

Ink Pump Packages

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ENG

For use with medium to high viscosity inks. For professional use only.

Not for use in explosive atmospheres.

With priming piston and MaxLife[®] rod and cylinder.

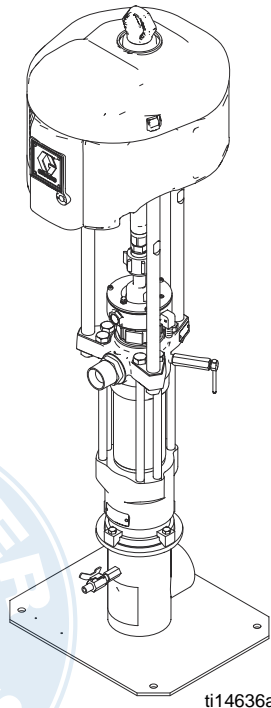


Important Safety Instructions

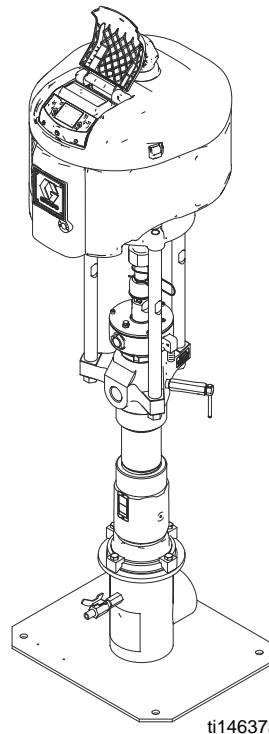
Read all warnings and instructions in this manual.
Save these instructions.

See page 3 for model information, including maximum working pressures.

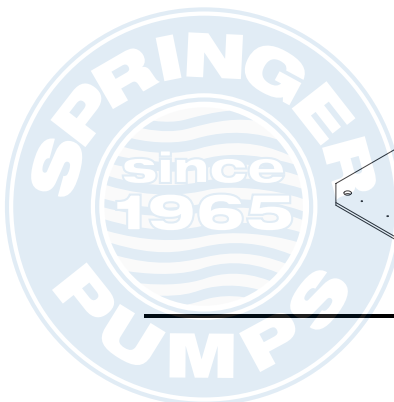
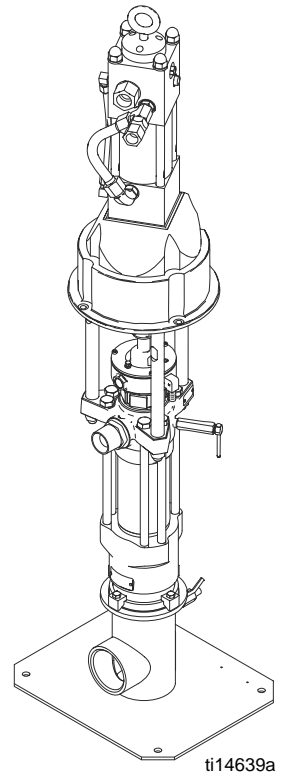
**Package with NXT Air Motor
and
L500CM Displacement Pump**



**Package with NXT Air Motor,
DataTrak[™], and L200CM
Displacement Pump**



**Package with Viscount II
Hydraulic Motor and L500CM
Displacement Pump**



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Related Manuals

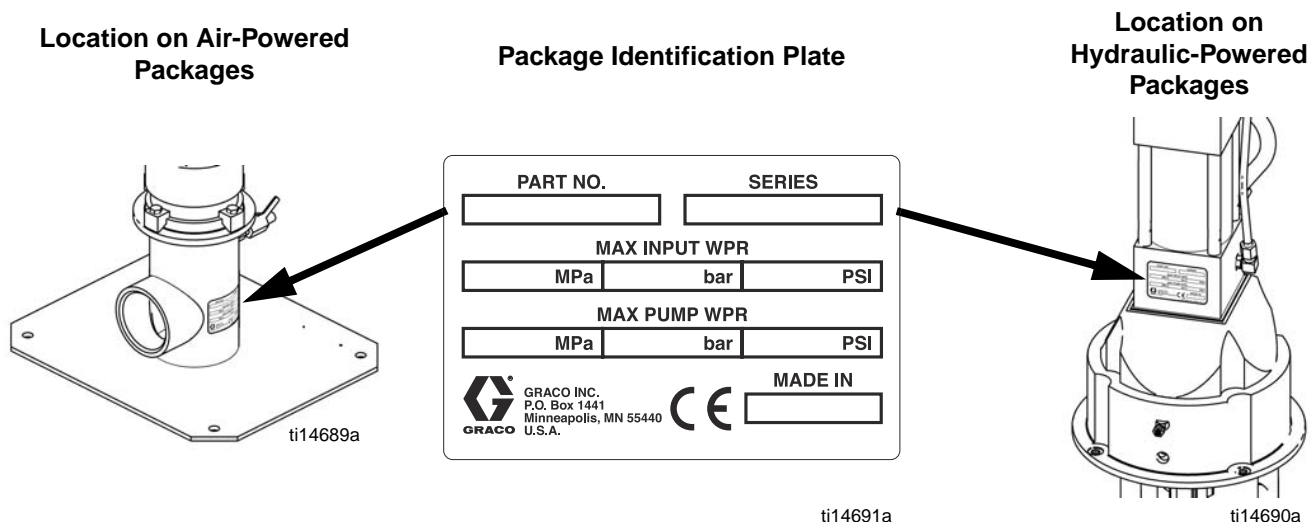
Component Manuals in English

Manual	Description
312375	Check-Mate® Displacement Pump Instructions-Parts
312376	Check-Mate® Pump Packages Instructions-Parts
312468	200 cc Check-Mate Displacement Pump Repair Parts Manual
312470	500 cc Check-Mate Displacement Pump Repair Parts Manual
311238	NXT Air Motor Instructions-Parts
307158	Viscount® II Hydraulic Motor Instructions-Parts
3A0133	24C743 and 24C744 King™ Air Motor Conversion Kits; 24D625 Viscount® II Hydraulic Motor Conversion Kit



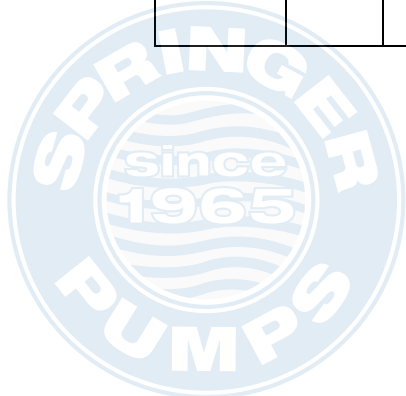
Ink Pump Packages

Check your pump package's identification plate for the 6-digit part number of your pump package.







To order replacement parts, see **Parts** section starting on page 16.

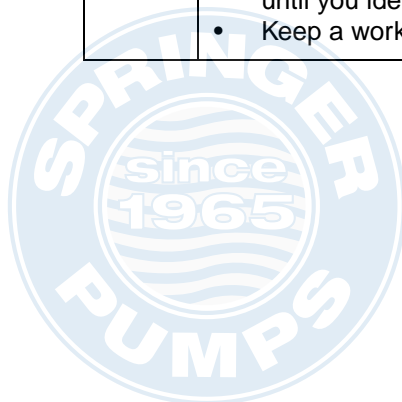
Ink Pump Package Part No.	Series	Ratio	Data Monitoring			Power Source	Pump Size	Maximum Air or Hydraulic Input Pressure psi (MPa, bar)	Maximum Fluid Working Pressure psi (MPa, bar)
			None	DataTrak	Remote DataTrak				
258744	A	14:1	✓			Air	500 cc	100 (0.7, 7.0)	1400 (9.7, 97)
258745	A	14:1		✓		Air	500 cc	100 (0.7, 7.0)	1400 (9.7, 97)
258746	A	14:1			✓	Air	500 cc	100 (0.7, 7.0)	1400 (9.7, 97)
258747	A	23:1	✓			Air	200 cc	100 (0.7, 7.0)	2300 (15.9, 159)
258748	A	23:1		✓		Air	200 cc	100 (0.7, 7.0)	2300 (15.9, 159)
258749	A	23:1			✓	Air	200 cc	100 (0.7, 7.0)	2300 (15.9, 159)
258750	A	26:1	✓			Air	500 cc	100 (0.7, 7.0)	2600 (17.9, 179)
258751	A	26:1		✓		Air	500 cc	100 (0.7, 7.0)	2600 (17.9, 179)
258752	A	26:1			✓	Air	500 cc	100 (0.7, 7.0)	2600 (17.9, 179)
258753	A	1.6:1	✓			Hydraulic Oil	500 cc	1500 (10, 103)	2300 (15.9, 159)







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 symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

 WARNING	
	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Do not point gun at anyone or at any part of the body. • Do not put your hand over the spray tip. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Do not spray without tip guard and trigger guard installed. • Engage trigger lock when not spraying. • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure in this manual. Disconnect power or air supply.
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area 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 pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc). • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. • Ground all equipment in the work area. See Grounding instructions. • Use only grounded hoses. • Hold gun firmly to side of grounded pail when triggering into pail. • If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area.



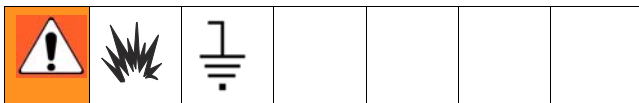
 **WARNING**

	<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 Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. • Use equipment only for its intended purpose. Call your distributor for information. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not kink or over bend hoses or use hoses to pull equipment. • Keep children and animals away from work area. • Comply with all applicable safety regulations.
 	<p>TOXIC FLUID OR FUMES HAZARD</p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> • Read MSDS's to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines. • Always wear impervious gloves when spraying or cleaning equipment.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear • Clothing and respirator as recommended by the fluid and solvent manufacturer • Gloves • Hearing protection



Installation

Grounding (All Pumps)



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

Pump: use the ground wire and clamp supplied. Remove the ground screw (air-powered packages) or loosen the grounding lug locknut and washer (hydraulic-powered packages). Install the 1.5 mm² (12 ga) minimum ground wire and tighten the screw or locknut securely. Connect the clamp to a true earth ground.

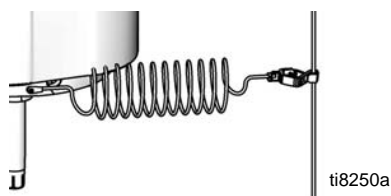


FIG. 1. Ground Wire

Air and fluid hoses: use only electrically conductive hoses.

Air compressor: follow manufacturer's recommendations.

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

Fluid supply container: follow your local code.

Object being sprayed: follow your local code.

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

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

Location

When selecting the location for the pump, keep the following in mind:

- There must be sufficient space on all sides of the pump for installation, operator access, repair, and air circulation. See **Dimensions**, page 18.
- Ensure that the floor stand (2) is level in all directions. If necessary, level the stand using metal shims. Secure the stand to the floor using 1/2 in. (13 mm) anchors that are long enough to prevent the pump from tipping. See **Dimensions**, page 18, for mounting hole layout.










Air-Powered Pumps

- Reference numbers and letters in parentheses in the text refer to numbers and letters in the illustrations.
- FIG. 2, page 9, shows a typical installation of an air-powered pump. It is only a guide. Contact your Graco distributor for actual system designs.
- Be sure all accessories, including air lines and fluid lines, are adequately sized and pressure-rated to meet system requirements.
- Use only electrically conductive hoses. Fluid hoses must have spring guards on both ends.

Air Line Accessories

Install the following accessories as shown in FIG. 2, using adapters as necessary.

						
<p>A bleed type master air valve (J) is required to help reduce the risk of serious injury, including fluid injection and splashing of fluid in the eyes or on the skin, and injury from moving parts if you are adjusting or repairing the pump.</p> <p>The bleed valve shuts off the air to the pump and relieves air trapped between this valve and the pump after the air is shut off. Trapped air can cause the pump to cycle unexpectedly. Locate the valve close to the pump.</p>						

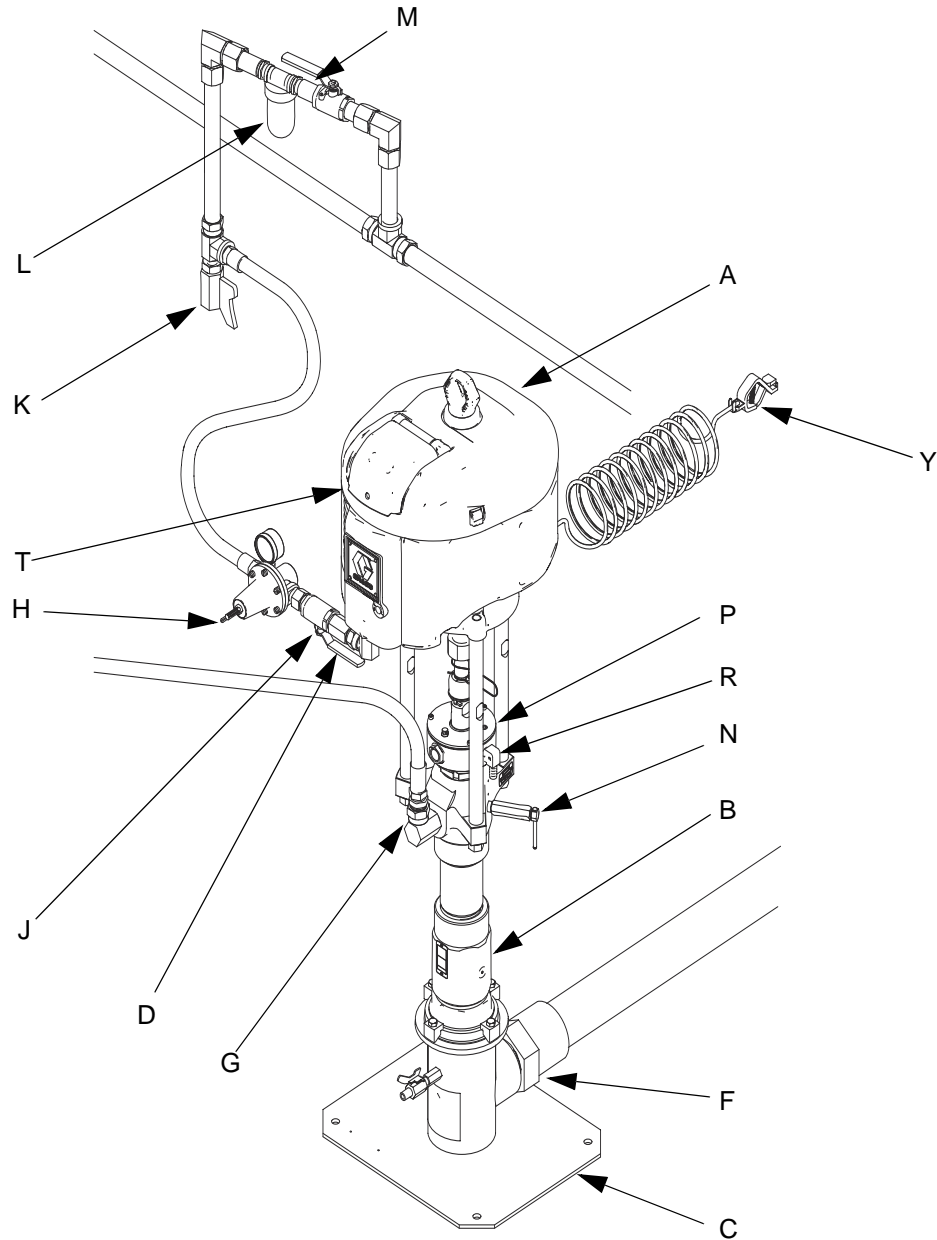
- **Bleed type master air valve (J)** is required in your system to shut off the air supply to the pump. When closed, the valve will bleed off all air in the pump. Be sure the valve is easily accessible from the pump.
- **Air regulator (H)** controls pump speed and outlet pressure by adjusting the air pressure to the pump. Locate the regulator close to the pump, but upstream from the bleed-type master air valve.
- **Air line filter (L)** removes harmful dirt and moisture from the compressed air supply. Also, install a drain valve at the bottom of each air line drop, to drain off moisture.

- **Air shutoff relief valve (M)** isolates the air line accessories for servicing. Locate upstream from all other air line accessories.
- **DataTrak:** see the NXT air motor manual 311238 for DataTrak information.

Fluid Line Accessories

Install the following accessories as shown in FIG. 2, using adapters as necessary.

- Install a **fluid shutoff valve** at each valve drop, to isolate the valve and fluid accessories for servicing.
- Install a **fluid drain valve** near the pump fluid outlet, and at each valve station. The drain valves are required in your system to relieve fluid pressure in the displacement pump, hose and valve. Drain valves at the valve stations may be mounted in the base of a fluid regulator, using an adapter.
- **Fluid regulator** controls fluid pressure to the valve, and dampens pressure surges.
- **Dispense valve** dispenses the fluid.
- **Valve swivel** allows freer valve movement.



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Fig. 2. Typical Installation, Air-Powered Pumps

Key:

- | | | | |
|---|--|---|---|
| A | Air Motor | M | Air Shutoff Relief Valve (for accessories, not supplied) |
| B | Displacement Pump | N | Pump Bleed Valve |
| C | Floor Stand | P | Wet Cup |
| D | Air Inlet | R | Wet Cup Drain Fitting (if used) |
| F | 76 mm (3 in.) Fluid Inlet | T | DataTrak Module (standard module shown; see Ink Pump Packages chart on page 3 for data monitoring options) |
| G | Fluid Outlet | Y | Ground Wire (required, see page 7) |
| H | Air Regulator | | |
| J | Bleed Type Master Air Valve (required) | | |
| K | Air Line Drain Valve (not supplied) | | |
| L | Air Filter (not supplied) | | |

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Hydraulic-Powered Pumps

- Reference numbers and letters in parentheses in the text refer to numbers and letters in the illustrations.
- FIG. 3, page 11, shows a typical installation of an hydraulic-powered pump. It is only a guide. Contact your Graco distributor for actual system designs.
- Be sure all accessories, including hydraulic lines and fluid lines, are adequately sized and pressure-rated to meet system requirements.
- Use only electrically conductive hoses. Fluid hoses must have spring guards on both ends.

On the hydraulic oil supply line (D), install a shutoff valve (E) to isolate the system for servicing; a fluid pressure gauge (J) to monitor hydraulic oil pressure to the motor and avoid overpressurizing the motor or displacement pump; a pressure- and temperature-compensated flow control valve (H) to prevent the motor from running too fast; a pressure reducing valve (K) with a drain line (M) running directly into the hydraulic return line (T); and an accumulator (L) to reduce the hammering effect caused by the motor reversing direction.

On the hydraulic return line (T), install a shutoff valve (S) for isolating the motor for servicing.

NOTICE

The Hydraulic Power Supply must be kept clean at all times to avoid damage to the motor and hydraulic power supply.

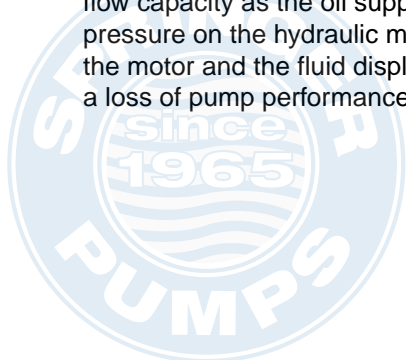
Blow out hydraulic lines with air and flush thoroughly before connection to the motor.

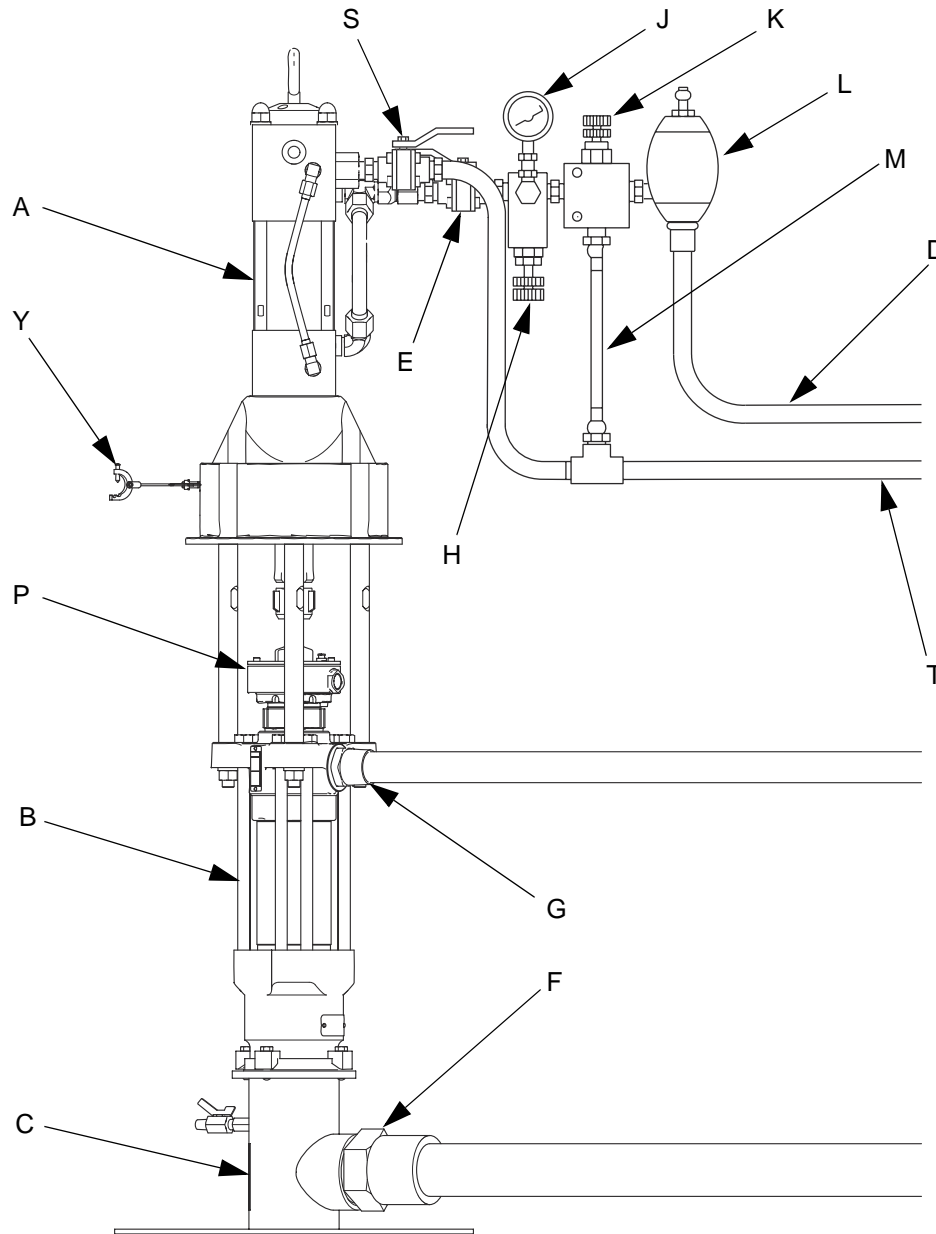
Plug hydraulic inlets, outlets, and line ends when disconnecting them for any reason.

Always plug the hydraulic inlets, outlets and lines when disconnecting them for any reason to avoid introducing dirt and other contaminants into the system.

Be sure that your hydraulic power supply is equipped with a suction filter to the hydraulic pump and a system return line filter of 10 micron size. Carefully follow the manufacturer's recommendations on reservoir and filter cleaning and periodic changes of hydraulic fluid.

NOTE: Hydraulic fluid is exhausted from differential hydraulic motors only on the upstroke of the operating cycle. The oil return line must have at least twice the flow capacity as the oil supply line. Otherwise, back pressure on the hydraulic motor piston will slow down the motor and the fluid displacement pump, resulting in a loss of pump performance.





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FIG. 3. Typical Installation, Hydraulic-Powered Pumps

Key:

- A Hydraulic Motor
- B Displacement Pump
- C Floor Stand
- D Hydraulic Supply Line
- E Hydraulic Supply Line Shutoff Valve
- F 76 mm (3 in.) Fluid Inlet
- G Fluid Outlet
- H Flow Control Valve
- J Hydraulic Pressure Gauge
- K Pressure Reducing Valve

- L Accumulator
- M Drain Line
- N Pump Bleed Valve (see FIG. 6 on page 15)
- P Wet Cup
- R Wet Cup Drain Fitting (if used; see FIG. 5 on page 12)
- S Hydraulic Return Line Shutoff Valve
- T Hydraulic Return Line
- Y Ground Wire

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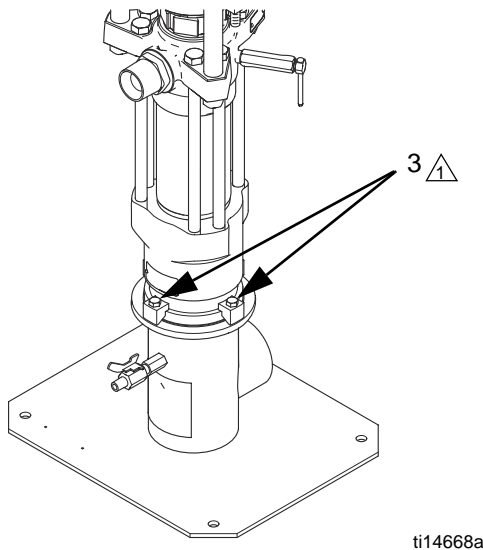
Website: www.springerpumps.com
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Setup

Tighten Clamps

See FIG. 4. Before starting, torque the screws (3) securing the four clamps (4) to 21-25 ft-lb (28-34 N•m).

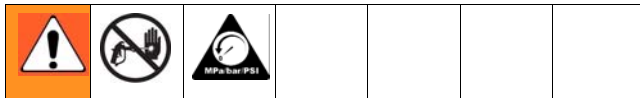
 Torque to 21-25 ft-lb (28-34 N•m).



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FIG. 4. Wet Cup

Wet Cup



See FIG. 5. Before starting, fill the wet cup (P) 1/3 full with Graco Throat Seal Liquid (TSL) or compatible solvent.

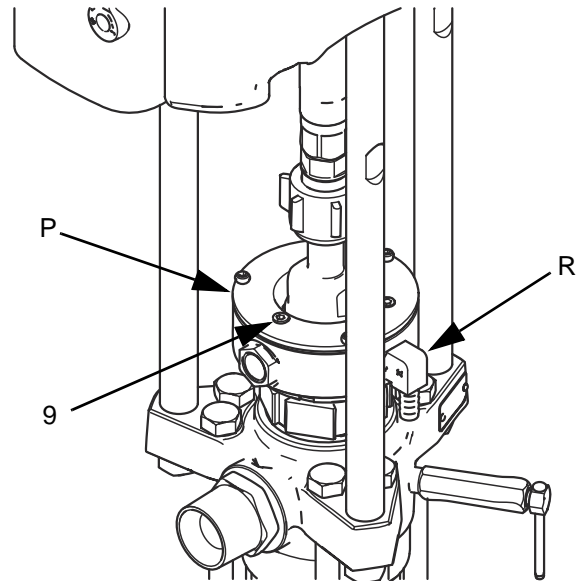
NOTE: The wet cup has a covered fill port fitting. A plug (9) is shipped loose with the pump and can be installed in place of the covered fitting if desired.

Wet Cup Drain Fitting

As supplied, the side port of the wet cup is plugged. To install a drain tube, remove the plug and install the supplied 90° tube fitting (R) in its place. Attach a 1/2 in. (13 mm) ID flexible plastic tube (not supplied) to the fitting to drain any overflow to a pail.

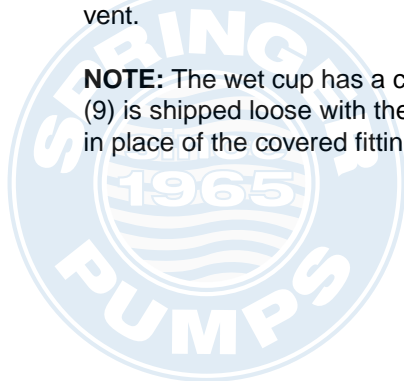
Torque Wet Cup

MaxLife pumps use a special u-cup throat seal that is non-adjustable and does not require periodic torquing.

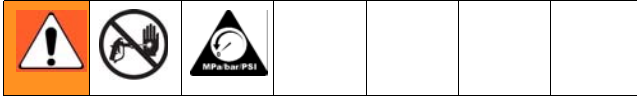


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FIG. 5. Wet Cup



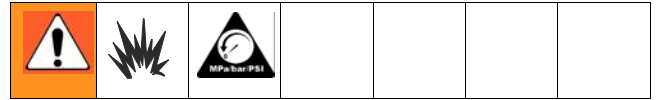
Pressure Relief Procedure



1. Lock the dispense valve trigger.
2. Shut off the power to the pump:
 - In an air-powered system, close the air regulator (H) and the bleed-type master air valve (J).
 - In a hydraulic-powered system, close the hydraulic supply line shutoff valve (E) first, then the return line shutoff valve (S).
3. Unlock the valve trigger.
4. Hold a metal part of the valve firmly to the side of a grounded metal pail, and trigger the valve to relieve pressure.
5. Lock the valve trigger.
6. Open the fluid line drain valve and the pump bleed valve (N). Have a container ready to catch the drainage.
7. Leave the pump bleed valve open until ready to dispense again.

If you suspect that the nozzle or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, very slowly loosen the retaining nut, nozzle, or hose end coupling and relieve pressure gradually, then loosen completely. Now clear the nozzle or hose.

Prime/Flush



NOTE: The pump is tested with lightweight oil, which is left in to protect the pump parts. If the fluid you are using may be contaminated by the oil, flush it out with a compatible solvent before using the pump.

Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended flushing fluids and flushing frequency. Always flush the pump before fluid dries on the displacement rod.

NOTICE

Never leave water or water-based fluid in a carbon steel pump overnight. If you are pumping a water-based fluid, flush with water first. Then flush with a rust inhibitor, such as mineral spirits. Relieve pressure, but leave rust inhibitor in pump to protect parts from corrosion.

1. Follow **Pressure Relief Procedure** on page 13.
2. Supply solvent to the pump.
3. Hold a metal part of the valve firmly to the side of a grounded metal pail.
4. Start the pump. Always use the lowest possible fluid pressure when flushing.
5. Trigger the valve.
6. Flush the system until clear solvent flows from the valve.
7. Relieve the pressure.



Start Up and Adjust Pump



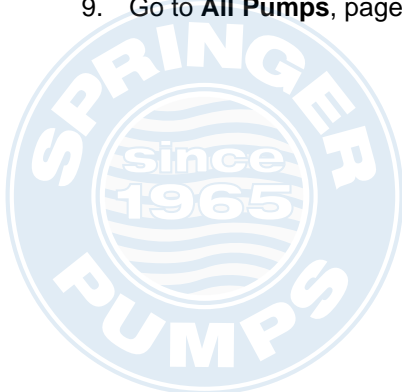
Keep hands and fingers away from the priming piston during operation and whenever the pump is charged with air. The priming piston extends beyond the intake housing to pull material into the pump and can amputate a hand or finger caught between it and the intake housing. Follow the **Pressure Relief Procedure** on page 13 before checking, clearing, or cleaning the priming piston.

Air-Powered Pumps



1. Supply fluid to the pump, per the requirements of your system.
2. Be sure the pump air regulator (H) is closed.
3. Open the bleed-type master air valve (J).
4. Hold a metal part of the valve firmly to the side of a grounded metal pail and hold the trigger open.
5. Adjust the pump air regulator (H) until the pump starts.
6. Cycle the pump slowly until all air is pushed out and the pump and hoses are fully primed.
7. Release the valve trigger and lock the trigger safety. The pump should stall against pressure.
8. Use the pump air regulator to control the pump speed and the fluid pressure. Always use the lowest pressure necessary to get the desired results. Higher pressures cause premature nozzle and pump wear.
9. Go to **All Pumps**, page 15.

Hydraulic-Powered Pumps

1. Supply fluid to the pump, per the requirements of your system.
2. Open the dispensing valve(s).
3. To adjust the system, perform the following procedure:
 - a. Turn on the hydraulic power supply.
 - b. Open the flow control valve (H) all the way.
 - c. Adjust the pressure-reducing valve (K) until you get the desired fluid pressure. Run the pump until all air is purged from the fluid lines.
 - d. Count the cycle rate of the pump.
 - e. Close the flow control valve (H) until the cycle rate and fluid pressure start to drop.
 - f. Open the flow control valve slightly until the cycle rate and fluid pressure return to the desired level. This method of setting the hydraulic controls ensures proper pump operation and will prevent pump runaway and damage if the fluid supply runs out.
4. Release the valve trigger and lock the trigger safety. The pump should stall against pressure.
5. Always use the lowest pressure necessary to get the desired results. Higher pressures cause premature nozzle and pump wear.
6. Go to **All Pumps**, page 15.

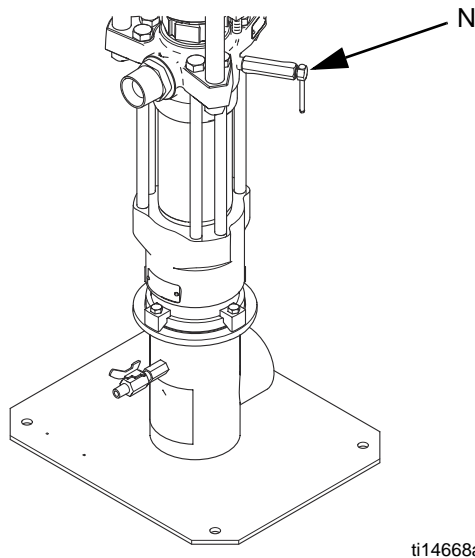


All Pumps

						
<p>To reduce the risk of fluid injection, do not use your hand or fingers to cover the bleed hole on the underside of the bleed valve body (N) when priming the pump. Use the handle or a crescent wrench to open and close the bleed plug. Keep your hands away from the bleed hole.</p>						

If the pump fails to prime properly, open the pump bleed valve (N) slightly. See FIG. 6. Use the bleed hole, on the underside of the valve, as a priming valve until the fluid appears at the hole. Close the plug.

NOTE: Always use lowest possible fluid pressure to bleed air out of pump.






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FIG. 6. Pump Bleed Valve

NOTE: When changing fluid containers with the hose and valve already primed, open the pump bleed valve (N), to help prime the pump and vent air before it enters the hose. Close the valve when all air is eliminated.

With the pump and lines primed, and with adequate input pressure and volume supplied, the pump will start and stop as you open and close the valve. In a circulating system, the pump will speed up or slow down on demand until it is shut off.

Shutdown

						
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NOTICE

Never leave water or water-based fluid in a carbon steel pump overnight. If you are pumping water-based fluid, flush with water first, then with a rust inhibitor, such as mineral spirits. Relieve pressure, but leave rust inhibitor in pump to protect parts from corrosion.

1. Stop the pump at the bottom of the stroke to prevent fluid from drying on the exposed displacement rod and damaging the throat packings.
2. Follow **Pressure Relief Procedure**, page 13.
3. Always flush the pump before the fluid dries on the displacement rod. See **Prime/Flush** on page 13.

NOTICE

Do not allow the pump to run dry. It will quickly accelerate to a high speed, causing damage. If your pump is running too fast, stop it immediately and check the fluid supply. If the container is empty and air has been pumped into the lines, refill the container and prime the pump and the lines, or flush and leave it filled with a compatible solvent. Eliminate all air from the fluid system.

Parts

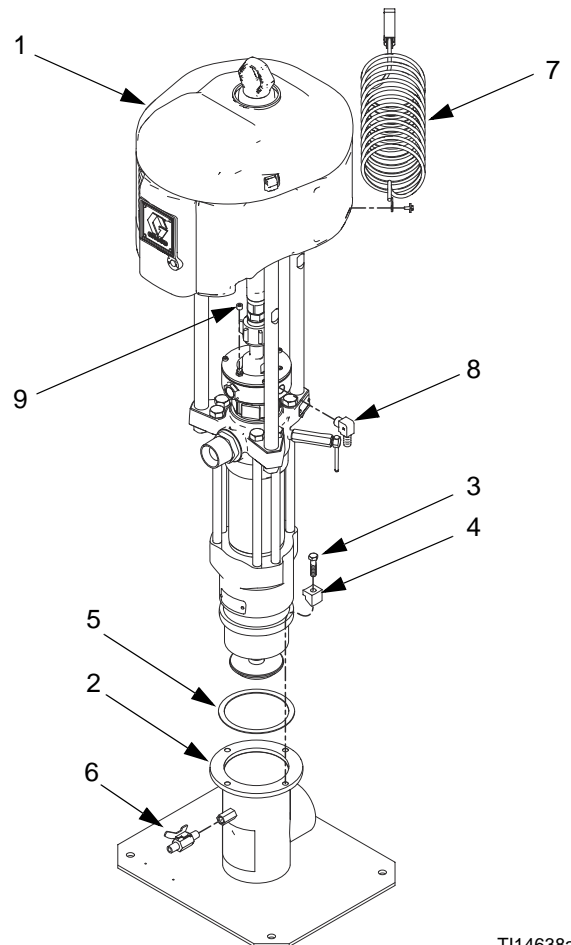
Air-Powered Ink Packages

Package Selection Chart

Ink Pump Package Part No.	Series	Check-Mate® Pump Part No. (Ref. No. 1)	Pump Description (see 311238/312375)
258744	A	P14LCM	N34LN0 NXT Air Motor/L500CM Displacement Pump
258745	A	P14MCM	N34LT0 NXT Air Motor/L500CM Displacement Pump
258746	A	P14RCM	N34LR0 NXT Air Motor/L500CM Displacement Pump
258747	A	P23LCM	N22LN0 NXT Air Motor/L200CM Displacement Pump
258748	A	P23MCM	N22LT0 NXT Air Motor/L200CM Displacement Pump
258749	A	P23RCM	N22LR0 NXT Air Motor/L200CM Displacement Pump
258750	A	P26LCM	N65LN0 NXT Air Motor/L500CM Displacement Pump
258751	A	P26MCM	N65LT0 NXT Air Motor/L500CM Displacement Pump
258752	A	P26RCM	N65LR0 NXT Air Motor/L500CM Displacement Pump

Ref.	Part	Description	Qty.
1	see chart above	PUMP, Check-Mate; see 312376	1
2	222274	STAND, floor	1
3	102637	SCREW, cap, hex hd; 3/8-16 x 1.5 in. (38 mm) long	4
4	276025	LUG	4
5	184086	GASKET; PTFE	1
6	208390	BALL VALVE; 1/4 npt (mbe)	1
7	244524	WIRE, ground	1
8	n/a	FITTING, 90°; 1/2 in. (13 mm) ID tube	1
9	100139	PLUG, pipe; 1/8 npt	1

Parts labeled n/a are not available as replacement parts. Obtain locally.



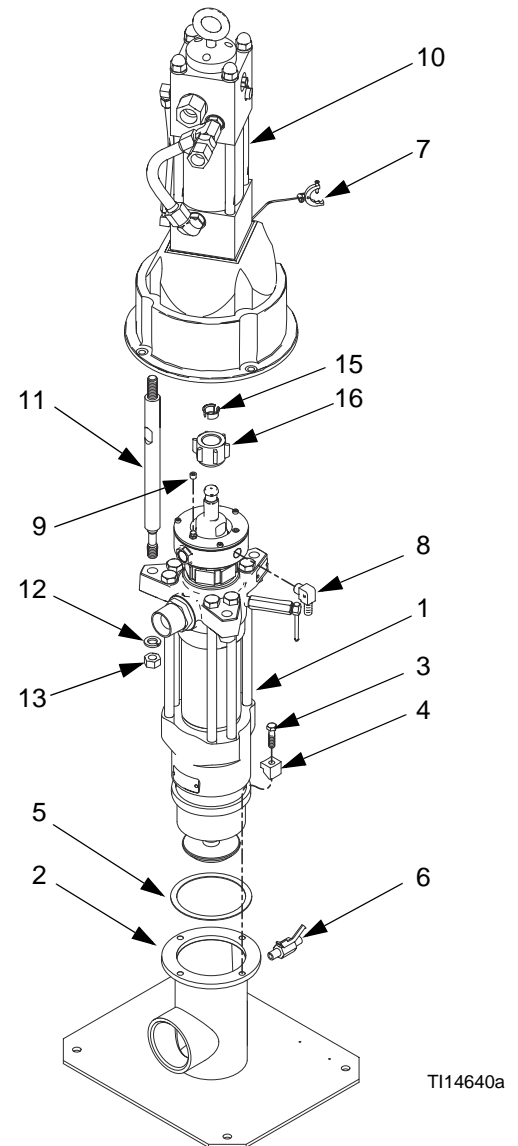
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258753 Hydraulic-Powered Ink Package

Ref.	Part	Description	Qty.
1	L500CM	PUMP, displacement; see 312375	1
2	222274	STAND, floor	1
3	102637	SCREW, cap, hex hd; 3/8-16 x 1.5 in. (38 mm) long	4
4	276025	LUG	4
5	184086	GASKET; PTFE	1
6	208390	BALL VALVE; 1/4 npt (mbe)	1
7	237569	WIRE, ground	1
8	n/a	FITTING, 90°; 1/2 in. (13 mm) ID tube	1
9	100139	PLUG, pipe; 1/8 npt	1
10	235345	MOTOR, hydraulic, Viscount II; see 307158	1
11	184452	ROD, tie	3
12	108098	WASHER	3
13	106166	NUT, tie rod	3
14	184278	WRENCH; not shown	1
15	184129	COUPLER	2
16	186925	NUT, coupling	1

Parts labeled n/a are not available as replacement parts.
Obtain locally.



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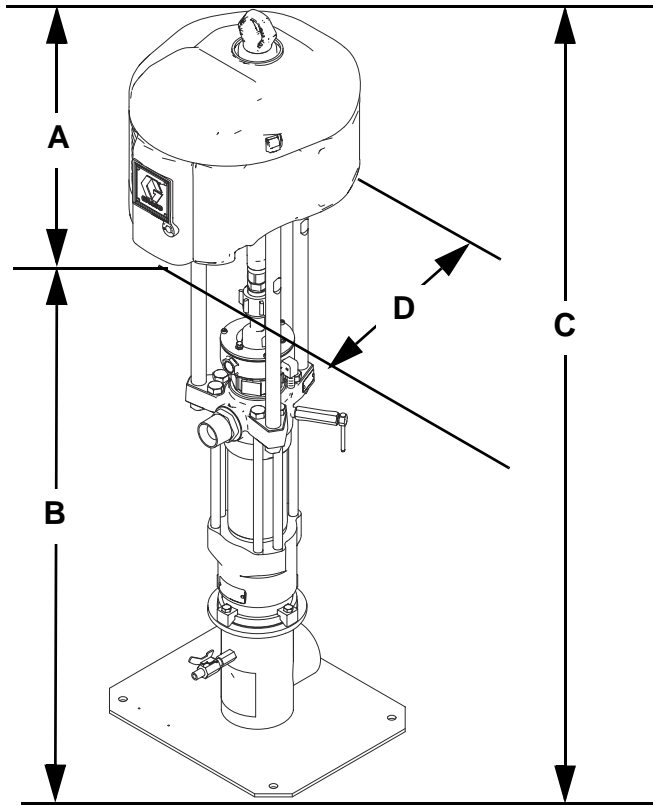
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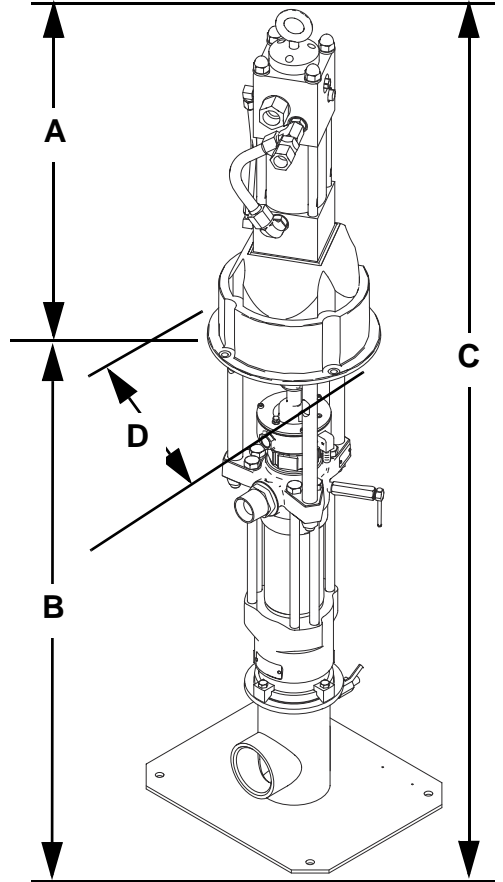
Dimensions

Pump Packages with NXT 2200, NXT 3400, or NXT 6500 Air Motors

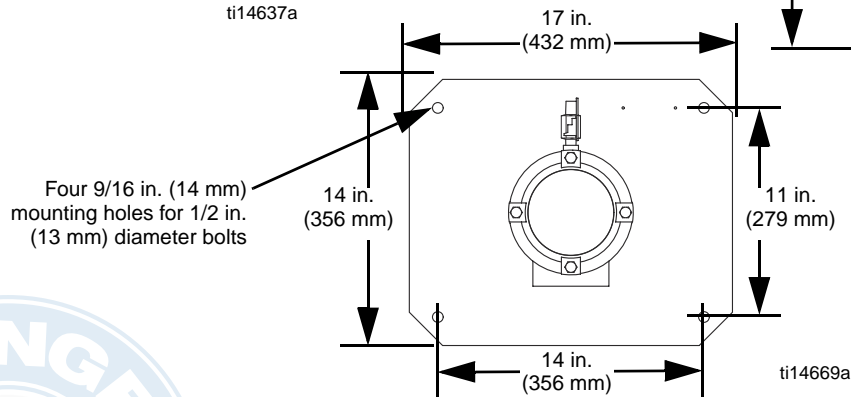


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Pump Packages with Viscount Hydraulic Motors



ti14639a



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Table 1: Pump Package Dimensions

Pressure Ratio (xx:1)	Motor	Displacement Pump Volume (cc per cycle)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	Weight lbs (kg)
14	NXT3400	500	13.5 (343)	42.7 (1085)	56.2 (1428)	16.1 (409)	175 (79)
23	NXT2200	200	13.9 (354)	42.9 (1090)	56.8 (1444)	15.4 (391)	150 (68)
26	NXT6500	500	13.9 (354)	42.7 (1085)	56.6 (1439)	18.9 (480)	195 (88)
1.6:1	Viscount II	500	26.1 (662)	36.3 (922)	62.4 (1584)	11.4 (289)	215 (97)

Technical Data

Stroke length	Air-powered pumps: 4.75 in. (120.65 mm) Hydraulic-powered pumps: 4.69 in. (119.13 mm)
Displacement pump effective area	Refer to Check-Mate Displacement Pump manual 312375.
Maximum fluid operating temperature	180° F (82.3° C)
Air or Hydraulic Inlet Size	3/4 npt (f)
Fluid outlet size	200 cc displacement pump: 1 npt(f) 500 cc displacement pump: 1-1/2 npt(m)
Displacement Pump weight	Refer to Check-Mate Displacement Pump manual 312375.
Maximum pump speed (Do not exceed maximum recommended speed of fluid pump, to prevent premature pump wear)	60 cpm
Wetted parts	Refer to Check-Mate Displacement Pump manual 312375.

NOTE: Refer to separate motor manual for sound data and motor mounting hole layout.

Maximum Fluid Working Pressures

Ink Pump Package Part No.	Ratio	Maximum Air or Hydraulic Input Pressure psi (MPa, bar)	Maximum Fluid Working Pressure psi (MPa, bar)	Displacement Pump (cc per cycle)
258744	14:1	100 (0.7, 7.0)	1400 (9.7, 97)	500
258745	14:1	100 (0.7, 7.0)	1400 (9.7, 97)	500
258746	14:1	100 (0.7, 7.0)	1400 (9.7, 97)	500
258747	23:1	100 (0.7, 7.0)	2300 (15.9, 159)	200
258748	23:1	100 (0.7, 7.0)	2300 (15.9, 159)	200
258749	23:1	100 (0.7, 7.0)	2300 (15.9, 159)	200
258750	26:1	100 (0.7, 7.0)	2600 (17.9, 179)	500
258751	26:1	100 (0.7, 7.0)	2600 (17.9, 179)	500
258752	26:1	100 (0.7, 7.0)	2600 (17.9, 179)	500
258753	1.6:1	1500 (10, 103)	2300 (15.9, 159)	500



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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.

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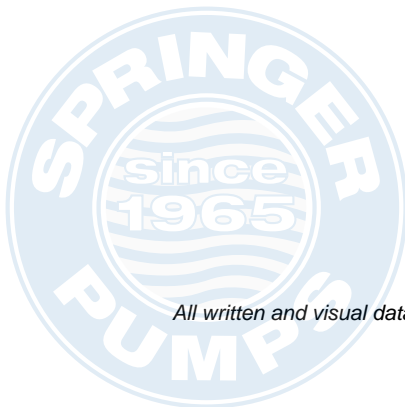
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