

Airless Spray Gun

306796H

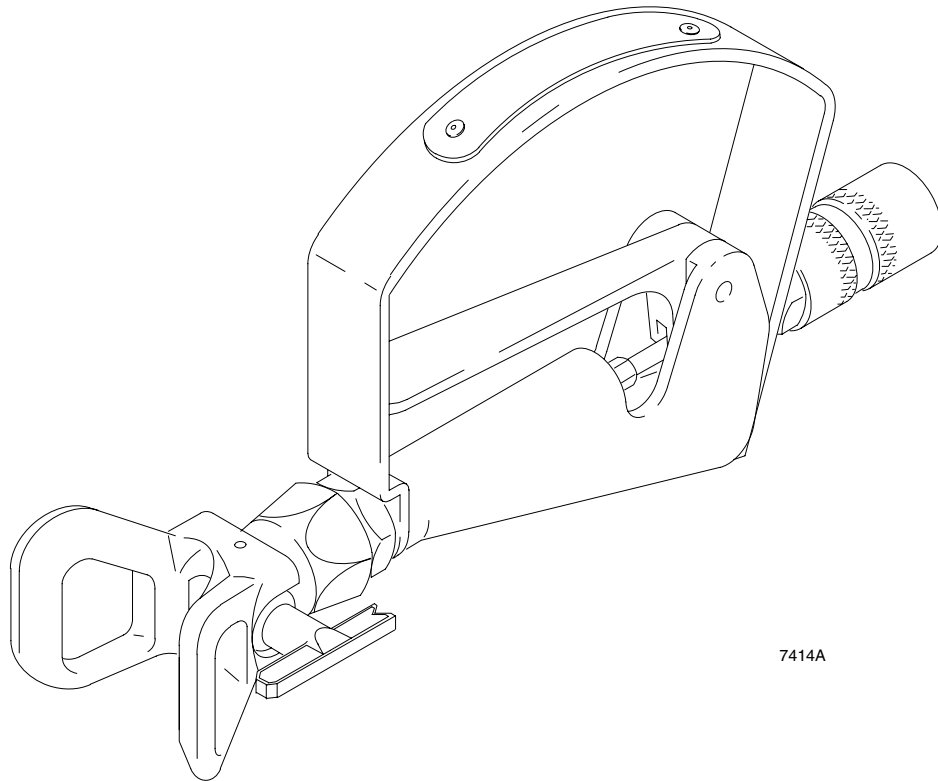
Model 206408, Series H

3000 psi (21.0 MPa, 210 bar) Maximum Working Pressure



Important Safety Instructions

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



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Symbols

Warning Symbol



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

Caution Symbol



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

! WARNING



SKIN INJECTION HAZARD

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

- Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate surgical treatment.**
- Do not point the dispensing valve at anyone or at any part of the body.
- Do not put hand or fingers over the spray tip.
- Do not stop or deflect fluid leaks with your hand, body, glove, or rag.
- Do not “blow back” fluid; this is not an air spray system.
- Always have the tip guard and the trigger guard on the gun when spraying.
- Be sure the gun trigger safety operates before spraying.
- Lock the gun/valve trigger safety when you stop spraying.
- Follow the **Pressure Relief Procedure** on page 6 whenever you: are instructed to relieve pressure; stop spraying; clean, check, or service the equipment; and install or clean the spray tip.
- Tighten all the fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.



TOXIC FLUID HAZARD

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

- Know the specific hazards of the fluid you are using. Read the fluid manufacturer’s warnings.
- Store hazardous fluid in an approved container. Dispose of the hazardous fluid according to all local, state, and national guidelines.
- Wear appropriate protective clothing, gloves, eyewear, and respirator.

Warnings are continued on the next page.

⚠ WARNING



FIRE AND EXPLOSION HAZARD

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

- Ground the equipment and the object being sprayed. See **Grounding** on page 4.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvent or the fluid being sprayed.
- Extinguish all the open flames or pilot lights in the spray area.
- Electrically disconnect all the equipment in the spray area.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Do not turn on or off any light switch in the spray area while operating or if fumes are present.
- Do not smoke in the spray area.
- Do not operate a gasoline engine in the spray area.
- If there is any static sparking while using the equipment, **stop spraying immediately**. Identify and correct the problem.



INSTRUCTIONS



EQUIPMENT MISUSE HAZARD

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

- This equipment is for professional use only.
- Read all the instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check the equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. This spray gun has a **3000 psi (21.0 MPa, 210 bar) maximum working pressure**.
- Use fluids that are compatible with the equipment wetted parts. See the **Technical Data** section of all the equipment manuals. Read the fluid manufacturer's warnings.
- Route the hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 180°F (82°C) or below -40°F (-40°C).
- Do not use the hoses to pull equipment.
- Wear hearing protection when operating this equipment.
- Comply with all applicable local, state, and national fire, electrical, and other safety regulations.

Installation

Grounding

WARNING



FIRE AND EXPLOSION HAZARD

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

To reduce the risk of static sparking, ground all the dispensing equipment used or located in the work area. Check your local electrical code for detailed grounding instructions for your area and type of equipment. Be sure to ground all of this equipment.

- *Pump or sprayer:* If using an electric sprayer, plug the power supply cord or extension cord, each equipped with an undamaged three-prong plug, into a properly grounded outlet. Do not use an adapter. All extension cords must have three wires and be rated for 15 amps. If using another type of sprayer or pump, ground it by connecting a grounding wire (12 ga minimum) from the pump or sprayer's grounding lug to a true earth ground.
- *Air compressor or hydraulic power supply:* Follow the local code.

- *Fluid hoses:* Use only electrically conductive hoses with a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity.
- *Spray gun:* Obtain grounding through connection to a properly grounded fluid hose and sprayer or pump.
- *Supply container:* Follow the local code.
- *Object being sprayed:* Follow the local code.
- *All solvent pails used when flushing:* Follow the local code. Use only metal pails, which are conductive. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.
- *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 pail, then trigger the gun.

Installation

NOTE: Numbers and letters in parentheses in the text correspond to the reference numbers and letters in the text and drawings.

⚠ WARNING

Be sure your system has a bleed-type master air valve (pneumatic pumps only) and a fluid drain valve. These two accessories help reduce the risk of serious injury, including fluid injection, splashing in the eyes or on the skin, or injury from moving parts, if you are adjusting or repairing the pump or gun.

- The bleed-type master air valve relieves air trapped between this valve and the pump after the air regulator is shut off. Trapped air can cause the pump to cycle unexpectedly.
- The fluid drain valve assists in relieving fluid pressure in the displacement pump, hose, and gun; triggering the gun to relieve pressure may not be sufficient.

1. Connect a grounded fluid hose to the gun inlet.
2. With no tip installed, start the pump/sprayer. Flush it according to the instructions supplied with it. Prime the system with the fluid you are using.
3. **Relieve the pressure.**

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

4. With the gun safety latch engaged, unscrew the retaining nut (B) of the tip/guard assembly (26, 27), and install the gasket (25) in the retaining nut. Screw the tip/guard assembly firmly onto the gun. Tighten with a wrench. See Fig. 1.

NOTE: Failure to install the tip gasket (25) will result in leaking.

5. Strain the fluid you are spraying if it contains particles that could clog the spray tip.

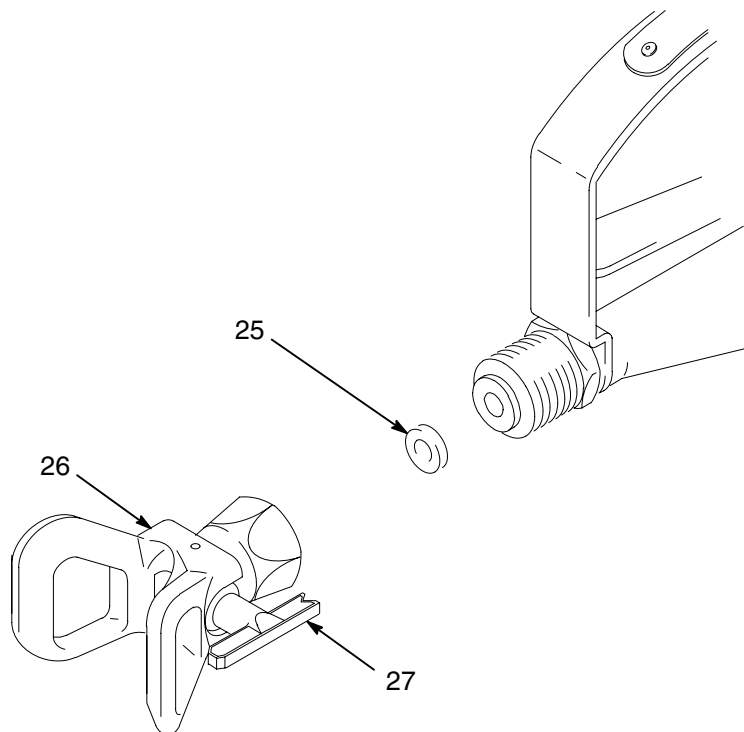


Fig. 1

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Operation

Pressure Relief Procedure

WARNING



INJECTION HAZARD

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

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

1. Engage the gun safety knob.
2. Shut off the power supply to the pump and open any air bleed valves in the system.
3. With an electric sprayer, also unplug the cord.
4. Disengage the gun safety knob.
5. Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger the gun to relieve pressure.
6. Engage the gun safety knob.
7. Open the fluid drain valve, having a container ready to catch the drainage.
8. Leave the drain valve open until you are ready to use the system again.

If you suspect that the gun, hose, or spray tip is completely clogged, or that pressure has not been fully relieved after following the steps above, very slowly loosen the tip guard retaining nut, outlet accessory nut, or hose end coupling and relieve pressure gradually, then loosen completely. Then clear the tip or hose.

Operation

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

Whenever you stop spraying for a moment, engage the gun safety latch. See Fig. 2.

WARNING

The wallet-size warning card provided with this gun should be kept with the operator at all times. The card contains important treatment information should an injection injury occur. Additional cards are available at no charge from Graco Inc.

1. Start the pump. Adjust the fluid pressure so the spray is completely atomized. **ALways** use the lowest pressure necessary to get the desired results. Higher pressure may not improve the spray pattern and will cause premature tip and pump wear.
2. If adjusting the pressure does not give a good spray pattern, try another tip size. **Relieve the pressure** completely before changing tips.
3. Use a full-open, full-close trigger action. Hold the gun about 14 in. (350 mm) from and at right angles to the work surface. Do not swing the gun in an arc. Practice to find the best length and speed of stroke.

How to use the Safety Knob (Fig. 2)

To engage the safety knob, turn the knob fully clockwise which locks the needle in the forward position, making the valve inoperative. Failure to engage the safety knob when you are not dispensing may result in accidental triggering of the valve.

To disengage the safety knob, turn the knob fully counterclockwise.

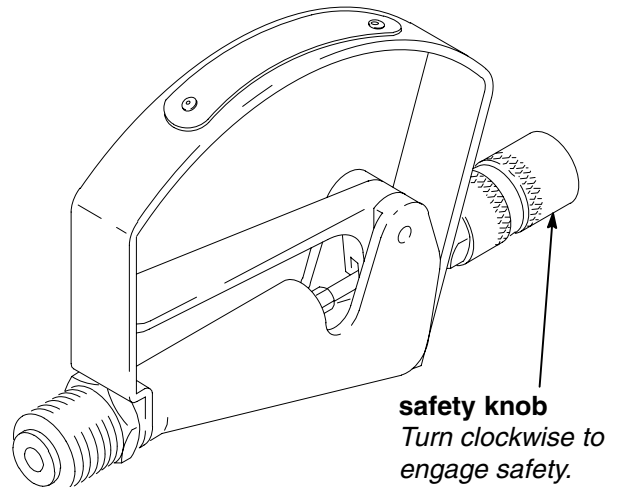


Fig. 2

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Operation

Adjusting the Spray Pattern

⚠ WARNING

To reduce the risk of a fluid injection injury, never use the gun with the tip guard or trigger guard removed.

To adjust the orientation of the spray pattern, **relieve the pressure**. Engage the safety latch, and loosen the tip guard retaining nut (B). Rotate the tip/guard assembly (26, 27) to the spray pattern orientation you desire. See Fig. 3.

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

The spray tip orifice size and spray angle determines the coverage and size of pattern. When more coverage is needed, use a larger spray tip rather than increasing fluid pressure.

Tip/guard assembly (26, 27) is oriented for a vertical spray pattern as shown.

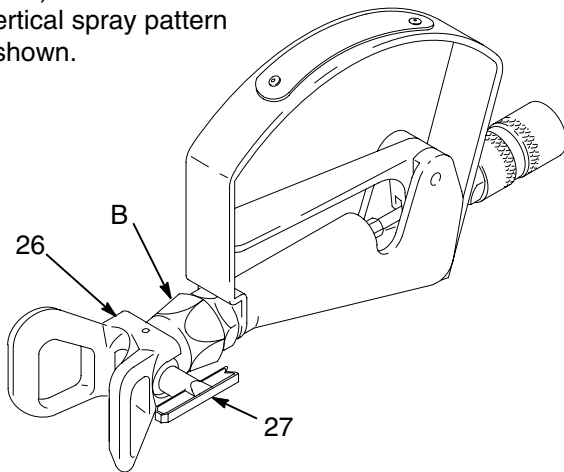


Fig. 3

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⚠ CAUTION

Openings in the tip guard are designed to reduce paint buildup on the guard while spraying. Any damage to the sharp edges of the openings causes paint to collect at that area. To reduce the risk of damage, never hang the gun by the tip guard.

Cleaning or Clearing the Spray Tip

Clean off the front of the tip frequently during the day's operation and at the end of the work day. Always **relieve the pressure**. Then, use a solvent soaked brush to clean the spray tip and to keep fluid buildup from drying and clogging the spray tip.

If the spray tip clogs while spraying, clear it as follows:

1. Engage the gun safety latch.
2. Turn the arrow-shaped handle on the tip (27) 180° to the cleaning position.
3. Disengage the gun safety latch, and trigger the gun into a grounded metal pail.

Fluid pressure should force out the clog.
4. Engage the gun safety latch, and turn the arrow-shaped handle 180° to the spray position.
5. Disengage the gun safety latch, and resume spraying.

If the tip is still clogged, disassemble and manually clean it. See page 10.

⚠ CAUTION

Never soak the entire gun in solvent. Prolonged exposure to solvent can ruin the packings.

Operation

Flushing the Gun

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

WARNING

Before flushing, be sure the entire system and flushing pails are properly grounded. Refer to **Grounding** on page 4. **Relieve the pressure** and remove the spray tip from the gun. Always use the lowest possible fluid pressure, and maintain firm metal-to-metal contact between the gun and the pail during flushing to reduce the risk of a fluid injection injury, static sparking, and splashing.

Relieve the pressure, remove the spray tip, and then flush the gun and spray system with a compatible solvent. Always flush the gun before the fluid being sprayed can dry in it.

CAUTION

To avoid corrosion, never leave water or water-based fluid in the valve overnight or longer. If you are using water to flush, flush again with mineral spirits or oil-based solvent and **relieve the pressure**. This leaves a protective coating in the valve to prevent corrosion.

Lubrication

Oil the exposed part of the valve rod (18) and the trigger pivot (9) daily. See Fig. 4.

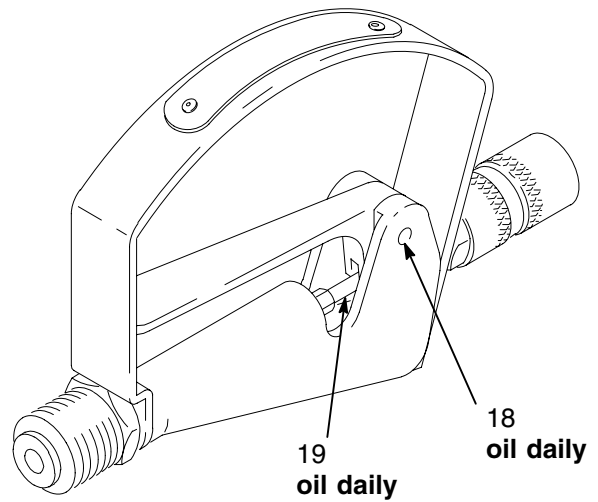


Fig. 4

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Service

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

NOTES:

- If the gun keeps spraying after you release the trigger, the valve rod (needle) may be obstructed, worn or damaged, or it may need adjusting. Follow the repair instructions below.
- Before servicing, be sure all necessary repair parts are available.
- See the **Parts Drawing** on page 12.

Disassembly

1. **Relieve the pressure** and disconnect the dispensing device and supply hose.
2. Unscrew the valve seat (19). Unscrew the pivot (9) and remove the trigger (15).
3. Grasp the hex of the safety knob (4) with a 11/16 in. open end wrench and unscrew the knob assembly from the gun housing (16).
4. Grasp the flats of the adjusting nut (13) with an adjustable wrench and pull it out far enough to loosen the capscrew (1) using a 3/32 in. socket head wrench.
5. Use a 3/8 in. open end wrench to unscrew the packing screw (14).
6. Push the valve rod (18) out the front of the valve.
7. Use a hooked pick to carefully remove the packings (10) and glands (11, 12) from the valve.
8. Clean all parts thoroughly in a compatible solvent, dry and inspect for damage. Replace the parts as needed. Disassemble and manually clean the tip/guard assembly (26, 27) if they are dirty.

Reassembly

1. Lubricate the smooth shaft of the rod (18). Insert the threaded end of the rod through the front of the valve and through the back.
2. One at a time, slide the male gland (12), and the six v-packings (10) (with the lips of the v-packings facing the front of the valve) onto the valve rod and slide them into the packing cavity. Insert the female gland (11) and press it gently into the packing cavity to help seat the packings.
3. Screw the packing screw (14) loosely into the cavity.
4. Install the trigger (20) and pivot (9).
5. Place a washer (2) on the valve rod and thread the adjusting nut (13) onto it.
6. Hold the adjusting nut with an adjustable wrench. Thread the capscrew (1) a few turns into the nut.
7. Check the trigger free play. Push the adjusting nut (13) forward as far as possible and check for 1/8 to 5/16 in. (3 to 8 mm) free play. See Fig. 5. Adjust the screw (1) as necessary, then tighten the adjusting nut.
8. Screw the safety knob (4) into the valve.
9. Screw the valve seat (19) into the front of the valve and torque to 20–25 ft-lb (27–34 N•m). Be sure the washer (3) is between the seat and trigger guard.
10. Tighten the packing screw (14) just enough to stop leakage; overtightening results in leaking.
11. Reinstall the tip/guard assembly (26, 27) before using the gun.

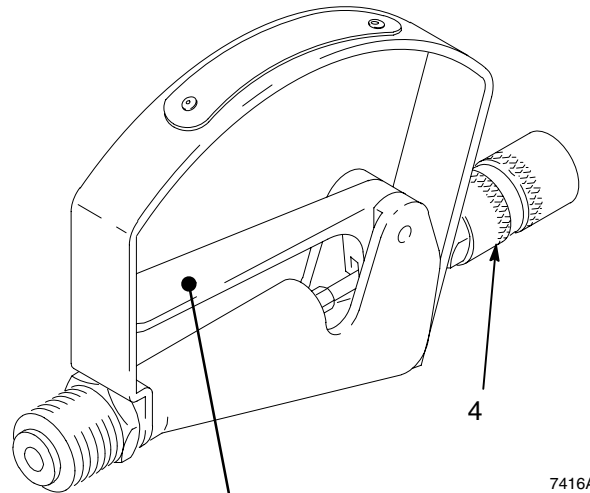
Service

Adjusting the Needle

WARNING

Proper adjustment of the needle is essential to be sure the safety knob makes the gun inoperative when engaged. Improper adjustment may allow the gun to be triggered, even with the safety knob engaged (turned fully clockwise), which can result in serious injury, including fluid injection and splashing in the eyes or on the skin.

To check for proper adjustment, engage the safety knob (4) and check the free play in the trigger. It should be 1/8 to 5/16 in. (3 to 8 mm). If it is not, **relieve the pressure**, unscrew the safety knob assembly (4), and adjust the free play as instructed in steps 7 and 8 of **Reassembly** on page 10.



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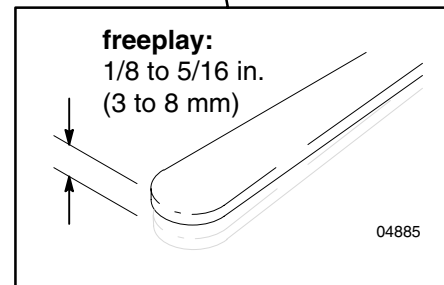
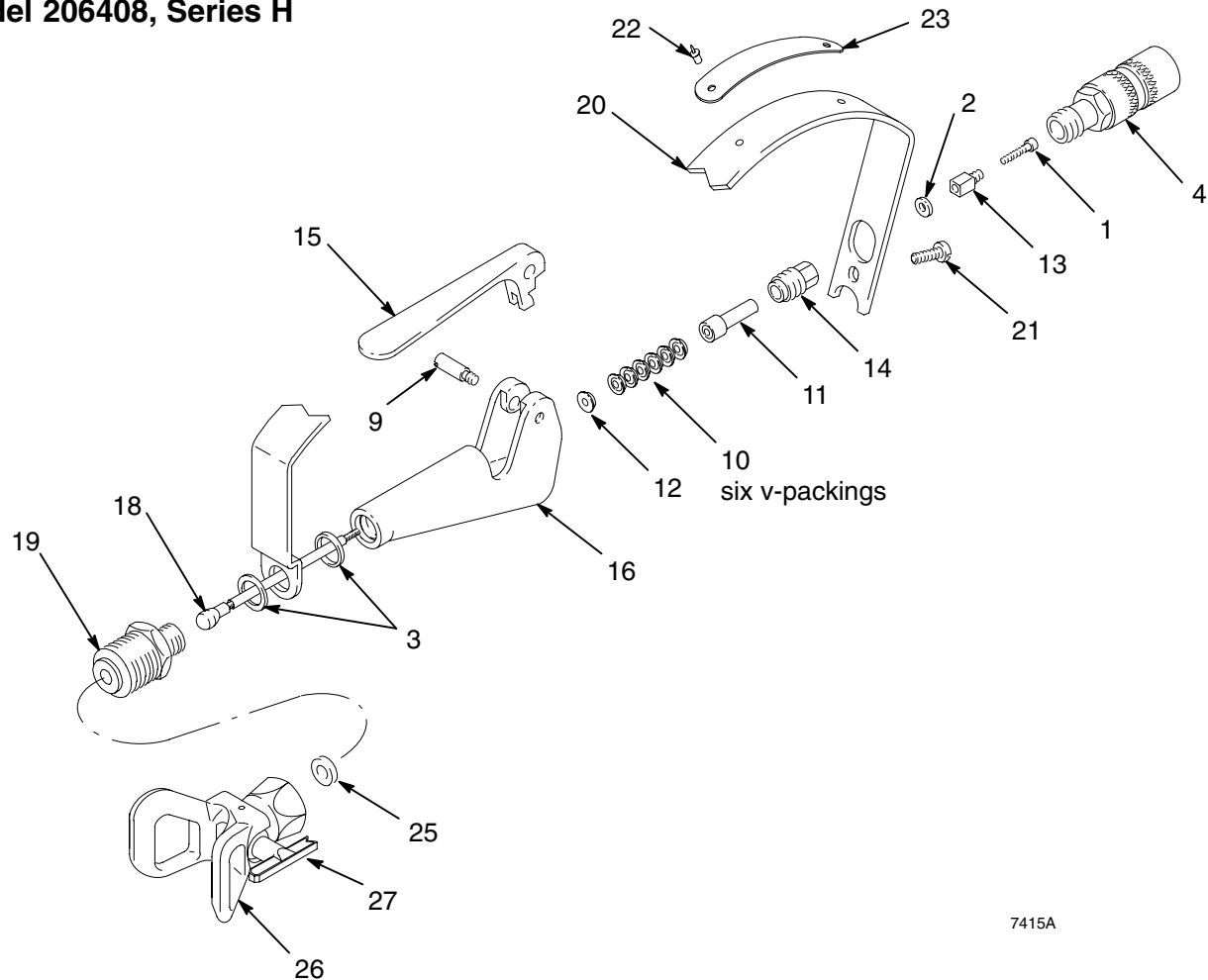


Fig. 5

Parts

Model 206408, Series H



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Ref No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	104301	CAPSCREW, soc hd, 5-40 UNC-2a x 0.625"	1	19*	206407	SEAT, valve	1
2*	151395	WASHER, flat	1	20	192165	GUARD, trigger	1
3*	168845	GASKET, copper	2	21	100037	SCREW, machine, phillips-head; 10-24 UNC-2a x 0.5"	1
4	210170	STOP, needle	1	22	102299	RIVET	2
5†	172479	TAG, warning (not shown)	1	23†	170239	PLATE, warning	1
9	165086	SCREW, pivot	1	24†	179960	SIGN, warning (not shown)	1
10*	165672	V-PACKING, PTFE	6	25	166969	WASHER, nylon	1
11*	165674	GLAND, packing, female; brass	1	26	222674	GUARD, tip	1
12*	165675	GLAND, packing, male; brass	1	27	GHDXXX	TIP OF CHOICE	1
13	165676	NUT, adjusting	1	<i>* Recommended tool box spare parts. Keep these parts on hand to reduce down time.</i>			
14	165677	SCREW, packing	1				
15	190654	TRIGGER	1	<i>† Extra warning tags, plates, and signs area available at no charge./Technical Data</i>			
16	165679	HOUSING, gun, control	1				
18*	204629	ROD, valve	1				
12	306796						

Technical Data

Category	Data
Maximum fluid working pressure	3000 psi (21.0 MPa, 210 bar)
Fluid valve orifice size	0.188 in. (4.78 mm) diameter
Fluid inlet	1/4 npsm
Fluid outlet	7/8–1/4 npt
Wetted parts	aluminum, tungsten carbide, stainless steel, zinc-plated steel, PTFE, brass, Delrin [®]
Length	8.125" (206 mm)
Height	5" (127 mm)
Weight	2 lb (0.9 kg)

Delrin[®] is a registered trademark of the DuPont Company.

Graco Warranty

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

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

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

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

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

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

FOR GRACO CANADA CUSTOMERS

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

Graco Information

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you:

1-800-367-4023 Toll Free

612-623-6921

612-378-3505 Fax

*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.*

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