pumping the oil from the reservoir through a filter and back into the reservoir.

### **SAFETY PRECAUTIONS:**

**WARNING: EXPLOSION HAZARD. DO NOT PUMP FLAMMABLE LIQUID SUCH AS GASOLINE, ALCOHOL, SOLVENTS, ETC.**

**WARNING: DO NOT USE WHERE FLAMMABLE VAPORS ARE PRESENT. MOTOR CAN SPARK AN EXPLOSION.**

- 1) Read operating instructions thoroughly.
- 2) All personnel using and operating the filter should wear suitable protective clothing and goggles.
- 3) Do not perform service or replace cartridge unless electrical power supply is disconnected.

### **OPERATION:**

When using the filter for the first time on an oil sump or reservoir, it is sometimes necessary to replace the filter cartridge during initial removal of the sludge which is accumulated over a period of time. Once the cleanup of the oil has been accomplished, continued periodic use of the filter will keep the system in clean condition and will extend life of the filter cartridges. Each reservoir should be filtered as frequently as possible. This can be done without shutting down the machinery or removing the oil from the reservoir.

The filter should be permitted to pump four times the reservoir capacity to obtain thorough filtration of the oil. When the desired clarity has been reached, the filter should be advanced to the next reservoir. In this manner all reservoirs will be filtered on a scheduled program and the oil will be maintained at a constant, high clarity level.

### **NOTE:**

It is recommended that the PPE Hydraulic Oil Filtration System be used with oil at machine operating temperature. When operating the filter on cold oil, the high initial pressure may cause it to appear the filter cartridges are fully loaded with dirt. This practice is not harmful, but should be avoided whenever possible. When salvaging a drum of oil at room temperature, the above conditions will exist so the gauge pressure should be watched closely.



## **START-UP:**

### **FILTERING BY RECIRCULATION:**

- 1) Connect suction and discharge hoses.
- 1) Place both Probes in reservoir. Locate at opposite ends or at different depths to obtain maximum circulation across reservoir. To prevent pump cavitation, keep suction hose from touching bottom or side wall of tank.
- 2) Plug extension cord into convenient 115 Volt outlet and switch toggle to "ON" position.
- 3) Filter to clarity by continuously recirculating.

### **TRANSFER PUMPING:**

- 1) Place suction hose in drum, place discharge hose in machine, or vice-versa.
- 2) Transfer oil from drum to machine.

### **OIL SALVAGE:**

Extremely dirty oil may be reconditioned by filtering from one storage drum to another. This method assures that all the oil has passed through the filter. Four passes will remove all the sediment. Letting the oil settle for several hours and drawing oil only off the top will extend the life of the filter cartridges.

### **CARTRIDGE REPLACEMENT:**

Indicated gauge pressure, not flow rate, will determine whether or not the filter cartridges should be replaced. When the gauge pressure reaches approximately 25PSI, the filters are loaded with dirt and should be discarded. On Cart type units if the filters get too dirty the pump relief valve automatically cuts in at 65psi pressure, at which time a small portion of total flow is recirculated internally in the pump to maintain this maximum pressure.

### **Y-STRAINER SCREEN AND PUMP FILTER:**

The MM4 unit has a filter in the pump itself, this filter requires periodic cleaning.

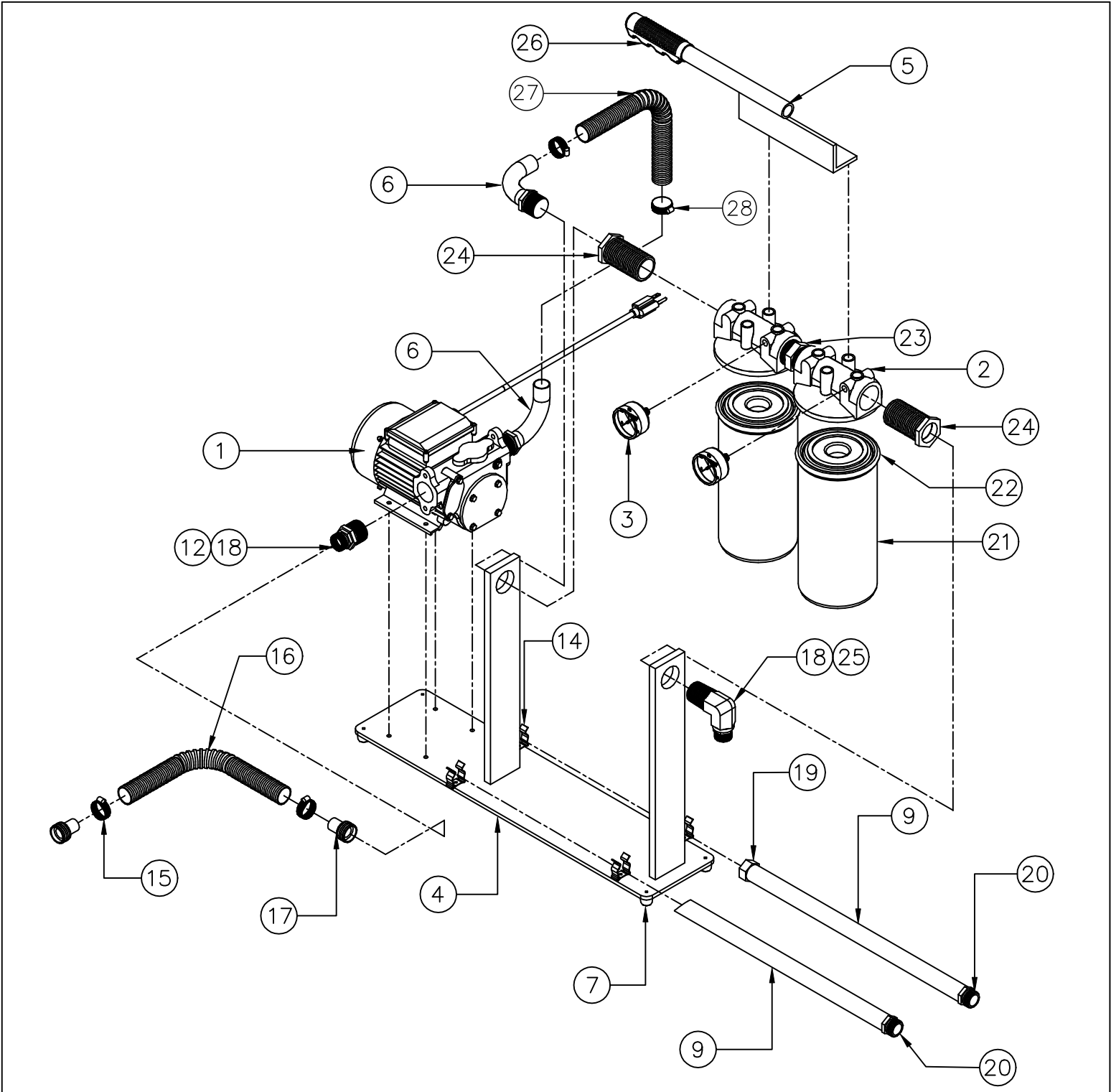
The NEF Cart mounted units have a Y-strainer screen located in the suction line to protect the pump against damage from larger foreign solids. Periodically remove the strainer element for cleaning and inspection. When the strainer becomes plugged it will impede flow of oil to the pump, resulting in unusually loud pump operation, reduction of flow and pressure.

- 1) Loosen and remove nut in "Y" strainer for removal of screen.
- 2) Clean and replace screen

### **TROUBLE SHOOTING:**

- 1) High initial pressure on gauge, caused by dense filter element, or high flow rate, high viscosity oil, or extremely dirty oil. Pressure can be reduced by using less dense filter element or increasing temperature of oil.
- 2) Air in discharge hose or light color of oil in discharge hose, caused by plugged suction strainer screen. Refer to strainer screen cleaning instructions.
- 3) Unusual loud noise, caused by pump cavitation which is the effect of a plugged strainer screen or end of suction hose is against bottom or sidewall of reservoir.

# PORTABLE OIL FILTRATION UNIT



## PLASTIC PROCESS EQUIPMENT, INC.

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## PARTS LIST FOR MM4-610-603 FILTER

08/10/21

| ITEM NUMBER | QTY | PART NUMBER | DESCRIPTION                                | UOM |  |
|-------------|-----|-------------|--|-----|--|
| 1           | 1   | MM4-1       | PUMP FOR MM4 OIL FILTER NEW STYLE 24925    | EA  |  |
| 2           | 2   | SF-120-50-3 | SPIN ON FILTER HEADS                       | EA  |  |
| 3           | 2   | CI-20       | PRESSURE GAUGE FOR NEF11                   | EA  |  |
| 4           | 1   | A-9770      | BASE FOR MM4                               | EA  |  |
| 5           | 1   | A-9771      | HANDLE ASSEMBLY FOR MM4                    | EA  |  |
| 6           | 2   | 23871-16-16 | 1" ROUNDED ELBOW FOR NEF11 & MM4           | EA  |  |
| 7           | 4   | MM4-7       | RUBBER FEET FOR MM4 FILTER                 | EA  |  |
| 9           | 1   | A-9420      | FEED TUBE LESS FITTINGS FOR MM4 FILTER (SE | SET |  |
| 12          | 1   | MM4-12      | 1" X 3/4" HEX BUSHING                      | EA  |  |
| 14          | 4   | MM4-14      | FINGER GRIP CLIPS                          | EA  |  |
| 15          | 4   | EC286       | CRIMP ON HOSE CLAMPS                       | EA  |  |
| 16          | 13  | MM4-16      | 3/4" HOSE PER FT                           | FT  |  |
| 17          | 4   | MM4-17      | 3/4" FEMALE GH COUPLING                    | EA  |  |
| 18          | 1   | MM4-18      | MGH X 3/4" MALE PIPE ADAPTOR               | EA  |  |
| 19          | 1   | MM4-19      | FGH X 1/2" MALE PIPE ADAPTOR               | EA  |  |
| 20          | 2   | MM4-20      | MGH X 1/2" MALE PIPE ADAPTOR FOR NEF       | EA  |  |
| 21          | 1   | NEF-610     | 610 10MIC FILTER FOR NEF11                 | EA  |  |
| 22          | 1   | NEF-603     | 603 3MIC FILTER FOR NEF11                  | EA  |  |
| 23          | 1   | 5404-20     | 1-1/4 HEX NIPPLE                           | EA  |  |
| 24          | 2   | B-11410     | BRONZE BUSHING 1-1/4 X 1"                  | EA  |  |
| 25          | 1   | MM4-11      | 1" MALE X 3/4" FEMALE 90° ELBOW            | EA  |  |
| 26          | 1   | MM4-26      | RED VINYL GRIP                             | EA  |  |
| 27          | 1   | 1400280     | 1" SPRING WIRE HOSE FOR NEF11 PER FT       | EA  |  |
| 28          | 2   | HSS-16      | HOSE CLAMPS                                | EA  |  |