



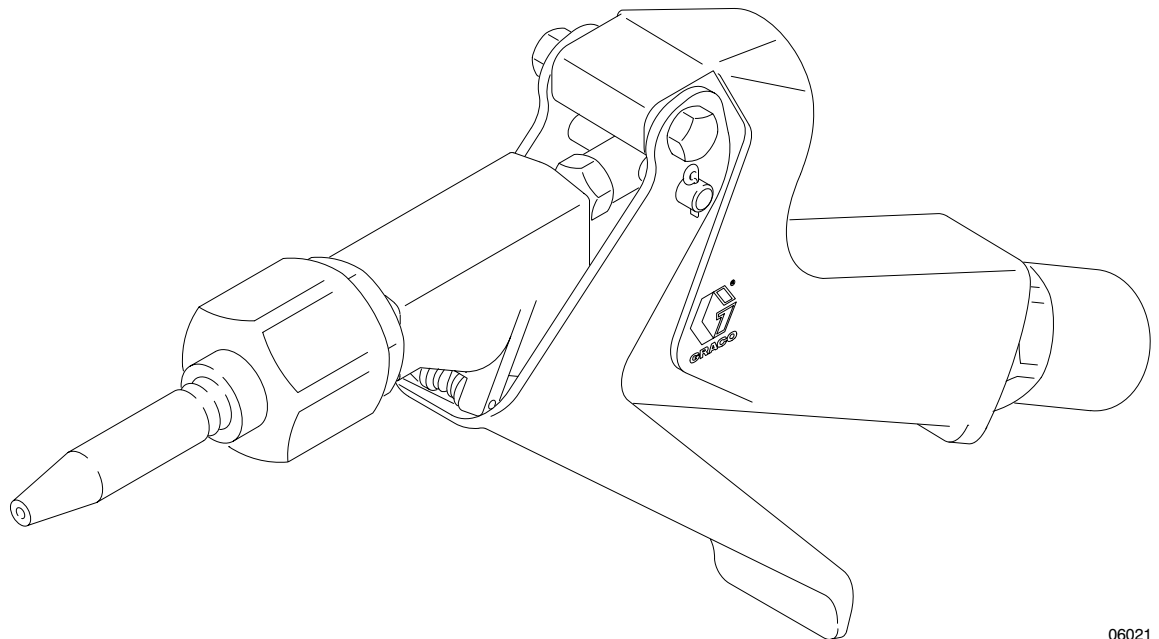
This manual contains important warnings and information.  
**READ AND KEEP FOR REFERENCE.**

INSTRUCTIONS

## Pistol Grip Flo-Gun

*6000 psi (414 bar) Maximum Working Pressure*

**Model 207-945, Series B**



06021

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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 instructions.

## ! WARNING



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 not sure, call your Graco distributor.
- Do not alter or modify this equipment.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure stated on the equipment or in the **Technical Data** for your equipment. Do not exceed the maximum working pressure of the lowest rated component in your system.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 82°C (180°F) or below -40°C (-40°F).
- Wear hearing protection when operating this equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

# ! WARNING



## INJECTION HAZARD

Fluid dispensed from the gun, leaks or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause 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 gun at anyone or at any part of the body.
- Do not put your hand or fingers over the nozzle.
- Do not stop or deflect leaks with your hand, body, glove or rag.
- Do not “blow back” fluid; this is not an air spray system.
- Be sure the gun trigger safety operates before dispensing.
- Fully release the trigger to lock the gun trigger safety when you stop dispensing.
- Follow the **Pressure Relief Procedure** on page 5 if the nozzle clogs and before cleaning, checking or servicing the equipment.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn or damaged parts immediately. Do not repair high pressure couplings; you must replace the entire hose.
- Fluid hoses must have spring guards on both ends, to help protect them from rupture caused by kinks or bends near the couplings.



## RECOIL HAZARD

Due to the high pressure fluid emitted, a strong recoil action may occur when you trigger this gun. If you are unprepared, your hand could be forced back toward your body or you could lose your balance and fall, resulting in serious injury.

# WARNING



## FIRE AND EXPLOSION HAZARD

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



- Ground the equipment and the object being sprayed. Refer to your pump instruction manual.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop dispensing immediately**. Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being dispensed.
- Keep the dispense area free of debris, including solvent, rags, and gasoline.
- Electrically disconnect all equipment in the dispense area.
- Extinguish all open flames or pilot lights in the dispense area.
- Do not smoke in the dispense area.
- Do not turn on or off any light switch in the dispense area while operating or if fumes are present.
- Do not operate a gasoline engine in the dispense area.



## 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.

# Operation

## Pressure Relief Procedure

**⚠ WARNING**

**INJECTION HAZARD**

The system pressure must be manually relieved to prevent the system from starting or dispensing accidentally. 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 dispensing,
- check or service any of the system equipment,
- or install or clean the nozzle.

1. Lock the gun trigger safety by fully releasing the trigger.
2. Disconnect the power source.
3. Hold a metal part of the gun firmly to the side of a grounded metal pail. Unlock the gun trigger safety by pushing it in as you trigger the gun to relieve pressure.
4. Lock the gun trigger safety by fully releasing the trigger.
5. Open the pump drain valve (required in your system) to help relieve pressure in the pump, hose, and gun. Triggering the gun to relieve pressure may not be sufficient. Have a container ready to catch the drainage.
6. Leave the drain valve open until you are ready to dispense again.

*If you suspect that the nozzle or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the hose end coupling and relieve pressure gradually, then loosen completely. Now clear the nozzle or hose.*

## Using the Gun

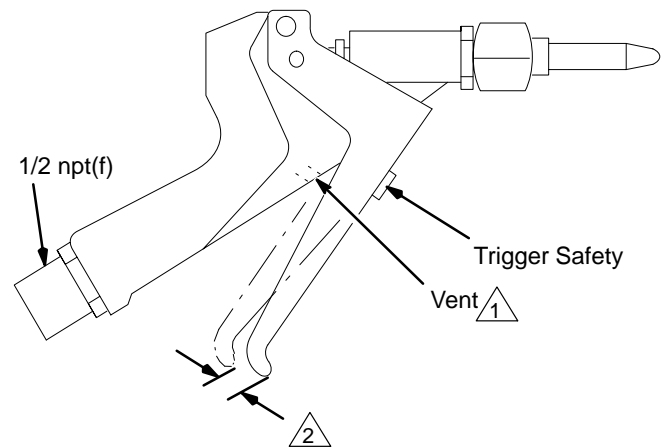
*To lock the gun's trigger safety, fully release the trigger.*

*To unlock the gun's trigger safety, push it in as you squeeze the trigger. See Fig. 1.*

*To dispense fluid with the gun, start the supply pump and squeeze the trigger in all the way. Fluid flow begins with the slightest pressure and stops when the trigger is released.*

Fluid flow rate is controlled at the pump. Adjust the pump speed to obtain the desired flow rate; use the lowest pressure necessary. The pressure adjustment will depend on the hose length, the viscosity of the fluid, and the nozzle size.

- △ 1 Inspect for build-up of fluid, which could indicate internal leak.
- △ 2 3/16" (3.18 mm) free play.



**Fig. 1**

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# Notes

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# Service

**NOTE:** The numbers in parentheses in the text refer to reference numbers in the parts drawing on page 8.

**NOTE:** Periodically inspect the vent in the gun handle for build-up of fluid, which could indicate an internal leak. See Fig. 1. Service the valve needle and packing as needed.

## Valve Seat and Needle Replacement

### **WARNING**

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 5.

If fluid continues to flow after the trigger is released, the gun valve may be obstructed or need adjustment. The valve stem (3) or valve seat (2) may be worn or damaged.

### Adjusting the Valve

1. **Relieve the pressure.**
2. Squeeze the gun trigger. Remove the valve seat (2). Let the spring (8) push the valve stem (3) forward, and then loosen the nut (4).
3. Remove the actuating pin (24), then turn the adjusting nut (21) out a couple of turns.
4. Reassemble the gun and check the free travel of the trigger. It should be approximately 3/16 inch (3.18 mm). See Fig. 1.
5. Repeat the procedure turning the adjusting nut as needed, until the correct free travel is obtained.

### Adjusting the Spring Tension

1. **Relieve the pressure.**
2. Turn the spring tension adjusting screw (19) so the spring (8) is completely compressed when the trigger (17) is squeezed in all the way.

### Inspecting the Valve for Obstruction or Damage

1. **Relieve the pressure.**
2. Disconnect the gun from the hose.
3. Disassemble the gun, then clean and inspect the parts.

### **CAUTION**

Be sure to squeeze the trigger when removing the valve seat (2). Handle the valve seat (2) and valve stem (3) carefully to avoid damaging the hard carbide portion of these parts.

4. Replace any worn or damaged parts and reassemble the gun. Adjust the free travel of the trigger as instructed in **Adjusting the Valve**, at left.

**LUBRICATION NOTE:** Apply thread lubricant when installing the valve seat (2), adjusting screw (19), or tube (20).

**TORQUE NOTE:** When assembling the valve seat (2), packing housing (23), or tube (20) to the gun body (14), torque them to 100 in-lb (11 N•m).

## Valve Needle and Packing Service

### **WARNING**

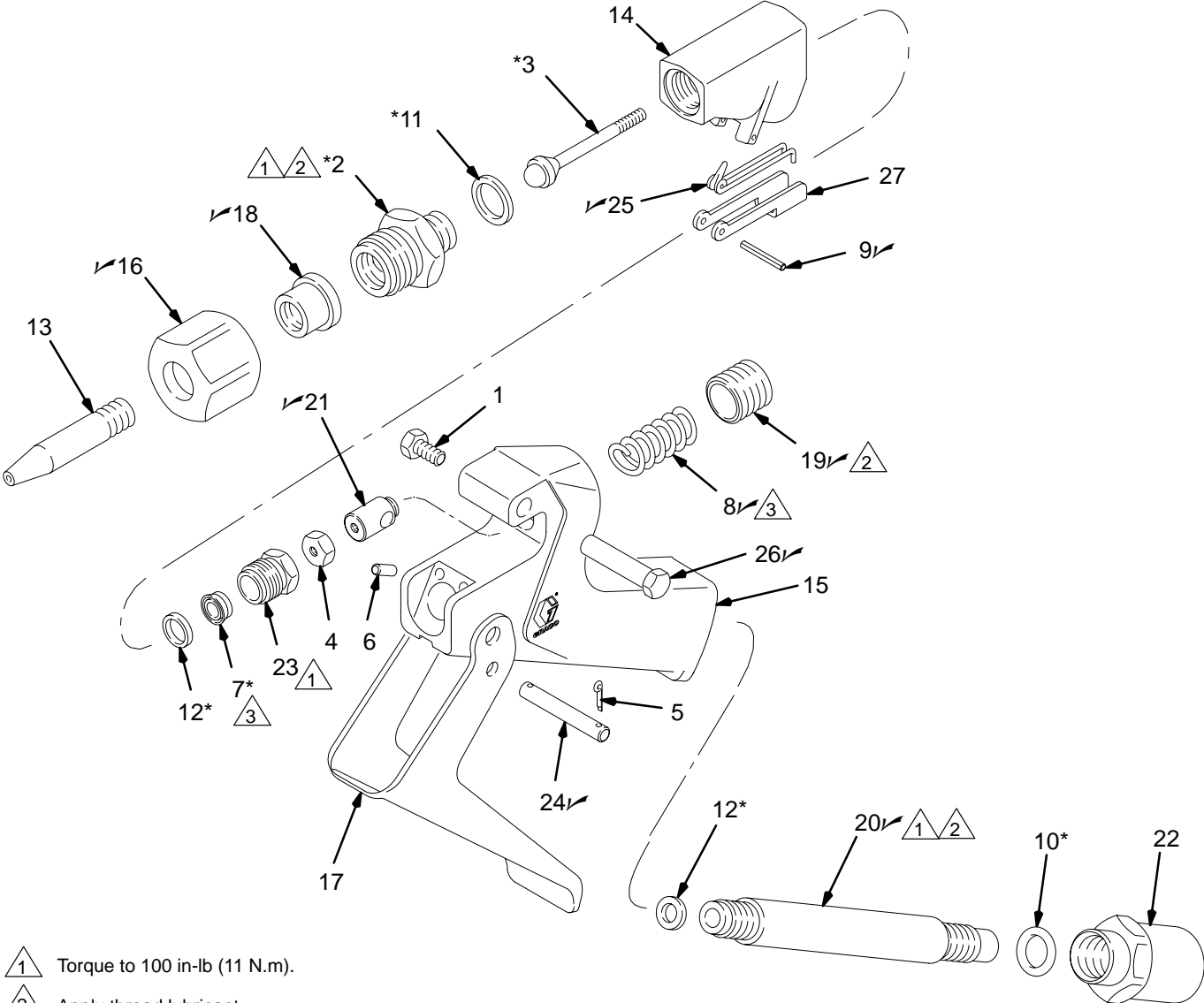
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 5.




If fluid leaks past the v-block packing (7), the packing housing (23) may be loose, or the v-block packing or valve stem (3) may be worn or damaged. Tighten the packing housing. If it still leaks, **relieve the pressure** and disconnect the hose from the gun. Disassemble the gun and replace the v-block packing. When reassembling, lubricate the v-block packing (7) and spring (8) with general purpose grease.

### **CAUTION**

When tightening the bushing (22), **be sure** to grip the gun body (14), **not** the handle (15). This reduces the chance of loosening the connections and damaging the gun.

# Parts



-  Torque to 100 in-lb (11 N.m).
-  Apply thread lubricant.
-  Lubricate with general purpose grease.

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# Parts

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	203-953	SCREW, lock	1	16✓	168-680	NUT, retaining	1
2*	207-962	SEAT, valve	1	17	168-682	TRIGGER	1
3*	215-224	STEM valve	1	18✓	168-683	BUSHING, nozzle	1
4	100-975	NUT, hex; No. 5-40	1	19✓	168-685	SCREW, adjusting	1
5	101-421	PIN, cotter; 0.062" (1.59 mm) x 0.375" (9.52 mm)	2	20✓	168-686	TUBE	1
6	102-232	PIN, spring; 0.094" (2.38 mm) x 0.25" (6.4 mm)	2	21✓	168-687	NUT, adjusting	1
7*	102-921	PACKING, v-block; polyurethane	1	22	168-688	BUSHING, inlet	1
8✓	102-924	SPRING, compression	1	23	168-689	HOUSING, packing	1
9✓	102-925	PIN, spring	1	24✓	168-690	PIN	1
10*	154-771	O-RING; nitrile rubber	1	25✓	168-691	SPRING, safety	1
11*	156-766	GASKET, copper; valve seat	1	26✓	168-692	PIN, pivot	1
12*	160-079	GASKET, copper; gun body	2	27	168-693	LATCH, safety	1
13	161-505	NOZZLE; 0.093" (2.4 mm) dia. ID	1	* These parts are included in Repair Kit 210-532, which may be purchased separately.			
14	168-674	BODY, gun	1	✓ Keep these spare parts on hand to reduce down time.			
15	168-675	HANDLE	1				

## Manual Change Summary

The manual has been generally updated.

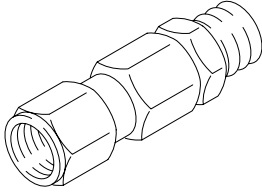
# Accessories

*Use Only Genuine Graco Parts and Accessories*

## Straight Swivel 207-947

6000 psi (415 bar) Maximum Working Pressure

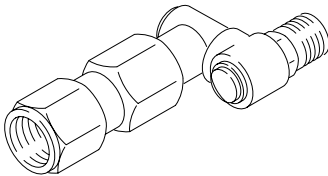
1/2 npt(f) x 1/2 npt(m)



## Zee Swivel 207-948

6000 psi (415 bar) Maximum Working Pressure

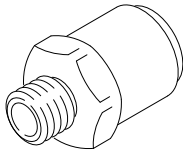
1/2 npt(f) x 1/2 npt(m)



## Valve Seat 208-176

5000 psi (350 bar) Maximum Working Pressure

To adapt 7/8 thread nozzles. 7/8-14 unf-2a



## Fluid Nozzles

Nozzle Part No.	Orifice Diameter
607-665	0.125 in. (3.175 mm)
680-517	0.062 in. (1.575 mm)
680-544	0.078 in. (1.981 mm)
164-799	0.055 in. (1.397 mm)

## Viton Packing Conversion Kit 223-932

Includes the following:

Ref* No.	Part No.	Description	Qty
5	101-421	PIN, cotter; 0.062" (1.59 mm) x 0.375" (9.52 mm)	2
7	110-959	PACKING, v-block; Viton®	1
10	154-771	O-RING; nitrile rubber	1
11	156-766	GASKET, copper; valve seat	1
12	160-079	GASKET, copper; gun body	2

\*Refer to the Parts Drawing on page 8.

# Technical Data

Category	Data
Maximum fluid working pressure	6000 psi (414 bar)
Inlet port size	1/2 npt(f)
Outlet port size	1/4 npt(f) with quick detachable adapter and 0.094" (2.38 mm) pencil tip nozzle
Wetted parts	Steel, tungsten carbide, polyurethane, nitrile rubber, copper
Height	5.25" (133 mm)
Length	10.25" (260 mm)
Weight	2.22 lb (1 kg)

Viton® is a registered trademark of the DuPont Co.

# Graco Warranty and Limitation of Liability

## 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. 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.

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