

# 15:1 Ratio Fire-Ball<sup>®</sup> Undercoater Pumps

307879S  
EN

Portable stationary units for filled undercoating materials. For professional use only.

## Model 222077

35 lb. portable dispense kit and cover

## Model 226342

120 lb. rollaround dispense kit and cover

## Model 226269

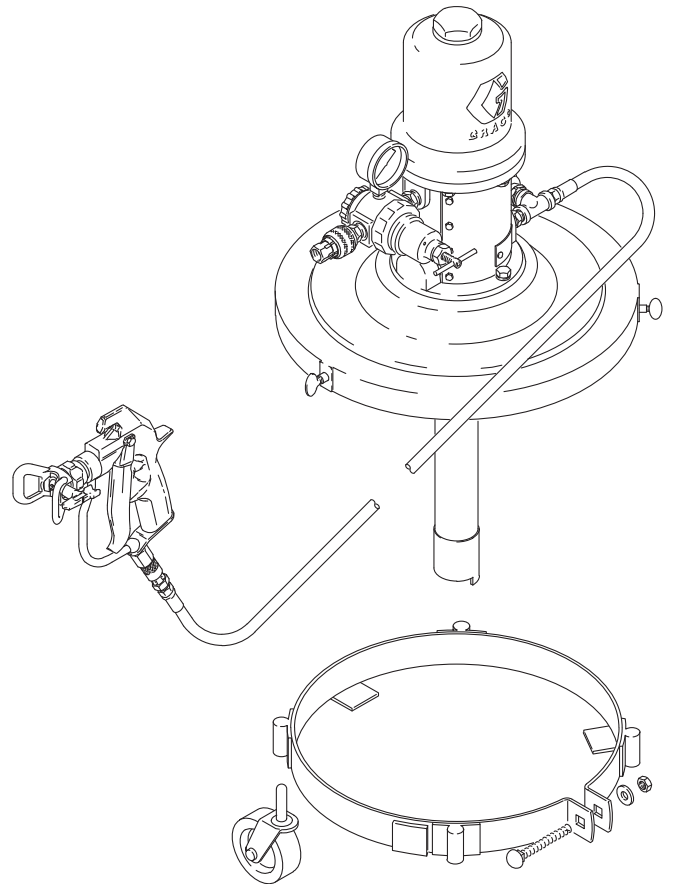
400 lb. stationary dispense kit and cover

2250 psi (15.5 MPa, 155 bar) Maximum Working Pressure  
180 psi (1.2 MPa, 12 bar) Maximum Incoming Air Pressure



### Important Safety Instructions




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



These systems are designed to be used only in pumping petroleum-based undercoating materials. Any other use of the system can cause unsafe operating conditions and result in component rupture, fire, or explosion which can cause serious bodily injury, including fluid injection.





# 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.

|  <span style="font-size: 2em; font-weight: bold; margin-left: 10px;">WARNING</span> |   |
|--|---|
|   | <p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources, such as cigarettes and portable electric lamps.</li> <li>• Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.</li> <li>• Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area.</li> <li>• Use only grounded hoses.</li> <li>• <b>Stop operation immediately</b> if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul> |
|   | <p><b>SKIN INJECTION HAZARD</b></p> <p>High-pressure fluid from dispensing device, 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. <b>Get immediate surgical treatment.</b></p> <ul style="list-style-type: none"> <li>• Do not point dispensing device at anyone or at any part of the body.</li> <li>• Do not put your hand over the fluid outlet.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Follow the <b>Pressure Relief Procedure</b> when you stop dispensing and before cleaning, checking, or servicing equipment.</li> <li>• Tighten all fluid connections before operating the equipment.</li> <li>• Check hoses and couplings daily. Replace worn or damaged parts immediately.</li> </ul>   |







# WARNING

|   |  |
|---|--|
|   | <p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• 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 from distributor or retailer.</li> <li>• Turn off all equipment and follow the <b>Pressure Relief Procedure</b> when equipment is not in use.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.</li> <li>• Make sure all equipment is rated and approved for the environment in which you are using it.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul> |
|   | <p><b>TOXIC FLUID OR FUMES HAZARD</b></p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> <li>• Read MSDSs to know the specific hazards of the fluids you are using.</li> <li>• Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> </ul>  |
|    | <p><b>PERSONAL PROTECTIVE EQUIPMENT</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• Protective eyewear, and hearing protection.</li> <li>• Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer</li> </ul>  |

# Installation

## Grounding

|  |   |   |   |  |  |  |
|--|---|---|---|--|--|--|
|   |  |  |  |  |  |  |
| <p>The equipment must be grounded to reduce the risk of static sparking and electric shock. Electric or static sparking can cause fumes to ignite or explode. Improper grounding can cause electric shock. Grounding provides an escape wire for the electric current.</p> |   |   |   |  |  |  |

**Pump or sprayer:** If using an electrical 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.

**Fluid hoses:** Use only electrically conductive hoses with a maximum of 500 ft. (150 m) combined hose length to ensure grounding continuity.

**Air compressor or hydraulic power supply:** Follow local code.

**Spray gun :** Obtain grounding through connection to a properly grounded fluid hose and sprayer or pump.

**Supply container:** Follow local code.

**Object being sprayed:** Follow local code.

**All solvent pails used when flushing:** Follow local code. Use only conductive 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 spray gun firmly to the side of a grounded metal pail, then trigger the gun.

**To ground the pump:** Remove the ground screw (Z) and insert through the eye of the ring at the end of the ground wire (Y). Fasten the ground screw back onto the pump and tighten securely. Connect the other end of the ground wire to a true earth ground. See FIG. 1. To order a ground wire and clamp, order Part No. 222011.

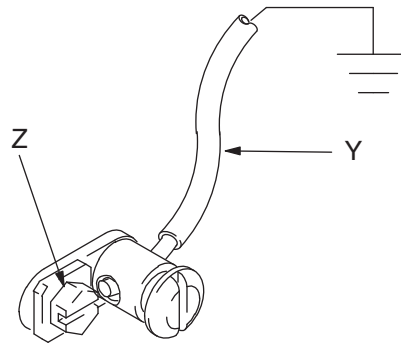


FIG. 1

## Assembling the Unit

- Refer to the appropriate parts drawings on pages 7 - 9 to assemble your unit. Use thread sealant on all male connections, except at swivels.
- **For models 222077 and 226269:** Remove the cover from the supply drum and install the pump and cover. Tighten the cover with thumbscrews
- **For model 226342 only:** Assemble the dolly. Place the opened drum on the dolly. Tighten the nut onto the carriage bolt to secure the drum.

## Typical Installation

This typical installation is only a guide for selecting and installing a system. It is not an actual system design. Contact your Graco distributor for assistance in designing a system to suit your needs.

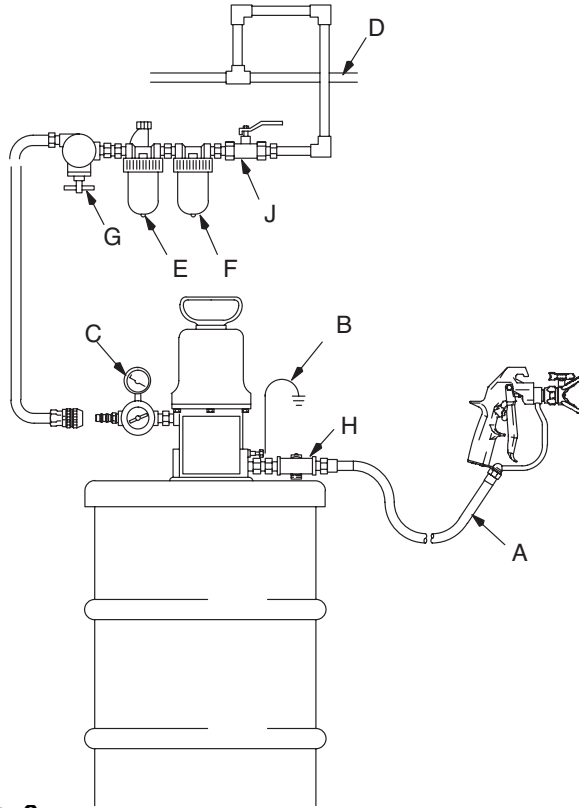


FIG. 2

### Key:

- A Fluid Dispense Line
- B Pump Ground Wire
- C Air Regulator
- D Main Air Supply Line
- E Air Filter
- F Pump Lubricator
- G Pump Runaway Valve
- H Fluid Drain Valve
- J Bleed-type Master Air Valve

## Air Line and Accessories

**NOTE:** Install the air line accessories in the order shown in FIG. 2.

1. Install a pump runaway valve (G) to shut off the air to the pump if the pump accelerates beyond the pre-adjusted setting. A pump that runs too fast can be seriously damaged.
2. Install an air line lubricator (F) for automatic air motor lubrication.
3. Install the air regulator (C) to control pump speed and pressure.
4. On the main air supply line from the compressor, install an air line filter (E) to remove harmful dirt and contaminants from your compressed air supply.

### NOTICE

Do not hand air accessories directly on the air inlet. The fittings are not strong enough to support accessories and may cause one or more to break. Provide a bracket on which to mount accessories.

# Operation

## Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.



This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

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

**NOTE:** If you suspect 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 and clear the tip or hose.

## Start-up: Single or Multiple Pump Systems

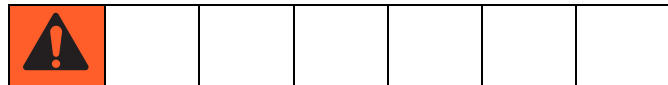


1. Close the air regulators and bleed-type master air valves to all by one pump.

2. Open the master air valve from the compressor.
3. For the pump that is connected, trigger the dispense valve into a grounded metal waste container, making metal-to-metal contact between the container and valve. Open the bleed-type master air valve and open the pump air regulator slowly, just until the pump is running. When the pump is primed and all the air has been pushed out of the lines, release the trigger.
4. If you have more than one pump, repeat this procedure for each pump.

**NOTE:** When the pump is primed, and with sufficient air supplied, the pump starts when the dispensing valve is opened and shuts off when it is closed.

5. Set air pressure to each pump at the lowest pressure needed to get the desired results.
6. Set the air pressure to each pump at the lowest pressured needed to get desired results.



The maximum working pressure of each pump in the system may not be the same size. To reduce the risk of over-pressurizing any part of your system, be sure you know the maximum working pressure rating of each pump and its connected components. Never exceed the maximum working pressure of the lowest rated component connected to a particular pump.

To determine the fluid output pressure using the air regulator reading, multiply the ratio of the pump by the air pressure shown on the regulator gauge. For example:

- 10:(1) ratio x 100 psi air = 1000 psi fluid output
- 10:(1) ratio x 0.7 MPa air = 7MPa fluid output
- 10:(1) ratio x 7 bar air = 70 bar fluid output

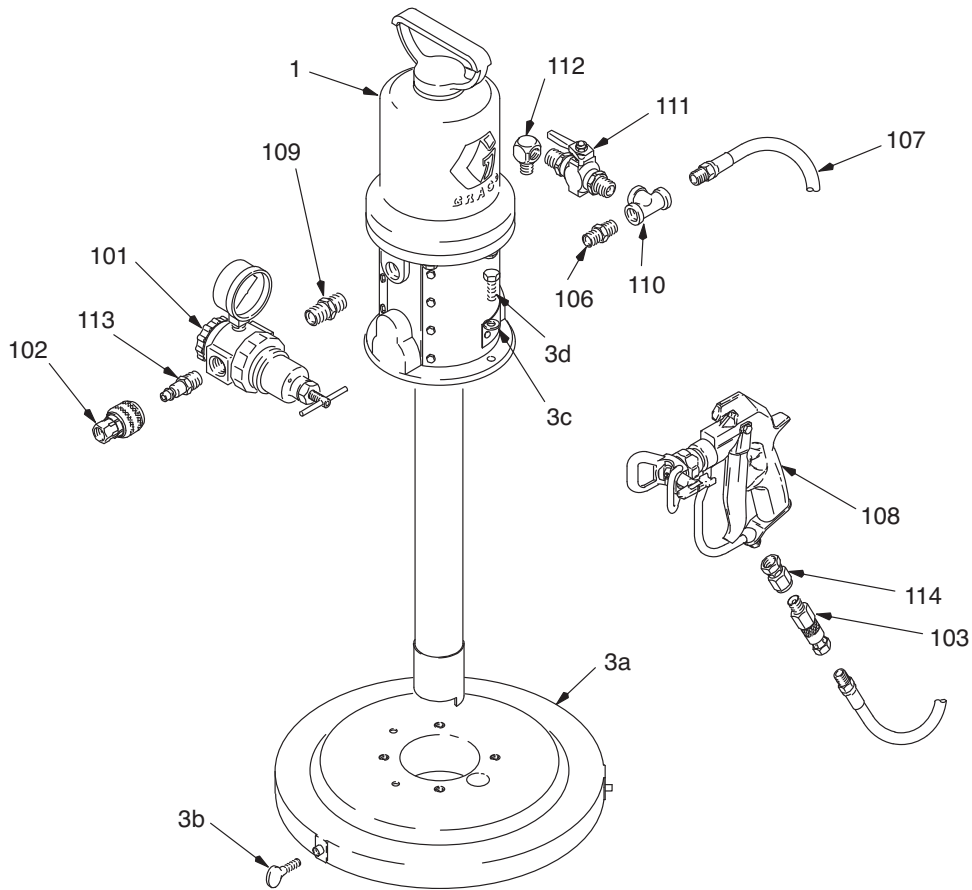
Limit the air to the pump so that no air line or fluid line component or accessory is over-pressurized.

**NOTICE**  
 Never allow a pump to run dry of fluid being pumped. A dry pump quickly accelerates to a high speed, may get very hot and the pump may be damaged.

**NOTE:** A pump runaway valve can be installed on the air line to automatically shut off the pump if it starts to run too fast. See page 5.

7. Read and follow the instructions supplied with each component.
8. Whenever you shut off the system always follow the Pressure Relief Procedure on page 6.

## Parts



### Model 222077 35 lb. Pail Size Unit

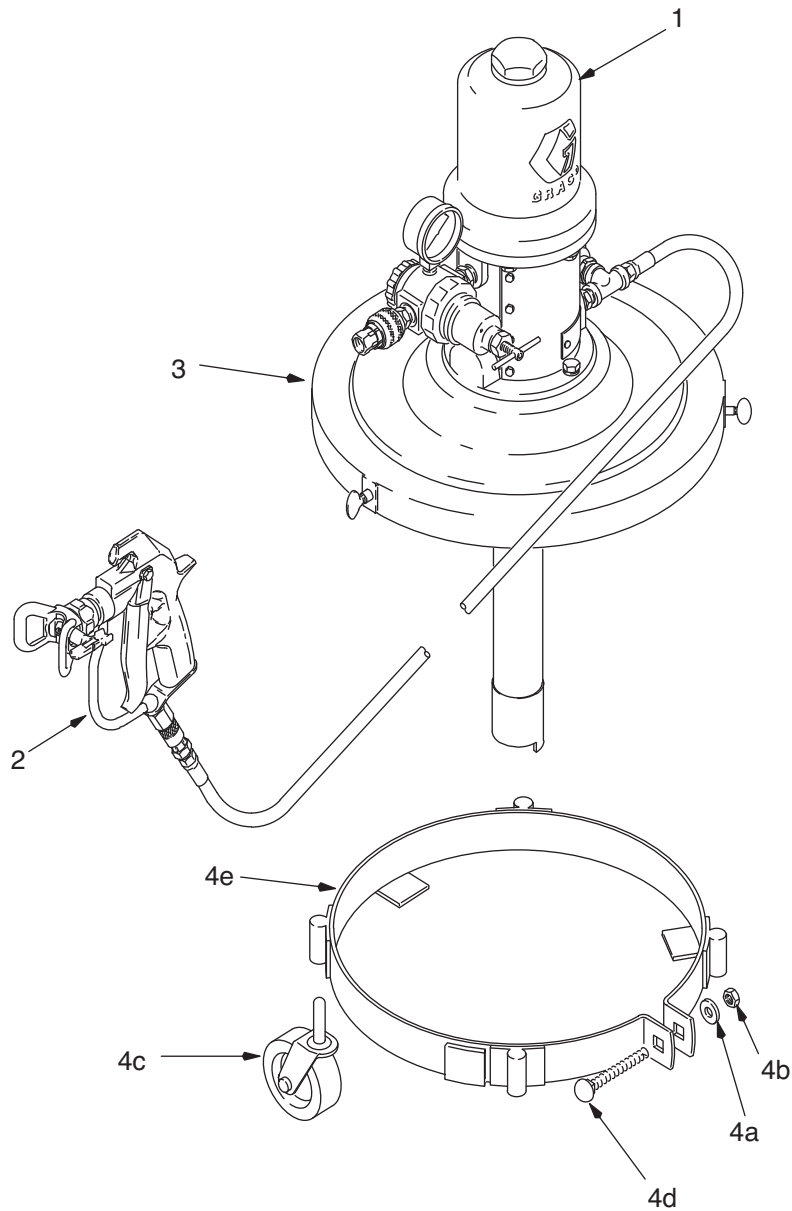
### Dispense Kit 222079

| Ref. | Part   | Description                                      | Qty. |
|------|--------|--|------|
| 1    | 206405 | PUMP, 15:1 Ratio Fire-Ball, See 306531 for parts | 1    |
| 2    | 222079 | DISPENSE KIT                                     | 1    |
| 3    | 222058 | COVER, includes items 3a through 3d              | 1    |
| 3a   | 206522 | COVER, pail                                      | 1    |
| 3b   | 100220 | THUMBSCREW                                       | 3    |
| 3c   | 100916 | LOCKWASHER                                       | 2    |
| 3d   | 100922 | CAPSCREW   | 2    |

| Ref. | Part   | Description                               | Qty. |
|------|--------|---|------|
| 101  | 109075 | AIR REGULATOR, see 308167 for parts       | 1    |
| 102  | 114558 | COUPLER, quick disconnect                 | 1    |
| 103  | 239663 | SWIVEL, see 306861 for parts              | 1    |
| 106  | 156971 | NIPPLE, 1/4 npt                           | 1    |
| 107  | 109165 | HOSE, fluid, cpld                         | 1    |
| 108  | 234237 | SPRAY GUN, see 309092 for parts           | 1    |
| 109  | 156849 | NIPPLE, 3/8 npt                           | 1    |
| 110  | 104984 | TEE, pipe, 1/4 npt                        | 1    |
| 111  | 210657 | BALL VALVE, see 306861 for parts          | 1    |
| 112  | 100940 | ELBOW, street, 1/4 npt                    | 1    |
| 113  | 169971 | FITTING, pin                              | 1    |
| 114  | 155570 | UNION, swivel, 1/4 npsm (f) x 1/4 npt (f) | 1    |

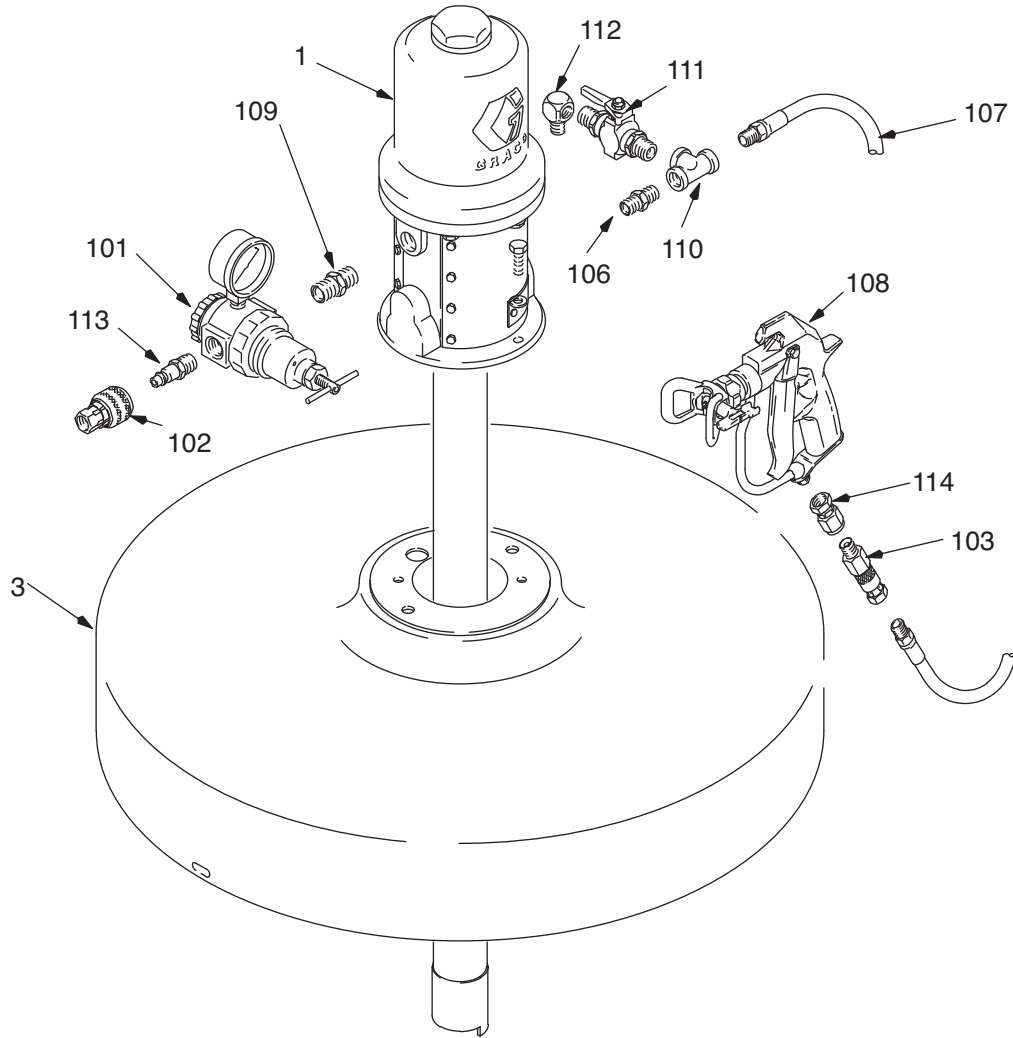
**Model 226342**

120 lb. Drum Size Unit with Dolly



| Ref. | Part   | Description                                | Qty. |
|------|--------|--|------|
| 1    | 206699 | PUMP, 15:1 Fire-Ball, See 306531 for parts | 1    |
| 2    | 222079 | DISPENSE KIT, see page 7                   | 1    |
| 3    | 204574 | COVER, see 306345 for parts                | 1    |
| 4    | 204144 | BASE, dolly, includes 4a through 4e        | 1    |
| 4a   | 100023 | WASHER, flat 5/16"                         | 1    |
| 4b   | 100307 | NUT, full hex, 3/8-16                      | 1    |
| 4c   | 101851 | CASTER, wheel, 2 1/2" dia                  | 4    |
| 4d   | 102971 | BOLT, carriage, 3/8-16 x 3"                | 1    |
| 4e   | 205419 | CLAMP, dolly                               | 1    |





**Model 226269**  
400 lb Stationary Drum Size Unit

**Dispense Kit 222082**

| Ref. | Part   | Description                                | Qty. |
|------|--------|--|------|
| 1    | 206700 | PUMP, 15:1 Fire-Ball, See 306531 for parts | 1    |
| 2    | 222082 | DISPENSE KIT, see page                     | 1    |
| 3    | 200326 | COVER, drum                                | 1    |
| 101  | 109075 | AIR REGULATOR, See 308167 for parts        | 1    |
| 102  | 114558 | COUPLER, quick disconnect                  | 1    |
| 103  | 239663 | SWIVEL, see 306861 for parts               | 1    |
| 106  | 156971 | NIPPLE, 1/4 npt                            | 1    |
| 107  | 109167 | HOSE, fluid, cpld                          | 1    |
| 108  | 234237 | SPRAY GUN, See 309092 for parts            | 1    |
| 109  | 156849 | NIPPLE, 3/8 npt                            | 1    |
| 110  | 104984 | TEE, pipe, 1/4 npt                         | 1    |
| 111  | 210657 | BALL VALVE, See 306861 for parts           | 1    |
| 112  | 100840 | ELBOW, street 1/4 npt                      | 1    |
| 113  | 169971 | FITTING, pin                               | 1    |
| 114  | 155570 | UNION, swivel, 1/4 npsm (f) x 1/4 npt (f)  | 1    |

# Graco Standard Warranty

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

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

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

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

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

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

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

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# Graco Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

**TO PLACE AN ORDER**, contact your Graco distributor or call to identify the nearest distributor.

**Phone:** 612-623-6928 or **Toll Free:** 1-800-533-9655, **Fax:** 612-378-3590.

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*For patent information, see [www.graco.com/patents](http://www.graco.com/patents).*

Original instructions. This manual contains English. MM 307879

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