

KingTM Spray Packages and Pumps

3A5422E

EN

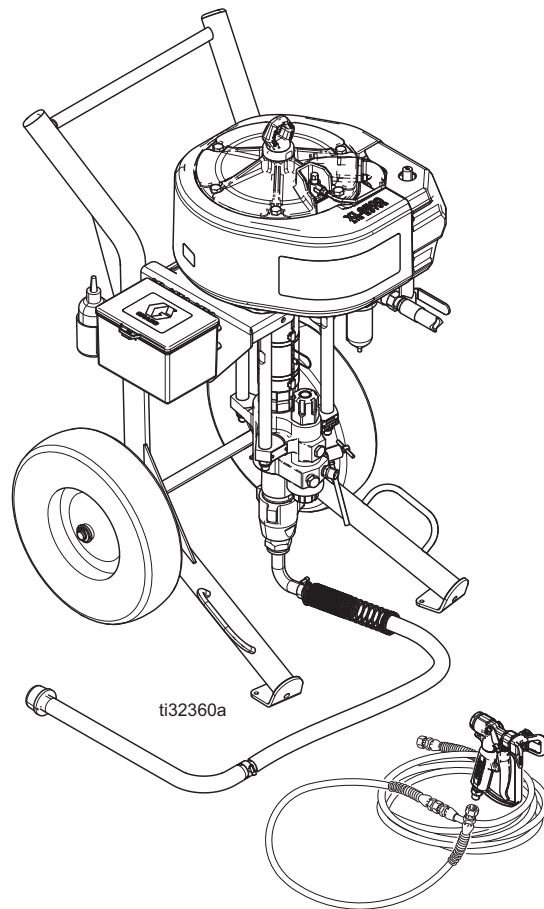
*High pressure spray packages for applying high performance coatings.
For professional use only.*



Important Safety Instructions

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

See Models on page 6 for maximum working pressures.



Contents











Related Manuals	2	Troubleshooting	21
Warnings	3	Remove Lower	22
Sprayer Packages	5	Disconnect and Reconnect Lower	22
Air Motor Part Matrix	5	Parts	24
Pump Packages	6	Airless King Sprayer Packages	24
Air Motor Part Matrix	6	Air Assisted Sprayer Packages	26
Component Identification	7	King Sprayer Cart Packages Parts	28
Cart Mount Systems	7	Cart Parts	30
Wall Mount Systems	8	Wall Mount Packages Parts	31
System Components	9	Pump Package Parts	32
*Bleed Type Master Air Valve (B)	9	Zinc Circulation Kit (238588)	35
* Air Pressure Relief Valve (C)	9	Air Controls	36
* Air Filter (D)	9	Dimensions	38
Air Regulator Adjustment (G)	9	Sprayer Cart Packages	38
* Fluid Drain/Purge Valve (J)	9	Sprayer Cart Packages	38
De-Ice Control (T)	9	Wall Mount Bracket Mounting Hole Diagram ...	39
Grounding	9	Performance Charts	40
Installation	11	Calculate Fluid Outlet Pressure	40
Wall Mount Assembly	11	Calculate Pump Air Flow/Consumption	40
Hopper Assembly	11	30:1	40
Setup	12	40:1	41
Pressure Relief Procedure	13	45:1	41
Clearing a Clogged Tip	14	50:1	42
Flush	15	60:1	42
Prime	17	70:1	43
Spray	19	90:1	43
Shutdown	19	Technical Specifications	45
Maintenance	20	Graco Standard Warranty	46
Preventative Maintenance Schedule	20		
Daily Maintenance	20		
Corrosion Protection	20		
Cart Maintenance	20		

Related Manuals

Manual in English	Description
3A5423	Xtreme XL™ Air Motor, Instructions - Parts
3A0293	Air Controls, Instructions - Parts
311825	Dura-Flo™ Lowers, Instructions - Parts
311762	Xtreme® Lower, Instructions - Parts

Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 WARNING	
   	FIRE AND EXPLOSION HAZARD Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion: <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 sparking). • Ground all equipment in the work area. See Grounding instructions. • Never spray or flush solvent at high pressure. • 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. • Use only grounded hoses. • Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive. • 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.
    	SKIN INJECTION HAZARD 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. <ul style="list-style-type: none"> • Do not spray without tip guard and trigger guard installed. • Engage trigger lock when not spraying. • 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. • Follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses and couplings daily. Replace worn or damaged parts immediately.



WARNING



MOVING PARTS HAZARD

Moving parts can pinch, cut or amputate fingers and other body parts.

- 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** and disconnect all power sources.



TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Read SDSs 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.



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.



PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Sprayer Packages

Air Motor Part Matrix

Check your sprayer or wall mount package's identification plate (ID) on the side of the shelf mounting bracket for the six digit part number of your package. Use the following matrix to define the construction of your package, based on the six digits. For example, Sprayer Part Number **K 70 F G 1** represents the King brand (**K**), pressure ratio (**70:1**), Xtreme lower with built-in filter on a heavy duty cart (**H**), and complete package (gun, hose, and pump filter included) (**1**). To order replacement parts, see **Parts**, page 24.

Diagram of a sprayer identification plate (ID) showing fields for:

- PART NO.
- SERIAL NO.
- SERIES
- MAX AIR WPR (MPa, bar, PSI)
- MAX FLUID WPR (MPa, bar, PSI)
- MAX TEMP (°C, °F)
- WEIGHT (kg, lb)
- MADE IN
- GRACO INC. P.O. Box 1441 Minneapolis, MN 55440 U.S.A.
- BARCODE
- CE, ENEC, and Ex II 2 G certification marks.
- Artwork No. 292493 Rev. E

ti25703b

K	7 0		F		H		1	
First Digit Sprayer	Package Pressure		Lower Type		Fifth Digit Mounting		Sixth Digit Option 0-9	
K	25	XL 3400/290cc	F	Std Filter	H	Heavy Duty Cart	0	Bare Package with Air Controls and Siphon Kit, No Hose and gun
	30	XL 3400/220cc	F	Std Filter	H	Heavy Duty Cart	0	Bare Package with Air Controls and Siphon Kit, No Hose and gun
	40	XL 3400/180cc	N	Std Non-Filter	L	Lightweight Cart	1	Std Complete Unit with Air Kit, Siphon Kit, and Hose/Gun Kit
	45	XL 6500/290cc	M	Max-Life with Filter	W	Wall Mount	2	Std Complete Unit with Air Kit, Siphon Kit, and Hose/Gun Kit, and Lubricator
	50	XL 6500/250cc						
	60	XL 6500/220cc						
	70	XL 6500/180cc						
	90	XL 6500/145cc						
	47*	XL 10000/430cc DF						
	71*	XL 10000/290cc						
	82*	XL 10000/250cc						

Air Assist Sprayer Packages

287975	K30FH2 with Air Assist
287976	K40FH2 with Air Assist

Sprayer Packages with 250 ft hose and XHF Gun

26C349	K70NH0 with 250 ft hose and XHF gun
26C351*	K71NH0 with 250 ft hose and XHF gun

* These systems are covered in the King Spray Packages and Pumps with XL 10K Air Motor manual.

Approvals:

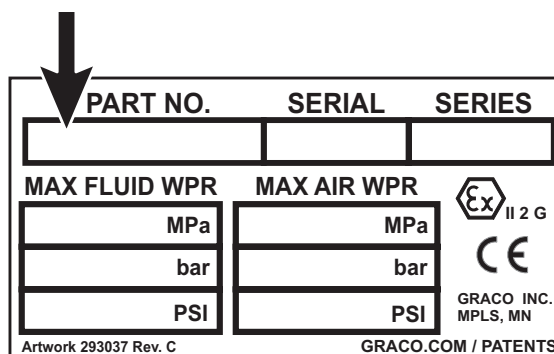


II 2 G Ex h IIC 230°C (T2) Gb

Pump Packages

Air Motor Part Matrix

Check the identification plate (ID) on your pump package (attached to the black motor shroud) for the six digit part number of your pump package. For example, Pump Part Number **P 70 H C 2** represents the pump (**P**), pressure ratio (**70:1**), high performance (**H**), carbon steel construction (**C**), and built-in filter (**2**). To order replacement parts, see **Parts** on page 24.



PART NO.		SERIAL	SERIES
MAX FLUID WPR		MAX AIR WPR	
MPa		MPa	
bar		bar	
PSI		PSI	
Artwork 293037 Rev. C		GRACO.COM / PATENTS	

GRACO INC. MPLS, MN

Ex II 2 G

ti25704a

P	7 0		H		C		2	
First Digit Pump	Package Pressure		Motor Type		Lower Type		Filter Option	
P	25	XL 3400/220cc	H	High Performance	C	Carbon Steel	1	No Filter in Lower
	30	XL 3400/220cc	H	High Performance	C	Carbon Steel	1	No Filter in Lower
	40	XL 3400/180cc			M	Max Life	2	Built-in Filter in Lower (Max Life only offered with built-in filter)
	45	XL 6500/290cc						
	50	XL 6500/250cc						
	60	XL 6500/220cc						
	70	XL 6500/180cc						
	90	XL 6500/145cc						
	47*	XL 10000/430cc DF						
	71*	XL 10000/290cc						
	82*	XL 10000/250cc						

* These systems are covered in the King Spray Packages and Pumps with XL 10K Air Motor manual.

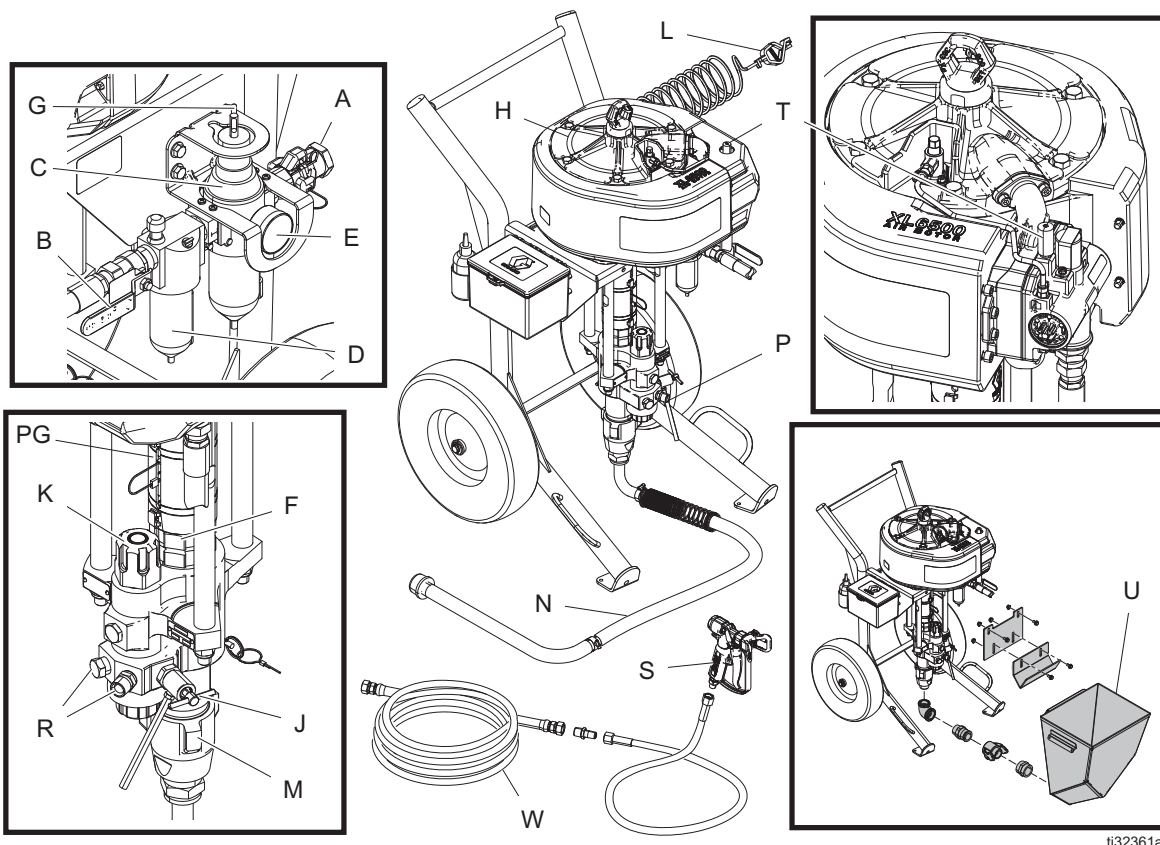
Approvals:



II 2 G Ex h IIC 230°C (T2) Gb

Component Identification

Cart Mount Systems



ti32361a

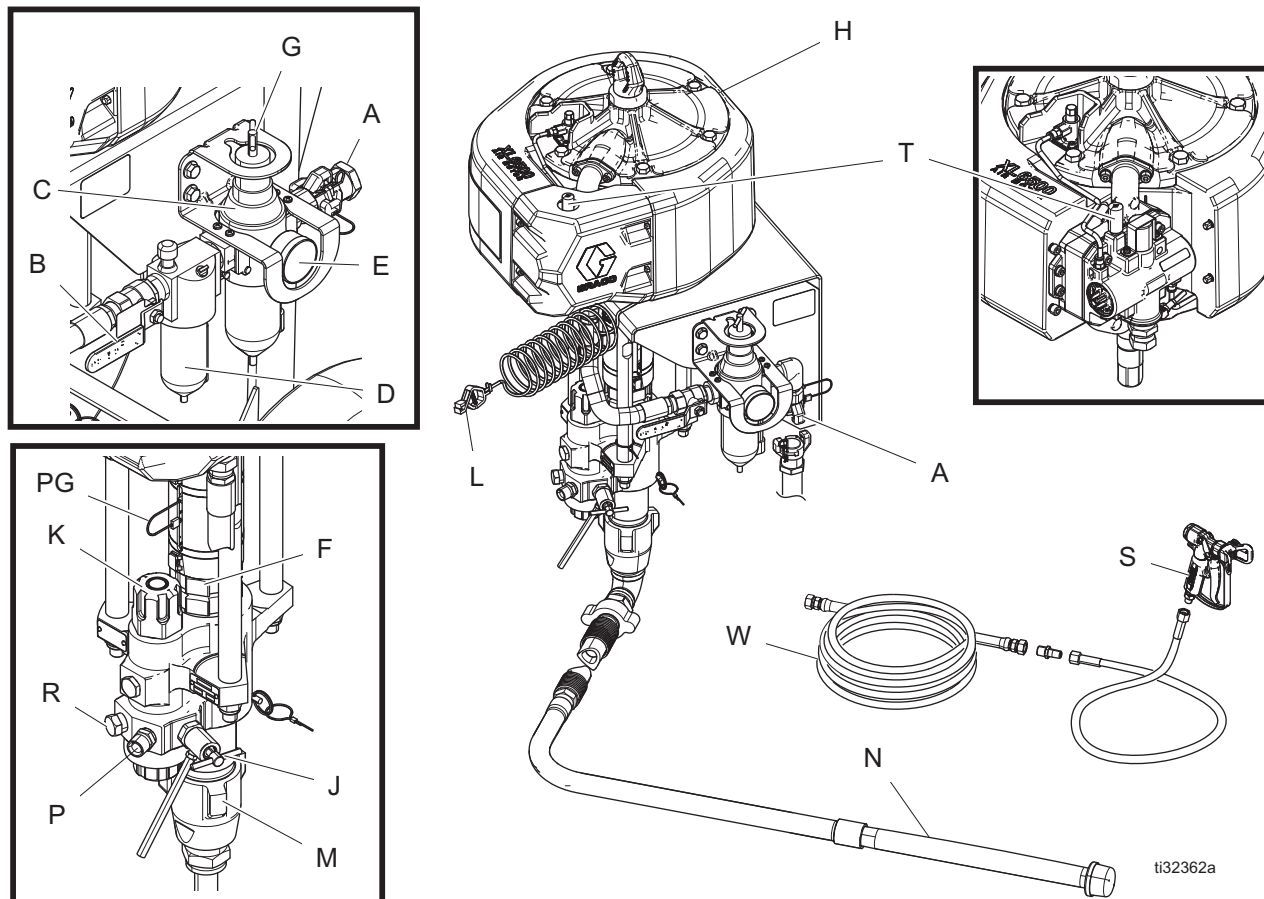
Ref. Description

A	Air Inlet, 1 in npt(f) on claw fitting
B	Bleed Type Master Air Valve (required)
C	Air Pressure Relief Valve (required)
D	Air Filter / Water Separator (required)
E	Air Pressure Gauge
F	Packing Nut
G	Air Regulator Adjustment
H	Air Motor
J	Fluid Drain/Purge Valve (required)
K	Fluid Filter (if equipped)
L	Grounding Wire (required)
M	Pump

Ref. Description

N	Suction Hose with Swivel and Tube (if equipped)
P	Pump Fluid Outlet
PG	Pump Guard
R	Optional Fluid Outlet, for second spray gun
S	Spray Gun
T	De-Ice Control (Bleed Air)
U	Hopper (if equipped)
W	Fluid Hose

Wall Mount Systems



Ref. Description

- A Air Inlet on Claw Fitting
- B Bleed Type Master Air Valve (required)
- C Air Pressure Relief Valve (required)
- D Air Filter / Water Separator (required)
- E Air Pressure Gauge
- F Packing Nut
- G Air Regulator Adjustment
- H Air Motor
- J Fluid Drain / Purge Valve (required)
- K Fluid Filter (if equipped)
- L Grounding Wire (required)
- M Pump
- N Suction Hose and Tube
- P Fluid Outlet
- PG Pump Guard
- R Optional Fluid Outlet
- S Spray Gun
- T De-Ice Control (Bleed Air)
- W Fluid Hose

System Components

* Required system components.

*Bleed Type Master Air Valve (B)



Trapped air can cause the pump to cycle unexpectedly, which could result in serious injury from splashing or moving parts. Perform the **Pressure Relief Procedure** (page 13) to remove trapped air.

- Be sure the valve is easily accessible from the pump and located downstream from the air regulator.
- Required in your system to relieve air trapped between it and the air motor when the valve is closed.
 - Open the valve to supply air to the motor.
 - Close the valve to shut off air to the motor, and bleed any trapped air from the motor.

* Air Pressure Relief Valve (C)

Automatically opens to relieve air pressure if the supplied pressure exceeds the preset limit.

* Air Filter (D)

Remove harmful dirt from compressed air supply. A minimum 40 micron filter is used.

Air Regulator Adjustment (G)

Adjusts air pressure to the motor and fluid outlet pressure of pump. Locate it close to the pump. Read air pressure on air pressure gauge (E).

* Fluid Drain/Purge Valve (J)

Open valve to relieve pressure and when flushing or priming pump. Close valve when spraying.

De-Ice Control (T)

Turn bleed air knob (open) to reduce icing.

Grounding



The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.

Pump: use ground wire and clamp (supplied). Connect ground wire (L) to ground stud on the air motor. Connect ground clamp to a true earth ground.

Air and fluid hoses: use only electrically conductive hoses with a maximum of 500 ft. (150 m) combined hose length to ensure grounding continuity. Check electrical resistance of hoses. If total resistance to ground exceeds 29 megohms, replace hose immediately.

Air compressor: follow manufacturer's recommendations.

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

Fluid supply container: follow local code.

Object being sprayed: follow local code. Do not use with dispense valve.

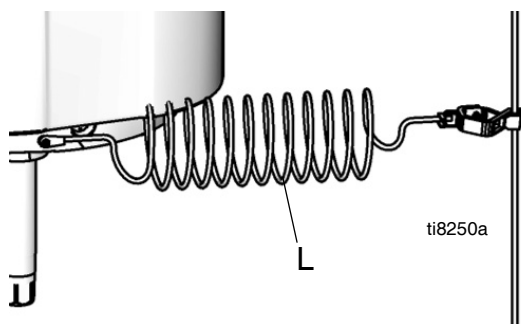
Solvent pails used when flushing: follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts grounding continuity.

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

Grounding Installation

Tools Required:

- Grounding wires and clamps for pails
 - Two 5 gallon (19 liter) metal pails
1. Connect the ground wire (244524) (L) to the ground stud on the air motor.



2. Connect the other end of the ground wire to a true earth ground.
3. Ground the object being sprayed, fluid supply container, and all other equipment in the work area. Follow your local code. Use only electrically conductive air and fluid hoses.
4. Ground all solvent pails. Use only metal pails, which are conductive, placed on a grounded surface. Do not place pail on a non-conductive surface, such as paper or cardboard, which interrupts grounding continuity.



Installation

When spraying in enclosed areas, such as storage tanks, locate the pump outside the area.

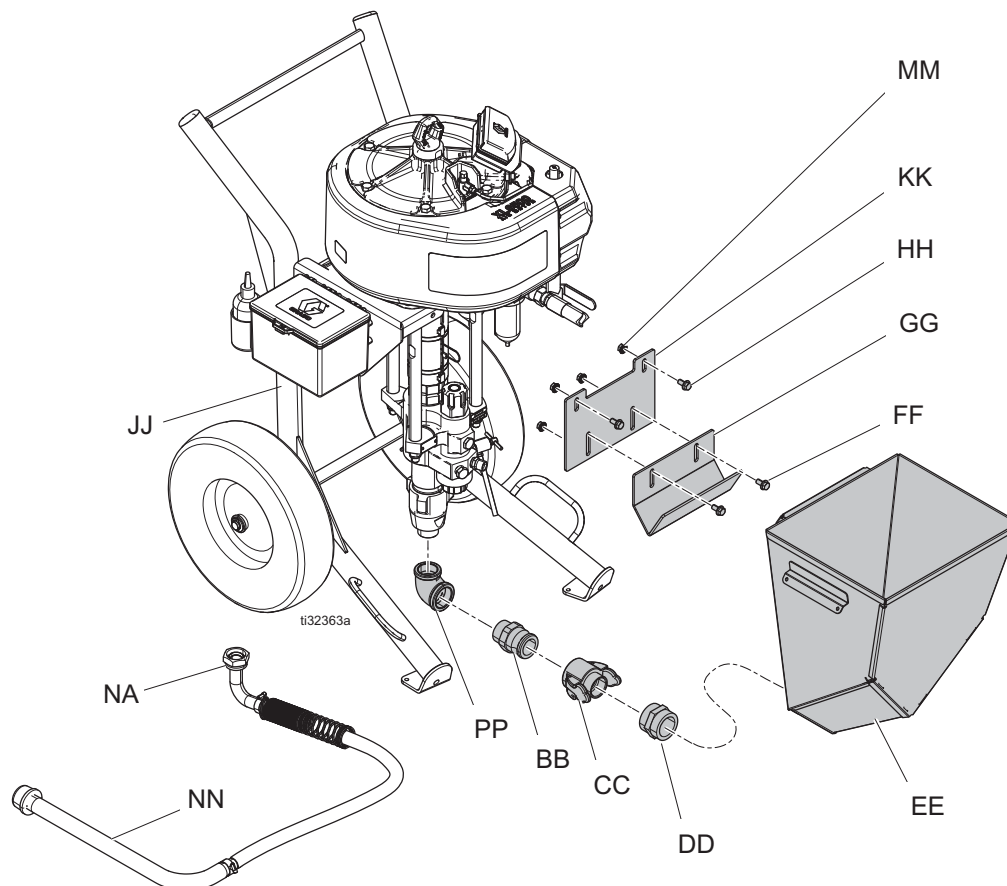
Wall Mount Assembly

NOTE: Before mounting any pump assembly to the wall always follow the **Pressure Relief Procedure** on page 13.

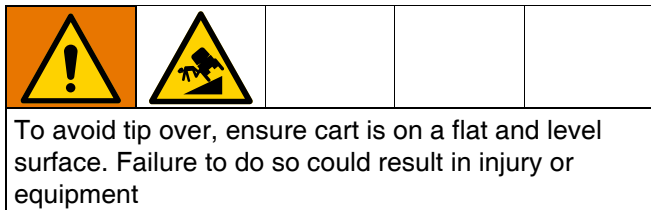
1. Ensure the wall is strong enough to support the weight of the pump assembly and accessories, fluid, hoses, and stress caused during pump operation.
2. Drill four 7/16 in. (11 mm) holes using bracket as a template. Use any of the three mounting hole groupings in the bracket. See **Wall Mount Bracket Mounting Hole Diagram** on page 39.
3. Bolt bracket securely to wall using bolts and washers designed to hold in the wall's construction.
4. Attach pump assembly to mounting bracket.
5. Connect air and fluid hoses (see **Setup**, page 12).

Hopper Assembly

1. If necessary, disconnect and remove suction hose (NA).
2. Attach bracket (KK) to the cart (JJ) with nuts (MM) and screws (HH).
3. Loosely attach bracket (GG) to bracket (KK) with nuts (MM) and screws (HH).
4. Install elbow (PP) and fitting (BB) on the pump.
5. Install fitting (DD) and fitting (CC) on hopper (EE).
6. Connect fitting (CC) to fitting (BB). Adjust bracket (GG) height to fit under the lip on the back of the hopper (EE). Tighten nuts (MM).



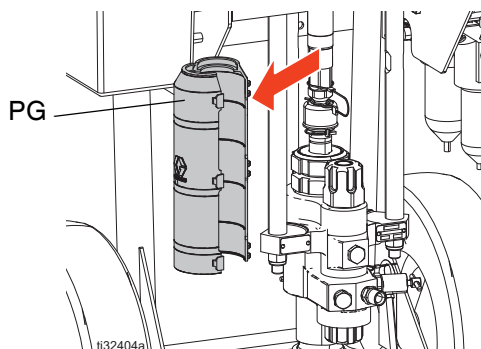
Setup



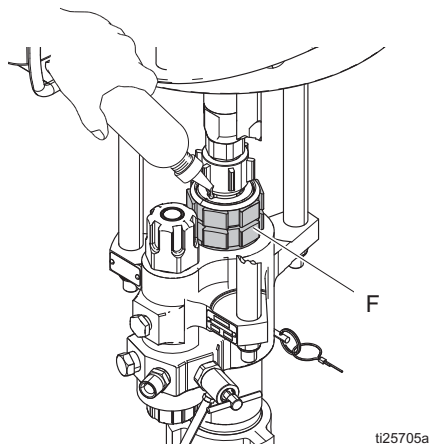
Tools Required:

- Two adjustable wrenches
- Non-sparking hammer or plastic mallet
- Torque wrench
- Flathead screwdriver

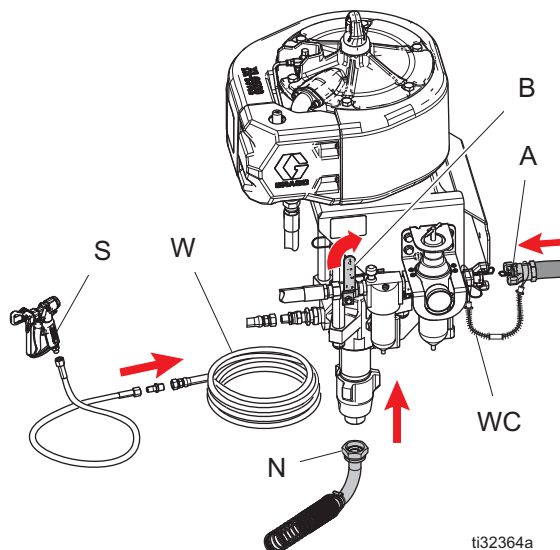
1. Ground sprayer (see **Grounding**, page 9).
2. Use a flathead screwdriver to remove pump guard (PG).



3. Check packing nut (F). Remove packing nut cover and fill with Throat Seal Liquid (TSL). Replace cover, the torque packing nut (F) to 100–110 ft-lb (135–150 N•m).



4. Replace pump guard (PG).
5. Attach suction hose (N) and tighten.
6. Attach electrically conductive fluid hose to pump outlet (P) and tighten.
7. Attach electrically conductive fluid hose (and air hose if using an air-assisted gun) to gun and tighten. Check that all pressure connections are tight.
8. Close the bleed type meter air valve (B). Purge the air supply hose. Attach the whip check cable (WC) to the air supply hose and connect to 3/4 in. npt(f) air inlet (A). Pull the whip check cable tight.

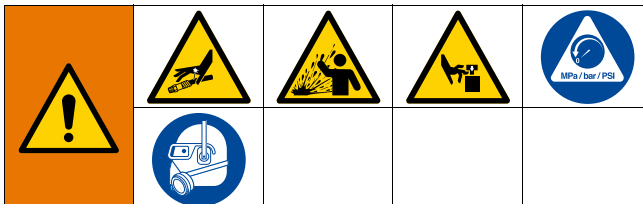


9. Flush and prime before using. See **Flush** on page 15, and **Prime** on page 17.

Pressure Relief Procedure

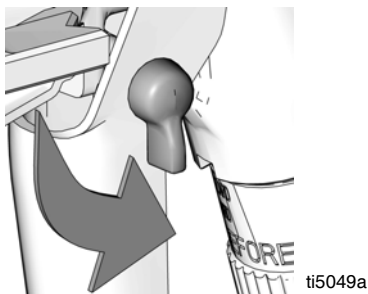


Follow the Pressure Relief Procedure whenever you see this symbol.

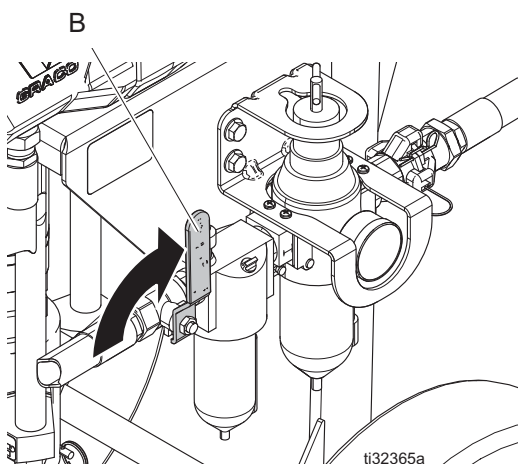


This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment.

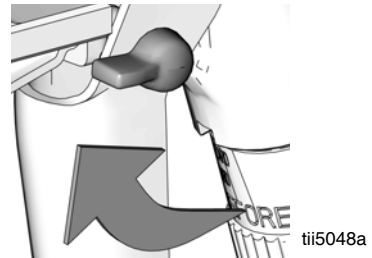
1. Engage gun trigger lock.



2. Close bleed type master air valve (B).



3. Disengage gun trigger lock.



NOTE: If using an air-assisted gun, turn gun air regulator counter-clockwise to relieve pressure.

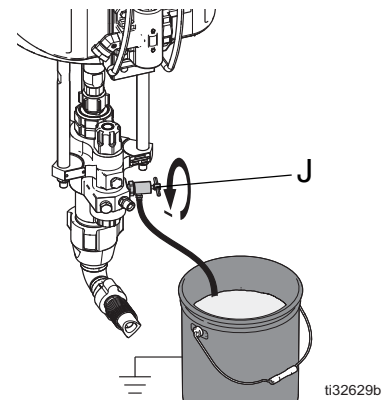
4. Hold a metal part of the gun firmly against a grounded metal pail. Trigger the gun until pressure is relieved.

NOTE: If fluid does not flow from gun, see **Clearing a Clogged Tip** on page 14.



5. Engage trigger lock.

6. Drain fluid. To drain fluid, slowly open all fluid drain valves, including fluid drain/purge valve (J), in system into a waste pail. If there is a return tube, open return line ball valve. Close valve after fluid is drained.

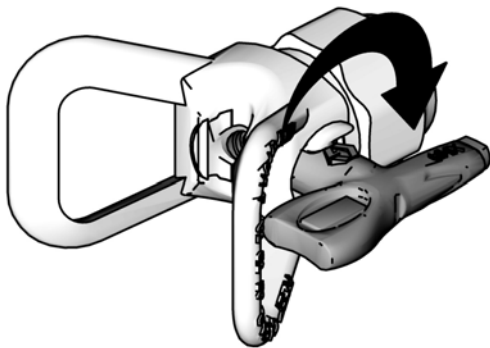


7. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved.
 - a. **VERY SLOWLY** loosen tip guard retaining nut or hose end coupling to relieve pressure gradually.
 - b. Loosen nut or coupling completely.
 - c. Clear hose or tip obstruction.

Clearing a Clogged Tip









1. Follow the **Pressure Relief Procedure** on page 13.



2. Rotate tip 180° so arrow on tip cylinder faces backward.
3. Disengage trigger lock.
4. Trigger gun into pail or onto ground to remove clog.
5. Engage trigger lock, then rotate tip 180° back to spray position.
6. If tip is still clogged, shut off sprayer and disconnect the power source.
7. Follow the **Pressure Relief Procedure** on page 13.
8. Remove and clean the spray tip.

Flush

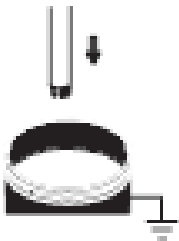
To avoid fire and explosion, always ground equipment and waste container. To avoid static sparking and injury from splashing, always flush at lower possible pressure.

Flush the Pump:

- Before first use
- When changing fluids
- Before repairing equipment
- Before fluid dries or settles out in a dormant pump (check the pot life of catalyzed fluids)
- At the end of the day
- Before storing the pump

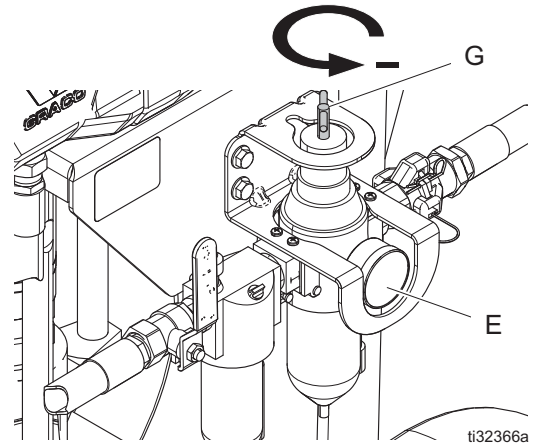
Flush at the lowest pressure possible. Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended flushing fluids and flushing frequency.

1. Perform **Pressure Relief Procedure** on page 13.
2. Remove tip and tip guard from gun.
3. If desired, remove fluid filter. Reinstall filter cap after removing fluid filter.
4. Place suction tube in a compatible solvent.

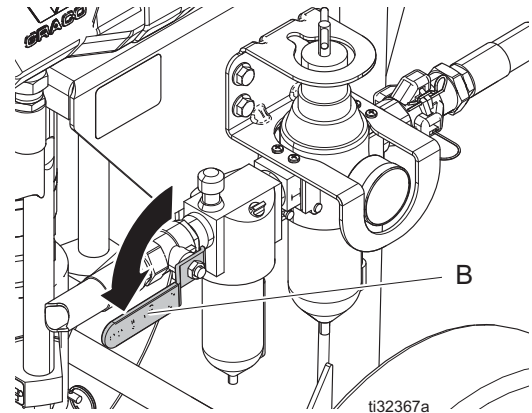


NOTE: Do not stretch hose tight. Let it hang to assist fluid flow into the pump.

5. Turn air regulator adjustment knob (G) counterclockwise until air pressure gauge (E) reads zero.

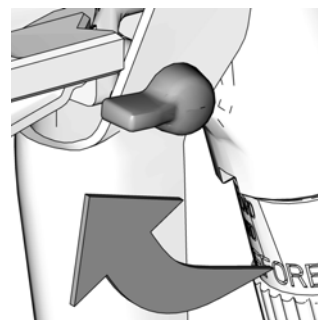


6. Open bleed type master air valve (B).



7. Flush hose and gun:

- a. Disengage gun trigger lock. Hold the gun against a grounded metal pail.



- b. Trigger gun, slowly turn air regulator adjustment knob (G) clockwise until pump begins to cycle and a steady stream comes from gun. Trigger gun for 10-15 seconds during initial setup. If flushing material, trigger gun until clean solvent flows from gun.



NOTE: If using an air-assisted gun, increase air pressure by turning gun regulator clockwise.

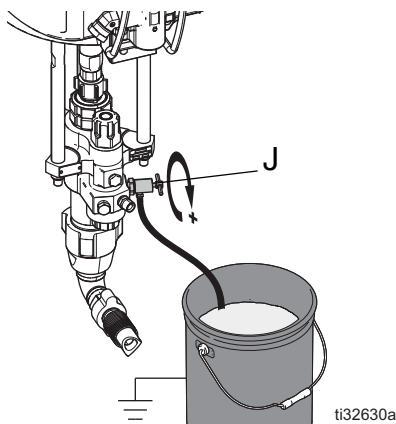
- c. After solvent is running clean, turn the air regulator adjustment knob (G) counterclockwise until it stops and the gauge reads zero. The pump will stop. Once the material stops flowing, release the trigger and engage the trigger lock.

NOTE: When shutting down the unit for the day, stop the pump with the rod buried in the pump.

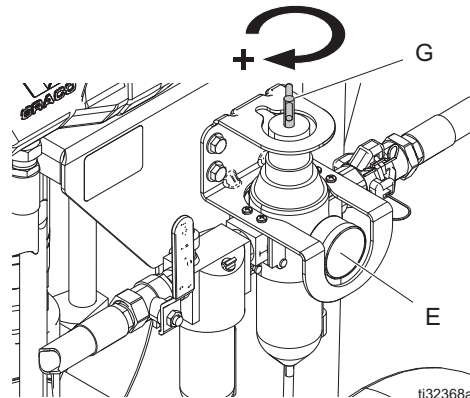
- d. Close the bleed type master air valve.

8. If flushing through drain/purge valve:

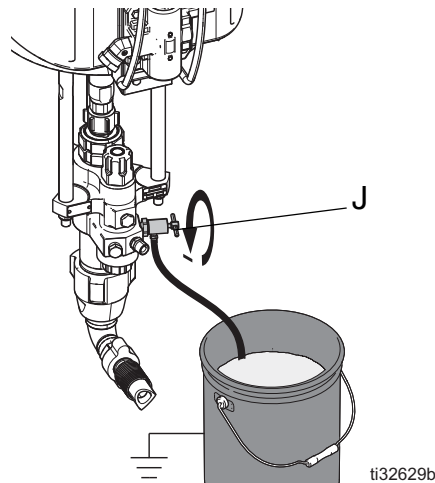
- a. Place drain tube in a grounded waste pail. Open fluid drain/purge valve (J) slightly by rotating counterclockwise.



- b. Turn air regulator adjustment knob (G) counterclockwise until air pressure gauge (E) reads zero
- c. Open bleed type master air valve (B).
- d. Start the pump by rotating the air regulator adjustment knob (G) clockwise until pump begins to move.



- e. When clean solvent flows from drain tube close fluid drain/purge valve (J) by rotating clockwise. Pump will stall.

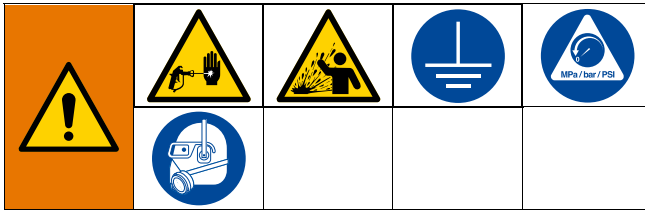


- f. Stop the pump with the rod buried in the pump.
- g. Turn the air regulator adjustment knob (G) counterclockwise until air pressure gauge (E) reads zero.
- h. Close bleed type master air valve (B).

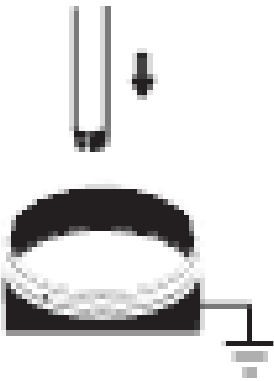
9. Perform **Pressure Relief Procedure** on page 13.

10. Remove fluid filter and soak in solvent. Replace filter cap.

Prime

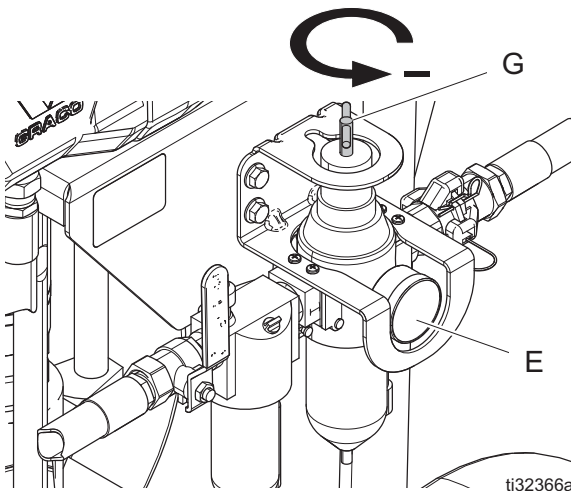


1. Perform the **Pressure Relief Procedure**, page 13.
2. Lock gun trigger. Remove tip and tip guard from gun.
3. Place suction tube in the material that will be sprayed.

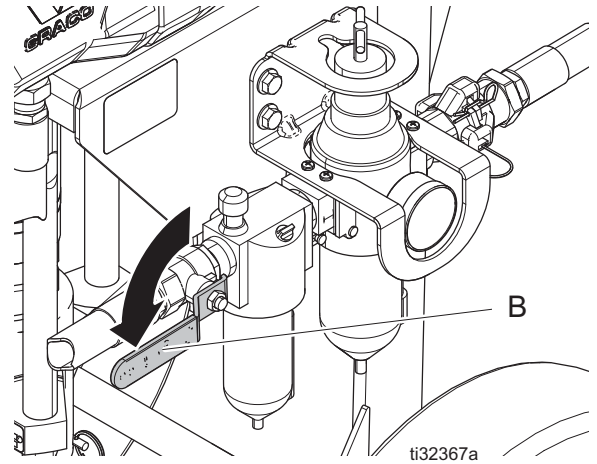


NOTE: Do not stretch hose tight. Let it hang to assist fluid flow into the pump.

4. Turn air regulator adjustment knob (G) counterclockwise until air pressure gauge (E) reads zero.



5. Open bleed type master air valve (B).

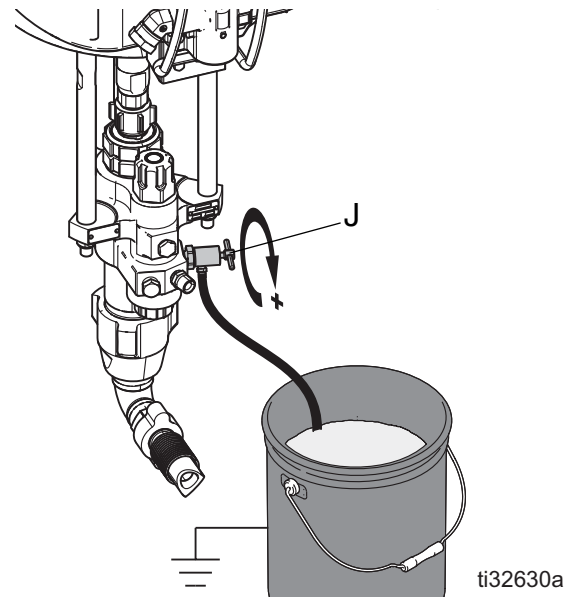


6. Prime through drain valve if necessary.
NOTE: Usually required for high viscosity materials.

NOTICE

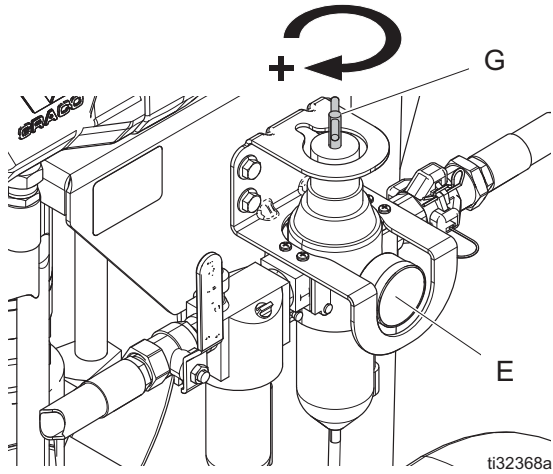
Do not prime pump through drain/purge valve using two-component materials. Mixed two-component materials will harden in valve and result in clogging.

- a. Place drain tube in a grounded waste pail. Open drain/purge valve (J) by slightly rotating counterclockwise.



Prime

- b. Start the pump by rotating the air regulator adjustment knob (G) clockwise until pump begins to move.



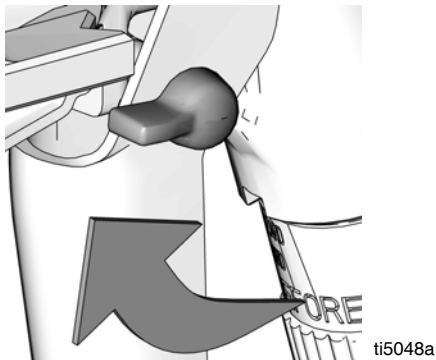
- b. Trigger gun, slowly open air regulator adjustment knob (G) until pump begins to cycle and a steady stream comes from gun. Trigger gun for 10-15 seconds.



NOTE: If using an air-assisted gun, increase air pressure by turning gun regulator clockwise.

7. Prime hose and gun:

- a. Disengage gun trigger lock. Hold the metal part of the gun against a grounded metal pail.



- c. Engage trigger lock.
- d. The equipment is now ready to spray; proceed to the **Spray** section on page 19.

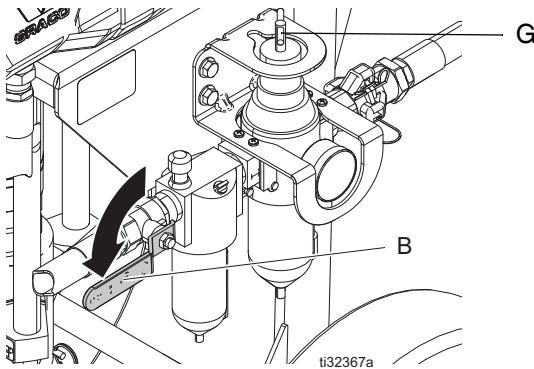
Spray



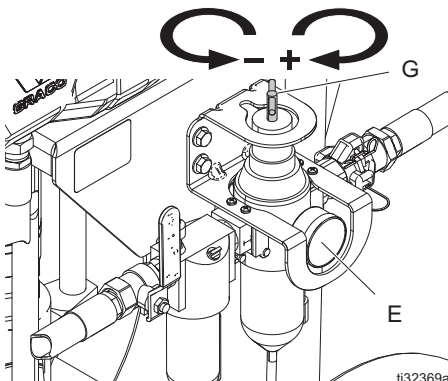
NOTICE

Running the pump while dry will cause the pump to quickly accelerate to a high speed and cause damage. To avoid damage, do not allow pump to run dry.

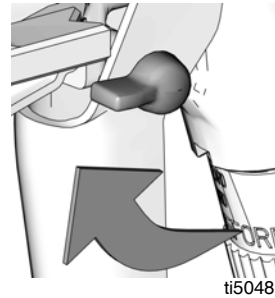
1. Perform the **Prime** procedure on page 17.
2. Perform **Pressure Relief Procedure** on page 13.
3. Install tip and tip guard on gun.
4. Turn air regulator adjustment knob (G) counterclockwise to decrease pressure to zero.
5. Open bleed type master air valve (B).



6. Turn air regulator adjustment knob (G) until air pressure gauge (E) reads desired pressure. Turn clockwise to increase pressure, counterclockwise to decrease pressure.



7. Disengage gun trigger lock.



8. Spray a test pattern. Read fluid manufacturer's recommendations. Adjust pressure as necessary. If using an air-assisted gun, increase gun air pressure while testing spray pattern.



9. Perform the **Flush** procedure on page 15.

Shutdown



NOTICE

Leaving water or water-based fluid in the pump overnight can cause the equipment to rust or corrode. 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.

Perform the **Prime** procedure on page 17.

Always flush the pump before the fluid dries on the displacement pump rod. Perform the **Flush** procedure on page 15.

Maintenance

Preventative Maintenance Schedule

The operating conditions of your particular system determine how often maintenance is required. Establish a preventive maintenance schedule by recording when and what kind of maintenance is needed, and then determine a regular schedule for checking your system.

Daily Maintenance



NOTE: For over night shutdown, stop pump at bottom of its stroke to prevent fluid from drying on exposed displacement rod and damaging throat packings. Perform the **Prime** procedure on page 17.

1. Perform the **Flush** procedure on page 15.
2. Perform the **Prime** procedure on page 17.
3. Check packing nut (F). Adjust packings and replace TSL as necessary. Torque to 25-30 ft-lb (34-41 N•m).
4. Drain water from air filter.
5. Clean suction tube using a compatible solvent. It is recommended that you clean the outside of the sprayer using a cloth and compatible solvent.
6. Check hoses, tubes, and couplings. Tighten all fluid connections before each use.
7. Clean fluid line filter.

Corrosion Protection

Always flush the pump before the fluid dries on the displacement rod. Never leave water or water-based fluid in the pump overnight.

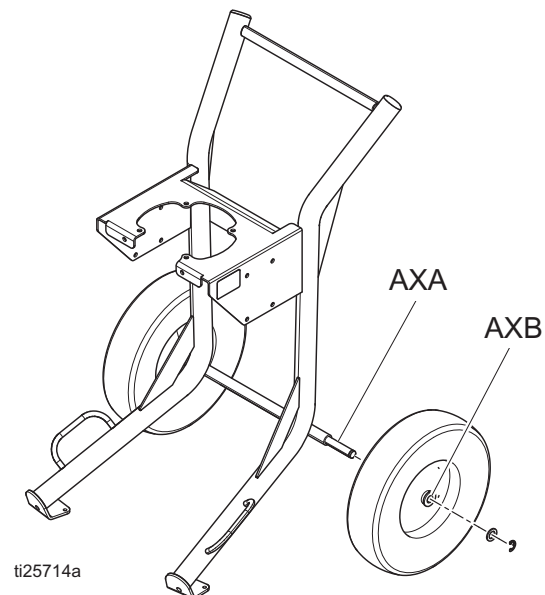
NOTICE

Leaving water or water-based fluid in the pump over night can cause the equipment to rust or corrode. If you are pumping water-base 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.

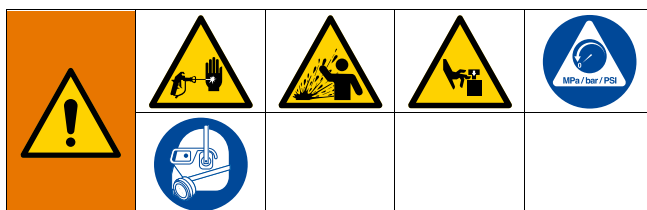
Cart Maintenance

Periodically lubricate the axle between points AXA and AXB with lightweight oil.

Keep the cart clean by wiping up spills daily, using a compatible solvent.



Troubleshooting



NOTE: To find parts lists for the parts identified in the troubleshooting tables, see page numbers listed in the table below.

1. Perform **Pressure Relief Procedure** on page 13.

2. Check all possible causes and problems before disassembling pump.

3. See air motor manual for air motor specific troubleshooting

* To determine if fluid hose or gun is obstructed, follow the **Pressure Relief Procedure** on page 13. Disconnect fluid hose and place a container at pump fluid outlet to catch any fluid. Turn on air power just enough to start pump. If pump starts, the obstruction is in fluid hose or gun.

Problem	Cause	Solution
Does not operate.	Valve closed or clogged.	Clear air line; increase air supply. Check that valves are open.
	Fluid hose or gun obstructed.	Clean hose or gun.*
	Dried fluid on displacement rod.	Clean rod; always stop pump at bottom of stroke; keep wet-cup filled with compatible solvent.
	Air motor parts dirty, worn, or damaged.	Clean or repair air motor. See motor manual.
Output low on both strokes.	Air line restricted or air supply inadequate. Valves closed or clogged.	Clear air line; increase air supply. Check that valves are open.
	Fluid hose/gun obstructed; hose ID too small.	Clear hose or gun*; use hose with larger ID.
	Air motor icing.	Open De-Ice control.
Output low on down stroke.	Open or worn intake valve.	Clear or service intake valve.
	High viscosity fluid.	Adjust intake spacers.
Output low on upstroke.	Open or worn piston valve or packings.	Clear piston valve; replace packings.
Erratic accelerated speed.	Fluid supply exhausted, clogged suction.	Refill supply and prime pump. Clean suction tube.
	High viscosity fluid.	Reduce viscosity; adjust intake spacers.
	Open or worn piston valve or packings.	Clear piston valve; replace packings.
	Open or worn intake valve.	Clear or service intake valve.
Runs sluggishly.	Possible icing.	Stop pump. Open De-Ice control.
Cycles or fails to hold pressure at stall.	Worn check valves or seals.	Service lower. See Remove Lower (page 22) and Xtreme Lowers manual.
Air bubbles in fluid.	Loose suction line.	Tighten. Use compatible liquid thread sealant or PTFE tape on connections.
Poor finish or irregular spray pattern.	Incorrect fluid pressure at gun.	See gun manual; read fluid manufacturer's recommendations.
	Fluid is too thin or too thick.	Adjust fluid viscosity; read fluid manufacturer's recommendations.

Remove Lower

Required Tools:

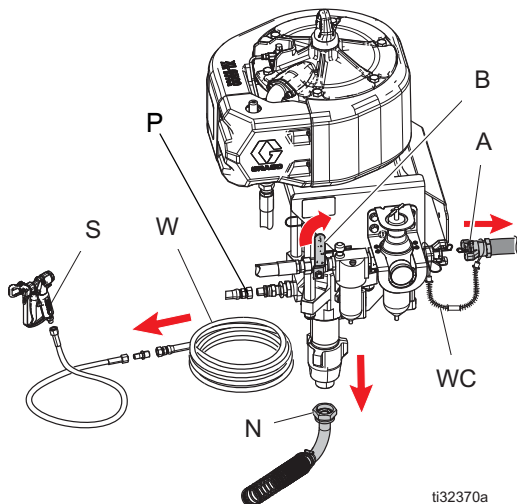
- Set of adjustable wrenches
- Torque wrench
- Rubber mallet
- Thread lubricant
- Anti-seize lubricant 222955
- Loctite® 2760™ or equivalent
- Flathead screwdriver

Disconnect and Reconnect Lower

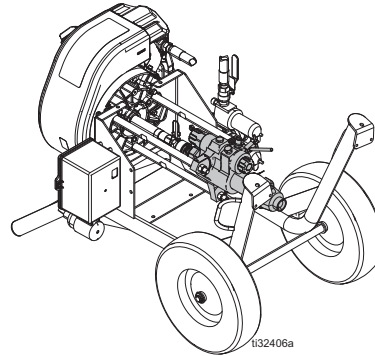


1. Perform the **Flush** procedure on page 15. Stop the pump at the bottom of its stroke.
2. Perform **Pressure Relief Procedure** on page 13.
3. Disconnect air hose.
4. Disconnect fluid hose (W). Hold pump outlet fitting (P) with a wrench to keep it from loosening while you disconnect suction hose (N).

NOTE: Note the relative position of pump fluid outlet (P) to inlet of motor for easier reassembly alignment. If motor does not require service, leave it attached to its mounting.

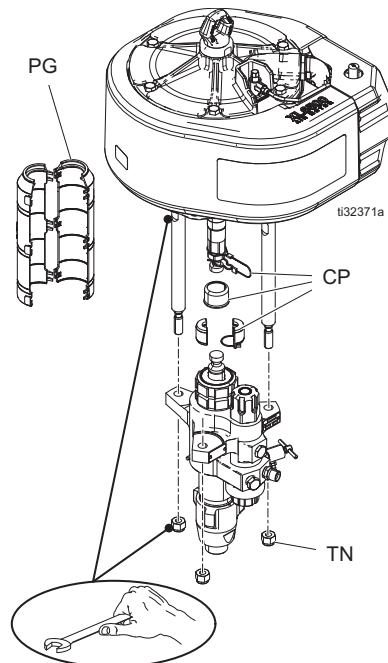


5. Use a flathead screwdriver to remove the pump guard (PG).
6. If using a cart-mounted unit, tip the cart onto its back.



NOTE: Lay rags onto the floor to catch TSL that may spill out of the packing nut.

7. Hold the flats of the air motor piston rod with a wrench. Use another wrench to loosen the coupling nut (CN).



8. Remove the tie rod nuts (TN).
9. Hold the lower and slide it off the tie rods (TN) to remove. Refer to the Lower manual to service the lower. To service motor, refer to separate motor manual.
10. Reconnect the lower by following the disconnect steps in reverse order.

NOTE: Torque nuts to 50-60 ft-lb (68-81 N•m).

11. Refill packing nut with TSL.

Parts

Airless King Sprayer Packages

The following table lists the major components and part numbers for each airless sprayer package.

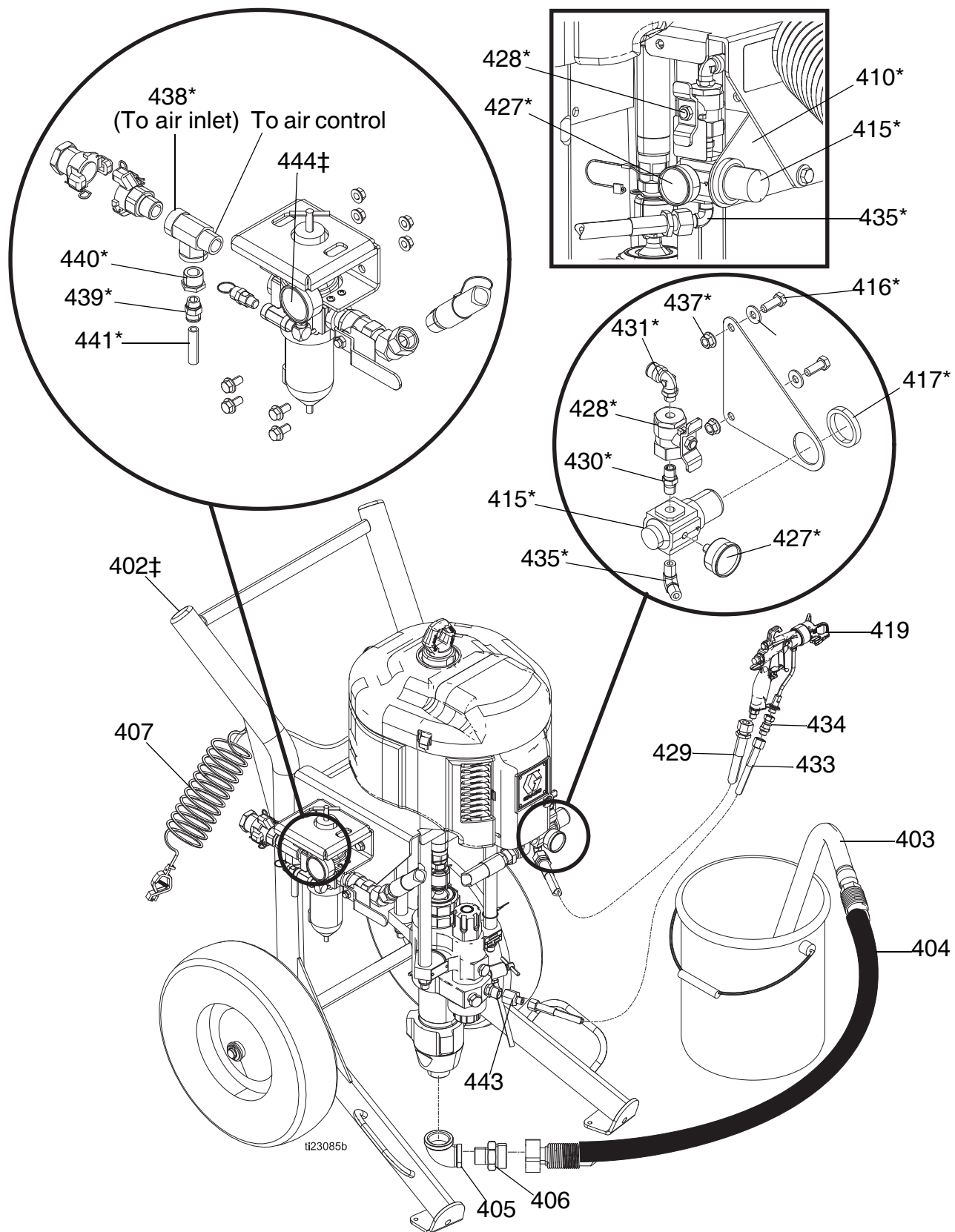
Sprayer Package	Reference Number and Description		
	301 Pump	302 Lower	303 Motor
K25FH0	P25HC2	L290C2	XL34D0
K25FH1	P25HC2	L290C2	XL34D0
K25FH2	P25HC2	L290C2	XL34D0
K25FL0	P25HC2	L290C2	XL34D0
K25FL1	P25HC2	L290C2	XL34D0
K25FW0	P25HC2	L290C2	XL34D0
K25FW1	P25HC2	L290C2	XL34D0
K25NH0	P25HC1	L290C1	XL34D0
K25NH1	P25HC1	L290C1	XL34D0
K25NH2	P25HC1	L290C1	XL34D0
K25NL0	P25HC1	L290C1	XL34D0
K25NL1	P25HC1	L290C1	XL34D0
K30FH0	P30HC2	L220C2	XL34D0
K30FH1	P30HC2	L220C2	XL34D0
K30FH2	P30HC2	L220C2	XL34D0
K30FL0	P30HC2	L220C2	XL34D0
K30FL1	P30HC2	L220C2	XL34D0
K30FW0	P30HC2	L220C2	XL34D0
K30FW1	P30HC2	L220C2	XL34D0
K30MH2	P30HM2	L220M2	XL34D0
K30MW1	P30HM2	L220M2	XL34D0
K30NH0	P30HC1	L220C1	XL34D0
K30NH1	P30HC1	L220C1	XL34D0
K30NH2	P30HC1	L220C1	XL34D0
K30NL0	P30HC1	L220C1	XL34D0
K30NL1	P30HC1	L220C1	XL34D0
K40FH0	P40HC2	L180C2	XL34D0
K40FH1	P40HC2	L180C2	XL34D0
K40FH2	P40HC2	L180C2	XL34D0
K40FL0	P40HC2	L180C2	XL34D0
K40FL1	P40HC2	L180C2	XL34D0
K40FW0	P40HC2	L180C2	XL34D0
K40FW1	P40HC2	L180C2	XL34D0
K40MH2	P40HM2	L180M2	XL34D0

Sprayer Package	Reference Number and Description		
	301 Pump	302 Lower	303 Motor
K40MW1	P40HM2	L180M2	XL34D0
K40NH0	P40HC1	L180C1	XL34D0
K40NH1	P40HC1	L180C1	XL34D0
K40NH2	P40HC1	L180C1	XL34D0
K40NL0	P40HC1	L180C1	XL34D0
K40NL1	P40HC1	L180C1	XL34D0
K45FH0	P45HC2	L290C2	XL65D0
K45FH1	P45HC2	L290C2	XL65D0
K45FH2	P45HC2	L290C2	XL65D0
K45FL0	P45HC2	L290C2	XL65D0
K45FL1	P45HC2	L290C2	XL65D0
K45FW0	P45HC2	L290C2	XL65D0
K45FW1	P45HC2	L290C2	XL65D0
K45MH2	P45HM2	L290M2	XL65D0
K45MW1	P45HM2	L290M2	XL65D0
K45NH0	P45HC1	L290C1	XL65D0
K45NH1	P45HC1	L290C1	XL65D0
K45NH2	P45HC1	L290C1	XL65D0
K45NL0	P45HC1	L290C1	XL65D0
K45NL1	P45HC1	L290C1	XL65D0
K50FH0	P50HC2	L250C2	XL65D0
K50FH1	P50HC2	L250C2	XL65D0
K50FH2	P50HC2	L250C2	XL65D0
K50FL0	P50HC2	L250C2	XL65D0
K50FL1	P50HC2	L250C2	XL65D0
K50FW0	P50HC2	L250C2	XL65D0
K50FW1	P50HC2	L250C2	XL65D0
K50NH0	P50HC1	L250C1	XL65D0
K50NH1	P50HC1	L250C1	XL65D0
K50NH2	P50HC1	L250C1	XL65D0
K50NL0	P50HC1	L250C1	XL65D0
K50NL1	P50HC1	L250C1	XL65D0
K60FH0	P60HC2	L220C2	XL65D0
K60FH1	P60HC2	L220C2	XL65D0
K60FH2	P60HC2	L220C2	XL65D0

Sprayer Package	Reference Number and Description		
	301 Pump	302 Lower	303 Motor
K60FL0	P60HC2	L220C2	XL65D0
K60FL1	P60HC2	L220C2	XL65D0
K60FW0	P60HC2	L220C2	XL65D0
K60FW1	P60HC2	L220C2	XL65D0
K60MH2	P60HM2	L220M2	XL65D0
K60MW1	P60HM2	L220M2	XL65D0
K60NH0	P60HC1	L220C1	XL65D0
K60NH1	P60HC1	L220C1	XL65D0
K60NH2	P60HC1	L220C1	XL65D0
K60NL0	P60HC1	L220C1	XL65D0
K60NL1	P60HC1	L220C1	XL65D0
K70FH0	P70HC2	L180C2	XL65D0
K70FH1	P70HC2	L180C2	XL65D0
K70FH2	P70HC2	L180C2	XL65D0
K70FL0	P70HC2	L180C2	XL65D0
K70FL1	P70HC2	L180C2	XL65D0
K70FW0	P70HC2	L180C2	XL65D0
K70FW1	P70HC2	L180C2	XL65D0
K70MH2	P70HM2	L180M2	XL65D0
K70MW1	P70HM2	L180M2	XL65D0
K70NH0	P70HC1	L180C1	XL65D0
K70NH1	P70HC1	L180C1	XL65D0
K70NH2	P70HC1	L180C1	XL65D0
K70NL0	P70HC1	L180C1	XL65D0
K70NL1	P70HC1	L180C1	XL65D0
K90FH0	P90HC2	L145C2	XL65D0
K90FH1	P90HC2	L145C2	XL65D0
K90FH2	P90HC2	L145C2	XL65D0
K90FL0	P90HC2	L145C2	XL65D0
K90FL1	P90HC2	L145C2	XL65D0
K90MH2	P90HM2	L145M2	XL65D0
K90NH0	P90HC1	L145C1	XL65D0
K90NH1	P90HC1	L145C1	XL65D0
K90NH2	P90HC1	L145C1	XL65D0
K90NL0	P90HC1	L145C1	XL65D0
K90NL1	P90HC1	L145C1	XL65D0

Sprayer Package	Reference Number and Description		
	301 Pump	302 Lower	303 Motor
K47FH0	P47HC1	24W644	24X856
K47FH1	P47HC1	24W644	24X856
K47FH2	P47HC1	24W644	24X856
K47FW0	P47HC1	24W644	24X856
K47FW1	P47HC1	24W644	24X856
K71FH0	P71HC2	B29HC2	24X856
K71FH1	P71HC2	B29HC2	24X856
K71FH2	P71HC2	B29HC2	24X856
K71FW0	P71HC2	B29HC2	24X856
K71FW1	P71HC2	B29HC2	24X856
K71NH0	P71HC1	B29HC1	24X856
K71NH1	P71HC1	B29HC1	24X856
K71NH2	P71HC1	B29HC1	24X856
K82FH0	P82HC2	B25HC2	24X856
K82FH1	P82HC2	B25HC2	24X856
K82FH2	P82HC2	B25HC2	24X856
K82FW0	P82HC2	B25HC2	24X856
K82FW1	P82HC2	B25HC2	24X856
K82NH0	P82HC1	B25HC1	24X856
K82NH1	P82HC1	B25HC1	24X856
K82NH2	P82HC1	B25HC1	24X856

Air Assisted Sprayer Packages



Air-Assisted Sprayer Packages Parts List

Models 287975 and 287976

Ref.	Part	Description	Qty.
401	P30HC2	PUMP, assy. 287975	1
	P40HC2	PUMP, assy. 287976	1
402 ‡	17X355	CART, heavy duty	1
403 ‡	-----	TUBE, suction	1
404 ‡	-----	HOSE, suction, 1 in., NPT x quick connect, 6 ft.	1
405 ‡	-----	ADAPTER, elbow	1
406 ‡	-----	ADAPTER, quick connect	1
407	244524	WIRE, ground assembly w/ clamp	1
410*	26C352	BRACKET, air controls	1
415*	116513	REGULATOR, air, gun	1
416*	100101	SCREW, mounting, cap, hex hd	6
417*	116514	NUT, regulator mount	1
418*	100133	WASHER, lock	4
419	24C857	GUN, spray	1
427*	108190	GAUGE, pressure, gun	1
428*	116473	VALVE, ball, vented, 2 way	1
429	210868	HOSE, air, coupled, 50 ft.	1
430*	156971	NIPPLE, short	1
431*	114128	ELBOW, male, swivel	1
433	H52550	HOSE, fluid; nylon, 1/4 in. ID; 1/4 npsm(fbe); 50 ft.	1
434	189018	SWIVEL	1
435*	111763	ELBOW, 1/4 npt	1
436*	100023	WASHER, flat	2
437*	112958	NUT, hex, flanged	2
438*	C20900	FITTING, tee, run	1
439*	114129	CONNECTOR, male	1
440*	100505	BUSHING, pipe	1
441*	-----	TUBE	1
443	159842	ADAPTER, bushing, 1/4 npt(m) x 1/2 npt(f)	1
444◆	17N621	CONTROLS, air, heavy duty cart	1

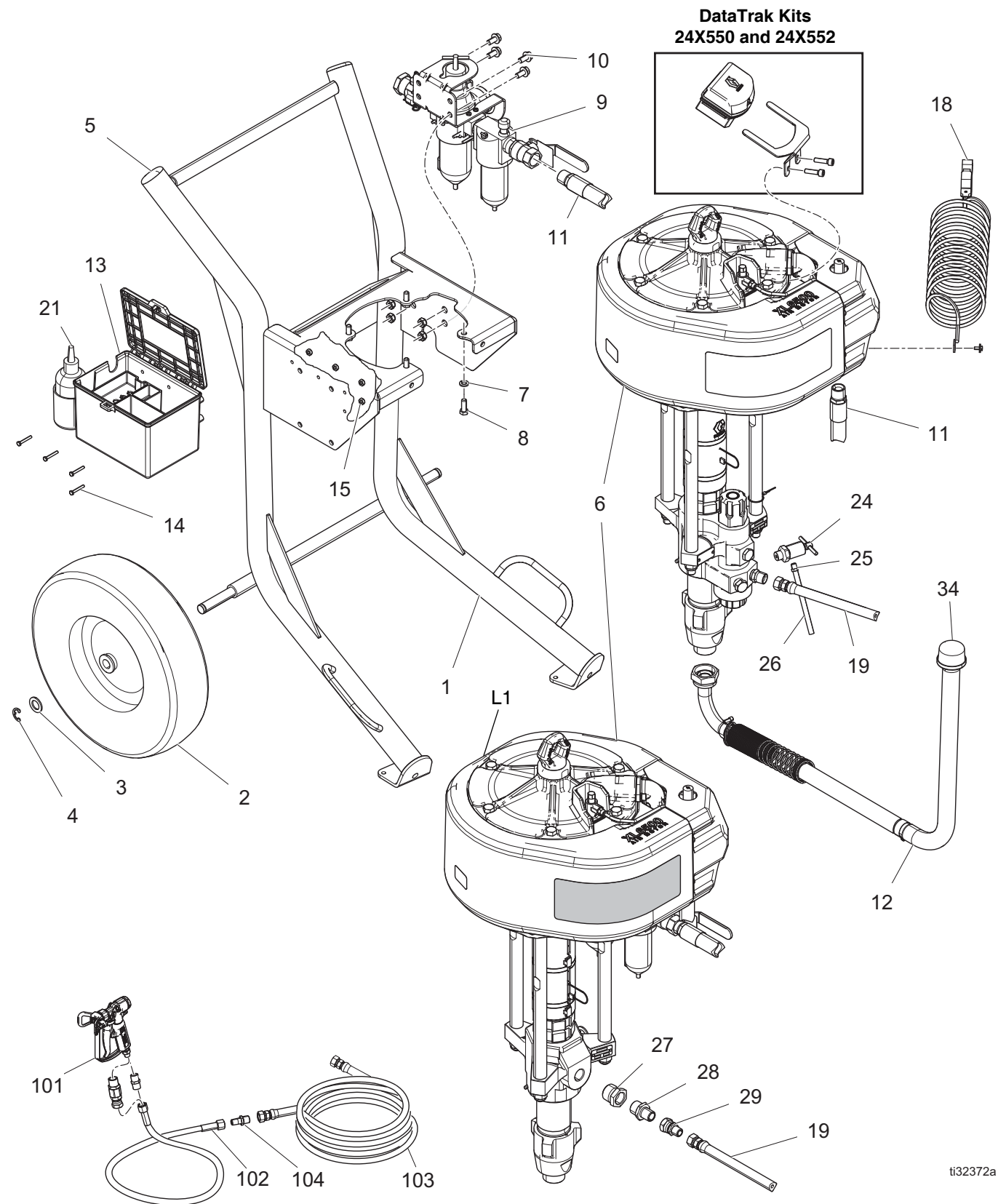
* Not shown.

* Included in Air Regulator Mounting Kit 288527.

‡ Included in Hose Suction Kit 25D515.

◆ See page **Sprayer Cart Packages**, page 38, to verify correct part numbers.

King Sprayer Cart Packages Parts



ti32372a

King Sprayer Cart Packages Parts List

Ref.	Part	Description	Qty.
1	-----	CART (see Cart Parts , page 30)	1
2	-----	WHEEL (see Cart Parts , page 30)	2
3	154628	WASHER	2
4	113436	RING, retaining	2
5	113361	CAP, tube, round	2
6	-----	PUMP (see Pump Package Parts tables starting on page 32)	1
7	100133	WASHER, lock, 3/8	4
8	100101	SCREW, cap, hex hd	4
9	-----	AIR CONTROLS	1
	17N621	Standard filter/regulator	
	25D529	Filter/regulator and lubricator	
10	112395	SCREW, cap, flng hd	4
11	-----	AIR LINE	1
	17S137	HOSE, models ending in 1	
	17V125	HOSE, models ending in 2	
12	25D515	HOSE, suction, 5 gal to 1-1/4 npt	1
13	25D498	TOOL BOX, black	1
14	115248	SCREW, cap, hex hd	4
15	114231	NUT, lock, hex (standard)	4
18	244524	WIRE, ground assembly, w/clamp	1
21	206994	FLUID, TSL 8 oz bottle	1
30*	-----	SAFETY VALVE	1
	113498	110 psi, K30 - K70 models	
	116643	90 psi, K90 models	
31	17V369	KIT, sprayer, bare units	1
33	17V371	KIT, sprayer, w/pump, filter	1
34	181072	KIT, repair, strainer	1
L1▲	15F674	LABEL, safety, motor	1

The following parts are included with only airless sprayer packages:

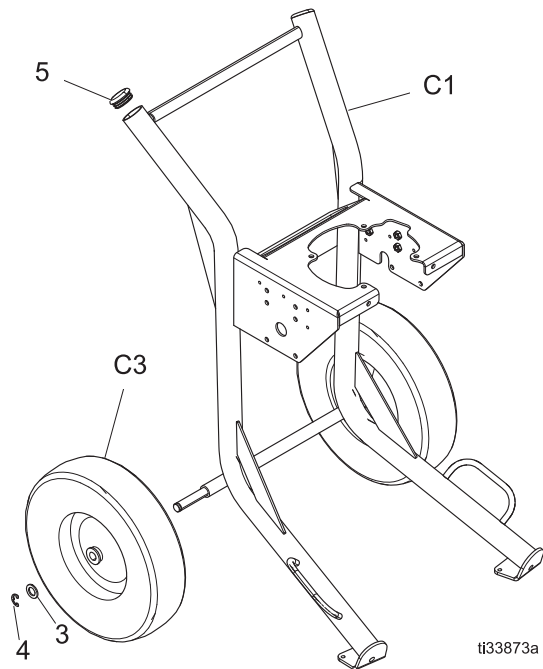
Ref.	Part	Description	Qty.
101	-----	GUN, spray	1
	XTR504	XTR5 spray gun for models with 25:1 - 50:1 ratio only	
	XTR704	XTR7 spray gun for models with 55:1 - 90:1 ratio only	
102	-----	HOSE, fluid; nylon; 1/4 in. ID, 1/4 npsm(fbe); 6 ft.	1
	H42506	Models with 25:1 - 45:1 ratio	
	H52506	Models with 46:1 - 55:1 ratio	
	H72506	Models with 60:1 - 90:1 ratio	
103	-----	HOSE, fluid; nylon, 3/8 in. ID; 3/8 npsm(fbe); 50 ft.	1
	H43850	Models with 25:1 - 45:1 ratio	
	H53850	Models with 46:1 - 55:1 ratio	
	H73850	Models with 60:1 - 90:1 ratio	
104	164856	FITTING, nipple, reducing; 3/8 x 1/4 npt(m)	1

* Not included with air controls. Order separately.

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

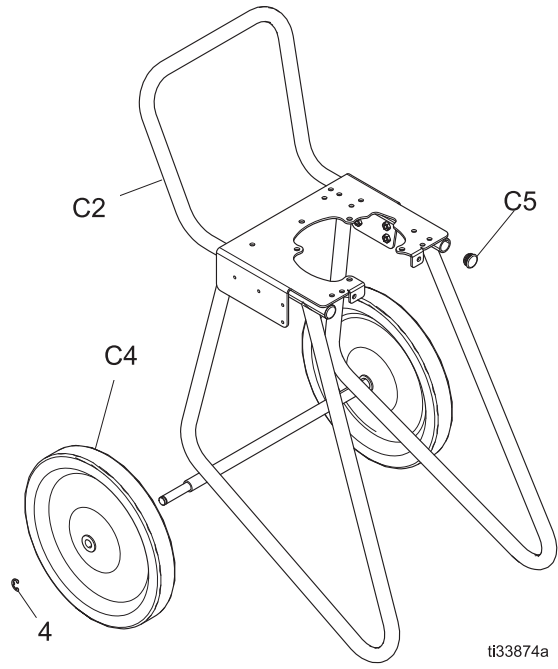
Cart Parts

17X355 - Heavy Duty Cart



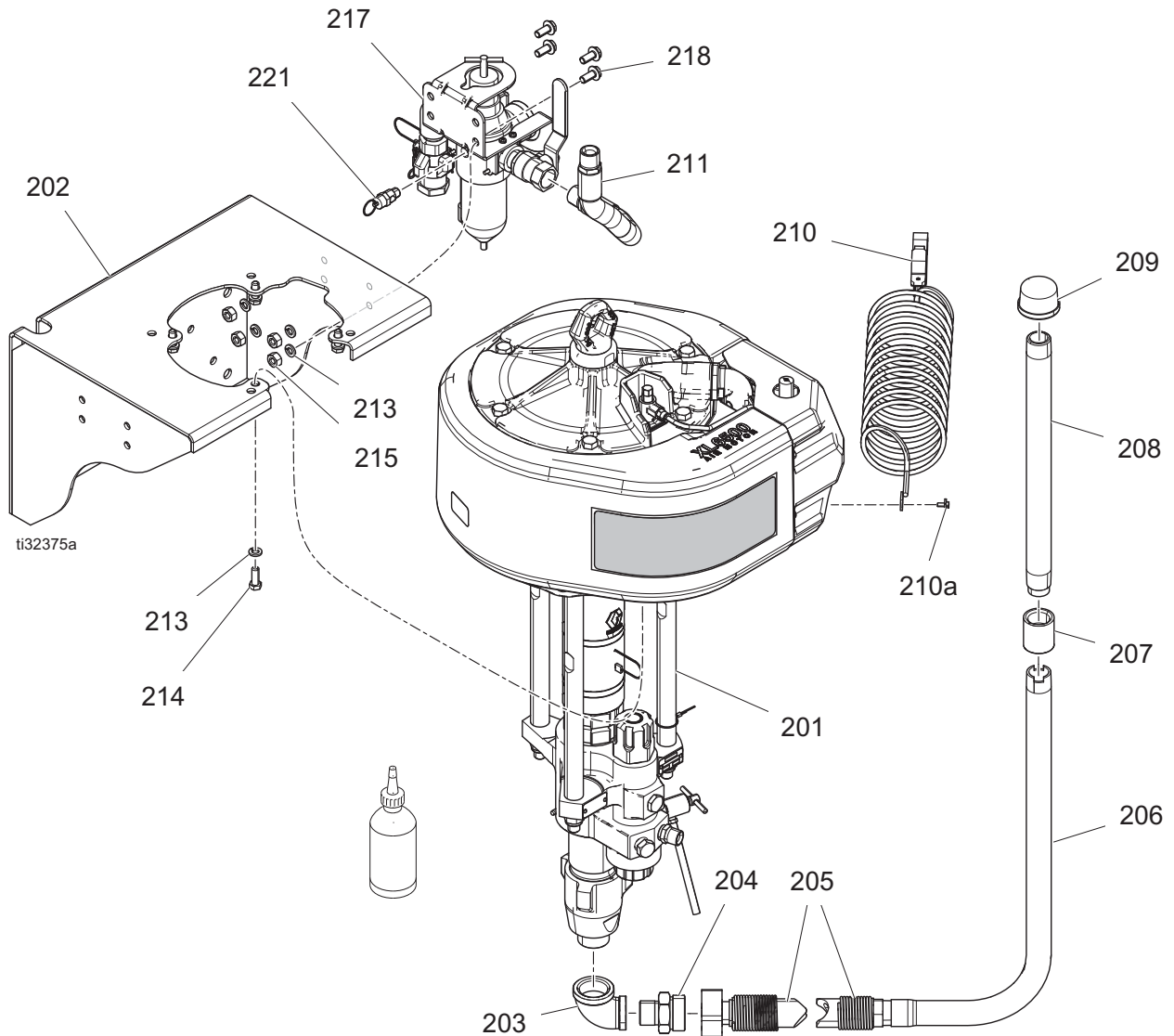
Ref.	Part	Description	Qty.
3	154628	WASHER	2
4	113436	RING, retaining	2
5	113361	CAP, tube, round	2
C1	24Z852	CART, heavy duty	1
C3	113362	WHEEL, semi-pneumatic	2

17X356 - Light Weight Cart



Ref.	Part	Description	Qty.
4	113436	RING, retaining	2
C2	17S256	CART, light weight	1
C4	116406	WHEEL, semi-pneumatic	2
C5	16W767	PLUG, tubing	2

Wall Mount Packages Parts



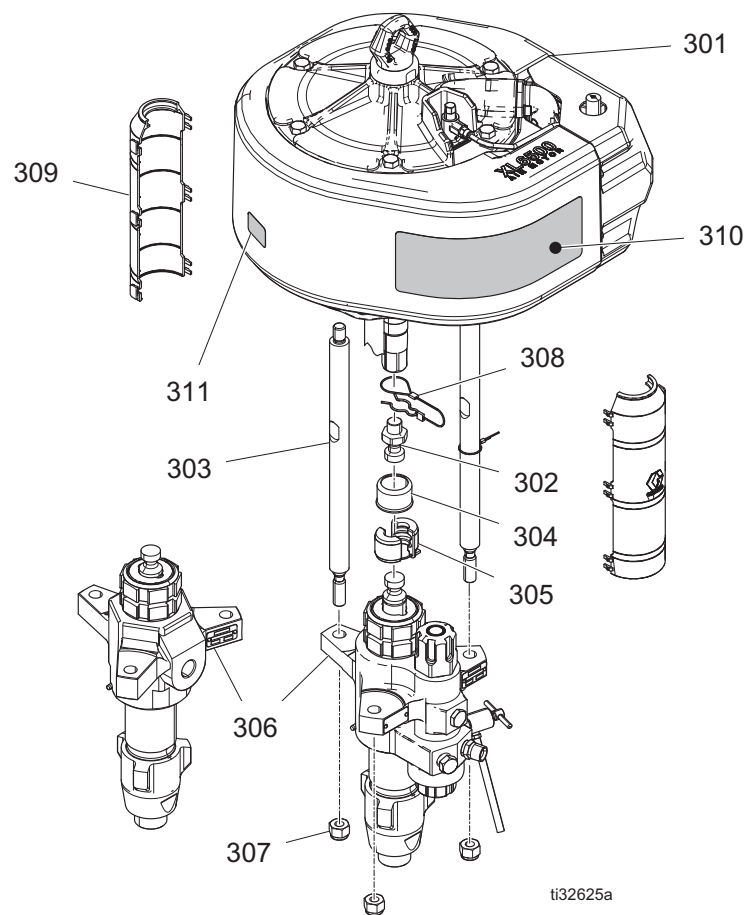
NOTE: Apply stainless steel pipe sealant to all non-swiveling pipe threads.

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
201	-----	PUMP (see Pump Package Parts tables starting on page 32)	1	210a	-----	SCREW, ground	1
202	24X180	BRACKET, wall	1	211	17S137	HOSE, coupled, 13.75 in.	1
203	116401	ADAPTER, elbow	1	213	100133	WASHER, lock, 3/8 in.	8
204	116402	ADAPTER, qconnect	1	214	100101	SCREW, cap, hex hd	4
205	247301	HOSE, suction, 1 in. npt x qconnect	1	215	100131	NUT, full hex	4
206	197682	TUBE, suction	1	217	25D649	MODULE, air, wall mount, 3/4 in.	1
207	114967	COUPLING, pipe, 1 in.	1	218	111192	SCREW, cap flange hd	4
208	195151	TUBE, intake	1	220	206994	FLUID, TSL 8 oz bottle	1
209	181072	STRAINER, inlet	1	221*	-----	SAFETY VALVE	1
210	244524	WIRE, ground assembly w/ clamp	1		113498	110 psi, K30 - K70 models	
					116643	90 psi, K90 models	

* Not included with air controls. Order separately.

Pump Package Parts

Description	Pump List Page
Pump Packages with L180C# Lowers (40:1, 70:1 ratio)	33
Pump Packages with L220C# Lowers (30:1, 60:1 ratio)	33
Pump Packages with L250C# Lowers (50:1 ratio)	34
Pump Packages with L290C# Lowers (25:1, 45:1 ratio)	34
Pump Packages with L145C# Lowers (90:1 ratio)	34



Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
301	-----	MOTOR, standard	1	306	-----	LOWER, Xtreme, 220, nf, Xseal (see Pump Packages table above)	1
302	15H392	ROD, adapter	1	307	101712	NUT, lock	3
303	15F837	ROD, tie, 14–1/4 long	3	308	244820	CLIP, hairpin (w/lanyard)	1
304	197340	COVER, coupler	1	309	17S727	GUARD, rod coupler	2
305	244819	COUPLING, assembly, 145–290 Xtreme	1	310	17P245	LABEL, King	1
				311	15H117	LABEL, identification	1

Pump Packages with L180C# Lower (40:1, 70:1 Ratio)

Pump Package	Pump	Lower	Motor
K40FH0	P40HC2	L180C2	XL34D0
K40FH1	P40HC2	L180C2	XL34D0
K40FH2	P40HC2	L180C2	XL34D0
K40FL0	P40HC2	L180C2	XL34D0
K40FL1	P40HC2	L180C2	XL34D0
K40FW0	P40HC2	L180C2	XL34D0
K40FW1	P40HC2	L180C2	XL34D0
K40MH2	P40HM2	L180M2	XL34D0
K40MW1	P40HM2	L180M2	XL34D0
K40NH0	P40HC2	L180C2	XL34D0
K40NH1	P40HC2	L180C2	XL34D0
K40NH2	P40HC2	L180C2	XL34D0
K40NL0	P40HC2	L180C2	XL34D0
K40NL1	P40HC2	L180C2	XL34D0

Pump Package	Pump	Lower	Motor
K70FH0	P70HC2	L180C2	XL65D0
K70FH1	P70HC2	L180C2	XL65D0
K70FH2	P70HC2	L180C2	XL65D0
K70FL0	P70HC2	L180C2	XL65D0
K70FL1	P70HC2	L180C2	XL65D0
K70FW0	P70HC2	L180C2	XL65D0
K70FW1	P70HC2	L180C2	XL65D0
K70MH2	P70HM2	L180M2	XL65D0
K70MW1	P70HM2	L180M2	XL65D0
K70NH0	P70HC2	L180M2	XL65D0
K70NH1	P70HC2	L180M2	XL65D0
K70NH2	P70HC2	L180C2	XL65D0
K70NL0	P70HC2	L180C2	XL65D0
K70NL1	P70HC2	L180C2	XL65D0

Pump Packages with L220C# Lower (30:1, 60:1 Ratio)

Pump Package	Pump	Lower	Motor
K30FH0	P30HC2	L220C2	XL34D0
K30FH1	P30HC2	L220C2	XL34D0
K30FH2	P30HC2	L220C2	XL34D0
K30FL0	P30HC2	L220C2	XL34D0
K30FL1	P30HC2	L220C2	XL34D0
K30FW0	P30HC2	L220C2	XL34D0
K30FW1	P30HC2	L220C2	XL34D0
K30MH2	P30HM2	L220M2	XL34D0
K30MW1	P30HM2	L220M2	XL34D0
K30NH0	P30HC1	L220C1	XL34D0
K30NH1	P30HC1	L220C1	XL34D0
K30NH2	P30HC1	L220C1	XL34D0
K30NL0	P30HC1	L220C1	XL34D0
K30NL1	P30HC1	L220C1	XL34D0

Pump Package	Pump	Lower	Motor
K60FH0	P60HC2	L220C2	XL65D0
K60FH1	P60HC2	L220C2	XL65D0
K60FH2	P60HC2	L220C2	XL65D0
K60FL0	P60HC2	L220C2	XL65D0
K60FL1	P60HC2	L220C2	XL65D0
K60FW0	P60HC2	L220C2	XL65D0
K60FW1	P60HC2	L220C2	XL65D0
K60MH2	P60HM2	L220M2	XL65D0
K60MW1	P60HM2	L220M2	XL65D0
K60NH0	P60HC1	L220C1	XL65D0
K60NH1	P60HC1	L220C1	XL65D0
K60NH2	P60HC1	L220C1	XL65D0
K60NL0	P60HC1	L220C1	XL65D0
K60NL1	P60HC1	L220C1	XL65D0

Pump Packages with L250C# Lowers (50:1 Ratio)

Pump Package	Pump	Lower	Motor
K50FH0	P50HC2	L250C2	XL65D0
K50FH1	P50HC2	L250C2	XL65D0
K50FH2	P50HC2	L250C2	XL65D0
K50FL0	P50HC2	L250C2	XL65D0
K50FL1	P50HC2	L250C2	XL65D0
K50FW0	P50HC2	L250C2	XL65D0
K50FW1	P50HC2	L250C2	XL65D0
K50NH0	P50HC1	L250C1	XL65D0
K50NH1	P50HC1	L250C1	XL65D0
K50NH2	P50HC1	L250C1	XL65D0
K50NL0	P50HC1	L250C1	XL65D0
K50NL1	P50HC1	L250C1	XL65D0

Pump Packages with L290C# Lowers (25:1, 45:1 Ratio)

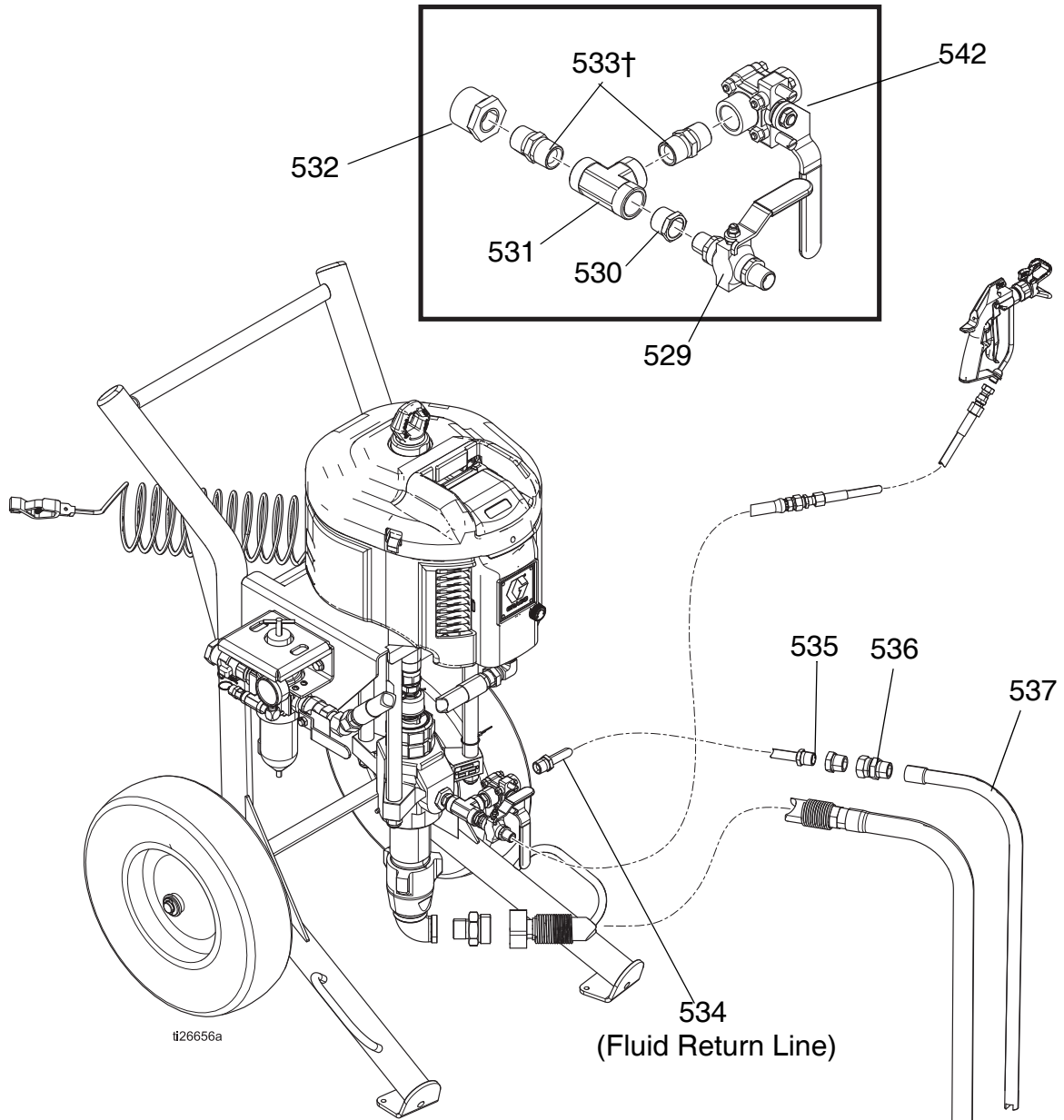
Pump Package	Pump	Lower	Motor
K25FH0	P25HC2	L290C2	XL34D0
K25FH1	P25HC2	L290C2	XL34D0
K25FH2	P25HC2	L290C2	XL34D0
K25FL0	P25HC2	L290C2	XL34D0
K25FL1	P25HC2	L290C2	XL34D0
K25FW0	P25HC2	L290C2	XL34D0
K25FW1	P25HC2	L290C2	XL34D0
K25NH0	P25HC1	L290C1	XL34D0
K25NH1	P25HC1	L290C1	XL34D0
K25NH2	P25HC1	L290C1	XL34D0
K25NL0	P25HC1	L290C1	XL34D0
K25NL1	P25HC1	L290C1	XL34D0
K45FH0	P45HC2	L290C2	XL65D0
K45FH1	P45HC2	L290C2	XL65D0
K45FH2	P45HC2	L290C2	XL65D0
K45FL0	P45HC2	L290C2	XL65D0
K45FL1	P45HC2	L290C2	XL65D0
K45FW0	P45HC2	L290C2	XL65D0
K45FW1	P45HC2	L290C2	XL65D0
K45MH2	P45HM2	L290M2	XL65D0

Pump Package	Pump	Lower	Motor
K45MW1	P45HM2	L290M2	XL65D0
K45NH0	P45HC1	L290C1	XL65D0
K45NH1	P45HC1	L290C1	XL65D0
K45NH2	P45HC1	L290C1	XL65D0
K45NL0	P45HC1	L290C1	XL65D0
K45NL1	P45HC1	L290C1	XL65D0

Pump Packages with L145C# Lowers (90:1 Ratio)

Pump Package	Pump	Lower	Motor
K90FH0	P90HC2	L145C2	XL65D0
K90FH1	P90HC2	L145C2	XL65D0
K90FH2	P90HC2	L145C2	XL65D0
K90FL0	P90HC2	L145C2	XL65D0
K90FL1	P90HC2	L145C2	XL65D0
K90MH2	P90HM2	L145M2	XL65D0
K90NH0	P90HC1	L145C1	XL65D0
K90NH1	P90HC1	L145C1	XL65D0
K90NH2	P90HC1	L145C1	XL65D0
K90NL0	P90HC1	L145C1	XL65D0
K90NL1	P90HC1	L145C1	XL65D0

Zinc Circulation Kit (238588)

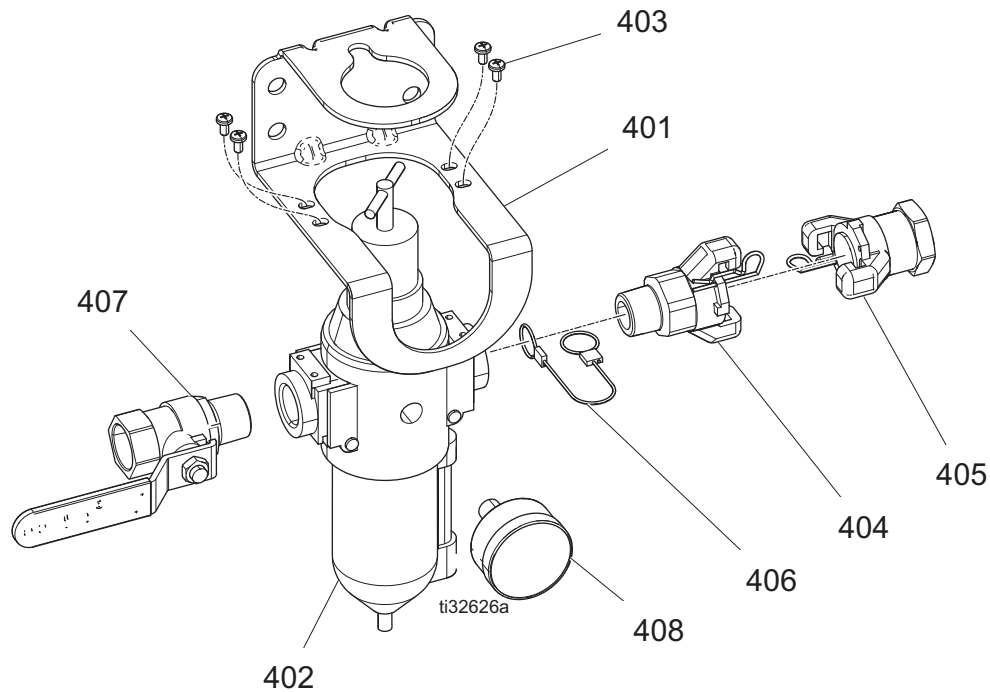


Zinc Sprayer Packages

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
501	P25DC1	PUMP, assy. 287971 and 287973	1	534	235148	HOSE, coupled, 6 ft	1
	P40DC1	PUMP, assy. 287972 and 287974	1	535	100896	FITTING, bushing, pipe	1
516*	100101	SCREW, mounting, cap, hex hd	4	536	157785	FITTING, swivel	1
518*	100133	WASHER, lock	4	537	165767	TUBE, suction	1
529	238612	VALVE, ball	1	542	24P719	VALVE, ball	1
530	100081	BUSHING, pipe	1	* Not shown.			
531	502570	FITTING, tee, pipe	1				
532	-----	BUSHING, pipe					
	100380	Model 287973	1				
	157191	Model 287974	1				
533	158491	FITTING, nipple					

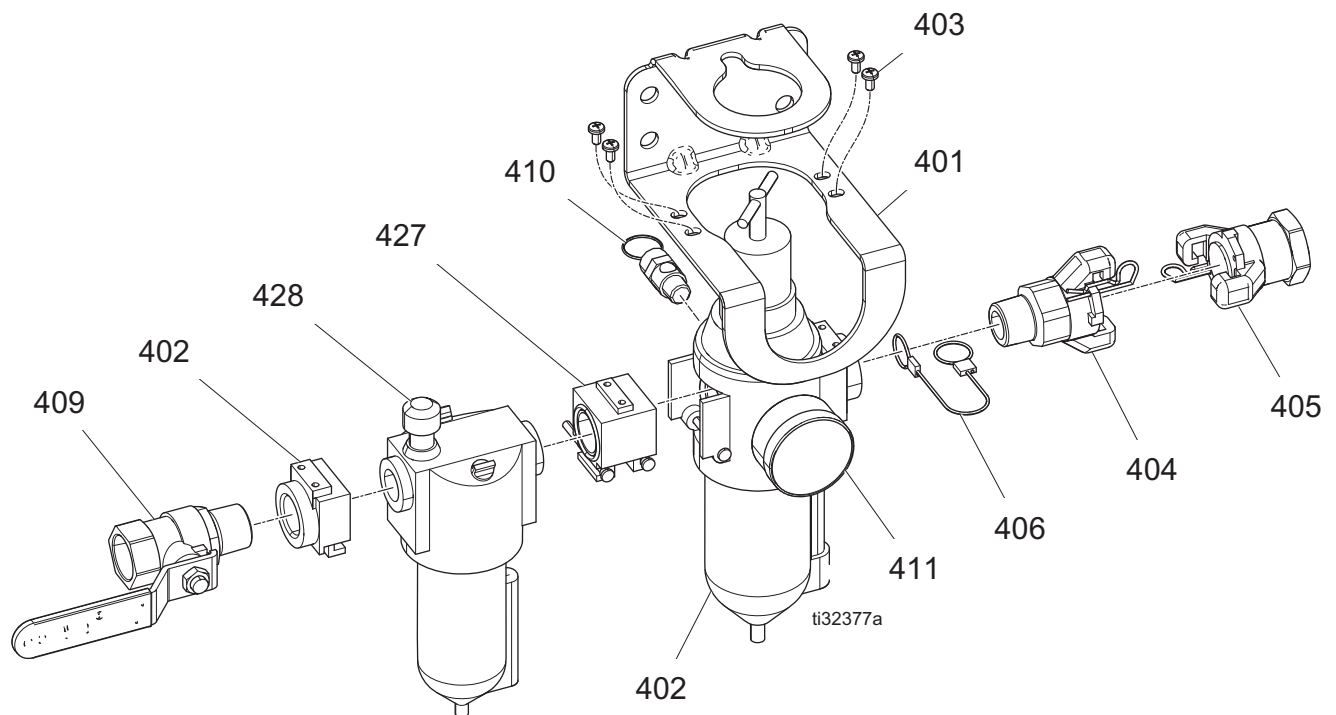
Air Controls

Model 17N621



17N621 Parts

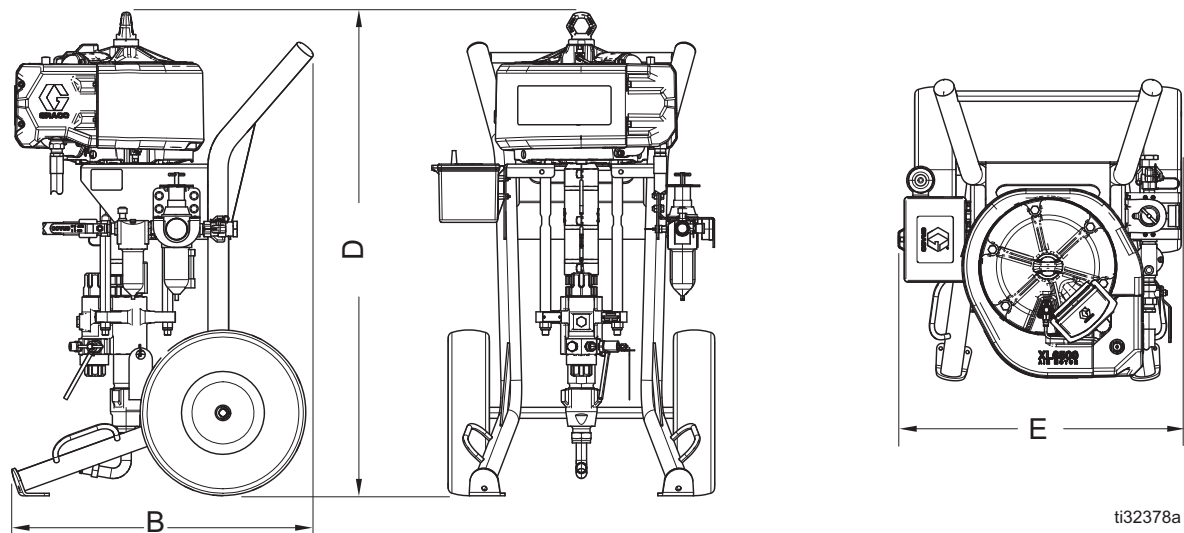
Ref.	Part	Description	Qty.
401	17U995	BRACKET, air controls, painted	1
402	116521	REGULATOR, filter, air	1
403	103833	SCREW, mach, CRBH	4
404	113429	COUPLING, universal	1
405	113430	COUPLING, universal	1
406	16W586	CABLE, lanyard, whip check	1
407	113218	VALVE, ball, vented, 0.750	1
408	101689	GAUGE, press, air	1

Model 25D529**25D529 Parts**

Ref.	Part	Description	Qty.
401	17U995	BRACKET, air controls, painted	1
402	116521	REGULATOR, filter, air	1
403	103833	SCREW, mach, CRBH	4
404	113429	COUPLING, universal	1
405	113430	COUPLING, universal	1
406	16W586	CABLE, lanyard, whip check	1
409	113218	VALVE, ball, vented	1
410	-----	SAFETY VALVE	1
	113498	110 psi, K30 - K70 models	
	116643	90 psi, K90 models	
411	101689	GAUGE, pressure, air	1
427	116522	KIT, conversion, air control	1
428	C11034	LUBRICATOR, air	1

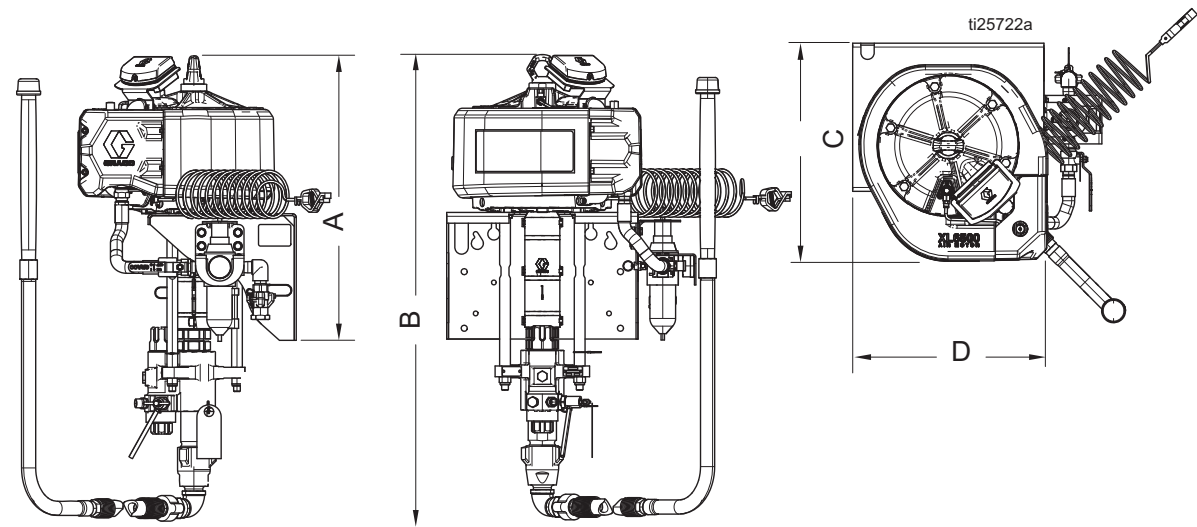
Dimensions

Sprayer Cart Packages



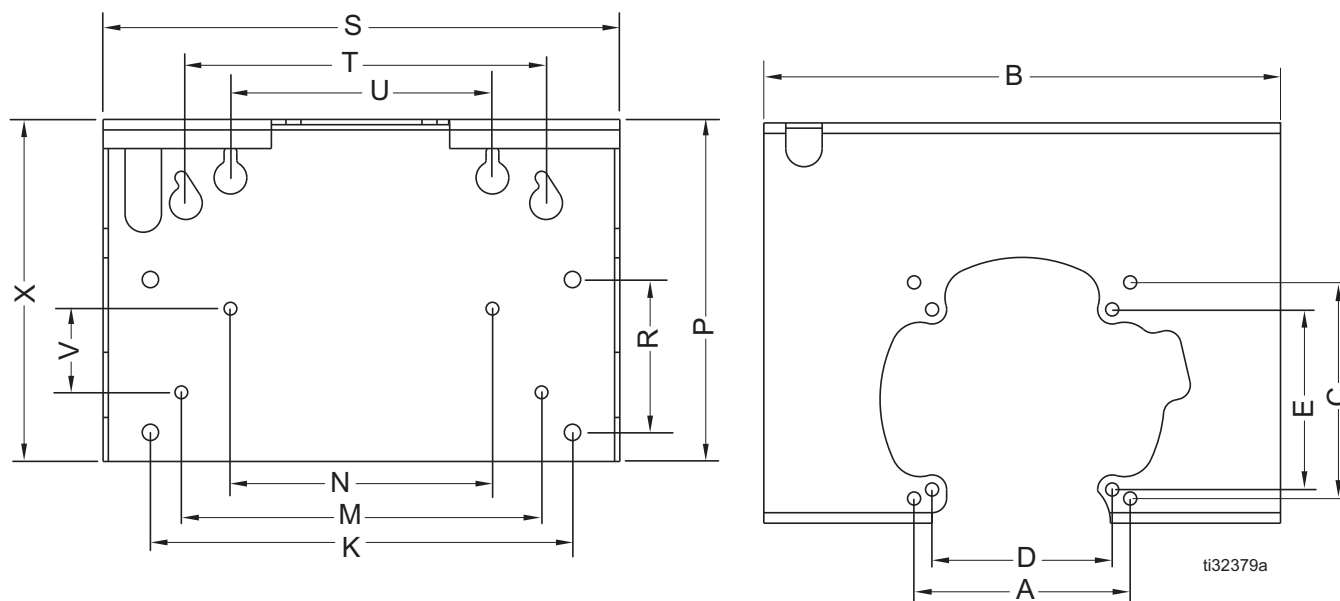
Mount	B	D	E
Xtreme	28.5 in. (72.4 cm)	51 in. (129.5 cm)	25.75 in. (65.4 cm)

Sprayer Cart Packages



Mount	A	B	C	D
Xtreme	26.25 in. (66.7 cm)	43.5 in. (110.5 cm)	22.0 in. (55.9 cm)	23.0 in. (58.4 cm)

Wall Mount Bracket Mounting Hole Diagram



Ref.	Dimensions
A	7.424 in. (188.5 mm)
B	7.75 in. (450.8 mm)
C	7.424 in. (188.5 mm)
D	6.186 in. (157 mm)
E	6.186 in. (157 mm)
K	14.50 in. (368.3 mm)
M	12.375 in. (314.3 mm)
N	9.0 in. (228.6 mm)
P	11.75 in. (298.45 mm)
R	5.25 in. (133.3 mm)
S	17.75 in. (450.8 mm)
T	17.75 in. (450.8 mm)
U	9.0 in. (228.6 mm)
V	2.875 in. (73 mm)
X	11.75 in. (298.4 mm)

Performance Charts

Calculate Fluid Outlet Pressure

To calculate fluid outlet pressure (psi/MPa/bar) at a specific fluid flow (gpm/lpm) and operating air pressure (psi/MPa/bar), use the following instructions and pump data charts.

- 1. Locate desired flow along the bottom of the chart.
- 2. Follow the vertical line up to the intersection with the selected fluid outlet pressure curve. Follow left to scale to read fluid outlet pressure.

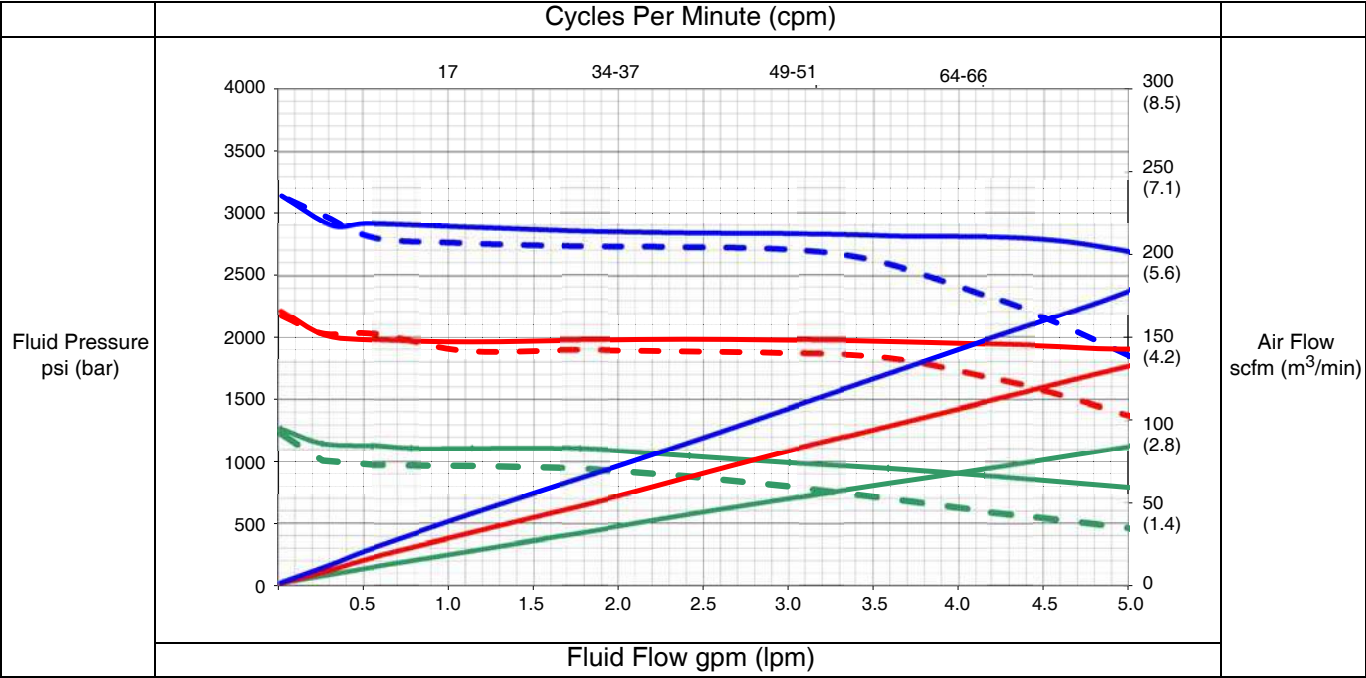
Calculate Pump Air Flow/Consumption

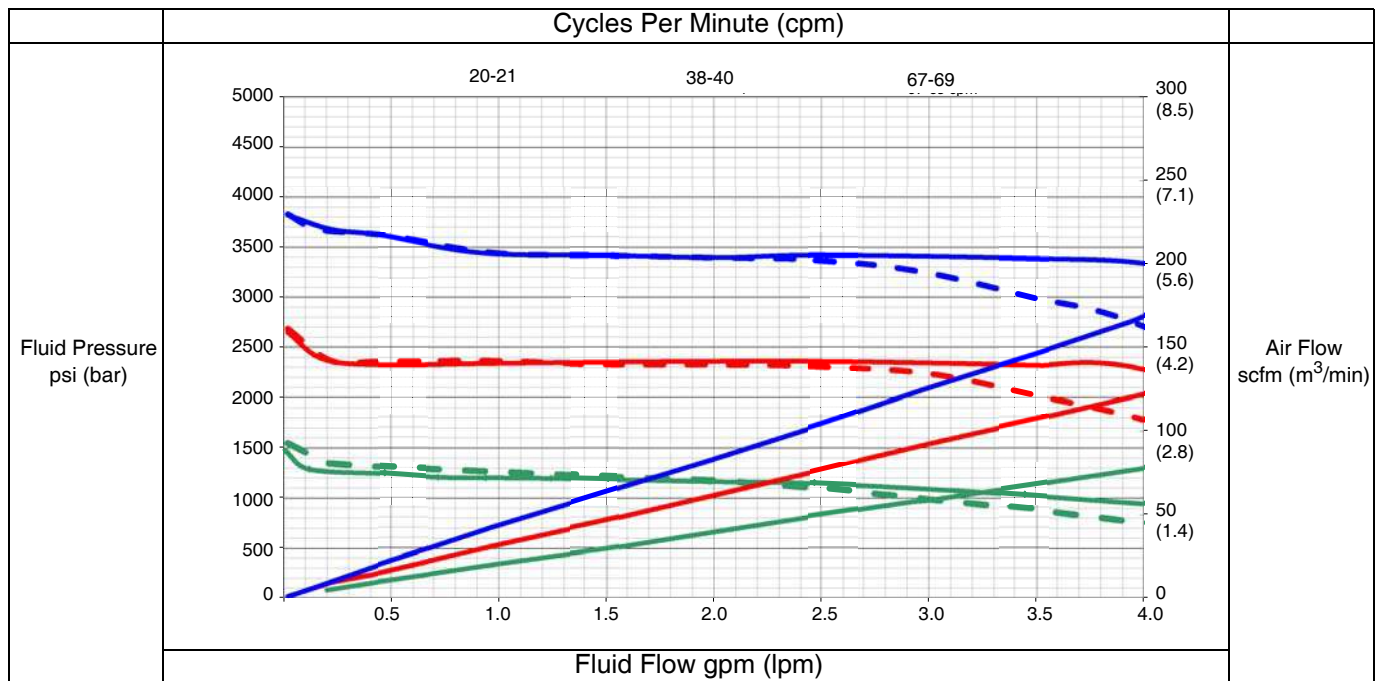
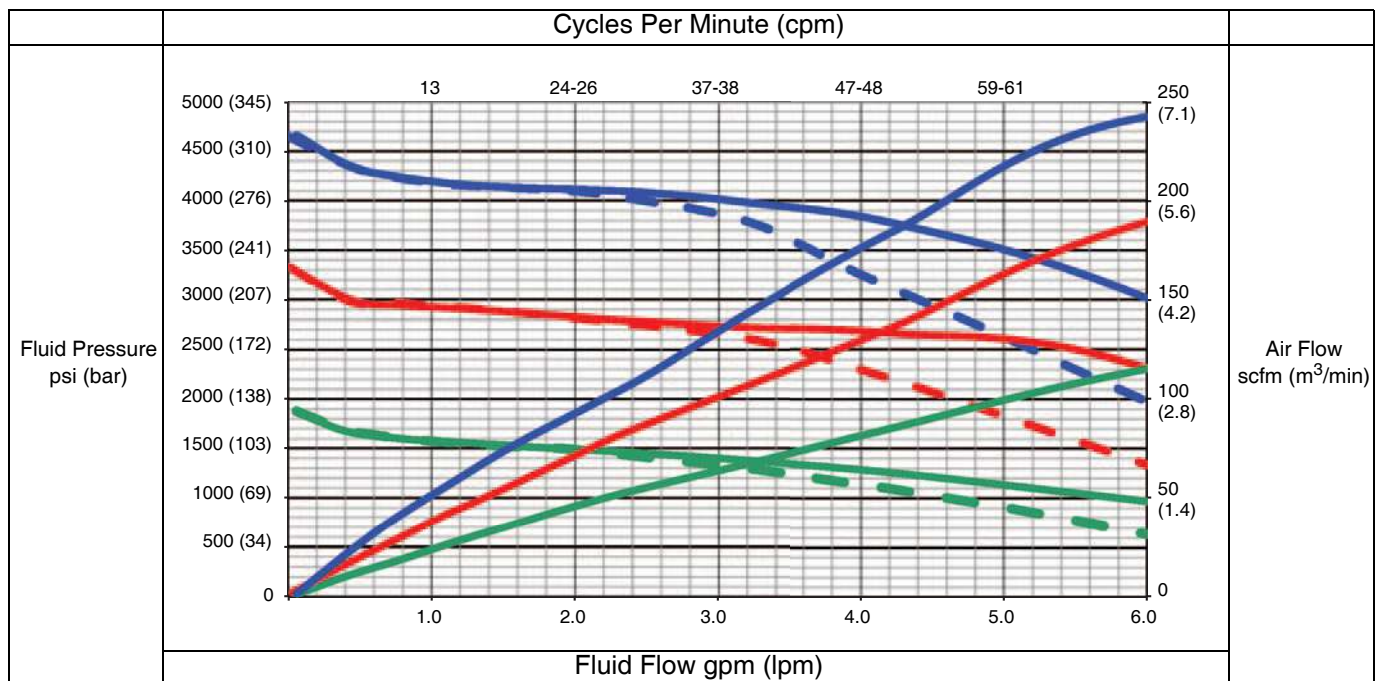
To calculate pump air/consumption (scfm or m³/min) at a specific fluid flow (gpm/lpm) and air pressure (psi/MPa/bar), use the following instructions and pump data charts.

- 1. Locate desired flow along the bottom of the chart.
- 2. Follow the vertical line up to the intersection with the selected fluid outlet pressure curve. Follow right to scale to read air flow consumption.

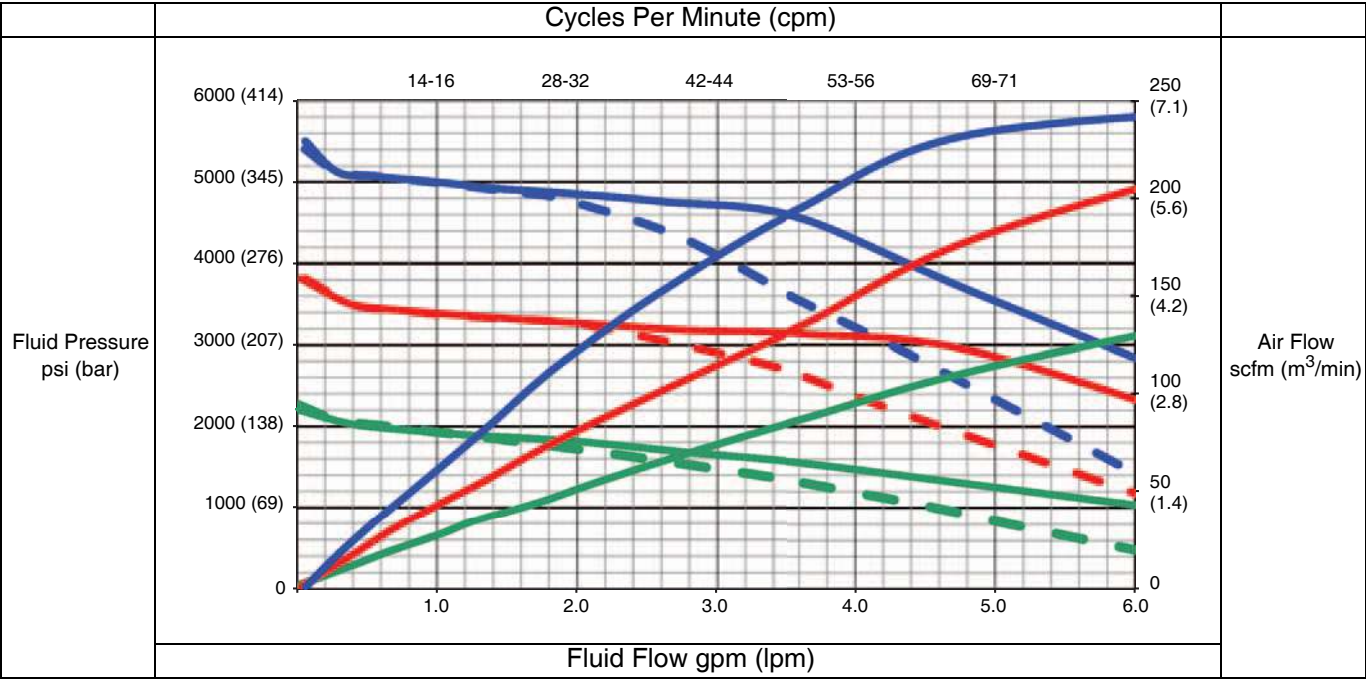
Ref.	Pressure
A	100 psi (0.7 MPa, 7 bar)
B	70 psi (480 MPa, 4.8 bar)
C	40 psi (280 MPa, 2.8 bar)

30:1

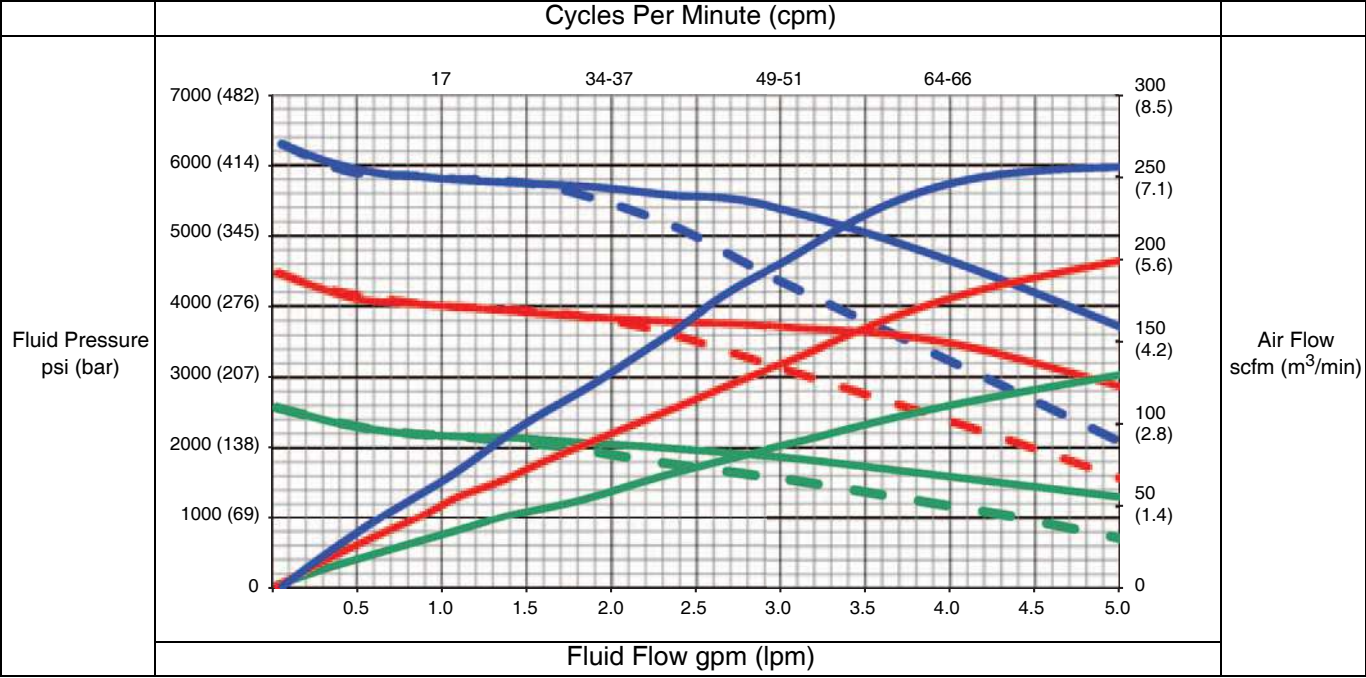


40:1**45:1**

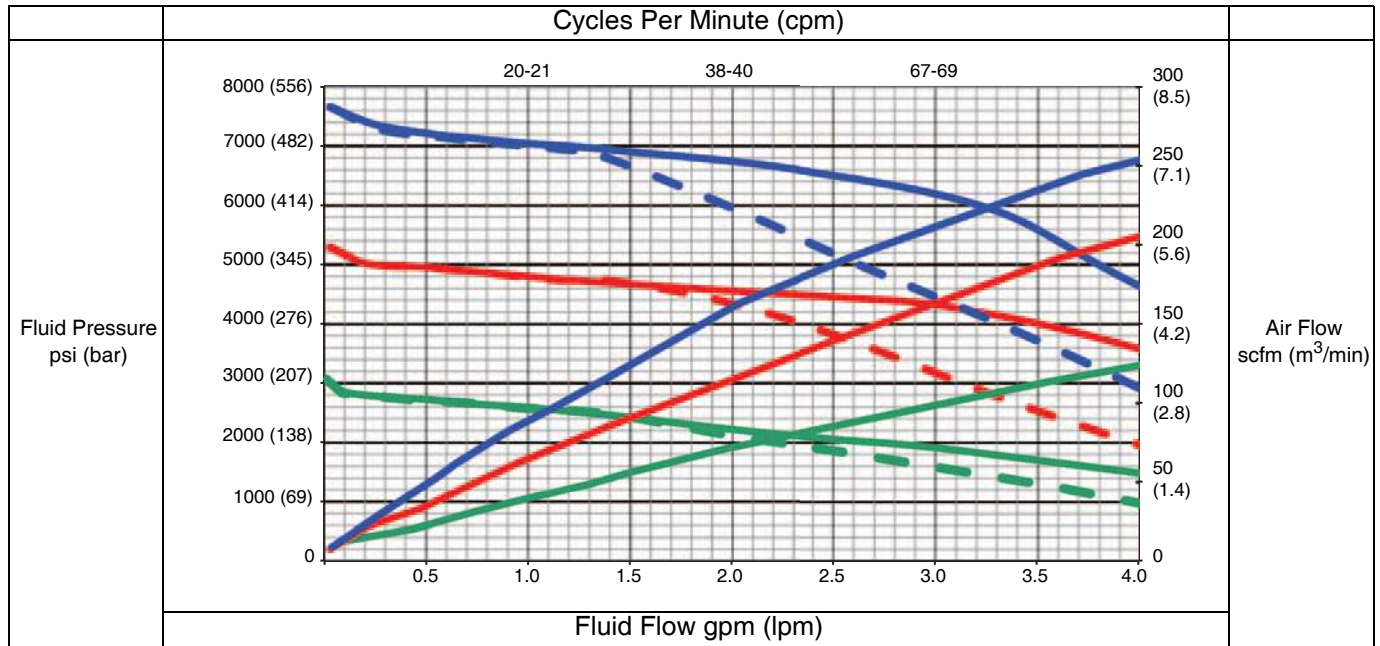
50:1



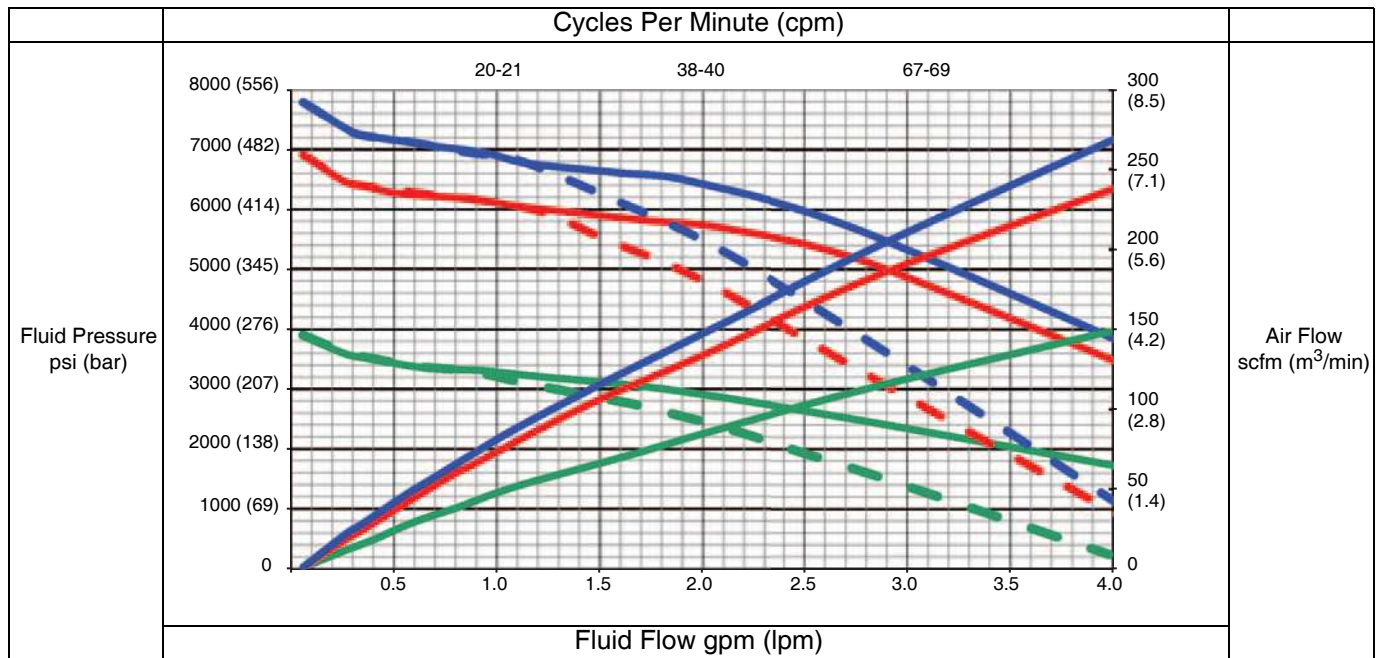
60:1



70:1



90:1



Technical Specifications

King Spray Packages		
	US	Metric
Maximum air inlet pressure to sprayer	150 psi	1 MPa, 10.3 bar
Stroke length (nominal)	4.75 in.	12.0 cm
Maximum pump speed (Do not exceed maximum recommended speed of fluid pump, to prevent premature pump wear)	60 cycles per minute	
Sound Data	See Xtreme XL Motor manual for sound data.	
Air Inlet Size	1 in. npt(f)	
Wetted Parts	Carbon steel; ally steel; 304, 440 and 17–4 PH grades of stainless steel; zinc and nickel plating; ductile iron; tungsten carbide; PTFE; leather	
Fluid Inlet Size		
All Xtreme Lower Pumps	1 1/4 npt(m)	
Dura-Flo Lower Pumps	2 in. npt(f)	
Fluid Outlet Size (Number of Outlets)		
Xtreme Lower Pumps With Built-In Filters (2)	1/2 in. npt(f)	
Xtreme Lower Pumps Without Filters (1)	1 in. npt(f)	
Dura-Flo Lower Pumps (1)	3/4 npt(m)	
Maximum Air Operating Pressure		
K25	100 psi	0.7 MPa, 7 bar
K30	100 psi	0.7 MPa, 7 bar
K40	100 psi	0.7 MPa, 7 bar
K45	100 psi	0.7 MPa, 7 bar
K50	100 psi	0.7 MPa, 7 bar
K60	100 psi	0.7 MPa, 7 bar
K70	100 psi	0.7 MPa, 7 bar
K90	80 psi	0.55 MPa, 5.5 bar
Maximum Fluid Working Pressure		
K25	2375 psi	16.4 MPa, 164 bar
K30	3150 psi	21.7 MPa, 217 bar
K40	3800 psi	26.2 MPa, 262 bar
K45	4500 psi	31 MPa, 310 bar
K50	5000 psi	34.5 MPa, 345 bar
K60	6000 psi	41.7 MPa, 417 bar
K70	7250 psi	50 MPa, 500 bar
K90	7250 psi	50 MPa, 500 bar
Weight: Heavy Duty Cart / Light Weight Cart		
K25	228 lb / 196 lb	103 kg / 89 kg
K30	227.4 lb / 196.1 lb	103.6 kg / 89.0 kg
K40	223.4 lb / 191.1 lb	101.3 kg / 86.7 kg
K45	247.4 lb / 215.1 lb	112.2 kg / 97.6 kg
K50	246.4 lb / 214.1 lb	111.8 kg / 97.1 kg
K60	246.4 lb / 214.1 lb	111.8 kg / 97.1 kg
K70	242.4 lb / 210.1 lb	109.9 kg / 95.3 kg
K90	242.4 lb / 210.1 lb	109.9 kg / 95.3 kg

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

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présent document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

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

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

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

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

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

Original instructions. This manual contains English. MM 3A5422

Graco Headquarters: Minneapolis

International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA
Copyright 2017, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.

www.graco.com
Revision E, October 2019