Operation

MAGNUM™ by GRACO

**Interior Texture Sprayers**

# TexFinish™

309796F

## For Water-Based Materials Only

**Models:**
**246185, 246186, 249175, 249176**

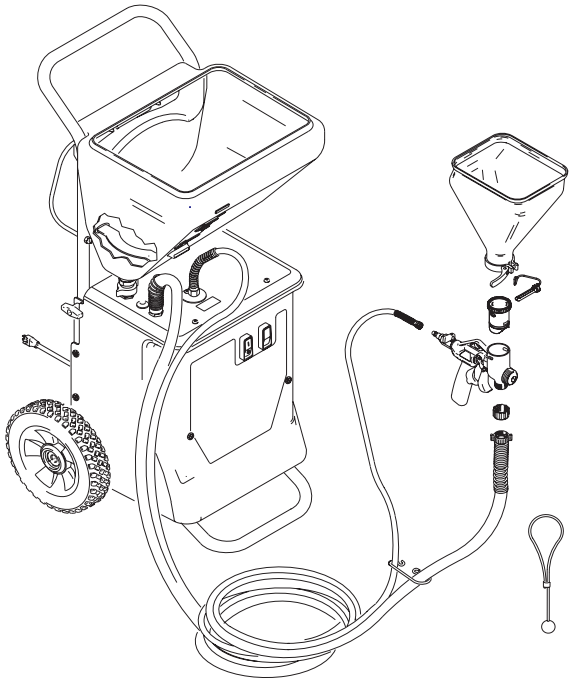
*55 psi (3.8 bar) Maximum Fluid Working Pressure*

**Read warnings and instructions.**

### Related Manuals

309584

309797



PROVEN QUALITY. LEADING TECHNOLOGY.

**Graco Inc. P.O. Box 1441 Minneapolis, MN 55440-1441**


US ETL LISTED C
Conforms to ANSI/UL standard 1450

## WARNINGS

### Fire and Explosion Hazard

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

- The system is for use with water-based materials only. Only use fluids compatible with the equipment. Refer to Technical Data of all equipment manuals. Read fluid and solvent manufacturers warnings.
- Ground the equipment. See **Grounding and Electrical Requirements**, page 5.
- If there is any static sparking or you feel an electric shock while using this equipment, stop spraying immediately. Do not use the equipment until you identify and correct the equipment until you identify and correct the problem.
- Keep work area free of debris, including solvent, rags and gasoline.
- Comply with all applicable state and national fire, electrical and safety regulations.

### Equipment Misuse Hazard

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

- Before operating this equipment, read all manuals, tags, and labels including material labels and instructions.
- Do not expose system to rain. Always store system indoors.
- Do not alter or modify equipment.
- Do not spray cementcious materials.
- Do not exceed maximum working pressure of lowest rated component in your system.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- To reduce risk of serious injury, including electric shock and splashing fluid in eyes, follow **Pressure Relief Procedure** on page 5 before servicing the unit.
- Do not use hoses to pull equipment.
- Route hoses away from traffic areas, sharp edges, moving parts and hot surfaces.
- Do not expose Graco hoses to temperatures above 130°F (55°C) or below -35°F (-37°C).Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Never directly inhale compressed air. Compressed air may contain toxic vapors.

## WARNINGS

### Electric Shock Hazard

To reduce the risk of electric shock:

- Be sure sprayer is adequately grounded through electrical outlet.
- Use only 3-wire, extension cords.
- Make sure ground prongs are intact on sprayer and extension cords. Improper installation of grounding plug will result in a risk of electrical shock, fire or explosion that could cause serious injury or death.
- Do not operate with cover removed.
- Turn off sprayer. Follow **Pressure Relief Procedure, page 5,** and unplug unit, before removing any parts.
-

### Pressurized Equipment Hazard

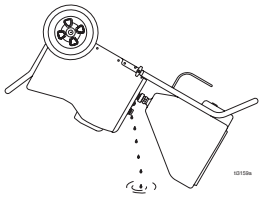
Fluid from gun, leaks or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow **Pressure Relief Procedure, page 5** when you stop spraying and before cleaning, checking or servicing.
- Do not point spray gun at anyone; put hand, fingers or rag over nozzle, or stop or deflect leaks with your hand, body, glove, or rag.
- Wear protective clothing, gloves, and eyewear.

### Cleaning Solvent Hazard with Plastic Parts

Use only compatible water-based solvents to clean plastic structural or pressure-containing parts. Many solvents can degrade plastic parts to the point where they could fail. Such failure could cause serious injury or property damage. See Technical Data on page 15 of this instruction manual and in all other equipment manuals. Read fluid and solvent manufacturer's warnings.

### CAUTION



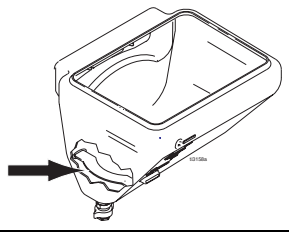
•Water or material remaining in unit when temperatures are below freezing can damage motor and/or delay pump startup. Do not allow unit to freeze.

To insure water and material are completely drained out of unit:

1. Remove material line from sprayer.

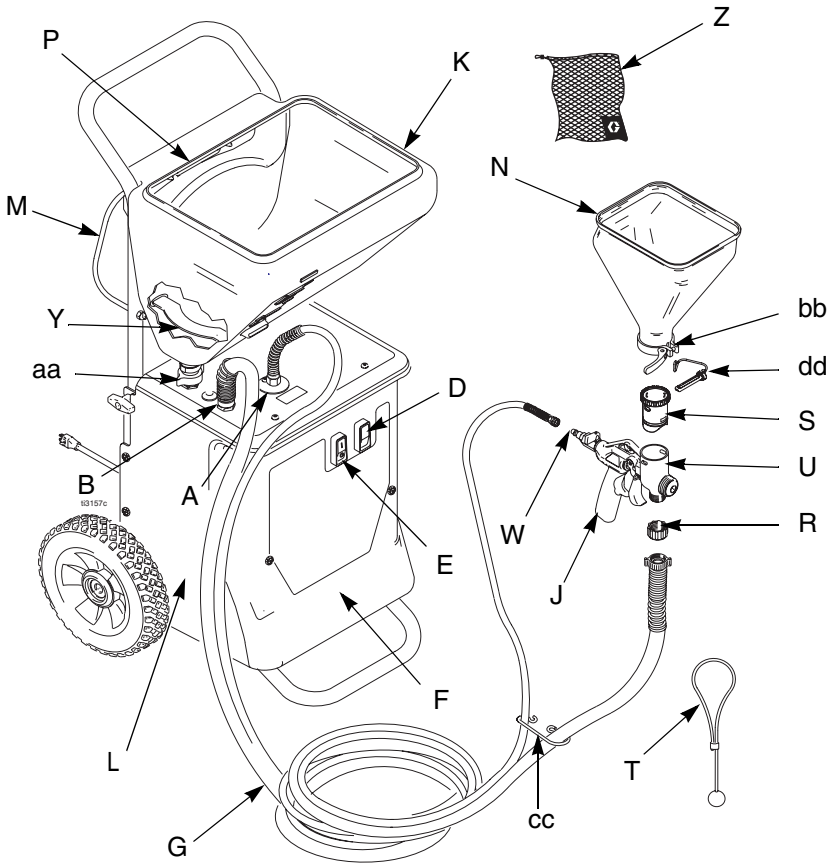
2. Tip sprayer up as shown.

•Before adding material or starting unit in cold weather, run warm water through pump.



Before adding material to hopper, install burp guard. When only a small amount of material remains in the hopper, the burp guard prevents material from shooting out when the unit is turned off. This material could splash in the operator's eyes or on skin, or into the air.

# Component Identification




| Item | Component | Item | Component |
|---|---|---|---|
| A | Air hose outlet | R | Hose plug |
| B | Material hose outlet | S | Gun plug |
| D | Hopper gun/spray gun selector switch | T | Material thickness gauge |
| E | ON/OFF switch | U | Nozzle (Nozzle Selection, page 10) |
| F | Air Compressor (inside) | W | Gun air valve |
| G | Material/air hose | Y | Burp guard |
| J | Texture spray gun (manual 309584) | Z | Mesh nozzle holding bag |
| K | Material Hopper | aa | Hopper fitting (fluid inlet) |
| L | Graco RotoFlex™ pump (inside) | bb | Hopper clamp |
| M | Hose rack/cord wrap | cc | Hose clip |
| N | Touch-up hopper (3/4 gallon) | dd | Gun plug clip |
| P | Nozzle storage | | |

# Preparation

## Pressure Relief Procedure

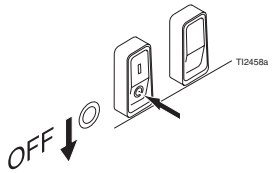

To reduce risk of injury, follow this procedure whenever you see this symbol throughout this manual, Also, perform this procedure whenever you:

- stop spraying.
- check or repair any part of this system.
- install or clean spray nozzle.

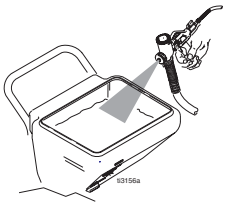
**WARNING**

page 2 and 3

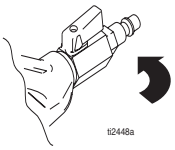
1. Turn Power Switch OFF.




2. Trigger gun into material hopper.




3. Open gun air valve.




## Grounding and Electrical Requirements

This sprayer must be grounded. Grounding reduces the risk of electrical shock by providing an escape wire for the electrical current. The sprayer cord includes 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.

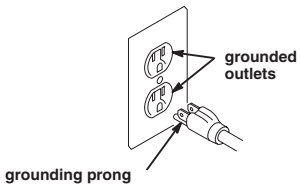
Check with a qualified electrician or serviceman if grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded. Do not modify plug provided; if it will not fit the outlet, have proper outlet installed by a qualified electrician.

**WARNING**

page 2 and 3

### 120V AC Systems

- This equipment requires a 120V AC, 60 Hz, 15A circuit with a grounding receptacle. Do not use an adapter with this product.




### Extension Cords

- Use only an extension cord with an undamaged, 3-prong plug.
- For 25 to 50 ft (7.6 to 15.2 m) cords, use 3-wire, 14 AWG (1.5 $mm^2$) minimum.
- For up to 100 ft. (30.48 m) cord, use 3-wire, 12 AWG (2.5 $mm^2$) minimum.

## Auxiliary Air Compressor

Do not use an auxiliary air compressor with this spray system.

## Generator Requirements

3500 W (3.5 KW) minimum.

## Hose Size and Length

The system comes with a hose set consisting of a 3/4 in. ID x 25 ft (25 mm x 7.6 m) material hose and a 3/8 in-ID air hose.

Do not use more than 25 ft. (7.6 m) of material hose.

**CAUTION**

Air hose fittings can get hot! Allow sprayer to cool down 15 minutes before removing air hose.

# Setup

**Important**

- If you are going to stop spraying for more than 5 minutes, turn sprayer off to prevent shortened pump hose life.
- Do not allow material to dry inside pump, hoses, gun or spray system.

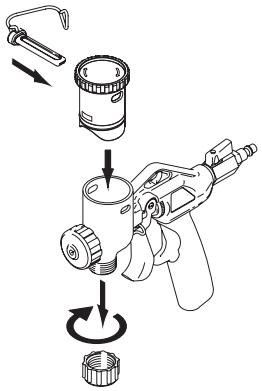
**WARNING**

page 2 and 3

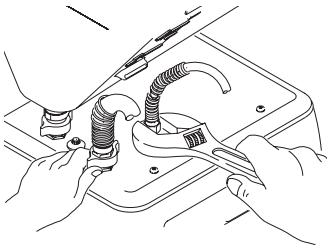
## Texture Spraying

### Material Hopper

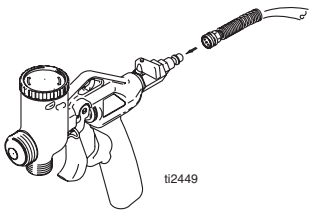
- When using material hopper, insert Gun Plug in top of gun. Make sure both plug tabs are securely snapped into place. Hose Plug must be removed from bottom of gun.



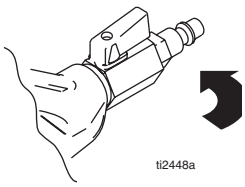
1. Connect air hose and material hose to sprayer air and material hose outlets.



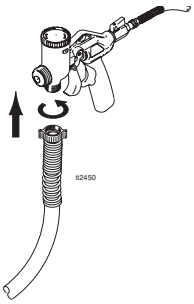
2. Connect air hose to gun.



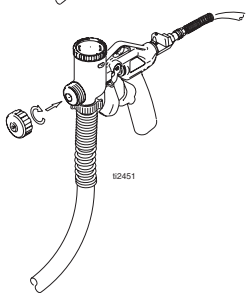

3. Open air valve.



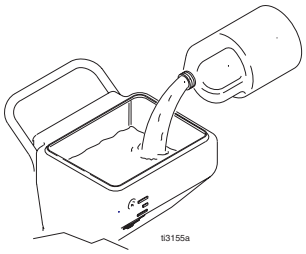

4. Connect material hose to gun.



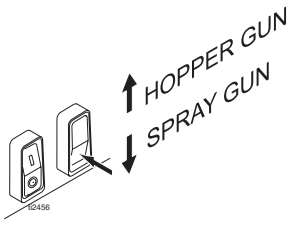

5. Install spray nozzle. See Recommended Nozzle Selection Chart, Page 10.



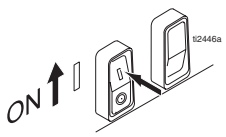

6. Fill material hopper with 1 gallon of water.



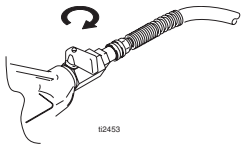

7. Turn hopper gun/spray gun selector switch to SPRAY GUN.



8. Turn power switch ON.

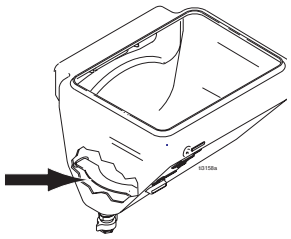



9. Close gun air valve.




10. Point gun into waste bucket and pull trigger to pump water through the system. Continue to trigger gun until material hopper is empty.

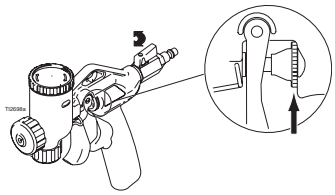
11. Install burp guard. Caution, page 3.



12. Add pre-mixed texture mix to material hopper. See Mixing Material, page 9.

13. Continue to trigger gun and spray into waste bucket until a steady stream of material sprays out of gun.

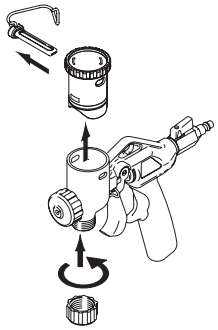
14. Release trigger. To achieve uniform spray pattern, adjust air valve and flow adjustment nut on gun. If you do not achieve the desired pattern, change nozzles, page 10.



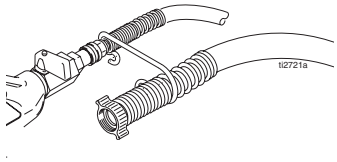
- Fluid flow will be restricted if the material hose is kinked.

## Touch Up Hopper Attachment

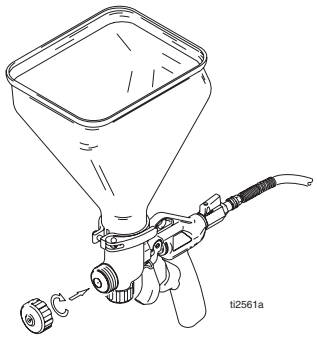
- The Hose Plug must be securely fastened to bottom of gun when using the Touch Up Hopper. Gun Plug must be removed from top of gun.



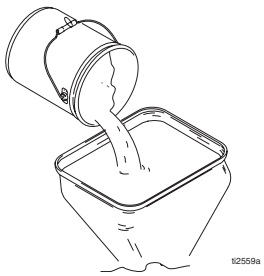
1. Connect air hose to sprayer.
2. Connect air hose to gun.
3. Clip material hose to air hose.



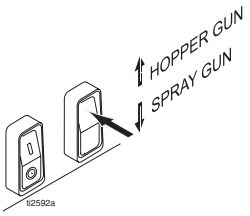

4. Slide hopper on top of gun, and tighten clamp.
5. Install spray nozzle. Page 10.




6. Fill Touch-up hopper with pre-mixed texture. See Mixing Material, page 9.

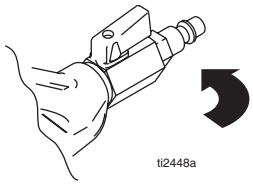


7. Turn hopper gun/spray gun selector switch to HOPPER GUN.

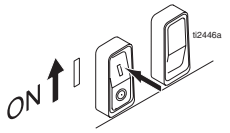



| CAUTION |
| --- |
| Failure to change selector switch to Hopper Gun when using hopper gun will damage pump hose. |

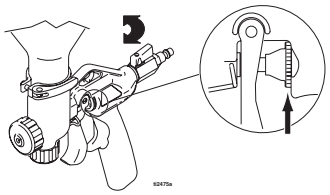
8. Open gun air valve.




9. Turn power switch ON.




10. To achieve uniform spray pattern, adjust air valve and flow adjustment nut on gun. If you do not achieve the desired spray pattern, change nozzles, page 10.



# Mixing Material

Correct material mixture is essential. The pump will not operate if the mixture is too thick.

Mix the material in a separate container before pouring it into hopper.

Use Material Thickness Gauge to determine mixture is thin enough to spray.

*The Material Thickness Gauge will only determine if the material is thin enough to pass through the pump. For some applications or for higher speed spraying, your mixture may need to be thinner.

**Dry Mix - 40 lb (18 kg) bag.**

For best results do not use partial bags of material.

1. Slowly add one 40 lb (18 kg) bag of texture material to 5-6 gallons (18.9-22.7 liters) of clean water as instructed on the bag instructions.

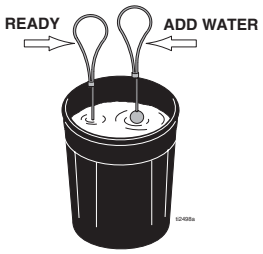

2. Agitate to mix, using a half-inch, variable speed drill with mixing paddle, to a smooth, lump-free consistency.

3. Allow ceiling texture to set for at least 15 minutes. Then remix prior to use.

4. After texture material is thoroughly mixed, gently set ball end of Material Thickness Gauge on surface of mixture.

For an accurate test, be sure gauge is completely dry and clean every time it is used.

5. Observe the ball on the material. When the material is thin enough to spray the ball will sink completely into the mixture.




6. If the ball does not sink completely into the mixture within 10 seconds, add more water, agitate and try test again.

**Premix**

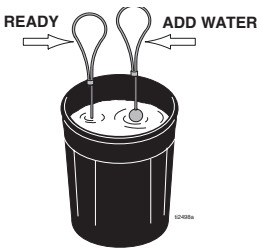
1. Slowly add approximately 2 to 4 quarts (1.9 to 3.8 liters) of water to a 5 gallon (18.9 liter) bucket of premix.


2. Agitate to mix, using a half-inch, variable speed drill with a mixing paddle, to a smooth, lump-free consistency.

3. After texture material is thoroughly mixed, gently set ball end of Material Thickness Gauge on surface of mixture.

For an accurate test, be sure gauge is completely dry and clean every time it is used.

4. Observe the ball in material. When the material is thin enough to spray the ball will sink completely into the mixture.




5. If the ball does not sink completely into the mixture within 10 seconds, add more water, agitate and try test again.

# Spray Techniques

## Recommended Nozzle Selection Chart

| Application | Nozzle Size[2] | Air Volume[1] |
|---|---|---|
| Simulated Acoustic | 6 mm, white *(fine to medium)*<br>8 mm, gray *(coarse)* | medium to high |
| Orange peel | 4 mm, beige<br>6 mm, white | medium to high |
| Splatter coat | 6 mm, white<br>8 mm, gray | low to medium |
| Knockdown | 8 mm, gray<br>12 mm, black | low |

[1]Control air volume with gun air valve.

[2]For more material volume try a larger nozzle.

## Adjusting the System

Sufficient fluid output (volume and pressure) and good atomization is a balance of atomozing air, material thickness/material flow and nozzle selection. Achieving the correct balance for your application requires experimentation to achieve desired results. Keep in mind these important points when adjusting gun:

- Select proper nozzle for your application. See Nozzle Selection Chart. Remember, the larger the nozzle, the heavier the pattern.
- Start sprayer with gun air flow valve completely open. If needed, slowly close gun air flow until you get a good spray pattern. Use minimum amount of air at spray gun to achieve proper spray pattern and to minimize bounce back.

  + Test spray pattern on cardboard. Hold gun 18 to 24 in. (45.7 to 60.9 cm) from surface. Use this spraying distance for most applications.

- Air and material flow adjustments are made at the gun on all units.

  + Opening air valve increases air flow through gun, which decreases texture material flow through pump.

  + Closing air valve decreases air flow through gun, which increases texture material flow through pump.

## To Get Less Material

Try one or a combination of these methods:

- Open air valve.
- Turn gun flow adjustment nut to decrease flow, counter-clockwise.
- Use smaller nozzle.

## To Get More Material

Try any one or a combination of these methods:

- Close air valve.
- Turn gun flow adjustment nut to increase flow, clockwise.
- Use thinner material mixture.
- Use a larger nozzle.

## Preventing Material Surge at Gun Trigger

Pressure will build up in the system when you stop triggering the gun. To prevent material surge at initial gun triggering:

- Point gun away from surface you are spraying when you first pull trigger.
- When you first start to spray, hold the gun away from the surface and gradually work your way closer to it.
- Keep gun moving.
- After you begin spraying, trigger the gun as little as possible.

## For Continuous Spraying

Use trigger lock to hold trigger open and reduce fatigue.

## Check Material Consistency Periodically

Check and thin material as needed to maintain proper consistency. The material may thicken as it sits and slow down production. Agitate periodically.

# Shutdown and Cleanup

Keep pump and hose clean when switching between simulated acoustic, knockdown and orange peel applications. A dirty pump can release particles of texture into the finish.

| CAUTION |
| --- |
| • Turn off sprayer if you are going to stop spraying for 5 minutes or longer. |
| • Before removing material hose be sure pressure is relieved and material is not in hose. |
| • To keep unit in good operating condition, always clean it thoroughly and prepare it properly for storage. |

**WARNING**

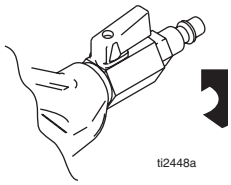
page 2, 5.

## Texture Spraying

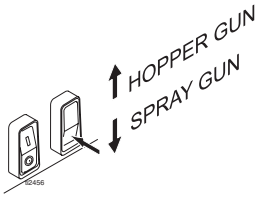
### Material Hopper

When you have finished spraying:

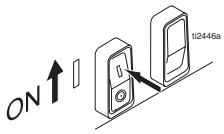
1. Open gun air valve.



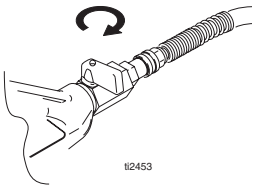

2. Turn hopper gun/spray gun selection switch to SPRAY GUN.



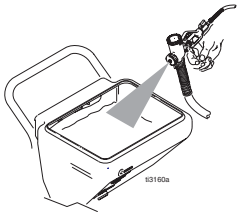

3. Turn power switch ON.




4. Close gun air valve.




5. Trigger gun into bucket until most of texture mix is pumped out.
6. Fill material hopper with 2-4 gallons of clean water.
7. Spray inside material hopper to circulate water through gun and hose. While circulating water, use gun to clean material hopper.




8. Partially open gun air valve to use air to achieve better cleaning results.
9. Spray water into a waste bucket to empty material hopper.

A soft brush can be used to loosen dried on material.

10. Turn power switch OFF.
11. Open gun air valve. **Relieve Pressure**, page 5.

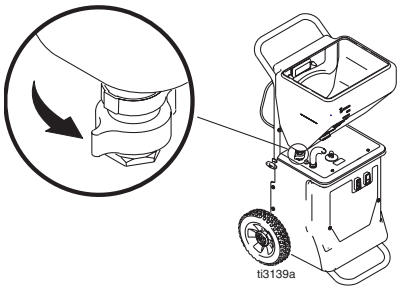
**CAUTION**

If water freezes in unit damage may occur. In cold weather store system where it will not freeze.

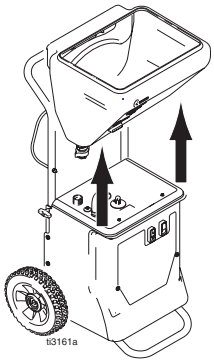
**Removing Material Hopper from Sprayer**

The material hopper can be removed for cleaning. To remove material hopper:

1. Loosen bottom fitting.



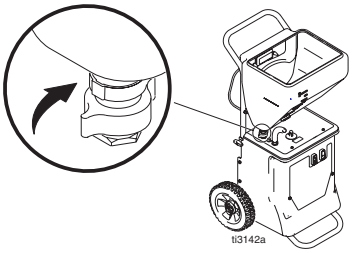

2. Lift material hopper straight up, off unit.




3. Plug opening on bottom of material hopper with your hand.
4. Take hopper to cleaning area.

To reassemble:

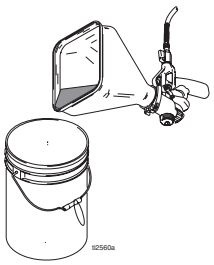
1. Place material hopper on sprayer, aligning fitting to sprayer.
2. Hand tighten fitting.




## Touch-up Hopper Attachment

When you have finished spraying

1. Shut off compressor. Disconnect air line from gun.
2. Drain material into a bucket until most of the texture material is out of hopper.




3. Fill hopper with clean water. Remove nozzle from gun and allow water to flow through and out of gun.


4. Flush until gun is clean
5. Turn power switch ON.
6. Open gun air valve.
7. Trigger gun to blow air through tip, clearing out any remaining material.
8. Remove hopper from gun and finish cleaning all components. A soft brush may be used to help loosen any dried on material from surface.

Be sure to keep air passages in needle clean and free of material.

To improve working condition for future use, after cleaning, apply a few drops of light oil to:

- air hose quick disconnect
- material hose connections
- flow adjustment on gun

## Transporting the Sprayer

The handle and hopper can be removed from the sprayer for storage or transporting.

To remove hopper from sprayer, follow the procedure described on page 12.

To remove the handle:

1. Loosen the two (2) wing-nut screws on either side of the handle.
2. Squeeze the handle together.
3. Remove.

# Troubleshooting


**Pressure Relief, page 5**

| Problem | Cause | Solution |
|---|---|---|
| Sprayer won't run | Power switch not on | Turn switch on. |
| | No power at wall outlet | Check outlet by plugging in another appliance. If appliance does not work, try another outlet. |
| | Wrong size generator | Use a 3500 watt or larger generator. Refer to Generator Requirements, page 5 |
| | Too many items on same circuit | Unplug other items from circuit |
| | Extension cord too long or wrong gauge | Use a different extension cord. Refer to Grounding and Electric Requirements, page 5 |
| | Breaker tripped | Reset breaker |
| Pump won't pump material | Air lock | Open air valve on gun |
| | Selector switch in wrong position | Move selector switch to correct position for application |
| | Mix too thick | Add water to thin material. Use Material Thickness Gauge. |
| | Loose fittings | Check and retighten all fittings |
| | Plugged gun | **Relieve Pressure,** page 5. Remove gun from hose. Clean gun. |
| | Pump hose worn out | Replace hose. Recommended hose replacement - every 2000-2500 gallons. |
| | Pump cold | Move pump to warm room and allow it to warm up or run hot water through sprayer. |
| Material runs out of bottom of sprayer | Pump hose worn out | Replace hose |
| | Loose fittings | Check and retighten all fittings |
| No air from compressor | Gun air valve closed | Open gun air valve |
| | Low voltage | Check extension cord length and gauge. Replace if different than recommended. Refer to Grounding and Electrical Requirements, page 5. |
| | Gun needle plugged | Clean needle and retry. |
| | Worn compressor | Replace compressor. Contact a qualified Graco Service Center. |
| | Lines not connected | Check all quick disconnect connections to gun and hoses |
| | Damaged hose | Replace hose |

| Problem | Cause | Solution |
|---|---|---|
| Speed of application slow or slower | Material too thick | Thin material. |
| | Nozzle too small | Change nozzles to a larger size. See Recommended Nozzle Selection Chart, page 10. |
| | Too much air being used. | Partially close gun air valve to reduce air flow. |
| | Pump hose worn | Replace hose. |
| | Plugged or dirty gun | **Relieve Pressure**, page 5. Clean gun. |
| | Kinked hose | Unkink hose. |
| | Gun adjustment set too low | Increase flow adjustment with flow adjustment nut. |
| Intermittent flow/sputtering | Hopper connection not tight | Check gasket. TIghten connection. |
| | Debris in system | Clean |
| Quick disconnect does not stay connected. | Dirty or corroded fitting | Clean thoroughly. Soak in oil. Apply a few drops of light oil. |
| Gun will not shut off | Worn nozzle or needle. | **Relieve Pressure**, page 5. Replace worn parts. |
| | Debris in needle passage | **Relieve Pressure**, page 5. Clean. |
| Fluid leaking at Flow Adjustment Nut | Damaged seal. | **Relieve Pressure**, page 5. Replace seal. |
| Fluid leaking out of either plug | Missing or damaged o-rings | **Relieve Pressure**, page 5. Replace o-rings. |
| | Gun damaged | Replace gun |
| Needle adjustment won't adjust | Dirty threads | Clean threads |
| | Nozzle not on gun | Put nozzle on gun |

# Technical Data

| | |
|---|---|
| Main unit power requirements | 120 Vac, 60 Hz, 15A, 1 phase |
| Maximum fluid working pressure | 55 psi, (3.8 bar) |
| Maximum air working pressure | 38 psi (2.6 bar) |
| Compressor specifications | Universal motor thermally protected, oil-less |
| Compressor air displacement | 4.5 displacement scfm at 30 psi |
| Generator required | 3500 W minimum |
| Electric Motor | |
| Material motor | Capacitor start AC 2.8A/1/3 hp AC, open frame |
| Compressor motor | Universal AC 10.5A |
| Power Cord | 14 AWG, 3-wire, 25 ft (model 249175, 249176)<br>16 AWG. 3-wire, 25 ft (model 246185, 246186) |
| Material hopper capacity | Sprayer Material Hopper: 6 gallons<br>Gun material hopper: 3/4 gallon |
| Maximum delivery with texture | 0.75 gpm (2.81 lpm) |
| Dimensions: | |
| Length | 23 in. (584 mm) with handle |
| Width | 23 in. (584 mm) |
| Height | 49 in. (991 mm) |
| Weight | 75 lb (34 kg) |
| Wetted parts | brass, aluminum, plastic |
| Sound data | |
| Sound pressure level* | 83.2 dB(A) |
| Sound power level** | 97.5 dB(A) |
| Storage Temperature Range | 35°F - 130°F (1.6°C - 55°C) |
| Operating Temperature Range | 40°F - 115°F (4°C - 46°C) |
| Gun: | |
| Maximum Working Pressure | 60 psi (4.137 bar) |
| Air Maximum Working Pressure | 100 psi (6.895 bar) |
| CFM Rating | 3.5 - 11 CFM |
| Weight | 1.1 lb (500 g) |

*Measured while spraying at 1 m.
**Measured per ISO-3744

# Limited Warranty

Graco warrants to the original purchased (other than for purposes of resale or rental) all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship if operated in accordance with Graco's printed recommendations and instructions. This warranty applies for one year from the date of purchase.

This warranty does not cover and Graco shall not be liable for general wear and tear, or any malfunction, damage, or wear caused by improper use, accidents, user negligence, use of non-Graco component parts or service or repair performed by anyone other than a Graco authorized service center.

IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.

GRACO SHALL NOT IN ANY EVENT BE LIABLE FOR INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE OR EXPENSE OF ANY KIND, WHETHER FROM BREACH OF THIS WARRANTY OR ANY OTHER REASON. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

To make a claim under this warranty, return the product with proof of purchase, transportation prepaid, to any Authorized Graco Service Center. Graco's Authorized Service Center, at its option, will either repair or replace the product and return it to you, postage, prepaid. To find the nearest Graco Authorized Service Center call 1-888-541-9788 or visit our website at www.Graco.com

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

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**International Offices:** Belgium, Korea, China, Japan
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