

OPERATOR'S MANUAL

CL0409A91XXXXXX

INCLUDING: OPERATION, INSTALLATION AND MAINTENANCE.

Also Include Manuals: AF0409AX1XX Pump Manual (97999-1492), 635101 Swivel (97999-045), 651500-X Spray Gun (97999-021), 67486-X Follower Assembly (97999-1809), 67487-X Follower Assembly (97999-1810), 66731-X Follower Assembly (97999-213), 67347-X Follower Assembly (97999-1102), 67075-X-B Cart (97999-1018) and S-636 General Information (97999-636).

RELEASED: 2-15-10

REVISED: 11-3-17

(REV: C)

4 1/4" AIR MOTOR
9:1 RATIO
4" STROKE

CL0409A91XXXXXX
Pump and Cart Package



**READ THIS MANUAL CAREFULLY BEFORE INSTALLING,
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 air motor section.
- **K1875AXXXXXX** for repair of lower pump end.

MODEL DESCRIPTION CHART

	CL	04	09	A	9	XXXX	XX	X
Package Cart Mount with Lift								
Air Motor Size 4 - 4 1/4"								
Pump Ratio 9 - 9:1								
Check Type / Wetted Materials A - Two Ball, Carbon Steel								
Container Suitability 9 - 5 gallon (35 lbs) with Optional Piston								
Lower Pump End Options Refer to pump model operator's manual								
Follower Assembly								
E3- 67486-1				EA- 66731-1				T7- 67347-12
E1- 67486-2				EB- 66731-2				
E5- 67486-3				A8- 67347-1				
S2- 67487-1				A7- 67347-2				
EC- 66731				T8 - 67347-11				
Package Option								
0 - None								
1 - Integrated ball valve regulator on pump								
B - Application Kit with Integrated Ball Valve Regulator on Pump								

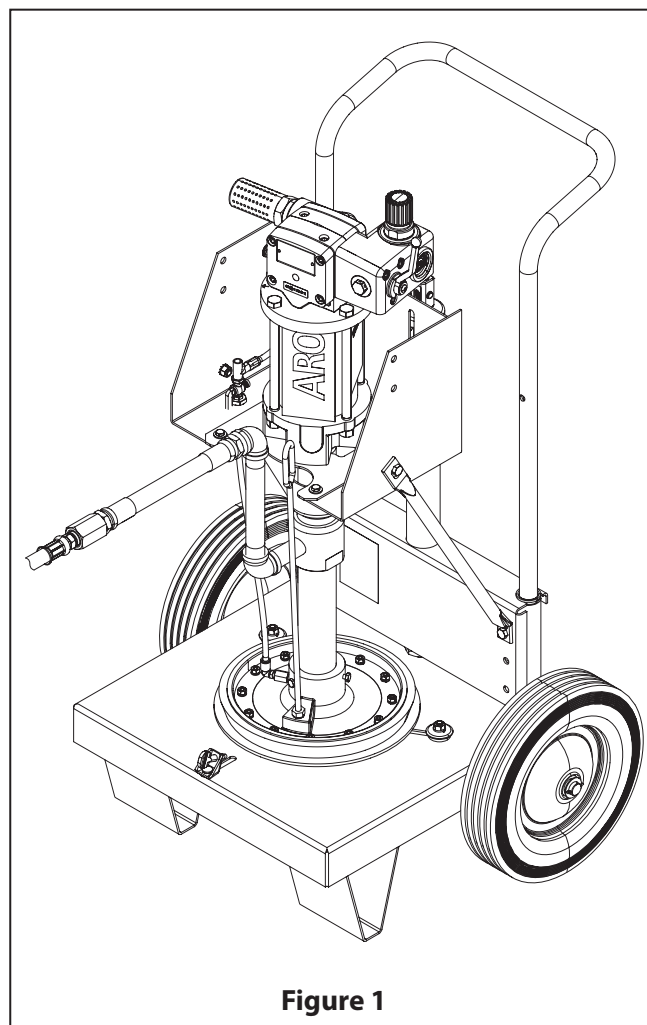


Figure 1

AIR AND LUBE REQUIREMENTS

- Excessive air pressure will shorten the life of the pump. Do not operate pump above recommended maximum air pressure. For maximum operating efficiency, the following air supply specification should be maintained to this pump:
 - AIR PRESSURE - Refer AF0409AX1XX pump manual for maximum pressure note.
 - AIR FILTRATION - 50 micron
 - LUBRICATED AIR SUPPLY
 - AIR INLET SIZE - 1/2" N.P.T.F. - 1

Filtered and oiled air will allow the pump to operate more efficiently and yield a longer life to operating parts and mechanisms.

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PARTS LIST / CL0409A91XXXXXXX

Item	Description	Qty	Part No.
1	Pump Assembly	(1)	AF0409A91XXXX
2	Cart Assembly	(1)	67075-1-B
3	Follower Assembly (see model description chart on page 1)	(1)	
*4	Hose Assembly (3/8" i.d. x 15')	(1)	622651-15
*5	Hose Assembly (1/2" i.d. x 5')	(1)	623501-5
*6	Control Handle	(1)	651500
*7	Gasket	(1)	75815
*8	Nut	(1)	92367

Item	Description	Qty	Part No.
*9	Nozzle	(1)	91424-12
*10	Swivel (3/8 x 1/2 NPT)	(1)	635107
*11	Adapter	(1)	90423
12	90° Elbow (3/4")	(2)	Y43-15-N
13	Nipple (3/4" x 7" long)	(1)	Y44-50-N
14	Nipple (3/4" x 3" long)	(1)	Y44-43-N
15	Screw	(4)	Y6-42-C
*	Only included with CL0409A9XXXXXXB models		

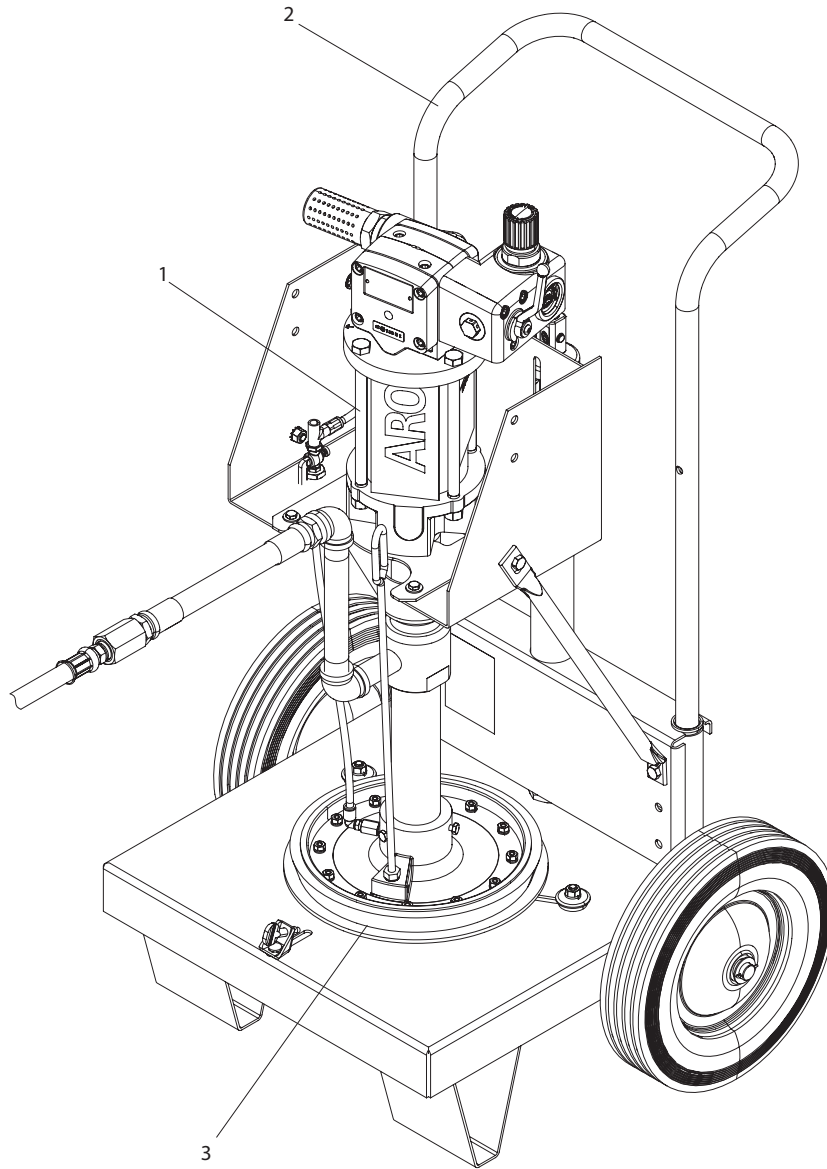


Figure 2

PARTS LIST / CL0409A91XXXXXXX

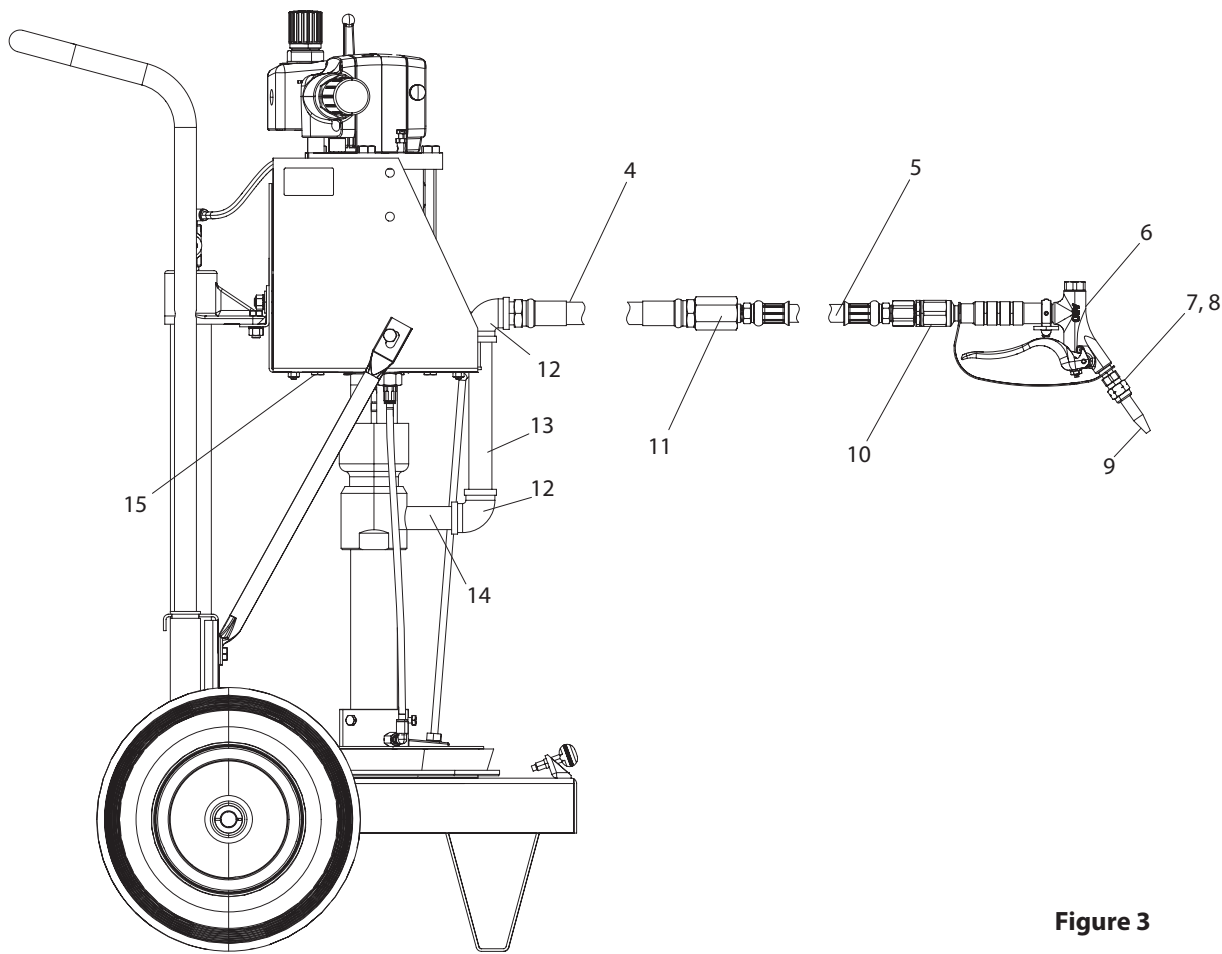


Figure 3

PARTS LIST / CL0409A91XXXXXXX

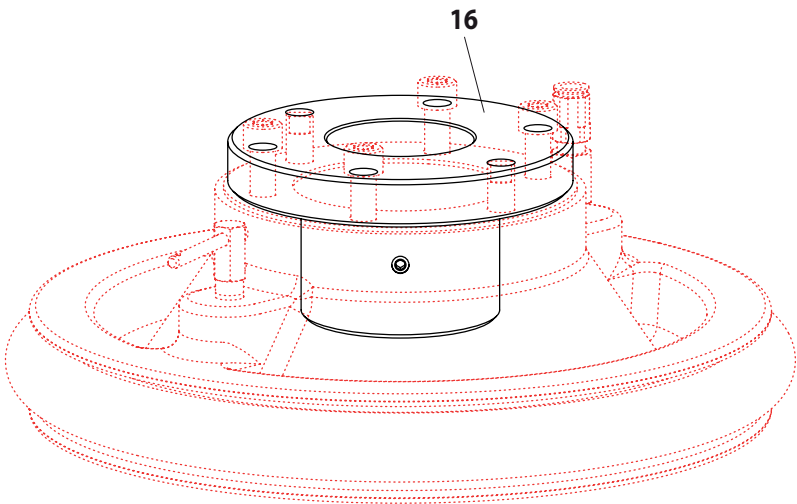


Figure 4

Item	Description	Qty	Part No.	Material
16	Adapter (models CL0409A91XXXX AX X only)	(1)	67446	Aluminum
	(models CL0409A91XXXX TX X only)	(1)	67447	PTFE Coated Aluminum

MODEL DESCRIPTION / FOLLOWER PLATE OPTIONS

Model	Pump Size	Follower Plate Material	Seal Type	Seal Material	Seal Diameter	Follower ASM
CL0409A91XXXX A7 X	Standard Footprint "A" with 67446 or 67447 adapter	Aluminum	Single Tube	EPR	11.440" (290.6 mm)	67347-2
CL0409A91XXXX A8 X				Nitrile		67347-1
CL0409A91XXXX T7 X		Aluminum with PTFE Coating		EPR		67347-12
CL0409A91XXXX T8 X				Nitrile		67347-11
CL0409A91XXXX E1 X	Slip-On "C"	Carbon Steel, Electroless Nickel Coating	Single Lip	Nitrile / Polyethylene	11.614" (295.0 mm)	67486-2
CL0409A91XXXX E3 X				Polyurethane / Polyethylene	11.437" (290.5 mm)	67486-1
CL0409A91XXXX E5 X				Nitrile / Polyethylene	12.281" (311.9 mm)	67486-3
CL0409A91XXXX EA X			Double Lip	Polyurethane	11.609" (294.9 mm)	66731-1
CL0409A91XXXX EB X				EPR		66731-2
CL0409A91XXXX EC X				Nitrile		66731
CL0409A91XXXX S2 X			Stainless Steel	Single Lip	PTFE Coated Nitrile / Polyethylene	11.437" (290.5 mm)

FOLLOWER PLATES

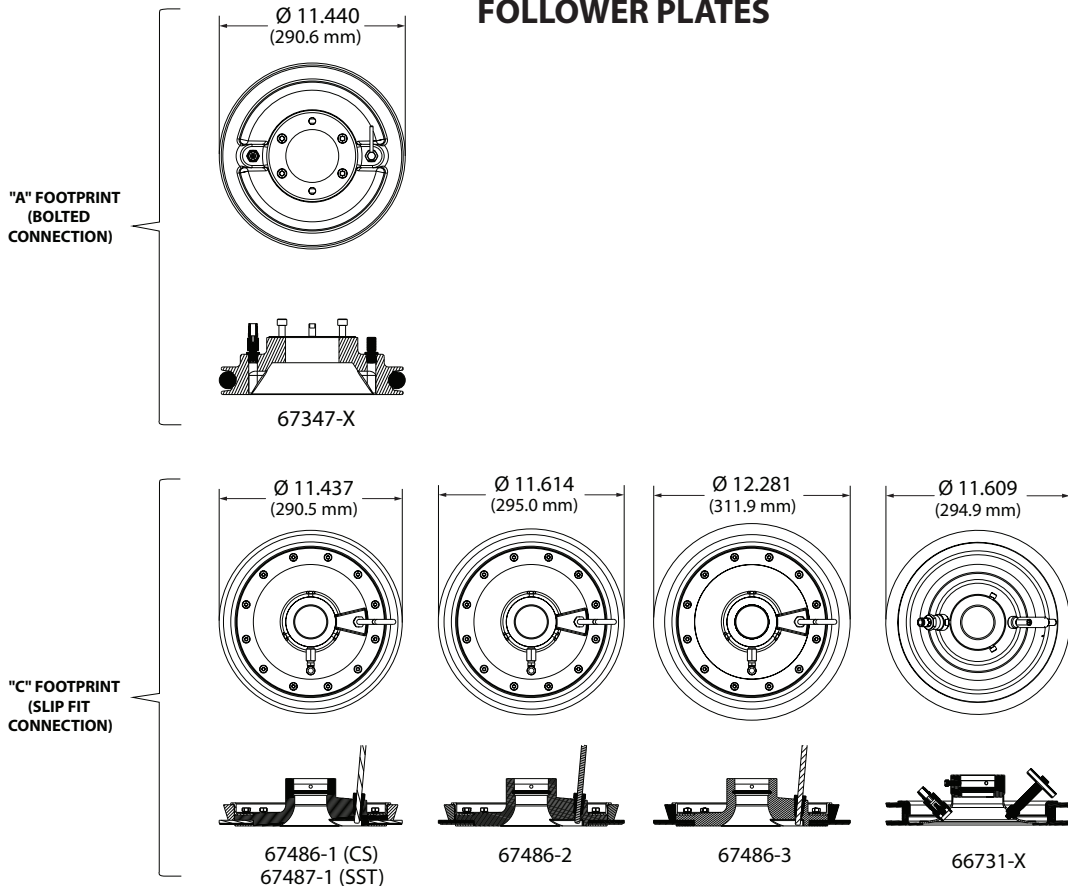
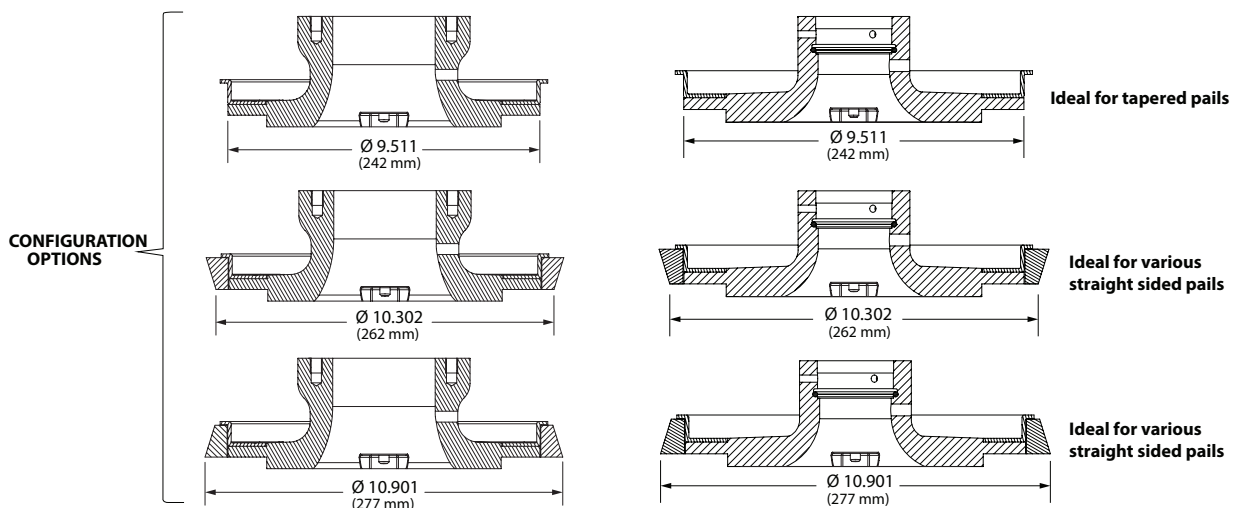


Figure 5

MODULAR BACKUP RING



Available on the following models: 67485-X, 67486-X, 67487-X, 67518-X.

Figure 6

OPERATING PROCEDURES

Flush system:

- This pump has been tested in oil and a small amount remains in the pump end. Oil must be flushed from the pump before using. To flush system:
- Gun or dispensing device should be removed.
- Immerse fluid or suction hose in a 5 gallon pail of compatible solvent.
- Place material outlet hose into pail.
- Regulate air pressure to a few pounds.
- Connect air supply to air motor inlet.
- Allow pump to cycle slowly and circulate solvent for awhile.
- Disconnect air supply.

To Prime System:

- Install gun or dispensing device to material outlet hose.
- A shut-off valve located on the cart should be in the "off" position (handle perpendicular to valve body). Connect air line to connector.
- With air line connected to connector, the lift assembly and pump will rise.
- Once lift assembly and pump are in the "up" position, place and center opened 5 gallon pail of material under follower plate (5).
- Remove vent plug from follower plate (5). Trapped air must be removed from beneath the follower plate.
- Disconnect the main air line to the connector and allow pump and lift assembly to lower into 5 gallon pail of material. Once the follower plate begins to force material out of the vent plug, reseal bleed plug.
- Once the follower has been properly seated, prior to pumping, be sure the thumb screws on the cart are tightened to secure 5 gallon pail. Pail must be locked in place with thumb screws before the follower plate can be removed from 5 gallon pail.
- Once the follower has been properly seated, prior to pumping, be sure the thumb screws on the cart are tightened to secure 5 gallon pail. Pail must be locked in place with thumb screws before the follower plate can be removed from 5 gallon pail.
- Connect air line to air regulator. Adjust knob on the air regulator until pump begins to cycle.
- Trigger gun to prime pump with material.
- If pump does not stop or material does not flow from dispensing valve, refer to Troubleshooting Section of this manual.

DAILY MAINTENANCE

- Lack of or an excessive amount of lubrication will affect the performance and life of this pump. Use only recommended lubricants.
- DAILY - Fill air line lubricator reservoir with SAE NO. 90W non-detergent gear oil.
- If pump is to be inoperative for more than a few hours at a time, disconnect air supply and relieve all pressure from the system.
- This manual covers the basic pump unit. The 4-1/4" air motor is completely separate from the lower pump end. This helps to keep the air motor from being contaminated by material being pumped.
- Periodically flush entire pump system with a solvent that is compatible with the material being pumped.
- Keep solvent cup filled with this compatible solvent. This will keep material from drying on the piston rod, which would drag thru the packings, ruin them and eventually scour the piston rod.
- Refer to Disassembly Procedures of air motor for correct break down.
- Disassembly should be done on a clean work bench with clean cloths to keep parts clean.
- If replacement parts are necessary, consult drawing containing parts for identification.

- Before assembling, lubricate parts where required. When assembling "O" rings or parts adjacent to "O" rings, care must be exercised to prevent damage to "O" rings and "O" ring groove surfaces.

MAINTENANCE

- When the following instructions are observed, heavy paste materials can be pumped directly from their original 5 gallon pail 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 pail.
- Lubricate lower follower wiper plate seal with any type grease (silicone, vaseline, gear, etc.). This ensures a smooth fit into the pail as well as prevents curing type compounds from bonding to the seal.
- Check vent plug to be sure it easily threads in and out. It is recommended to lubricate the threads of the plug to help prevent possible set up of compound at this point. See Follower Plate Operator's Manual.

TO CHANGE THE PAIL

- Turn knob on pump air regulator (1) counter-clockwise to turn air "off" to pump.
- Turn shut-off control valve to "ON" position (Handle parallel with body) to apply pressure under follower plate.
- Disconnect main air line from pump air regulator (1) and connect to air line connector on cart.
- Allow pump and lift assembly to clear the top of the 5 gallon pail of material.
- Turn shut-off control valve to "OFF" position. (Handle perpendicular to valve body).
- Unscrew thumb screws. Remove empty pail of material and replace with a new pail of material.
- Secure new pail of material with thumb screws. Remove vent plug from follower plate.
- Disconnect main air line from connector and allow lift assembly to lower into new 5 gallon pail of material. Once the follower plate begins to force material out of the vent plug, reseal bleed plug.

TROUBLESHOOTING

Material leakage around the Control Handle.

- Malfunctions beyond the scope of this manual should be brought to the attention of your ARO Representative..

No material coming from extrusion nozzle.

- Obstructed Material, Remove tip and clean.
- Obstructed Hose, Remove control handle and cycle pump until hose is clear.
- Obstructed Control Handle, Disassemble control handle and clean.

DIMENSIONS

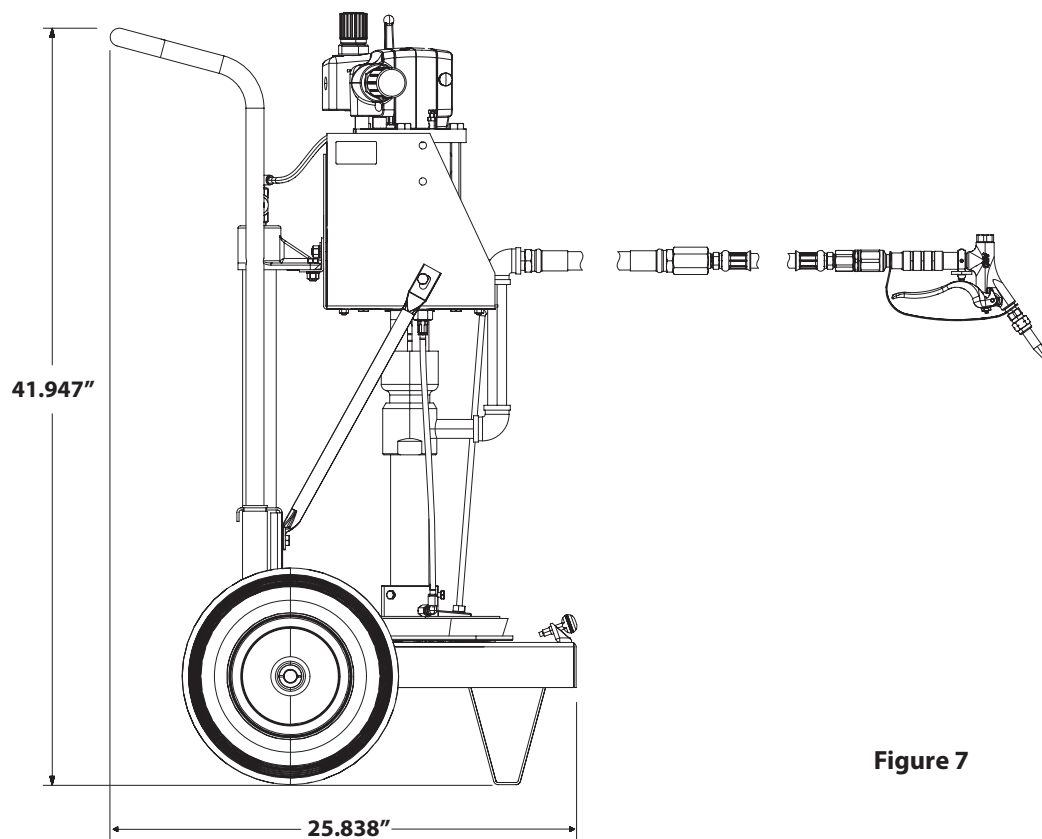
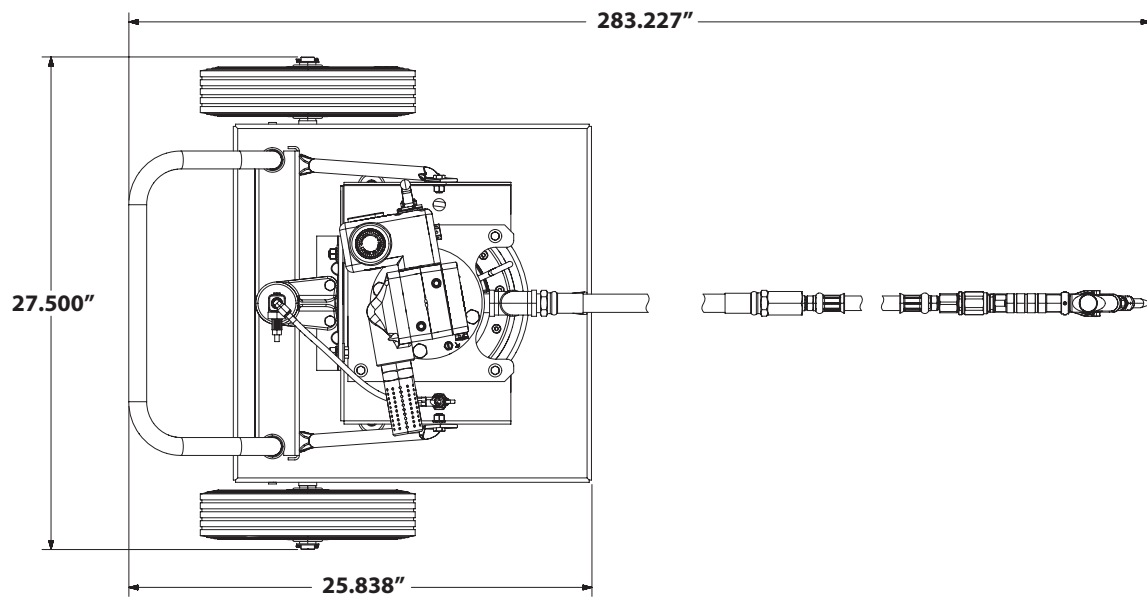


Figure 7

DIMENSIONS

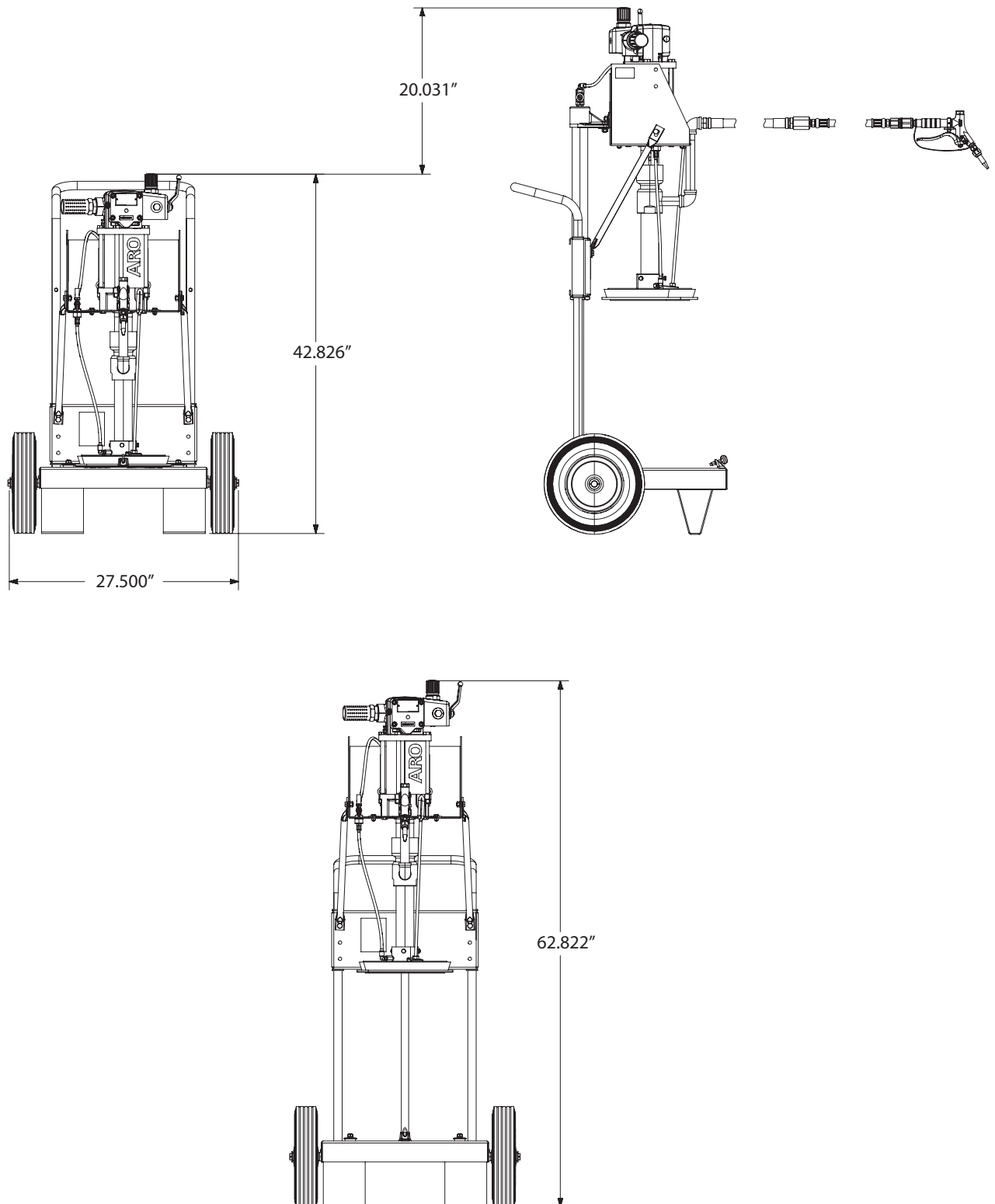


Figure 8

NOTES
