

Injecto-Flo[®] II Single Line Pumps with No Control

313839J

EN

For dispensing NLGI Grades #000 to #00 greases and 30 to 1500 cSt oils. For professional use only.

Not approved for use in explosive atmospheres or hazardous (classified) locations.

Part Number:

Oil: 435 psi (3.0 MPa, 30 bar) Maximum Working Pressure

Grease: 580 psi (4.0 MPa, 40 bar) Maximum Working Pressure

See page 3 for model information, including approvals.



Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment.
Save these instructions.



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Models

Oil Systems

Model	Approvals CE	Reservoir Gal (liters)	Flow GPM (lpm)	Level Switch	Refill System
122545	✓	0.8 (3.0)	0.05 (0.2)	None	Screw Cap
122546	✓	0.8 (3.0)	0.05 (0.2)	None	Straight Connector (Ø 10 pipe)
122547	✓	0.8 (3.0)	0.13 (0.5)	None	Screw Cap
122548	✓	0.8 (3.0)	0.13 (0.5)	None	Straight Connector (Ø 10 pipe)
122549	✓	0.8 (3.0)	0.05 (0.2)	Single w/DIN	Screw Cap
122550	✓	0.8 (3.0)	0.05 (0.2)	Single w/DIN	Straight Connector (Ø 10 pipe)
122551	✓	0.8 (3.0)	0.13 (0.5)	Single w/DIN	Screw Cap
122552	✓	0.8 (3.0)	0.13 (0.5)	Single w/DIN	Straight Connector (Ø 10 pipe)
122553	✓	0.8 (3.0)	0.05 (0.2)	Single w/M12 Top	Screw Cap
15U859	✓	0.8 (3.0)	0.05 (0.2)	Single w/M12 Top	Straight Connector (Ø 10 pipe)
122554	✓	0.8 (3.0)	0.13 (0.5)	Single w/M12 Top	Screw Cap
122555	✓	0.8 (3.0)	0.13 (0.5)	Single w/M12 Top	Straight Connector (Ø 10 pipe)
122556	✓	0.8 (3.0)	0.05 (0.2)	Dual w/DIN	Screw Cap
122557	✓	0.8 (3.0)	0.05 (0.2)	Dual w/DIN	Straight Connector (Ø 10 pipe)
122558	✓	0.8 (3.0)	0.13 (0.5)	Dual w/DIN	Screw Cap
122559	✓	0.8 (3.0)	0.13 (0.5)	Dual w/DIN	Straight Connector (Ø 10 pipe)
122560	✓	0.8 (3.0)	0.05 (0.2)	Dual w/M12 Top	Screw Cap
122561	✓	0.8 (3.0)	0.05 (0.2)	Dual w/M12 Top	Straight Connector (Ø 10 pipe)
122562	✓	0.8 (3.0)	0.13 (0.5)	Dual w/M12 Top	Screw Cap
122840	✓	0.8 (3.0)	0.13 (0.5)	Dual w/M12 Top	Straight Connector (Ø 10 pipe)
122563	✓	1.6 (6.0)	0.05 (0.2)	None	Screw Cap
122564	✓	1.6 (6.0)	0.05 (0.2)	None	Straight Connector (Ø 10 pipe)
122565	✓	1.6 (6.0)	0.13 (0.5)	None	Screw Cap
122566	✓	1.6 (6.0)	0.13 (0.5)	None	Straight Connector Ø 10 pipe)
122567	✓	1.6 (6.0)	0.05 (0.2)	Single w/DIN	Screw Cap
122568	✓	1.6 (6.0)	0.05 (0.2)	Single w/DIN	Straight Connector (Ø 10 pipe)
564138	✓	1.6 (6.0)	0.05 (0.2)	Single w/DIN	Screw Cap
122569	✓	1.6 (6.0)	0.05 (0.2)	Single w/DIN	Straight Connector (Ø 10 pipe)
122570	✓	1.6 (6.0)	0.05 (0.2)	Single w/M12 Top	Screw Cap
122571	✓	1.6 (6.0)	0.05 (0.2)	Single w/M12 Top	Straight Connector (Ø 10 pipe)
122572	✓	1.6 (6.0)	0.13 (0.5)	Single w/M12 Top	Screw Cap










Model	Approvals CE	Reservoir Gal (liters)	Flow GPM (lpm)	Level Switch	Refill System
122573	✓	1.6 (6.0)	0.13 (0.5)	Single w/M12 Top	Straight Connector (Ø 10 pipe)
122574	✓	1.6 (6.0)	0.05 (0.2)	Dual w/DIN	Screw Cap
122575	✓	1.6 (6.0)	0.05 (0.2)	Dual w/DIN	Straight Connector (Ø 10 pipe)
122576	✓	1.6 (6.0)	0.13 (0.5)	Dual w/DIN	Screw Cap
122577	✓	1.6 (6.0)	0.13 (0.5)	Dual w/DIN	Straight Connector (Ø 10 pipe)
122578	✓	1.6 (6.0)	0.05 (0.2)	Dual w/M12 Top	Screw Cap
122579	✓	1.6 (6.0)	0.05 (0.2)	Dual w/M12 Top	Straight Connector (Ø 10 pipe)
122580	✓	1.6 (6.0)	0.13 (0.5)	Dual w/M12 Top	Screw Cap
15U860	✓	1.6 (6.0)	0.05 (0.2)	Dual w/M12 Top	Straight Connector (Ø 10 pipe)
15U858	✓	0.8 (3.0)	0.13 (0.5)	Single w/M12 Top	Straight Connector (Ø 10 pipe)

Grease Systems




Model	Approvals CE	Reservoir Gal (liters)	Flow GPM (LPM)	Level Switch	Refill System
122581	✓	0.8 (3.0)	0.05 (0.2)	None	Screw Cap
122582	✓	0.8 (3.0)	0.05 (0.2)	Single w/DIN	Screw Cap
122583	✓	0.8 (3.0)	0.05 (0.2)	Single w/DIN	Straight Connector (Ø 10 pipe)
122584	✓	0.8 (3.0)	0.05 (0.2)	Single w/M12 Top	Screw Cap
122585	✓	0.8 (3.0)	0.05 (0.2)	Single w/M12 Top	Straight Connector (Ø 10 pipe)
563300	✓	0.8 (3.0)	0.05 (0.2)	Dual w/M12 Top	Straight Connector (Ø 10 pipe)
122589	✓	1.6 (6.0)	0.05 (0.2)	None	Screw Cap
122590	✓	1.6 (6.0)	0.05 (0.2)	None	Straight Connector (Ø 10 pipe)
122591	✓	1.6 (6.0)	0.05 (0.2)	Single w/DIN	Screw Cap
122592	✓	1.6 (6.0)	0.05 (0.2)	Single w/DIN	Straight Connector (Ø 10 pipe)
122593	✓	1.6 (6.0)	0.05 (0.2)	Single w/M12 Top	Screw Cap
122594	✓	1.6 (6.0)	0.05 (0.2)	Single w/M12 Top	Straight Connector (Ø 10 pipe)
122595	✓	1.6 (6.0)	0.05 (0.2)	Dual w/DIN	Screw Cap
122596	✓	1.6 (6.0)	0.05 (0.2)	Dual w/DIN	Straight Connector (Ø 10 pipe)
122597	✓	1.6 (6.0)	0.05 (0.2)	Dual w/M12 Top	Screw Cap
122598	✓	1.6 (6.0)	0.05 (0.2)	Dual w/M12 Top	Straight Connector (Ø 10 pipe)

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.

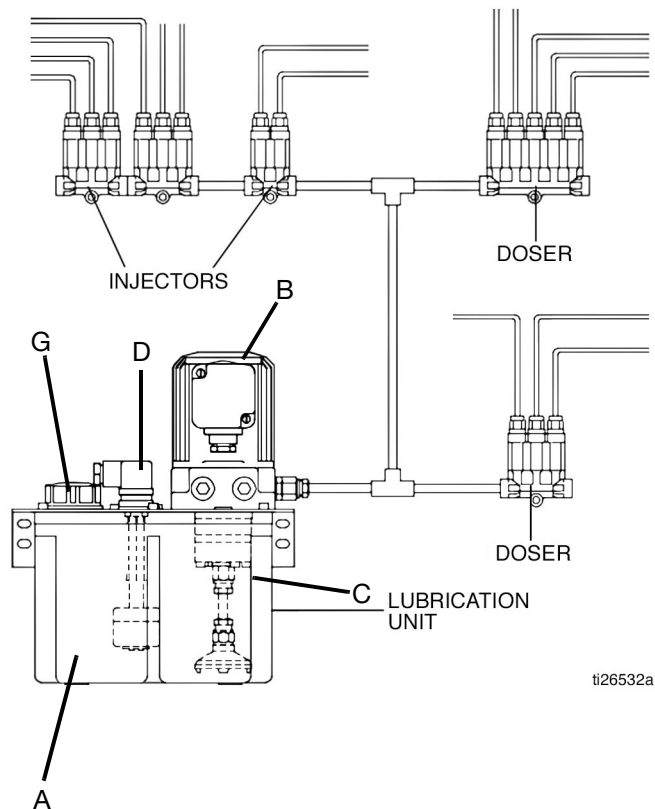
 <h2 style="margin: 0;">DANGER</h2>	
 	<p>SEVERE ELECTRIC SHOCK HAZARD</p> <p>This equipment is powered by more than 240 V. Contact with this voltage will cause death or serious injury.</p> <ul style="list-style-type: none"> • Turn off and disconnect power at main switch before disconnecting any cables and before servicing equipment. • This equipment must be grounded. Connect only to grounded power source. • All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.
 <h2 style="margin: 0;">WARNING</h2>	
  	<p>PRESSURIZED EQUIPMENT HAZARD</p> <p>Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> • Follow the Electrical Connections and Wiring when you stop spraying/dispensing and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.
 	<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. • Ground all equipment in the work area. • 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. • Use only grounded hoses. • Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area.

WARNING

 	<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 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. • Turn off all equipment and follow the Electrical Connections and Wiring 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.
	<p>PERSONAL PROTECTIVE EQUIPMENT</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. Protective 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.

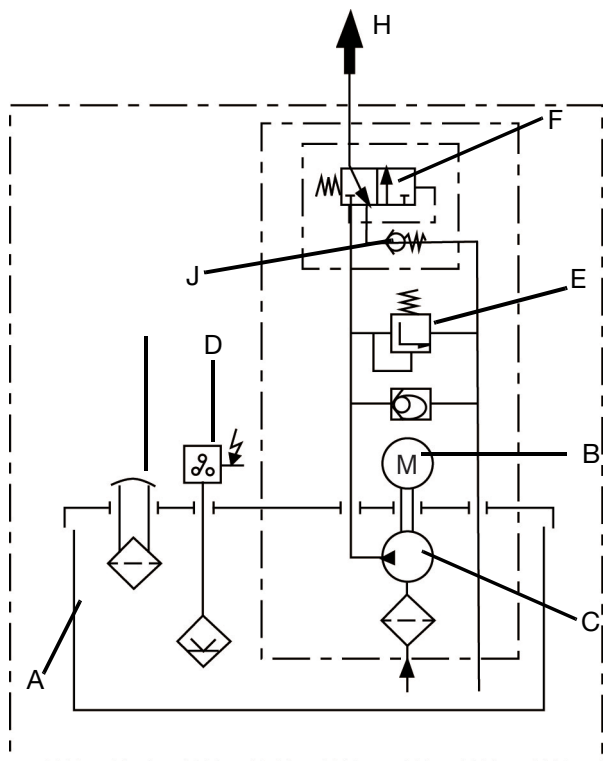
Typical Installation

Component Identification



ti26532a

Hydraulic Diagram



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FIG. 1: Typical Installation

Key:Grease Models

- A Tank
- B Electric Motor
- C Gear Pump
- D Electric Level Switch
- E Pressure Limiting Valve
- F Relief Valve
- G Filling Cap Filter
- H Pressure Outlet

Key:Oil Models*

(*Includes all items A-H plus the following)

- J Suction Filter

Refilling Options

Fill the pump reservoir with clean lubricant by either removing the screw cap on the top of the reservoir or by using an overhead lubricant supply connected to the elbow connector or the straight connector (FIG. 2).

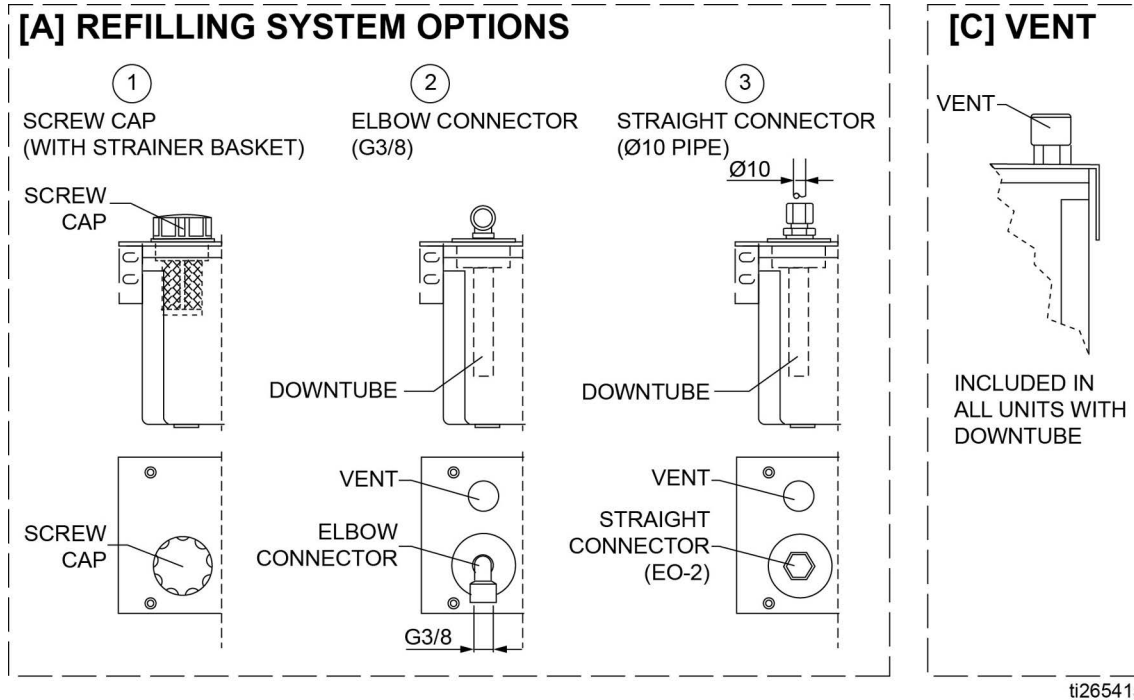


FIG. 2:

Level Switch Connector Options

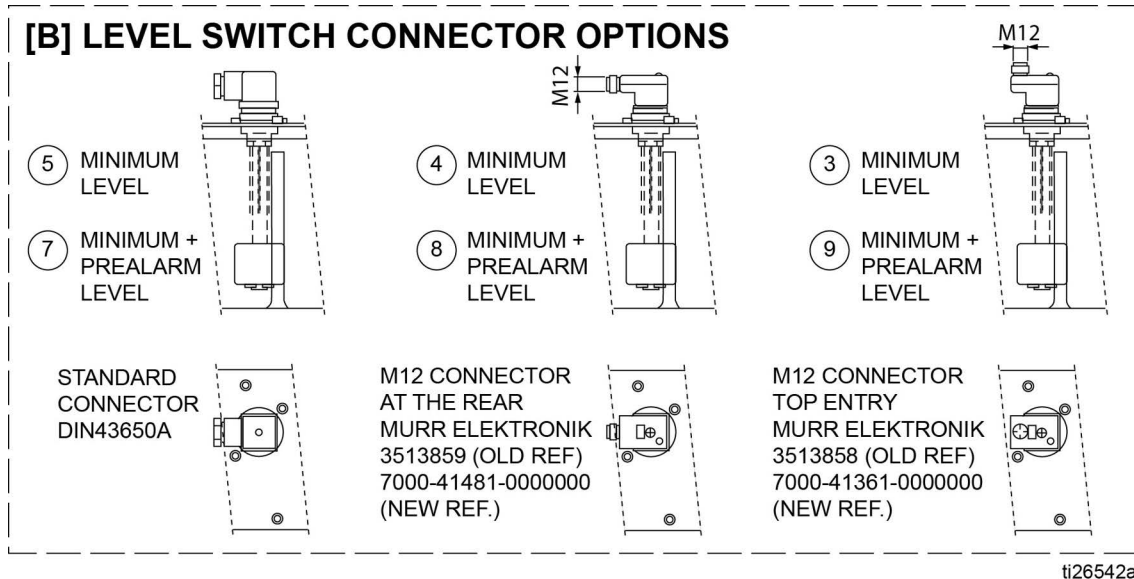
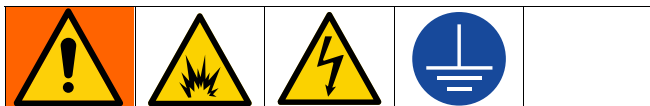


FIG. 3:

Installation

Grounding



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.

For grounding, refer to **Electrical Connections and Wiring**, page 9.

Electrical Connections and Wiring

Connect to a circuit with a main electrical disconnect. Install a branch circuit protective device (fuse is required, user supplied) in each underground phase.



DANGER
SEVERE ELECTRIC SHOCK HAZARD

All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

1. Ensure that the power to the pump is off and locked out.

2. To gain access to the terminal block, loosen two (2) screws (A) and remove the terminal block cover (B).

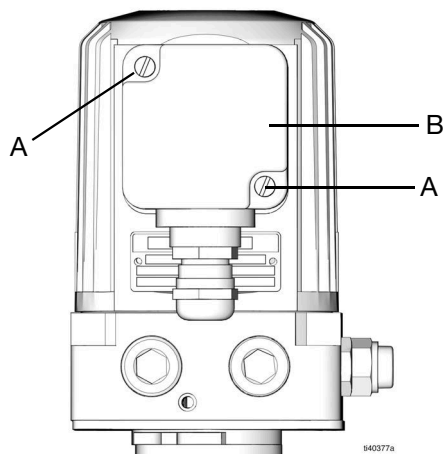
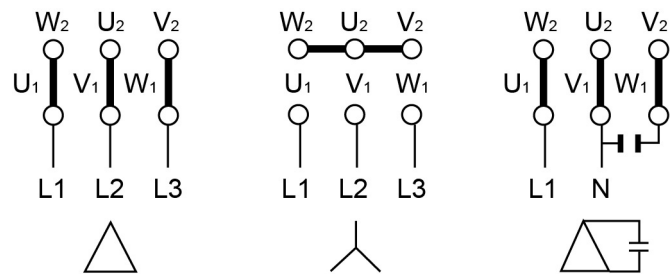





FIG. 4

3. Select a wiring configuration appropriate for the application from inside of the terminal block cover or from (FIG. 5)



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FIG. 5

				
<p>DANGER SEVERE ELECTRIC SHOCK HAZARD</p> <ul style="list-style-type: none"> • Ensure ring terminals are properly oriented (FIG. 6) • Ensure wires are not in the path of terminal block cover screws • Install terminal block cover before applying power 				

4. Attach the power supply wires to the bottom three (3) terminal posts and secure with the provided jam nuts.
5. Attach the ground wire to the grounding screw (D) (FIG. 6).
6. After the wire connections are made, verify that the ring terminals (C) are angled toward the center of the terminal block and fully secured using the jam nuts (FIG. 6).

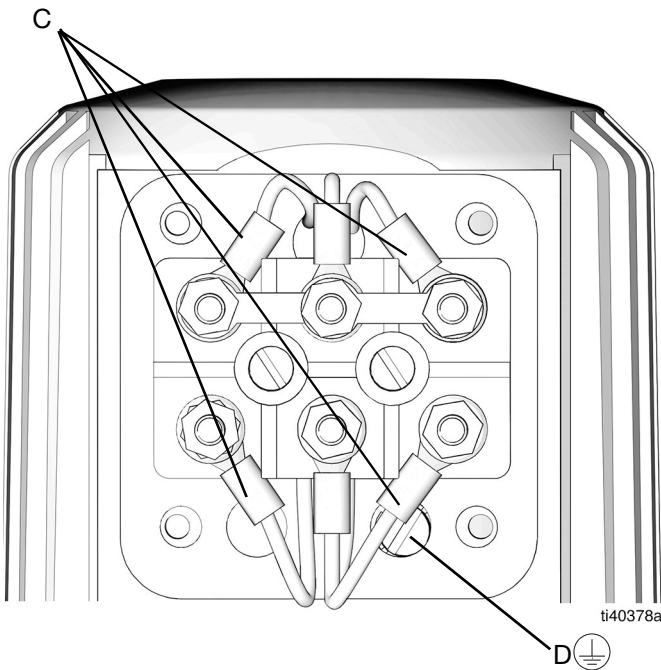
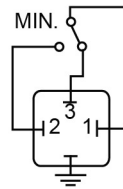


FIG. 6

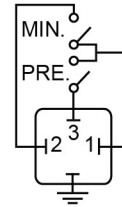
7. Place the terminal block cover over the terminal block and tighten the two (2) screws (A), making sure that the wiring is not pinched, kinked, and that it is located so it does not touch the terminal cover screws (see FIG. 6).
8. Verify that the motor rotation direction matches the arrow on the top of the motor housing.

Level Switch Function Diagrams

MINIMUM LEVEL



MINIMUM + PREALARM LEVEL



DIAGRAMS REPRESENTED WITH THE RESERVOIRS
WITHOUT LUBRICANT

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FIG. 7

Set Up

An external controller is required to use this product in an automated lubrication operation.

To determine the length for On and Off time, consider the length of time to build and relieve pressure in the system for full injector reset. The time is affected by the length of the lube lines, the type and viscosity of the lubricant, ambient temperature, and other system factors.

Mount a pressure gauge (user supplied) near the pump outlet to monitor working pressure.

Position the pump so that the outlet is at or below the lowest point in the system to prevent air being trapped in the lube lines.

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 splashing fluid, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

1. Turn off and disconnect the power source to the pump.
2. Loosen the pump outlet fitting connection to relieve pressure.

NOTE: Pumps have a built-in pressure relief valve that relieves pressure when the lube cycle is complete.

Start Up

Before regular operation, the lube lines should be primed to remove any air.

Prime the System

1. Remove a plug or lube line connection from the most remote end of the line.
2. Turn the pump on.
3. Continue until lubricant comes out without air bubbles.
4. Turn the pump off.
5. Reconnect the plug or lube line connection.

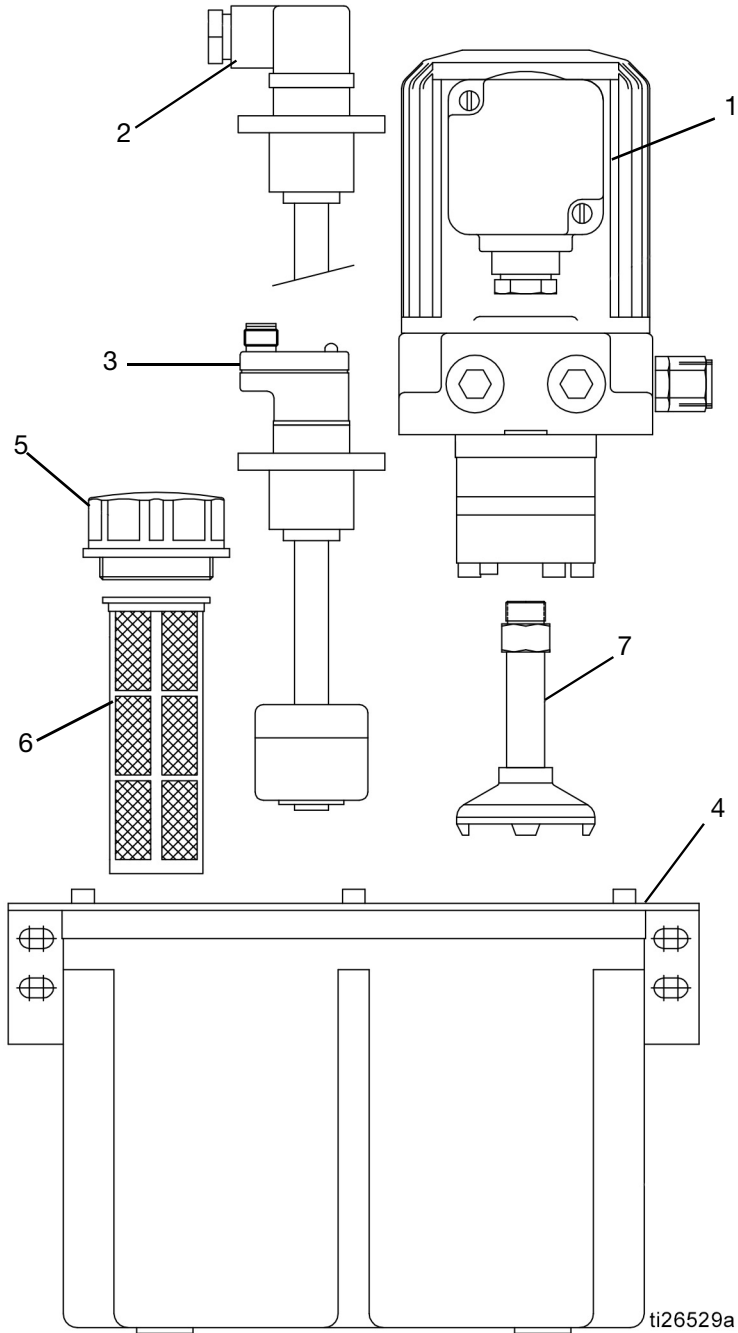
Recycling and Disposal

End of Product Life

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

- Perform the **Electrical Connections and Wiring**, page 9.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove motors and other electronic components. Recycle according to applicable regulations.
- Deliver remaining product to a recycling facility.

Parts Oil Systems



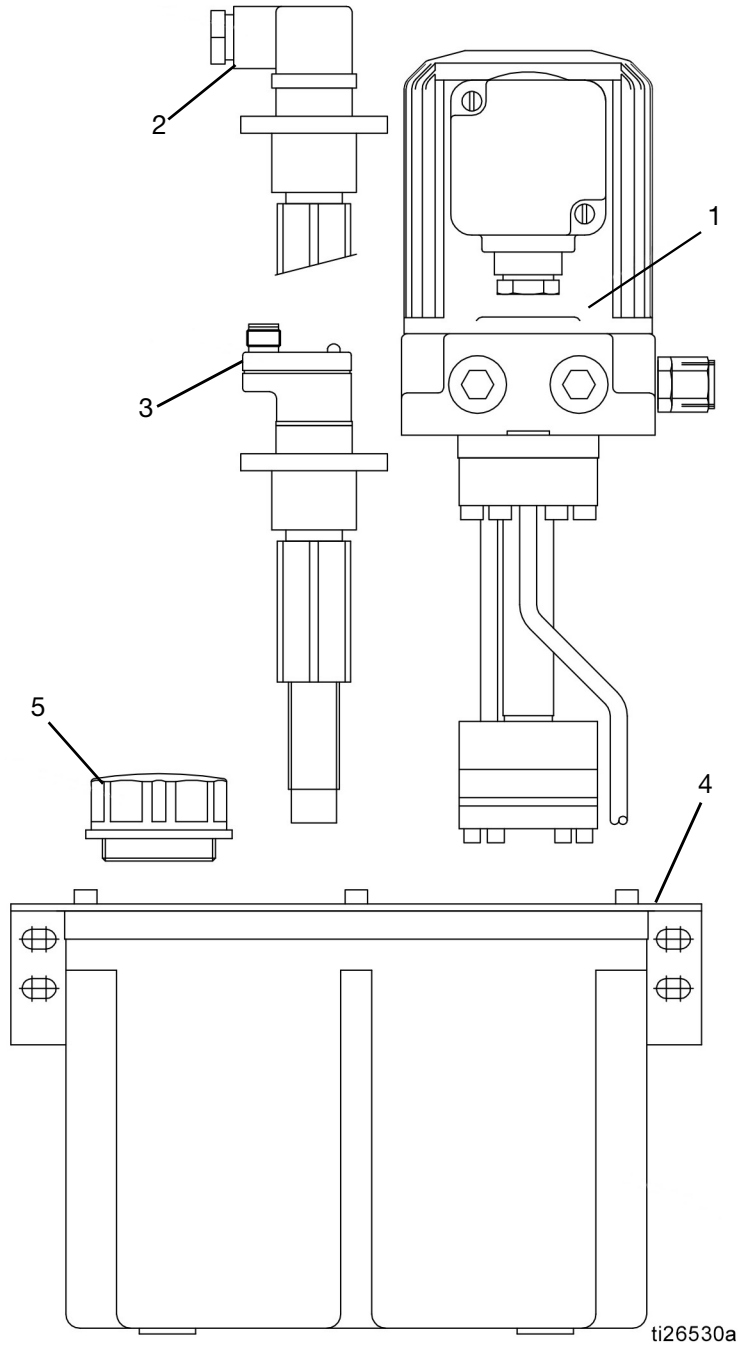
Parts

Oil Systems

Ref.	Part	Description	Qty.
1	122901	PUMP, electric motor, oil, 0.2 L/min	1
	122902	PUMP, electric motor, oil, 0.5 L/min	1
2	122903	SWITCH, min level w/din, 3L	1
	122904	SWITCH, min level w/din, 6L	1
	122905	SWITCH, min, pre-alarm level, w/din, 3L	1
	122906	SWITCH, min, pre-alarm level, w/din, 6L	1
3	122907	SWITCH, min level w/M12, top connector, 3 L	1
	122908	SWITCH, min level w/M12, top connector, 6 L	1
	122909	SWITCH, min pre-alarm level w/M12, top connector, 3 L	1
	122910	SWITCH, min pre-alarm level w/M12, top connector, 6 L	1
4	24H653	RESERVOIR, 3 Liter, no cover	1
	24H654	RESERVOIR, 6 Liter, no cover	1
5	122912	CAP, screw	1
6	122913	FILTER, refilling	1
7	122914	FILTER, suction, 3L, reservoir	1
	122915	FILTER, suction, 6L, reservoir	1

Parts

Grease Systems



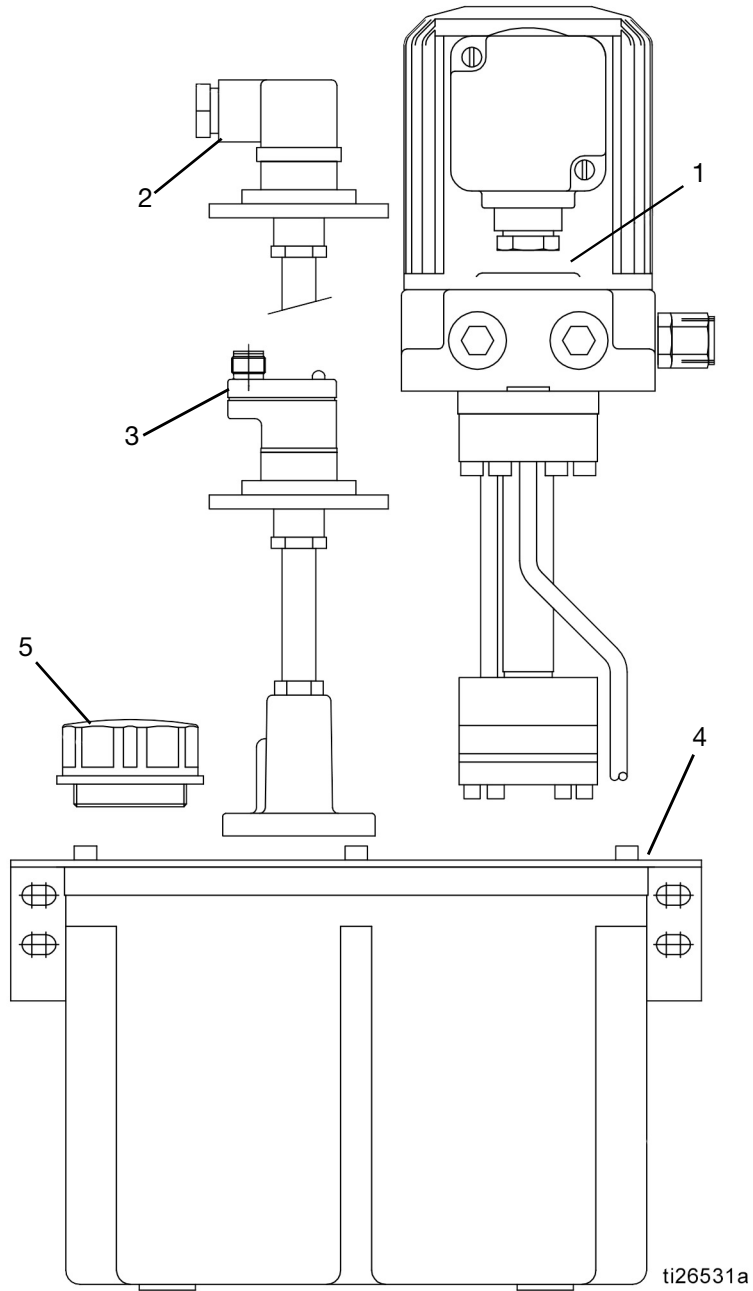
Parts

Grease Systems

Ref.	Part	Description	Qty.
1	122916	PUMP, electric motor, grease, 3L	1
	122917	PUMP, electric motor, grease, 6L	1
2	122918	SWITCH, min level w/din, 3L	1
	122919	SWITCH, min level w/din, 6L	1
3	122920	SWITCH, min, M12, top connector, 3L	1
	122921	SWITCH, min, M12, top connector, 6L	1
4	24H653	RESERVOIR, 3 Liter, no cover	1
	24H654	RESERVOIR, 6 Liter, no cover	1
5	122912	CAP, screw	1

Parts

Special Fluid Grease



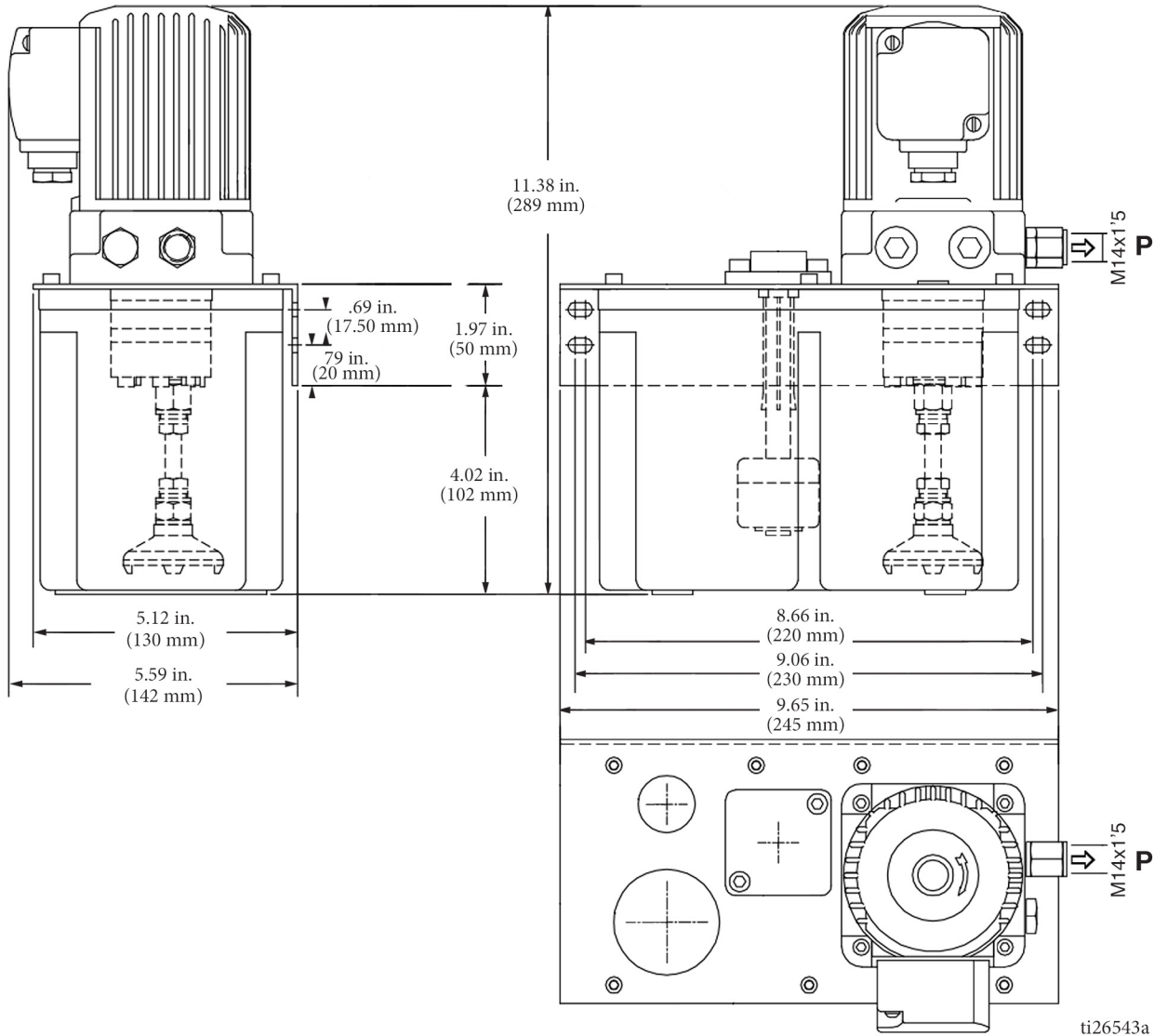
Parts

Special Fluid Grease

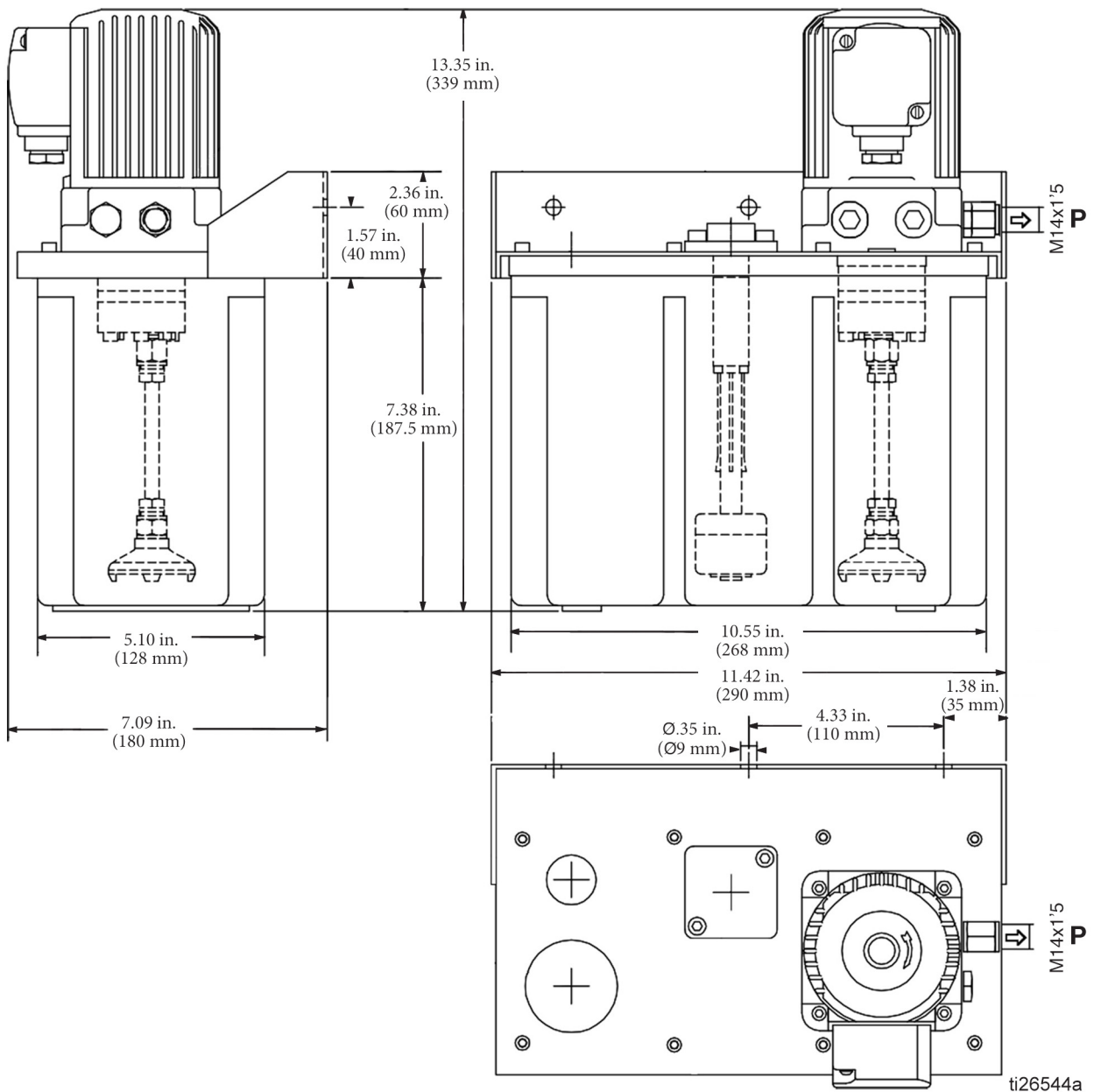
Ref.	Part	Description	Qty.
1	122916	PUMP, electric motor, grease, 3L	1
	122917	PUMP, electric motor, grease, 6L	1
2	122922	SWITCH, min level w/din, 3L	1
	122923	SWITCH, min level w/din, 6L	1
3	122924	SWITCH, min, M12, top connector, 3L	1
	122925	SWITCH, min, M12, top connector, 6L	1
4	24H653	RESERVOIR, 3 Liter, no cover	1
	24H654	RESERVOIR, 6 Liter, no cover	1
5	122912	CAP, screw	1

Dimensions

3 Liter Tanks



6 Liter Tanks



Technical Specifications

Injecto-Flo® II Single Line Pumps with No Control		
	US	Metric
Tank		
Models: Oil	0.8 - 1.6 gallons	3 - 6 liters
Models: Grease	1.6 gallons	6 liters
Tank Material	Transparent Polyimide	
Output Connection	M14 x 1.5	
Pump		
Lubricant		
Models: Oil	Mineral or synthetic oil	
Models: Grease	Fluid grease NLGI00-000	
Flow	0.05 - 0.13 gal/min	0.2 - 0.5 L/min
Viscosity	30 - 1500 c St	
Maximum Pressure		
Oil	435 psi	3.0 MPa, 30 bar
Grease	580 psi	4.0 MPa, 40 bar
Working Temperature		
Lubricant	140°F	60°C
Ambient (Oil models only)	104°F	40°C
A/C Motor		
Voltage/Phase/Frequency/Amps	230/400 VAC, 3-phase, 50/60 Hz, 0.5 - 0.3 A	
Power	70 W	
RPM	50 Hz: 2730; 60 Hz: 3200	
Wiring Options	See page 9.	
Maximum Operating Time	5 min.	
Maximum Cycles Per Hour	20	
Duty Cycle per IEC 60034-1	S3 20%	
Level Switch		
Contact Type	Reed	
Voltage	Max 220 VAC	
Amps	Max 0.8 A	
Switching Capacity	Max 60 VA/30 W	
Function	See Level Switch Function Diagrams , page 10.	
Weight		
3 Liter Models	8.6 lbs.	3.9 kg
6 Liter Models	13.9 lbs.	6.3 kg

California Proposition 65

CALIFORNIA RESIDENTS

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

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

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Graco Headquarters: Minneapolis

International Offices: Belgium, China, Japan, Korea

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