

Fill Valve

333393G

EN

Refill manifold for use with Graco Auto-Fill Shut Off Valve only. For professional use only.

Part Number:

77X542

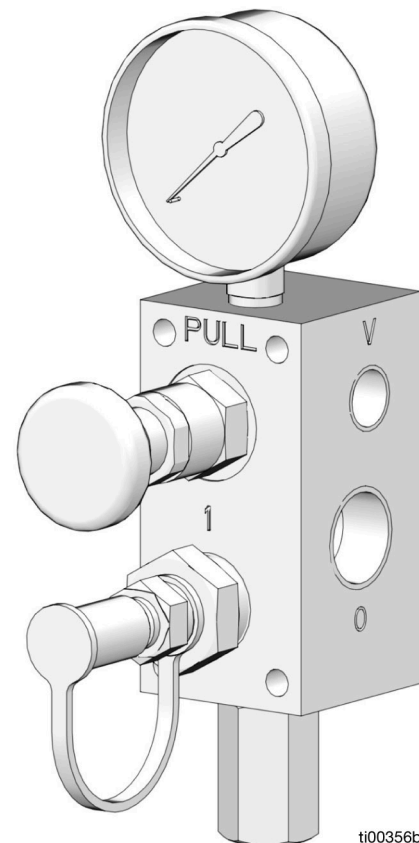
132230

*5000 psi (34.4 MPa, 344.7 bar) Maximum Working Pressure
Part No. 132230: 3000 psi (20.7 MPa, 206.8 bar)*



Important Safety Instructions

Read all warnings and instructions in this manual and in Electric Dyna-Star and Auto-Fill Shut Off Valve Instruction manuals before using the equipment. Save all instructions.



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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



SKIN INJECTION HAZARD

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.**



- 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.



WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.



- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Specifications** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) 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. 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.
- 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.



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. 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.

Installation

Typical Installation

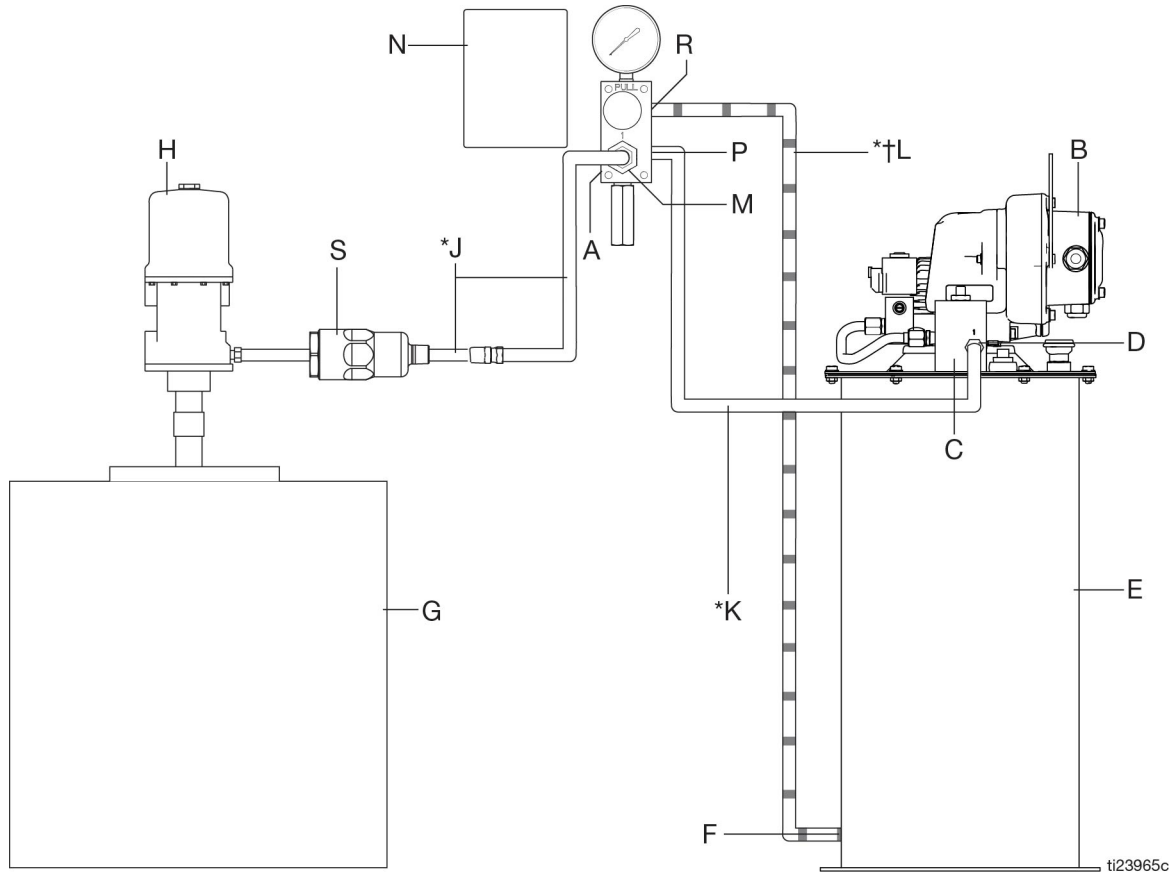


FIG. 1: Typical Installation

Key:

- | | | | |
|---|---|---|--|
| A | Fill Valve | K | Supply Hose (user supplied)* |
| B | Dyna-Star Pump | L | Drain Hose*† |
| C | Auto-Fill Shut Off Valve | M | Fill Stud |
| D | Auto-Fill Inlet | N | Operating Instructions Label |
| E | Reservoir | P | Fill Valve Outlet |
| F | Reservoir Port (vent line) | R | Fill Valve Vent Port |
| G | Remote Filling Station Reservoir | S | Filter (recommended if grease/environment is contaminated) |
| H | Remote Filling Station Pump (pneumatic) | | |
| J | Supply Hose (user supplied)* | | |

*Supply hoses and the drain hose must be rated for a minimum 5000 psi (34.4 MPa, 344.7 bar) pressure. See **Operation**, page 6 for additional information.

†Drain hose return must be at near zero pressure to prevent any unintended valve opening. If necessary, a check valve should be used at the end of the drain hose to prevent pressure increase and back flow. Installations with a drain hose connected to a Graco Compact Dyna-Star pump manifold requires the supplied check valve to be installed. See **Installation for Compact Dyna-Star Pumps Only**, page 6.

Fill Valve Component Identification

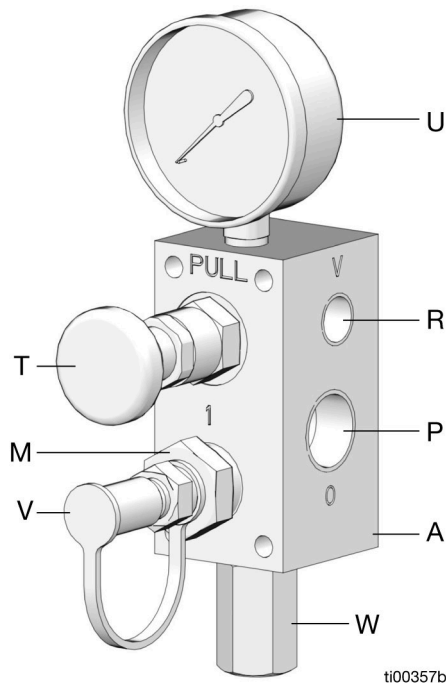


FIG. 2

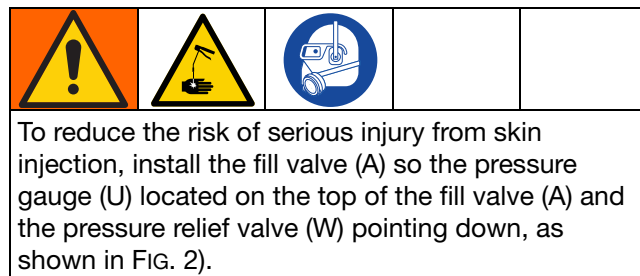
Key:

- A Fill Valve
- M Fill Stud
- N Operating Instructions Label (not shown, see **Typical Installation**, page 4)
- P Fill Valve Outlet
- R Fill Valve Vent Port
- T Pressure Relief Plunger
- U Pressure Gauge
- V Dust Cover
- W Pressure Relief Valve

Installation

The reference letters used in the following instructions refer to the **Typical Installation** (FIG. 1, page 4), and the **Fill Valve Component Identification** (FIG. 2).

1. Select a clean, flat, and easily accessible location.
2. Position the fill valve (A) as shown in FIG. 2. When the fill valve (A) is positioned correctly, the pressure gauge is located on the top of the fill valve block and the pressure relief valve (W) is located on the bottom of the block.



3. Drill four mounting holes in the installation surface, see **Dimensions and Mounting**, page 10.
 4. Secure the Fill Valve (A) to the installation surface using four 1/4 in. bolts.
 5. Select a convenient location close to the valve to place the operating instructions label (N) that is included with the valve.
- NOTE:** Clean the surface prior to installing the label to remove any contaminants such as dust, dirt, grease, and oil residue that could weaken or prevent placement.
6. Connect the supply hose (K) between the auto-fill shut off valve (C) and the fill valve outlet (P) port that is marked with an O.
 7. Connect a drain hose (L) between the fill valve vent port (R) marked with a V, and the reservoir port (E/F).

NOTE: Drain hose return must be at near zero pressure to prevent any unintended valve opening. If necessary, a check valve should be used at the end of the drain hose to prevent pressure increase and back flow.

Installation for Compact Dyna-Star Pumps Only

Install the check valve, the male thread side facing the pump and the female thread side facing the drain hose (L), into the pump refill vent port using bushings before connecting drain hose (L).

NOTE: The position of the check valve is critical for proper function.

NOTICE
Failure to position the check valve could lead to equipment damage.

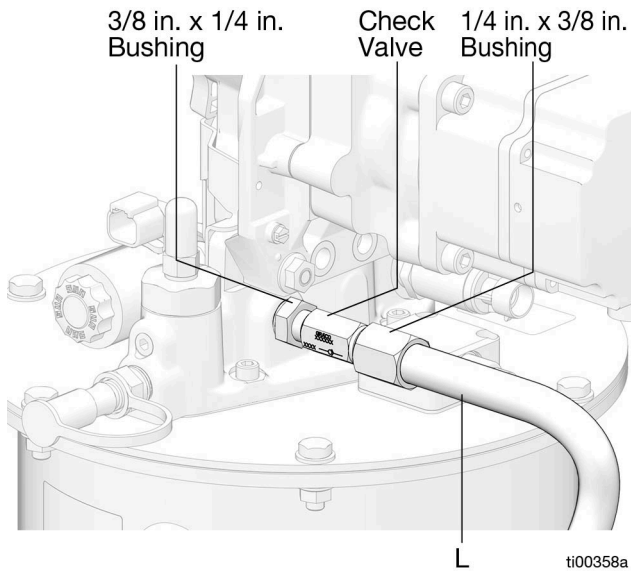


FIG. 3

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 dispensing and before cleaning, checking, or servicing the equipment.

To relieve pressure in the system, use two wrenches working in opposite directions on valve outlet fitting to slowly loosen the fitting only until the fitting is loose and no more lubricant or air is leaking from fitting (FIG. 4).

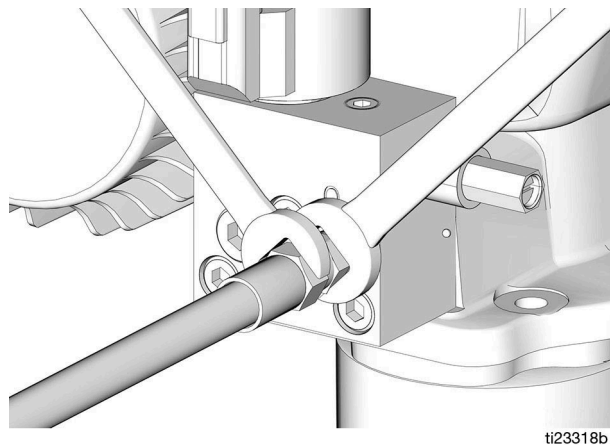







FIG. 4

The reference letters used in the following instructions refer to the **Typical Installation** (FIG. 1, page 4), and the **Fill Valve Component Identification** (see FIG. 2, page 5).

				
<p>The remote filling station pump (H) stalls (dead-heads) when the reservoir is full, causing the supply system pressure to rise to the maximum output pressure of the filling station pump (H). To help prevent equipment damage or serious injury caused by pressurized fluid, such as skin injection or injury from splashing fluid, always use a remote filling station pump with a maximum output pressure of 5000 psi (34.4 MPa, 344.7 bar) and use supply hoses and drain hose with a minimum pressure rating of 5000 psi (34.4 MPa, 344.7 bar).</p>				

1. Pull the pressure relief plunger (T) and hold long enough to relieve the line pressure between the fill valve (A) and the auto-fill shut off valve (C).
2. Verify that the pressure relief plunger (T) is seated and returned to the original position.

NOTICE

Failure to reset the Pressure Relief Plunger (T) could lead to equipment damage.

3. Verify that the auto-fill shut off pin is down and reset (FIG. 5).

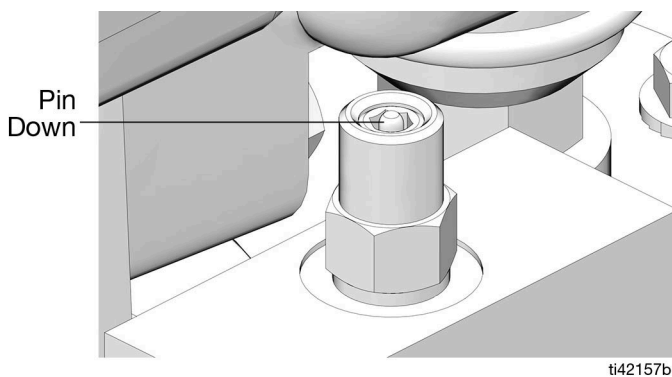


FIG. 5

4. Remove the dust cover (V) from the fill stud (M).
5. Connect the supply hose (J) between the remote filling stations pump (H) and the fill stud (M) port marked with an 1.

6. Start the remote filling station pump (H).
7. When the reservoir (E) is filled:
 - the remote filling station pump (H) stalls (dead-heads)
 - the auto-fill shut off pin pops up as shown in FIG. 6
 - the gauge pressure rises to the set pressure of the fill pump

NOTE: If the pump does not stall (dead-heads), there is a leak in the system.

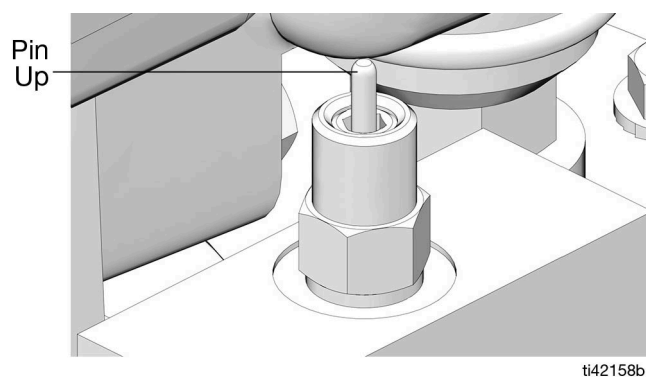


FIG. 6

8. Turn off the remote filling station pump (H).
9. Pull the pressure relief plunger (T) and hold long enough to relieve the line pressure between the fill valve (A) and the auto-fill shut off valve (C) and between the remote filling station pump (H) and the fill valve (A).
10. Verify that the pressure relief plunger (T) is seated and returned to the original position.

NOTICE

Failure to reset the Pressure Relief Plunger (T) could lead to equipment damage.

NOTE: The length of time to vent varies upon the system design and installation. In some instances, it may be necessary to repeat Step 9 to ensure that pressure is relieved.

11. Disconnect the supply hose (J) at the fill stud (M).
12. Replace the dust cover (V) over the fill stud (M).

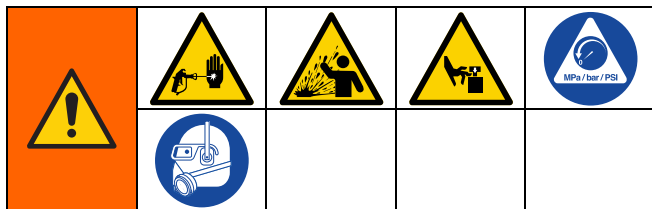
Recycling and Disposal

End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Perform the **Pressure Relief Procedure**, page 6.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Deliver remaining product to a recycling facility.

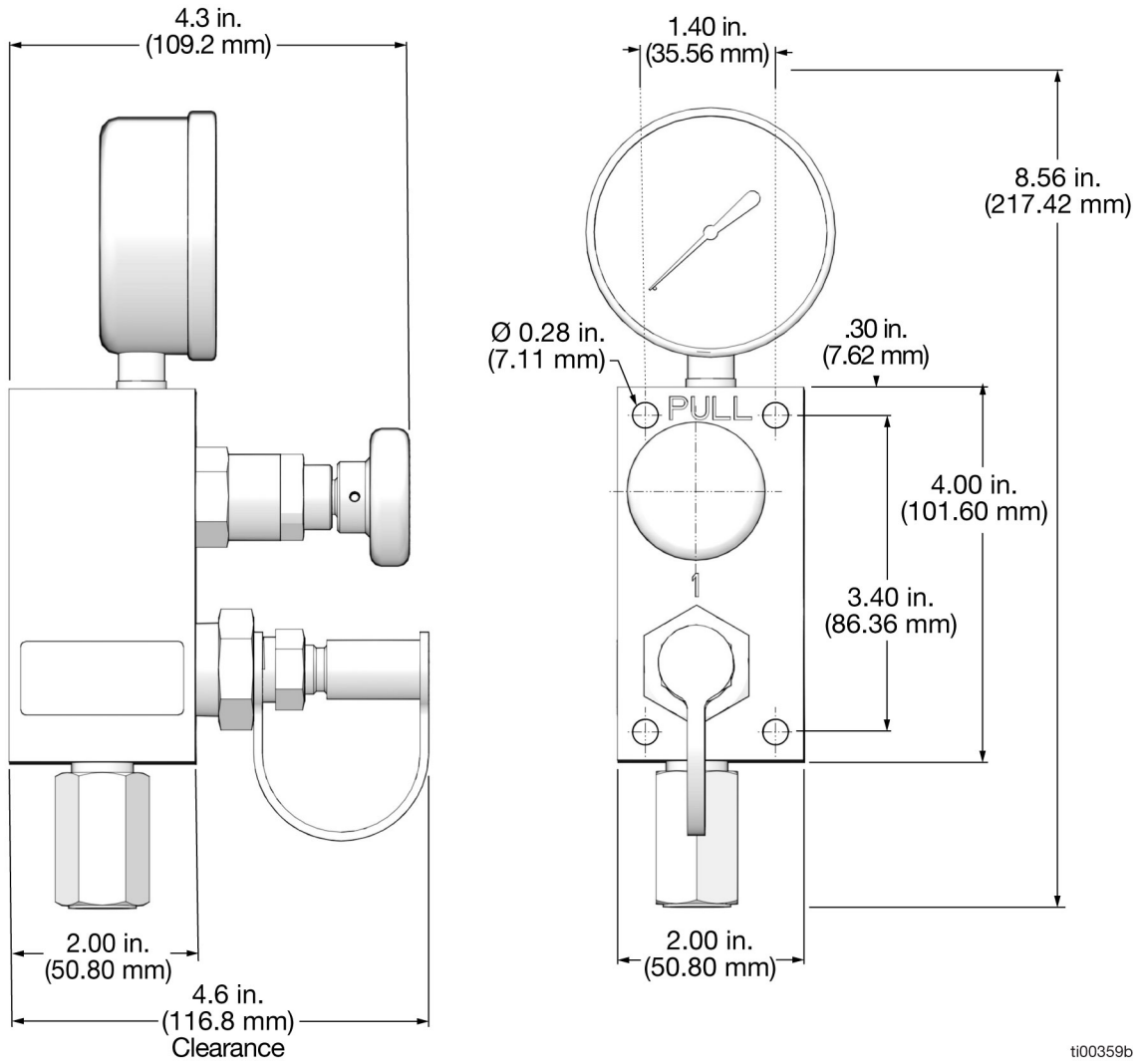
Troubleshooting



1. Follow **Pressure Relief Procedure**, page 6, before checking or repairing the equipment.
2. Check all possible problems and causes before disassembling the equipment.

Problem	Cause	Solution
Refill pump slows down or stalls and no output at the fill valve.	Auto-fill shut off valve has not reset.	Relieve pressure by pulling the pressure relief plunger (T) (see Fill Valve Component Identification , page 5),
		Verify that the auto-fill shut off valve pin is in the down position. See FIG. 6, page 7.

Dimensions and Mounting



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FIG. 7

Technical Specifications

Fill Valve		
	US	Metric
77X542		
Maximum fluid working pressure	5000 psi	34.4 MPa, 344.7 bar
Relief value	5000 psi +/- 10 percent	34.4 MPa, 344.7 bar +/- 10 percent
132230		
Maximum fluid working pressure	3000 psi	20.7 MPa, 206.8 bar
Relief value	3000 psi +/- 10 percent	20.7 MPa, 206.8 bar +/- 10 percent
Maximum fluid flow	2 gpm	7.57 lpm
Outlet port size		
77X542, 132230	3/4 NPT	
Vent port size		
77X542, 132230	3/8 NPT	
Inlet	ISO 7241-11, Series B standard hydraulic quick disconnect 1/4 in. coupling	
Wetted parts	zinc plated steel parts, seals; Buna-N	
Dimensions	See Dimensions and Mounting , page 10	
Weight	5.06 lbs.	2.3 kg
Notes		
All trademarks or registered trademarks are the property of their respective owners.		

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Graco Information

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

For patent information, see www.graco.com/patents.

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

*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 333393

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