

Pistol-Grip Mastic Flo-Gun

308124H
EN

For spraying heavy mastic sealants.

Model 224526, Series A

Basic Gun

Model 224472

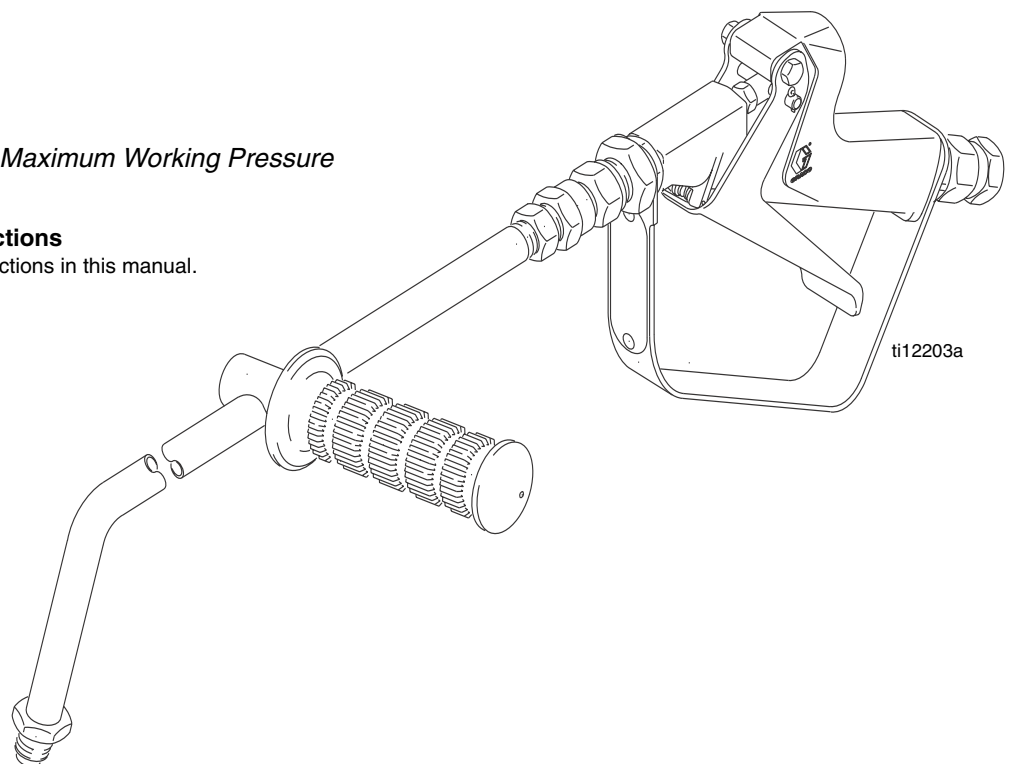
Complete Gun with Wand

5000 psi (27.6 MPa, 276 bar) Maximum Working Pressure



Important Safety Instructions

Read all warnings and instructions in this manual.
Save these instructions.







This gun is factory set to close at 1500 psi (10.2 MPa, 102 bar). If you are using this gun with a system that produces more than 1500 psi (10.2 MPa, 102 bar), adjust the spring pressure according to the stall pressure of your pump, but do not exceed gun maximum working pressure of 4050 psi (27.6 MPa, 276 bar). See procedure on page 7.



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 symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

 WARNING	
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • 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 arc). • 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. • Ground all equipment in the work area. See Grounding instructions. • Use only grounded hoses. • Hold gun firmly to side of grounded pail when triggering into pail. • If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area.
	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • 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 Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. • 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.
	<p>SKIN INJECTION HAZARD</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. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Do not point gun at anyone or at any part of the body. • Do not put your hand over the spray tip. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Do not spray without tip guard and trigger guard installed. • Engage trigger lock when not spraying. • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.

 **WARNING****MOVING PARTS HAZARD**

Moving parts can pinch or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in this manual. Disconnect power or air supply.


**TOXIC FLUID OR FUMES HAZARD**


Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.



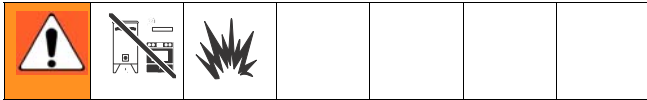
- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
- Always wear impervious gloves when spraying or cleaning equipment.

Installation

 Reference numbers and letters in parentheses in text refer to call-outs in figures and parts drawing.

 Always use genuine Graco parts and accessories, available from your Graco distributor.

Grounding





To reduce the risk of static sparking, ground the pump and all other components used or located in the spray/dispensing area. Check your local electrical code for detailed instructions for your area and type of equipment and be sure to ground all of these components.

- *Pump:* Ground the pump by connecting a grounding wire (12 ga minimum) from the pump's grounding lug to a true earth ground.
- *Air compressor and hydraulic power supply:* Ground according to local code and manufacturer's recommendations.
- *Fluid hoses:* Use only grounded hoses with a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity.
- *Dispensing valve:* Obtain grounding through connection to a properly grounded fluid hose and pump.
- *Fluid supply container:* According to local code.
- *Object being sprayed:* According to local code.
- *All solvent pails used when flushing,* according to local code. Only use metal pails which are conductive. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.
- *To maintain grounding continuity when flushing or relieving pressure,* always hold a metal part of the gun firmly to the side of a grounded metal waste container, then trigger the gun.

Operation

Pressure Relief Procedure


						
<p>INJECTION HAZARD</p> <p>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:</p> <ul style="list-style-type: none"> • are instructed to relieve the pressure • stop dispensing • check or service any of the system equipment • install or clean the fluid nozzles 						

1. Fully release gun trigger to set safety latch.
2. Disconnect power source.

3. Hold metal part of gun firmly to side of a grounded metal waste container. Disengage the safety latch by pushing latch in while gun is triggered to relieve fluid pressure.
4. Fully release gun trigger to set safety latch.
5. Open pump drain valve to help relieve fluid pressure in pump, hose and gun. Triggering gun to relieve pressure may not be sufficient. Have container ready to catch drainage.
6. Leave 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 obstruction.

Operation

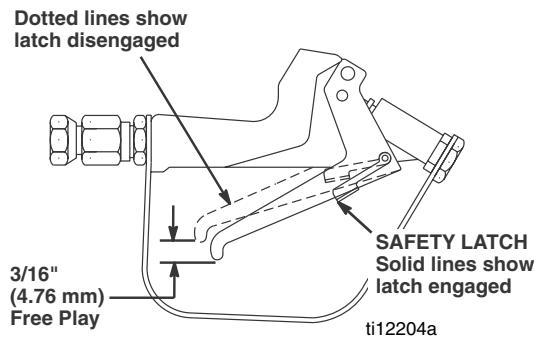
						
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To reduce risk of serious injury, including fluid injection, splashing in eyes or on skin, or injury from moving parts, always follow **Pressure Relief Procedure** on page 5 when checking, adjusted, servicing, or shutting off any part of system.

Check free play of gun before operating gun

A properly adjusted trigger ensured that flow of fluid is stopped completely when trigger is released.

1. Hold gun horizontally as shown below. Turn safety latch off (see dotted lines) and squeeze trigger just until you feel resistance.
2. Allow trigger to fall forward to engage safety latch (see solid lines). The distance trigger moves in “free play” and should be approximately 3/16 in.
3. If free play is not 3/16 in., see **Adjusting Trigger Free Travel**, page 8.



Check for proper spring tension


1. See **Adjusting Spring Tension**, page 7.

To engage gun safety latch

1. Tip gun forward and fully release trigger.

To disengage gun safety latch

1. Push latch in as you squeeze trigger.

						
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Hold handle of wand firmly when triggering gun to reduce risk of it kicking back from surge of pressure, which could cause serious injury.

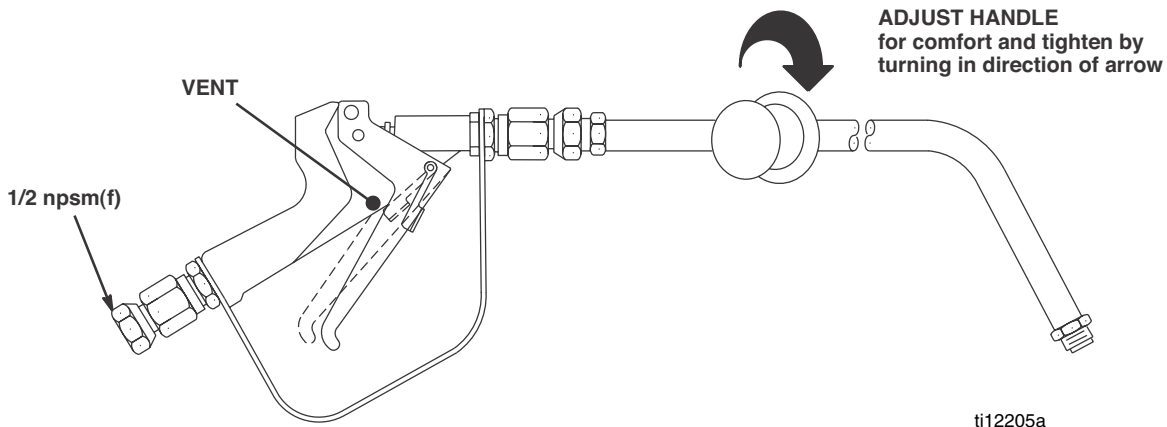
To dispense fluid

1. Start supply pump and squeeze trigger. Fluid flow begins with slightest pressure and stops when trigger is released.

To adjust flow rate

1. Adjust pump speed to obtain desired flow rate; always use lowest pressure necessary. Pressure adjustment will depend on hose length, viscosity of fluid, and nozzle size.

CAUTION
Periodically inspect vent for build-up of fluid, which could indicate an internal leak. Service valve needle and packing as needed.



Service

Note: The numbers in parentheses in text refer to reference number in parts drawing and list.

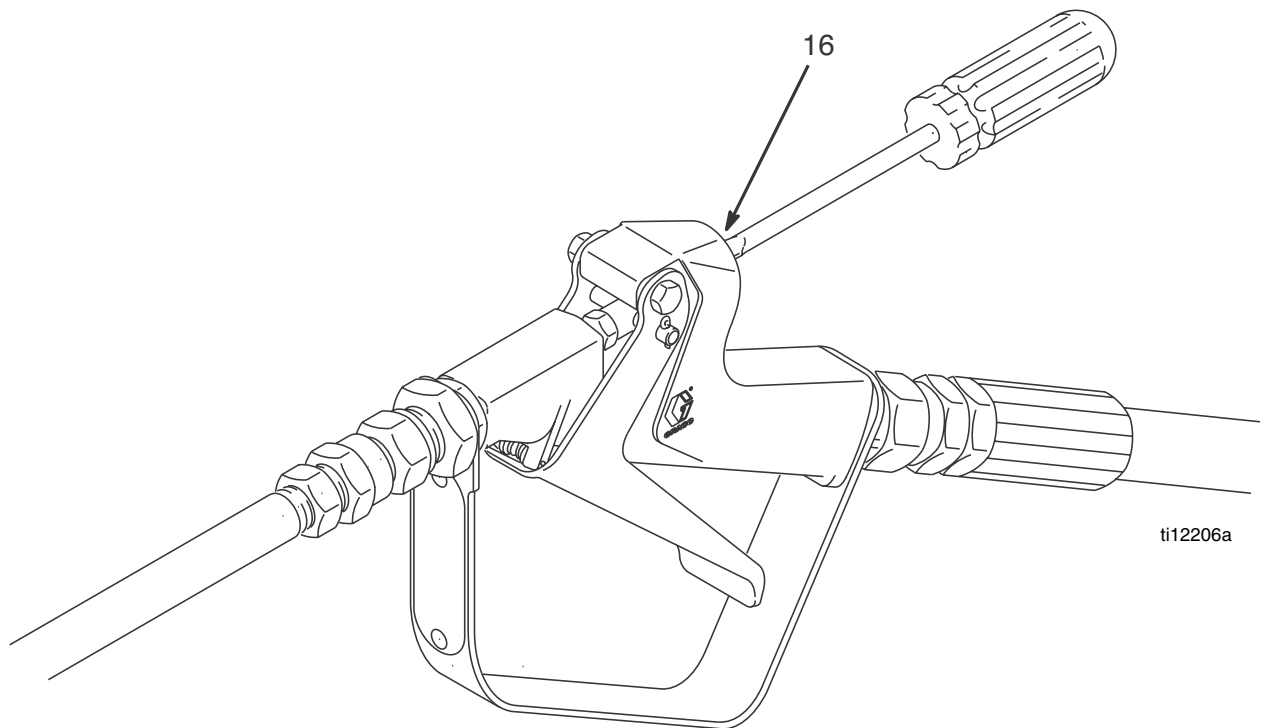
Adjusting Spring Tension



Proper spring tension ensures that the fluid flow stops when trigger is released to reduce risk of injury from fluid injection. Spring tension is factory set at 1500 psi (10.2 MPa, 102 bar). Spring tension can be adjusted up to 4050 psi (27.6 MPa, 276 bar), depending on the normal operating pressure of your system.

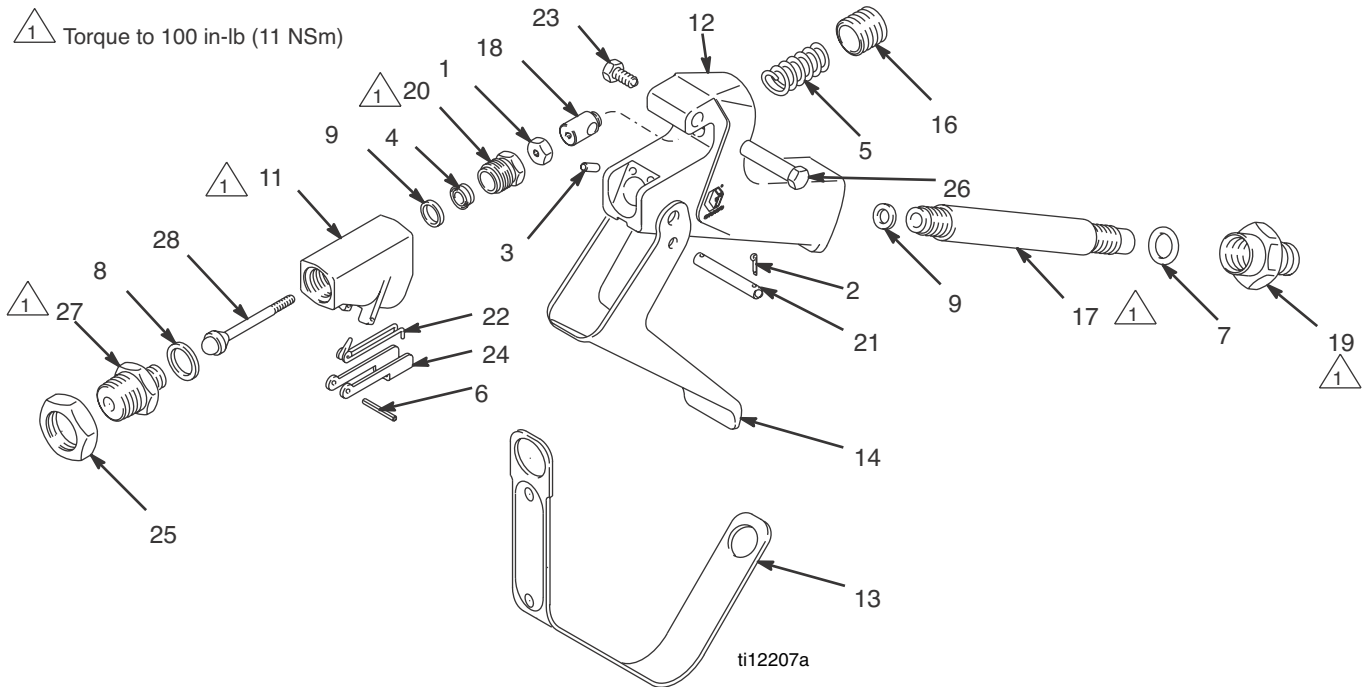
Proper spring tension also minimizes operator fatigue by reducing trigger pull.

1. Connect hose to gun. Prime pump with material being sprayed. Set pump at normal operating pressure.
 - a. To set spring tension at or above 1500 psi (10.2 MPa, 102 bar): Trigger and release gun--gun should shut off. If gun does not shut off, turn adjustment screw (16) until gun shuts off, then turn screw another 1/2 turn.
 - b. To adjust spring tension lower than 1500 psi (10.2 MPa, 102 bar): Back adjustment screw (16) out until gun does not shut off, then turn screw in 1/2 turn.
2. Trigger gun several times to be sure it shuts off consistently.



Service

 Torque to 100 in-lb (11 NSm)




Valve Seat and Needle Replacement

If fluid continues to flow after trigger is released, gun valve may be obstructed or need adjustment. Valve stem (28) or valve seat (27) may be worn or damaged.


- Repeat procedure, turning adjustment nut (18) as needed until correct free travel is obtained.

Adjusting Trigger Free Travel

					
To reduce risk of serious injury when relieving pressure, always follow Pressure Relief Procedure , page 5.					

- Relieve pressure.
- Disconnect gun from hose.
- Squeeze gun trigger. Remove valve seat (27). Let spring (5) push valve stem (28) forward and then loosen nut (1).
- Remove actuating pin (21). Turn adjusting nut (18) out a couple of turns.
- Reassemble gun and check free play of trigger. It should be approximately 3/16 in. (4.76 mm).

Inspecting for Obstruction or Damage.

					
To reduce risk of serious injury when relieving pressure, always follow Pressure Relief Procedure , page 5.					

- Relieve pressure.
- Disconnect hose from gun.

CAUTION	
Squeeze trigger when removing valve seat (27). Handle valve seat and valve stem (28) carefully to avoid damaging hard carbide portion of these parts.	

- Disassemble gun.
- Clean and inspect parts. Replace any worn or damaged parts and reassemble gun.
- Adjust free travel of trigger as instructed in **Adjust Trigger Free Travel**.

Service

Valve Needle and Packing Replacement

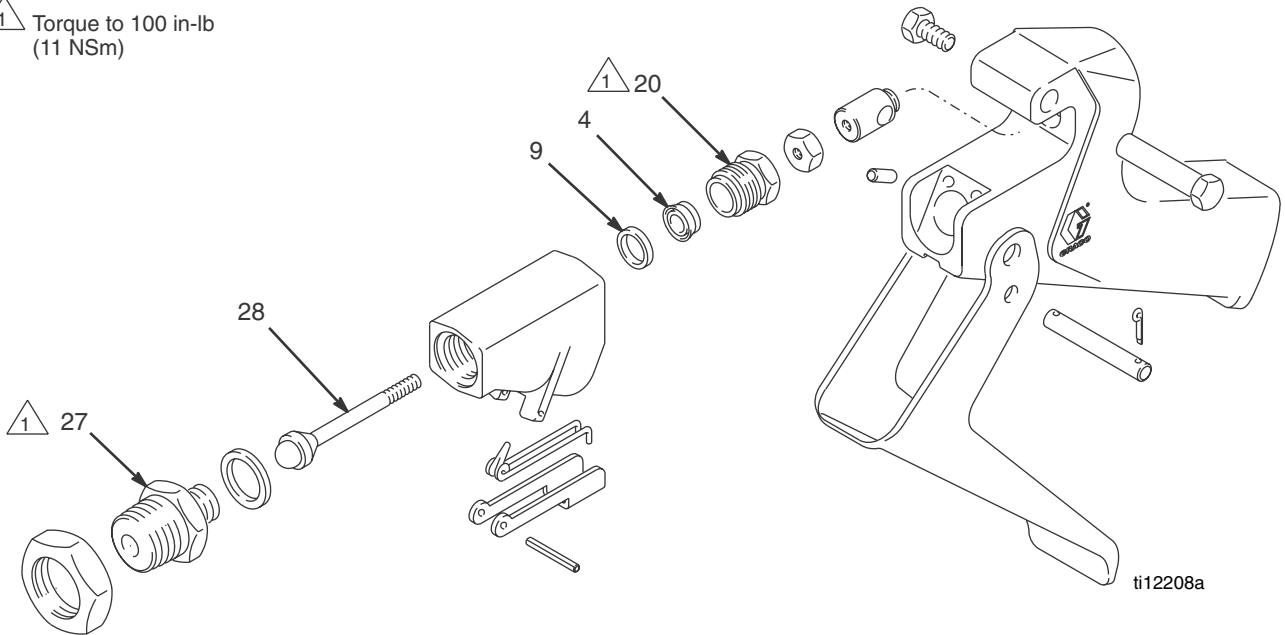
<p>To reduce risk of serious injury when relieving pressure, always follow Pressure Relief Procedure, page 5.</p>						

1. If fluid leaks past v-block packing (4), seal housing (20) may be loose, or v-block packing (4) or valve stem (28) may be worn. Tighten seal housing.

2. If gun still leaks, relieve pressure.
3. Disconnect hose from gun. Disassemble gun and replace v-block packing (4) and copper gasket (9).

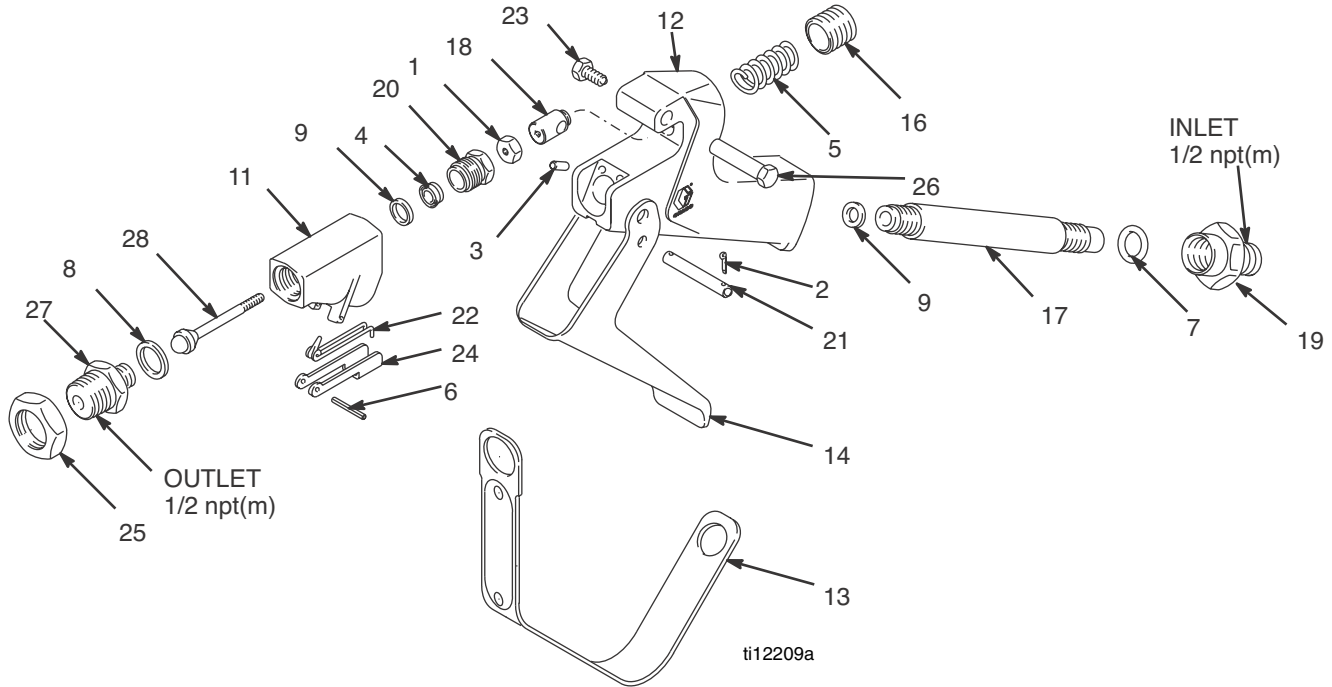
CAUTION
<p>When tightening bushing (19), be sure to grip gun body (11), not handle (12). This reduces the chance of loosening connections and damaging the gun.</p>

Torque to 100 in-lb (11 NSm)



Parts

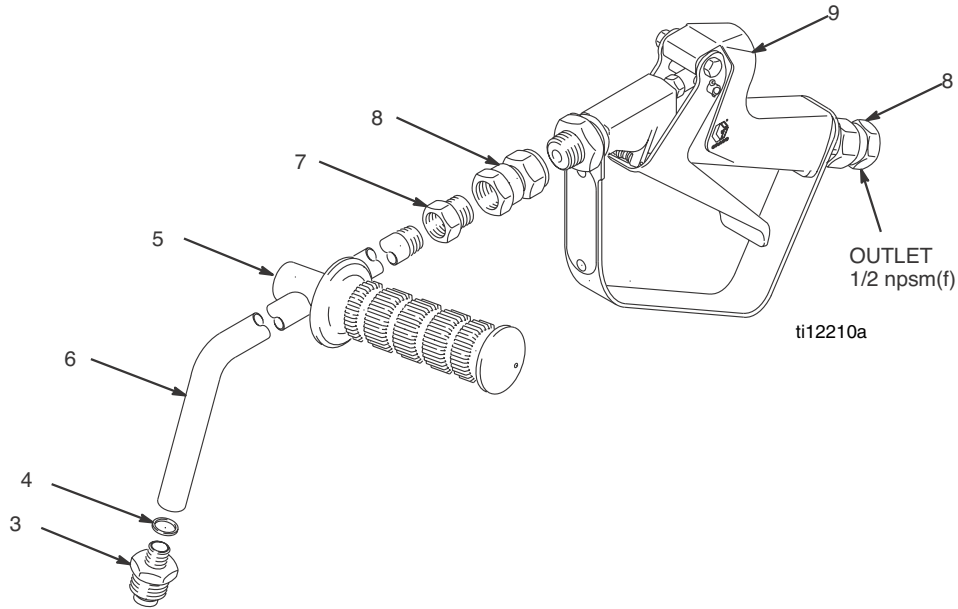
Model 224526 (Basic Gun)



Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	100975	NUT, hex; no. 540	1	17	168686	TUBE, insert	1
2	101421	PIN, cotter; 0.062 in. (1.59 mm) x 0.375 in. (9.52 mm)	2	18*	168687	NUT, adjusting	1
3	102232	PIN, spring; 0.094 in. (2.38 mm)	2	19	187255	NIPPLE, adapter, 1/2 npt(m)	1
4*	102921	SEAL, v-block; polyurethane	1	20	168689	HOUSING, seal	1
5*	102924	SPRING, compression	1	21	187340	PIN	1
6*	102925	PIN, spring	1	22*	168691	SPRING, safety	1
7*	154771	O-RING, nitrile rubber	1	23*	168692	PIN, pivot	1
8*	156766	GASKET, copper; valve seat	1	24	168693	LATCH, safety	1
9*	160079	GASKET, copper; gun body	2	25	187142	NUT, jam, 1/2 npsm	1
10	102299	RIVET	2	26	203953	SCREW, lock	1
11	168674	BODY, gun	1	27	224447	SEAT, valve 1/2 npt(m)	1
12	187336	HANDLE	1	28*	215224	STEM, valve	1
13	187209	GUARD, trigger	1				
14	168682	TRIGGER	1				
15	187145	PLATE, warning	1				
16*	168685	SCREW, spring adjusting	1				

* Recommended "Tool Box" spare parts. Keep these spare parts on hand to reduce down time.

Model 224472 (Complete Gun with Wand)



Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
3	187177	ADAPTER, valve seat	1	7	158212	BUSHING, 1/2 npt(m) x 3/8 npt(f)	1
4	168845	GASKET, copper	1	8	155865	UNION ADAPTER, 1/2 npt(f) x 1/2 npsm(f) swivel	2
5	111346	HANDLE, adjustable	1	9	224526	MASTIC FLOW GUN	1
6	187167	TUBE	1				

Technical Data

Category	Data
Maximum Working Pressure	4050 psi (27.6 MPa, 276 bar)
Inlet Port Size	Basic Gun: 1/2 npt(m) Complete Gun: 1/2 npsm(f)
Outlet Port Size	Basic Gun: 1/2 npt(m)
Wetted Parts	Steel, Tungsten Carbide, Copper, Buna-n, Polyurethane, Stainless Steel
Height	5.25 in. (133 mm)
Length	10.25 in. (260 mm)
Weight	2.22 lb (1 kg)

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.

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For the latest information about Graco products, visit www.graco.com.

TO PLACE AN ORDER, contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.

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For patent information, see www.graco.com/patents.

Original instructions. This manual contains English. MM 308124

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