

# INSTRUCTIONS-PARTS LIST



**GRACO**

*First choice when  
quality counts.™*

# 308-333

Rev. C  
Supersedes Rev. A  
and PCN C



INSTRUCTIONS

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

30:1 RATIO, STAINLESS STEEL

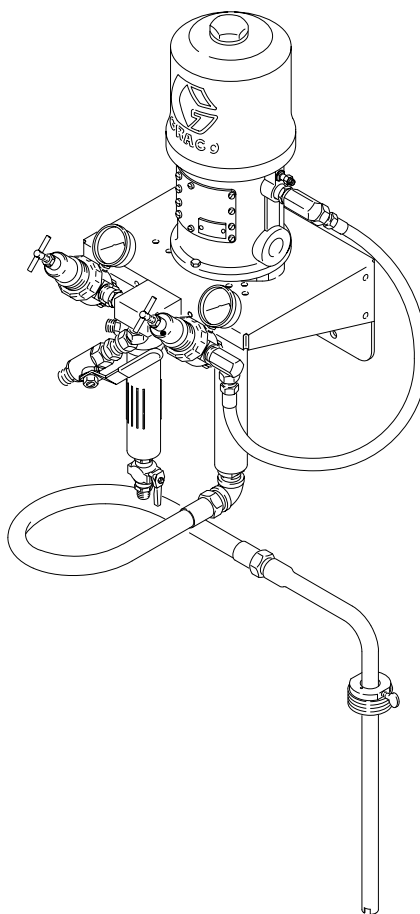
## President® Sprayer

*3600 psi (25.0 MPa, 250 bar) Maximum Fluid Working Pressure*

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

**Part No. 236-066**

Wall Mount Pump



02823

**GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441**

<http://www.graco.com>

©COPYRIGHT 1993, GRACO INC.

Graco Inc. is registered to I.S. EN ISO 9001

# Table of Contents

Warnings .....	2
Installation .....	4
Operation .....	7
Parts .....	7
Technical Data .....	10
Graco Warranty .....	12
Graco Phone Number .....	12

# 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 4.
- 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 **3600 psi (25.0 MPa, 250 bar) maximum fluid working pressure at 120 psi (0.83 MPa, 8.3) 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.

# Installation

## Grounding

### **WARNING**



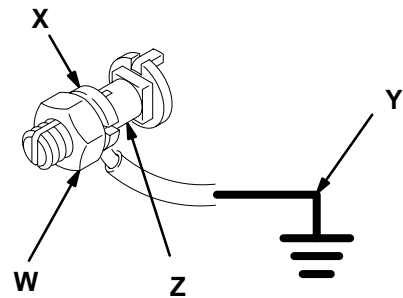
#### **FIRE AND EXPLOSION HAZARD**

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



- *Pump*: loosen the grounding lug locknut (W) and washer (X). Insert one end of a 1.5 mm<sup>2</sup> (12 ga) minimum ground wire (Y) into the slot in lug (Z) and tighten the locknut securely. See Fig. 1. Connect the other end of the ground wire to a true earth ground.
- *Air hoses*: use only electrically conductive air hoses.
- *Fluid hoses*: use only electrically conductive fluid hoses.
- *Air compressor*: follow manufacturer's recommendations.
- *Spray gun*: grounding is obtained through connection to a properly grounded fluid hose and pump.

- *Fluid supply container*: according to your local code.
- *Object being sprayed*: according to your local code.
- *All solvent pails used when flushing*, according to local code. Use only metal pails, which are conductive, placed on a grounded surface. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.
- *To maintain grounding continuity when flushing or relieving pressure*, always hold a metal part of the spray gun firmly to the side of a grounded metal pail, then trigger the spray gun.



0864

Fig. 1

# Installation

## NOTES:

- Be sure that all operators read and understand this entire manual and the separate manuals supplied with components and accessories before using this equipment.
- Reference numbers and letters in parentheses refer to the figures and parts lists.
- Accessories are available from your Graco distributor. If you supply your own accessories, be sure they are adequately sized to meet your system's requirements.
- The Typical Installation on page 6 is only an example. For assistance in designing a system to meet your particular needs, contact your Graco distributor.

## System Accessories

### WARNING

Two required components are supplied with your pump, to help reduce the risk of serious injury including fluid injection, splashing in the eyes or on the skin, or injury from moving parts if you are adjusting or repairing the pump.

The *bleed-type master air valve (B)* relieves air trapped between this valve and the pump. Trapped air can cause the pump to cycle unexpectedly. **To bleed air from the pump, the pump air regulator (F) must be open when you close this valve.**

The *fluid drain valve (H)* assists in relieving fluid pressure in the displacement pump, hose, and gun; triggering the gun to relieve pressure may not be sufficient.

Install an air line filter (E) in the main air line, to remove harmful dirt and moisture from the compressed air supply. To provide automatic lubrication of the air motor, install an air line lubricator (P) downstream from the pump air regulator (F). Install a second master air valve (D) in the main air line, to isolate the accessories for servicing.

## Mounting the Pump

Mount the wall bracket 5 ft (1.5 m) above the floor. Be sure the wall is strong enough to support the weight of the pump and accessories, fluid, hoses, and stress caused during pump operation. See Fig. 2 for a bracket mounting hole pattern.

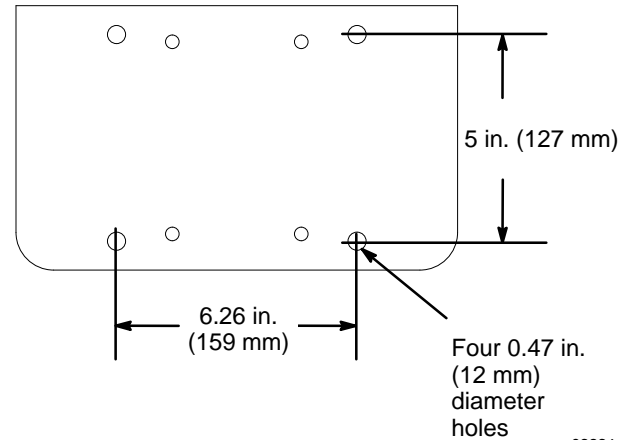


Fig. 2

A pump runaway valve is available. The runaway valve senses when the pump is running too fast and automatically shuts off the air to the motor. A pump which runs too fast can be seriously damaged. Install the runaway valve (R) at the location shown in the Typical Installation.

## Hose and Gun Connections

Refer to the Typical Installation. Apply thread sealant and screw the suction hose (J) into the fluid intake elbow (S).

Connect one end of the fluid hose (L) to the filter (K) outlet and the other to the fluid inlet of the spray gun (N). Do not install the spray tip in the gun yet.

Close the bleed-type master air valve (B) and the air regulators (F and G). Connect a grounded air hose (M) between the outlet of the gun air regulator (G) and the air inlet of the spray gun (N). The pump air regulator (F) is connected to the pump (A) with a hose (C).

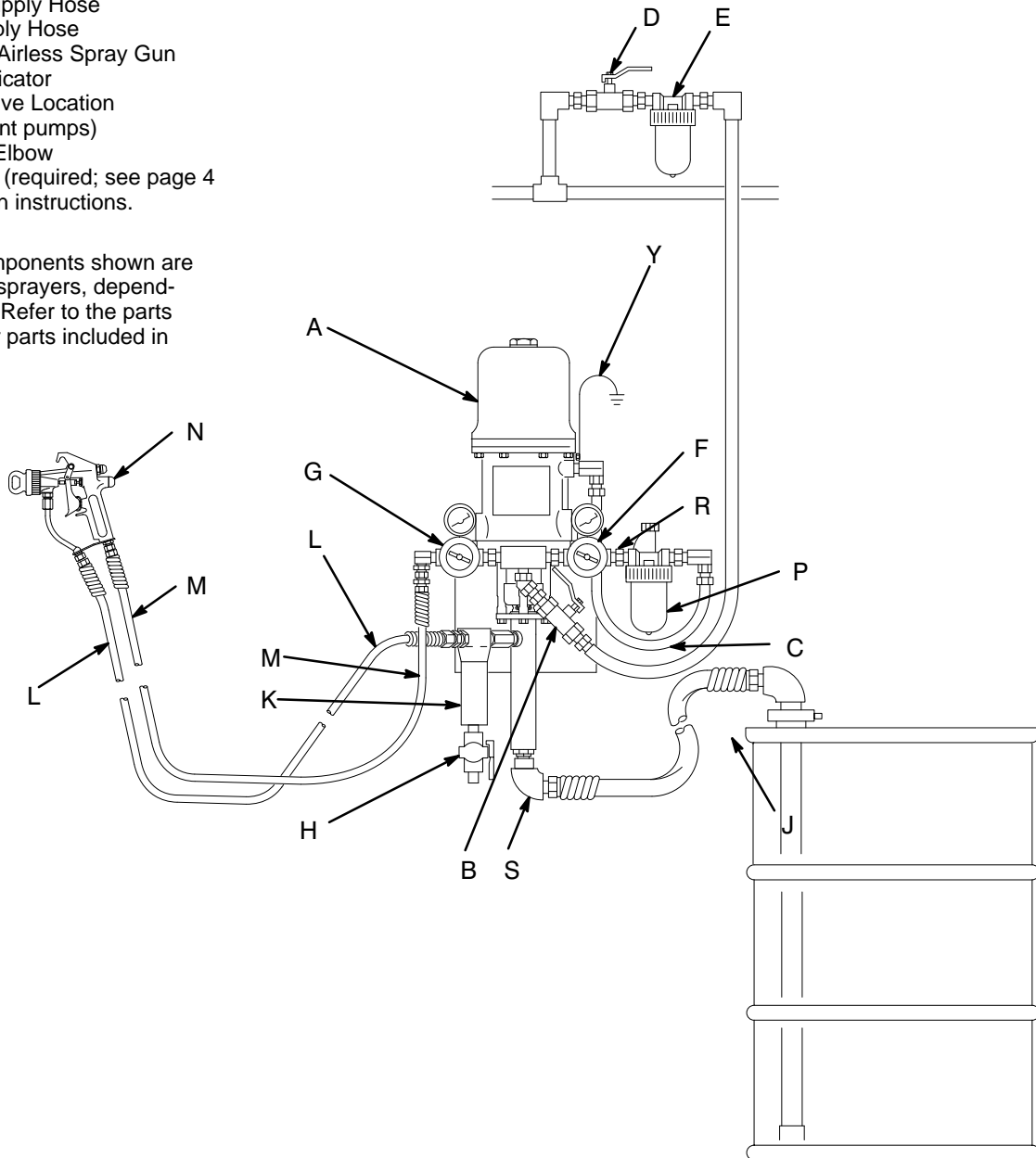
# Installation

## Typical Installation – Cart-Mount Model Shown

### KEY

- A Pump
- B Bleed-Type Master Air Valve  
(required for pump)
- C Pump Air Supply Hose
- D Master Air Valve (for accessories)
- E Air Line Filter
- F Pump Air Regulator
- G Gun Air Regulator
- H Fluid Drain Valve (required)
- J Fluid Suction Hose
- K Fluid Filter
- L Gun Fluid Supply Hose
- M Gun Air Supply Hose
- N Air-Assisted Airless Spray Gun
- P Air Line Lubricator
- R Runaway Valve Location  
(for wall mount pumps)
- S Fluid Intake Elbow
- Y Ground Wire (required; see page 4  
for installation instructions).


**NOTE:** Some components shown are included with the sprayers, depending on the model. Refer to the parts list on page 10 for parts included in your sprayer.

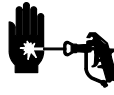


02819A

# Operation

## 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 spray gun safety latch.
2. Close the bleed-type master air valve (supplied in your system).
3. Shut off the air regulators.
4. Unlock the spray gun safety latch.
5. Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger the gun to relieve pressure.
6. Lock the spray gun safety latch.
7. Open the drain valve (supplied in your system), having a container ready to catch the drainage.
8. Leave the drain valve open until you area ready to spray again.

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.


## Flush the Pump Before Using

Pumps are tested in lightweight oil which is left in to protect the pump parts. To prevent contamination of the fluid, flush the pump with a compatible solvent before using it.

 **WARNING**

Before flushing, be sure the entire system and flushing pails are properly grounded. Refer to **Grounding** on page 4. Follow the **Pressure Relief Procedure** above and remove the spray tip from the gun. Always use the lowest possible fluid pressure, and maintain firm metal-to-metal contact between the gun and the pail during flushing to reduce the risk of fluid injection, static sparking, and splashing in the eyes or on the skin.

## Starting and Adjusting the Pump

 **WARNING**

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

See Fig. 3. Be sure the air regulators (10a and 10b) and bleed-type master air valve (16) are closed. Do not install the spray tip yet.

Screw the bung adapter (34) into the container's bung hole, slide the suction tube through the adapter into the container, and tighten the thumbscrew (33) to secure. Position the tube so its end is about 1/2 in. (13 mm) off the bottom of the container.

Open the drain valve (6) to prime the pump. Open the bleed-type master air valve (16). Open the gun air regulator (10a). Hold a metal part of the spray gun firmly to the side of a grounded metal pail and trigger the gun.

Slowly open the pump air regulator (10b) until the pump starts. Run the pump slowly until fluid comes from the drain valve (6).

Close the drain valve and continue to run the pump until all the air is pushed out of the fluid lines. Release the gun trigger and lock the safety latch; the pump will stall against the pressure.

With the pump and lines primed, and with adequate air pressure and volume supplied, the pump will start and stop as the spray gun is triggered and released.

**Relieve the pressure**, then install the spray tip in the gun.

Use the pump air regulator (10b) to control the pump speed and fluid pressure. Always use the lowest pressure necessary to achieve the desired results. Higher pressures waste fluid and cause premature wear of the pump packings and spray tip.

Keep the packing nut/wet-cup filled with Graco Throat Seal Liquid (TSL) to help prolong the packing life. Check the tightness of the packing nut weekly. The packing nut should be tight enough to prevent leakage – no tighter. Always **relieve the pressure** before adjusting the packing nut.

# Operation

Never allow the pump to run dry of the fluid being pumped. A dry pump will quickly accelerate to a high speed, possibly damaging itself. If your pump accelerates quickly, or is running too fast, stop it immediately and check the fluid supply. If the supply container is empty and air has been pumped into the lines, refill the supply container and prime the pump and lines with fluid, being sure to eliminate all air from the fluid system, or flush the pump as described in **Shutdown and Care** at right.

## Shutdown and Care

### **⚠ WARNING**

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

Always **relieve the pressure** whenever you shut off the pump. Stop the pump at the bottom of its stroke to keep fluid from drying on the exposed displacement rod and damaging the throat packings.

Always flush the pump with a compatible solvent before the fluid can dry on the displacement rod and at the end of each day. **Relieve the pressure** after flushing.

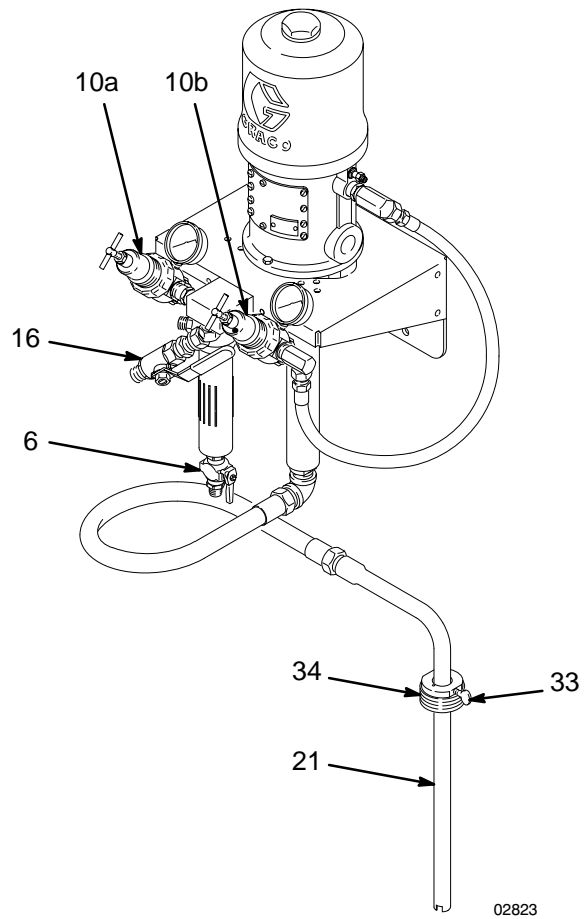


Fig. 3



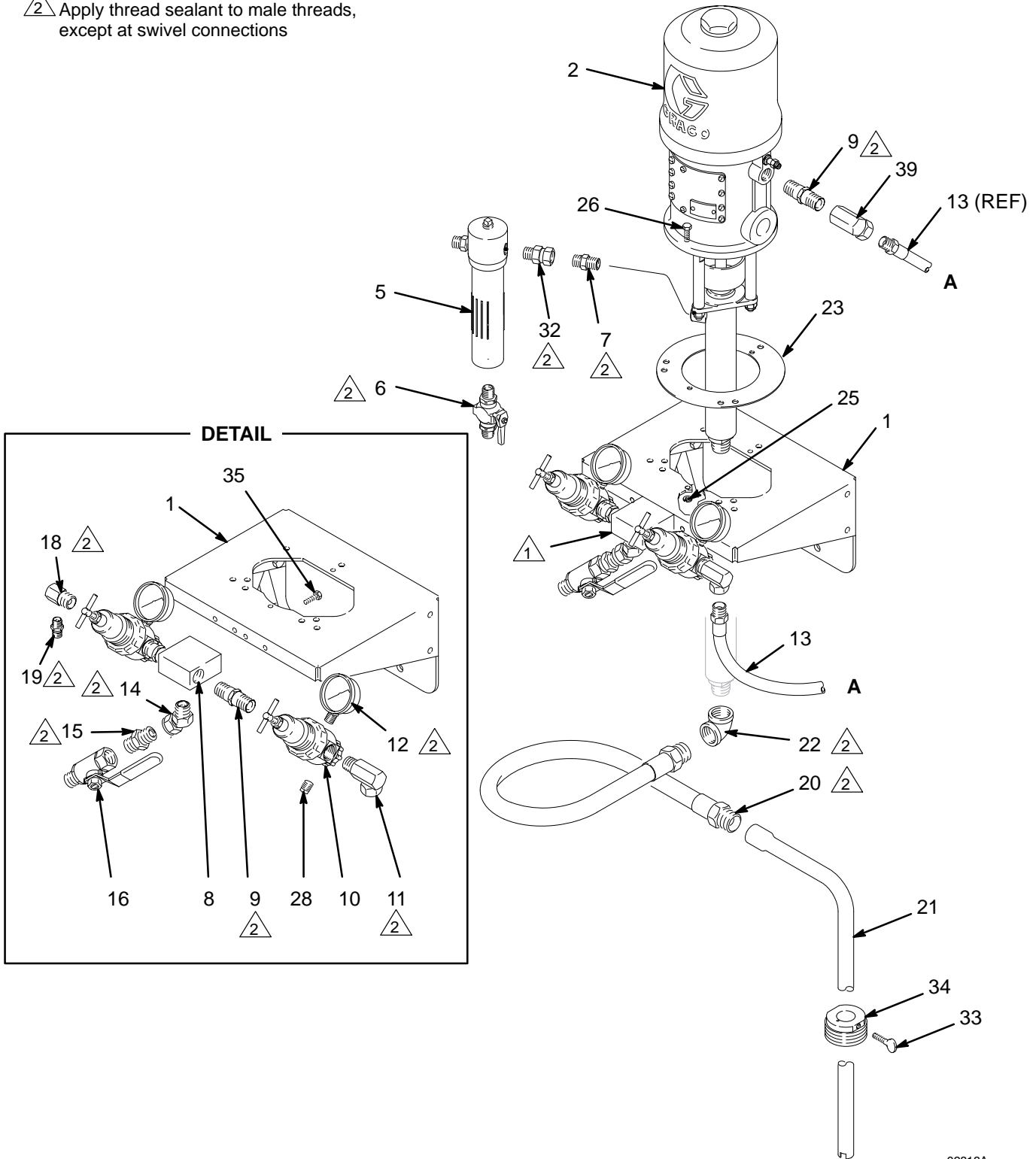


# Parts

## Part No. 236-066 Wall Mount Pump

1 See Detail.

2 Apply thread sealant to male threads, except at swivel connections



02818A

# Parts

## Part No. 236–066 Wall Mount Pump

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
				14	222–297	UNION, adapter, 45°; 1/2 npt(m) x 1/2 npsm(f) swivel	1
				15	158–491	NIPPLE; 1/2 npt; 1.625" (41 mm) long	1
				16	107–142	VALVE, air, bleed-type; 1/2 npt(m x f)	1
				18	166–999	ELBOW, street, reducing; 1/2 npt(n) x 1/4 npt(f)	1
1	186–727	BRACKET, wall mounting	1	19	162–453	NIPPLE; 1/4 npt x 1/4 npsm	1
2	223–843	PRESIDENT PUMP; stainless steel See manual 308–106 for parts	1	20	236–076	HOSE, suction, fluid; nylon; 3/4 npt(mbe); 3/4" (19 mm) ID; 6 ft (1.82 m) long	1
5	223–160	FLUID FILTER; stainless steel See manual 307–273 for parts	1	21	188–867	TUBE, suction; 3/4 npt(m x f); stainless steel	1
6	235–992	BALL VALVE; 3/8 npt x 1/4 npt(mbe); stainless steel; See manual 306–861 for parts	1	22	112–192	ELBOW, fluid intake; 3/4 npt(fbe); stainless steel	1
7	188–089	NIPPLE; 3/8 npt x 3/8–18.6 sf; stainless steel	1	23	188–595	BRACKET, pump mounting	1
8	179–749	MANIFOLD, air; 1/2 npt inlet; two 1/2 npt outlets	1	25	100–016	LOCKWASHER, spring; 1/4"	2
9	156–877	NIPPLE; 1/2 npt; 2/5" (63.5 mm)	3	26	100–270	CAPSCREW, hex hd; 1/4–20 x 5/8" (16 mm) long	2
10	104–267	AIR REGULATOR 0–125 psi (0–0.9 MPa, 0–9 bar) range See manual 308–167 for parts	2	28	100–509	PLUG, pipe; 1/4 npt	2
11	155–470	UNION, adapter, 90°; 1/2 npt(m) x 1/2 npsm(f) swivel	1	32	235–208	THUMBSCREW; 5/16–18 unc; 1" (25 mm) long	1
12	101–180	GAUGE, air pressure; 0–200 psi (0–1.4 MPa, 0–14 bar)	2	34	188–940	ADAPTER, bung; stainless steel	1
13	218–093	HOSE, air; buna-S; 1/2" (13 mm) ID; cpld 1/2 npt(mbe); 22" (559 mm) long	1	35	102–254	SCREW, hex hd; 1/4–20 x 7/8 (22 mm) long	2
				39	157–416	UNION, adapter, 90°; 1/2 npt(f) x 1/2 npsm(f)	1
				50	206–994	THROAT SEAL LIQUID (not shown)	1

## Technical Data

Category	Data
Maximum Working Pressure	3600 psi (25.0 MPa, 250 bar)
Maximum Incoming Air Pressure	120 psi (0.84 MPa, 8.4 bar)
Ratio	30:1
Wetted Parts: Pump	See manual 308–106
Wetted Parts: Fluid Filter	See manual 307–273
Wetted Parts: Suction Hose and Tube	Nylon, 304 Stainless Steel
Wetted Parts: Fluid Fittings	304 and 316 Stainless Steel

## Manual Change Summary

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

Model 236–068 is obsolete and has been removed from this manual.

# 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>

**GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441**

PRINTED IN U.S.A. 308-333 December 1993, Revised August 1997