

# Box Lubricator

334210E

EN

Lubrication reservoir used with GBL7500 Gravity Fed or Pressure Fed Box Lubricator Pumps for dispensing non-corrosive and non-abrasive oils and lubricants. For professional use only.

## Model:

**24V068: Lubricator 2 pt., 60:1**

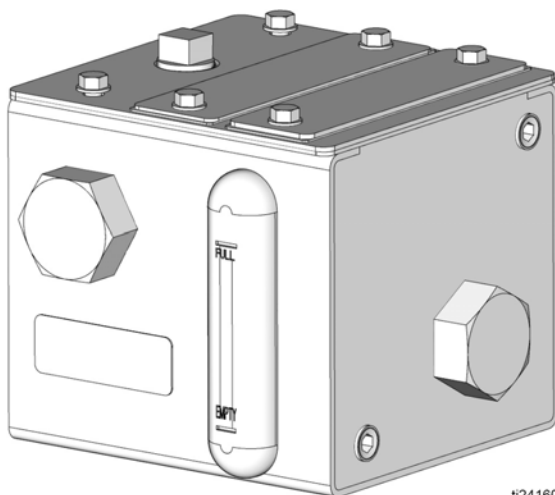
**25A071: Lubricator, 2 pt., 60:1, horizontal mount**



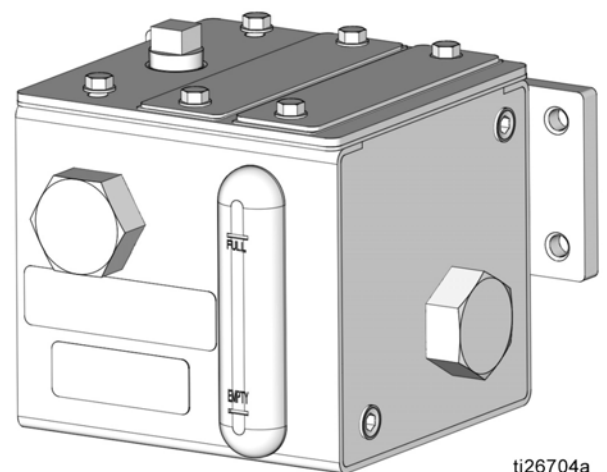
### Important Safety Instructions

Read all warnings and instructions in this manual and your pump instruction manual. Save all instructions.

**Model 24V068**









**Model 25A071**

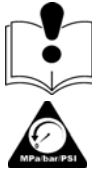




# Warnings

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>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>
 	<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>

# ⚠ 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>• Do not leave the work area while equipment is energized or under pressure.</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>MOVING PARTS HAZARD</b></p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</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. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for electric current.</p>						

## Component Identification

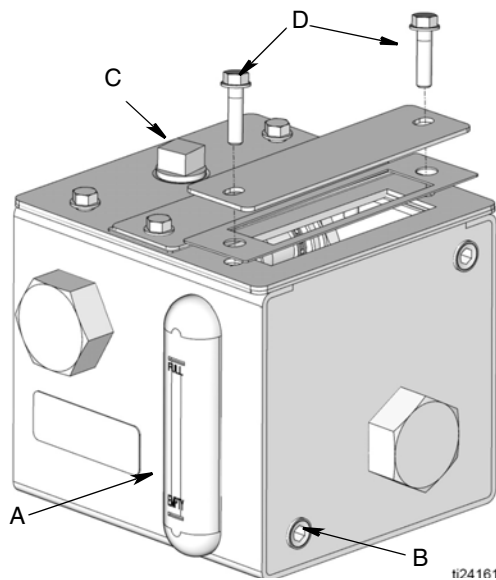


FIG. 1

**Key:**

- A Sight glass
- B Drain plug
- C Fill plug
- D Pump Mounting screws

\*The GBL7500 Box Lubricator Pump and GBL Shaft Rotation/Low Level Alarm Pump are available from Graco. See Accessories/Other Accessories, page 9 for information about these pump models and the related instruction manual.

## Installation Procedure

The reference letters used in the following instructions, refer to FIG. 1.

1. Select a mounting surface that satisfies the following:
  - The lubricator must be connected to a ground source.
  - Is able to support the weight of the reservoir and fluid when filled to capacity.



**NOTE:** When possible, mount to a surface that experiences little or no vibration.

  - Allows easy access to the lubricator for filling the reservoir and periodic maintenance.
2. Install reservoir to the mounting surface. See mounting hole layout in the Reservoir and Mounting Dimension section of this manual, page 10.
3. Install bolts through holes in reservoir mounting bracket and tighten securely.
4. Install GBL-7500 pumps into box. Torque mounting bolts (C) to 110 in-lbs ± 10 in-lbs (12.43 N.m ± 1.13 N.m). 1 to 4 pumps can be installed. Refer to GBL-7500 manual for output adjustment and pump information
5. Remove fill plug (C) and fill reservoir with clean, filtered fluid until it reaches the full line on the sight glass. A sight level gauge is provided on the reservoir to monitor the fluid level.

**NOTE:**

- Filter oil with a minimum 25 micron strainer. Depending on machine requirements it may be necessary to maintain a higher cleanliness level.
- A pump blank is provided to install over all unused pump stations.
- Refer to pump instruction manual for pump **installation and priming** instructions. (See page 9 for Graco pump model information.)



## Drive Mechanism

						
<p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Install protective guards around all drive components.</li> <li>• Do not operate equipment if protective guards are not installed.</li> </ul>						

A 1/2 in. diameter shaft is provided to connect the lubricator to a rotary power source.

<b>Notice</b>
<p>The maximum recommended speed of the box lubricator input shaft is 1800 rpm. Do not exceed the maximum value of 1800 rpm to avoid box damage.</p>

## Operation

						
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### Initial Run-In

Fill gear box to FULL line (22a) on the sight glass (22) with SAE 30 to SAE 40 weight gear lube. Run the box normally and change gear lube after a 2 week run in period. (FIG. 2).

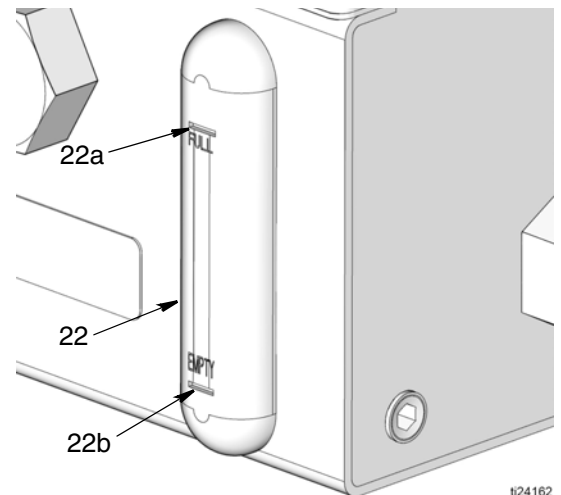


FIG. 2

### Refilling/Replacing Gearbox Lube

When necessary, fill the lubricator reservoir with clean filtered lubricant until it reaches the FULL line (22a) on the sight glass (22).

A sight level gauge is provided on the reservoir to monitor the fluid level. The oil level should not be allowed to drop below the EMPTY line (22b) indicating an empty reservoir.

The gearbox lubricant should be checked regularly to ensure proper lubrication of the gearbox.

Change fluid annually.

# Service/Maintenance

## 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 in your pump manual when you stop dispensing and before cleaning, checking, or servicing the equipment.

1. Stop lube pump.
2. If installed, close oil supply valve located upstream from pump.
3. If installed, open drain valve located downstream from the pump.

Slowly open fluid line fittings to relieve pressure.

1. Follow the **Pressure Relief Procedure** before performing any service procedures.
2. Lubricator operation can be checked by observing the drip tube located within the sight glass well of your pump (if equipped).
  - If the correct pumping rate is maintained, no servicing is required other than periodic replenishment of the reservoir.
  - If the sight glass well pumps dry or no flow is observed refer to the Troubleshooting Section, page 7.
3. Inspect box for worn or damaged components. Replace as necessary.
4. Clean lubricator periodically to eliminate contamination that may have occurred in the oil. To accomplish this:
  - a. Drain reservoir by removing drain plug (C) (FIG. 1). Dispose of oil according to all applicable safety regulations.
  - b. Remove all pumping units.

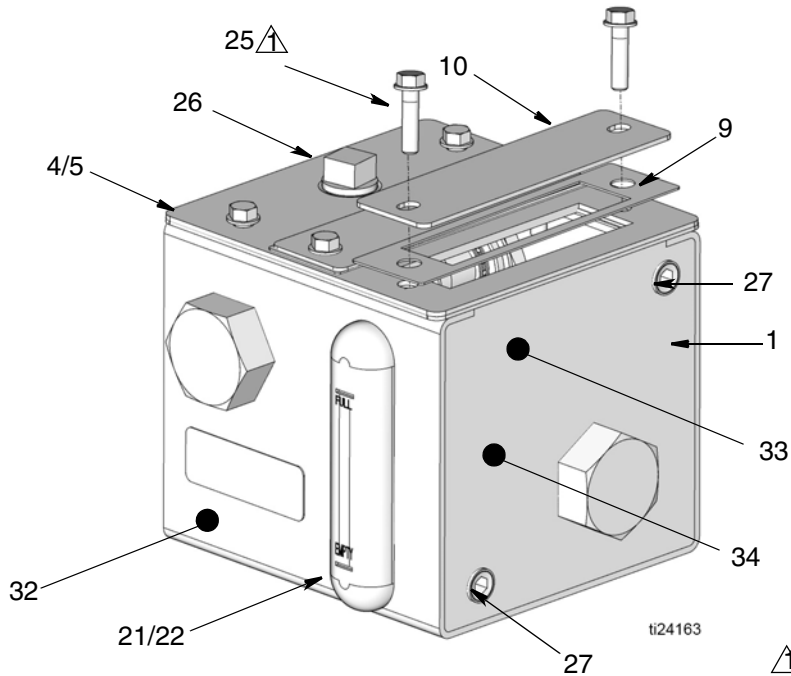
- c. Clean the pumps and reservoir by brushing loose all foreign matter, dipping in solvent and blowing dry with compressed air.
- d. Replace pumping units. Torque mounting screws (F) (FIG. 1) to 110 in. lbs  $\pm$  10 in. lbs. (12.43 N.m  $\pm$  1.13 N.m).
- e. Apply thread sealant (user supplied) to drain plug (C) (FIG. 1) and replace. Torque to 35 in. lbs  $\pm$  5 in. lbs. (3.95 N.m  $\pm$  0.6 N.m).
- f. Fill reservoir. (See Refilling/Replacing Gearbox Lube, page 5).


# Troubleshooting



Problem	Cause	Solution
Sight well pumps dry	Low oil level in reservoir	Add oil. See Refilling the Reservoir, page 5. Check drain plug and tighten if necessary.
No flow from pump outputs	Camshaft not rotating because rotary power source is defective	Repair rotary power source.
	Broken camshaft	Replace lubricator box.
	Pump issue	Refer to the Troubleshooting Section of your pump instruction manual.
Leaking from under pump	Defective gasket	Replace gasket.
Leaking from reservoir drain plug	Insufficient thread sealant	Clean and replace thread sealant (user supplied).

# Parts



 Torque to 110 in.-lbs  $\pm$  10  
in.-lbs  
(12.43 N.m  $\pm$  1.13 N.m)

Ref Part No.	Description	Qty
1	RESERVOIR, 2 pt	1
4	COVER	1
5	GASKET, cover (not shown)	1
9	556732 GASKET, pump	2
10	557128 PLATE, blank	2
21	556715 GASKET, level sight glass (not shown)	1
22	556697 SIGHTGLASS, level	1
25	SCREW, machine, hex washer head	6
26	100737 PLUG, pipe	1
27	PLUG, dry seal, 1/4 NPTF	2
32	LABEL, name, serial	2
33▲	16P807 LABEL, pressure rating	1
34▲	16P808 LABEL, safety, warning, injection	1

## Accessories

### Pumps\*

Part No.	Description
24J391	3/16 in. Suction Fed Pump
24J392	1/4 in. Suction Fed Pump
24J393	3/8 in. Suction Fed Pump
24J394	3/16 in. Gravity Fed Pump
24J395	1/4 in. Gravity Fed Pump
24J396	3/8 in. Gravity Fed Pump
24J397	3/16 in. Pressure Fed Pump
24J398	1/4 in. Pressure Fed Pump
24J399	3/8 in. Pressure Fed Pump
24K466	Alarm Pump

\*See pump instruction manual 3A2257.

▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.



## Other Accessories

Part No.	Description	Special Features/Notes
559307	Gravity Supply	Mounted in the last pump station.
		Exception is when an Alarm Pump is used, then this option is mounted in the second to the last pump station.
563026	Pressurized Supply	Mounted in the last pump station.
		Exception is when an Alarm Pump is used, then this option is mounted in the second to the last pump station.
563013	Low Level Switch	Single-pole, double-throw.
		Meets Explosion Proof Class 1 Group C & D requirements.
		Meets Explosion Proof Class 2 Group E, F & G requirements.
		Mounted in the last pump station.
564015	Low Level Switch	Exception is when an Alarm Pump is used, then this option is mounted in the second to the last pump station.
		Single-pole, single-throw.
		N.C. Electric Rating is 10 watts @ 120 VAC (minimum).
		Mounted in the last pump station.
		Exception is when an Alarm Pump is used, then this option is mounted in the second to the last pump station.

## Technical Data

Box Lubricator		
	US	Metric
<b>Pump Size</b>	<b>Maximum Outlet Pressure</b>	<b>Maximum Outlet Pressure</b>
3/16"	7500 psi	51.71 MPa 517.1 bar
1/4"	6000 psi	41.37 MPa 413.7 bar
3/8"	2500 psi	17.24 MPa 172.4 bar
<b>Temperature</b>		
Operating Temperature Range	-20°F to 140°F	(-29°C to 60°C)
<b>Fluid Viscosity</b>		
Dispensing Fluid Viscosity	80 to 5000 SUS	
<b>Materials of Constructions</b>		
Wetted Materials	carbon steel, nylon, fluoroelastomer, cork, brass, aluminum	
<b>Drive Speed</b>		
Drive Speed	1800 rpm max	

## California Proposition 65

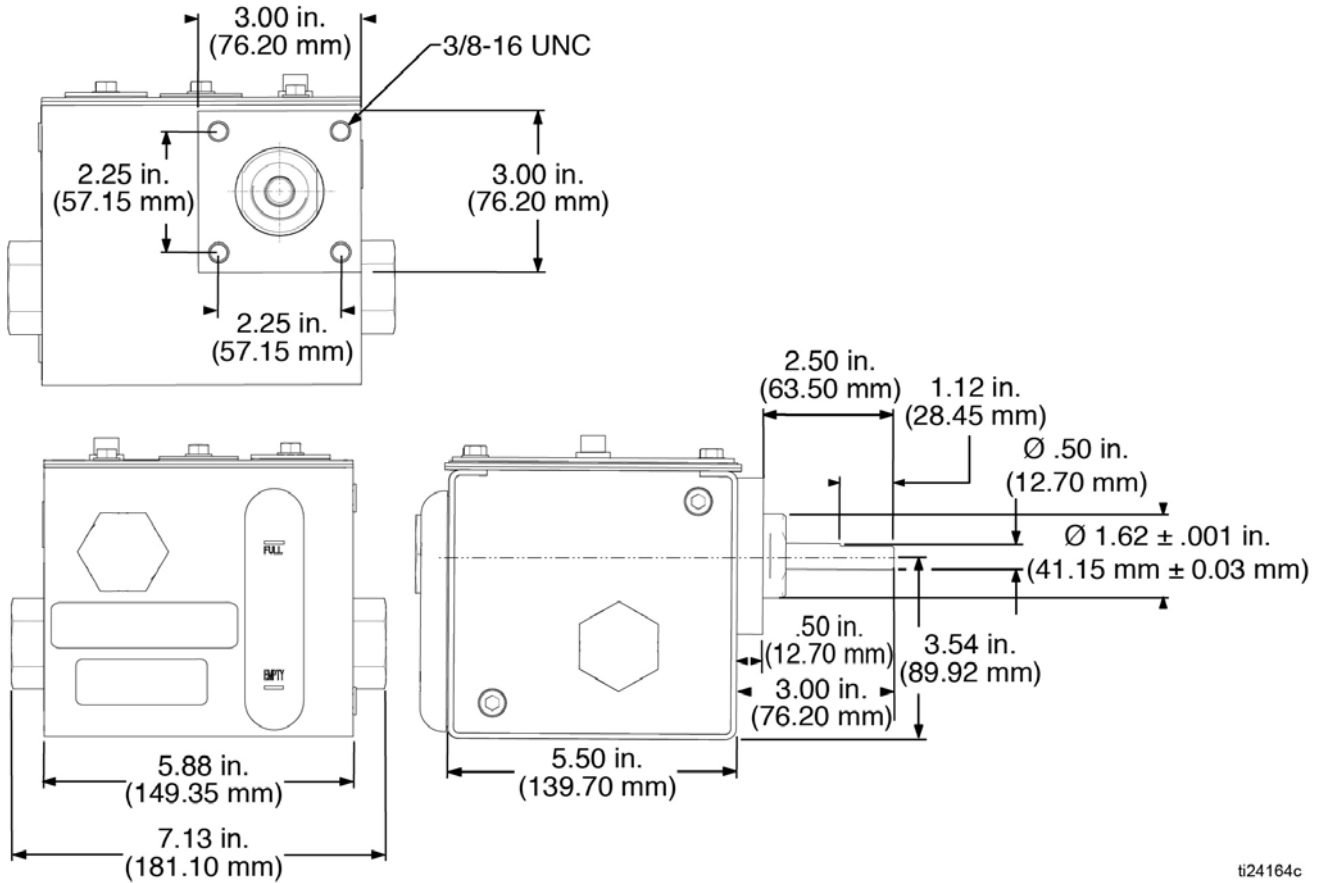
### CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

# Reservoir and Mounting Dimensions

## Model 24V068

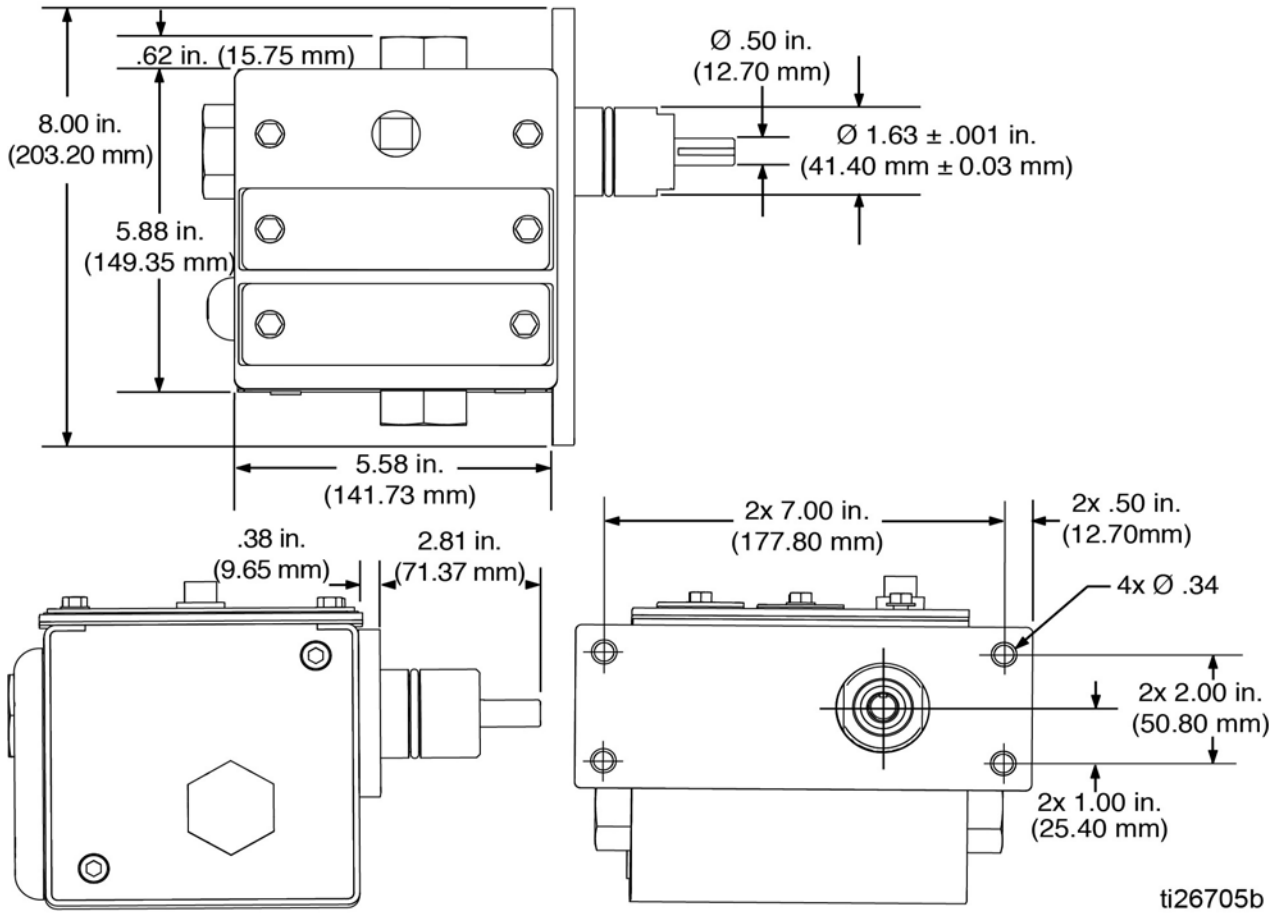
Dimensions are shown in inches (mm)



ti24164c

# Model 25A071

Dimensions are shown in inches (mm)



# 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.

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

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**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 334210

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