

**INCLUDING: OPERATION, INSTALLATION AND MAINTENANCE.**

**RELEASED: 10-6-15**

INCLUDE MANUALS: AF0450LXXXXX-XX-X Basic Grease Pump (pn 97999-1502), 651900 Follower Assembly (pn 97999-1748) & S-636 General Information (pn 97999-636).

**(REV: B)**

**4 1/4" AIR MOTOR  
50:1 RATIO  
4" STROKE**

## PAIL MOUNTED PACKAGE 5 GALLON



**READ THIS MANUAL CAREFULLY BEFORE INSTALING,  
OPERATING OR SERVICING THIS EQUIPMENT.**

It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.

### SERVICE KITS

- Use only genuine ARO® replacement parts to assure compatible pressure rating and longest service life.
- **637489** for repair of AF04XX-XX air motor.
- **637485** for repair of lower pump section packing.

### MODEL DESCRIPTION CHART

| PM 04 50 L 2 XXXXX XX X  |  |
|--|--|
| <b>Package</b><br>PM - Pail Mounted  |  |
| <b>Air Motor Size</b><br>04 - 4 1/4"   |  |
| <b>Pump Ratio</b><br>50 - 50:1   |  |
| <b>Check Type / Wetted Materials</b><br>L - Primer Piston (inlet), Ball (outlet) /<br>Carbon Steel |  |
| <b>Mount Style</b><br>2 - 5 gallon (35 lbs)  |  |
| <b>Lower Pump End Options</b><br>Refer to pump model operator's manual                             |  |
| <b>Follower Assembly</b><br>C1 - 651900  |  |
| <b>Package Option</b><br>0 - None  |  |

### PM0450L2XXXXXXX PAIL MOUNTED PACKAGE

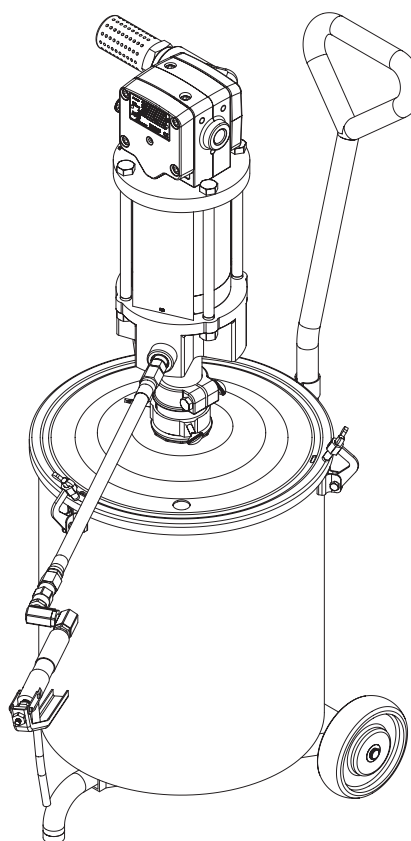


Figure 1

### GENERAL DESCRIPTION

By delivering a smooth, continuous bead of the proper size, an ARO system helps the operator maintain both production rate and produce high quality standards. Maintained quality standards assures that the material benefits are realized. To further maximize operator production time, the ARO system has a built-in pail mounted feature for quick and easy drum changeover and easy lifting of the pump assembly from the container.

ARO systems are totally enclosed, sealing the material in the system from air and moisture, preventing premature cure-out of the material. This allows for either continuous or intermittent use of the system and allows the need for daily system clean-up.

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## INSTALLATION

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The PM0450L2XXXXXXX pail mounted comes completely assembled. Remove the unit from the crate and place on a level surface. Install the material hose and dispensing device as required.

When the following instructions are observed, heavy paste materials can be pumped directly from their original drum without air inclusion or excessive waste. The follower plate creates an air tight seal as well as clean-wiping action in its progressive downward movement into the drum.

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## OPERATING AND SAFETY PRECAUTIONS

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**⚠ WARNING** READ THE GENERAL INFORMATION MANUAL INCLUDED FOR OPERATING AND SAFETY PRECAUTIONS AND OTHER IMPORTANT INFORMATION.

**⚠ WARNING** EXCESSIVE INLET PRESSURE. Can cause explosion resulting in severe injury or death. Do not exceed maximum operating pressure of 7500 psig (517.2 bar) at 150 psig (10.3 bar) inlet air pressure. Do not run pump without using a regulator to limit air supply pressure to the pump.

**PUMP RATIO X INLET PRESSURE TO PUMP MOTOR = MAXIMUM PUMP FLUID PRESSURE**

Pump ratio is an expression of the relationship between the pump motor area and the lower pump end area. EXAMPLE: When 150 psig (10.3 bar) inlet pressure is supplied to the motor of a 50:1 ratio pump, it will develop a maximum of 7500 psig (517 bar) fluid pressure (at no flow) - as the fluid control is opened, the flow rate will increase as the motor cycle rate increases to keep up with the demand.

**⚠ WARNING** EXCESSIVE MATERIAL PRESSURE. Can cause equipment failure resulting in severe injury or property damage. Do not exceed the maximum material pressure of any component in the system.

**Thermal expansion hazard. This can occur when the fluid in the material lines is exposed to elevated temperatures. Example: Material lines located in a non-insulated roof area can warm due to sunlight. Install a pressure relief valve in the pumping system.**

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## AIR AND LUBE REQUIREMENTS

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Filtered air will help extend the life of the pump, allowing the pump to operate more efficiently and yield longer service life to moving parts and mechanisms.

- Use an air line filter to provide good quality clean and dry air. Install it up stream from the air regulator.
- Use an air regulator on the air supply to control the pump cycle rate. Install the regulator as close as possible to the pump.
- In most installations, lubrication is not required. If the pump needs to have lubrication, install an air line lubricator between the pump and the air regulator and supply it with a good grade of non-detergent oil or other lubricant that is compatible with Nitrile seals. Set at a rate not to exceed one drop per minute.

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## INSTALLATION

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Assemble the components included in the package as shown in Figure 2 (page 3). **NOTE:** In rigid plumbing applications, use flexible material and air supply hoses when attaching the pump to prevent damage by vibration.

1. Insert the pump into the adapter and tight at the proper height with screws. Thread the bung adapter into the cover. Insert the pump into the bung and then secure with the thumb screws provided.

**NOTE:** Ensure the foot of pump have closed to the bottom of the used drum.

2. Install the outlet adapter, material hose, hose adapter and gun with swivel.
3. Lay the follower on top of a full bucket of grease. Feed the lower pump end into the follower and secure the cover with the thumb screws.
4. Attach a connector to the pump and a coupler to the air supply hose.
5. Connect the material hose to the pump outlet. Tighten all fittings. Use caution not to damage threads.

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## OPERATION

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### START-UP

1. Turn the air regulator to "0" pressure setting. Connect the air hose.
2. Prime the pump by cycling slowly, raising the pressure to 20 - 30 psig (1.4 - 2.1 bar). Cycle the pump until the test grease and any trapped air has been purged from the system.
3. Close the dispensing device. Allow the pump to build line pressure and stall. Check for any leaks and re-torque fittings if needed. Adjust the air pressure upward as required for the application.

**NOTICE** If the pump does not prime soon after initial start-up, establish what the problem is to prevent unnecessary damage to the pump plunger.

### SHUTDOWN

- Disconnect the air supply from the pump if it is to be inactive for a few hours. Open the dispensing device to relieve line pressure.

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## SERVICE

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Refer to the basic pump manual for service instructions which also cover disassembly and reassembly for installation of the rebuild kit.

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## TROUBLESHOOTING

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### If the pump will not cycle or will not deliver material.

- Be certain to check for non-pump problems including kinked, restrictive or plugged inlet / outlet hose or dispensing device. Depressurize the pump system and clean out any obstructions in the inlet / outlet material lines.
- Check all seals, including track gaskets.
- Check direction of "U" cup lips.

# PARTS LIST / PM0450L2XXXXXXX

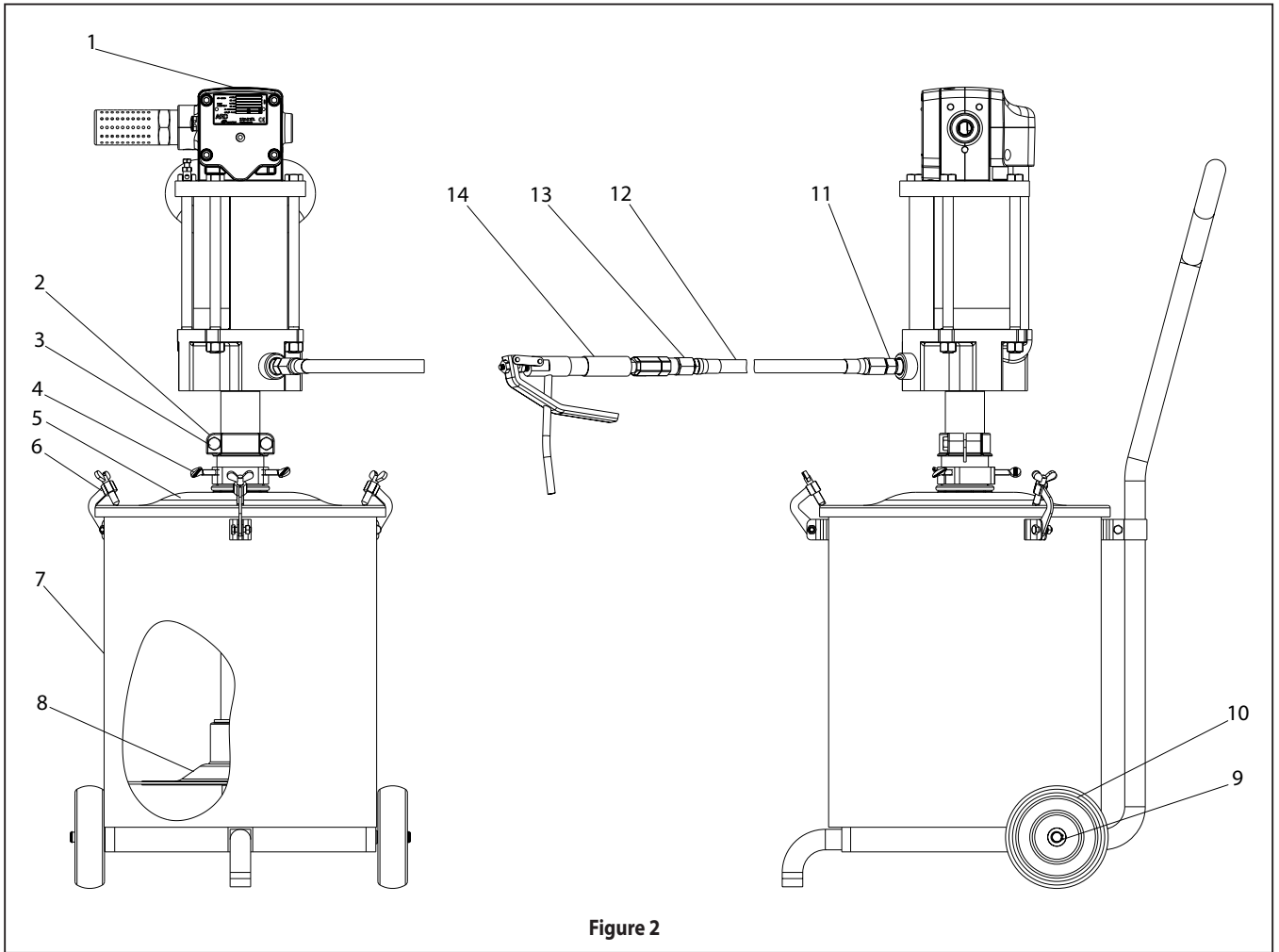


Figure 2

| Item | Description (size)     | Qty | Part No.       |
|------|------------------------|-----|----------------|
| 1    | Basic 50:1 Grease Pump | (1) | AF0450L2XXXXXX |
| 2    | Adapter                | (1) | 97335          |
| 3    | Screw                  | (2) | Y6-67-C        |
| 4    | Bung, ASM              | (1) | 67145-5        |
| 5    | Cover                  | (1) | 80192222       |
| 6    | Bracket                | (3) | 80192248       |

| Item | Description (size)                     | Qty | Part No. |
|------|--|-----|----------|
| 7    | Base Bracket                           | (1) | 80192511 |
| 8    | Follower Plate                         | (1) | 651900   |
| 9    | Snap Ring                              | (2) | 80192446 |
| 10   | Wheel                                  | (2) | 80192313 |
| * 11 | Adapter (M18 x1.5 C-Type x 1/2-14 NPT) | (1) | 97341    |
| * 12 | Material Hose (3/8" ID x 4m)           | (1) | 97342    |
| * 13 | Hose Adapter                           | (1) | 97345    |
| 14   | Grease Gun with Z-Swivel               | (1) | 80192404 |

\* Items included in Material Hose Kit 67468

# DIMENSIONAL DATA

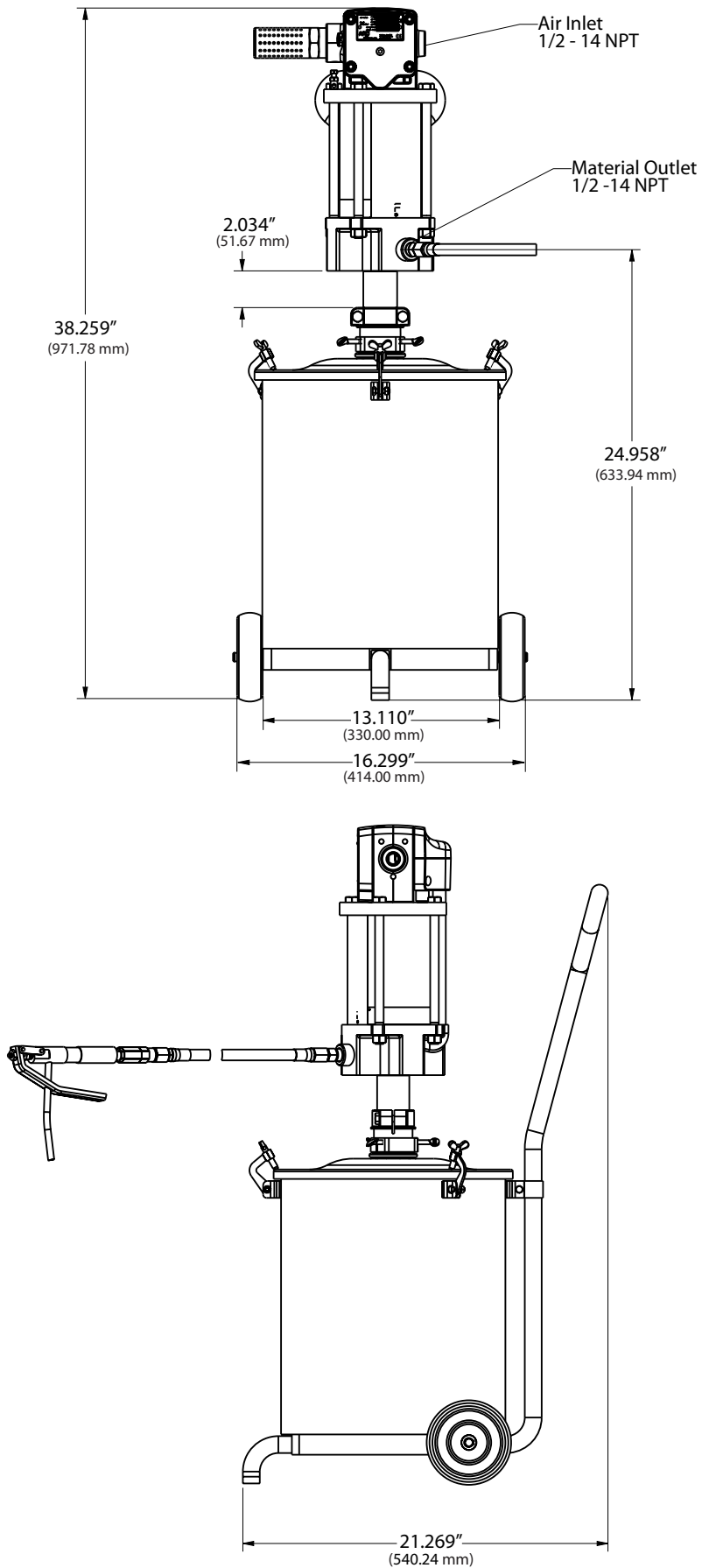


Figure 3