



# MAGNUM<sup>®</sup>

## TRUEAIRLESS<sup>™</sup>

Electric Airless Sprayer



## OWNERS MANUAL

### Project Painter<sup>™</sup> Plus

### 3A3582B

EN



## WARNING

### FIRE AND EXPLOSION HAZARD

- Use only non-flammable or water-based materials, or non-flammable paint thinners. Do not use materials having flash points lower than 100° F (38° C). This includes, but is not limited to, acetone, xylene, toluene, or naphtha. For more information about your material, request Safety Data Sheet (SDS) from the supplier.
- Spraying flammable or combustible materials in a factory or fixed location must comply with NFPA 33 and OSHA 1910.94(c) requirements in the USA and with all similar local regulations in other countries.

***Not approved for use in explosive atmospheres or hazardous locations.  
For portable airless spraying of architectural paints and coatings.***



### Important Safety Instructions

Read all warnings and instructions in this manual, related manuals, and on the unit. Be familiar with the controls and the proper usage of the equipment. Save these instructions.

# DIY SERIES

# BEFORE YOU SPRAY

## Review Warnings for Important Safety Information

Important! Read carefully and practice good safety habits.

## Review Manual & Watch Videos

Scan QR code for Operational Video or go to [magnum.graco.com/p3op](http://magnum.graco.com/p3op)


## Related Manuals

Gun: 312830 (SG2)



## Model

2800 psi (193 bar, 19.3 MPa) Maximum Working Pressure

	VAC	Model
 Intertek 110474 Certified to CAN/CSA C22.2 No. 68 Conforms to UL 1450	120 USA	257025

## Important User Information

### Thank You for Your Purchase!

Before using your sprayer read this Owners Manual for complete instructions on proper use and safety warnings.

This sprayer is designed to provide superior spray performance with water-based and oil-based (mineral spirit-type) architectural paints and coatings. This user information is intended to help you understand the types of materials that can be used with your sprayer.

Please read the information on the material container label to determine if it can be used with your sprayer. Ask for a Safety Data Sheet (SDS) from your supplier. The container label and SDS will explain the contents of the material and the specific precautions related to it.

Paints, coatings and clean-up materials generally fit into one of the following **3 basic categories**:



**WATER-BASED:** The container label should indicate that the material can be cleaned up with soap and water. Your sprayer is compatible with this type of material. Your sprayer is **NOT** compatible with harsh cleaners such as chlorine bleach.



**OIL-BASED:** The container label should indicate that the material is COMBUSTIBLE and can be cleaned up with mineral spirits or paint thinner. The SDS must indicate that the flash point of the material is above 100° F. Your sprayer is compatible with this type of material. Use oil-based material outdoors or in a well-ventilated indoor area with a flow of fresh air. See the safety warnings in this manual.



**FLAMMABLE:** This type of material contains flammable solvents such as xylene, toluene, naphtha, MEK, lacquer thinner, acetone, denatured alcohol, and turpentine. The container label should indicate that this material is FLAMMABLE. This type of material is **NOT** compatible with your sprayer and **CANNOT** be used.

# 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.

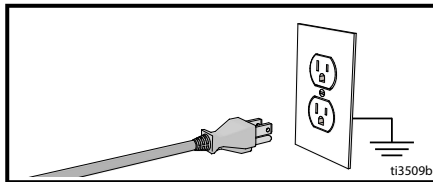
## WARNING



### GROUNDING

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V circuit and has a grounding plug similar to the plugs illustrated below.



- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.

### Extension Cords:

- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary use 12 AWG (2.5mm<sup>2</sup>) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

Conductor Size		Length
AWG (American Wire Gauge)	Metric	Maximum
16	1.5 mm <sup>2</sup>	25 ft. (8 m)
12	2.5 mm <sup>2</sup>	50 ft. (15 m)

## **WARNING**



### **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:



- Do not spray or clean with materials having flash points lower than 100°F (38° C). Use only non-flammable or water-based materials, or non-flammable paint thinners. For complete information about your material, request the Safety Data Sheet (SDS) from the material distributor or retailer.



- Do not spray combustible materials near an open flame or sources of ignition such as cigarettes, motors, and electrical equipment.



- Paint or solvent flowing through the equipment is able to result in static electricity. Static electricity creates a risk of fire or explosion in the presence of paint or solvent fumes. All parts of the spray system, including the pump, hose assembly, spray gun, and objects in and around the spray area shall be properly grounded to protect against static discharge and sparks. Use Graco conductive or grounded high-pressure airless paint sprayer hoses.

- Verify that all containers and collection systems are grounded to prevent static discharge. Do not use pail liners unless they are anti-static or conductive.

- Connect to a grounded outlet and use grounded extensions cords. Do not use a 3-to-2 adapter.

- Do not use a paint or a solvent containing halogenated hydrocarbons.

- Do not spray combustible liquids in a confined area.

- Keep spray area well-ventilated. Keep a good supply of fresh air moving through the area.

- Sprayer generates sparks. Keep pump assembly in a well ventilated area a least 20 feet (6.1 m) from the spray area when spraying, flushing, cleaning, or servicing. Do not spray pump assembly.

- Do not smoke in the spray area or spray where sparks or flame is present.

- Do not operate light switches, engines, or similar spark producing products in the spray area.

- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.

- Know the contents of the paints and solvents being sprayed. Read all Safety Data Sheets (SDSs) and container labels provided with the paints and solvents. Follow the paint and solvents manufacturer's safety instructions.

- Fire extinguisher equipment shall be present and working.



### **ELECTRIC SHOCK HAZARD**

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.



- Turn off and disconnect power cord before servicing equipment.

- Connect only to grounded electrical outlets.

- Use only 3-wire extension cords.

- Ensure ground prongs are intact on power and extension cords.

- Do not expose to rain. Store indoors.

## **WARNING**

### **SKIN INJECTION HAZARD**



High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, **get immediate surgical treatment**.



- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.



- Always use the nozzle tip guard. Do not spray without nozzle tip guard in place.



- Use Graco nozzle tips.



- Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, follow the **Pressure Relief Procedure** for turning off the unit and relieving the pressure before removing the nozzle tip to clean.

- Equipment maintains pressure after power is shut off. Do not leave the equipment energized or under pressure while unattended. Follow the **Pressure Relief Procedure** when the equipment is unattended or not in use, and before servicing, cleaning, or removing parts.

- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.

- This system is capable of producing 2800 psi. Use Graco replacement parts or accessories that are rated a minimum of 2800 psi.

- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.

- Verify that all connections are secure before operating the unit.

- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls.

### **EQUIPMENT MISUSE HAZARD**



Misuse can cause death or serious injury.



- Always wear appropriate gloves, eye protection, and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.

- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.

- Stay alert and watch what you are doing.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.

- Do not kink or over-bend the hose.

- Do not expose the hose to temperatures or to pressures in excess of those specified by Graco.

- Do not use the hose as a strength member to pull or lift the equipment.

- Do not spray with a hose shorter than 25 feet.

- 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.

### **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.

# Warnings

## **WARNING**



### **MOVING PARTS HAZARD**

Moving parts can pinch, cut, 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** and disconnect all power sources.



### **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 MSDSs 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.



### **PERSONAL PROTECTIVE EQUIPMENT**

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This protective equipment includes but is not limited to:

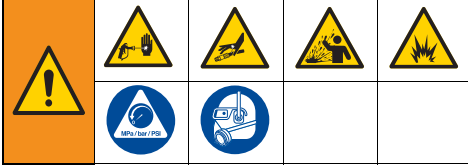
- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

### **CALIFORNIA PROPOSITION 65**

This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

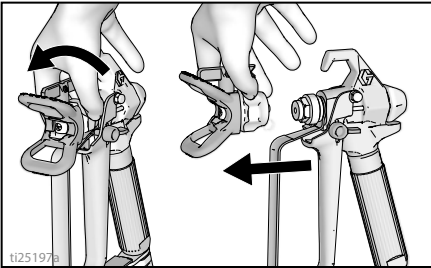
# Cleanup

Cleaning the sprayer after each use results in a trouble free start up the next time the sprayer is used.

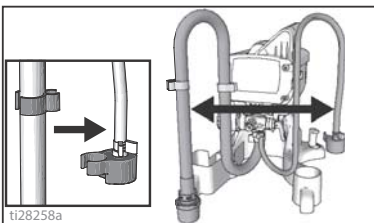


## Cleaning from a Pail

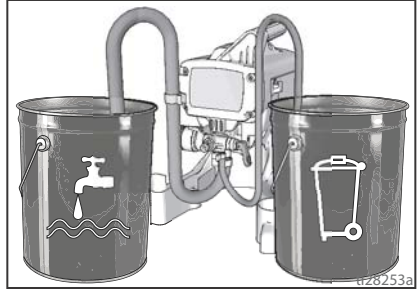
- For short term shutdown periods (overnight to two days) refer to **Short Term Storage**, page 21.
  - See **Cleaning Fluid Compatibility**, page 24 for information on flushing/cleaning fluids and **Static Grounding Instructions (Oil-Based materials)**, page 24.
1. Perform **Pressure Relief Procedure**, page 11.
  2. Remove spray tip and tip guard assembly from gun and place in waste pail.



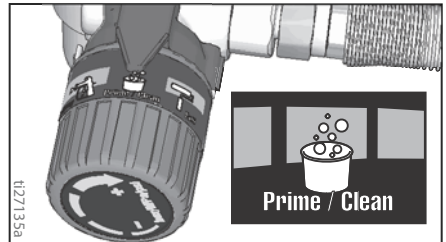
3. Lift suction tube and drain tube from paint pail. Let paint drain into the pail.
4. Separate drain tube (smaller) from suction tube (larger).



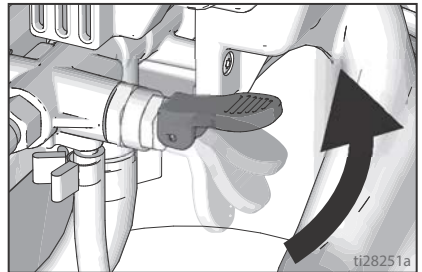
5. Place empty waste and flushing fluid pails side by side.
6. Place suction tube in flushing fluid. Use water for water based paint and mineral spirits or compatible oil-based flushing solvent for oil-based paint. Place drain tube in waste pail.



7. Turn pressure control knob to the Prime/Clean setting.



8. Lift Prime/Spray valve to PRIME position.



9. Turn ON/OFF switch to ON position.
10. Flush until approximately 1/3 of the flushing fluid is emptied from the pail.

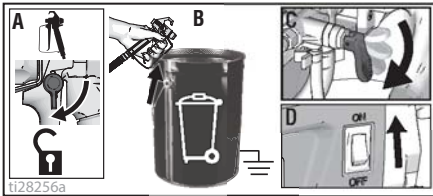


# Cleanup

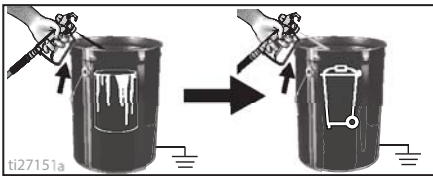
11. Turn ON/OFF switch to **OFF** position.

**NOTE:** Step 12 is for returning paint in hose to paint pail. One 50 ft (15 m) hose holds approximately 1 quart (1 liter) of paint.

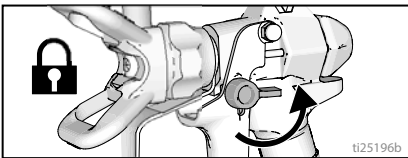
12. To recover paint in hose, point gun into paint pail while holding gun firmly to the pail.
  - a. Disengage trigger lock.
  - b. Pull and hold gun trigger.
  - c. Lower Prime/Spray valve to **SPRAY** position.
  - d. Turn ON/OFF switch to **ON** position.
  - e. Continue to hold gun trigger until you see paint diluted with flushing fluid starting to come out of gun.



13. While continuing to trigger gun, quickly move gun to redirect spray into waste pail. Continue triggering gun into waste pail until flushing fluid dispensed from gun is relatively clear.



14. Turn pressure control knob to the lowest setting.
15. Stop triggering gun. Engage the trigger lock.



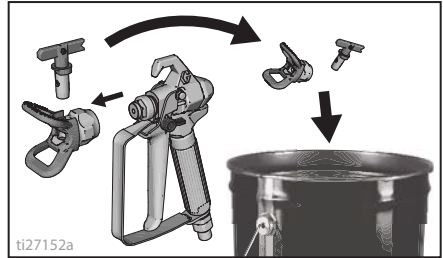
16. Lift Prime/Spray valve to **PRIME** position.
17. Turn ON/OFF switch to **OFF** position.
18. Clean outlet filter.
19. Fill unit with Pump Armor™ fluid. See **Long Term Storage**, page 21.

## Cleanup with Power Flush Adapter

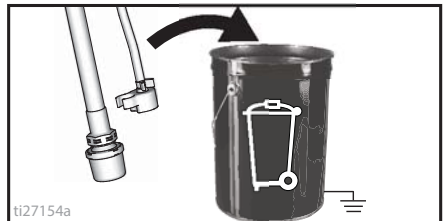
(Water-based materials only)

Power flushing is a faster method of cleanup. It can only be used after spraying water-based coatings.

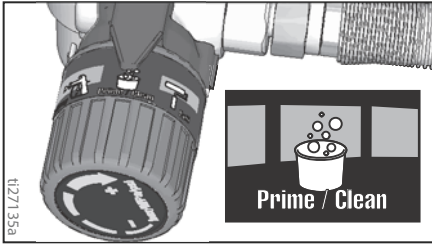
1. Perform **Pressure Relief Procedure**, page 11.
2. Remove spray tip and tip guard assembly from gun and place in waste pail.



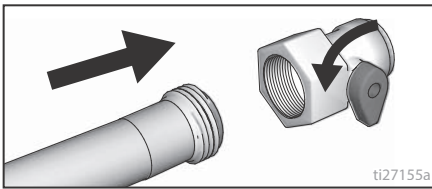
3. Place empty waste and paint pails side by side.
4. Lift suction tube and drain tube from paint pail. Let paint drain into the pail.
5. Place suction and drain tube in waste pail.



- Turn pressure control knob to the Prime/Clean setting.

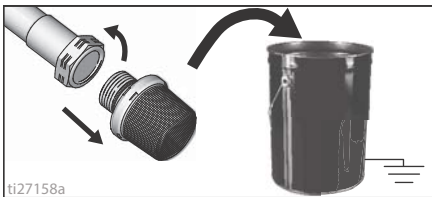


- Screw Power Flush attachment valve to garden hose. Close valve.

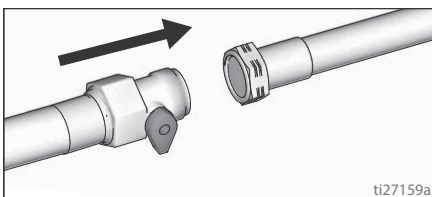


- Turn on water. Open valve. Rinse paint off suction tube, drain tube and inlet strainer. Close valve.

- Unscrew inlet strainer from suction tube. Place inlet strainer in waste pail.



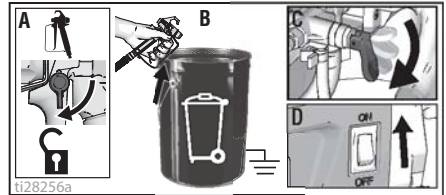
- Connect garden hose to suction tube with Power Flush attachment valve. Leave drain tube in waste pail.



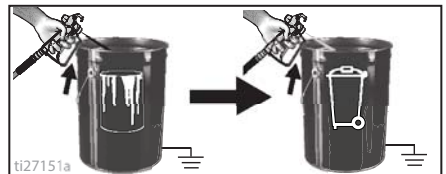
- Turn ON/OFF switch to **ON** position.
- Open Power Flush attachment valve.
- Circulate water through sprayer, into waste pail, for 20 seconds.
- Turn ON/OFF switch to **OFF** position.

**NOTE:** Step 15 is for returning paint in hose to paint pail. One 50 ft (15 m) hose holds approximately 1 quart (1 liter) of paint.

- To recover paint in hose, point gun to paint pail while holding gun firmly to the pail.
  - Disengage trigger lock.
  - Pull and hold gun trigger.
  - Lower Prime/Spray valve to **SPRAY** position.
  - Turn ON/OFF switch to **ON** position.
  - Continue to hold gun trigger until you see paint diluted with flushing fluid starting to come out of gun.

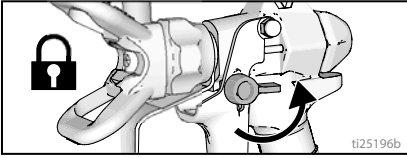


- While continuing to trigger gun, quickly move gun to redirect spray into waste pail. Continue triggering gun into waste pail until flushing fluid dispensed from gun is relatively clear.

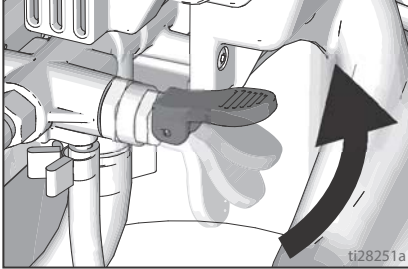


- Turn pressure control knob to the lowest setting.
- Stop triggering gun. Engage the trigger lock.

# Cleanup



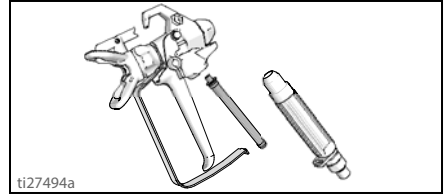
19. Lift Prime/Spray valve to PRIME position.



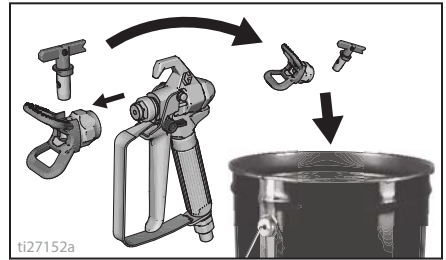
20. Turn ON/OFF switch to **OFF** position.

## Clean the Gun

1. Clean gun fluid filter with water or flushing fluid and a brush every time you flush the system. Replace gun filter if damaged.



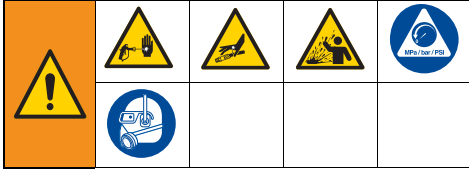
2. Remove spray tip and tip guard and clean with water or flushing fluid and a brush.



3. Wipe paint off outside of gun using a soft cloth moistened with water or flushing fluid.

# Storage

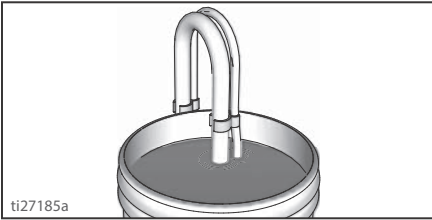
With proper storage, the sprayer will be ready to use the next time it is needed.



## Short Term Storage

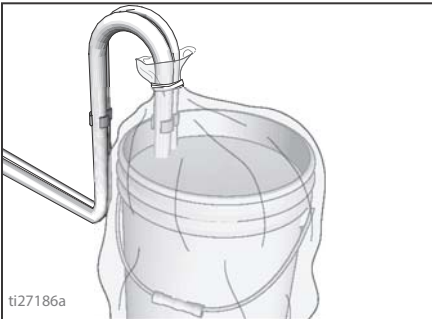
(up to 2 days)

1. Perform **Pressure Relief Procedure**, page 11.
2. Leave suction tube and drain tube in paint pail.



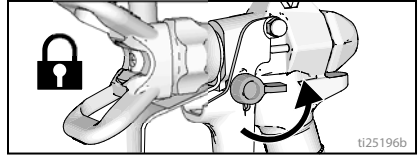
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3. Cover paint and pail tightly with plastic wrap.



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4. Engage trigger lock.



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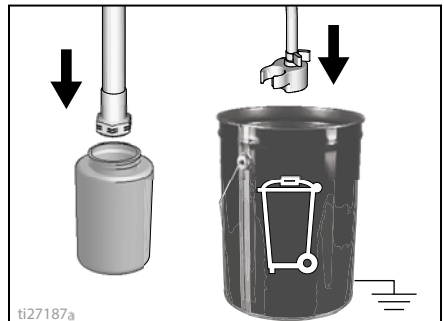
5. Leave gun attached to hose.
6. Remove tip and guard and clean with water or flushing fluid and a brush.
7. Wipe paint off outside of gun using a soft cloth moistened with water or flushing fluid.

## Long Term Storage

(more than 2 days)

Pump Armor fluid protects the sprayer against freezing and corrosion.

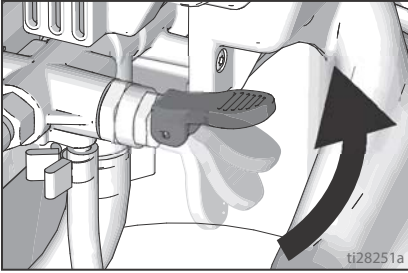
- Before storing sprayer make sure all water is drained out of sprayer.
  - Do not allow water to freeze in sprayer.
  - Do not store sprayer under pressure.
  - Store sprayer indoors.
1. Perform **Pressure Relief Procedure**, page 11.
  2. Place suction tube in Pump Armor fluid bottle and drain tube in waste pail.



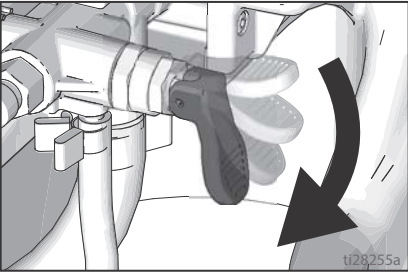
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# Storage

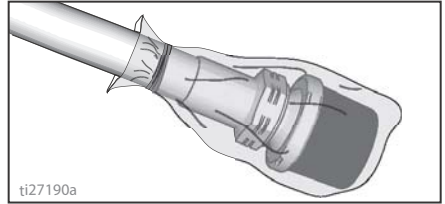
3. Lift Prime/Spray valve to PRIME position.



4. Turn ON/OFF switch to **ON** position.
5. Turn pressure control knob clockwise until the pump turns on.
6. When storage fluid comes out of drain tube (5-10 seconds) turn ON/OFF switch to **OFF** position.
7. Lower Prime/Spray valve to **SPRAY** position to keep storage fluid in sprayer during storage.



8. Leave gun attached to hose.
9. Remove tip and guard and clean with water or flushing fluid and a brush.
10. Wipe paint off outside of gun using a soft cloth moistened with water or flushing fluid.



11. Secure a plastic bag around suction and drain tube to catch any drips.

# Reference

## Spray Tip Selection

### Selecting Tip Size

Spray tips come in a variety of hole sizes for spraying a range of fluids. Your sprayer includes a tip for use in most paint spraying applications. Use the coatings table on page 15 to determine the range of recommended tip hole sizes for each fluid type. If you need a tip other than the one supplied, see the **Reversible Spray Tip Selection Chart**, page 23.

#### Hints:

- As you spray, the tip wears and enlarges. Starting with a tip hole size smaller than the maximum will allow you to spray within the rated flow capacity of the sprayer.
- Use larger tip hole sizes with thicker coatings and smaller tip hole sizes with thinner coatings.
- Tips wear with use and need periodic replacement.
- Tip hole size controls flow rate - the amount of paint that comes out of the gun.

### Fan Width

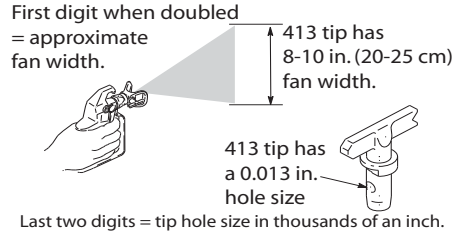
Fan width is the size of the spray pattern, which determines the area covered with each stroke.

#### Hints:

- Select a fan width best suited to the surface being sprayed.
- Wider fans allow provide better coverage on broad, open surfaces.
- Narrower fans provide better control on small, confined surfaces.

## Understanding Tip Number

The last three digits of tip number (i.e.: 221413) contain information about hole size and fan width on surface when gun is held 12 in. (30.5 cm) from surface being sprayed.



## Reversible Spray Tip Selection Chart

Tip Part #	Fan Width *	Hole Size
221311	6 - 8 in. (152 - 203 mm)	0.011 in. (0.28 mm)
221411	8 - 10 in. (203 - 254 mm)	0.011 in. (0.28 mm)
221313	6 - 8 in. (152 - 203 mm)	0.013 in. (0.33 mm)
221413	8 - 10 in. (203 - 254 mm)	0.013 in. (0.33 mm)
221415	8 - 10 in. (203 - 254 mm)	0.015 in. (0.38 mm)
221515	10 - 12 in. (254 - 305 mm)	0.015 in. (0.38 mm)
* - 12 in. (305 mm) from surface		

**Example:** For an 8 to 10 in. (203 to 254 mm) fan width and 0.013 (0.33 mm) hole size, order Part No. 221413.