Operation, Repair, and Parts

ToughTek® F340e Portable Fireproofing Pump

3A3109K

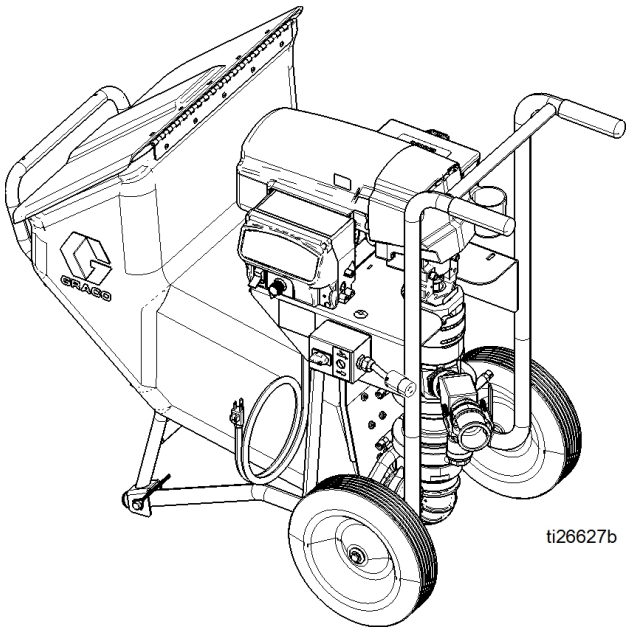
EN

Electric sprayer for water-based cementitious fireproofing material. For professional use only. Not approved for use in explosive atmospheres or hazardous locations.

Important Safety Instructions
Read all warnings and instructions in this manual. **Save these instructions.**

For models, related manuals, and Agency approvals, see page 3.

600 psi (4.13 MPa, 41.3 bar) Maximum Fluid Working Pressure



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PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

Models

Bare Model	Electric Requirements	Approval	Includes:		
			Country	Remote On/Off Switch	Compressor*
25A500	120V, 15A, 50/60 Hz, 1Φ		North America		
25A502				✓	
25A550					✓
25A552				✓	✓
25C600	120V, 15A, 50/60 Hz, 1Φ	CE	United Kingdom		
25C602				✓	
25A504 †	230V, 10A, 50/60 Hz, 1Φ	CE	Europe, Asia, Australia		
25A506 †				✓	
25A554 †					✓
25A556 †				✓	✓

* *Models with an air compressor require an additional dedicated 15 A circuit (120V systems) or 8.5 A circuit (230V systems).*

† *All 230V pumps include a Europe adapter and Australia adapter cord set.*

NOTE: All models have EAC approval.

Related Manuals

Manuals are available at www.graco.com.

Component manuals in English:

Manual	Description
3A3244	Pole Spray Applicator 24Y619
3A3112	ToughTek F340e Remote Switch Accessory Kit 17G554

3A3998	Compressor Manual
3A5637	ToughTek Camlock Mortar Hose
3A4554	ToughTek Mortar Coupling Hose

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

ELECTRIC SHOCK HAZARD

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power cord before servicing equipment.
- Connect only to grounded electrical outlets.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- 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.
- 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 applicator firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are antistatic 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.

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.

SUCTION HAZARD

Powerful suction could cause serious injury.

- Never place hands near the pump fluid inlet when pump is operating or pressurized.

⚠WARNING

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 **Technical Specifications** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheet (SDS) 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.

PRESSURIZED ALUMINUM PARTS HAZARD

Use of fluids that are incompatible with aluminum is pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

⚠WARNING






SKIN INJECTION HAZARD

High-pressure fluid from dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

- Do not point dispensing device at anyone or at any part of the body.
- Do not put your hand over the fluid outlet.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and coupling daily. Replace worn or damaged parts immediately.

TOXIC FLUID OR FUMES HAZARD

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

- Read Safety Data Sheet (SDS) 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.

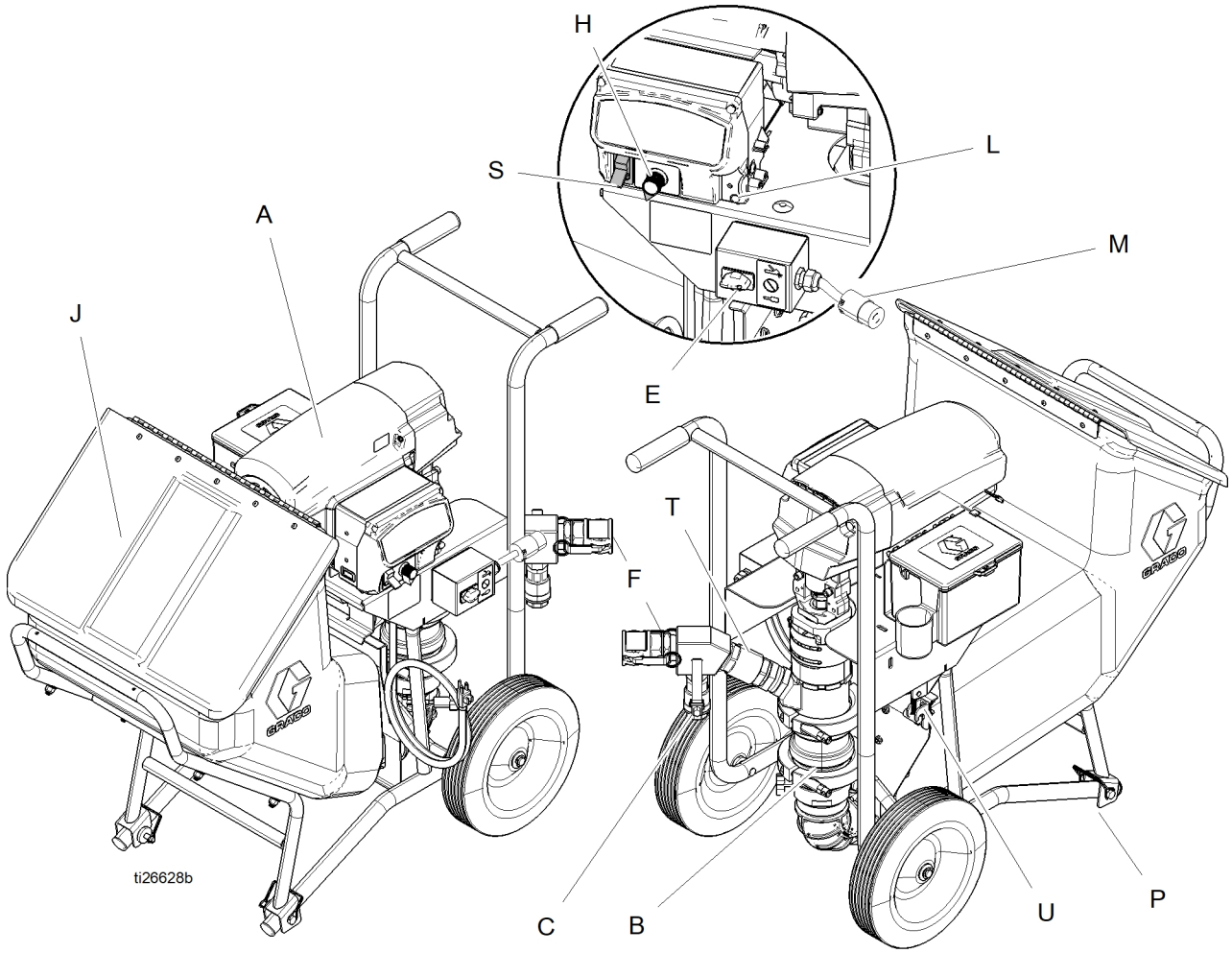
PERSONAL PROTECTIVE EQUIPMENT

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.

Component Identification

Overview



Component Identification Table

Key:

A Electric Motor
B Pump Lower
C Fluid Drain/ Purge Valve
E Remote Control Switch (optional)
F Fluid Outlet
H Flow Adjustment Knob
J Hopper

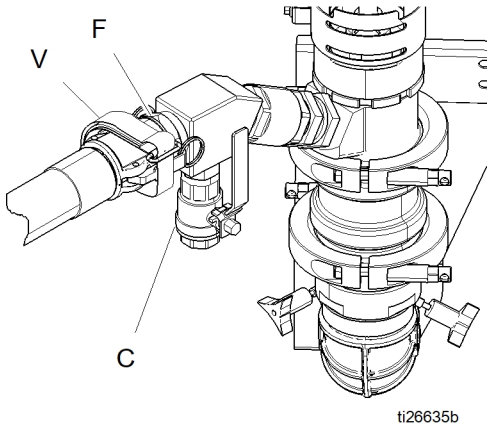
Key:

L Control Board Status Light
M Plug
P Hopper Pin
S Motor Power Switch
T Outlet Check Valve
U Hopper Latch

Fluid Drain/Purge Valve

To avoid injury from splashing fluid, never open a cam-lock hose or applicator fitting while there is pressure in the fluid line. See **Pressure Relief Procedure**, page 18.

Open the drain/purge valve (C) to relieve pressure if pump or hose pack-out occurs, or to relieve pressure inside the hose. Close valve when spraying.

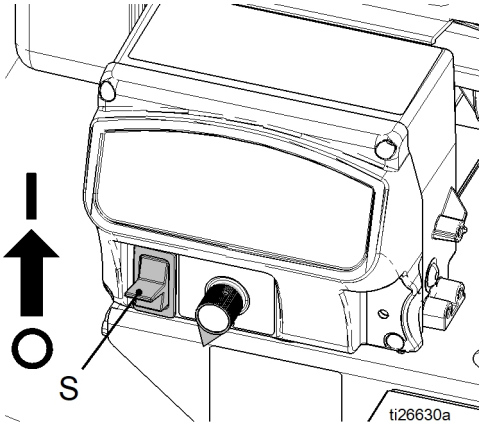


NOTICE

To prevent material hardening in fluid drain/purge valve, flush the valve after every time it is used. See **Flush**, page 12.

Motor Power Switch

The motor power switch (S) must be ON for the sprayer to pump material.

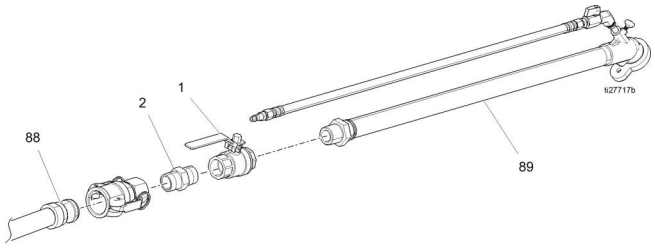


Motor Power Switch Settings:

OFF	Power is disconnected. The motor will not run.
ON	The motor will run continuously at a speed determined by the flow adjustment knob.

Applicator Ball Valve (17J703)

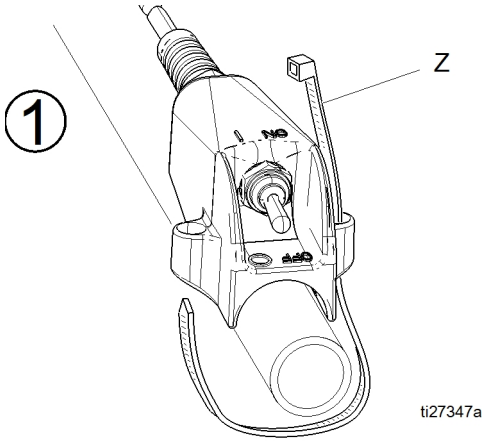
Additional accessory kit that can be installed on the end of the 1 in. ID, 25 ft material hose (88) directly between the pole spray applicator pipe handle and adapter fitting. The applicator ball valve (1, 2) can be used to stop material flow, but not only after the pump has been stopped first. Do NOT use the valve to stall the pump.

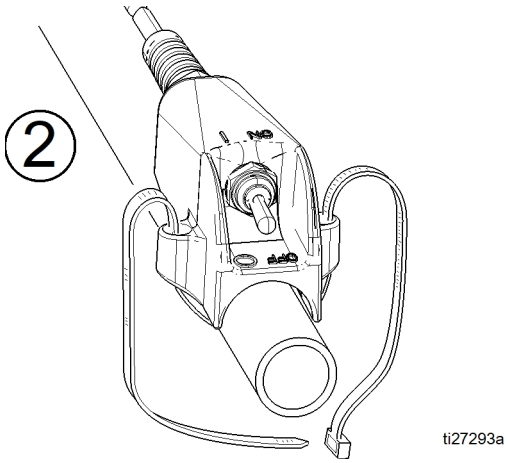


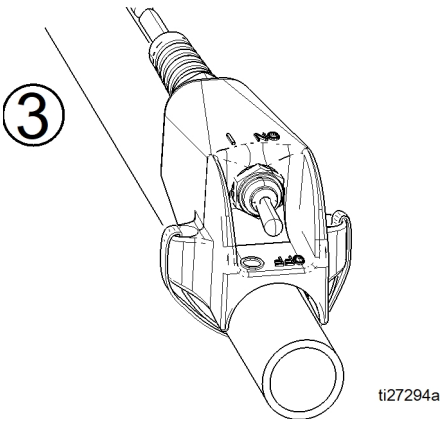
Install the Remote Switch

The remote switch is an additional accessory kit and does not come with Models 25A500, 25A501, 25A504, and 25A505. The kit part number is 17G554. See manual 3A3112 for remotes switch installation and replacement.

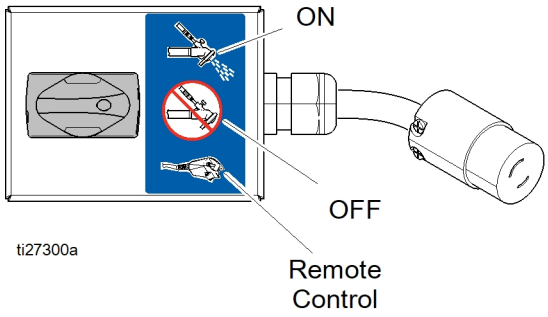
NOTE: Use zip-tie (Z) to install the remote switch to the hose or pole spray applicator (follow the illustrations below). The remote switch will fit on hoses/applicators sized .75 in. up to 1.25 in.





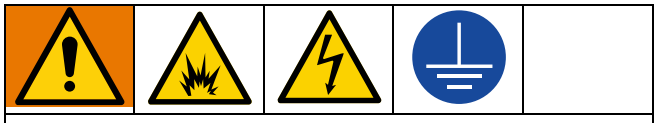


Pump Control Settings



Pump Control Setting	Description
ON	The motor will run continuously at the speed determined by the flow adjustment knob (K).
OFF	The motor will not run. There is still power to the unit.
Remote Control	The “Remote Control” setting allows the user to control ON/OFF functionality of the pump through the remote toggle switch. When the remote toggle switch is installed and the pump control settings are set to “Remote Control”, the toggle switch can be used to turn the pump ON and OFF (see descriptions above).

Grounding



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

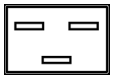
Ground the sprayer by plugging it into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the power cord provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.

Extension Cords

- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm^2) minimum to carry out the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

NOTE: Certain GFCI outlets have been known to trip while using this product. GFCI outlets have a range of sensitivities. Motor controllers can cause false trips of GFCI outlets. If you experience issues while using this product, switch to a different GFCI model.

Power Requirements

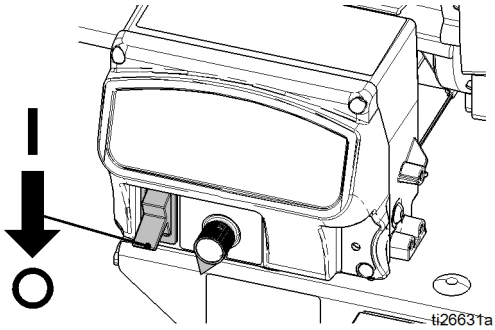
Model	Required Power Source	Power Cord Connectors	Supplied Local Adapters
200-240 VAC, 1 phase, 50/60 Hz	One separate, dedicated circuits rated at minimum of 10 A each	 One IEC 3-20 C20 Plugs	 Euro CEE7 (Europe)  AS/NZS (Australia)
100-120 VAC, 50/60 Hz	One separate dedicated circuits rated at minimum of 15 A each	 One NEMA 5-15A Plug	

NOTE: Models with an air compressor require an additional dedicated 15 A circuit (120 V systems) or 8.5 A circuit (230 V systems).

Setup

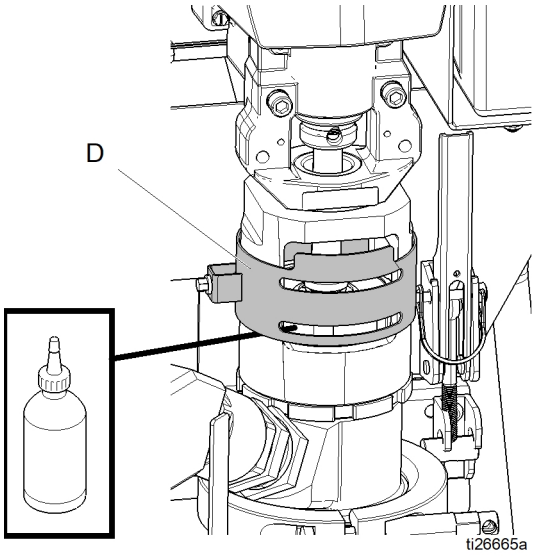
To avoid tipping over, ensure cart is on a flat and level surface. Failure to do so could result in injury or equipment damage.

1. Turn the motor power switch (S) to OFF.



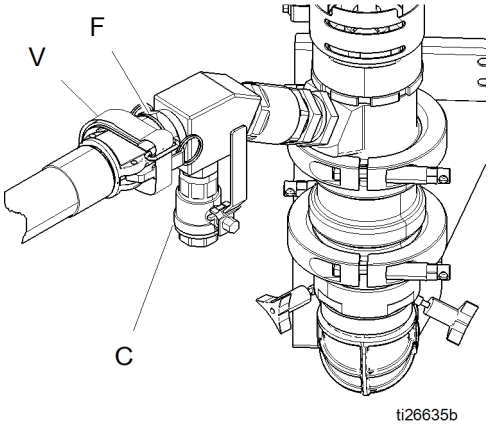
2. Ground sprayer (see **Grounding**, page 10). Plug the power cord into a dedicated 15 amp, 120 V circuit (or a 10 amp, 230 V circuit, depending on model).

3. Check Throat Seal Liquid (TSL) level in packing nut (D). Fill 1/2 full with TSL.



4. Connect air supply to applicator.

5. Attach hose to applicator fluid inlet and pump fluid outlet (F), then secure Velcro straps (V) around the cam lock fitting.



6. Flush the system with water before using (see **Flush**, page 12).

Flush

NOTICE

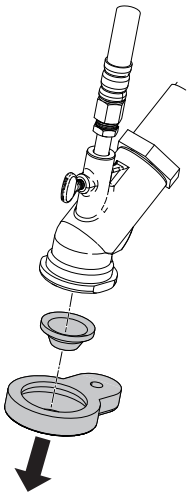
Failure to flush prior to material curing in the system will result in damage to system and may require replacement of all system parts in contact with the material.

NOTICE

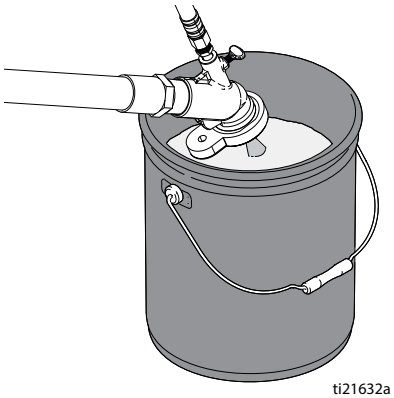
If the fluid/drain purge valve has been used to relieve pressure, the valve must be flushed to prevent material hardening in fluid/drain purge valve. If that is not sufficient, remove, disassemble, and clean the valve then reinstall.

- Flush if materials in the system are about to reach their cure time.
- Flush any time the flow rate starts to decrease as this is a sign that material is starting to thicken and cure.
- Always flush the system at least twice, draining all water between flushes then replacing with clean water.
- Flush using water only.

1. Relieve pressure (see **Pressure Relief Procedure**, page 18).
2. Remove applicator tip and retainer.



3. Place applicator outlet in a waste container. The waste container must be large enough to hold all dispensed material.



4. Turn motor power switch (S) on.
5. Turn adjustment knob (H) clockwise slowly to increase pressure, until a steady stream flows from gun.
6. When the material level in the hopper is within a few inches of the material inlet at the bottom:
   a. Scrape the material down the sides of the hopper.
   b. Fill the hopper with water as the material runs out and continue dispensing.
7. Keep the hopper filled with water while dispensing.

NOTE: Be prepared to decrease the flow adjustment knob (H) when the material exiting the hose changes to water.

8. When water begins to exit the applicator outlet, turn the motor power switch (S) to OFF to stop dispensing.
9. Place applicator in the system hopper with the outlet pointing down to enable fluid circulation.

10. Circulate clean water:
    a. Fill the system hopper with clean water.
    b. Use a scrub brush to scrub the walls of the hopper.
    c. Turn the motor power switch (S) to ON to begin circulating water.
    d. While pumping, open the fluid drain/purge valve. Allow the water to flush out any material to prevent material hardening in the valve. Once the water appears clean, close the fluid drain/purge valve.
    e. Turn the motor power switch (S) to OFF.
    f. Place applicator outlet in a waste container.
    g. Turn the motor power switch (S) to ON to dispense into a waste container.
    h. Dispense into a waste container until hopper is almost empty then turn the motor power switch (S) to OFF.
    i. Repeat this entire “Circulate clean water” step one more time to ensure system is thoroughly flushed.
11. Remove the remaining material with a hose clean-out ball. See **Replacement Parts and Accessories**, page 38, for a list of available clean-out balls and appropriate hose sizes to use them with.
    a. Remove the applicator from the end of the hose and place the hose outlet back in the waste container.
    b. Remove the hose inlet from the pump outlet and place a hose clean-out ball within the hose inlet. The ball must be wetted down before inserting.
    c. Reattach the hose to the pump outlet and turn the motor power switch (S) to ON to resume flushing the hose.
    d. The hose clean-out ball will be pushed out of the hose after several minutes. Once the ball is pushed through the hose, turn the motor power switch (S) to OFF and repeat the entire process listed in step 10 one time to ensure the system is thoroughly flushed.

NOTICE
Material left on the throat seal can dry out and damage the seal. Always stop the pump at the bottom of the stroke to avoid damage to the throat seal.

12. Turn compressed air on to blow out any material that may have back-flowed into the air lines while flushing (this will prevent air line pack out).
13. After performing the previous step at least twice, drain remaining water from system:
    a. Place a drain pan beneath pump lower inlet connection.
    b. Detach pump from hopper (see **Hopper Removal**, page 19).
    c. Use a screwdriver to lift the pump lower inlet ball. This will drain the remaining material from the pump lower. When the pump stops draining, release the pump lower inlet ball.
    d. Reattach pump to hopper.
    e. Starting at the pump, raise the hose bundle above your head and slowly move towards the applicator. As you move towards the applicator, the remaining fluid in the hose will drain from the applicator into the bucket.
14. Dispose of all waste material in accordance with local rules and regulations. See manufacturer’s SDS for additional information.

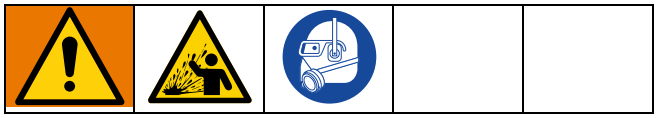
Mix the Material

Always follow the material manufacturer’s instructions for the material being sprayed. Material must be thoroughly mixed to a smooth consistency before loading it in the hopper.

Managing Material After Mixing:

- Pay close attention to the work life of the material being used.
- Only mix the material kits as needed. Do not let mixed material sit longer than necessary.
- Scrape material down the sides of the hopper as the hopper material level lowers. Do not let older material cure on the walls.
- To ensure that all material in the hopper is used while fresh, occasionally wait until the hopper is almost empty before refilling.

Prime with Material



NOTICE

To prevent material curing in system, never load material into a dry system. Loading material into a dry system will cause the material to stick to internal components and cure, causing damage and requiring replacement of those parts.

The applicator nozzle or tip must be removed during priming. Always push out any remaining water into a waste container before circulating material. Always circulate clean material back into the hopper for a few minutes before beginning to spray.

1. Mix the Material. See **Mix the Material**, page 13.
2. Turn the flow adjustment knob (H) counterclockwise until it stops.
3. Remove tip from applicator.
4. Fill the clean hopper with material to be sprayed.
5. Place hose outlet in a 5 gallon waste container.

NOTICE

To prevent damage to pump seals caused by cavitation, run the pump slowly until the system is primed.

6. Turn the motor power switch (S) to ON.
7. Turn the flow adjustment knob (H) clockwise slowly to increase pressure, until water is purged out and a steady stream of material flows from applicator.
8. To stop dispensing, turn adjustment knob counterclockwise until it stops.
9. Place the hose outlet into the hopper.
10. Recirculate a few gallons of material to be sure the material is flowing properly.
11. Turn the flow adjustment knob (H) counterclockwise to stop the pump.
12. Install the applicator without a tip onto the hose and pump material until material has been pushed out of the applicator, then stop the pump.
13. Install a tip onto applicator (see applicator manual 3A3244). The system is now primed and ready to spray.

Spray

Prevent Pack-out

To avoid “packing out” the pump or hose:

- Use the lowest pressure and largest nozzle size that provides an acceptable spray pattern. This will also result in seals and wear parts lasting much longer.
- Do not use any more fluid hose than is necessary.
- Use an applicator with a rubber tip retainer that will blow off if it plugs.

Before Starting or Stopping Material Flow

Always have the atomizing air turned on at the applicator before and after spraying fluid (see applicator manual 3A3244).

NOTE: If the applicator ball valve kit (17J703) has been installed, do NOT use the valve to stall the pump. The pump must be stopped first before the ball valve can be closed.

Sprayer Performance

NOTE: The check valve (45) helps to improve pump performance with highly compressible gypsum based materials. For high density, Portland cement based materials, the check valve (45) can be replaced with 1-1/2 NPT Nipple Fitting (121441) to reduce pressure drop and improve performance.

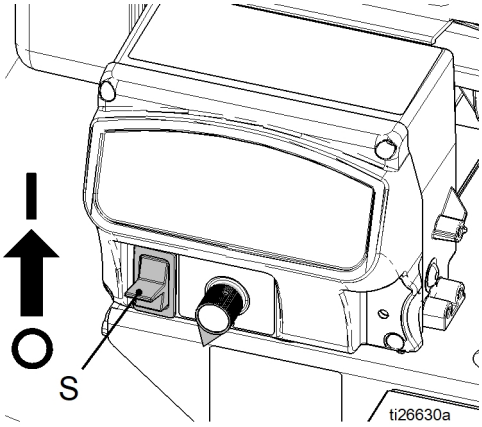
Spraying

1. **Mix the Material**, page 13.
2. **Prime with Material**, page 14.

NOTICE

- Do not allow pump to run without material in the hopper. It can cause damage to the pump seals.
- Failure to flush prior to material curing in the system will result in damage to system and may require replacement of all system parts in contact with the material.

3. Turn on atomizing air and adjust the air needle valve on the applicator (see applicator manual 3A3244).
4. Turn the motor power switch (S) to ON.

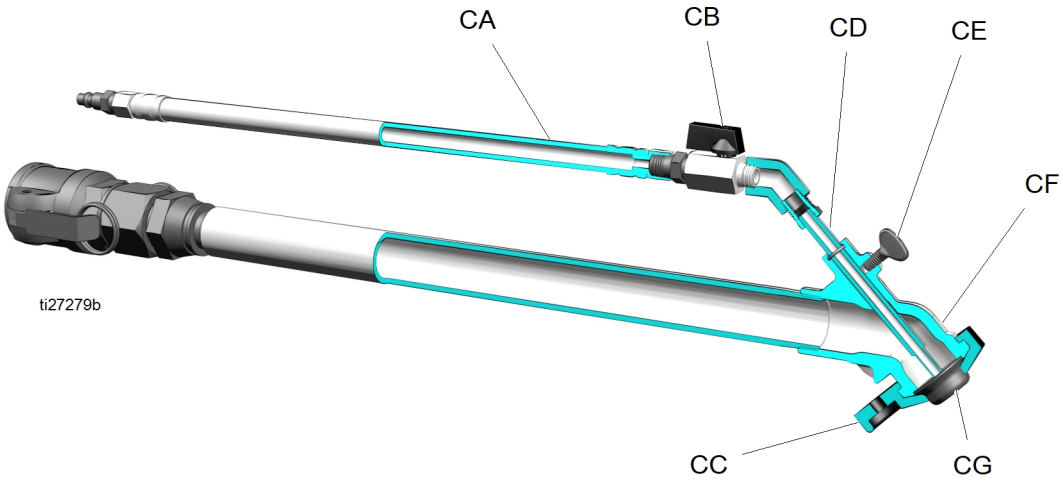


5. Turn flow adjustment knob (H) until desired flow is reached. Turn clockwise to increase flow, counterclockwise to decrease flow.
6. If the system is approaching its cure time or the system will be idle for enough time for material to begin curing in the system, flush the system. See **Flush**, page 12.

NOTICE

Failure to flush prior to material beginning to cure in the system will result in damage to system and may require replacement of all parts in contact with the material.

Spray Adjustments (Pole Spray Applicator)



Key:

CA Air Assist Air Line

CB Air Assist Shutoff Ball Valve

CC Rubber Tip Retainer

CD Air Needle (adjustable position)

CE Air Needle Retaining Screw

CF Fluid Housing

CG Tip (Nozzle)

NOTE: See the Pole Spray Applicator manual for model information.

General Adjustments

The spray pattern can be adjusted by changing:

- Tip (CG) size
- Air flow, use air ball valve (CB)
- Air Needle (CD) position

Adjust Air Flow: Adjust the air assist shutoff ball valve (CB) for the minimum air flow necessary for a good pattern. Air bleeds from the applicator nozzle (CG) whenever the applicator air assist shutoff ball valve (CB) is open. Close the valve to stop the air flow, is desired. Otherwise, the air valve can stay open during priming. Air must be on prior to fluid flow.

Adjust Air Needle (CD) position: Make sure the air needle (CD) is slightly behind the tie (CG). The general rule for setting the air needle position is that the air needle should be the same distance back from the tip as the size of the orifice. For example, if you have a 1/2 in. tip installed, the air needle should be approximately 1/2 in. behind the tip.

NOTE: Installing the needle too far forward can restrict or completely block material flow. This can result in the retainer (CC) blowing off. Installing the needle too far back can raise the pressure behind the fluid enough to blow the retainer (CC) off and can cause dripping.

Air Flow Valve Adjustment

To decrease air flow, turn valve knob clockwise.

To increase air flow, turn valve knob counterclockwise.

Check material and thin as needed to maintain the proper consistency. The material may thicken as it sits and could slow down application or affect the spray pattern.

Flush and dry applicator thoroughly at the end of each use. Tips and retainers must be cleaned by hand.

Material Flow Adjustment

For a lighter spray pattern, adjust the air needle closer to the fluid nozzle and/or reduce the fluid flow.

For a heavier spray pattern, adjust the air needle farther back from the fluid tip and/or increase the fluid flow.

NOTE: Withdrawing the needle too far can force air pressure back into the fluid hose, which can slow material flow.

Spray Techniques

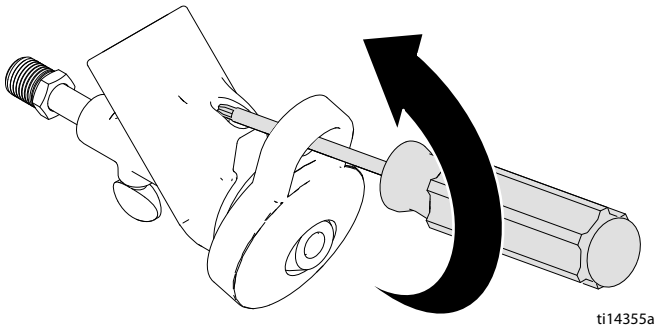
1. Test the spray pattern on cardboard. Hold the applicator 6 -18 in. (150 - 450 cm) away from the surface. Use this spraying distance for most applications.
2. Adjust fluid flow until material flow is adequate.
3. Adjust the applicator air ball valve to achieve a uniform round spray pattern.
4. Consider the size of aggregate in the material and the coarseness of the spray pattern. Larger nozzles allow heavier patterns.
5. Overlap each stroke 50%. A circular overlapping pattern may give the best results.

When spraying small confined areas use the air ball valve and air needle position to make fine adjustments without adjusting the pump.

Higher pressures may cause excessive wear on the fluid pump. Select a fluid tip large enough to spray at low pressure. Some materials will pack-out at higher pressures.

Installing Nozzle Retaining Cap

1. Place rubber tip retainer (CC) over top lip of applicator housing.
2. Insert screwdriver through hole in tab of rubber tip retainer.
3. Push screwdriver head against notch on applicator tip and pry rubber tip retainer over the tip (CG), spray shield (if being used), and lip until it snaps into place.



4. Turn the rubber retainer back and forth to be sure it is fully seated.

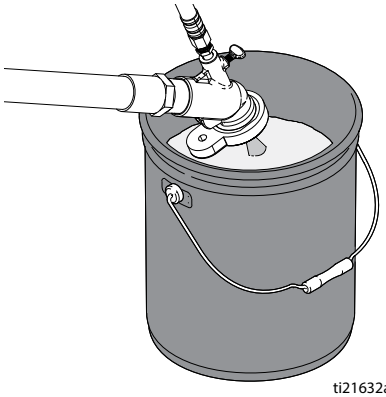
NOTE: The rubber gasket in the cam and groove inlet fitting and the rubber nozzle retainer should be hand cleaned and dried after each use.

Pressure Relief Procedure

Follow the Pressure Relief Procedure whenever you see this symbol.

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

1. Turn the flow adjustment knob (H) counterclockwise until it stops.
2. Turn the motor power switch (S) off.
3. Remove the applicator tip and tip retainer, and hold the applicator firmly against a pail.



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To avoid injury from splashing fluid, never open a cam-lock hose or applicator fitting while there is pressure in the fluid line.

4. If the applicator ball valve kit (17J703) has been installed, open the ball valve.
5. If you suspect the applicator tip or hose is completely clogged, or that pressure has not been fully relieved after following the previous steps, slowly open the fluid drain/purge valve (C) at the pump outlet and drain material into a waste pail.
6. If there is still pressure trapped down the line, VERY SLOWLY loosen the threaded swivel fitting at the pump outlet while keeping it covered until the pressure is relieved.

NOTICE

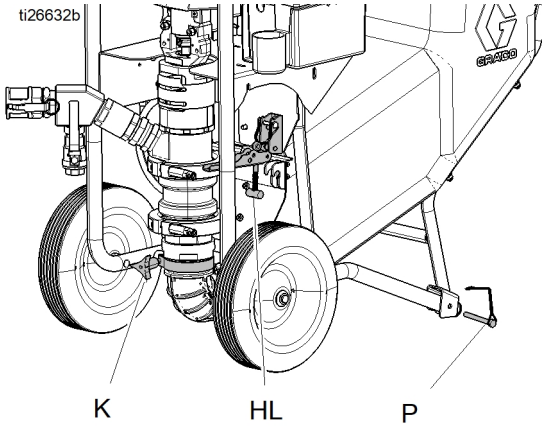
To prevent material hardening in fluid drain/purge valve, flush the valve after every use.

Hopper Removal

To help prevent injury from suction, never place hands near the pump fluid inlet when pump is operating or when hopper is removed.

The hopper assembly allows easy detachment of the hopper from the pump. To remove the hopper from the pump, perform the following steps:

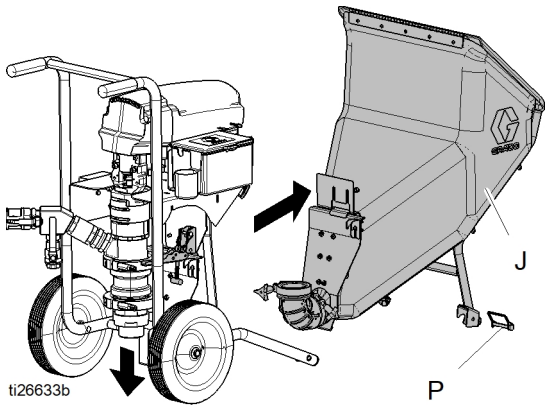
1. Relieve pressure (see **Pressure Relief Procedure**, page 18).
2. Rotate knob (K) counterclockwise to loosen the clamp between the hopper elbow and the lower.



3. Remove the locking pin and pull down the hopper latch (HL) on the hopper plate.

NOTE: If needed, push down on the hopper elbow to completely disengage from the pump lower.

4. Remove the two hopper pins (P) from the front legs of the cart.
5. Lift up on the handle and pull the hopper (J) away from the sprayer.



NOTE: If the hopper elbow needs to be thoroughly cleaned, rotate the second knob (K) to loosen the clamp between the elbow and the hopper. Remove and clean the elbow.

NOTE: To re-install the hopper, follow the steps above in reverse order.

Shutdown

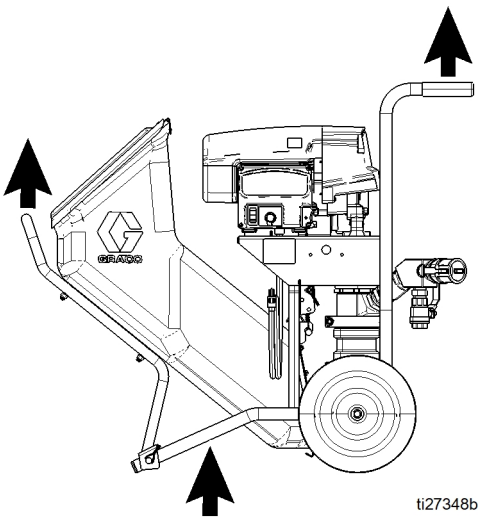
NOTICE

To prevent rust, never leave water or water-based fluid in pump overnight.

To shutdown, flush the system (see **Flush**, page 12).

Lifting Instructions

When lifting the unit, only lift at the points indicated by the arrows below.



Maintenance

Daily Maintenance

1. Flush the system. See **Flush**, page 12.
2. Clean hopper with a scrub pad. It is recommended that you clean the outside of the sprayer using a cloth and water.
3. Check hoses, tubes, and couplings for wear or damage. Tighten all fluid connections before each use.
4. Check and replace cam-lock gaskets as needed.

Water Exposure

NOTICE
Exposing the motor and/or control to water can cause damage and possible motor failure. Do not store the pump outside. Do not spray water directly into the motor fan.

Preventative Maintenance

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

DAILY: Check hose for wear and damage, and inspect fluid lines for leaks.

DAILY: Check fluid drain/purge valve for proper operation.

DAILY: Check level of Throat Seal Liquid (TSL) in displacement pump packing nut/wet cup. Fill nut 1/2 full with TSL. Maintain TSL level to help prevent material buildup on piston rod and premature wear of packings and pump corrosion.

Corrosion Protection

NOTICE
To prevent rust, never leave water or water-based fluid in pump overnight.

NOTICE
Material left on the throat seal can dry out and damage seal. Always stop the pump at the bottom of the stroke to avoid damage to the throat seal.

Always flush the pump before the fluid dries on the displacement rod. First, flush with water, then with oil. Relieve the pressure, but leave the oil in the pump to protect the parts from corrosion.

Troubleshooting

1. Perform **Pressure Relief Procedure**, page 18.
2. Check all possible problems, causes, and solutions listed below before disassembling pump.

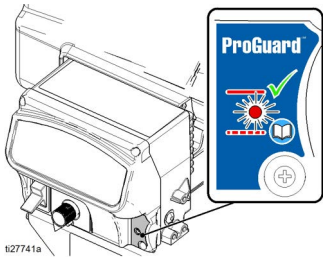
For troubleshooting and repair questions, please contact your distributor.

Mechanical/Fluid Flow

Problem	Cause	Solution
Displacement pump operates, but output is low on upstroke.	Piston ball check not seating properly	Service piston ball check
	Piston packings worn or damaged	Replace packings
Displacement pump operates, but output is low on down stroke and/or on both strokes	Piston packings worn or damaged	Tighten packing nut or replace packing
	Outlet check valve not seating properly	Clean check valve
	Intake valve ball check not seating properly	Service intake valve ball check
	Rubber elbow air leak	Tighten clamps
	Fluid hose on the applicator is obstructed	Clean the fluid hose on the applicator
Material leaks and runs over the side of the wet cup	Loose wet cup	Tighten wet cup enough to stop leakage
	Throat packings worn or damaged	Replace packings
Fluid delivery is low	Applicator tip/gun is dirty or clogged	Clean or replace
	Clamps on hopper elbow are loose	Tighten clamps on hopper elbow
	Large pressure drop in fluid hose	Reduce length or increase diameter
Electric motor does not operate	Power switch is not ON	Turn power switch ON
	Tripped circuit breaker	Check circuit breaker at power source. Reset motor switch.
Sprayer does not operate	Fluid hose or applicator obstructed	Clean hose or application
	Dried fluid on displacement rod or inlet ball	Clean rod. Always stop pump at bottom of stroke; keep wet cup filled with TSL. Be sure the inlet ball moves freely.
Erratic accelerated speed	Material supply exhausted, clogged suction	Refill hopper and prime pump
	Open or worn piston valve or packings	Clear piston valve; replace packings
	Open or worn intake valves	Clear or service intake valve
Cycles or fails to hold pressure at stall	Worn check balls, seats, or piston packing	Service lower

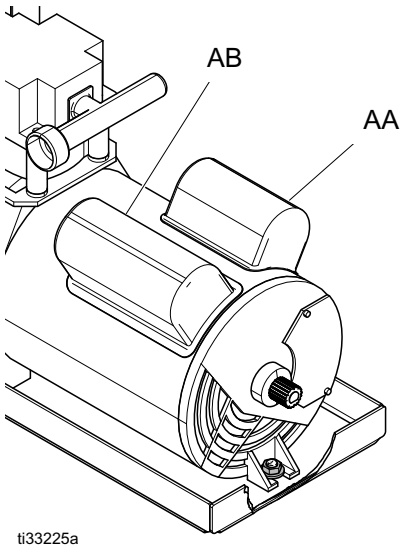
Problem	Cause	Solution
Poor finish or irregular spray pattern	Inadequate atomizing air pressure	Adjust air needle valve on applicator (see applicator manual 3A3244)
	Dirty, worn, or damaged spray applicator	Service spray applicator (see applicator manual 3A3244)
Motor powered but nothing comes out of hose	Pump is packed out with dry or cured material	Disassemble and clean the pump
	Hose is packed out with dry or cured material	Reverse hose and try to push out bad material
		Some materials may need only 1 in. inner diameter fluid line all the way to the applicator
	Outlet check valve installed backwards	Install the outlet check valve in the proper orientation
Material is too thick to push through the hose without packing out	Hose is too restrictive	Thin and mix material thoroughly to a lower viscosity
		Use a pump system priming fluid (slime). Wet out the system.
		Use a larger diameter hose

Electrical

Problem	Cause	Solution
Control board status light blinks 4 times repeatedly 	The control board is detecting multiple voltage surges	Check voltage supply to the sprayer: 1. Turn the motor power switch (S) to OFF and unplug the sprayer. 2. Locate a good voltage supply to prevent damage to electronics.
Control board status light blinks 5 times repeatedly	Check for line obstruction or pack out. Motor is powered but not able to turn.	Remove obstruction and cycle power off and on. If the problem continues, contact your local distributor.
	Outlet check valve installed backwards	Install the outlet check valve in the proper orientation
Control board status light blinks 6 times repeatedly	The motor overheating	Allow the sprayer to cool. If the sprayer runs when cool, correct the cause of overheating. Keep the sprayer in a cooler location with good ventilation. Make sure the motor air intake is not blocked. If the sprayer still does not run, contact your local distributor.
Control board status light blinks 8 times repeatedly	Incoming voltage is too low for sprayer operation	Check voltage supply to the sprayer: 1. Turn the motor power switch (S) to OFF and unplug the sprayer. 2. Remove other equipment that uses the same circuit. 3. Locate a good voltage supply to avoid damage to electronics

Problem	Cause	Solution
Control board status light blinks 10 times repeatedly	The control board is overheating	1. Make sure the motor air intake is not blocked. 2. Make sure the fan has not failed. 3. Make sure the control board is properly connected to the back plate and that conductive thermal paste is used on power components. 4. Replace the control board. 5. Replace the motor.
Control board status light blinks 12 times repeatedly	Excessive current protection is enabled	Cycle the power on and off.
Control board status light blinks 15 times repeatedly	Connections above the motor are loose or damaged	1. Turn the motor power switch (S) to OFF and unplug the sprayer. 2. Remove the motor shroud. 3. Disconnect the motor control and inspect for damage at the connectors. 4. Reconnect the motor control. 5. Turn the motor power switch (S) to ON. If the blinking code continues, replace the motor.
Control board status light blinks 16 times repeatedly	Check the connections. Check for water in sensor. Control is not receiving motor position sensor signal.	1. Turn power OFF. 2. Remove the motor shroud. 3. Disconnect the motor control and inspect for damage at the connectors. 4. Inspect the sensor for water. If the sensor is wet, let it dry for 24 hours. 5. Re-install the sensor, motor control connections, and shroud. 6. Turn power ON. If the problem continues, replace the motor.
Control board status light blinks 17 times repeatedly	The sprayer is plugged into the wrong voltage	1. Set the motor power switch (S) to OFF and unplug the sprayer. 2. Locate a good voltage supply to avoid damage to electronics.
Repeated tripping of incoming power supply circuit	Circuit uses a ground fault circuit interrupter (GFCI)	Certain 120 V GFCI outlets have been known to trip while using this product. GFCI outlets have a range of sensitivities. Motor controllers can cause false trips of GFCI outlets. If a GFCI circuit has tripped, connect to an outlet with a different GFCI model.

Air Compressor

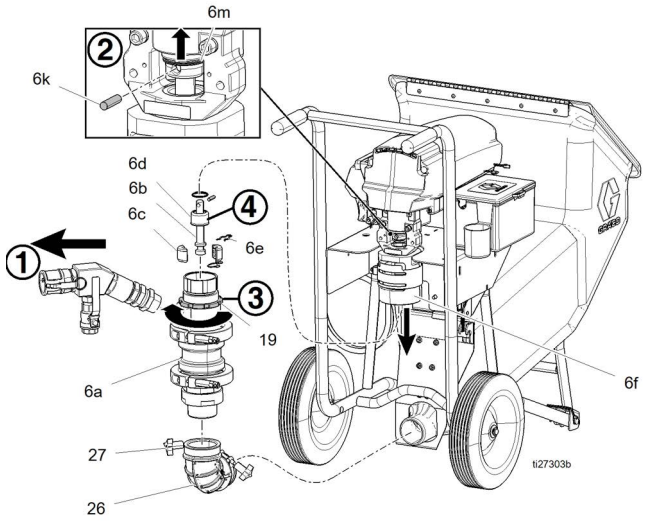
Problem	Cause	Solution
Motor does not start	No power to the motor	Check the circuit breakers
Motor trips the circuit breakers. Motor hums but does not rotate.	The starting switch failed	1. Disconnect the air compressor from electrical power. 2. Open the motor electrical cover to access the terminals. 3. Measure the resistance between terminal 4 and terminal 5 while no power is applied to the motor. 4. If the resistance between terminal 4 and terminal 5 is greater than 2 ohms, replace the motor.
	The starting capacitor failed	1. Disconnect the air compressor from electrical power. 2. Open the motor electrical cover to access the terminals. 3. Remove one wire from the capacitor to isolate the capacitor from the other circuitry. 4. Measure the capacitance between the terminals on each capacitor. The smaller capacitor (AA, the starting capacitor) should measure: • 120 V model: 400-480 µF • 230 V model: 124-149 µF The larger capacitor (AB, the running capacitor) should measure 37.6-42.4 µF.  ti33225a 5. If either capacitor is outside the capacitance range, replace the faulty capacitor.
Motor runs for a short time before turning off	The motor is overheating	Clean the air compressor motor and the intake air filter.
Poor motor performance	The compressor is worn	Replace the air compressor piston, seals, and sleeve. Use the air compressor rebuild kit 287330 (120 V systems) or 287331 (230 V systems).

Repair

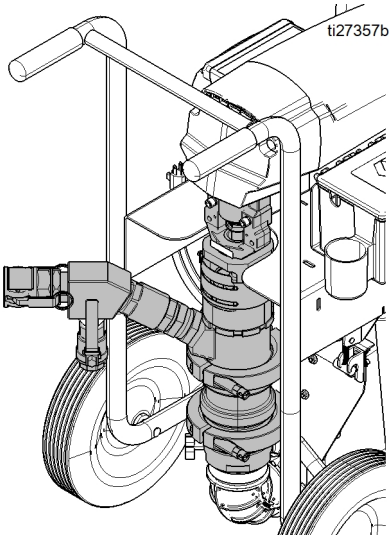
Replace Pump Lower

Perform the procedure below to replace the entire pump lower with a new or different pump lower. Before following the pump lower replacement procedure, perform the **Pressure Relief Procedure**, page 18, and disconnect the hopper and material hose.

1. Remove outlet fittings from the pump lower outlet.
2. Lift retaining spring (6m) and remove pin (6k).
3. Loosen jam nut (19) and unthread the pump lower (6a).
4. Disconnect the piston extension rod (6b) by removing clip (6e) and disassembling the coupler cover (6d) and assembly coupling (6c). The pump lower (6a) should now be separated from all other parts. Replace the pump lower and reinstall on the unit. If pump components need replacing, see **Replace Pump Components**, page 26.



NOTE: When reinstalling the pump lower, the jam nut (19) should be threaded on the pump lower until it bottoms out. The pump lower should be threaded completely into the motor adapter (6f) and backed off to the correct orientation position shown below. Once in position, unthread the pump two additional turns and secure the jam nut.

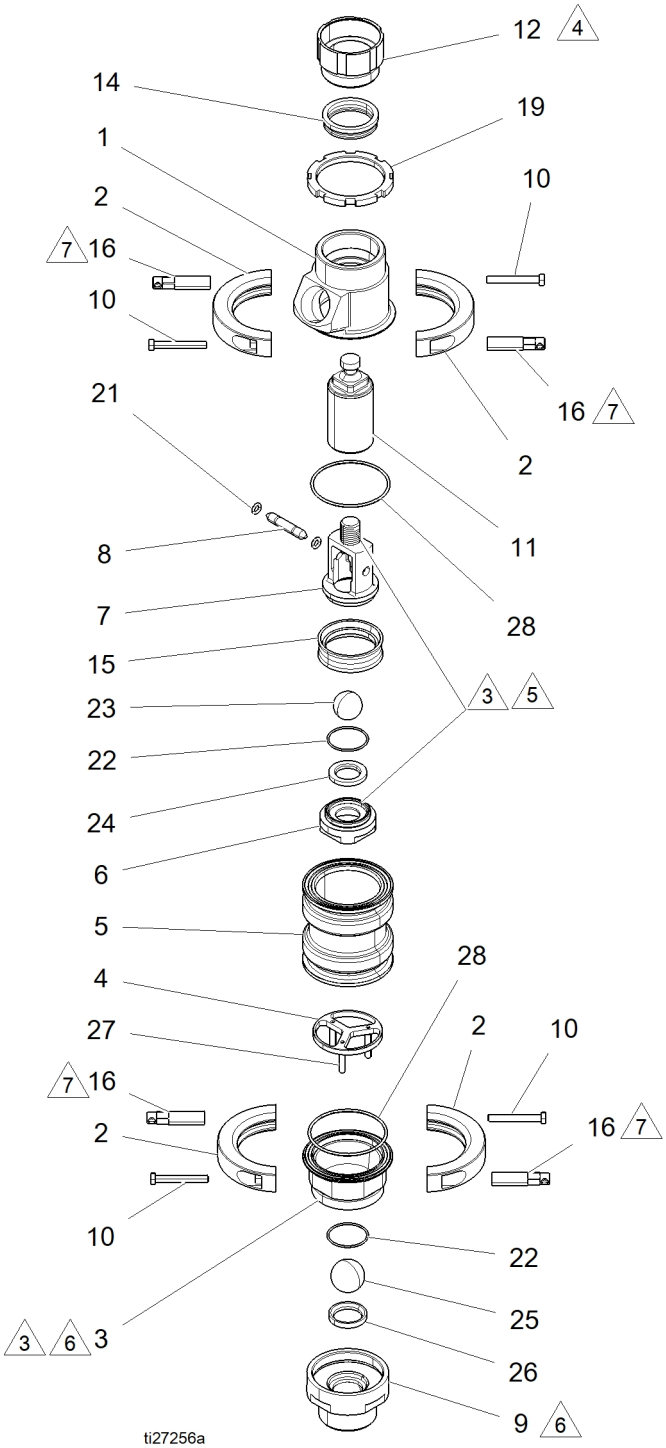


NOTICE

Failure to assemble the pump lower to the correct depth and orientation can cause damage to the pump. To avoid damage to the pump, follow the note above.

Replace Pump Components

Remove the pump lower (6a - 17H190) before replacing any pump components.
For a list of available pump lower kit, see the list on the following page.



Ref.	Part	Description	Qty.
1	17G220	HOUSING, outlet	1
2	†	CLAMP, 4 in., 1000 psi	2
3	17G226	HOUSING, inlet, ball guide	1
4	†	STOP, ball, inlet	1
5	17G330	CYLINDER, short, pump	1
6	17G223	VALVE, piston	1
7	17G224	HOLDER, valve, piston	1
8	16U801	STOP, upper ball	1
9	17G221	HOUSING, inlet	1
10	106212	SCREW, cap, hex hd	4
11	17G331	ROD, short, displacement	1
12	17G321	NUT, packing, 340e	1
14	16W492	BEARING, throat seal, 3-pack	1
15	16W491	PACKING, cup, 3-pack	1
16	†	NUT, extension, 3/8-16	4
19	16U977	NUT, jam	1
21	†	PACKING, o-ring	2
22	†	O-RING, 50 mm x 2.5 mm	2
23	108001	BALL, metallic	1
24		SEAT, valve, tungsten carbide	1
25	112420	BALL, sst, 1590	1
26	†	SEAT, valve, lapped, tungsten car	1
27	†	PIN, ball stop	3
28	16W490	PACKING, o-ring, 10-pack	2

† *For a list of Kits, see **List of Kits** table.*

1 *Apply grease lubricant to threads, o-rings and seal.*

3 *Apply serviceable thread locker to threads.*

4 *Torque to 30 +/- 5 ft-lb (40 +/- 6.7 N·m).*

5 *Torque to 100 +/- 10 ft-lb (135 +/- 13.5 N·m).*

6 *Torque to 200 +/- 10 ft-lb (271 +/- 13.5 N·m).*

7 *Orient pump housing outlet (1) as shown in relation to the position of the pump clamps (2) and extension nuts (16).*

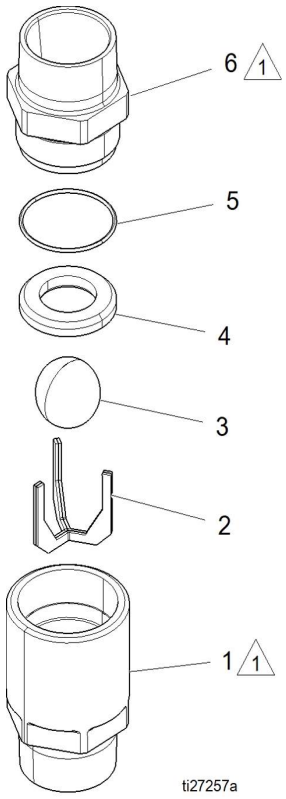
List of Kits

17H190 - F340e Pump Lower

Kit	Description	**Kit Contents:** Ref. # (Qty.)
17H242	Repair pump rebuild kit	14 (1), 15 (1), 21 (2), 22 (2), 23 (1), 25 (1), 28 (2)
17G456	Pump lower clamp kit	2 (1), 16 (2), 10 (2)
16W510	Inlet seat and o-ring repair kit	22 (1), 26 (1)
17H191	Piston seat and o-ring repair kit	22 (1), 24 (1)
17K490	Ball inlet stop kit	4 (1), 27 (3)

Replace Check Valve (45 - 17H194)

Remove the check valve before replacing any check valve components.



Ref.	Part	Description	Qty.
1	†	HOUSING, check valve, outlet	1
2	17J712	RETAINER, ball	1
3	102973	BALL, metallic	1
4	†	SEAT	1
5	113082	Packing, o-ring	1
6	†	Retainer, check valve, seat, outlet	1

† *See Lists of Kits tables below.*

1 *Torque to 70-85 ft-lb (95-115 N·m).*

Lists of Kits

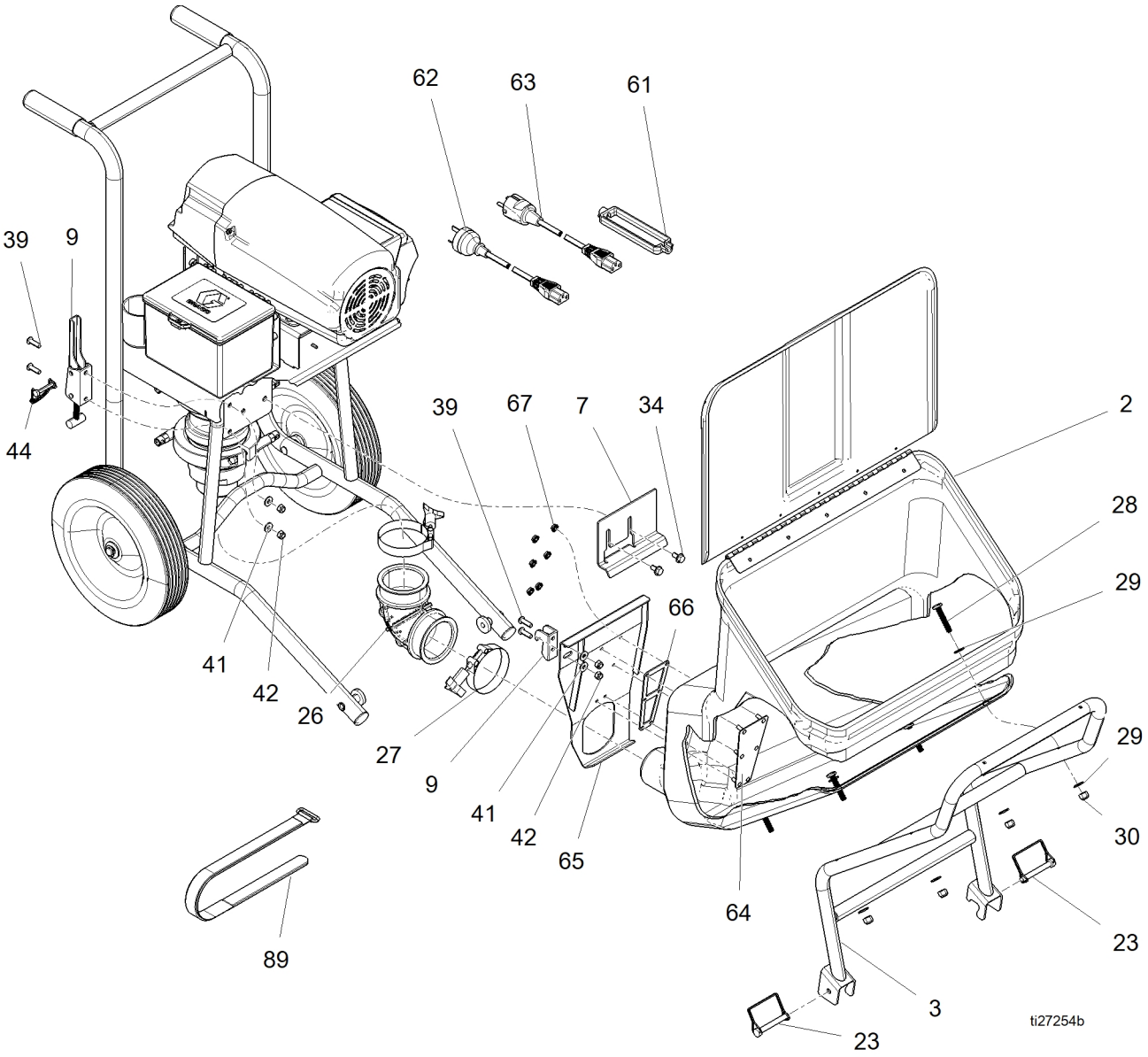
17H194 - 1.5 in. Outlet Check valve

Kit	Description	**Kit Contents:** Ref. # (Qty.)
17H192	Check valve seat and o-ring repair kit	4 (1), 5 (1)
113082	Packing, o-ring, (check valve packing o-ring)	5 (10)
17H194	Complete 1.5 in. outlet check valve	1 (1), 2 (3), 3 (1), 4 (1), 5 (1), 6 (1)

Notes

Parts

F340e Systems



Ref.	Part	Description	Qty.
2	17J707	HOPPER, 340e, with corner	1
3	17J709	BRACKET, 340e, painted, hopper	1
7	17J812	BRACKET, stop, adjustable, 340e	1
9	17J710	LATCH, adjustable	1
23	17G368	PIN, 3/8 in.	2
26	17H193	BOOT, elbow, rubber, 3 in. ID	1
27	17H196	CLAMP, hose, t-bolt	2
28		SCREW, pan head, machine, 3/8-16 x 2 in.	4
29	100731	WASHER	8
30	101566	NUT, lock	4
34	111800	SCREW, cap, hex hd	6
39	125112	SCREW, cap, btn hd, 5/16 in.	4
41	100527	WASHER, plain	7
42	111040	NUT, lock, insert, nylock, 5/16	7
44	17H025	PIN, 1/4 in. x 1-3/8 in.	1
61 ‡	195551	RETAINER, plug, adapter	1
62 ‡	242005	CORD SET, adapter, Australia	1
63 ‡	242001	CORD SET, adapter, Europe	1
64	†	PLATE, mount, threaded stud, 340e	1
65	†	BRACKET, stop, hopper	1
66	†	GASKET, hopper mount, 340e	1
67	†	NUT, hex, flange head	6
89 †	114271	STRAP, retaining	3

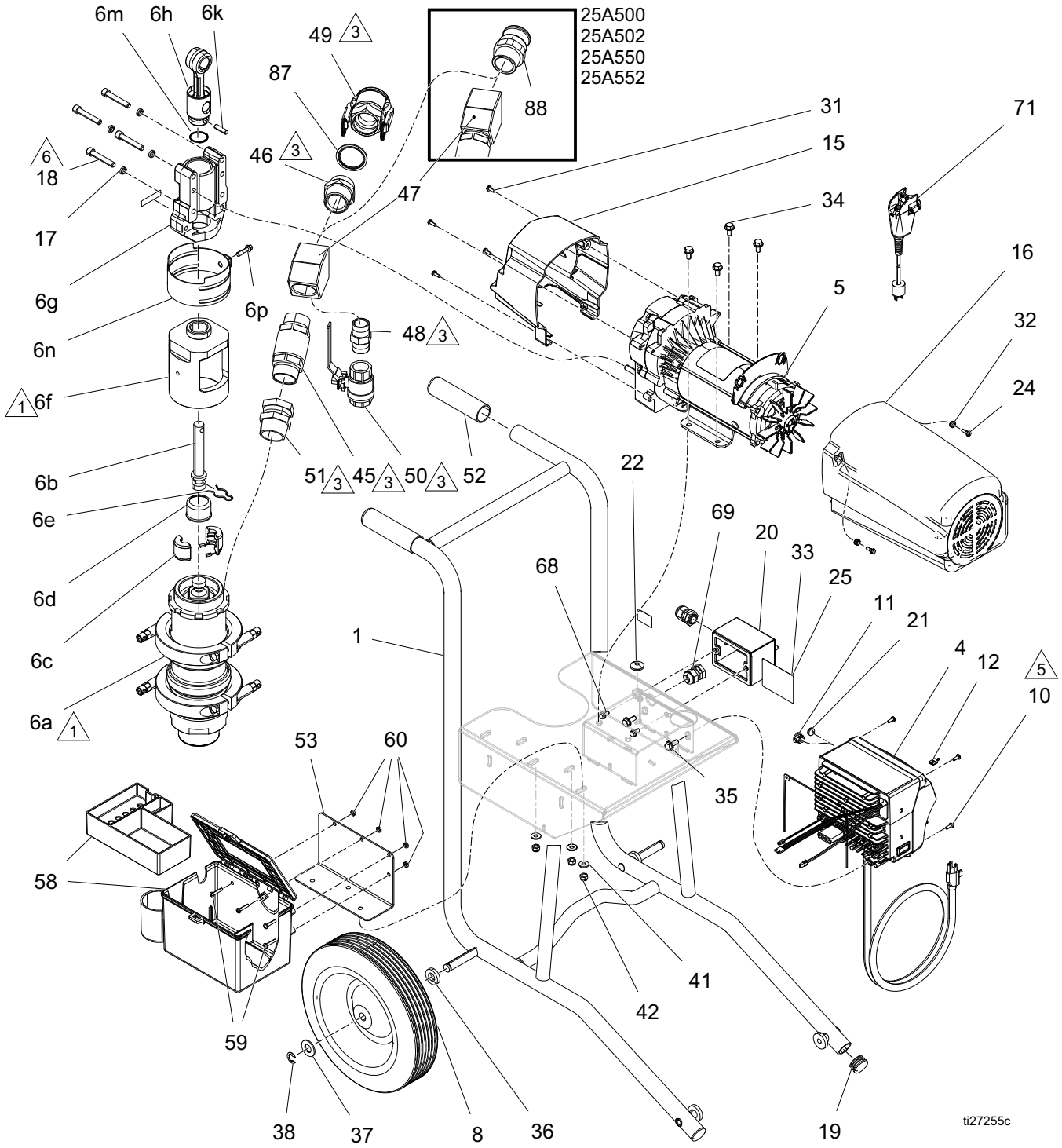
† *See Lists of Kits below.*

‡ *Only included in models 25A504 and 25A506.*

List of Kits

Kit	Description	Kit Contents: Ref. # (Qty.)
17J708	Stop brackets kit	64 (1), 65 (1), 66 (1), 67 (1)
240296	4 pack retaining straps	89 (4)

F340e (continued)



Ref.	Part	Description	Qty.
1	17G364	CART, 340e, painted	1
4	†	MODULE, 340e, motor control, 120 V	1
	†	MODULE, 340e, motor control, 120 V, UK	1
	†	MODULE, 340e, motor control, 230 V	1
5	17J711	MOTOR, 340e, pump	1
6a	17H190	PUMP, lower, F340e	1
6b	17G283	ROD, extension, piston, 340e	1
6c	244819	COUPLING, assembly, 145-290 Xtreme	1
6d	197340	COVER, coupler	1
6e	116407	CLIP, hairpin	1
6f	17G279	ADAPTER, pump to motor, 340e	1
6g	287502	HOUSING, bearing	1
6h	287395	ROD, connecting	1
6k	183210	PIN, str, hdls	1
6m	119778	SPRING, retaining	1
6n	†	GUARD, finger, weldment, 340e	1
6p	†	BOLT, special, 5/16-24	1
8	†	WHEEL, semi pneumatic, offset	2
10	16V095	SCREW, mach, pnh, torx, self tapping	4
11*	17H175	PLUG, round	1
12	17G720	WIRE, jumper, remote	1
15	†	COVER, front, plastic, painted	1
16	†	SHIELD, motor, painted	1
17	106115	WASHER, lock (hi collar)	4
18	114666	SCREW, cap, socket head	4
19	17J304	PLUG, tube	2
20	†	SWITCH, remote, 340e	1
21	†	GROMMET, 3/16 in. ID x 9/16 in. OD	1
22	†	GROMMET, 5/16 in. ID x 1 in. OD	1
24	119250	SCREW, shoulder	2
25		LABEL, transparent	1
31	118444	SCREW, mach, slot, hex wash hd	4
32	276980	GROMMET, cover	2
34	111800	SCREW, cap, hex hd	6
35	117791	SCREW, cap, tri, lobe	2
36	191824	WASHER, space	2
37	111841	WASHER, plain, 5/8	2
38	101242	RING, retaining, ext.	2
41	100527	WASHER, plain	7
42	111040	NUT, lock, insert, nylock, 5/16 in.	7
45	17H194	VALVE, check, outlet, 1.5 in.	1
46	†	ADAPTER, 1.5 bspp m x 1.5 not m	1
47	17G408	MANIFOLD, outlet, pump	1
48	17G388	FITTING, hose, 1-11 1/2 npt	1
49	†17N891	COUPLER, 35 mm x 1.5 bspp f	1
50	127232	VALVE, ball, 1000 psi, 1 in.	1
51	113864	UNION, swivel, 1 1/2 npt	1
52		GRIP, vinyl, gray, 1.25 in.	2
53		BRACKET, F340e, mounting	1
58	†	TOOL BOX	1
59	†	SCREW, mach, pnh	4
60	†	NUT, keps, hex hd	4
68	†	SCREW, flange, hex hd	2
69	†	BUSHING, strain relief	1
71	17H197	SWITCH, remote, ON/OFF	1
87	†17N566	SEAL, 1.5 in. bspp	1
88	128473	FITTING, 1.5 in. camlock, 1.5 in. npt m	1

* *Only included in models 25A500, 25A504, 25A550, 25C600, and 25A554.*

† *See Lists of Kits below.*

1 *Apply lubricant grease to threads.*

3 *Apply pipe sealant to threads.*

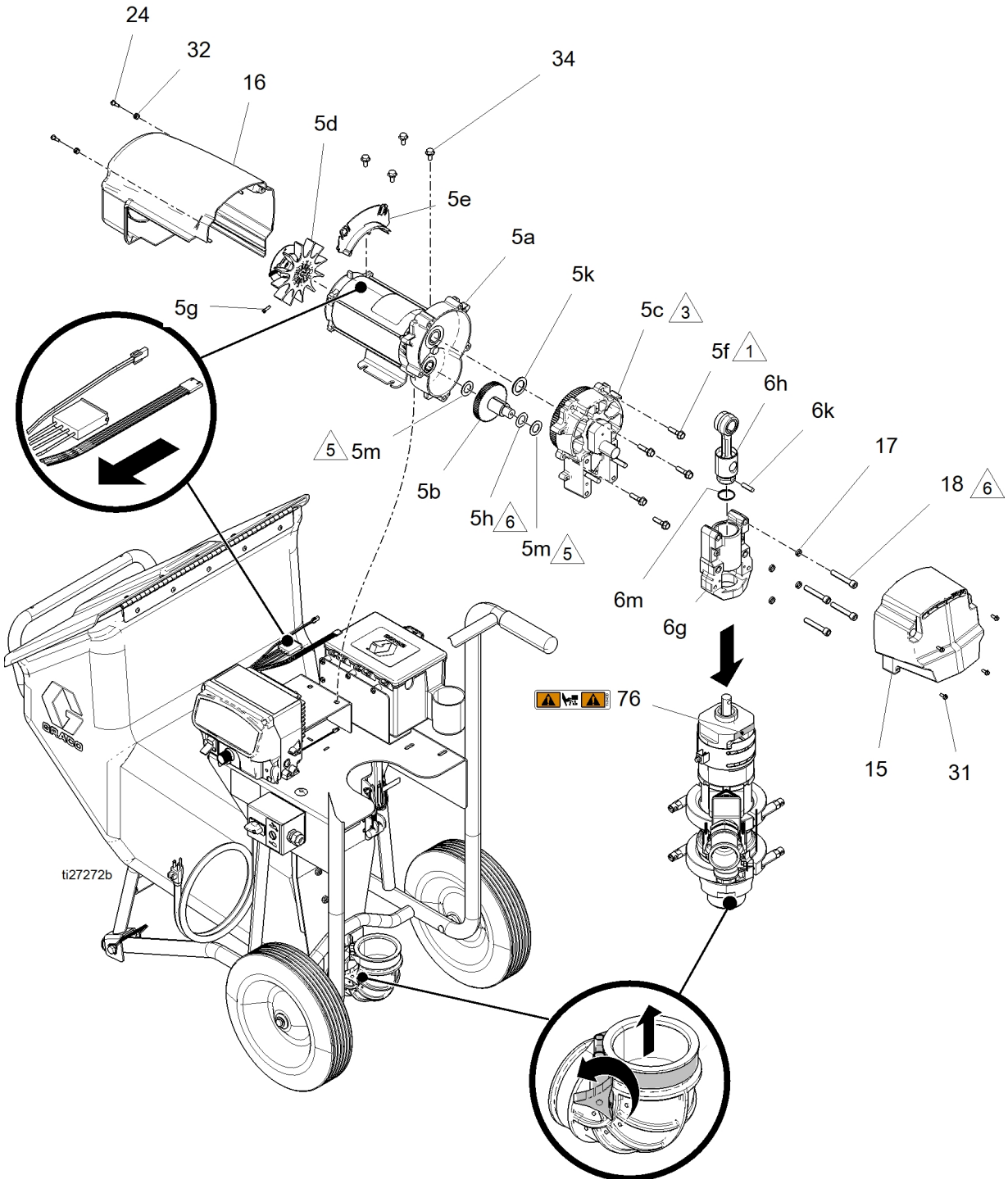
5 *Torque to 40-45 in-lb (4.5-5.0 N·m).*

6 *Torque to 25 +/- 5 ft-lb (33.8 +/- 6.7 N·m).*

List of Kits

Kit	Description	Kit Contents: Ref. # (Qty.)
17J702	120 V motor control module kit	4 (1), 10 (4), S340e Label (1), F340e Label (1)
25C512	120 V UK motor control module kit	4 (1), 10 (4), S340e Label (1), F340e Label (1)
17J755	230 V motor control module kit	4 (1), 10 (4), S340e Label (1), F340e Label (1)
17J714	340e finger guard kit	6n (1), 6p (1)
17J704	Front cover kit	15 (1), 31 (4), F340e Label (1)
287282	Motor shield kit	16 (1), 24 (2), 32 (2)
17G554	Remote switch accessory kit	20 (1), 21 (1), 22 (1), 68 (1), 69 (1), 71 (1)
17J705	Tool box kit	58 (1), 59 (4), 60 (4)
17N875	35 mm x 1.5 nptm adapter kit	46 (1), 49 (1), 87 (1)
17J706	F340 wheel kit	8 (1), 36 (1), 37 (1), 38 (1)

Driver and motor



Ref.	Part	Description	Qty.
5a		MOTOR, electric	1
5b		GEAR, combination	1
5c		HOUSING, drive	1
5d	15D088	FAN, motor	1
5e	278075	BRACKET, wire	1
5f	15C753	SCREW, mach, hex wash hd	5
5g	115477	SCREW, mach, torx pan hd	1
5h	114699	WASHER, thrust	1
5k	116192	WASHER, thrust	1
5m	114672	WASHER, thrust	2
6g	287502	HOUSING, bearing	1
6h	287395	ROD, connecting	1
6k	183210	PIN, str, hdls	1
6m	119778	SPRING, retaining	1
15 †		COVER, front, plastic, painted	1
16 †		SHIELD, motor, painted	1
17	106115	WASHER, lock (hi collar)	4
18	114666	SCREW, cap, socket head	4
24	119250	SCREW, shoulder	2
31	118444	SCREW, mach, slot, hex wash hd	4
32	276980	GROMMET, cover	2
34	111800	SCREW, cap, hex hd	6
76 ▲	192840	LABEL, warning	1

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

† *See Lists of Kits table.*

△1 *Torque to 190-210 in-lb (21.4-23.7 N·m).*

△3 *Apply lubricant to all gear teeth proportionally.*

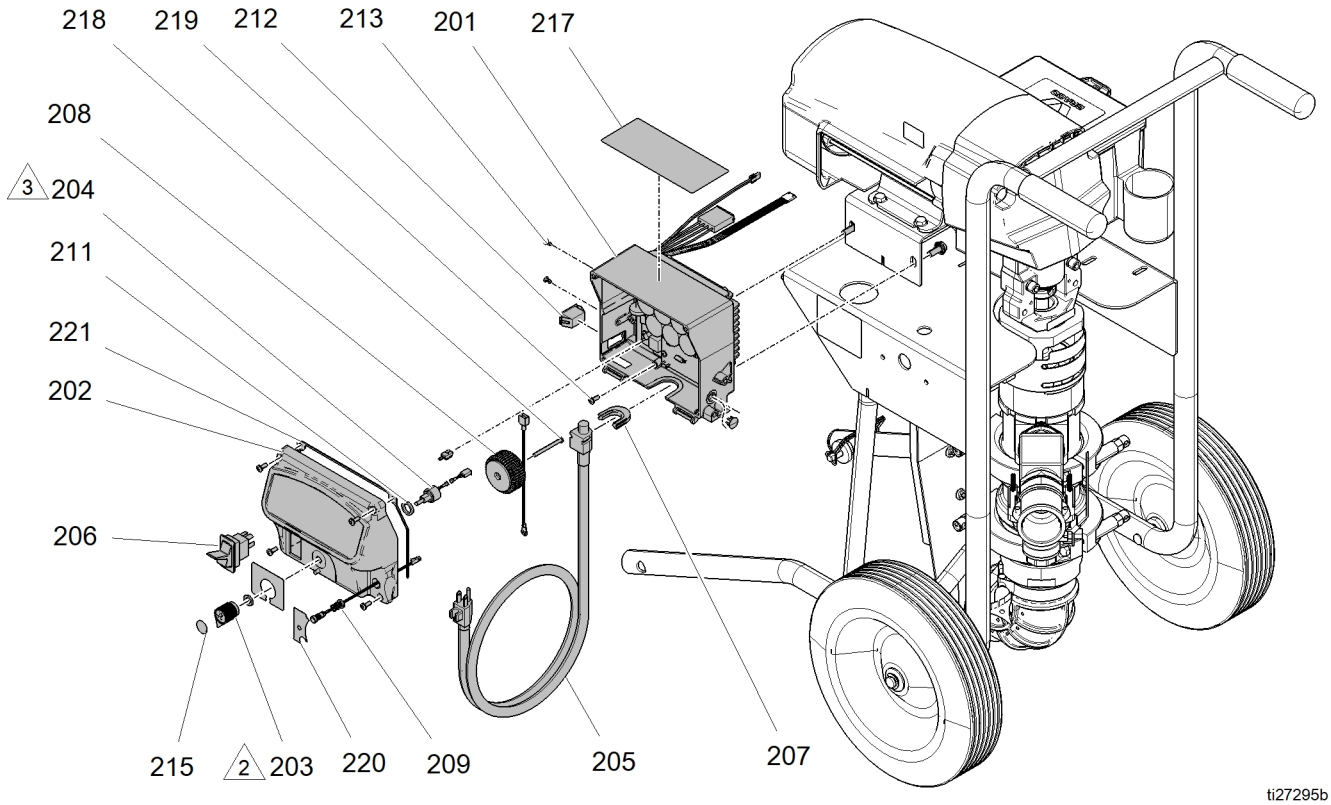
△5 *Copper colored washer.*

△6 *Steel colored washer.*

List of Kits

Kit	Description	Kit Contents: Ref. # (Qty.)
17J711	340e pump motor	5 (1), Includes 5a-5h, 5k, 5m
17J704	Front cover kit	15 (1), 31 (4), F340e label (1)
287282	Motor shield kit	16 (1), 24 (2), 32 (2)

Control Box



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Ref.	Part	Description	Qty.
201	- - -	CONTROL, board, 50 amp	1
202	- - -	COVER, control, ultra, std	1
203	116167	KNOB, potentiometer	1
204	256219	POTENTIOMETER, assembly	1
205	15H064	CORD, power	1
206	15D527	SWITCH, rocker, 240 V	1
207	16T547	ADAPTER, cord	1
208	- - -	COIL, filter	1
209	16Z019	HARNESS, wiring, with light	1
211	15C973	GASKET	1
212	16T483	PLUG, hole, switch	1
213	- - -	PLUG, nylon	2
215	- - -	LABEL	1
216	16Y786	LABEL, control, elec, std	1
217 ▲	16T784	LABEL, warning, EN/FR/ES	1
218	16U215	SCREW, phillips, pan hd, plastite	1
219	114391	SCREW, grounding	1
220	- - -	LABEL, control, 340e, proguard	1
221	- - -	GASKET, housing, motor, control, 340e	1

2 *Torque to 10-15 in-lb (1.1-1.7 N·m).*

3 *Torque to 30-35 in-lb (3.3-3.9 N·m).*

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

NOTE: *All Control Box Parts listed above are included in both the 120V Motor Control Module Kit (17J702) and 230V Motor Control Kit (17J755).*

Replacement Parts and Accessories

Air Hose Kits (For Applicator)	
24Y391	Air hose, 1/2 in. ID, 50 ft (15 m), MxF 1/4 quick disconnect fittings
24Y392	Air hose, 3/8in. ID, 50 ft (15 m), MxF 1/4 quick disconnect fittings
24Y393	Air hose, 3/8in. ID, 25 ft (7.5 m), MxF 1/4 quick disconnect fittings
Accessories	
123888	45 degree MxF 1 in. npt fitting (attach on applicator before fluid housing for added spray angles)
17G554	Kit, remote switch, 340e
17G665	Kit, remote switch, extension cord (100 ft)
114271	Strap, retaining
240296	Kit, retaining straps, 4 pack
17H197	Kit, remote switch, cable (switch and 100 ft cable)
17J703	Kit, applicator, ball, valve (applicator)
121441	Fitting, 1-1/2 NPT, nipple (check valve replacement nipple fitting)
248515	Kit, clean out, sponge ball, 1.18 in. diameter (30 mm) 5-pack (for use on 1 in. hoses)
25A227	Kit, clean out, sponge ball, 1.57 in. diameter (40 mm) 5-pack (for use on 1.38 in. hoses)
17G930	Kit, clean out, sponge ball, 2.36 in. diameter (60 mm) 5-pack (for use on 2.0 in. hoses)

Repair Parts

Lower Assembly	
17H242	Kit, repair, pump, rebuild
17G456	Kit, lower, clamp (cylinder clamp)
16W492	Kit, repair, 3 pack, seal, throat (throat seal)
16W490	Kit, repair, 10 pack, o-ring, cylinder end (cylinder o-ring)
17H190	Kit, pump, lower, F340e, (complete assembled F340e pump lower)
Inlet	
16W510	Kit, repair, seat, inlet (inlet seat and o-ring)
112420	Ball, sst, 1590 (1.75 diameter inlet check ball)
Piston	
17H191	Kit, piston seat, o-ring (piston seat and o-ring)
108001	Ball, metallic (1.5 in. diameter piston check ball)
16W491	Kit, repair, 3 pack, seal, piston (piston packing cup)

Check Valve	
17H192	Kit, outlet seat, o-ring (seat and o-ring)
113082	Packing, o-ring (check valve packing o-ring)
17H194	Kit, outlet, check, valve (complete 1.5 in. outlet check valve)
102973	Ball, metallic (1.25 in. diameter outlet check valve)
17J712	Kit, check, retainer (check valve ball retainer)
Rubber Elbow	
17H193	Kit, inlet, elbow (rubber elbow)
17H196	Kit, elbow, band clamp (rubber elbow clamp)
Hopper	
17J707	Kit, 340e, hopper with cover (hopper and cover)
17J709	Kit, 340e, hopper, bracket (hopper bracket)
17J812	Kit, 340e, stop, bracket (adjustable stop bracket)
17J710	Kit, 340e, adjustable latch (adjustable latch)
17J708	Kit, 340e, stop, brackets (hopper stop brackets)
Motor and Driver	
17J702	Kit, 340e, MCM, 120V (120V motor control module)
25C512	Kit, 340e, MCM, 120V, UK (120V UK motor control module)
17J755	Kit, 340e, MCM, 230V (230V motor control module)
17J711	Kit, 340e, motor (340e motor)
17J714	Kit, 340e, finger, guard (pump line finger guard)
17J704	Kit, 340e, front, cover (front cover)
287282	Kit, repair, shield, motor (motor shield)
17J705	Kit, 340e, tool box (tool box)
Compressor Rebuild Kits	
287330	Kit, service, compressor, 120 V
287331	Kit, service, compressor, 240 V

Technical Specifications

ToughTek F340e Sprayer		
	US	**Metric**
Maximum Fluid Working Pressure	600 psi	4.1 MPa, 41 Bar
Stroke Length	2.25 in.	57 mm
Maximum pump speed (Do not exceed maximum recommended speed of fluid pump to prevent premature pump wear)	150 cycles per minute	
Weight (dry)	210 lb	95 kg
Wetted Parts	Stainless steel, plated steel, carbide, urethane, PTFE, UHMWPE, LLDPE, aluminum, solvent-resistant o-rings	
Inlet/Outlet Sizes		
Fluid Inlet Size	3 in.	
Fluid Outlet Size	1.5 in. npt(f) with 35 mm female mortar coupling North American systems: 1.5 in. npt(f) with 1.5 in. male camlock	
Hose Requirements		
Minimum Pressure	600 psi	4.1 MPa, 41 Bar
Minimum Hose Diameter	1.0 in.	2.5 cm
Minimum Hose Length	25 ft	7.6 m
Power Requirements		
100-120 VAC Models	1 phase, 50/60 Hz	
200-240 VAC Models	1 phase, 50/60 Hz	
NOTE: Models with an air compressor require an additional dedicated 15 A circuit (120 V systems) or 8.5 A circuit (230 V systems).		
Noise Level		
Sound Power	90.4 dBa*	
Sound Pressure	80.5 dBa*	
*per ISO 3744; measured at 3.1 ft		
Operating Ambient Temperature Range		
Temperature	32° F to 120° F	4° C to 49° C

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.

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