

225 or 300 Pound Fluid Dispense Package

307884V

EN

For dispensing non-corrosive or non-abrasive lubricants only in stationary or mobile installations and mobile units for pumping non-corrosive and non-abrasive lubricants.

Not approved for use in European explosive atmosphere locations.

MODELS*

246903 - 3:1 Fire-Ball® 225 Pump

24M265 - 3:1 Fire-Ball 225 Pump - CE Approved

540 psi (3.7 MPa, 37 bar) Maximum Fluid Working Pressure

225728 - 5:1 Fire-Ball 300 Pump

241053 - 5:1 Fire-Ball 300 Pump - CE Approved

900 psi (6.2 MPa, 62 bar) Maximum Fluid Working Pressure

Includes dispense kit, roll-around base and drum cover

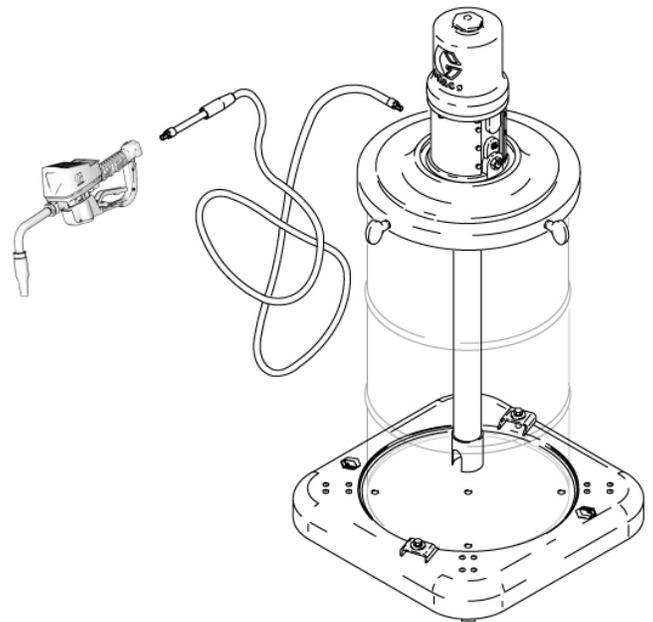
***Technical Data and Wetted Parts information for Fire-Ball Pumps used in these packages is provided in the related pump manual:**

- 309868 - 3:1 Fire-Ball 225 Pump 248097
- 306518 - 5:1 Fire-Ball 300 Pump 203872



Important Safety Instructions

Read all warnings and instructions in this manual and the Fire-Ball Pump manual. Save these instructions.



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, 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.

 <h2 style="margin: 0;">WARNING</h2>	
 	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • 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 from distributor or retailer. • Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the Pressure Relief Procedure when equipment is not in use. • 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.
  	<p>SKIN INJECTION HAZARD</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. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Do not point dispensing device at anyone or at any part of the body. • Do not put your hand over the fluid outlet. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses and couplings daily. Replace worn or damaged parts immediately.
 	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • 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.



WARNING

 	<p>FIRE AND EXPLOSION HAZARD</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"> • Use equipment only in well ventilated area. • Eliminate all ignition sources, such as cigarettes and portable electric lamps. • Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline. • Do not plug or unplug power cords or turn lights on or off when flammable fumes are present. • Ground all equipment in the work area. • Use only grounded hoses. • 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.
	<p>TOXIC FLUID OR FUMES HAZARD</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"> • 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.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear, and hearing protection. • Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Installation

- Reference number and letters in parentheses in the text refer to call outs in the figures and drawings.
- Always use genuine Graco Parts and Accessories, available from your Graco distributor.

To maintain grounding continuity when flushing or relieving pressure: hold metal part of the dispense valve firmly to the side of a grounded metal pail, then trigger the dispense valve.

Grounding

						
<p>The equipment must be grounded. Grounding reduces the risk of static and electric shock by providing an escape wire for the electrical current due to static build up or in the event of a short circuit.</p>						

Pump: use ground wire and clamp as shown in FIG. 1. Remove the ground screw (Z) and insert through the eye of the ring terminal at the end of the ground wire (Y). Fasten the ground screw back onto the pump and tighten securely. To order a ground wire and clamp order part number 222011.

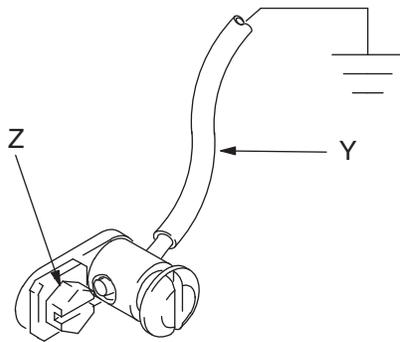


FIG. 1

Air and fluid hoses: use only electrically conductive hoses.

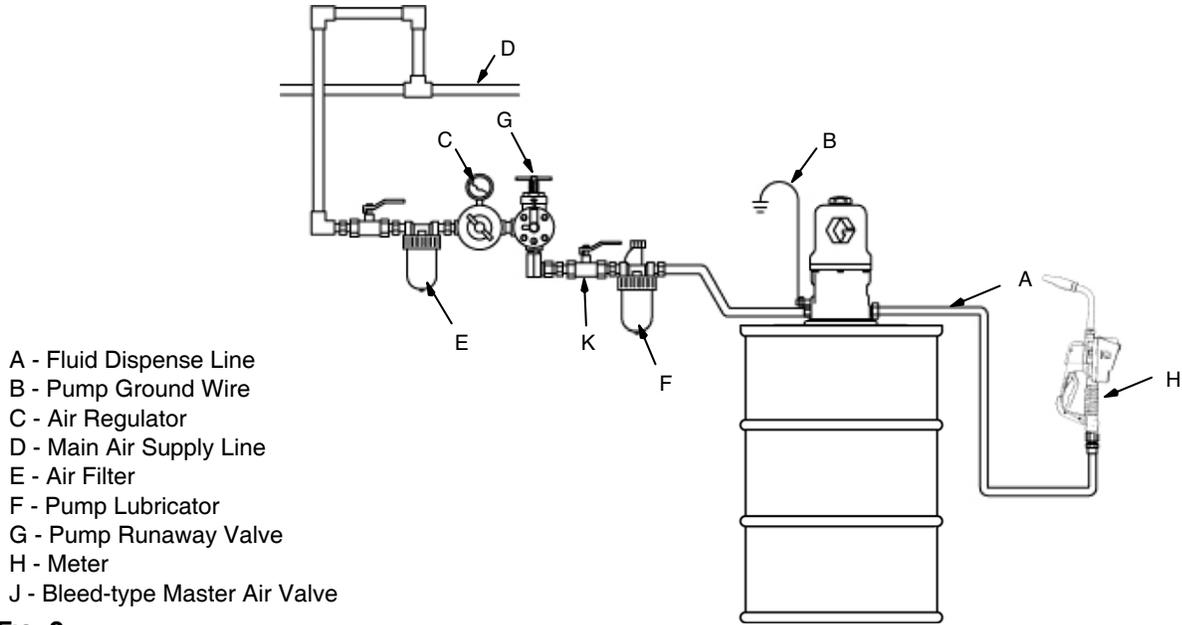
Air compressor: follow manufacturer's recommendations.

Dispense valve: ground through connection to a properly grounded fluid hose and pump.

Solvent pails used when flushing: follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts grounding continuity.

Typical Installation for Stationary Mountings

NOTE: The typical installation shown in FIG. 2 is only an installation guide; it is not an actual system design. Contact your Graco distributor for assistance in designing a system to suit your needs.



- 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 - Meter
- J - Bleed-type Master Air Valve

FIG. 2

See Parts Drawing, page 8

1. Place an open 16-gallon (60 liter) steel drum (J) on the base (3).
2. Secure the drum with hold down clamps (3c) and hex bolts (3c).
3. Place the drum cover (4) on the drum and fasten it with the screws and washers provided. Carefully guide the pump riser tube through the mounting gasket. Refer to the assembled view of Model 225728 on the front cover.

CE Identification Label

(CE Marked Models Only)

To comply with CE directives, the CE identification label must be affixed to the pump near the pump identification label. Follow the label installation instructions included with the Kit. Use a permanent marker to record the installation date in the space provided and circle the part number on the label.

Part No.	Installation Date
24M262, 24M263 24M264, 24M265	
Max Air WPR	Max Fluid WPR
1.1 MPa, 10.5 bar, 150 PSI	3.7 MPa, 37 bar, 540 PSI
 Graco Inc. P.O. Box 1441 Mpls, MN 55440	
	
P/N: 16M835 rev. A	

Part No.	Installation Date
241046, 241047, 241048, 241049, 241050, 241051 241052, 241053	
Max Air WPR	Max Fluid WPR
1.1 MPa, 10.5 bar, 150 PSI	6.2 MPa, 62 bar, 900 PSI
 Graco Inc. P.O. Box 1441 Mpls, MN 55440	
	
P/N: 194228 rev. A	

FIG. 3

Air Line and Accessories

NOTE: Install the air line accessories in the order shown in the Typical Installation.

NOTICE

Do not hang 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.

- Install a bleed-type master air valve (K) upstream from the pump air regulator (C) but within easy reach of the pump.

To order a 300 psi (2.1 MPa, 21 bar) maximum working pressure, 1/2 inch npt bleed-type master air valve, order part No. 107142.

						
<p>A bleed-type master air valve is required in the system to help reduce the risk of serious bodily injury, including fluid injection, splashing in the eyes and injury from moving parts when adjusting or repairing the pump. The valve relieves air trapped between the valve and the pump to prevent the pump from cycling unexpectedly.</p>						

- 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.

To order a pump runaway valve, order Part No. 224040.

- Install an air line lubricator (F) for automatic air motor lubrication.

To order a 250 psi (1.74 MPa, 17.4 bar) maximum working pressure air line lubricator, order a Part No. below:

- 3/8 inch npt - 214847
- 1/2 inch npt - 214848

- Install the air regulator (C) to control pump speed and pressure.

To order a 300 psi (2.1 MPa, 21 bar) maximum working pressure regulator order a Part No. below:

- 3/8 inch npt - 109075
- 1/2 inch npt - 233844

- Install an air line filter (E) to remove harmful dirt and contaminants from your compressed air supply.

To order a 250 psi (1.74 MPa, 17.4 bar) maximum working pressure air filter, order a Part No. below:

- 3/8 inch npt - 106148
- 1/2 inch npt - 214849

Dispense Kit

See FIG. 4, 2a and 2b.

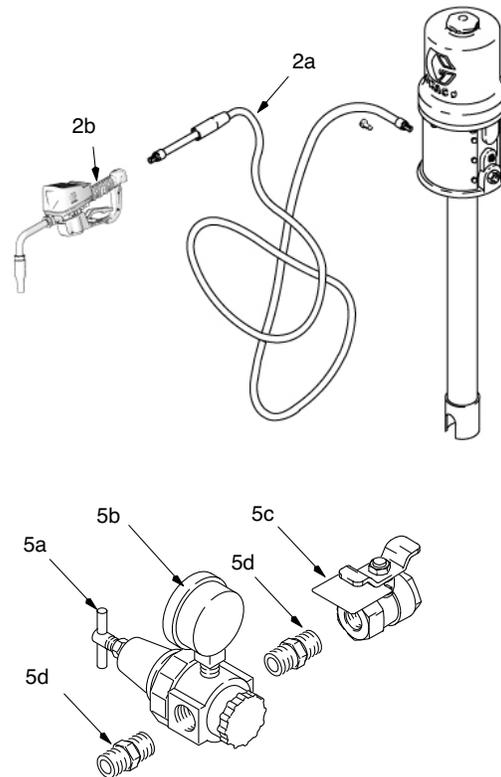


FIG. 4

1. Connect the hose (2a) to the pump outlet.
2. Connect the dispense valve (2b) to the hose (2a).

Air Regulator

Install parts as shown in FIG. 4 (parts 2a-2b and 5a-5d).

- 2a Fluid Hose
- 2b Dispense Valve
- 5a Regulator, Air, 3/8 npt (f) 0-250 psi (0-17.4 bar, 0-1.74 MPa)
- 5b Gauge, Air Pressure
- 5c Valve, Air, Bleed-type, 3/8 npt (f)
- 5d Nipple, 3/8 npt

Operation

Pressure Relief Procedure

						
<p>Trapped air can cause the pump to cycle unexpectedly, which could result in serious injury from injection, splashing or moving parts. Relieve pressure when you stop pumping and before cleaning, checking or servicing equipment.</p>						

1. Close the pump air regulator.
2. Close the pump's bleed-type master air valve (required in your system).
3. Hold a metal part of the dispense valve firmly to a grounded metal waste container and trigger to relieve fluid pressure.

*If you suspect that the dispensing valve is clogged, or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the dispensing valve coupler or hose end coupling to relieve pressure gradually, then loosen completely. Then clear the clog.*

Start-up

1. Open the master air valve from the compressor.
2. Trigger the dispensing valve into a grounded metal waste container making firm metal-to-metal contact between the container and the valve.
3. 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 air has been pushed out of the lines, release the trigger.

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

4. Set the air pressure to each pump at the lowest pressure needed to get the desired results. Use the regulator to adjust pump speed and pressure.

						
<p>The maximum working pressure of each pump in your system may not be the same. 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.</p> <p>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:</p> <p>5:(1) ratio x 100 psi air = 5000 psi fluid output</p> <p>5:(1) ratio x 0.7 MPa air = 35 MPa fluid output</p> <p>5:(1) ratio x 7 bar air = 350 bar fluid output</p> <p>Limit the air to the pump so that no air line or fluid line component or accessory is over-pressurized.</p>						

NOTICE
<p>Never allow the pump to run dry of the fluid being pumped. A dry pump will quickly accelerate to a high speed, possibly damaging itself. If your pump accelerates quickly, or is running too fast, stop it immediately and check the fluid supply. If the supply container is empty and air has been pumped into the lines, prime the pump and lines with fluid, or flush it and leave it filled with a compatible solvent. Be sure to eliminate all air from the fluid system.</p>

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.

5. Read and follow the instructions supplied with each component in your system.
6. To shut off the system, always follow the **Pressure Relief Procedure**.

Parts

Model 246903, 24M265

3:1 Ratio Fire-Ball 225 Portable Gear Lube Pump with Drum Cover

Model 225728, 241053

5:1 Ratio Fire-Ball 300 Portable Gear Lube Pump with Drum Cover

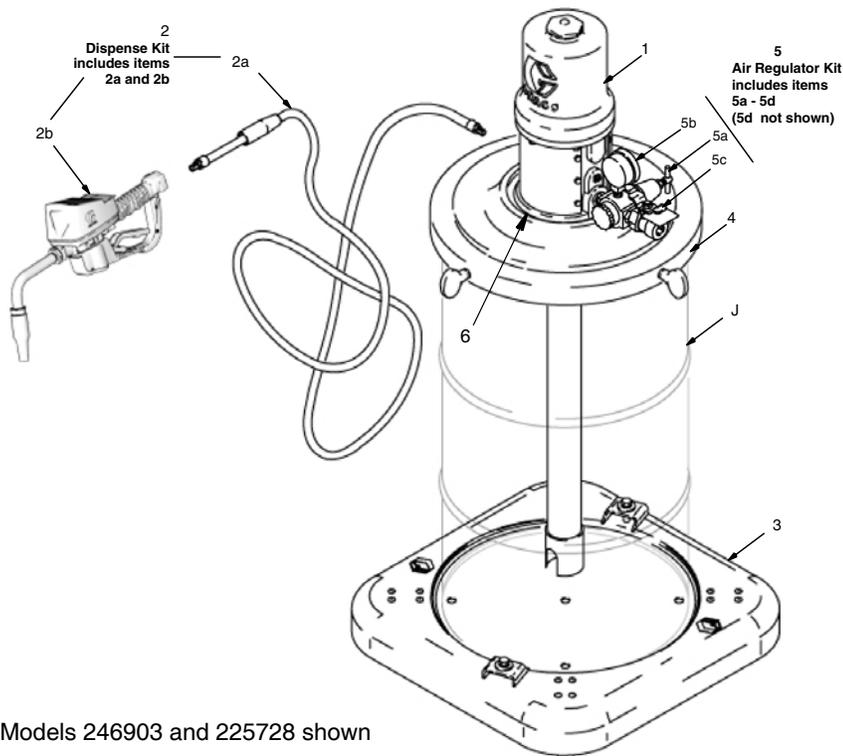
Ref.	Part No.	Description	Qty.
1	248097	PUMP, 3:1 Ratio Fire-Ball; used on models 246903, 24M265 (manual 309868)	1
	203872	PUMP, 5:1 Ratio Fire-Ball; used on models 225728, 241053 (manual 306518)	1
2	237075	KIT, dispense, includes items 2a and 2b (see separate parts list for 237075)	1
3	203622	BASE, portable, see manual 308668 for parts	1
4	204574	COVER, drum, see manual 306345 for parts, models 24M265, 225728	1
	24R350	COVER, drum, see manual 306345 for parts, models 246903, 241053	1
5	224512	KIT, air regulator, see separate parts list below); models 246903, 225728	1
	241169	KIT, air regulator, see separate parts list below); model 241053	1
	24M266	KIT, air regulator, (see separate parts list page 9); models 24M265 and 241053	1
6	176270	SHIM	1

237075, Series B - Dispense Kit

Ref.	Part No.	Description	Qty.
2a	220591	HOSE, fluid; 1/2 inch ID; cpld 1/2 x 1/2 npt (mbe); 72 inch	1
2b	255349	VALVE, dispensing, see manual 312865 for parts	1

224512, Air Regulator Kit - Models 246903 and 225728

Ref.	Part No.	Description	Qty.
5a	110235	REGULATOR, air; 3/8 npt (f); 0-250 psi (0-1.7 MPa, 0-17.4 bar) range; see manual 308167	1
5b	100960	GAUGE, air pressure	1
5c	110224	VALVE, air, bleed-type; 3/8 npt (f); kit 224512	1
	113286	VALVE, safety, 150 psi (1.03MPa, 10.3 bar); kits 241169, 24M266	1
5d	156849	NIPPLE, 3/8 npt	2



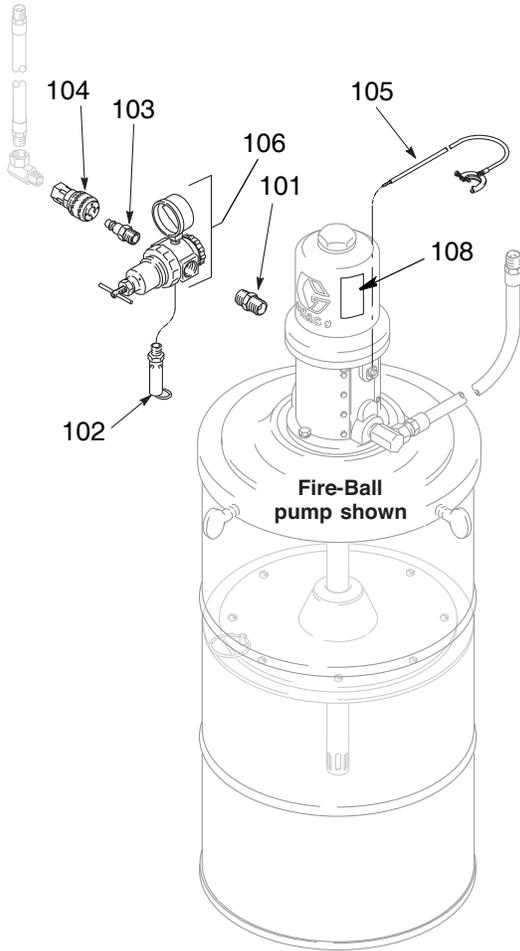
Models 246903 and 225728 shown

CE Installation Kits: 24M266 and 241169

Models: 24M265 241053

See CE Label Installation instructions, page 5.

Ref. No.	Part No.	Description	Qty.
101	156849	NIPPLE, pipe	1
102	113286	VALVE, safety, 150 psi (1.03 MPA, 10.3 bar)	1
103	169971	FITTING, line	1
104	110198	COUPLER, line	1
105	222011	CLAMP	1
106	109075	REGULATOR, air, with gauge	1
108		LABEL, CE	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.

FOR GRACO CANADA CUSTOMERS

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

Graco Information

For the latest information about Graco products, visit www.graco.com.

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

Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

*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.*

Original instructions. This manual contains English. MM 307884
For Patent Information see: www.graco.com/patents

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

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

Copyright 1998, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.

www.graco.com
Revised January 2015