

FT14 Sanitary Pump

308076H

EN

High volume, medium pressure pump designed to meet USDA standards.

430 psi (3.0 MPa, 30 bar) Maximum Fluid Working Pressure

100 psi (0.7 MPa, 7 bar) Maximum Air Input Pressure

Part No. 948292

55 gallon (209 liter) drum size, 4.5 in. (114 mm) bung mounting

Part No. 949704

Stubby size

Part No. 949080

Stubby size

Part No. 948649

Stubby size

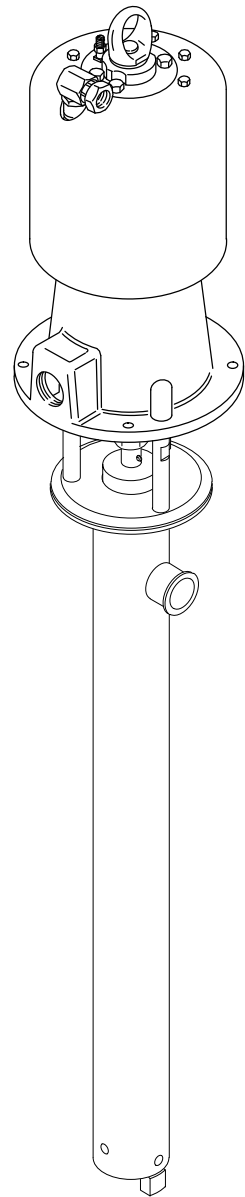
Part No. 570019

Priming Piston



Important Safety Instructions

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



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Symbols

WARNING

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

NOTICE

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

WARNING



FIRE AND EXPLOSION HAZARD

Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground the equipment. Refer to **Grounding** on page 5.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop dispensing immediately**. Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being dispensed.
- Keep the dispense area free of debris, including solvent, rags, and gasoline.
- Electrically disconnect all equipment in the dispense area.
- Extinguish all open flames or pilot lights in the dispense area.
- Do not smoke in the dispense area.
- Do not turn on or off any light switch in the dispense area while operating or if fumes are present.
- Do not operate a gasoline engine in the dispense area.
- Keep a fire extinguisher in the work area.



TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

WARNING



INSTRUCTIONS

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are not sure, call your Graco distributor.
- Do not alter or modify this equipment.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. Refer to the **Technical Data** on page 22 for the maximum working pressure of this equipment.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Do not kink or overbend hoses or use hoses to pull equipment.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 180°F (82°C) or below -40°F (-40°C).
- Never use a damaged hose. Before each use, check the entire hose for leaks, abrasion, bulging cover, or damage or movement of the hose couplings. If any of these conditions exist, replace the hose immediately.
- Wear hearing protection when operating this equipment.
- Do not lift pressurized equipment.
- Never try to stop or deflect leaks with your hands or body.
- Tighten all fluid connections securely before each use.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.



MOVING PARTS HAZARD

The piston in the air motor, located behind the air motor shield, moves when air is supplied to the motor. Moving parts such as the air motor piston and the priming piston (used on part no. 570019) can pinch or amputate your fingers or other body parts.

- Keep clear of all moving parts when starting or operating the pump.
- Never operate the pump with the air motor shield removed.
- Keep hands and fingers away from the priming piston and the area between the tie plate and air motor.
- Before servicing the equipment, follow the **Pressure Relief Procedure** on page 7 to prevent the equipment from starting unexpectedly.

Installation

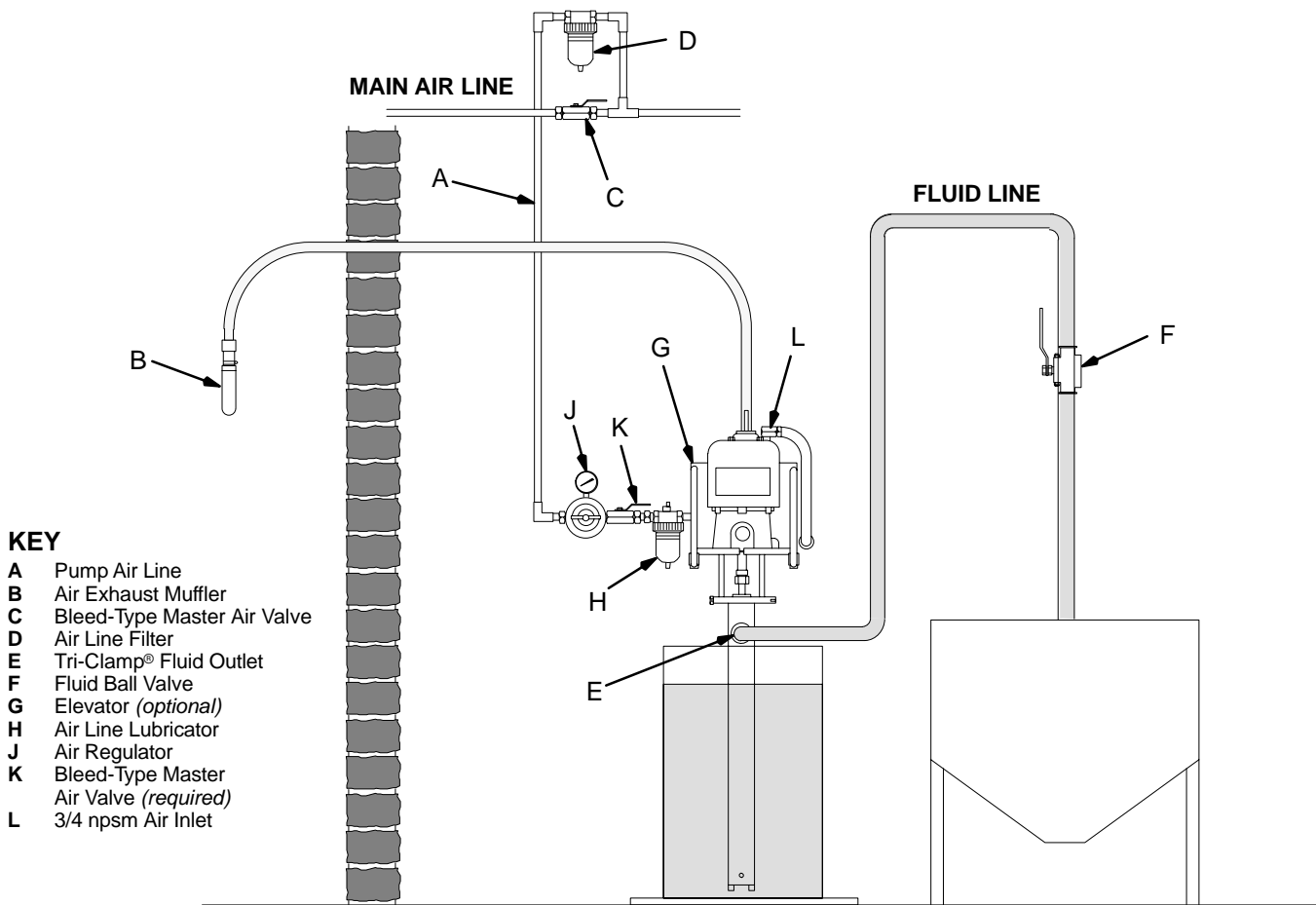


Fig. 1

Installation

Grounding

⚠ WARNING



FIRE AND EXPLOSION HAZARD

Before operating the pump, ground the system as explained below. Also read the section **FIRE AND EXPLOSION HAZARD** on page 2.

To reduce the risk of static sparking, ground the pump and all other equipment used or located in the area. **Check** your local electrical code for detailed grounding instructions for your area and type of equipment and be sure to *ground all of the following equipment*:

1. *Pump*: use a ground wire and clamp as shown in Fig 2 .
2. *Fluid hoses connected to the pump*: use only grounded hoses with a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity.
3. *Air compressors*: ground according to the manufacturer's recommendations.
4. *Dispensing valve*: obtain grounding through connection to a properly grounded fluid hose and pump.
5. *Fluid supply container*: according to local code.
6. *Container being dispensed into*: according to local code.
7. *All solvent pails used when flushing*, according to local code. Use only 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 ground the pump, loosen the grounding lug locknut (A) and washer (B). Insert one end of a 12 ga (1.5 mm) minimum, ground wire (C) into the slot in the lug and tighten the locknut securely. See Fig 2. Order part no. 237569 Ground Wire and Clamp. Connect the clamp end of the ground wire to a true earth ground.

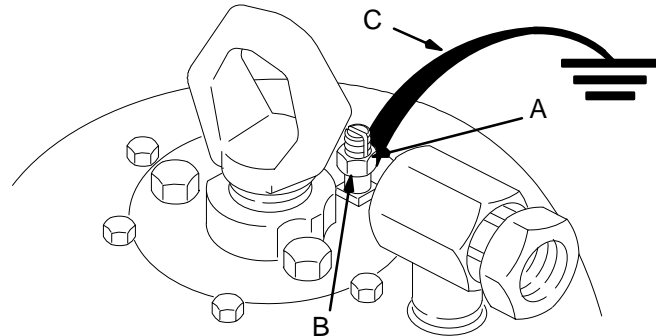


Fig 2

Mounting the Pump

Fig. 1 is only a guide for selecting and installing system components. Contact your Graco distributor for assistance in planning a system to suit your needs.

Mount the pump to suit the type of installation planned. The accessories are shown on page 20. The pump dimensional drawing is on page 21.

NOTE: The pump is shown mounted on optional Pump Elevator 947992 in Fig 1 and 3. See **ACCESSORIES** on page 20 to order.

Mount the pump in a 4.5 in. bung type drum or an open drum. **Be sure** the pump is mounted about 0.5 in. (13 mm) off the bottom of the drum. Loosen the drum vent plug to prevent forming a vacuum.

⚠ WARNING

To avoid contaminating the fluid, pipe the exhaust air to vent outside of the fluid product area. Vent the exhaust to a safe place, away from people, animals or food handling areas.

Installation

Connect the Hoses

Mount the accessories in the order shown in Fig 1 and 3.

Install an air line lubricator (H) for automatic air motor lubrication. See Fig 3.

Install an air regulator (J) to control air inlet pressure. See Fig 1 and 3.

Install an air line filter (D) to remove harmful dirt and contaminants from your compressed air supply. See Fig 1.

Install one bleed-type master air valve (K) downstream from the air regulator and use it to relieve trapped air. See Fig 1 and 3. Locate the other master air valve (C) upstream from all air line accessories and use it to isolate the accessories during cleaning and repair. See Fig 1.

WARNING

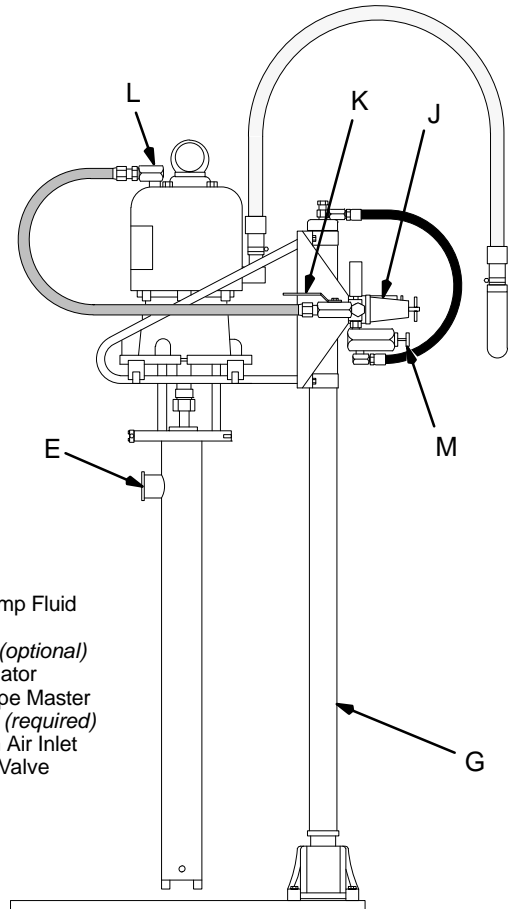
The bleed-type master air valve (K) is required in your system to shut off and relieve air pressure that may be trapped in the air motor. This air could cause the pump to cycle unexpectedly, which could result in serious bodily injury, including amputation, or splashing of fluid in the eyes.

Connect a 3/4 in. (19 mm) ID grounded air supply hose to the 3/4 npsm air inlet (L). See Fig 1 and 3.

Connect a grounded fluid hose to the pump's 2 in. (51 mm) Tri-clamp fluid outlet (E). See Fig 1 and 3.

Install a fluid ball valve (F) downstream from the pump fluid outlet. See Fig 1.

NOTE: Be sure to install the complete system in accordance with all state sanitary standard codes and local regulations.



KEY

- E 2" Tri-clamp Fluid Outlet
- G Elevator (*optional*)
- J Air Regulator
- K Bleed-Type Master Air Valve (*required*)
- L 3/4 npsm Air Inlet
- M Elevator Valve

Fig 3

Operation

Pressure Relief Procedure

WARNING

PRESSURIZED EQUIPMENT HAZARD

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. To reduce the risk of an injury from accidental spray from the dispense valve, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure,
- stop dispensing,
- check or service any of the system equipment,
- or install or clean the dispense valve nozzle.

1. Shut off the power to the pump.
2. Close the bleed-type master air valve (required in system).
3. Open the fluid ball valve and/or dispensing valve to relieve fluid pressure.

NOTE: The sanitary pump was assembled using sanitary lubricant on moving parts and was tested in water. Flush the pump thoroughly with an approved cleaning solution or disassemble and sanitize the parts before using the pump. Refer to the **Cleaning Procedure** on page 8. Check local and state codes for specific limitations.

Adjusting the Pump Speed and Pressure

WARNING

To reduce the risk of component rupture, which could cause serious bodily injury, *never* exceed 100 psi (7 bar) air supply pressure to the pump. Read the warning section **EQUIPMENT MIS-USE HAZARD**.

Open the bleed-type master air valve (K). Adjust the pump air regulator (J) until the pump is running smoothly.

Allow the pump to cycle slowly until all air is pushed out of the lines (the fluid will be flowing in a steady stream from the fluid outlet) and the pump is primed.

Pump Shutdown

To shut off the pump, close the bleed-type master air valve. Follow the **Pressure Relief Procedure**. Always stop the pump at the bottom of its stroke to prevent fluid from drying on the displacement rod (the air motor will exhaust at the bottom or top of the stroke).

Care of Pump

NOTICE

Do not expose the air motor to temperatures higher than 200° F (93° C) or the immersed fluid pump to temperatures higher than 140° F (60° C). Excessive temperatures may damage the pump packings and seals.

If the pump accelerates quickly, or is running too fast, stop the pump immediately and check the fluid supply. If the supply is empty and air has been pumped into the lines, refill the container and prime the pump and lines with fluid. Be sure to eliminate all air from the system.

NOTICE

Never allow the pump to run dry of fluid. A dry pump will accelerate to a high speed, possibly damaging itself.

Maintenance

IMPORTANT NOTE:

The following instructions show a basic procedure for cleaning a sanitary system. However, **Be sure** to clean the pump and system in accordance with your state sanitary standard codes and local regulations.

Be sure to disassemble the pump in order to thoroughly clean it.

Cleaning Procedure

1. Remove the pump from the fluid container and operate it until as much of the fluid as possible has been pumped out.
2. Flush the system thoroughly with an approved cleaning solution.

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 7.

3. Shut off the air to the pump and follow the **Pressure Relief Procedure** on page 7. Remove the air and fluid hoses from the pump. Disassemble the fluid pump and accessories. See **SERVICE** on page 10 to disassemble the pump.
4. Rinse all the pump parts again with water and allow them to dry.
5. Inspect all the pump parts and reclean any parts that are still soiled.

WARNING

Any damaged rubber parts **MUST** be replaced as they will harbor microorganisms that can contaminate the fluid.

6. Immerse all pump parts and the lubricant tube in an approved sanitizer before assembly. Take the pump parts out of the sanitizer one-by-one as needed.
7. Lubricate the moving pump parts and o-rings, packings and seals with approved waterproof sanitary lubricant.
8. Circulate the sanitizing solution through the pump and the system prior to use.

Troubleshooting

WARNING

To reduce the risk of serious injury, including splashing fluid or solvent in the eyes or on the skin, always follow the **Pressure Relief Procedure** on page 7 before checking, adjusting, cleaning or repairing the pump or any part of system.

NOTE: Check all possible remedies in the Troubleshooting Chart before disassembling the pump.

PROBLEM	CAUSE	SOLUTION
Pump fails to operate	Restricted air line or inadequate air supply Insufficient air pressure; closed or clogged air valves, etc. Exhausted fluid supply Damaged air motor	Clear air line or increase air supply Open or clean air valves, etc. Refill fluid supply Service, see manual 307592
Pump operates but output low on both strokes	Restricted air line or inadequate air supply Insufficient air pressure; closed or clogged air valves, etc. Exhausted fluid supply Obstructed fluid line, valves, dispensing valve, etc. Worn throat packing Damaged cylinder o-rings	Clear air line or increase air supply Open or clean air valves, etc. Refill fluid supply Clear (Relieve pressures and disconnect fluid line. Turn on air; if pump starts, the line, etc. is clogged.) Replace throat packing Replace cylinder o-rings
Pump operates but output low on down stroke	Held open or worn fluid intake valve Damaged cylinder o-rings	Clear or service fluid intake valve Replace cylinder o-rings
Pump operates but output low on up stroke	Held open or worn fluid piston or packing	Clear or service fluid piston or packing
Erratic or accelerated operation	Exhausted fluid supply Held open or worn fluid intake valve Held open or worn fluid piston or packing	Refill fluid supply Clear or service fluid intake valve Clear or service fluid piston or packing

Service

WARNING

To reduce the risk of serious bodily injury, including splashing fluid or solvent in the eyes or on the skin, always follow the **Pressure Relief Procedure** on page 7 before checking, adjusting, cleaning or repairing the pump or any part of system.

Displacement Pump Disassembly

NOTE: A Repair Kit is available. See page 15 and 17 for parts. Use all the parts in the kit for the best results.

1. Remove the pump from the fluid container. Operate it until as much of the fluid has been pumped out as possible.
2. Follow the **Pressure Relief Procedure** on page 7 and remove the air and fluid hoses from the pump.
3. Remove the 8 in. (203 mm) Tri-clamp® (20).
4. With the inlet housing (1) supported by the floor, use the ram to raise the air motor (26) until the throat packing housing (15) is visible. While holding the cylinder (2) in place, continue to raise the air motor until the throat packing housing (15) is removed from the cylinder.
5. Remove the gasket (18) from the top of the pump cylinder (2).
6. Place the cylinder (2) on a workbench.
7. Model 948292 only: Remove the two o-rings (4) and the retaining pin (3) from the inlet housing (1).
8. Remove and disassemble the inlet housing assembly. See Fig. 4 on page 11.
9. Remove the two o-rings (4) and ball stop pin (13) from the piston housing (8). Remove the 1-1/2 in. ball (12), piston ring (11), inner o-ring (10), outer o-ring (5), and piston gland (9).
10. Remove the throat packing housing (15). Remove the u-cup (16), throat bearing (17), and o-ring (5).
11. Clean and inspect the parts. Refer to the **Cleaning Procedure** on page 8.

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Displacement Pump Assembly

NOTE: Lubricate the o-rings, throat packings, and piston seals with waterproof approved sanitary lubricant when reassembling.

1. Install the u-cup (16) and throat bearing (17) in the throat packing housing (15) and the o-ring (5) on the outside of the housing.
2. Install the inner and outer o-ring (10 & 5) on the piston gland (9). Assemble the piston gland, piston ring (11), and 1-1/2 in. ball (12) with the piston housing (8).
3. Slide the throat packing housing assembly onto the displacement rod (14).
4. Install piston housing assembly on the displacement rod (14) with the ball stop pin (13) and o-rings (4).
5. Assemble the inlet housing assembly.
6. Insert the inlet housing assembly into the cylinder (2), start it onto the cylinder chamfer with a rubber mallet, then twist the inlet housing as you continue to press it completely into the cylinder. This will help avoid damaging the o-ring (5).
7. Model 948292 only: Secure the inlet housing (1) in place with the retaining pin (3) and o-rings (4).
8. Align the cylinder (2) with the displacement rod assembly.
9. Install the gasket (18) on the top of the cylinder (2).
10. Carefully lower the air motor while guiding the displacement rod into the cylinder.
11. Press the throat packing housing (15) into the cylinder.
12. Align the tie rods (22) with the holes in the pump cylinder (2) plate.
13. Install the gasket (18) on the top of the cylinder (2).
14. Lower the air motor, guiding it to the proper alignment with the pump cylinder.
15. Secure the air motor and pump cylinder together with the 8 in. (203 mm) Tri-clamp (20). Tighten the Tri-clamp securely.

Service

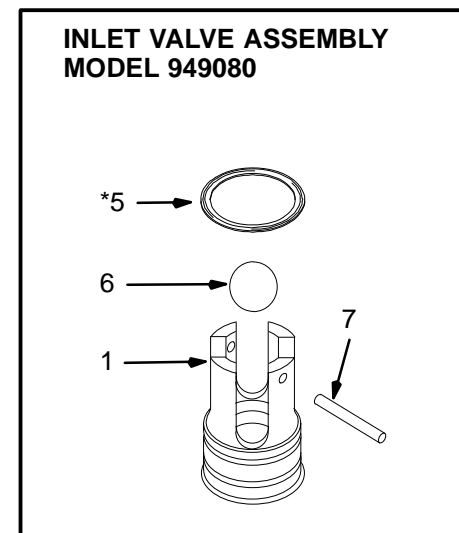
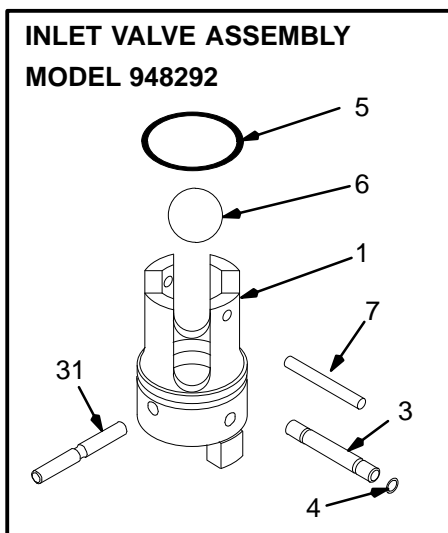
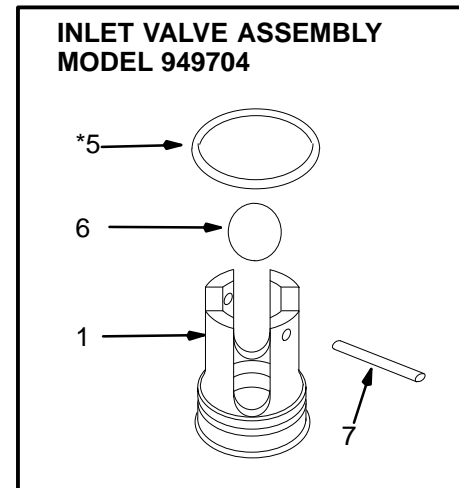
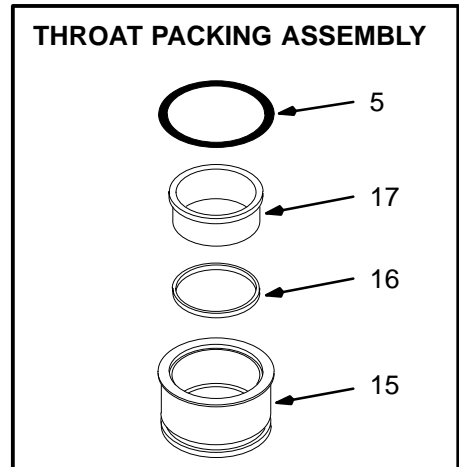
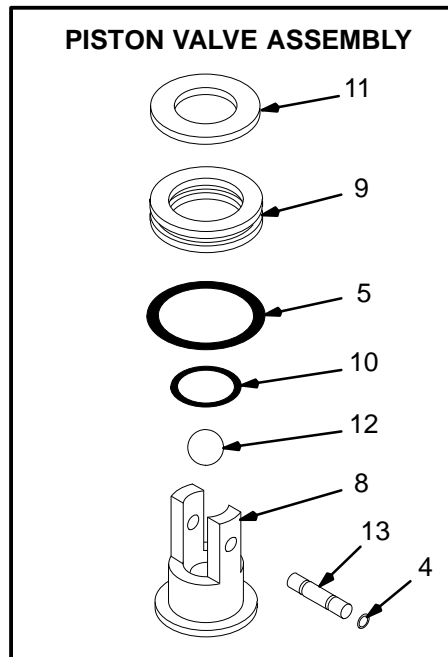
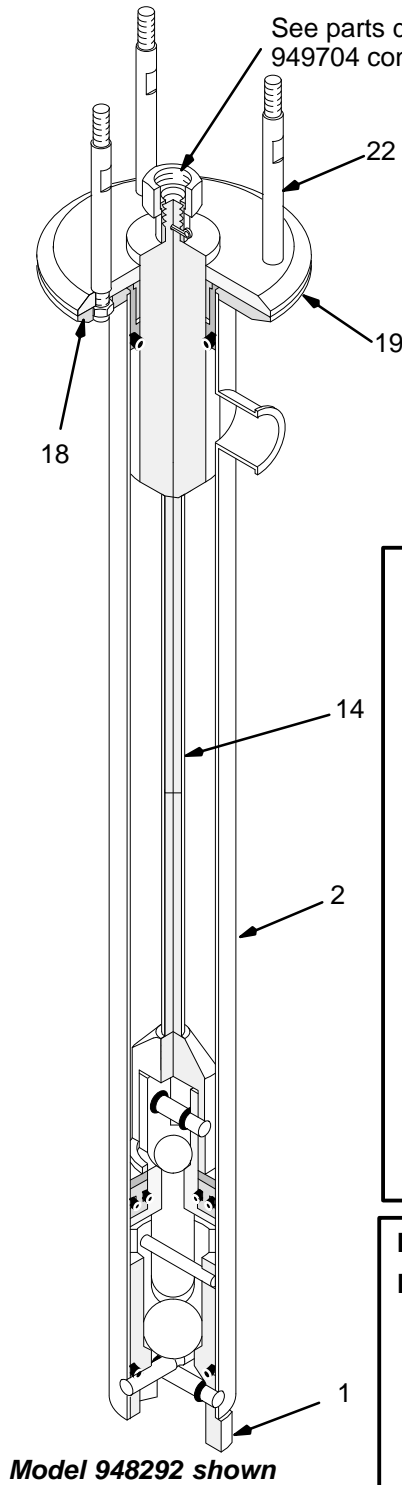


Fig 4

Service (Priming Piston Pump)

Disassembly

1. Remove the pump from the fluid container. Operate it until as much of the fluid has been pumped out as possible.

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 7.

2. **Relieve the pressure** and remove the air and fluid hoses from the pump.
3. Remove the retaining pin (39) from the connecting rod (7). Remove the priming piston (38) and release the tri-clamp (34) to disassemble the intake housing (1). Remove the intake valve (3) with packings (40), stop (37), gasket (33), and bearing (6). Clean and inspect parts for excessive wear.
4. Disassemble the displacement rod from the air motor using a punch and an appropriate wrench to hold the motor stud (5) and turn coupling (25). Once this is complete check the collar couplings (23) for wear and set aside as necessary.
5. Remove the 8" tri-clamp (20) and disassemble pump from air motor (26). Take care not to damage the gasket (18).
6. Carefully remove the displacement rod (14), throat bearing (17), seal (16), throat housing (15) and o-ring (5) from the cylinder (2). Take extreme care not to damage the cylinder or displacement rod.
7. Remove the retaining pin (13) from the displacement rod. Remove the connecting rod (7), ball (12), piston ring (11), and piston gland (9) from the displacement rod (14). Remove and inspect o-rings (5) and (10) from the piston gland (9).
8. Clean and inspect all the parts. Refer to the **Cleaning Procedure** on page 8. Replace the parts as necessary.

WARNING

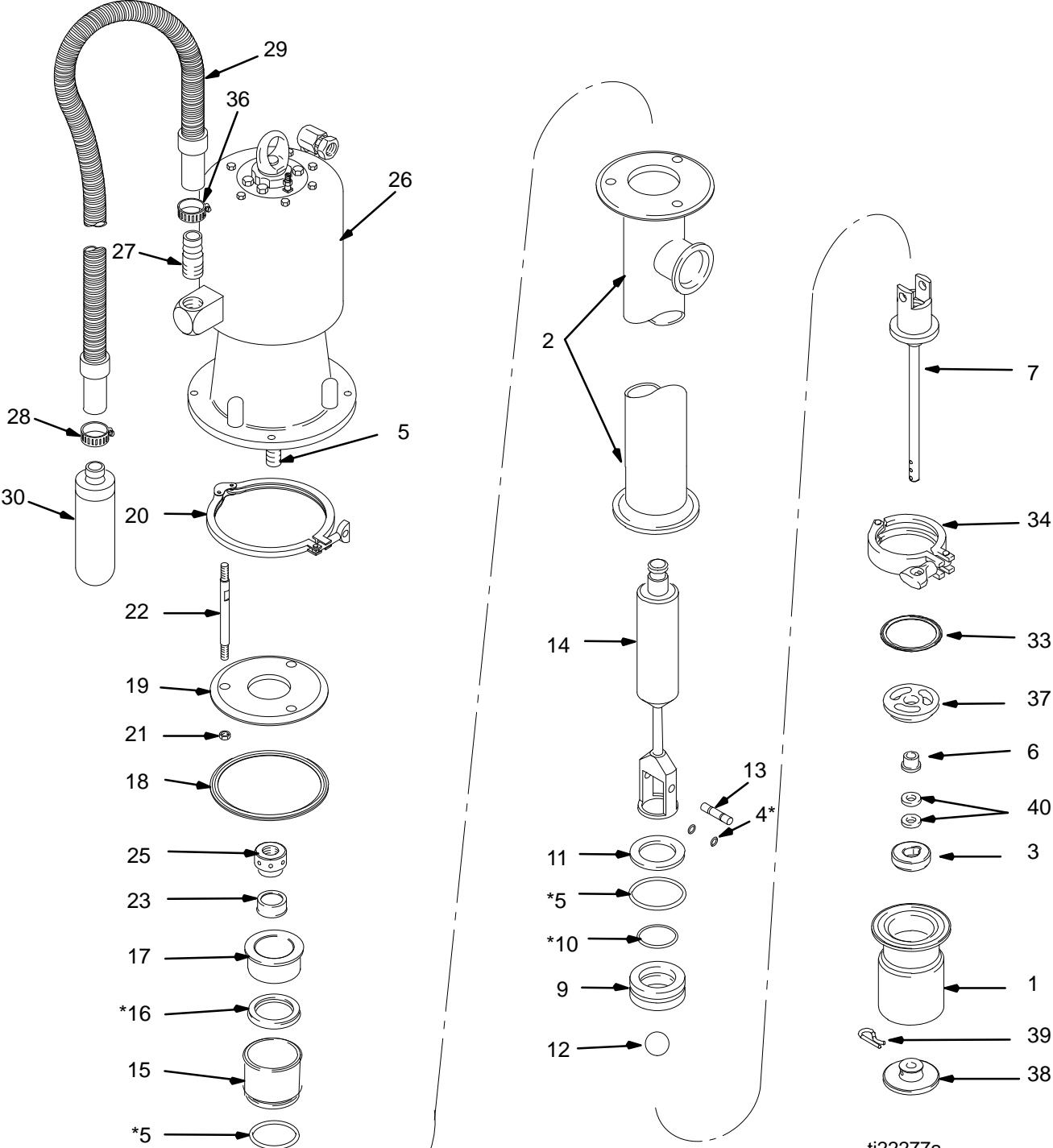
Any damaged rubber parts **must** be replaced as they will harbor microorganisms that can contaminate the fluid.

Reassembly

NOTE: Lubricate all o-rings and seals with a compatible lubricant prior to installation.

1. Install the u-cup seal (16) in the throat housing (15). The lips of the packing must face down into the housing. Install the throat bearing (17) and the o-ring (5) into the housing, and insert into the top of the cylinder (2). Insert the gasket (18). Using the 8" tri-clamp (20), connect the cylinder with the throat packings to the air motor. Tighten.
2. Install the o-rings (10) and (5) onto the piston gland (9). Slide the piston gland onto the connecting rod and attach piston ring (11). Insert ball (12) into the cage part of the connecting rod (7) and attach the connecting rod to the displacement rod (14) using pin (13) and the o-rings (4). From the bottom of the cylinder gently slide the rod assembly up through the throat packings. Lubricate the o-rings again if needed.
3. At the bottom of the cylinder, install the piston stop (37) and bearing (6). Insert the packings (40) into the intake valve (3) and gently slide onto the connecting rod (7). Attach gasket (33) to the intake housing (1). Using the 4" tri-clamp (34), attach gasket (33) and housing (1) to the cylinder. Tighten.
4. Using the pin (39), attach priming piston (38) to the connecting rod (7).
5. Push the rod assembly as needed to reconnect the air motor. Slide the coupling (25) over the top of the displacement rod (14) and place couplers (23) around the top of the rod. Slide the coupling (25) up and over the couplers (23) and thread onto the motor stud (5). Tighten using an appropriate wrench and punch.
6. Reconnect the ground wire if it was disconnected during service.

Service (Priming Piston Pump)

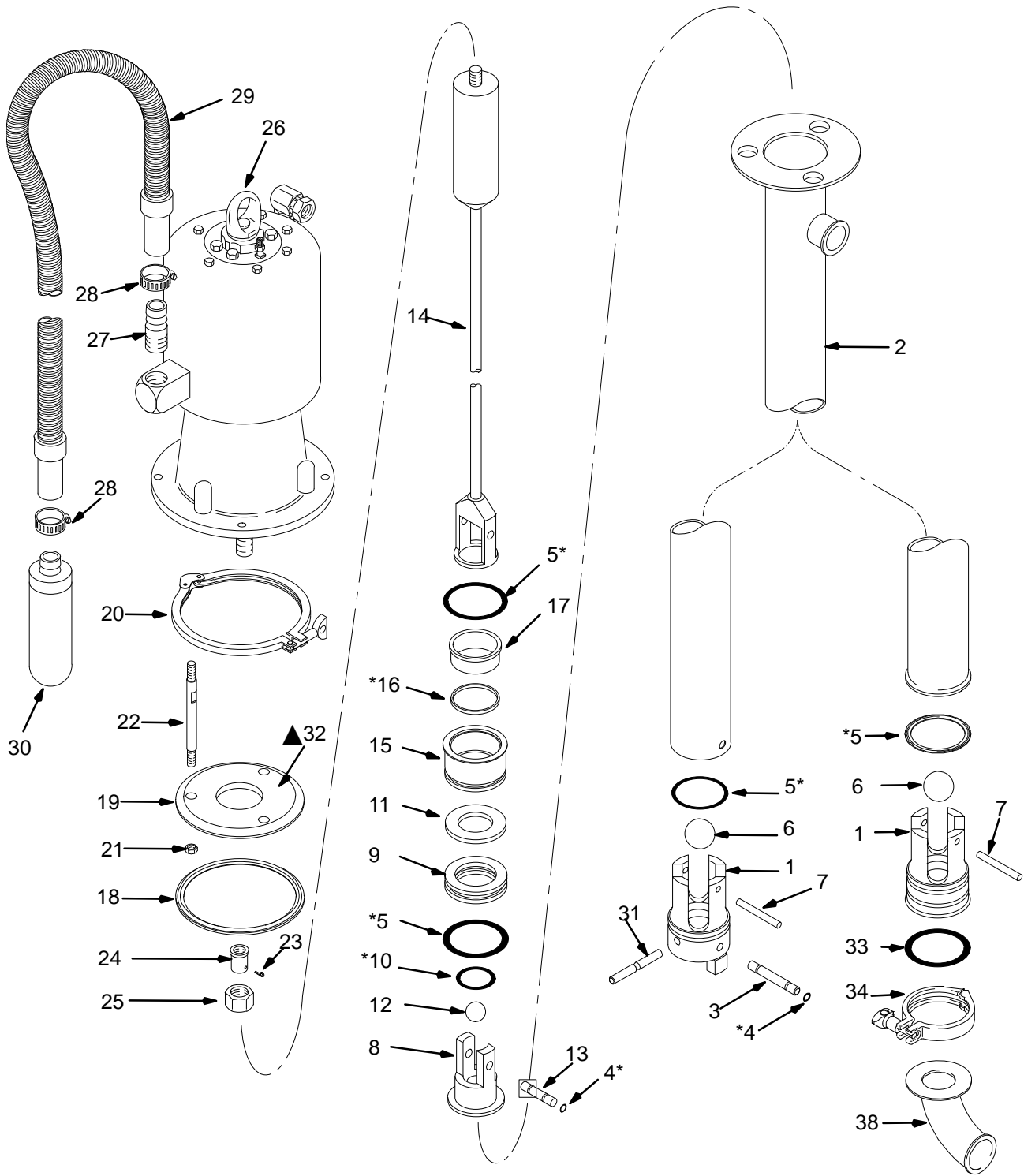


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Fig 5

Parts

Models 948292, 949080, 948649



ti2207a

Parts

Part No. 948292, 949080, 948649

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	624222	HOUSING, inlet (948292, 948649)	1	18✓	512606	GASKET, Tri-clamp®, 8"; buna-n (948292, 948649)	1
	625049	HOUSING, inlet (949080)	1		514321	GASKET, Tri-clamp®, 8"; fluoroelastomer (949080)	1
2	624255	CYLINDER, pump (948292)	1				
	625050	CYLINDER, pump (949080)	1				
	624957	CYLINDER, stubby (948649)	1				
3	624230	PIN, retaining, inlet (948292)	1	19	624248	PLATE, tie rod	1
4*	168004	O-RING; buna-n (948292, 948649)	4	20	512607	CLAMP, Tri-clamp, 8"	1
	514315	O-RING; fluoroelastomer (949080)	2	21	102216	NUT, lock; 5/8"-11	3
5*	512589	O-RING, buna-n (948292, 948649)	3	22	624249	ROD, tie	3
	514316	O-RING, fluoroelastomer (949080)	3	23✓	101946	PIN, cotter; 1/8" dia x 1-1/2"	1
6✓	512601	BALL, inlet; 2-1/4"; UHMWPE (948292, 948649)	1	24	166048	COUPLING, conn. rod; 3/4"-10"	1
	514317	BALL, inlet; 2-1/4"; PTFE (949080)	1	25	166049	NUT, swivel; 1-1/4"-12"	1
				26	624250	MOTOR, air, Senator; see 307592 for parts	1
7	624229	PIN, ball stop, inlet	1	27	503857	NIPPLE, pipe; 1" npt x 1-1/2"	1
8	624241	HOUSING, piston	1	28	101818	CLAMP, hose, 13/16 to 1-3/4"	2
9✓	624242	GLAND, piston; UHMWPE (948292, 948649)	1	29	102810	HOSE, flex; 1-1/4" ID x 6'	1
	625562	GLAND, piston; PTFE (949080)	1	30	512914	MUFFLER, sanitary; 1" npt(f)	1
10*	512602	O-RING; buna-n (948292, 948649)	1	31	624689	PIN, retaining, inlet, notched (948292)	1
	514318	O-RING; fluoroelastomer (949080)	1	32▲	186501	LABEL, warning	2
1				33	514322	GASKET, Tri-clamp, fluid inlet; 4" (949080)	1
11	624243	RING, piston	1	34	510490	CLAMP, Tri-clamp, fluid inlet; 4" (949080)	1
12✓	512603	BALL, piston; 1-1/2"; UHMWPE (948292, 948649)	1	38	513545	ELBOW, fluid inlet (949080)	1
	514319	BALL, piston; 1-1/2"; PTFE (949080)	1				
13	624244	PIN, ball stop, piston	1				
14	948305	ROD, displacement (948292)	1				
	624956	ROD, displacement (949080, 948649)	1				
15	624246	HOUSING, throat	1				
16*	512605	U-CUP; UHMWPE	1				
17✓	624265	BEARING, throat; acetal	1				

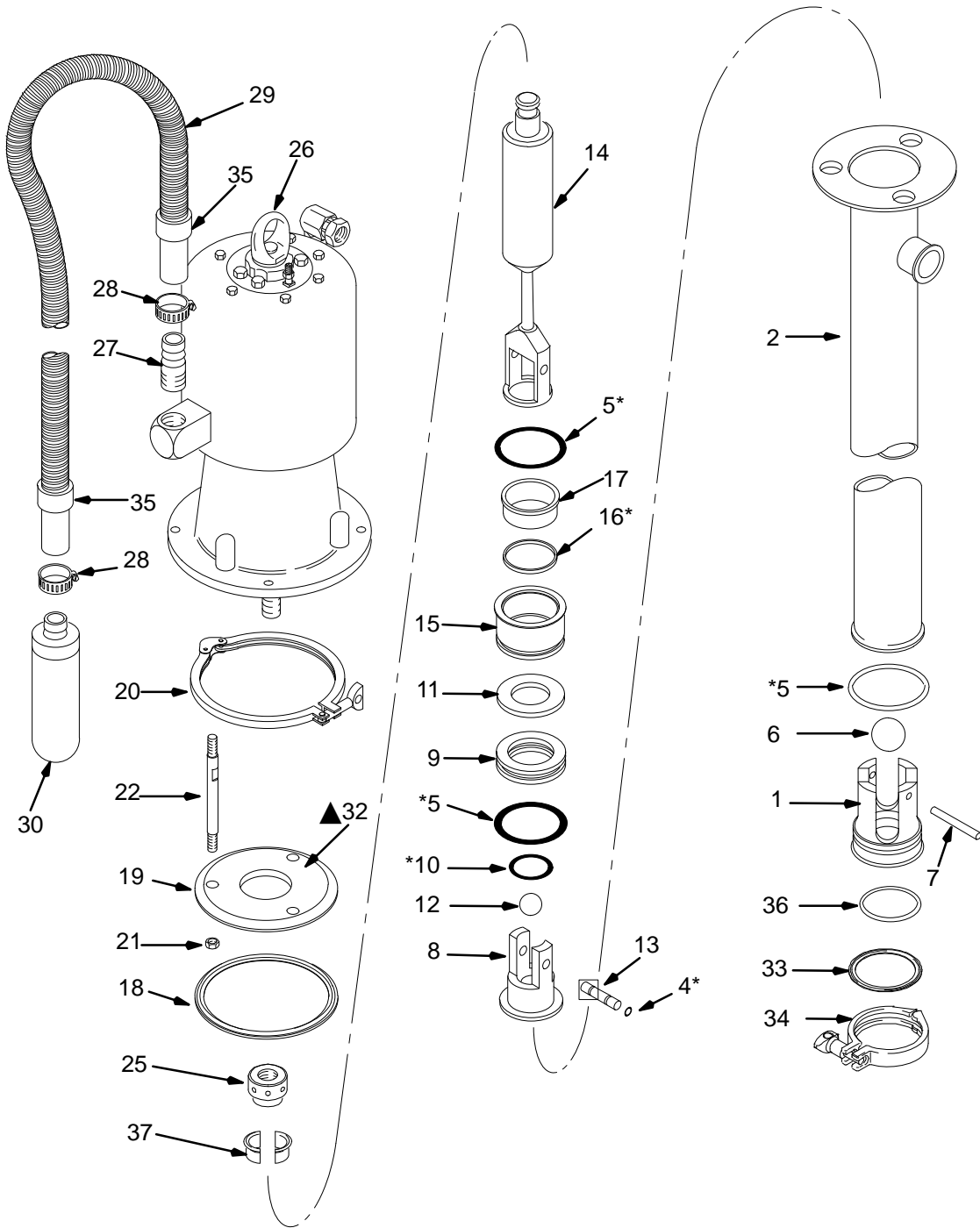
*Included in Pump Packing Kit 948408 (for pump model 948292).

✓ *Keep these spare parts on hand to reduce down time.*

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

Parts

Model 949704



ti2208a

Parts

Model 949704

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	626013	HOUSING, inlet	1	21	102216	NUT, lock; 5/8"-11	3
2	625050	CYLINDER, pump	1	22	626050	ROD, tie	3
4*	168004	O-RING; buna-n	2	25	626045	COUPLING	1
5*	512589	O-RING, buna-n	3	26	249441	MOTOR, air, Senator; see 307592 for parts	1
6✓	512601	BALL, inlet; 2-1/4"; UHMWPE	1	27	503857	NIPPLE, pipe; 1" npt x 1-1/2"	1
7	624229	PIN, ball stop, inlet	1	28	101818	CLAMP, hose, 13/16 to 1-3/4"	2
8	626014	HOUSING, piston	1	29	551297	HOSE, flex; 1-1/4" ID x 10'	1
9✓	624242	GLAND, piston; UHMWPE	1	30	512914	MUFFLER, sanitary; 1" npt(f)	1
10*	512602	O-RING; buna-n	1	32▲	186501	LABEL, warning	2
11	624243	RING, piston	1	33	513548	GASKET, Tri-clamp, fluid inlet; 4"	1
12✓	512603	BALL, piston; 1-1/2"; UHMWPE	1	34	510490	CLAMP, Tri-clamp, fluid inlet; 4"	1
13	624244	PIN, ball stop, piston	1	35	551298	COUPLING, hose	2
14	965531	ROD, displacement	1	36	551314	O-RING; silicone	1
15	624246	HOUSING, throat	1	37	184130	COLLAR, coupling	1
16*	512605	U-CUP; UHMWPE	1				
17✓	624265	BEARING, throat; acetal	1				
18✓	512606	GASKET, Tri-clamp®, 8"; buna-n	1				
19	624248	PLATE, tie rod	1				
20	512607	CLAMP, Tri-clamp, 8"	1				

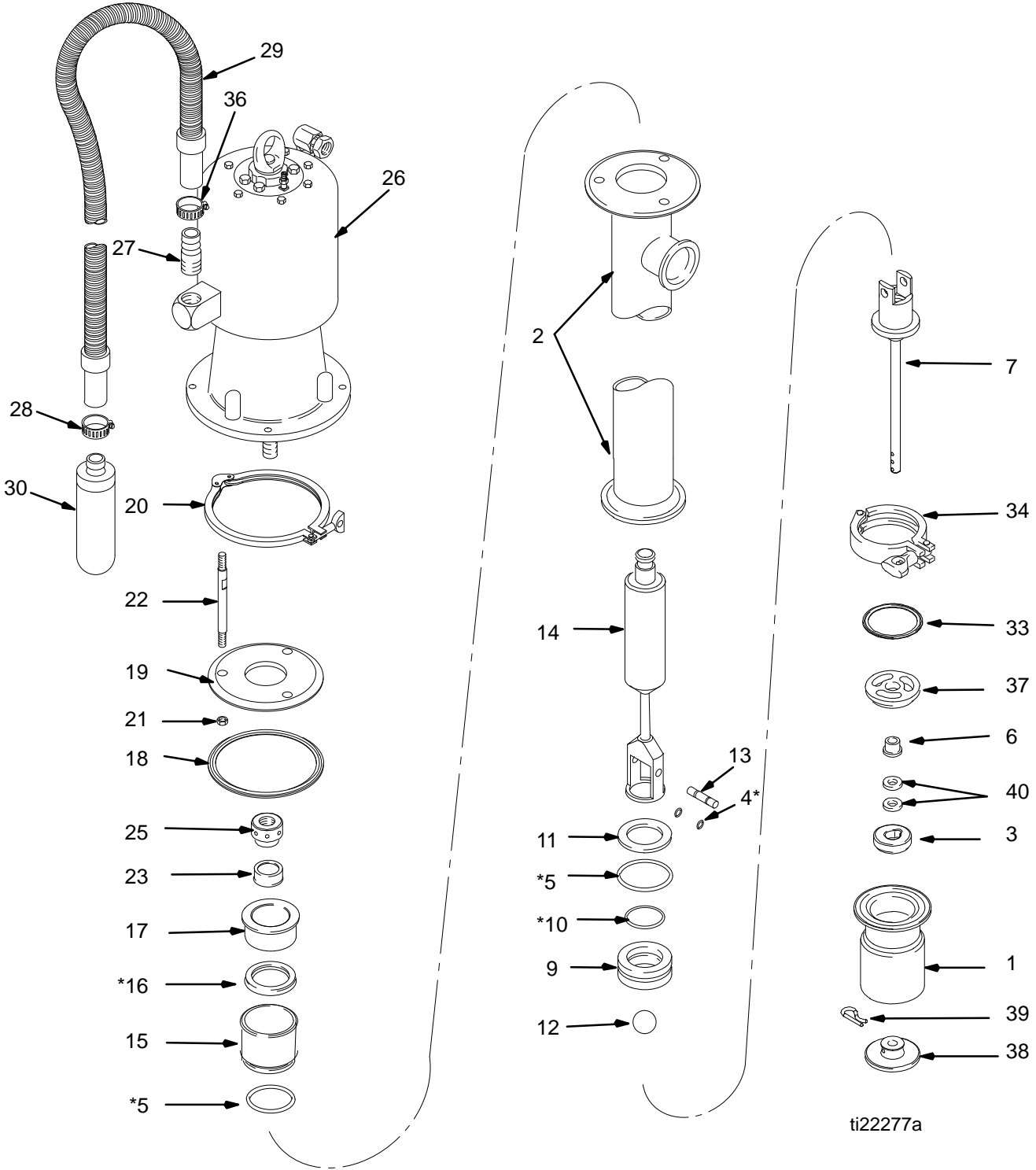
*Included in Pump Packing Kit 948408.

✓ Keep these spare parts on hand to reduce down time.

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

Parts

Model 570019



ti22277a

Parts

Model 570019

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	626580	HOUSING, inlet	1	26	249441	MOTOR, air, Senator; see 307592 for parts	1
2	625050	CYLINDER, pump	1	27	503857	NIPPLE, pipe; 1" npt x 1-1/2"	1
3	626582	POPPET, intake valve	1	28	101818	CLAMP, hose, 13/16 to 1-3/4"	2
4*	168004	O-RING; buna-n	2	29	102810	HOSE, flex	1
5*	512589	O-RING, buna-n	3	30	512914	MUFFLER, sanitary; 1" npt(f)	1
6✓	626579	BEARING, pump	1	32▲	186501	LABEL, warning	2
7	570081	ROD,connecting	1	33	513548	GASKET, Tri-clamp, fluid inlet; 4"	1
9✓	624242	GLAND, piston; UHMWPE	1	34	510490	CLAMP, Tri-clamp, fluid inlet; 4"	1
10*	512602	O-RING; buna-n	1	37	626578	STOP, inlet valve	1
11	624243	RING, piston	1	38	626581	PISTON,priming	1
12✓	512603	BALL, piston; 1-1/2"; UHMWPE	1	39	626584	PIN, retaining	1
13	624244	PIN, ball stop, piston	1	40†	552060	PACKING, inlet valve, neoprene	2
14	965531	ROD, displacement	1				
15	624246	HOUSING, throat	1				
16*	512605	U-CUP; UHMWPE	1				
17✓	624265	BEARING, throat; acetal	1				
18✓	512606	GASKET, Tri-clamp®, 8"; buna-n	1				
19	624248	PLATE, tie rod	1				
20	512607	CLAMP, Tri-clamp, 8"	1				
21	102216	NUT, lock; 5/8"-11	3				
22	626050	ROD, tie	3				
23	184130	COUPLING, collar	2				
25	626045	COUPLING	1				

*Included in Pump Packing Kit 948408.

✓ Keep these spare parts on hand to reduce down time.

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

† Available in FKM material, PN 17S592 (2 required), or Buna-N material, PN 17S593 (2 required)

Accessories

Use Only Genuine Graco Parts and Accessories

Quick Connect Coupler 110200

Allows fast change of the pump air supply for pump portability. Attaches directly to 3/4" air hose. 3/4 npt(f)

Quick Connect Nipple 110197

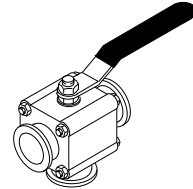
Threads directly into the air motor inlet port. Use with 110200 Quick Connect Coupler to provide pump portability. 3/4 npt(m)

Pump Elevator 947992

Air powered elevator lifts pump for fast drum change-over. Includes all the necessary air controls. Requires 8.5 ft (2.59 m) ceiling height. Refer to Fig 3 on page 6.

Manual Fluid Ball Valve 512881

800 psi (5.6 MPa, 56 bar) Maximum Working Pressure
2" Tri-clamp ported ball valve. Requires two each 500984 Tri-clamp and 512332 Gasket.



Automatic Fluid Ball Valve 512882

800 psi (5.6 MPa, 56 bar) Maximum Working Pressure
Similar to ball valve above but also includes an air powered operator for remote or automatic operation.

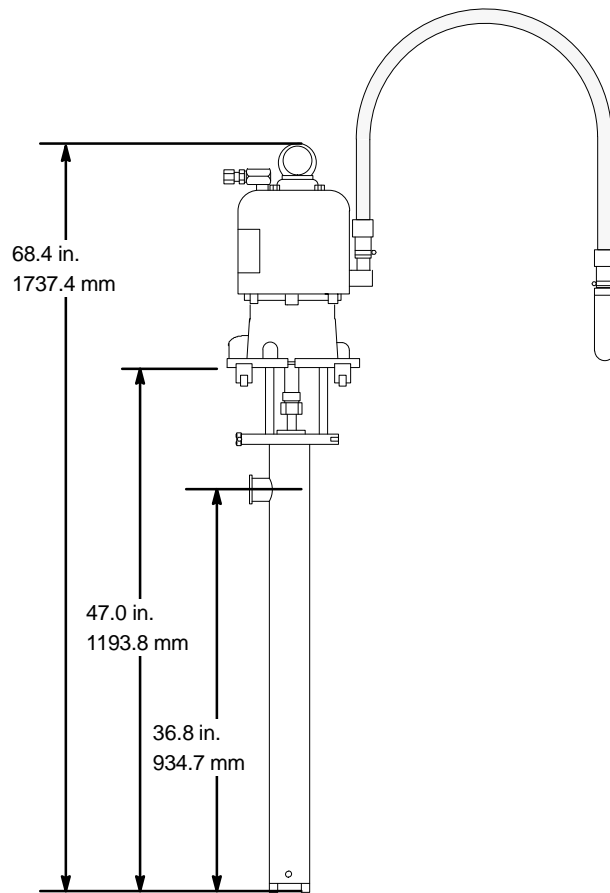
Outlet Fitting Clamp 500984

2" stainless Tri-clamp for attaching sanitary tubing or hose. *Does not include gasket.*

Outlet Fitting Gasket 512332

2" Tri-clamp series nitrile gasket for use with 500984 Tri-clamp.

Dimensions

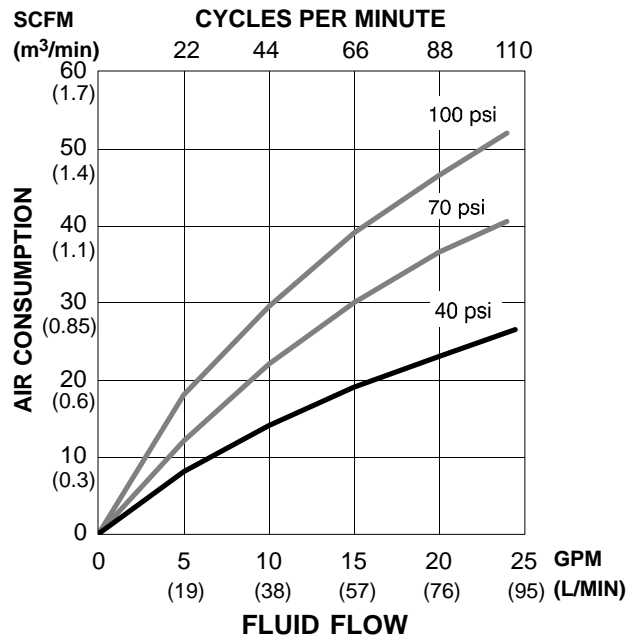
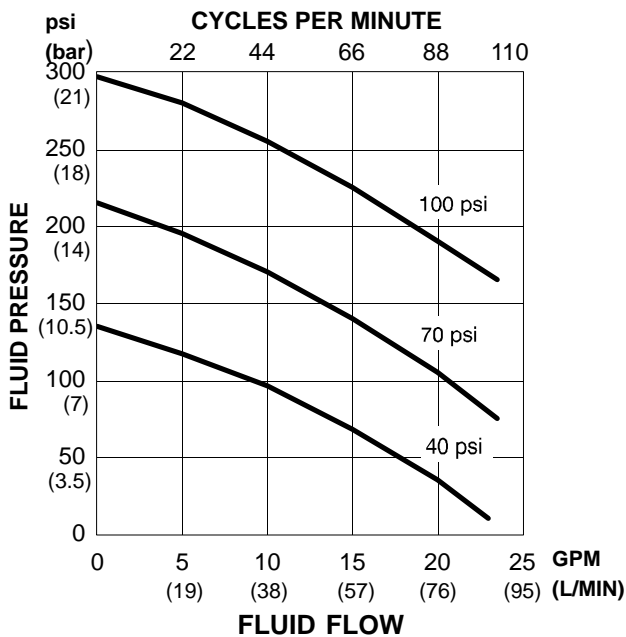


Technical Data

Category	Data
Air Operating Range	40 to 100 psi (0.3 to 0.7 MPa, 3 to 7 bar)
Maximum Air Input Pressure	100 psi (0.7 MPa, 7 bar)
Maximum Fluid Working Pressure	430 psi (3.0 MPa, 30 bar)
Maximum Recommended Pump Speed for Continuous Operation	60 cycles/min: 14 gpm (53 liter/min) delivery
Maximum Recommended Pump Speed for Intermittent Operation	Approximately 0.76 scfm per gallon/min at 70 psi (4.9 bar)
Air Consumption	100 cycles/min: 23 gpm (87.4 liter/min) delivery
Maximum Service Temperature	<i>Pump:</i> 140°F (60°C) <i>Air Motor:</i> 200°F (93°C)
Maximum Pumpable Particle Size	1/4 in. (6.4 mm) diameter
Weight	115 lb (51.75 kg)
Air Inlet	3/4 npsm(f)
Fluid Inlet (949080 only)	2.5 in. Tri-clamp®
Fluid Outlet	2 in. Tri-clamp®
Wetted Parts	<i>Models 948292, 949704, 948649 and 570019:</i> 316 Stainless Steel, Ultra High Molecular Weight Polyethylene, PTFE, FDA approved Buna-N <i>Model 949080:</i> 316 SST, PTFE and fluoroelastomer

Tri-clamp® is a registered trademark of Tri-Clover Inc.

Performance Charts



Test Fluid: 31% NTSS Cold Break Tomato Paste

Graco Standard Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor 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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For the latest information about Graco products, visit www.graco.com.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the distributor closest to you:

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

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