



**GRACO**

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quality counts.™*

Rev. C  
Supersedes Rev. B  
and PCN C



INSTRUCTIONS

This manual contains important  
warnings and information.  
**READ AND KEEP FOR REFERENCE.**

**23:1 MONARK CARBON STEEL, WALL MOUNTED**

## **AAPlus Air-Assisted Airless Wall Mount Sprayer**

**See the Data Sheet, 305-663, for application information.**

*2760 psi (19.0 MPa, 190 bar) Maximum System Working Pressure*

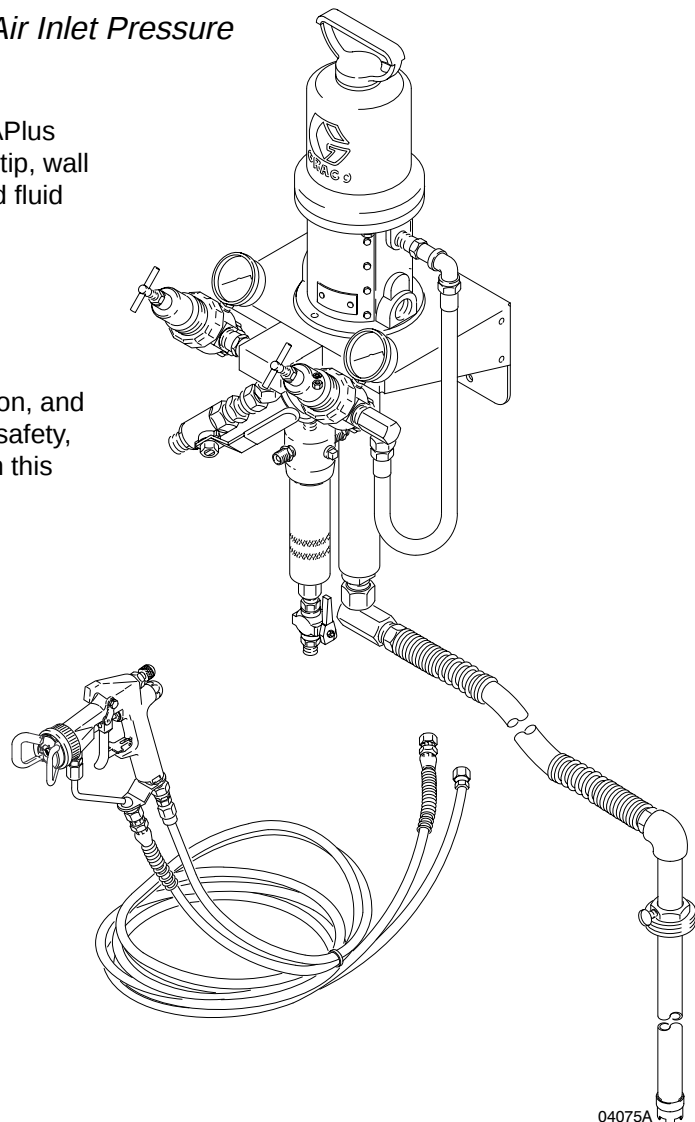
*120 psi (0.83 MPa, 8.3 bar) Maximum Air Inlet Pressure*

### **Model 237-419, Series A**

This complete package includes a pump, an AAPlus air-assisted airless spray gun with a 411 spray tip, wall bracket, 25 ft (7.6 m) air and fluid hoses, air and fluid controls, and a fluid feed.

### **IMPORTANT**

This manual provides the basic safety, installation, and operation information for the package. For your safety, also read the component manuals supplied with this package before operating it.



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# Symbols

## Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

## Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the corresponding instructions.

## ! WARNING



### INJECTION HAZARD

Spray from the gun, hose leaks, or ruptured components can inject fluid into your body and cause an extremely serious injury, including the need for amputation. Splashing fluid in the eyes or on the skin can also cause a serious injury.

- Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate medical attention.**
- Do not point the spray gun at anyone or at any part of the body.
- Do not put hand or fingers over the spray tip.
- Do not stop or deflect fluid leaks with your hand, body, glove, or rag.
- Do not “blow back” fluid; this is not an air spray system.
- Always have the tip guard and the trigger guard on the spray gun when spraying.
- Check the gun diffuser operation weekly. Refer to the gun manual.
- Be sure the gun trigger safety operates before spraying.
- Lock the gun trigger safety when you stop spraying.
- Follow the **Pressure Relief Procedure** on page 7 whenever you: are instructed to relieve pressure; stop spraying; clean, check, or service the equipment; and install or clean the spray tip.
- Tighten all the fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.



### TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

# ⚠ WARNING



## FIRE AND EXPLOSION HAZARD

Improper grounding, poor air ventilation, open flames, or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. See **Grounding** on page 5.
- If there is any static sparking while using the equipment, **stop spraying immediately**. Identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvent or the fluid being sprayed.
- Extinguish all the open flames or pilot lights in the spray area.
- Electrically disconnect all the equipment in the spray area.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Do not turn on or off any light switch in the spray area while operating or if fumes are present.
- Do not smoke in the spray area.
- Do not operate a gasoline engine in the spray area.



INSTRUCTIONS

## EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check the equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. This equipment has a **2760 psi (19.0 MPa, 190 bar) maximum working pressure at 120 psi (0.83 MPa, 8.3 bar) maximum air inlet pressure**.
- Do not lift pressurized equipment.
- Use only Graco approved hoses. Do not remove hose spring guards, which help protect the hose from rupture caused by kinks or bends near the couplings.
- Use fluids or solvents that are compatible with the equipment wetted parts. See the **Technical Data** section of all the equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Comply with all applicable local, state and national fire, electrical and other safety regulations.



## MOVING PARTS HAZARD

Moving parts, such as the air motor piston, can pinch or amputate fingers.

- Do not operate the equipment with the air motor plates removed.
- Keep clear of any moving parts when starting or operating the equipment.

# Setup

## I. Prepare the Operator.

All persons who operate the system should be trained in the safe, efficient operation of all system components as well as the proper handling of the chemical coating. At a minimum, all operators should thoroughly read the safety, installation, and operation sections of this manual and the component manuals.

## II. Prepare the site.

1. Use a minimum recommended 5 HP (3.7 kW) air compressor for efficient operation.
2. Clear obstacles and debris that could hinder the operator's movement.
3. Bring an air line from your compressed air supply to the pump location. Be sure the air is dry and filtered. Install a bleed-type master air valve (A) upstream from the pump. Another master air valve (14) is supplied with the package. When the bleed-type master air valve is closed and the pump air regulator (8a) is opened, the valve relieves all air pressure to the system.

4. Have a grounded metal waste-pail available to use when draining the fluid filter.
5. Ventilate the spray booth.

### **WARNING**

To prevent hazardous concentrations of toxic and/or flammable vapors, spray only in a properly ventilated spray booth. **Never operate the spray gun unless ventilation fans are operating.**

Check and follow all of the national, state, and local codes regarding air exhaust velocity requirements.

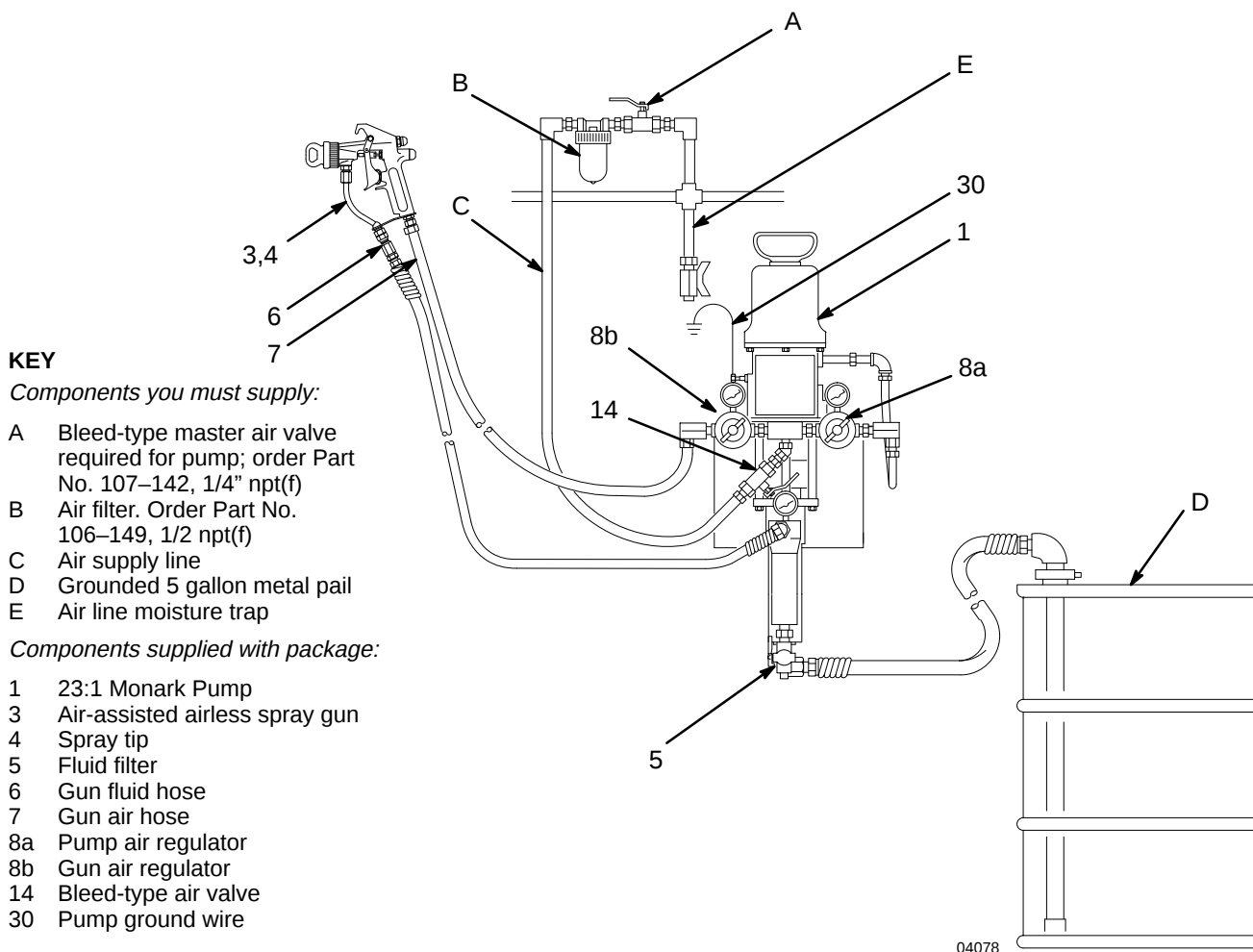


Fig. 1

# Setup

## III. Unpack the System.

1. In addition to the assembled components, the air and fluid hoses, gun, and instruction manuals are packaged separately in the main shipping container. These are the manuals you should receive:

|         |                                |
|---------|--------------------------------|
| 307-619 | 23:1 Ratio Monark Pump         |
| 308-640 | Air-Assisted Airless Spray gun |
| 307-273 | Fluid filter                   |
| 308-167 | Air Regulator                  |
| 306-861 | Ball Valve                     |

## IV. Setup the system.

1. Be sure the wall where you plan to mount the wall bracket can support the weight of the system and the stress caused during pump operation.
2. Remove the paper backing from the mounting template, supplied. Apply the template to the wall, 4 to 5 feet (1.2 to 1.6 m) above the floor. Drill the holes. The bolt holes are 0.48 inches (12 mm) in diameter. Remove the template. Mount the pump securely.
3. Thread the swivel elbow (20) onto the pump intake valve. Tighten securely. See Fig. 2.

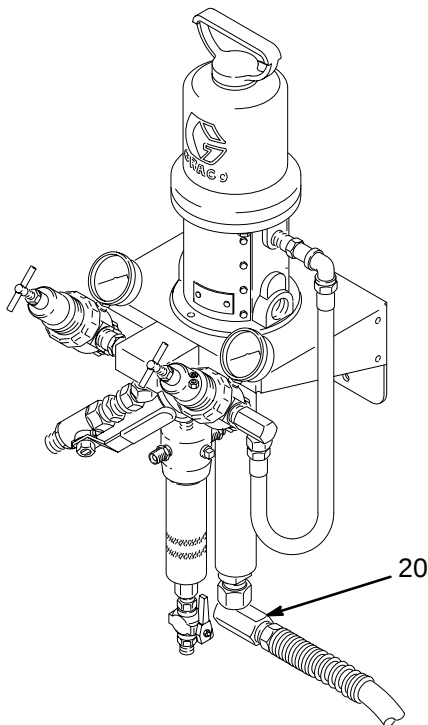


Fig. 2

## V. Connect the hoses and gun to the system. (See Fig. 1)

1. Connect the blue fluid hose (6) between the fluid filter and the fluid inlet of the spray gun (3). These are 1/4-18 npsm(f) swivel fittings.
2. Connect the red air hose (7) between the gun air regulator (8b) and the air inlet of the spray gun (3) these are 1/4-18 npsm(f) swivel fittings.
3. Verify that all fittings throughout the system are tightened securely.

## VI. Grounding.

### WARNING



**FIRE AND EXPLOSION HAZARD**  
Before operating, ground the system as explained below. Also read the section **FIRE AND EXPLOSION HAZARD** on page 3.

- *Pump:* one end of the ground wire (30) is already connected to the air motor grounding lug. Connect the clamp end of the ground wire to a true earth ground.
- *Air and fluid hoses:* use only electrically conductive hoses with a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity.
- *Air compressor:* according to manufacturer's recommendations.
- *Fluid supply container:* according to local code.
- *All solvent pails used when flushing,* according to local code. Use only metal pails, which are conductive. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.

# System Component Information

## I. How to use the air-assisted airless spray gun.

With the air-assisted airless spray gun, the spray tip shapes the fluid into a fan pattern. Air from the air cap further atomizes the fluid and completes the atomization of the paint tails into the pattern to produce a more uniform pattern.

The spray gun has a build in lead and lag operation. When triggered, the gun emits air before the fluid is discharged. When the trigger is released, the fluid stops before the air flow stops. This helps assure the spray is atomized and prevents fluid buildup on the air cap.

**NOTE:** The gun air inlet has a 1/4–18 npsm quick-disconnect fitting.

1. The fan pattern valve (E) can be used to reduce the pattern by about 25% of the total pattern width. As the valve is opened, the pattern will reduce slightly. The tip used designates the total width of the spray pattern.
2. To unlock the gun trigger safety, turn the safety so it is parallel with the trigger. To lock the gun trigger safety, turn the safety to a right angle with the trigger. See Fig. 3.

1 Trigger safety UNLOCKED

2 Trigger safety LOCKED

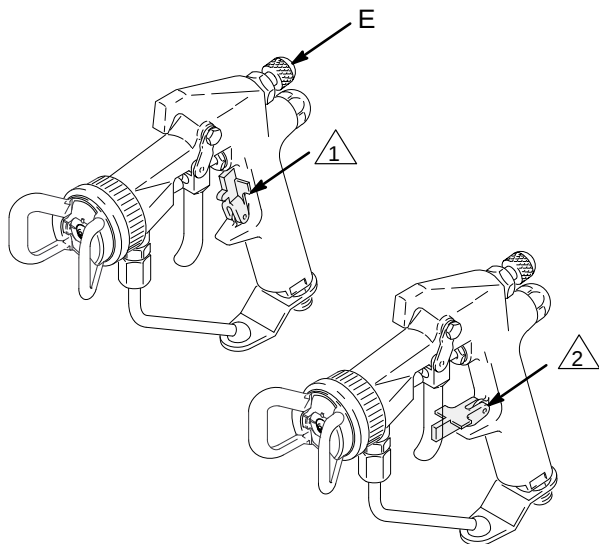


Fig. 3

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## II. How to change the spray pattern direction

### ! WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 7.

1. Relieve the pressure.
2. Install a spray tip in the gun. Rotate the air cap (the spray tip rotates with it) to determine the direction of the spray pattern. See Fig. 4.

#### Vertical Spray Pattern

#### Horizontal Spray Pattern



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Fig. 4

## III. How to adjust the air regulators. (See Fig. 5)

As you look at the system, the air regulator (8a) on the left regulates air to the gun and the air regulator (8b) on the right regulates air to the pump.

1. Always open air regulators slowly to prevent surging during startup.
2. To open the regulator, which allows air to flow, turn the T-handle IN (clockwise). Turn the T-handle OUT (counterclockwise) to close off the air flow. Be sure the jam nut under the T-handle does not interfere with you adjustments. Tighten the jam nut to lock in the setting, if desired.

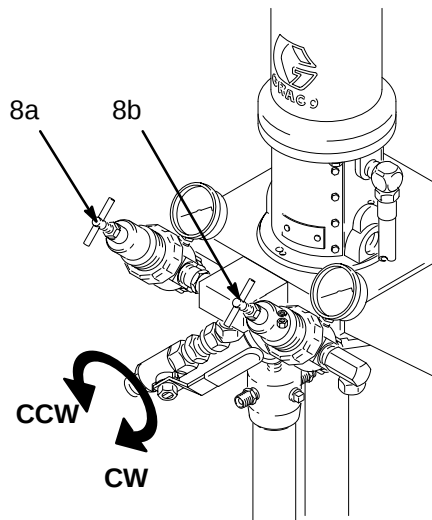


Fig. 5

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# Operation

## I. Pressure Relief Procedure


**WARNING**

**INJECTION HAZARD**

Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- or install or clean any part of the system.

1. Lock the trigger safety.
2. Close the bleed-type master air valve (A, 14).
3. Close the air regulators (8a, 8b).
4. Unlock the gun trigger safety.
5. Hold the gun firmly against a grounded metal waste pail. Trigger the gun to relieve pressure.
6. Lock the gun trigger safety.
7. Open the filter drain valve (26), having a container ready to catch the drainage. Close the drain valve.

If you suspect that the spray tip or hose is completely clogged or that pressure has not been fully relieved, very slowly loosen the tip retaining nut or hose end coupling and relieve pressure gradually. Clean the tip or hose obstruction.

## II. Flush the pump before the first use.

Flush with a solvent compatible with your fluid. Consult the fluid manufacturer's literature for recommendations. See **Flushing** on page 9.

## III. Prime the system. (See Fig. 6)

1. Remove the air cap and spray tip from the gun.
2. Close the filter drain valve (26).
3. Put the suction tube into the fluid supply container. Screw the bung adapter (35) into the drum. Position the suction tube 1/2" (13 mm) off the bottom of the drum. Tighten the thumbscrew (31).

4. Make sure the air regulators (8a, 8b) are closed.

5. Open the master air valve (A, 14).

**NOTE:** In the next steps, the pump will cycle quickly until air is purged.

6. Slowly turn the pump air regulator (8a) until the pump cycles slowly.

7. Hold a metal part of the gun firmly against and aimed into the grounded metal waste pail. Trigger the gun while increasing pressure at the pump air regulator (8a) just enough to purge the air and storage solvent from the system. When new fluid comes from the gun, release the trigger. Lock the gun trigger safety.

### KEY

- A Bleed-type master air valve
- 3 Air-assisted airless spray gun
- 8a Pump air regulator
- 8b Gun air regulator
- 14 Bleed-type air valve
- 26 Filter drain valve

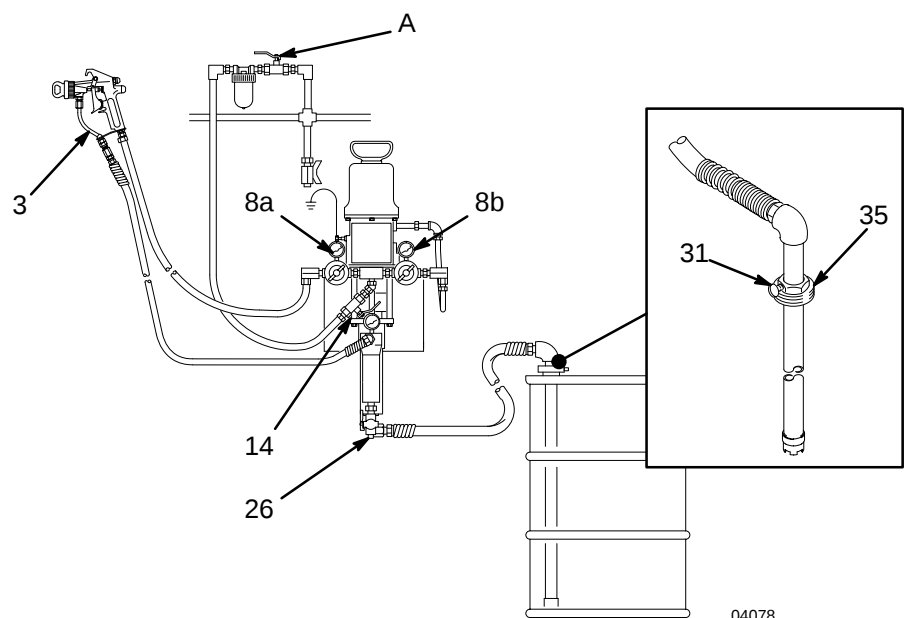


Fig. 6

# Operation

## IV. Set the fluid and air pressure.

1. Install the spray tip and air cap on the gun.
2. Adjust the pump air pressure until the pressure shown on the fluid filter gauge is about 800 psi (5.6 MPa, 56 bar). This should require approximately 35 psi (240 kPa, 2.4 bar) air pressure to the pump.
3. Test spray a pass or stationary horizontal pattern. Hold the gun 10 to 12 in. (250 to 300 mm) from the paper. Stripes in the outer edges of the pass or spots at the ends of the stationary pattern are likely at this point.

**NOTE:** If there are no stripes or spots, lower the fluid pressure until they appear before turning on the air to the gun.

4. Partially trigger the gun so only air is emitted. Set the gun air regulator to 20 psi (140 kPa, 1.4 bar).
5. Retest the spray pattern. Trigger the gun and adjust the gun's air control valve (C) to add air to the aircap and to eliminate stripes or spots. If there are no stripes or spots, you are ready to start spraying.
6. If there are stripes or spots in the spray pattern, raise the pump air pressure until you raise the fluid outlet pressure by about 100 psi (0.7 MPa, 7 bar) and try again. Continue to raise the fluid pressure in 100 psi (0.7 MPa, 7 bar) increments until the pattern is full and clean. Do not exceed 120 psi (0.83 MPa, 8.3 bar) incoming air pressure or 2760 psi (19.0 MPa, 190 bar) fluid working pressure.

**NOTE:** Always use the lowest fluid and air pressure required for good atomization and spray pattern for maximum fluid efficiency. Air pressure over approximately 30 psi (210 kPa, 2.1 bar) will cause turbulence in the fan pattern, dirty air caps and slower production capability.

### **WARNING**

This system has a maximum air working pressure of 120 psi (0.83 MPa, 8.3 bar) which produces a maximum fluid working pressure of 2760 psi (19.0 MPa, 190 bar). Higher pressure can cause the system to rupture or malfunction and result in serious injury.

## V. You are now ready for production spraying.

### **CAUTION**

When using catalyzed fluids, observe the pot life as recommended by the fluid manufacturer. Always flush the system before the pot life has expired to prevent dried fluid which may difficult to clean out and may damage the system.

## VI. When to shut down the system.

### **WARNING**

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 7.

Shut down the system at the end of the work shift and before checking, adjusting, cleaning, or repairing the system. Always **relieve the pressure**.

# Flushing

## I. When to flush.

- Before the first time use
- When changing colors
- Before fluid can dry or settle out in a dormant system (observe the recommended fluid pot life on catalyzed fluids)
- Before storing the system

## II. How to flush. (See Fig. 7)

### WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 7.

1. Relieve the pressure.
2. Remove the air cap and spray tip before flushing.
3. Unscrew the fluid filter (5) bowl. Remove the screen. See manual 307–273. Reinstall the bowl without the screen.
4. Put the suction tube into a grounded metal pail with about 1/2 gallon (2 liters) of a compatible solvent.
5. Make sure the air regulators (8a, 8b) are closed.

**NOTE:** The gun air regulator (8b) always stays closed during flushing.

6. Open the master air valve (A, 14).
7. Slowly turn the pump air regulator (8a) until the pump cycles slowly.
8. Hold a metal part of the gun firmly against the grounded metal waste pail. Trigger the gun. Slowly increase the pump air regulator setting until the fluid flows freely. (Some air will spit from the gun until the fluid arrives).
9. Keeping the gun triggered, decrease the pump air regulator (8a) pressure as much as possible without stalling the pump, and pump out the solvent until air comes through the gun.
10. Repeat the procedure with clean solvent, if needed.
11. Release the trigger and lock the gun trigger safety.
12. Close the master air valve (A, 14). Fully close the pump air regulator (8a).
13. Open the drain valve (26). Having a container ready to catch the drainage.
14. Remove the suction hose from the solvent and place it in an empty container.
15. Clean the filter screen, air cap, and spray tip separately. Reinstall the filter screen.
16. Thoroughly clean the inside and outside of the suction tube.

### KEY

- A Bleed-type master air valve
- 3 Air-assisted airless spray gun
- 5 Fluid filter
- 8a Pump air regulator
- 8b Gun air regulator
- 14 Bleed-type air valve
- 26 Filter drain valve

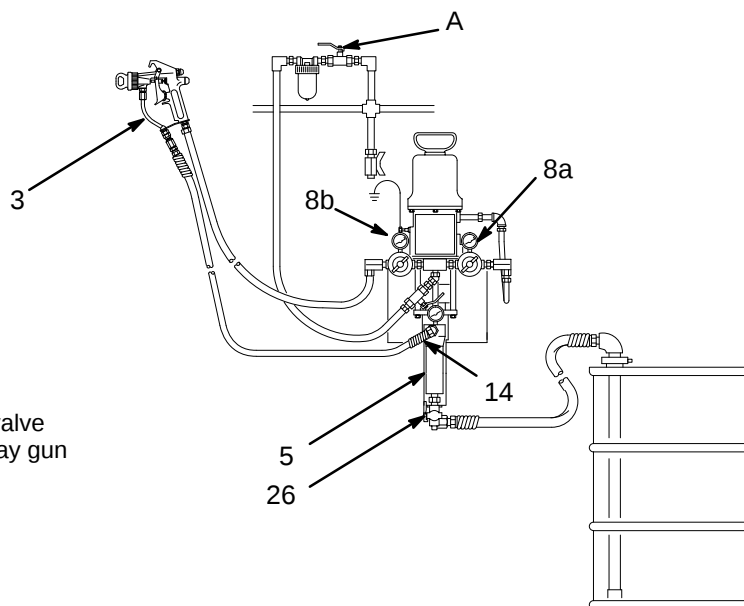
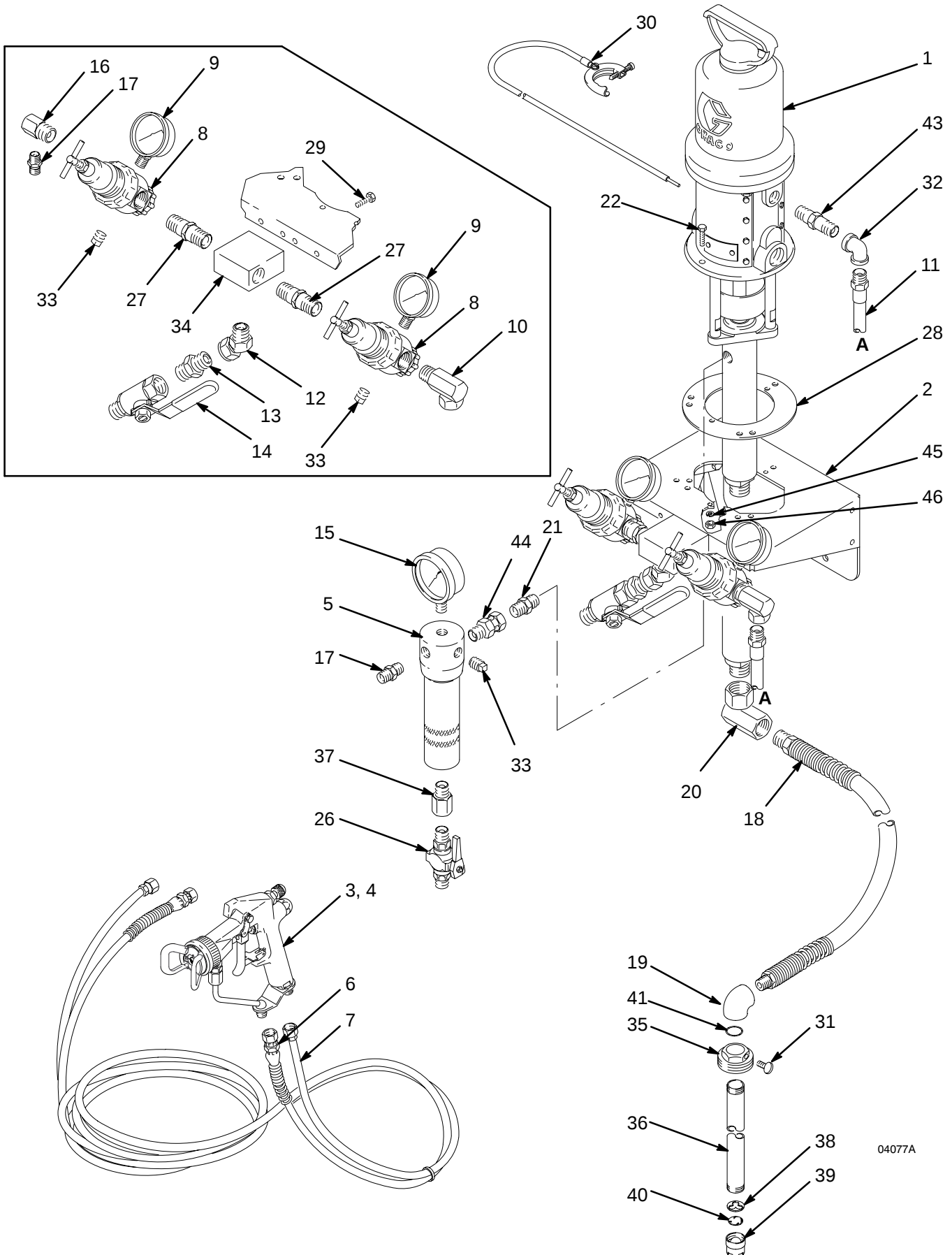


Fig. 7

# Parts



# Parts

| Ref. No. | Part No. | Description                                                                             | Qty. | Ref. No. | Part No. | Description                                                           | Qty. |
|----------|----------|-----------------------------------------------------------------------------------------|------|----------|----------|-----------------------------------------------------------------------|------|
| 1        | 223-596  | 23:1 RATIO MONARK PUMP<br>See manual 307-619 for parts                                  | 1    | 20       | 156-589  | 90° SWIVEL ADAPTER, fluid intake,<br>3/4 npt(f) x 3/4 npt(f) swivel   | 1    |
| 2        | 186-727  | WALL MOUNTING BRACKET                                                                   | 1    | 21       | 156-849  | NIPPLE                                                                | 1    |
| 3        | 238-852  | AAPLUS SPRAY GUN<br>See manual 308-640 for parts                                        | 1    | 22       | 100-022  | CAPSCREW, hex hd;<br>1/4-20 x 3/4" (19 mm) long                       | 2    |
| 4        | GG4-411  | SPRAY TIP                                                                               | 1    | 24       | 206-994  | THROAT SEAL LIQUID, 8 oz.                                             | 1    |
| 5        | 218-029  | FLUID FILTER<br>See manual 307-273 for parts                                            | 1    | 26       | 210-658  | BALL VALVE, 3/8 npt (mbe),<br>See manual 306-861 for parts            | 1    |
| 6        | 214-698  | FLUID HOSE, 3/16" x 25' (15.2 m)<br>nylon, spring guards both ends,<br>1/4-18 npsm(fbe) | 1    | 27       | 156-877  | NIPPLE, 1/2 npt, 2/5" (63.5 mm)                                       | 2    |
| 7        | 210-867  | AIR HOSE, cpld 1/4 npsm (fbe)<br>1/4" ID X 25' (6.3 MM ID X 7.6 M)                      | 1    | 28       | 188-595  | PUMP MOUNTING PLATE                                                   | 1    |
| 8        | 104-267  | AIR REGULATOR<br>0-125 psi (0-0.9 MPa, 0-9 bar) range<br>See manual 308-167 for parts   | 2    | 29       | 102-254  | SCREW, hex hd, 1/4-20 x<br>7/8" (22 mm) long                          | 2    |
| 9        | 101-180  | AIR PRESSURE GAUGE<br>0-200 psi (0-1.4 MPa, 0-14 bar)                                   | 2    | 30       | 237-569  | GROUND WIRE and CLAMP<br>12 gauge (1.5 mm <sup>2</sup> ), 25' (7.6 m) | 1    |
| 10       | 161-037  | 90° SWIVEL ADAPTER UNION<br>1/2 npt(m) x 3/8 npsm(f) swivel                             | 1    | 31       | 100-220  | THUMBSCREW, 5/16-18 unc,<br>1" (25 mm) long                           | 1    |
| 11       | 204-560  | AIR HOSE, buna-N, 3/8" (10 mm) ID,<br>cpld 3/8 npt(mbe) x 3/9 npsm(f) swivel            | 1    | 32       | 165-472  | 90° ELBOW                                                             | 1    |
| 12       | 222-297  | 45° SWIVEL ADAPTER UNION,<br>1/2 npt(m) x 12 npsm(f) swivel                             | 1    | 33       | 100-509  | PLUG, 1/4 npt sq hd pipe                                              | 3    |
| 13       | 158-491  | NIPPLE, 1/2 npt, 1.625" (41 mm) long                                                    | 1    | 34       | 179-749  | AIR MANIFOLD, 1/2 npt inlet,<br>two 1/2 npt outlets                   | 1    |
| 14       | 107-142  | BLEED-TYPE AIR VALVE, 1/2 npt(f)                                                        | 1    | 35       | 176-684  | BUNG ADAPTER                                                          | 1    |
| 15       | 102-814  | FLUID PRESSURE GAUGE                                                                    | 1    | 36       | 156-592  | SUCTION TUBE                                                          | 1    |
| 16       | 166-999  | ELBOW, reducing street,<br>1/2 npt(m) x 1/4 npt(f)                                      | 1    | 37       | 150-286  | ADAPTER, 3/8 npt (m x f)                                              | 1    |
| 17       | 162-453  | NIPPLE, 1/4 npt x 1/4 npsm                                                              | 2    | 38       | 159-100  | BALL STOP                                                             | 1    |
| 18       | 214-961  | SUCTION HOSE, 3/4 npt(mbe),<br>3/4" ID x 6' (19 mm ID x 1/82 m)                         | 1    | 39       | 159-101  | INTAKE VALVE HOUSING                                                  | 1    |
| 19       | 156-591  | ELBOW, 3/4 npt (f)                                                                      | 1    | 40       | 161-377  | FILTER SCREEN                                                         | 1    |
|          |          |                                                                                         |      | 41       | 156-593  | O-RING PACKING                                                        | 1    |
|          |          |                                                                                         |      | 42       | 290-037  | MOUNTING TEMPLATE<br>(not shown)                                      | 1    |
|          |          |                                                                                         |      | 43       | 160-790  | NIPPLE                                                                | 1    |
|          |          |                                                                                         |      | 44       | 155-665  | SWIVEL UNION                                                          | 1    |
|          |          |                                                                                         |      | 45       | 100-016  | LOCKWASHER                                                            | 2    |
|          |          |                                                                                         |      | 46       | 100-015  | NUT                                                                   | 2    |

# Technical Data

| Category                              | Data                                                                                                                   |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Maximum Fluid Working Pressure        | 2760 psi (19.0 MPa, 190 bar)                                                                                           |
| Maximum Air Operating Pressure        | 120 psi (0.83 MPa, 8.3 bar)                                                                                            |
| Pump Air Consumption <i>free flow</i> | 20 scfm at 100 psi (0.56 m <sup>3</sup> /min at 0.7 MPa, 7 bar)                                                        |
| Gun Air Consumption                   | 5 scfm at 30 psi (0.14 m <sup>3</sup> /min at 0.21 MPa, 2.1 bar)                                                       |
| Pump Wetted Parts                     | carbon steel, 304/316/420/17–4 PH stainless steel, chrome, chrome and zinc plating, tungsten carbide, Teflon®, leather |
| Gun Wetted Parts                      | 303 stainless steel, carbide, UHMWPE CV75, polyethylene, Teflon®, Delrin®                                              |
| Fluid Filter Wetted Parts             | carbon steel, Teflon®, 304/316 stainless steel, polyethylene                                                           |
| Fluid Fittings Wetted Parts           | carbon steel                                                                                                           |
| Fluid Hose Wetted Parts               | nylon                                                                                                                  |

*All 304, 316, and 17–4 PH SST are electropolished and/or passivated.  
Teflon® and Delrin® are registered trademarks of the DuPont Company.*

## Manual Change Summary

This manual was revised to include the changes from PCN C.

## Notes

[illegible]

[illegible]

[illegible]

# The Graco Warranty

Graco warrants all equipment listed in this manual which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special extended or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

**GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO.** These items sold, but not manufactured by Graco (such as electric motors, gas engines, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

## **FOR GRACO CANADA CUSTOMERS**

The parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

# Graco Phone Number

**TO PLACE AN ORDER**, contact your Graco distributor, or call this number to identify the distributor closest to you:  
**1-800-367-4023 Toll Free.**

*All written and visual data contained in this document reflects the latest product information available at the time of publication.  
Graco reserves the right to make changes at any time without notice.*

**Sales Offices:** Minneapolis, Detroit, Los Angeles  
**Foreign Offices:** Belgium, Canada, England, Korea, France, Germany, Hong Kong, Japan

**<http://www.graco.com>**

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