

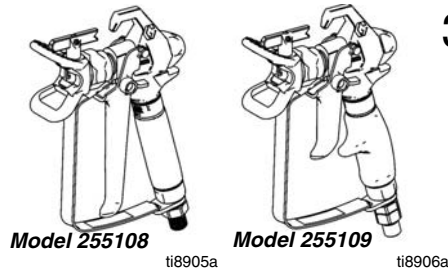
# SG20 and SGPro Airless Spray Guns

Models: 255108 and 255109

Maximum Working Pressure: 3600 psi (248 bar, 24.8 MPa)



**IMPORTANT SAFETY INSTRUCTIONS.** Refer to your sprayer instruction manual for Pressure Relief, priming and spray instructions. Keep these instructions.



Model 255108

Model 255109

ti8905a

ti8906a



311979E  
ENG

**- For the application of architectural paints and coatings -**

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 hazard symbols refer to procedure-specific risks. Refer back to these Warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.



## WARNINGS



### SKIN INJECTION HAZARD

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.**

- 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.



### FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. 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 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.



### 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 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.



### PRESSURIZED ALUMINUM PARTS HAZARD

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.



### PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or in the operating area of the equipment to help protect you from serious injury. This equipment includes but is not limited to:

- Protective eyewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection



HO03

PROVEN QUALITY. LEADING TECHNOLOGY.

## Pressure Relief Procedure



### WARNING



Follow this **Pressure Relief Procedure** whenever instructed to relieve pressure, stop spraying, check or service equipment, or install or clean spray tip.

1. Turn OFF power and turn sprayer pressure control to lowest pressure setting.
2. Hold gun against side of grounded metal flushing pail. Trigger gun into pail to relieve pressure.

If you suspect spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction.

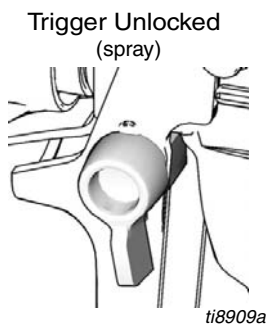
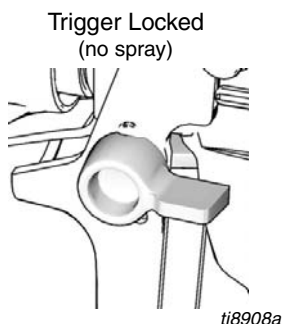
## Gun Trigger Lock (3a)



### WARNING



To prevent injury when the gun is not in use, always set the gun's trigger lock (3a) if unit is being shut down or left unattended.



## Setup



### WARNING

Make sure sprayer is turned off and unplugged from power source. Refer to your sprayer instruction manual for priming and spray instructions.

### Connect Gun to Sprayer

1. Attach supply hose to sprayer fluid outlet.
2. Attach other end of supply hose to gun swivel (5). Use two wrenches (one on the swivel (5) and one on the hose), to tighten all connections securely.
3. Refer to sprayer instruction manual for priming instructions.

## Installing Tip (15) and Guard (2) on Gun



### WARNING



1. If equipment has recently been operated, **relieve pressure**. Set trigger lock (3a).
2. Using a pencil or similar object, insert seat (16) into back of guard (2).
3. Install guard (2) over end of gun (21). Tighten retaining nut.
4. Insert tip (15) into slot on guard (2).

## Operation

### Spraying

1. Unlock trigger lock (3a).
2. Be sure the arrow shaped tip (15) faces forward (spray).
3. Hold gun perpendicular and approximately 12-inches (304 mm) from surface. Move gun first, then pull gun trigger (3) to spray a test pattern.
4. Slowly increase pump pressure until coverage is uniform and even (see sprayer instruction manual for additional information).

### Aligning Spray



### WARNING



1. **Relieve pressure**. Set trigger lock (3a).
2. Loosen guard retaining nut.
3. Align guard (2) horizontally to spray a horizontal pattern.
4. Align guard (2) vertically to spray a vertical pattern.

### Clearing Clogs



### WARNING

1. **Relieve pressure**. Set trigger lock (3a).
2. Rotate tip (15) 180°. Unlock trigger lock (3a). Trigger gun into pail or onto ground to remove clog.
3. Set trigger lock (3a). Rotate tip (15) 180° back to spray position.

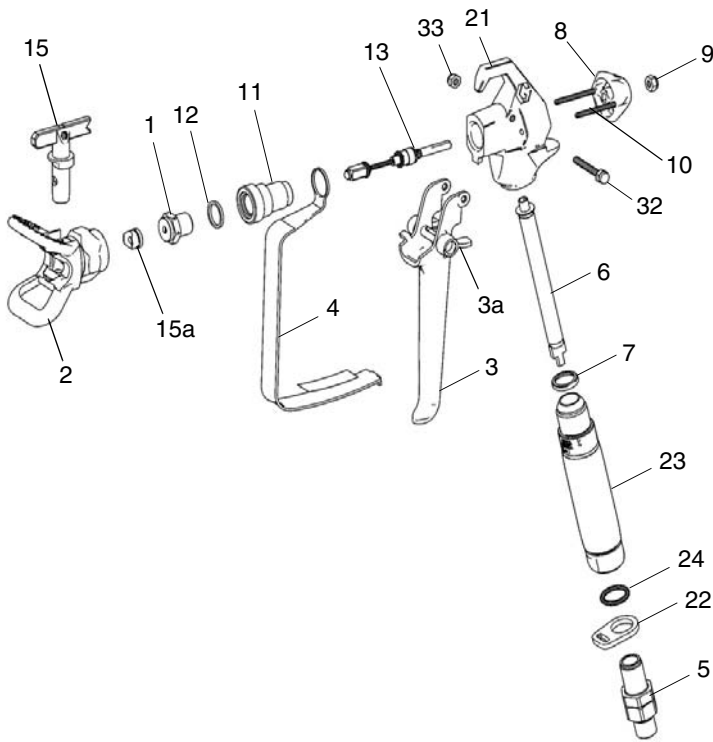
## Cleanup

### CAUTION

Never soak gun in solvents. Do not leave the gun or any parts in water.

Flush gun after each work shift and store in a dry location. Clean handle grip with water or with a rag wetted in mineral spirits or paint thinner. Do not soak.

# Parts



ti8904a

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1		SEAT, valve	1	21	195389	HOUSING, fluid (sand blasted)	1
2✓	237859	GUARD, RAC IV	1		195390	HOUSING, fluid (tumbled)	1
3	243639	TRIGGER, kit, 4 finger, assy, includes 32 and 33 (model 255108)	1	22	113409	RETAINER, guard	1
	288816	TRIGGER, kit, 2 finger, assy, includes 32 and 33 (model 255109)	1	23	15J775	HANDLE, grip (model 255108)	1
3a		LOCK, trigger, included with 3	1		15J776	HANDLE, grip (model 255109)	1
4	195495	GUARD, trigger	1	24	115485	PACKING, o-ring	1
5	238817	SWIVEL, gun	1	32	177538	STUD, trigger	1
6✓	288749	FILTER, gun; latex, 50 mesh	1	33	105334	NUT, lock, hex	1
	288750	FILTER, gun, latex, 100 mesh	1	34	288817	KIT, repair, gun, includes 1, 9, 12, 13	1
7✓	179733	SEAL, sleeve	1				
8	195395	CAP, end	1				
9	115483	NUT, lock	1				
10	115484	PIN, actuator	2				
11	195419	HOUSING, needle	1				
12	156766	GASKET	1				
13		NEEDLE, gun	1				
15✓	221515	TIP, spray, RAC IV	1				
15a	243004	RAC IV, gasket and seal kit, (includes 2 rubber gaskets and 2 metal seals)	1				

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

✓ Keep these spare parts on hand to reduce downtime.

# Maintenance



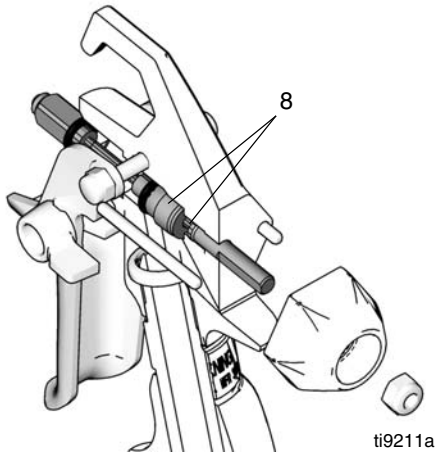
## WARNING

Before performing any maintenance on gun, read all warnings on front cover of this manual and **relieve pressure**.

### Cleaning/Replacing Filter (6)

1. **Relieve pressure.** Set trigger lock (3a).
2. Disconnect fluid hose from gun at swivel (5).
3. Disconnect trigger guard (4) from guard retainer (22).
4. Unscrew handle (23) from gun (21).
5. Remove filter (6) through top of handle (23).
6. Clean filter (6). Use a soft brush to loosen and remove excess debris.
7. Insert clean filter (6) into handle (7).
8. Reattach handle (7) to gun (21). Tighten securely.
9. (Model 255109 only) If finger guard is not aligned, apply torque manually, rotating the grip until it is aligned with the trigger.
10. Reconnect trigger guard (4) to guard retainer (22).

### Replacing Needle



1. **Relieve pressure.** Set trigger lock (3a).
2. Remove tip (15) and guard (2) from gun (21).
3. Disconnect fluid hose from gun at swivel (5).
4. Release trigger lock (3a). Squeeze trigger (3) while unscrewing seat diffuser (1) from front of gun.
5. Remove locknut (9) and end cap (8).
6. Tap needle assembly (13) out, with the needle exiting through front of gun.
7. Use a soft brush to clean out internal passages of gun.
8. Grease outside of needle seal and in front of locknut thread with non-silicon grease.
9. Guide new needle (13) through front of gun (21).
10. Loosely install end cap (8) and locknut (9).
11. Grease threads of diffuser/seat (1). Place gasket (12) on diffuser/seat (1).

12. Squeeze trigger (3) while installing gasket (12) and diffuser seat (1). Torque.
13. Hold gun with nozzle facing up.
14. Turn locknut (9) clockwise until you see and feel trigger (3) raise slightly.
15. Turn locknut (9) 3/4 turn counter-clockwise.

**NOTE:** When needle is properly adjusted, trigger will move freely.

16. Connect fluid hose. Install tip (15) and guard (2).
17. Prime sprayer. See sprayer instruction manual.
18. Trigger gun into bucket until fluid flows from gun.
19. Release trigger (3). Fluid flow should stop immediately.
20. Set trigger lock (3a).
21. Aim gun into bucket. Trigger gun. No fluid should flow.
22. If the gun fails tests, steps 19 and/or 21, **relieve pressure** and disconnect hose. Readjust needle. Repeat tests.

For complete warranty information contact your local Graco distributor, call Graco customer service: 1-800-690-2894 or visit our website: [www.graco.com](http://www.graco.com).

*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.*

This manual contains English. MM 311979

**Graco Headquarters:** Minneapolis  
**International Offices:** Belgium, China, Japan, Korea

**GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441**  
01/2007, Revised 09/2008