

# Probler<sup>®</sup> P2 Dispense Gun

313213ZAD

EN

**For dispensing non-flammable foam and polyurea. For professional use only.**

**Not approved for use in explosive atmospheres or hazardous locations.**

*90–110 psi (0.62–0.76 MPa, 6.2–7.6 bar) Air Inlet  
Pressure Range*

*3500 psi (24.1 MPa, 241 bar) Maximum Static Fluid  
Pressure*

See page 3 for **Models** information.



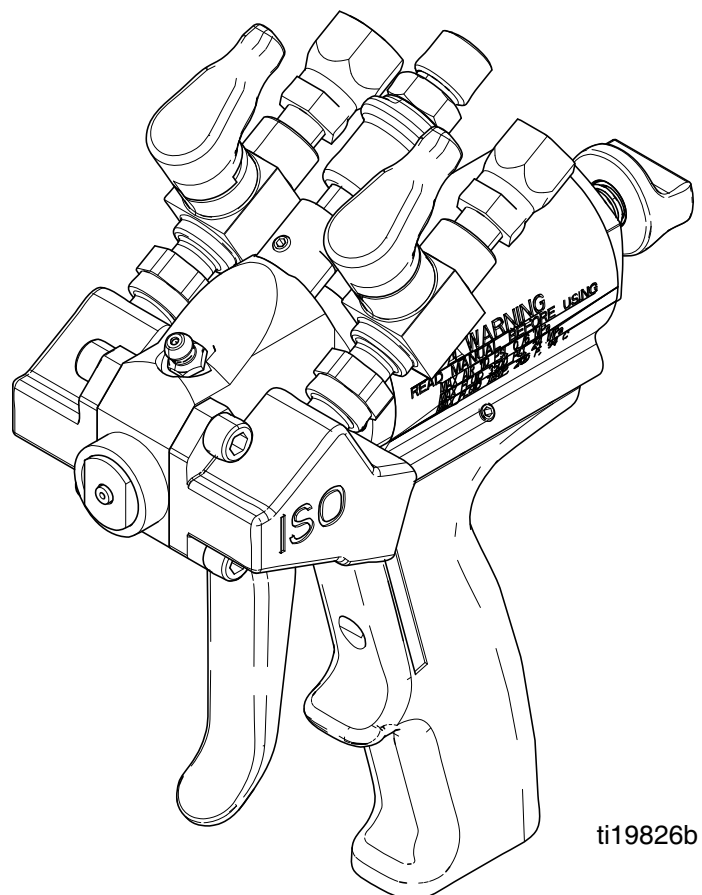
### **Important Safety Instructions**

Read all warnings and instructions in this manual and in all related manuals before using the equipment. Save all instructions.



### **Important Medical Information**

Read the medical alert card provided with the gun. It contains injection injury treatment information for a doctor. Keep it with you when operating the equipment.




ti19826b

# Contents










<b>Models</b> .....	<b>3</b>	<b>Maintenance</b> .....	<b>16</b>
<b>Warnings</b> .....	<b>4</b>	Daily Maintenance .....	16
<b>Important Isocyanate (ISO) Information</b> .....	<b>6</b>	Routine Maintenance .....	16
Isocyanate Conditions .....	6	Check for Leaking Seals .....	17
Material Self-Ignition .....	7	Check for Leaking Material Valves .....	17
Keep Components A and B Separate .....	7	Maintain Side Blocks .....	18
Moisture Sensitivity of Isocyanates .....	7	Piston Safety Lock Adjustment .....	19
Foam Resins with 245 fa Blowing Agents .....	7	Drill Bits .....	20
Changing Materials .....	7	<b>Troubleshooting</b> .....	<b>22</b>
<b>Component Identification</b> .....	<b>8</b>	<b>Parts</b> .....	<b>24</b>
<b>Overview</b> .....	<b>9</b>	<b>Optional Configurations</b> .....	<b>28</b>
<b>Installation</b> .....	<b>10</b>	Flat Tips .....	28
Grounding .....	10	Conversion Kits .....	30
Connecting to Graco Equipment .....	10	<b>Kits</b> .....	<b>31</b>
Connecting to Other Equipment .....	11	O-ring Kits .....	32
<b>Operation</b> .....	<b>11</b>	Piston Safety Lock Kits .....	33
Operating Requirements .....	11	<b>Technical Specifications</b> .....	<b>35</b>
Loss of Air Pressure .....	12	<b>Graco Standard Warranty</b> .....	<b>36</b>
Valve Control .....	12		
Piston Safety Lock .....	12		
Pressure Relief Procedure .....	13		
Daily Startup .....	14		
Daily Shutdown .....	15		

# Models

Model	Description	Maximum Static Fluid Pressure psi (MPa, bar)	Air Inlet Pressure Range psi (MPa, bar)	Approvals
GCP2RA	GUN, P2, 0.036 in., #00	3500 psi (24.1 MPa, 241 bar)	90–110 psi (0.62–0.76 MPa, 6.2–7.6 bar)	
GCP2R0	GUN, P2, 0.051 in., #00			
GCP2R1	GUN, P2, 0.059 in., #01			
GCP2R2	GUN, P2, 0.073 in., #02			
GCP2R3	GUN, P2, 0.088 in., #03			
GCP2R4	GUN, P2, 0.100 in., #04			
GCP2R5	GUN, P2, 0.125 in., #05			

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h2 style="margin: 0;">WARNING</h2>	
 	<p><b>TOXIC FLUID OR FUMES HAZARD</b></p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled or swallowed.</p> <ul style="list-style-type: none"> <li>• Read Safety Data Sheets (SDSs) for handling instructions and to know the specific hazards of the fluids you are using, including the effects of long-term exposure.</li> <li>• When spraying, servicing equipment, or when in the work area, always keep work area well-ventilated and always wear appropriate personal protective equipment. See <b>Personal Protective Equipment</b> warnings in this manual.</li> <li>• Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> </ul>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b></p> <p>Always wear appropriate personal protective equipment and cover all skin when spraying, servicing equipment, or when in the work area. Protective equipment helps prevent serious injury, including long-term exposure; inhalation of toxic fumes, mists or vapors; allergic reaction; burns; eye injury and hearing loss. This protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• A properly fitting respirator, which may include a supplied-air respirator, chemically impermeable gloves, protective clothing and foot coverings as recommended by the fluid manufacturer and local regulatory authority.</li> <li>• Protective eyewear and hearing protection.</li> </ul>
    	<p><b>SKIN INJECTION HAZARD</b></p> <p>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. <b>Get immediate surgical treatment.</b></p> <ul style="list-style-type: none"> <li>• Do not point gun at anyone or at any part of the body.</li> <li>• Do not put your hand over the spray tip.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Close material shutoff valves and shutoff or disconnect air supply when not spraying.</li> <li>• Follow the <b>Pressure Relief Procedure</b> when you stop dispensing and before cleaning, checking, or servicing equipment.</li> <li>• Engage piston safety lock when not spraying.</li> <li>• Check hoses and couplings daily. Replace worn or damaged parts immediately.</li> </ul>



# WARNING

**BURN HAZARD**

Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.

**FIRE AND EXPLOSION HAZARD**

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:

- Use equipment only in well-ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).
- Ground all equipment in the work area. See **Grounding** instructions.
- Never spray or flush solvent at high pressure.
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.
- **Stop operation immediately** if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

**EQUIPMENT MISUSE HAZARD**

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Specifications** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

**PRESSURIZED ALUMINUM PARTS HAZARD**

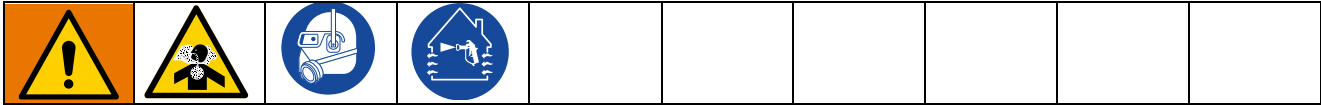
Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

# Important Isocyanate (ISO) Information

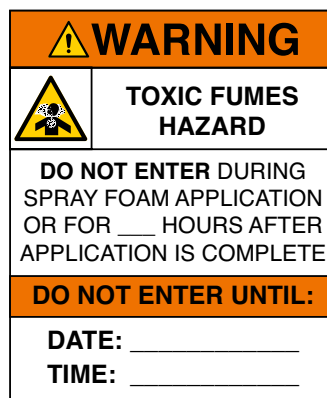
Isocyanates (ISO) are catalysts used in two component materials.

## Isocyanate Conditions





Spraying or dispensing fluids that contain isocyanates creates potentially harmful mists, vapors, and atomized particulates.




- Read and understand the fluid manufacturer’s warnings and Safety Data Sheets (SDSs) to know specific hazards and precautions related to isocyanates.
- Use of isocyanates involves potentially hazardous procedures. Do not spray with this equipment unless you are trained, qualified, and have read and understood the information in this manual and in the fluid manufacturer’s application instructions and SDSs.
- Use of incorrectly maintained or mis-adjusted equipment may result in improperly cured material, which could cause off gassing and offensive odors. Equipment must be carefully maintained and adjusted according to instructions in the manual.
- To prevent inhalation of isocyanate mists, vapors and atomized particulates, everyone in the work area must wear appropriate respiratory protection. Always wear a properly fitting respirator, which may include a supplied-air respirator. Ventilate the work area according to instructions in the fluid manufacturer’s SDSs.
- Avoid all skin contact with isocyanates. Everyone in the work area must wear chemically impermeable gloves, protective clothing and foot coverings as recommended by the fluid manufacturer and local regulatory authority. Follow all fluid manufacturer recommendations, including those regarding handling of contaminated clothing. After spraying, wash hands and face before eating or drinking.
- Hazard from exposure to isocyanates continues after spraying. Anyone without appropriate personal protective equipment must stay out of the work area during application and after application for the time period specified by the fluid manufacturer. Generally this time period is at least 24 hours.
- Warn others who may enter work area of hazard from exposure to isocyanates. Follow the recommendations of the fluid manufacturer and local regulatory authority. Posting a placard such as the following outside the work area is recommended:



## Material Self-Ignition

				
Some materials may become self-igniting if applied too thick. Read material manufacturer's warnings and Safety Data Sheets (SDSs).				

## Keep Components A and B Separate

				
Cross-contamination can result in cured material in fluid lines which could cause serious injury or damage equipment. To prevent cross-contamination of the equipment's wetted parts:				
<ul style="list-style-type: none"> <li>• <b>Never</b> interchange isocyanate side (E) and resin side (F) parts.</li> <li>• Never use solvent on one side if it has been contaminated from the other side.</li> </ul>				

## Moisture Sensitivity of Isocyanates

Exposure to moisture (such as humidity) will cause ISO to partially cure, forming small, hard, abrasive crystal that become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity.

NOTICE				
Partially cured ISO will reduce performance and the life of all wetted parts.				
<ul style="list-style-type: none"> <li>• Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. <b>Never</b> store ISO in an open container.</li> <li>• Keep the ISO pump wet cup or reservoir (if installed) filled with appropriate lubricant. The lubricant creates a barrier between the ISO and the atmosphere.</li> <li>• Use only moisture-proof hoses compatible with ISO.</li> <li>• Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use.</li> <li>• Always lubricate threaded parts with an appropriate lubricant when reassembling.</li> </ul>				

**NOTE:** The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

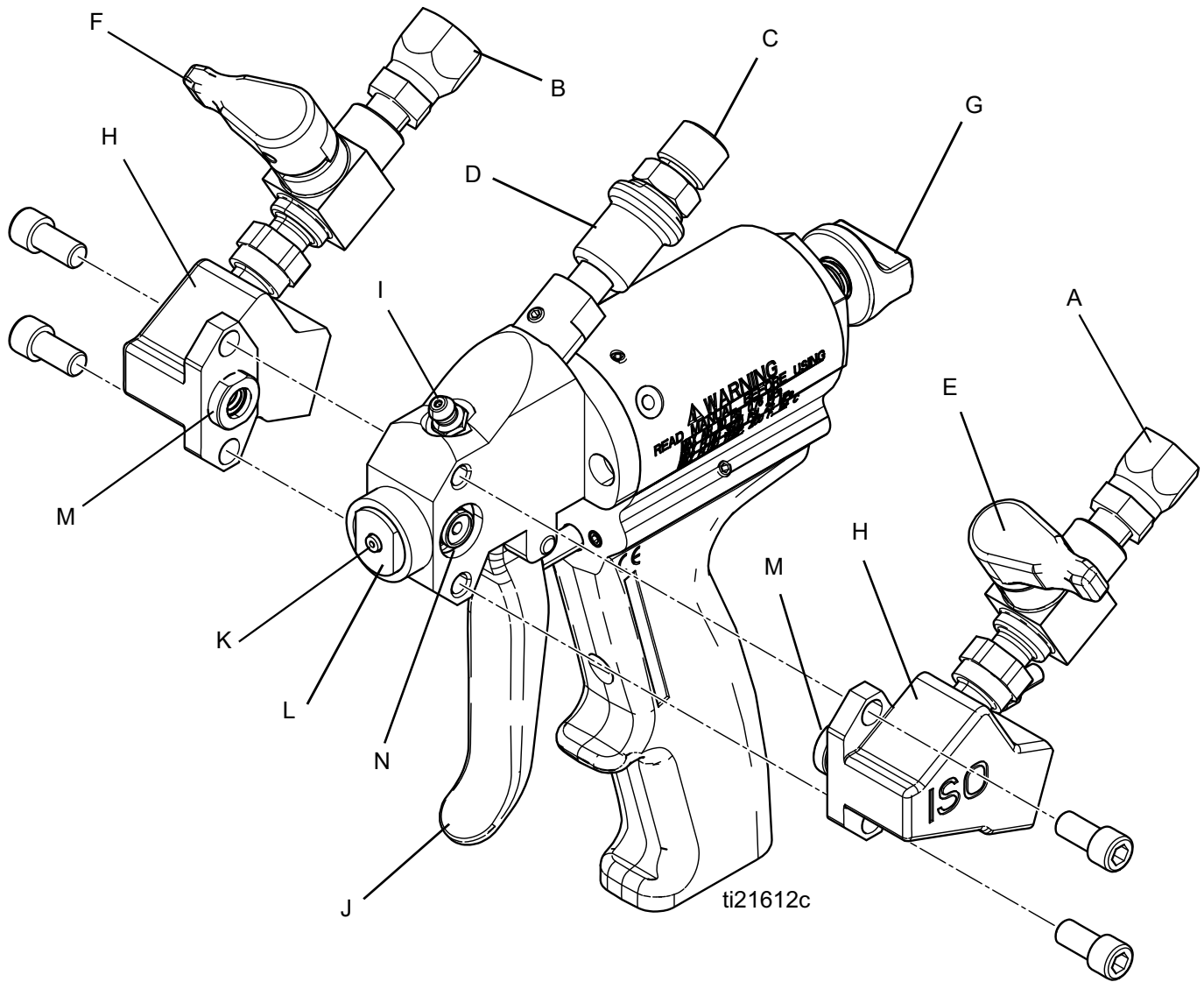
## Foam Resins with 245 fa Blowing Agents

Some foam blowing agents will froth at temperatures above 90°F (33°C) when not under pressure, especially if agitated. To reduce frothing, minimize preheating in a circulation system.

## Changing Materials

NOTICE	
Changing the material types used in your equipment requires special attention to avoid equipment damage and downtime.	
<ul style="list-style-type: none"> <li>• When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.</li> <li>• Always clean the fluid inlet strainers after flushing.</li> <li>• Check with your material manufacturer for chemical compatibility.</li> <li>• When changing between epoxies and urethanes or polyureas, disassemble and clean all fluid components and change hoses. Epoxies often have amines on the B (hardener) side. Polyureas often have amines on the B (resin) side.</li> </ul>	

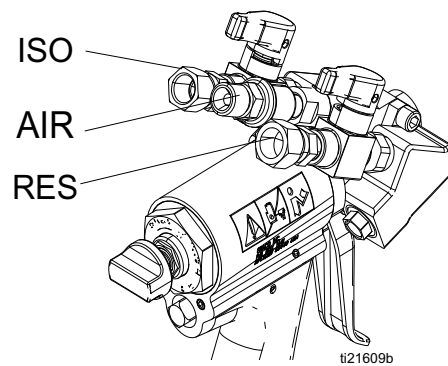
# Component Identification



**FIG. 1 Probler P2 Components**

**Key:**

- A Isocyanate (ISO) A-side Hose Connection
- B Resin (RES) B-side Hose Connection
- C Supply Air Hose Connection
- D Purge Air Switch
- E Isocyanate Shutoff Valve
- F Resin Shutoff Valve
- G Piston Safety Lock
- H Side Block
- I Zerk Fitting
- J Trigger
- K Mix Chamber Insert
- L Air Cap or Spray Tip
- M Side Seal Housing
- N Mix Chamber Inlet



**FIG. 2 Port Identification**



# Overview

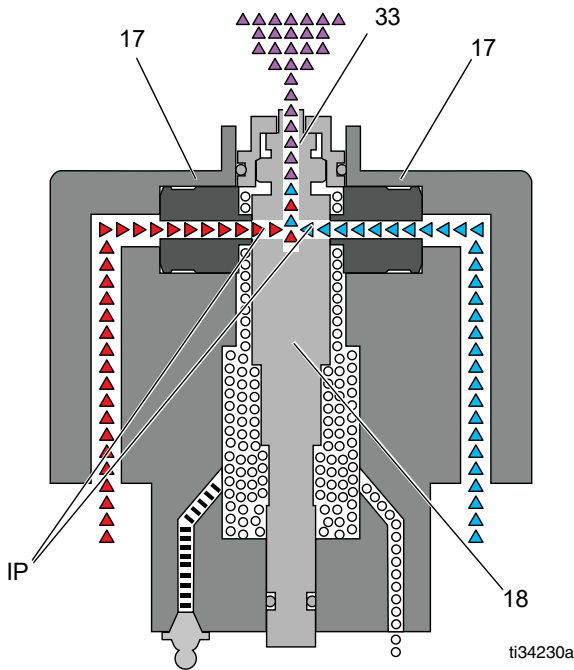
## Gun Triggered (Fluid Spraying)

When triggered, the mix chamber (18) moves back, shutting off purge air flow. Impingement ports (IP) align with material ports of side seals (17), allowing the two materials (isocyanate and resin) to mix and to flow through mix chamber insert (33).

**NOTE:** The proper alignment of the ports is determined by the setting of the adjustment nut, located on the piston safety lock assembly. This adjustment nut determines the length of travel of the air piston and has been preset at the factory, it should not require adjustment. See **Piston Safety Lock Adjustment**, page 19.

### Key

Purge Air	
Fluid	
Grease	



**NOTE:** Flow paths are not shown to scale.

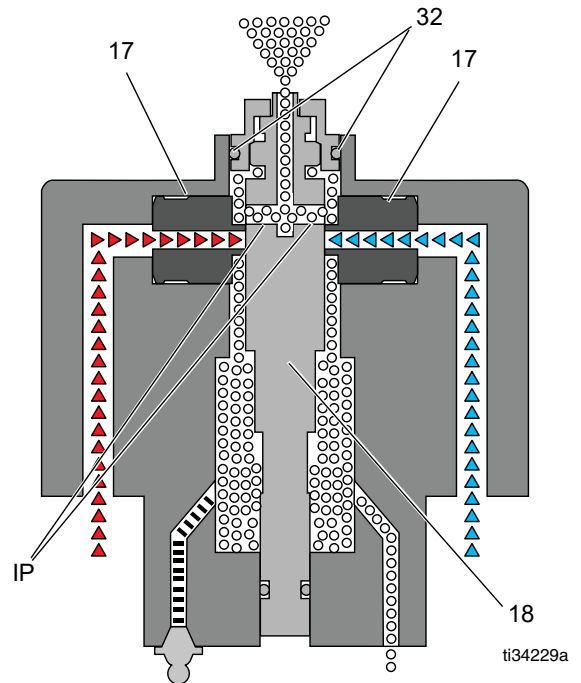
## Gun Detriggered (Air Purging)

Mix chamber (18) returns to its original position shutting off material flow. Impingement ports (IP) then allow air into the mixing chamber housing. The front tip o-ring (32) keeps air purge inside the gun head, which forces air through the mixing chamber creating a material purge.

The purge air continues to flow through the mixing chamber until the air switch is pulled up to shut off all air to the gun.

### Key

Purge Air	
Fluid	
Grease	



**NOTE:** Flow paths are not shown to scale.

# Installation

## Grounding



The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current. Follow the grounding instructions described in the manual for the system you are using.

**Ground the Probler P2 spray gun:** through connection to a properly grounded fluid hose.

**Object being sprayed:** follow local code.

**Solvent pails used when flushing:** follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts grounding continuity.

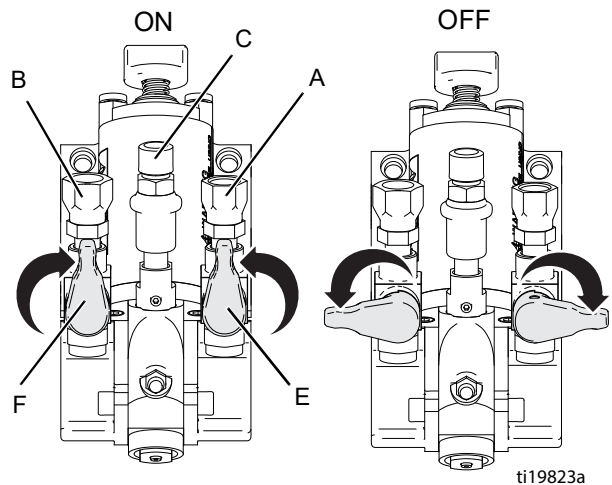
**To maintain grounding continuity when flushing or relieving pressure:** hold metal part of the spray gun/dispense valve firmly to the side of a grounded metal pail, then trigger the gun/valve.

## Connecting to Graco Equipment



To help prevent serious injury from pressurized fluid, such as skin injection and splashing fluid, follow the **Pressure Relief Procedure**, page 13, before connecting the Probler P2 gun to the system.

1. Follow the **Pressure Relief Procedure**, page 13.
2. Close both material valves (E, F) by turning to the off position. See FIG. 3.



**FIG. 3 Material Valves**

3. Engage the piston safety lock (G). See **Piston Safety Lock**, page 12.
4. Connect the isocyanate A-side hose to the JIC ISO hose connection (A) and connect the resin B-side hose to the JIC RES hose connection (B) on the P2. See FIG. 1, page 8.

**NOTE:** JIC swivel fittings on gun do not require the use of PTFE tape.

5. Connect the 1/4 in. NPS air supply hose included with the P2 to the supply air hose connection (C). See FIG. 1, page 8.
6. Once the fittings are attached and tight, refer to system manuals for start-up instructions.

## Connecting to Other Equipment

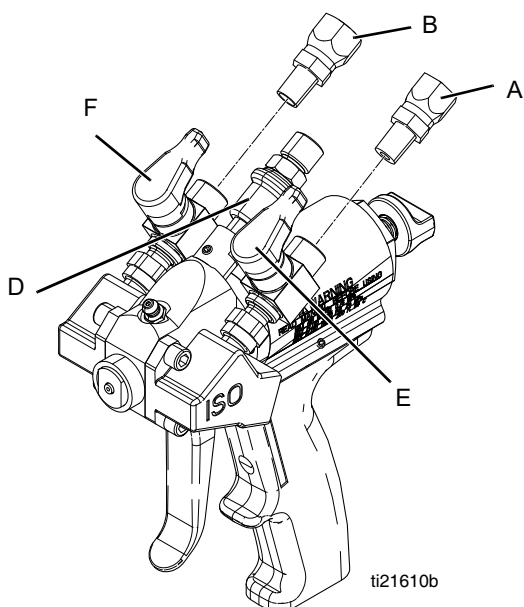
**NOTE:** If the system does not require the use of an unheated whip hose or isolation hose, the P2 can be directly installed onto the material hose.

1. When the Probler P2 is replacing an existing gun, remove all of the hoses and fittings from the original gun.
2. Remove the swivel fitting connections (A, B) from the material shutoff valves (E, F) on the P2. See FIG. 4. The valve connections are 1/8 in. NPT female.
3. Remove the air hose from the supply air switch (D). The supply air switch fitting is 1/4 in. NPSM.
4. Install the fittings from the original gun into the material shutoff valves (E, F) on the P2.

**NOTE:** You can use a non-permanent thread lock on the 1/8 in. npt threads to assist as a sealant and keep the fittings from twisting with gun movement.

5. Install the gun on the original hoses.

**NOTE:** If needed, a swivel fitting is available for connecting a supply air hose from other equipment. This part can be purchased separately or as part of Hardware Kit 04-05. See **Kits**, page 31.



**FIG. 4 Swivel Fitting Removal**

## Operation

### Operating Requirements

Before starting, check that all fittings are tight and air regulators are turned to zero (0) pressure.

<p>The Probler P2 is designed and manufactured to operate at a maximum static fluid pressure not to exceed 3500 psi (24.1 MPa, 241 bar). To prevent serious injury from pressurized fluid if the P2 gun is installed on any other manufacturer's equipment, ensure that the maximum static fluid pressure is not exceeded.</p> <ul style="list-style-type: none"> <li>• Maximum Air Inlet Pressure Range: 8–10 scfm at 90–110 psi (0.62–0.76 MPa, 6.2–7.6 bar)</li> <li>• Maximum Static Fluid Pressure: 3500 psi (24.1 MPa, 241 bar)</li> </ul>				

If the gun is being used for short periods of spraying, leave the purge air on.

The gun air switch on the system must be opened prior to spraying to provide for air-trigger operation and purge air when trigger is released. Refer to your proportioner system manual for details.

<b>NOTICE</b>
<p>Before turning off the purge air, engage the piston safety lock and turn the material valves to the off positions. Failure to follow this procedure can result in the gun head becoming encased with mixed product.</p>

## Loss of Air Pressure

In the event of loss of air pressure, the gun will continue to spray. To shut off the gun, do one of the following:

- Engage the piston safety lock. See FIG. 6.
- Close the material shutoff valves. See FIG. 5.

## Valve Control

The flow of material into the mixing chamber is controlled by the on or off position of the two material shutoff valves (E, F).

**NOTE:** Both material shutoff valves must be fully open and the piston safety lock (G) must be disengaged during dispensing. During service or extended shutdown periods, the shutoff valves must be fully closed and the piston safety lock engaged.

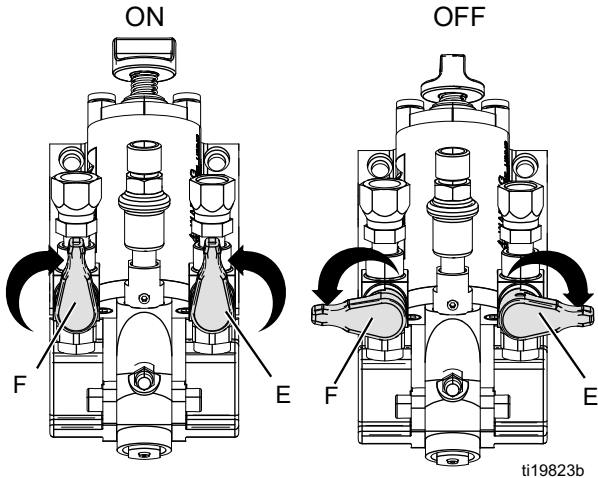


FIG. 5 Shutoff Valves

## Piston Safety Lock

<p>High-pressure fluid from dispensing devices can pierce skin. To help prevent serious injury from pressurized fluid, always engage the piston safety lock and close the material shutoff valves to avoid accidental triggering whenever you stop spraying.</p>				

Engage piston safety lock (G) in conjunction with material valves (E, F) whenever you stop spraying, to avoid accidental triggering.

### Engage Piston Safety Lock

Push the knob in and turn clockwise. If engaged, the gun will not actuate. See FIG. 6.

### Disengage Piston Safety Lock

Push the knob in and turn counterclockwise until it pops out. There will be a gap between the knob and the gun body. See FIG. 6.

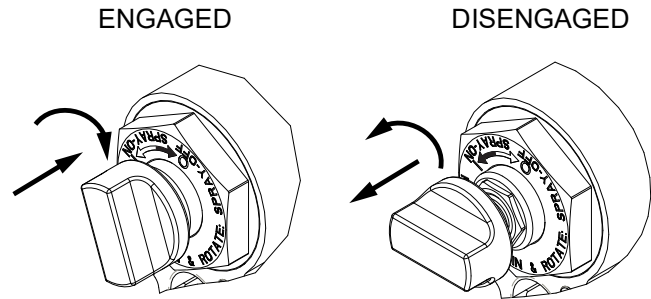


FIG. 6 Piston Safety Lock

### Test Piston Safety Lock

Before each use, verify the piston safety lock assembly is installed and working properly:

1. Engage the piston safety lock. See FIG. 6.
2. Pressurize the system to working pressure.
3. Open the material valves (E, F).
4. Point the gun in a safe direction and trigger the gun. No material should flow from the gun tip.

**NOTE:** See **Parts**, page 24, for the Piston Safety Lock Repair Kit.

## Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.


Material in the gun, hoses, and proportioner stays pressurized until the pressure from the proportioner system and the transfer pumps is relieved. To help prevent serious injury from pressurized fluid, such as skin injection and splashing fluid, follow the **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing the equipment.

### For systems with shut-off valves on the proportioner

1. Engage the piston safety lock (G). See FIG. 6.
2. Close the shut-off valves on the proportioner system.
3. Disengage the piston safety lock.
4. Verify that the purge air switch (D) is open. See FIG. 1. Trigger the gun onto cardboard or into a waste container to relieve pressure in the hoses and gun.
5. Close the material shutoff valves (E, F). See FIG. 5.
6. Trigger the gun onto cardboard or into a waste container to relieve any remaining pressure in the fluid head.
7. Engage the piston safety lock.
8. Close the purge air switch.
9. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
  - a. Very slowly loosen each hose connection (A, B), one at a time, to relieve pressure gradually.
  - b. When pressure is relieved, loosen the hose connections completely.
  - c. Clear the obstruction.

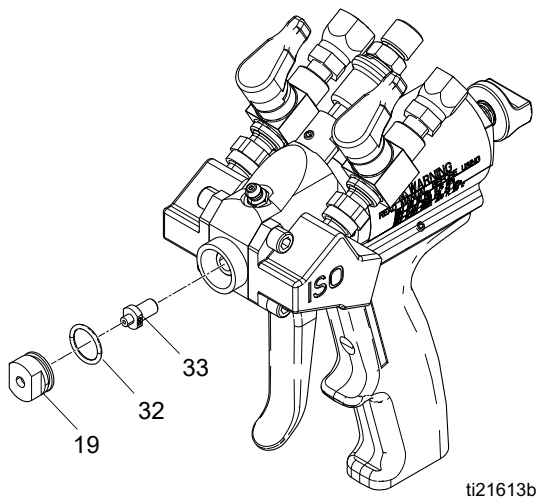
### For systems with shut-off valves on the transfer pumps only

1. Engage the piston safety lock (G). See FIG. 6.
2. Close the fluid supply shut-off valves at the transfer pumps.
3. Disengage the piston safety lock.
4. Verify that the purge air switch (D) is open. See FIG. 1. Trigger the gun onto cardboard or into a waste container to relieve pressure in the proportioner system, fluid hoses, and gun.
5. Close the material shutoff valves (E, F). See FIG. 5.
6. Trigger the gun onto cardboard or into a waste container to relieve any remaining pressure in the fluid head.
7. Engage the piston safety lock.
8. Close the purge air switch.
9. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
  - a. Very slowly loosen each hose connection (A, B), one at a time, to relieve pressure gradually.
  - b. When pressure is relieved, loosen the hose connections completely.
  - c. Clear the obstruction.

## Daily Startup



1. Relieve all system fluid and air pressure according to the manufacturer's instructions. See **Pressure Relief Procedure**, page 13.
2. Engage the **Piston Safety Lock**, page 12.
3. Clean the mix chamber insert (33). Ensure the face and bottom flat are clean. Drill the bore out with the correct size bit for the insert. See **Drill Bits**, page 20.
4. Clean the mix chamber exit passage. Drill out the chamber inlet bore as required.
5. Install the mix chamber insert.



**Fig. 7 Spray Tip Installation**

6. Install the air cap (19) on the gun. Hand tighten until the cap bottoms out. Use a 1/2 in. wrench to fully tighten.

### NOTICE

Tightening the air cap does not require high torque. Over tightening can result in mix chamber damage.

7. Verify that the material valves (E, F) are in the off position.
8. Connect the material hoses (E, F) to the material fittings.
9. Disengage the piston safety lock. See **Piston Safety Lock**, page 12.
10. Open the purge air switch on your system and trigger the gun to check that purge air is flowing. Adjust as desired.
11. Engage the **Piston Safety Lock**, page 12.
12. Once the fittings are attached and tight, refer to your proportioner system manual for system startup instructions.
13. Apply a layer of lubricant over front of gun and lock ring, or use gun cover to prevent over-spray buildup and ease disassembly. See **Kits**, page 31.
14. Open the resin B-side (F) material valve. Then open the isocyanate A-side (E) material valve.
15. Disengage the **Piston Safety Lock**, page 12.
16. Test spray onto cardboard. Adjust pressure and temperature to get desired result.

**NOTE:** Higher pressures and temperatures may be used to increase material break-up, improve mixing, and speed rise times. With hose lengths over 50 ft, or when material viscosities are high, higher material pump pressures may be necessary.

**NOTE:** Foam rise and cure times will vary. Higher material or substrate temperature will increase rise and cure times; lower material or substrate temperatures will decrease rise and cure times. Consult your fluid manufacturer's data specification sheet for their recommended spray temperatures.

## Daily Shutdown



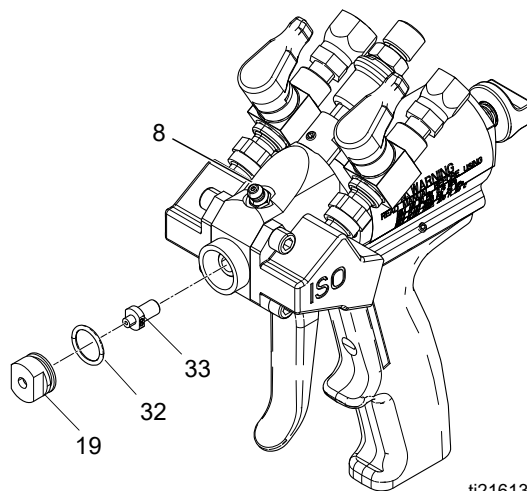
Grease the gun nightly to prevent material curing and to keep fluid passages clean. Purge air carries grease mist through the air chamber and impingement ports, and out the mix chamber insert, coating all surfaces.

1. Relieve the pressure. Follow the **Pressure Relief Procedure**, page 13.
2. Engage the piston safety lock. See **Piston Safety Lock**, page 12.
3. Leave your system air turned on to the lowest air pressure setting and keep the gun detripped.
4. Remove the zerk fitting cap (8). See FIG. 8.
5. Using a grease gun inject one full pump of white lithium grease into zerk fitting. Grease should appear at the tip of the mix chamber insert.

**NOTE:** Do not over-grease; use two shots maximum. Do not spray grease mist onto sprayed material.

6. Replace the zerk fitting cap.
7. Shut off the air purge at the system.
8. Remove the spray tip (19) and soak in solvent until next use.

**NOTE:** If cleaning with solvent is required, remove the o-ring (32) before soaking.

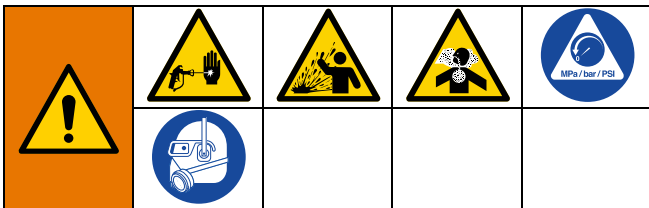


ti21613b

**FIG. 8 Spray Tip Assembly**



# Maintenance



## NOTICE

Before removing the side blocks, confirm that both material valves are in the off position. Failure to shut off material valves will result in the gun becoming encased in urethane.

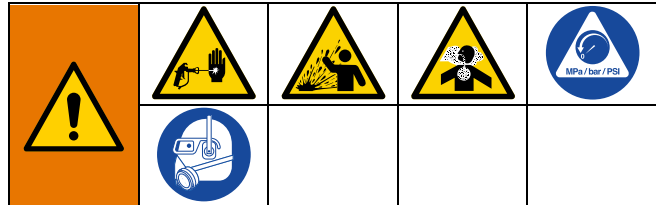
## NOTICE

Certain solvents may cause the o-rings to swell or deteriorate. Consult your fluid manufacturer for chemical compatibility.

## Daily Maintenance

- Clean the gun using a brush and an appropriate cleaning solvent.
- Inspect the side block seals for scratches, material buildup, or foreign material. Clean and replace as required. See **Maintain Side Blocks**, page 18.
- Remove the filter screen. Clean or replace the screen.
- Maintain your stock level of seals, o-rings, and grease. See **Kits**, page 31.
- Grease the gun nightly to prevent material curing and to keep fluid passages clean. Purge air carries grease mist through the air chamber and impingement ports, and out the mix chamber insert, coating all surfaces. Use white lithium grease. See **Daily Shutdown**, page 15.

## Routine Maintenance



1. Relieve the pressure. Follow the **Pressure Relief Procedure**, page 13.
- Flush and clean all chambers and passages as they become accessible.
  - Clean all parts before assembly.
  - For material buildup, remove the part and rinse with compatible solvent.
  - Replace all o-rings and seals with new parts from the appropriate kit.
  - Inspect all parts for wear or damage and replace as required with new Graco parts.
  - Inspect all threads for wear or damage and replace as required.
  - Tighten all threaded parts securely upon assembly, but do not over tighten. Follow proper torque specifications. See **Parts**, page 24.
  - Lightly lubricate all o-rings, seals and threads with grease. Lubricate threads and outside of lock ring (26). See **Kits**, page 31, to order lubricant.
  - Check all springs for resilience. Worn or damaged springs should be replaced.



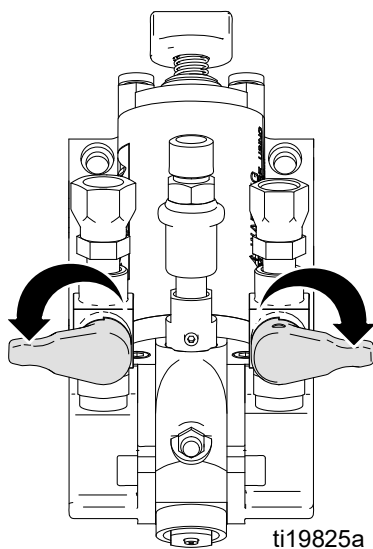
## Check for Leaking Seals

1. Engage **Piston Safety Lock**, page 12.
2. Turn off the incoming air by closing purge air switch.
3. Wait 10–20 seconds, then turn on the incoming air by opening purge air switch.
4. Repeat steps 2 and 3 two or three times.
5. If any material is purged from the gun, the side seals (30) or o-ring (31) are leaking.
6. Replace seals or o-rings and re-check.

**NOTE:** See **Parts**, page 24, for replacement side seal and o-ring kits.

## Check for Leaking Material Valves

1. Turn off both material valves (73, 74).
2. Disengage piston safety lock.



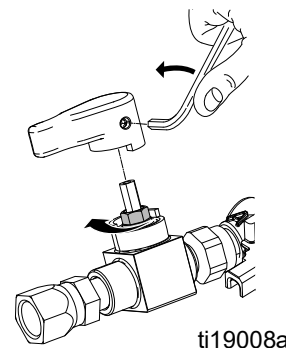
**FIG. 9 Material Valve Location**

3. Wait 10–20 seconds, then trigger the gun several times.

**NOTE:** If any material is purged from the gun, the material ball valves are leaking.

## Correct Material Valve Leaks

1. Relieve the pressure. Follow the **Pressure Relief Procedure**, page 13, and verify that the material valves (73, 74) are in the off position.
2. Engage the piston safety lock.
3. Loosen the set screw and remove handle. See FIG. 10.



**FIG. 10 Material Valve Packing Nut**

4. Turn the valve packing nut clockwise in 1/8-turn increments until leak is corrected.
5. Repeat **Check for Leaking Material Valves**.

**NOTE:** See **Parts**, page 24, for replacement material valve kit.

## Maintain Side Blocks

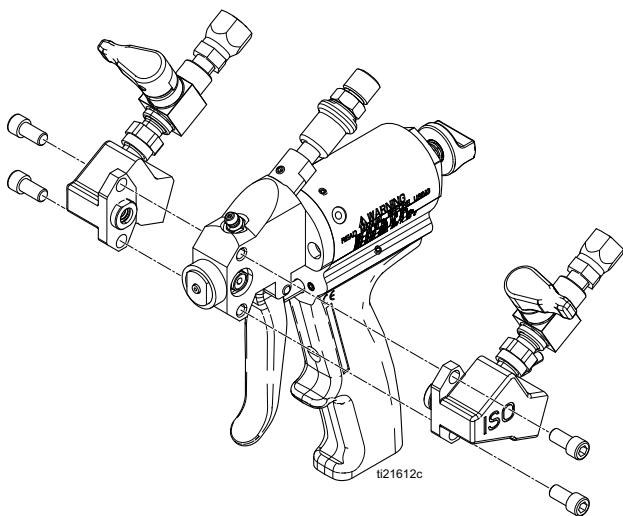


To help prevent serious injury, follow the **Pressure Relief Procedure**, page 13, before conducting any maintenance or removing the side blocks. Make sure that both material valves are in the off position. Existing fluid pressure could cause material to exit the side blocks with considerable force. Point the gun side blocks down and away from all personnel.

### NOTICE

Before removing the side blocks make certain that both material valves are off. Failure to shut off material valves will result in the gun becoming encased in urethane.

1. Relieve the pressure. Follow the **Pressure Relief Procedure**, page 13.
2. Take the side blocks off by removing the screws.



**FIG. 11 Side Block Assembly**

3. Examine the sides of the mixing chamber for scratches and material build-up. If scratched, replace.
4. Carefully remove any accumulated material without scratching the seal surfaces (sides).

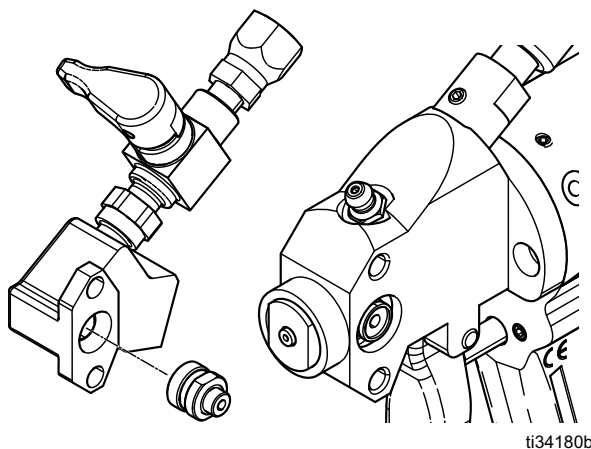
### NOTICE

Solvent can be used to wash accumulated material off of chamber, side blocks, and other parts. Keep gun chamber tilted toward the ground so that solvent does not run back into gun. Certain solvents will cause o-rings on chamber shaft to swell and deteriorate. Consult your fluid manufacturer for chemical compatibility.

5. Place generous amounts of white lithium grease in each side of the gun front housing (21) and on the side block seals (17). See FIG. 12.
6. Use the correct size drill bit to clean out the mixing chamber exit passage. See **Drill Bits**, page 20.
7. Use the correct size drill bit to clean the impingement ports of the mixing chamber taking care not to scratch the mixing chamber's polished surfaces. See **Drill Bits**, page 20.
8. Re-assemble the side blocks and tighten the screws.

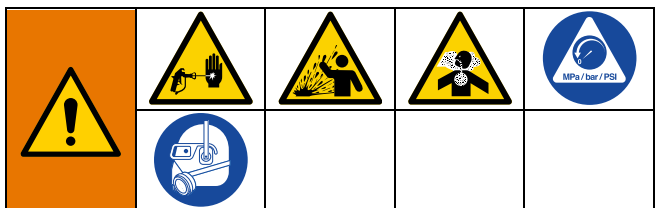
**NOTE:** Grease should appear at the tip of the mixing chamber.

**NOTE:** Do not open the air supply switch on the gun as this will purge the grease from the gun. Allow the grease to remain in the gun overnight.



**FIG. 12 Gun Housing and Mix Chamber Cleaning**

## Piston Safety Lock Adjustment

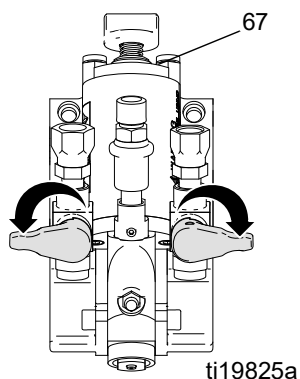


The P2 gun piston throw is factory set and should not require adjustment. The piston throw refers to how far back the air piston will travel when the gun is triggered. Proper throw adjustment aligns the mixing chamber impingement ports with the side block seal port.

### NOTICE

Before removing the side blocks, turn both material valves to the off position. Failure to shut off the material valves before the side blocks are removed will result in the gun becoming encased in urethane.

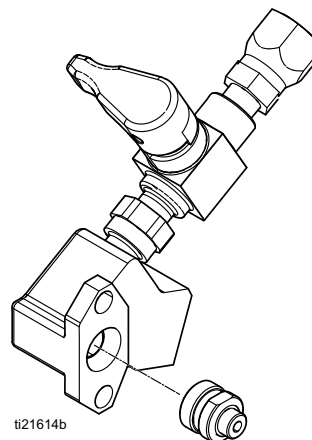
1. Relieve the pressure. Follow the **Pressure Relief Procedure**, page 13, and disconnect the material hoses from the gun.
2. Turn the material valves to the off position.



**FIG. 13 Material Valve Off Position**

3. Verify that the piston safety lock (67) has been tightened and fully threaded into the gun.

4. Remove the side blocks by removing the screws. See FIG. 11, page 18.
5. Remove one of the side block seal housings (17) from the side block. Leave the seal (30) in housing and rinse with suitable solvent.



**FIG. 14 Side Block Seal**

6. Place the seal housing in the gun head so the face of the seal sets against the mix chamber.
  7. Turn on the system air and activate the gun.
- NOTE:** The purge air will not shut off with the side block removed.
8. If the impingement port is not fully visible through the side seal housing, turn the system air off and activate the gun to relieve pressure. Use a 9/16 in. open-end wrench to adjust the adjustment nut (67b) in the appropriate direction.
  9. Repeat steps 7 and 8 until the impingement port is fully visible through the side seal housing (either on center or slightly forward).

**NOTE:** Non-permanent thread locker can be applied to the adjustment nut if necessary.

10. Reassemble the gun.

## Drill Bits

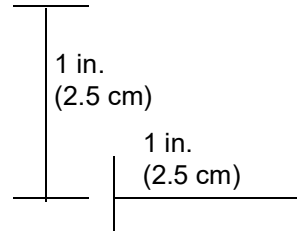
Round Mixing Chamber	Mix Chamber Insert Drill Bits*		Impingement Port Drill Bits*	
	Model	Part	in.	Part
GC250A	248891	0.033	276984	0.022
GC2500	GC0083	0.049	GC0080	0.035
GC2501	249112	0.057	246629	0.042
GC2502	GC0069	0.071	246628	0.052
GC2503	246625	0.086	246627	0.059
GC2504	246624	0.094	296297	0.067
GC2505	246623	0.116	246625	0.086

\* Drill bits used with Drill Pin Vise (117661).

## Drill Bit Kits

For cleaning gun ports and orifices.

Illustrations are for diameter comparison. Actual length may vary.



Part	Qty.	Drill Bit Size			Drill Bit
		nominal	in.	mm	
246623	3	#32	0.116	2.90	
246624	3	3/32	.094	2.39	
246625	3	#44	.086	2.18	
GC0069	6	1.8 mm	.071	1.8	
296297	6	#51	0.67	1.7	
246627	6	#53	.060	1.52	
249112	6	1.45 mm	.057	1.45	
246628	6	#55	.052	1.32	
GC0083	6	1.25 mm	.049	1.25	
246629	6	#58	.042	1.07	
248891	6	#66	.033	0.84	
246630	6	#69	.029	0.74	
276984	6	#74	.022	0.56	



# Troubleshooting

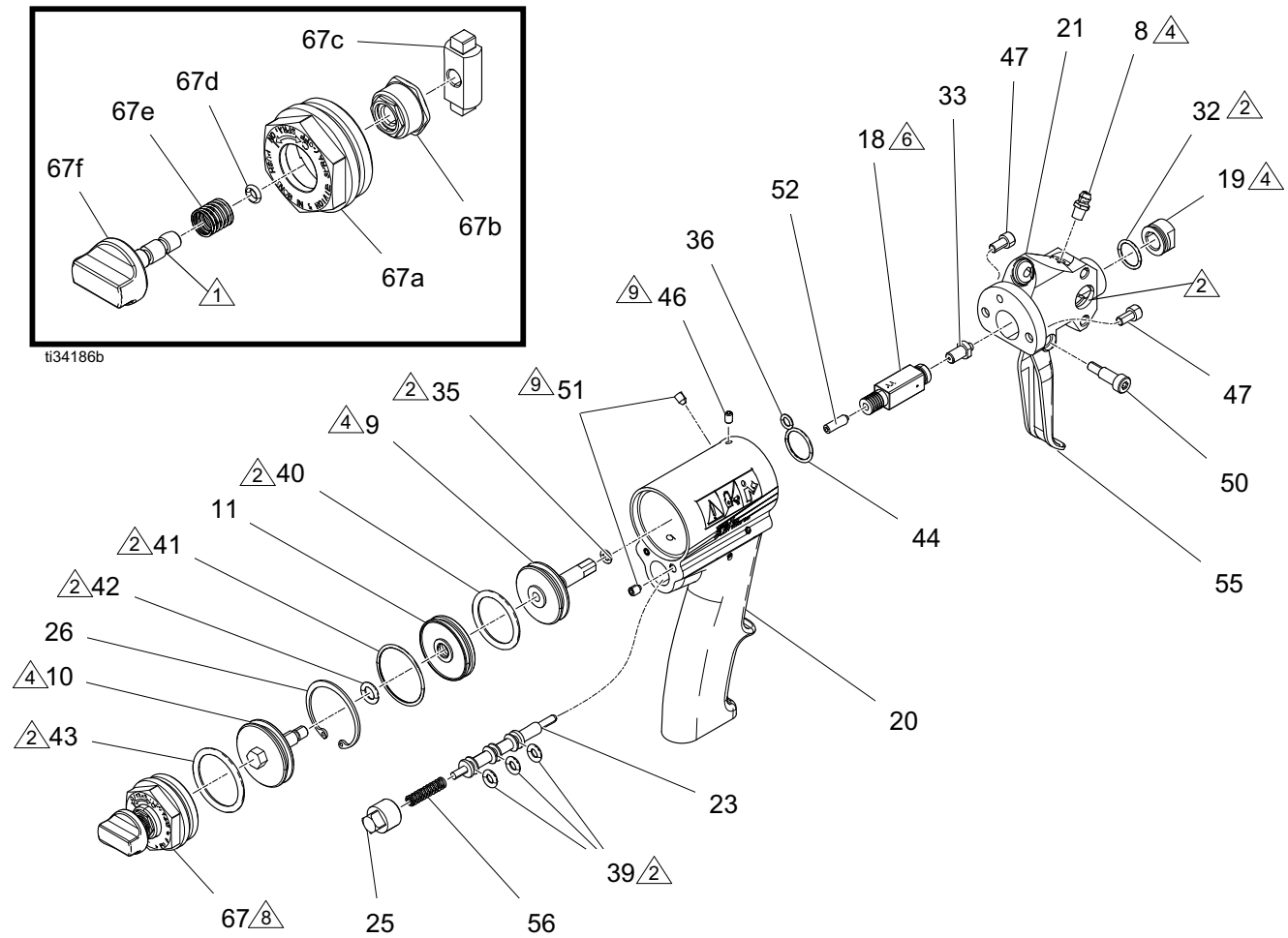


1. Relieve the pressure. Follow the **Pressure Relief Procedure**, page 13, before checking or repairing the gun.
2. Check all possible problems and causes before disassembling gun.

Problem	Cause	Solution
Gun does not fully actuate when triggered.	Piston safety lock engaged (67).	Disengage safety lock, <b>Piston Safety Lock</b> , page 12.
	Damaged air switch o-rings (37, 38).	Replace o-rings (37, 38), <b>Routine Maintenance</b> , page 16.
Fluid does not spray when gun is fully actuated.	Closed material valves (73, 74).	Open valves, FIG. 3, page 10.
	Plugged impingement ports.	Clean impingement ports, <b>Maintain Side Blocks</b> , page 18.
Gun actuates slowly.	Damaged piston o-rings (35, 40, 41, 42, 43).	Replace piston o-rings (35, 40, 41, 42, 43), <b>Check for Leaking Seals</b> , page 17.
	Dirty air switch (5), or damaged o-rings (37, 38).	Clean air switch (5) or replace o-rings (37, 38).
Gun delays, then actuates abruptly.	Cured material around side seals (18).	Inspect side seals (30) and mix chamber (18) for scratches, <b>Maintain Side Blocks</b> , page 18. Replace side seals or mix chamber, <b>Routine Maintenance</b> , page 16.
	Retaining ring (26) not seated.	Position retaining ring (26) until locked into seat.
Loss of round pattern.	Dirty mix chamber insert.	Clean mix chamber insert. See <b>Drill Bits</b> , page 20.
Loss of flat pattern.	Plugged spray tip.	Clean tip in compatible solvent, <b>Daily Maintenance</b> , page 16.
	Worn tip.	Replace spray tip, <b>Routine Maintenance</b> , page 16.
	Dirty mix chamber insert.	Clean mix chamber insert. See <b>Drill Bits</b> , page 20.
Leakage between flat tip and mix chamber.	Tip not seated properly.	Reassemble spray tip insert, o-ring, and air cap, <b>Daily Startup</b> , page 14.
	Damaged or missing o-ring (32).	Replace o-ring (32), <b>Routine Maintenance</b> , page 16.

Problem	Cause	Solution
Pressure imbalance.	Plugged impingement ports.	Clean impingement ports, <b>Maintain Side Blocks</b> , page 18.
	Viscosities not equal.	Adjust temperature to compensate.
	Material valve not fully open.	Ensure material valves (73, 74) are open.
A and/or B fluid in gun air section.	Damaged side seals (30).	Replace side seals (30), <b>Routine Maintenance</b> , page 16.
	Damaged mix chamber (18).	Replace mix chamber (18), <b>Routine Maintenance</b> , page 16.
	Damaged side seal o-rings (31).	Replace side seal o-rings (31), <b>Routine Maintenance</b> , page 16.
	Tightened air cap with material valves (73, 74) open.	Close valves first, <b>Valve Control</b> , page 12.
Fluid mist from mix chamber on air cap.	Damaged side seals (30).	Replace side seals (30), <b>Routine Maintenance</b> , page 16.
	Damaged side seal o-rings (31).	Replace side seal o-rings (31), <b>Routine Maintenance</b> , page 16.
	Damaged mix chamber (18).	Replace mix chamber (18), <b>Routine Maintenance</b> , page 16.
Rapid buildup of material on air cap.	Plugged air cap hole.	Clean air cap.
	Too little purge air.	Increase purge air by pushing down air switch.
	Damaged/missing fluid housing o-ring (31).	Replace fluid housing o-ring (31), <b>Routine Maintenance</b> , page 16.
	Damaged front o-ring (32).	Replace front o-ring (32), <b>Routine Maintenance</b> , page 16.
Reduced purge air.	Damaged front o-ring (32).	Replace front o-ring (32), <b>Routine Maintenance</b> , page 16.
Excessive purge air when material valves (73, 74) are closed and gun is triggered.	Damaged or missing fluid housing o-ring (32).	Replace front o-ring (32), <b>Routine Maintenance</b> , page 16.
Fluid does not shut off when material valves (73, 74) are closed.	Damaged material valves (73, 74).	Replace material valves (73, 74). See <b>Parts</b> , page 24 (Kit 24W375).
Air leakage from front air valve.	Damaged air valve o-rings (37, 38).	Replace air valve o-rings (37, 38), <b>Routine Maintenance</b> , page 16.

# Parts

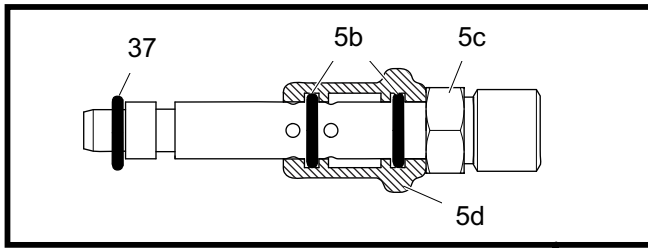


- 1** Apply thread sealant (Part 070678) and torque to 35–40 in-lb (4–4.5 N•m).
- 2** Apply lithium grease (Part 121944).
- 4** Torque to 50+/-10 in-lb.
- 6** Torque to 25+/-5 in-lb.
- 8** Apply blue sealant (Part 070678) to threads of piston safety lock (67). Adjust nut counter-clockwise until it bottoms out.
- 9** Apply LocQuic® Primer T on 46 and 51, then apply Loctite® 222 sealant.



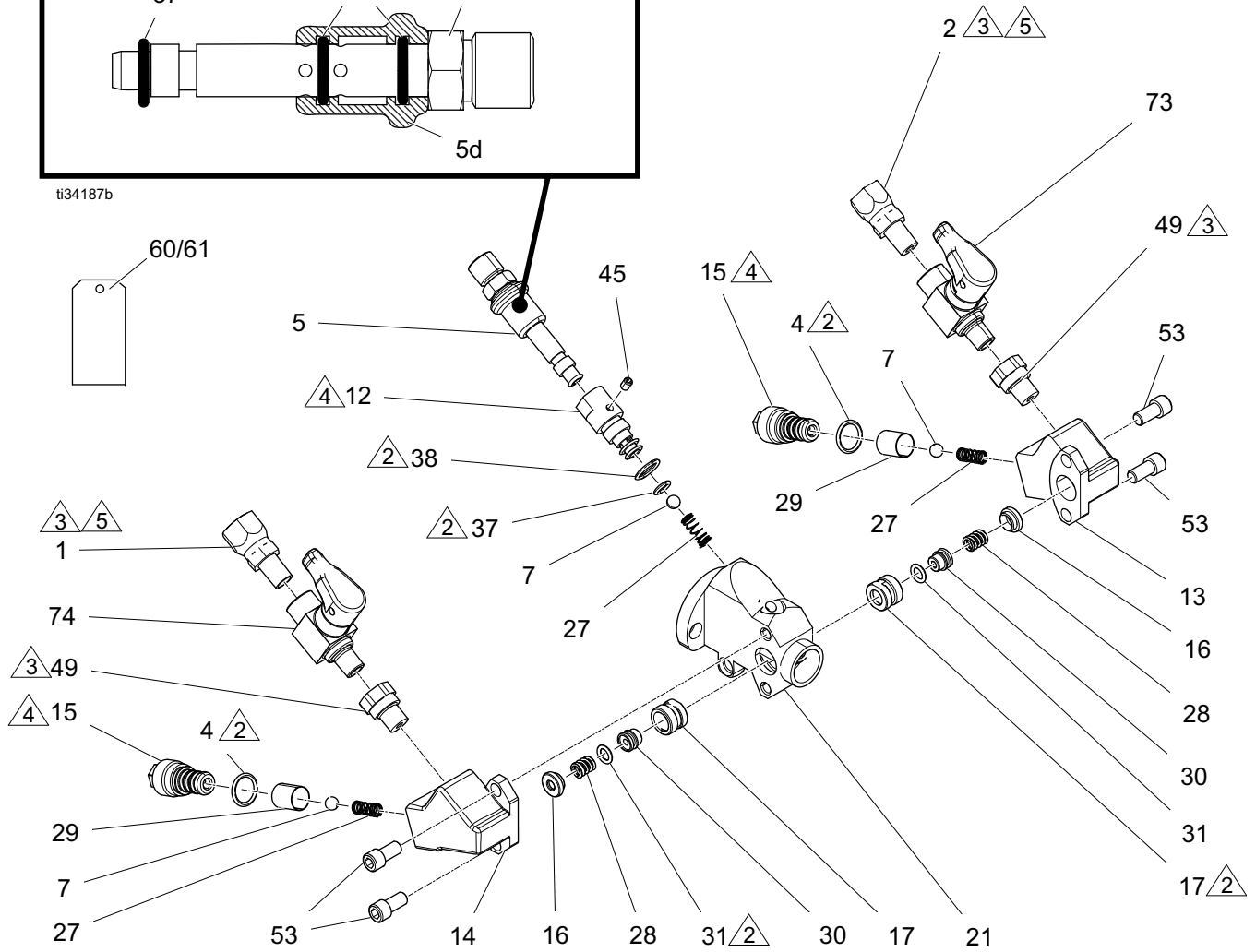
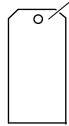
Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
8	100846	FITTING, zerk, st	1	42	GC2059	O-RING	1
9	GC1898	PISTON, air, 1-3/8	1	43	C20207	PACKING, o-ring	1
10	GC1899	PISTON, air, 1-1/2	1	44	GC2060	O-RING	1
11	GC1900	SPACER, cylinder	1	46❖‡	GC2081	SCREW, set	11
18	GC250A	MODULE, mix chamber, model GCP2RA	1	47	GC2187	SCREW, shdc,	2
	GC2500	MODULE, mix chamber, model GCP2R0	1	50	GC2237	SCREW, shoulder	1
	GC2501	MODULE, mix chamber, model GCP2R1	1	51‡	GC2241	SCREW, set	2
	GC2502	MODULE, mix chamber, model GCP2R2	1	52	GC2243	SCREW, set	1
	GC2503	MODULE, mix chamber, model GCP2R3	1	54❖	15B772	HOSE, air, 18 in.	1
	GC2504	MODULE, mix chamber, model GCP2R4	1	55	GC2340	TRIGGER, Probler 2	1
	GC2505	MODULE, mix chamber, model GCP2R5	1	56	GC2341	SPRING, compression	1
19	GC1914	TIP, front	1	67*	258761	PISTON SAFETY LOCK, assembly, P2	1
20	16A037	HANDLE, machined, P2 gun	1	67b†	---	NUT, adjustment, safety stop, P2	1
21	GC1916	HEAD, Probler 2	1	67c†	---	STOP, piston, P2	1
23	GC1918	PISTON, trigger	1	67d†	---	SPRING, compression	1
25	GC1920	PLUG, plug, trigger	1	67e†	---	O-RING	1
26	GC1921	RING, retaining, internal	1	67f	---	SHAFT, safety stop, P2	1
32	117517	O-RING	1	69❖	117792	GUN, grease, 3 oz	1
33	GC251A	INSERT, mix chamber, 0.036, model GCP2RA	1	70❖	117773	LUBRICANT, grease, food grade	1
	GC2510	INSERT, mix chamber, 0.051, model GCP2R0	1	71❖	118665	TUBE, grease, Fusion gun, 4 oz	1
	GC2511	INSERT, mix chamber, 0.059, model GCP2R1	1				
	GC2512	INSERT, mix chamber, 0.073, model GCP2R2	1				
	GC2513	INSERT, mix chamber, 0.088, model GCP2R3	1				
	GC2514	INSERT, mix chamber, 0.100, model GCP2R4	1				
	GC2515	INSERT, mix chamber, 0.125, model GCP2R5	1				
35	C20988	PACKING, o-ring	1				
36	GC2056	O-RING	1				
39	GC2058	O-RING	3				
40	108833	PACKING, o-ring	1				
41	107563	PACKING, o-ring	1				

❖ *Not shown.*\* *Piston Safety Lock Replacement Kit (258761) available.*† *Included in Piston Safety Lock Repair Kit (258762).*‡ *Apply LocQuic® Primer T and Loctite® 222 sealant if set screws are removed for any reason.*--- *Not for individual sale.*



ti34187b

60/61



△<sub>2</sub> Apply lithium grease (Part 121944).

△<sub>3</sub> Apply anaerobic sealant (Part 070678).

△<sub>4</sub> Torque to 50+/-10 in-lb.

△<sub>5</sub> Torque to 150 in-lb. minimum.

△<sub>6</sub> Torque to 25+/-5 in-lb.

Ref.	Part	Description	Qty.
1	117634	SWIVEL, union, #6 JIC	1
2	117635	SWIVEL, union, #5 JIC	1
4	248130	O-RING	2
5	GC0128	SWITCH, assembly, air	1
5b	106555	O-RING	2
5c	GC0126	TUBE, switch, air	1
5d	GC0127	SPOOL, switch, air	1
7	GC0259	BALL, 1/4 dia.	3
12	GC1901	INSERT, valve, air	1
13†	16N599	BLOCK, side, ISO, P2	1
14†	16N600	BLOCK, side, RES, P2	1
15†	16P010	FILTER, valve, check	2
16	GC2494	SEAL	2
17	GC2495	HOUSING, seal	2
21	GC1916	HEAD, Probler 2	1
27+	GC1922	SPRING	3
28	GC1923	SPRING	2
29❖+	GC2496	SCREEN, filter, 40 mesh	2
30	GC2498	SEAL, side, Probler 2	2
31	111450	PACKING, o-ring	2
37	110242	PACKING, o-ring	2
38	GC2057	O-RING	1
45	GC2079	SCREW, set	1
49	15U395	ADAPTER, male x female, 1/8 NPT	2
53	GC2248	SCREW, shdc	4
60▲	172479	TAG, warning	1
61▲	222385	LABEL, safety, warning, med. alert	1
73◆	256459	VALVE, ball, assembly, ISO	1
74◆	256460	VALVE, ball, assembly, RES	1

+ Available in bulk kits. See **Kits**, page 31.

❖ 100 mesh filter bulk kit (GC2497) also available.

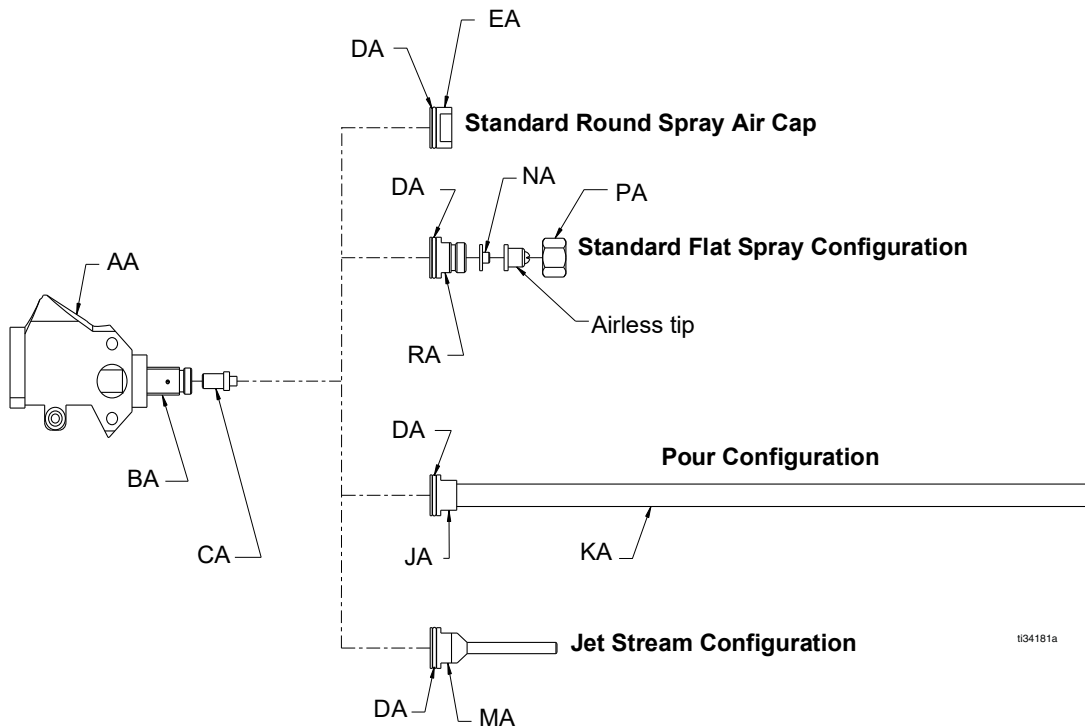
◆ Replacement handles kit (24W375) available.

† Replacement side block kit (24P619) available.

▲ Replacement safety labels, tags, and cards are available at no cost.

--- Not for individual sale.

# Optional Configurations



P2 Spray Options		
Ref.	Part	Description
AA	GC1916	Gun head
BA	GC250X	Mix chamber body
CA	GC251X	Mix chamber insert
DA*	117517	O-ring
EA	GC1914	Air cap
JA	GC1954	Pour cap
KA	15M338	Tubing, 1/4 in. ID x 4 ft
MA	GC1952	Jet nozzle, 0.059 in.
	GC1953	Jet nozzle, 0.070 in.
NA	GC2335*	Short version flat tip seal
	16V976*	Long version flat tip seal
	GC0279	Stud tip seal
PA*	GC0257	Retaining nut
RA*	GC1926	Field spray adapter

\* Included in Flat Tip Spray Kit (GC1938).

## Flat Tips

Flat tips are available in short, long, and stud versions. The Flat Spray Kit is available to connect tips to the P2. Install the tip with the appropriate seal.

Long Version			
Spray Tip	Fan Code	Spray Width in. (mm)	Orifice Diameter (in.)
GC2599	351	6–8 (152.4–203.2)	0.051
GC2600	451	8–10 (203.2–254)	0.051
GC2604	461		0.061
GC2607	471		0.071
GC2597	543	10–12 (254–304.8)	0.043
GC2601	551		0.051
GC2605	561		0.061
GC2608	571		0.071
GC2606	661	12–14 (304.8–355.6)	0.061
GC2602	751	14–16 (355.6–406.4)	0.051

Short Version				
Spray Tip	Fan Code	Spray Width in. (mm)	Orifice Diameter (in.)	
GC2573	215	2–4 (50.8–101.6)	0.015	
GC2575	217		0.017	
GC2578	221		0.021	
GC2582	223		0.023	
GC2589	231		0.031	
GC2592	235		0.035	
GC2623	411		8–10 (203.2–254)	0.011
GC2624	413	0.013		
GC2574	415	0.015		
GC2576	417	0.017		
GC2625	419	0.019		
GC2579	421	0.021		
GC2583	423	0.023		
GC2626	425	0.025		
GC2586	427	0.027		
GC2590	431	0.031		
GC2593	435	0.035		
GC2595	439	0.039		
GC2627	511	10–12 (254–304.8)		0.011
GC2628	513			0.013
GC2629	515			0.015
GC2577	517			0.017
GC2630	519			0.019
GC2580	521			0.021
GC2584	523			0.023
GC2631	525		0.025	
GC2587	527		0.027	
GC2591	531		0.031	
GC2594	535		0.035	
GC2596	539		0.039	

Short Version			
Spray Tip	Fan Code	Spray Width in. (mm)	Orifice Diameter (in.)
GC2632	611	12–14 (304.8–355.6)	0.011
GC2633	613		0.013
GC2634	615		0.015
GC2635	617		0.017
GC2636	619		0.019
GC2637	621		0.021
GC2638	623		0.023
GC2639	625		0.025
GC2640	627		0.027
GC2641	711	14–16 (355.6–406.4)	0.011
GC2642	713		0.013
GC2643	715		0.015
GC2644	717		0.017
GC2645	719		0.019
GC2646	721		0.021
GC2585	723		0.023
GC2647	725		0.025
GC2648	727		0.027

Stud Version		
Spray Tip	Spray Width in. (mm)	Orifice Diameter in. (mm)
GC1957†	14 (355.6)	0.125 (3.175)
GC1958†	22 (559)	0.188 (4.7752)
19B864	14 (355.6)	0.055 (1.397)
19B865	16 (406.4)	0.061 (1.549)
19B866	18 (457.2)	0.067 (1.702)
19B867	20 (508.0)	0.071 (1.803)

† Stud Gasket (GC0279) required.

## Conversion Kits

Static Mixer Kit (GC1956)			
Ref.	Part	Description	Qty.
119	GC2335	Fluid nozzle seal, short version	1
	16V976	Fluid nozzle seal, long version	1
120	GC0257	Nozzle nut	1
121	GC0331	Plug fitting	1
122	GC0480	Spiral mixing element	1
123	117517	O-ring	1
124	GC1955	Static mixer adapter	1

034183a

P2 Elite Conversion Kit (GC1892)		
Part	Description	Qty.
GC0024	Pipe plug	3
GC0275	Hose fitting	1
GC0490	Elbow fitting	1
GC0502	Fitting	1
GC0712	Elbow fitting	2
GC1842	Ball valve	1
GC1880	P2-Elite head	1
GC1881	Resin side block	1
GC1882	ISO side block	1
GC1883	Piston spacer	1
16U880	Mounting plate	1
GC1885	Swivel adapter	1
GC1886	Whip hose	1
GC1887	Whip hose	1
GC2212	Fitting	3
GC2244	Set screw	1
256459	Ball valve, ISO	1
256460	Ball valve, RES	2
GC0543	Hose, 3 ft	1
117634	Swivel union	1
117635	Swivel fitting	1
GC2394	Swivel fitting, 1/4 in. npt	1
125572	Fitting, nipple	1
261720	Insulator, 3 ft.	1
113467	Socket screw cap	1
111040	Lock nut	1
100846	Lubricant fitting	1
16U878	Fitting, adapter	1
16U879	Fitting, adapter	1

# Kits

Bulk Supply Kits			
Ref.	Kit	Description	Qty.
29	24R894	FILTER, screen, 40 mesh	10
29	24R895	FILTER, screen, 100 mesh	10
27	24R896	KIT, spring	12
---	244914	COVERS, gun	10
71	248279	LUBRICANT, 4 oz, lithium (rebuild)	10
70	248280	CARTRIDGE, grease, 3 oz (shutdown)	10

--- Not for individual sale.

Accessories		
Kit	Description	Qty.
17G542	KIT, gun grip	10
17G543		50
17G544		100
17G545	KIT, palm grip	10
17G546		50
17G547		100

P2 Side Block Kit (24P619)			
Ref.	Part	Description	Qty.
13	16N599	BLOCK, side, ISO, P2	1
14	16N600	BLOCK, side, RES, P2	1
15	16P010	FILTER, valve, check	2
---	117724	O-RING	2

--- Not for individual sale.

Hardware Kit for #AA (GC1948)		
Part	Description	Qty.
248891	TOOL, drill bit, 0.033 in.	1
276984	TOOL, drill bit, 0.022 in.	1
GC0086	DRIVER, ball, 3/16 in.	1
GC0087	DRIVER, ball, 5/32 in.	1
117661	VICE, pin	1
GC2496	FILTER, screen, 40 mesh	2
111450	O-Ring	2
117517	O-Ring	1
GC2394	FITTING, adapter	1
GC2334	FITTING, connector	1
GC2212	FITTING, connector	1
125572	FITTING, nipple, 1/8 npt x #5 JIC	1

Hardware Kit for #00-03 (GC1947)		
Part	Description	Qty.
249112	TOOL, drill bit, 0.057 in.	1
GC0069	TOOL, drill bit, 0.071 in.	1
246629	TOOL, drill bit, #58	1
248891	TOOL, drill bit, #66	1
GC0083	TOOL, drill bit, 0.049 in.	1
GC2394	FITTING, swivel 1/4 in. npt	1
GC2212	FITTING, connector	1
GC2334	FITTING, connector	1
GC0086	DRIVER, ball, 3/16 in.	1
GC0087	DRIVER, ball, 5/32 in.	1
117661	VICE, pin	1
GC2496	FILTER, screen, 40 mesh	2
246628	TOOL, drill bit, #55	1
246627	TOOL, drill bit, #53	1
246625	TOOL, drill bit, #44	1
117517	O-RING	1
248128	O-RING, side seal (6-pack)	1
125572	FITTING, nipple, 1/8 npt x #5 JIC	1

Hardware Kit for #04-05 (GC1949)		
Part	Description	Qty.
GC0086	DRIVER, ball, 3/16 in.	1
GC0087	DRIVER, ball, 5/32 in.	1
117661	VICE, pin	1
GC2496	FILTER, screen, 40 mesh	2
111450	O-RING	2
117517	O-RING	1
246624	TOOL, drill bit, 3/32	1
246623	TOOL, drill bit, #32	1
GC2394	FITTING, adapter	1
GC2334	FITTING, connector	1
GC2212	FITTING, connector	1
125572	FITTING, nipple, 1/8 npt x #5 JIC	1

Side Seal Kit (GC1946)		
Part	Description	Qty.
GC2498	SEAL, side, sst	2
111450	O-RING	2

## O-ring Kits

Standard O-ring Kit (GC1937)			
Ref.	Part	Description	Qty.
*	113137	O-ring	2
4❖	117724	O-ring	2
5b	106555	O-ring	2
31†	111450	O-ring	4
32★	117517	O-ring	1
35	C20988	O-ring	1
36	GC2056	O-ring	1
38	GC2057	O-ring	1
39	GC2058	O-ring	3
40	108833	O-ring	1
41	107563	O-ring	1
42	GC2059	O-ring	1
43	C20207	O-ring	1
44	GC2060	O-ring	1

Premium O-ring Kit (GC1950)			
Ref.	Part	Description	Qty.
*	113137	O-ring	2
4❖	117724	O-ring	2
5b	111316	O-ring	2
31†	111450	O-ring	4
32★	117517	O-ring	1
35	GC1931	O-ring	1
36	111516	O-ring	1
38	118594	O-ring	1
39	GC1932	O-ring	3
40	GC1933	O-ring	1
41	GC1934	O-ring	1
42	GC1935	O-ring	1
43	GC1936	O-ring	1
44	117610	O-ring	1

\* Not used.

❖ Available in 6-packs (248130).

† Available in 6-packs (248128).

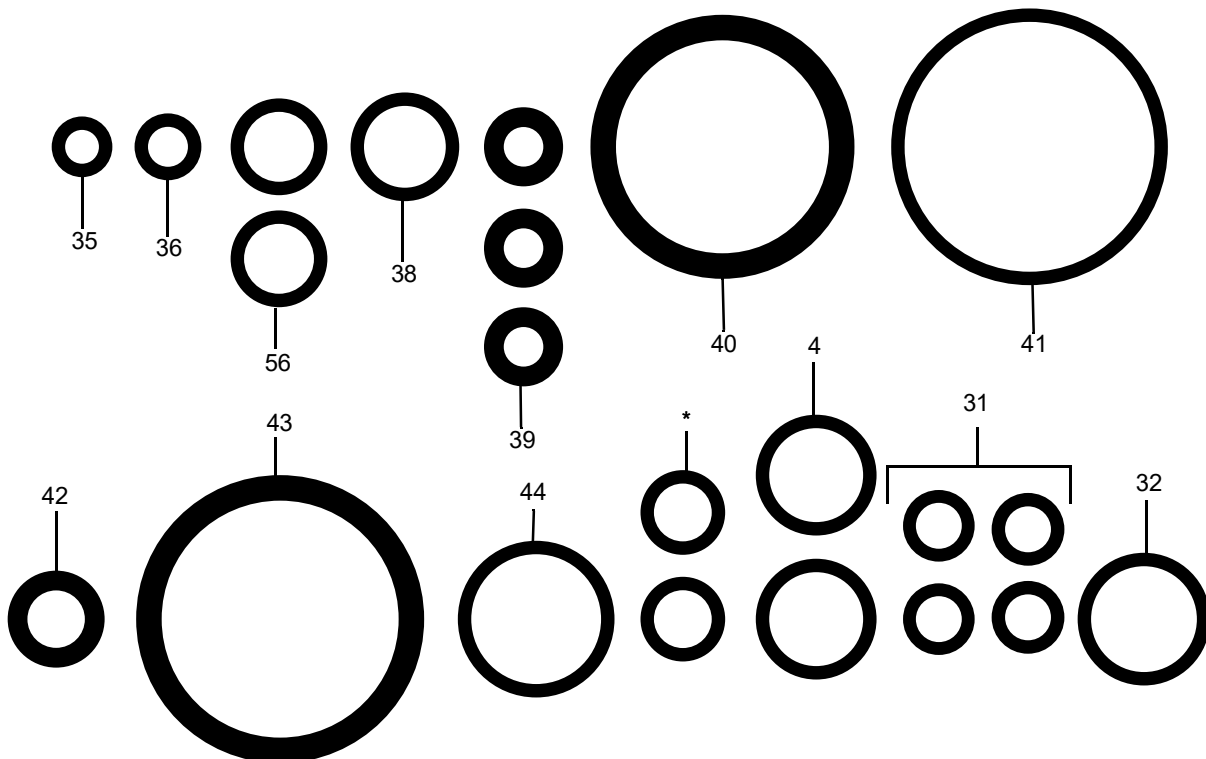
★ Available in 6-packs (248131).

\* Not used.

❖ Available in 6-packs (248130).

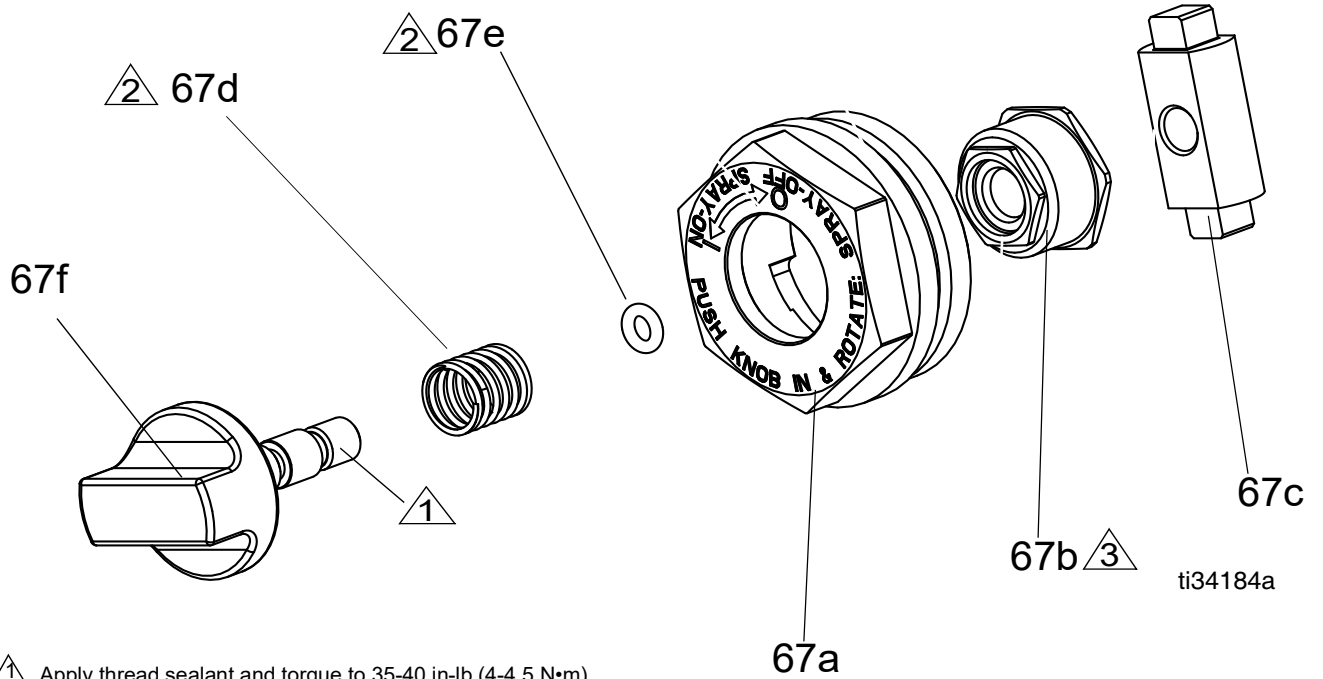
† Available in 6-packs (248128).

★ Available in 6-packs (248131).





# Piston Safety Lock Kits



- △1 Apply thread sealant and torque to 35-40 in-lb (4-4.5 N•m).
- △2 Apply a liberal coating of lithium grease to seals and surfaces specified.
- △3 Apply blue sealant to threads. Adjust nut counter-clockwise until it bottoms out.

Piston Safety Lock Replacement Kit (258761)		
Ref.	Description	Qty.
67a	CAP, cylinder, P2	1
67b	NUT, adjustment, safety stop, P2	1
67c	STOP, piston, P2	1
67d	SPRING, compression	1
67e	O-RING	1
67f	SHAFT, safety stop, P2	1

Piston Safety Lock Repair Kit (258762)		
Ref.	Description	Qty.
60b	NUT, adjustment, safety stop, P2	1
60c	STOP, piston, P2	1
60d	SPRING, compression	1
60f	SHAFT, safety stop, P2	1



# Technical Specifications

<b>Probler P2 Dispense Gun</b>		
	<b>US</b>	<b>Metric</b>
Maximum Static Fluid Pressure	3500 psi	24.1 MPa, 241 bar
Air Inlet Pressure Range	90-110 psi	0.62-0.76 MPa, 6.2-7.6 bar
Air Inlet Size	1/4-18 NPSM	
Inlet Size A	5 JIC, 1/2-20 UNF	
Inlet Size B	6 JIC, 7/16-18 UNF	
Length	3.125 in.	7.9 cm
Height	4.75 in.	12.1 cm
Width	6.875 in.	17.4 cm
Weight	3.9 lb	1.77 kg
Wetted Parts	Stainless steel, carbon steel, chemically resistant o-rings, PTFE	

## California Proposition 65

### CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

# Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale 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.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

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, 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 Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

For patent information, see [www.graco.com/patents](http://www.graco.com/patents).

**TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.**

**Phone: 612-623-6921 or Toll Free: 1-800-328-0211 Fax: 612-378-3505**

*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.*

Original instructions. This manual contains English. MM 313213

**Graco Headquarters:** Minneapolis

**International Offices:** Belgium, China, Japan, Korea

**GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA**  
**Copyright 2020, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.**

[www.graco.com](http://www.graco.com)  
Revision ZAD, June 2023