Operation and Parts

Core™ E1 Electric Transfer Pump

3A8503A
EN

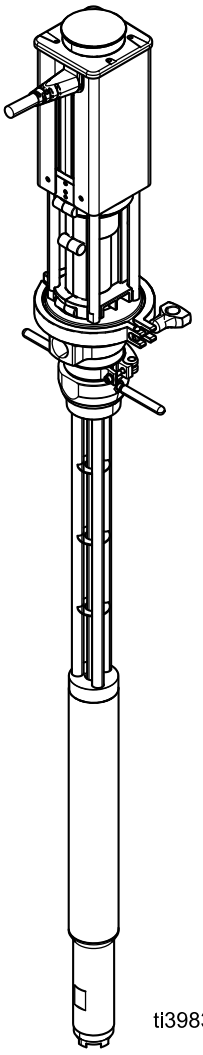
For use with polyurethane foam, polyurea, and similar non-flammable materials. For use with Reactor Proportioning Systems (Generation 3) only. For professional use only.

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

See page 3 for model information.

315 psi (2.17 MPa, 21.7 bar) Maximum Fluid Working Pressure

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



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Contents

Related Manuals

Manuals are available at www.graco.com.

Manual in English	Description
3A8500	Reactor® Proportioning Systems (Generation 3) - Operation
3A8501	Reactor® Proportioning Systems (Generation 3) - Repair and Parts
3A8598	ProConnect® CS Pump Lower - Parts
3A7683	Reactor® Proportioning Systems (Generation 3) Heated Hose - Repair and Parts

Models

Part	Description	TPC 19B841	Pump Lower Material	Fluid Supply Accessories		Air Supply Accessories		
				Swivel Fitting 157785	10 ft Fluid Hose 217382	15 ft. Air Hose, 1/4 npsm 210866	Nipple, 1/4 npt x 1/4 npsm 162453	Desiccant Dryer Kit 247616
26D000	Core E1 Transfer Pump Controller (TPC)	✓						
26D004	Core E1 Pump		Carbon Steel					
26D005	Two Core E1 Pumps with TPC	✓						
26D006	Two Core E1 Pumps with TPC and Fluid	✓		✓	✓			
26D277	Two Core E1 Pumps with TPC, Fluid, and Air	✓		✓	✓	✓	✓	✓

Approvals

Part	Description	Approvals			
		CE	UKCA	ETL C US LISTED Intertek	
19B841	Core E1 Transfer Pump Controller (TPC)	✓	✓	✓	✓
26D004	Core E1 Pump	✓	✓		
26D009 and 25T322	E1 Motor	✓	✓		
273295	ProConnect CS Pump Lower				

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

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 Sheets (SDSs) for handling instructions and to know the specific hazards of the fluids you are using, including the effects of long-term exposure.
- When spraying, servicing equipment, or when in the work area, always keep work area well-ventilated and always wear appropriate personal protective equipment. See **Personal Protective Equipment** warnings in this manual.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.

PERSONAL PROTECTIVE EQUIPMENT

Always wear appropriate personal protective equipment and cover all skin when spraying, servicing equipment, or when in the work area. Protective equipment helps prevent serious injury, including long-term exposure; inhalation of toxic fumes, mists or vapors; allergic reaction; burns; eye injury and hearing loss. This protective equipment includes but is not limited to:

- A properly fitting respirator, which may include a supplied-air respirator, chemically impermeable gloves, protective clothing and foot coverings as recommended by the fluid manufacturer and local regulatory authority.
- Protective eyewear and hearing protection.

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 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.

⚠ WARNING

PRESSURIZED EQUIPMENT HAZARD

Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow the **Pressure Relief Procedure** when you stop spraying/dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

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 at main switch before disconnecting any cables and before servicing or installing equipment.
- Connect only to grounded power source.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

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.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.

BURN HAZARD

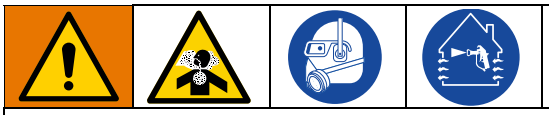
Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.

Important Isocyanate (ISO) Information

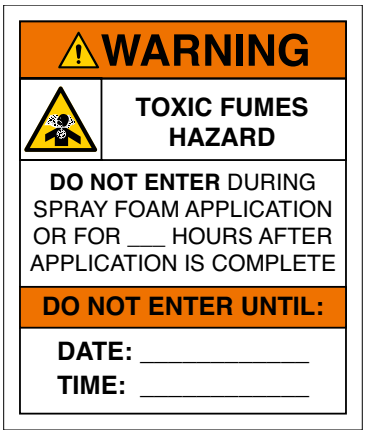
Isocyanates (ISO) are catalysts used in two component materials.

Isocyanate Conditions



Spraying or dispensing fluids that contain isocyanates creates potentially harmful mists, vapors, and atomized particulates.

- Read and understand the fluid manufacturer's warnings and Safety Data Sheets (SDSs) to know specific hazards and precautions related to isocyanates.
- Use of isocyanates involves potentially hazardous procedures. Do not spray with this equipment unless you are trained, qualified, and have read and understood the information in this manual and in the fluid manufacturer's application instructions and SDSs.
- Use of incorrectly maintained or mis-adjusted equipment may result in improperly cured material, which could cause off gassing and offensive odors. Equipment must be carefully maintained and adjusted according to instructions in the manual.
- To prevent inhalation of isocyanate mists, vapors and atomized particulates, everyone in the work area must wear appropriate respiratory protection. Always wear a properly fitting respirator, which may include a supplied-air respirator. Ventilate the work area according to instructions in the fluid manufacturer's SDSs.
- Avoid all skin contact with isocyanates. Everyone in the work area must wear chemically impermeable gloves, protective clothing and foot coverings as recommended by the fluid manufacturer and local regulatory authority. Follow all fluid manufacturer recommendations, including those regarding handling of contaminated clothing. After spraying, wash hands and face before eating or drinking.
- Hazard from exposure to isocyanates continues after spraying. Anyone without appropriate personal protective equipment must stay out of the work area during application and after application for the time period specified by the fluid manufacturer. Generally this time period is at least 24 hours.
- Warn others who may enter work area of hazard from exposure to isocyanates. Follow the recommendations of the fluid manufacturer and local regulatory authority. Posting a placard such as the following outside the work area is recommended:



Material Self-Ignition

Some materials may become self-igniting if applied too thick. Read material manufacturer's warnings and Safety Data Sheets (SDSs).

Keep Components A and B Separate

Cross-contamination can result in cured material in fluid lines which could cause serious injury or damage equipment. To prevent cross-contamination:

- **Never** interchange component A and component B wetted parts.
- Never use solvent on one side if it has been contaminated from the other side.

Moisture Sensitivity of Isocyanates

Exposure to moisture (such as humidity) will cause ISO to partially cure, forming small, hard, abrasive crystals that become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity.

NOTICE

Partially cured ISO will reduce performance and the life of all wetted parts.

- Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. **Never** store ISO in an open container.
- Use only moisture-proof hoses compatible with ISO.
- Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use.
- Always lubricate threaded parts with an appropriate lubricant when reassembling.

NOTE: The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

Foam Resins with 245 fa Blowing Agents

Some foam blowing agents will froth at temperatures above 90 °F (33 °C) when not under pressure, especially if agitated. To reduce frothing, minimize preheating in a circulation system.

Changing Materials

NOTICE

Changing the material types used in your equipment requires special attention to avoid equipment damage and downtime.

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Check with your material manufacturer for chemical compatibility.
- When changing between epoxies and urethanes or polyureas, disassemble and clean all fluid components and change hoses. Epoxies often have amines on the B (hardener) side. Polyureas often have amines on the B (resin) side.

Typical Installation

Typical Installation without Circulation

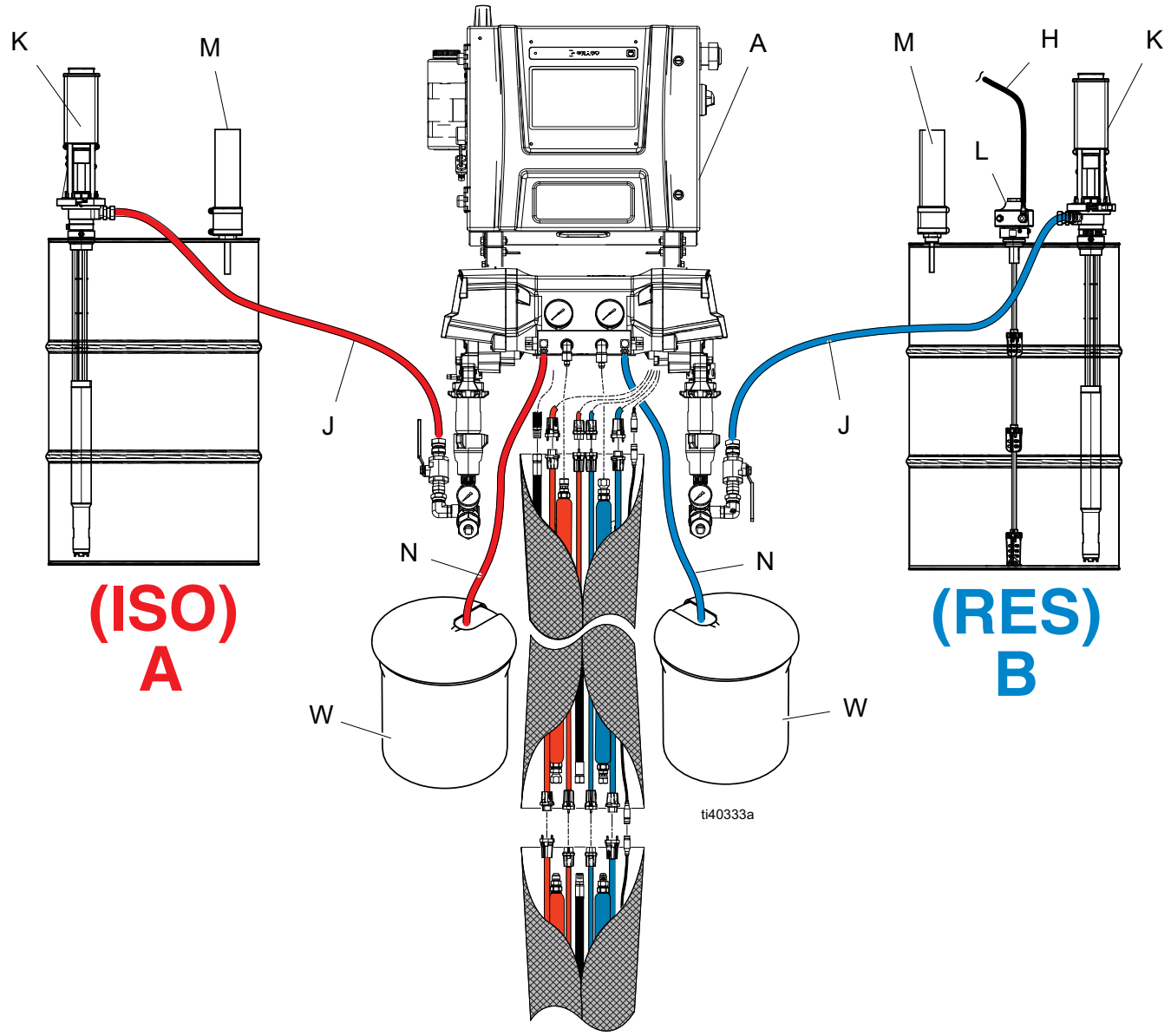


FIG. 1: Typical Installation without Circulation

Ref.	Description
A	Proportioner
H	Agitator Air Supply Line
J	Fluid Supply Lines
K	Transfer Pumps (other items purchased separately)
L	Agitator
M	Desiccant Dryer
N	Bleed Lines
W	Waste Containers

NOTE: See page 10 for required components.

Typical Installation with Circulation

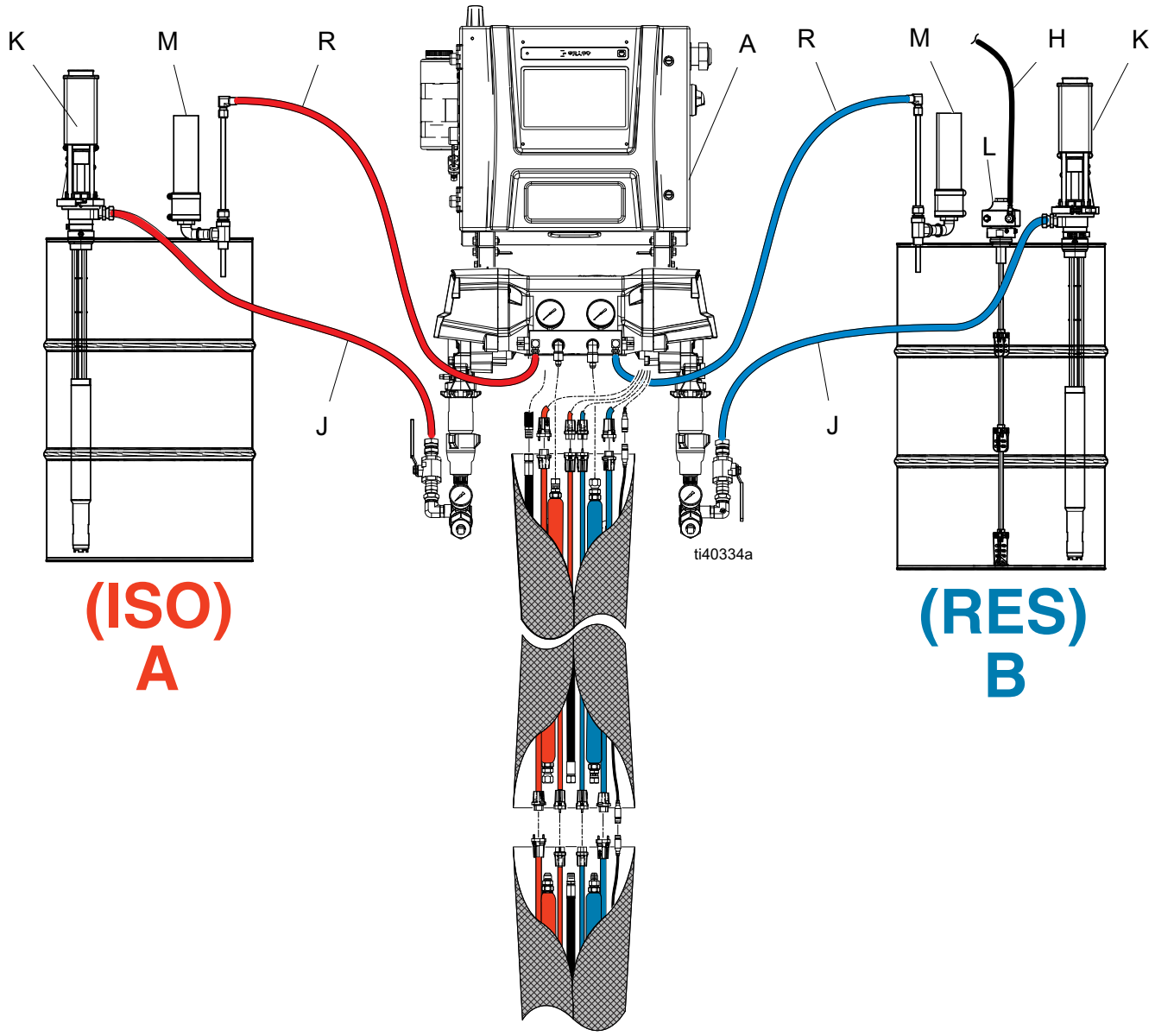


FIG. 2: Typical Installation with Circulation

Ref.	Description
A	Proportioner
H	Agitator Air Supply Line
J	Fluid Supply Lines
K	Transfer Pumps (other items purchased separately)
L	Agitator
M	Desiccant Dryer
R	Circulation Lines

NOTE: See page 10 for required components.

Typical Pump and Transfer Pump Controller Installation

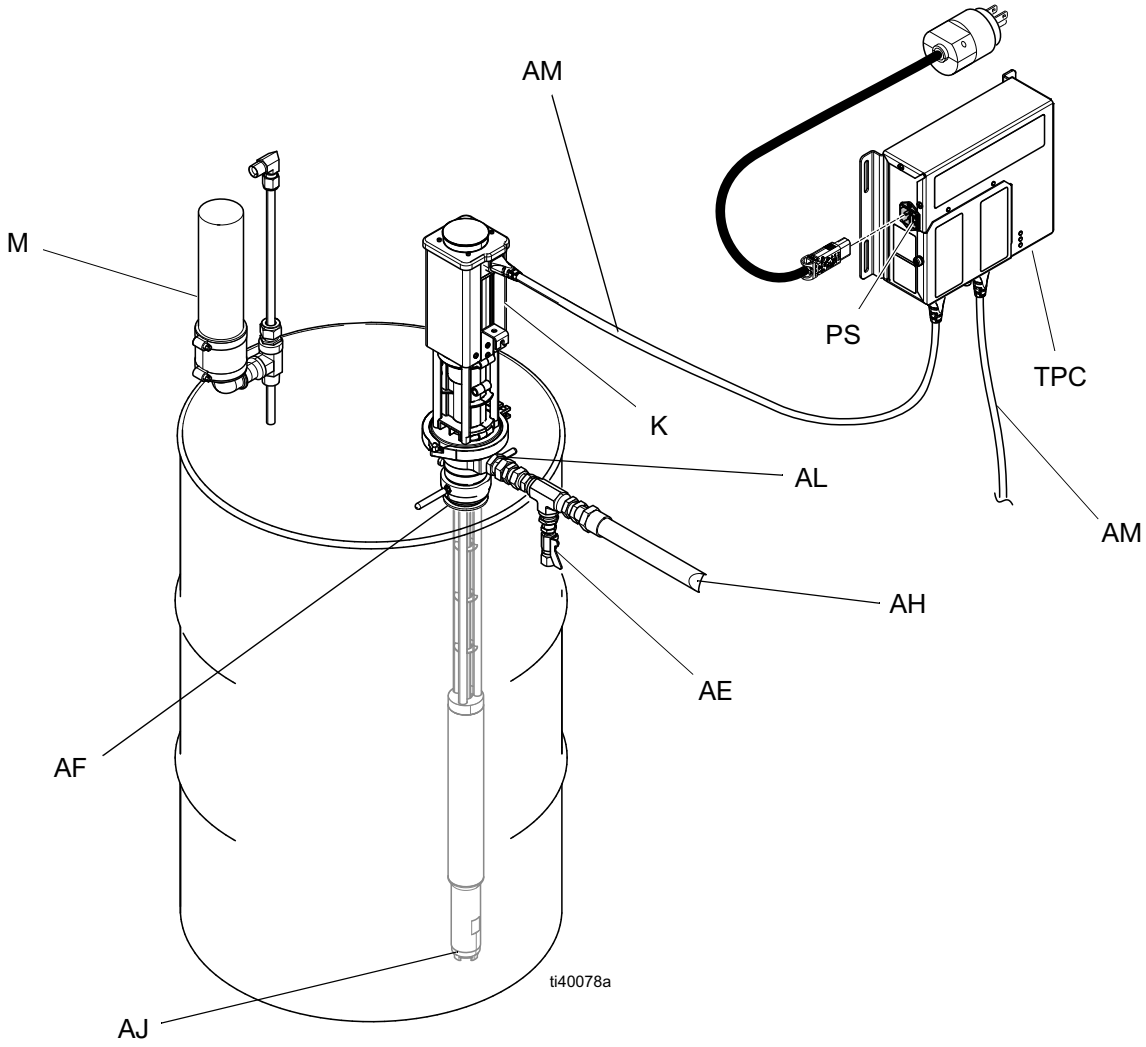


FIG. 3: Typical Pump and Transfer Pump Controller Installation

Ref.	Description
K	Transfer Pump
M*	Desiccant Dryer
AE*	Fluid Drain Valve (required)
AF	Bung Adapter
AH*	Grounded Fluid Hose
AJ	Pump Fluid Inlet
AL	Pump Fluid Outlet, 3/4 npt(f)
AM	Electric Motor Cable
PS	Power Switch
TPC	Transfer Pump Controller

* *Sold Separately*

Typical Multiple Pump Lowers Installation

NOTE: Material drums used are either two A side material drums, or two B side material drums.

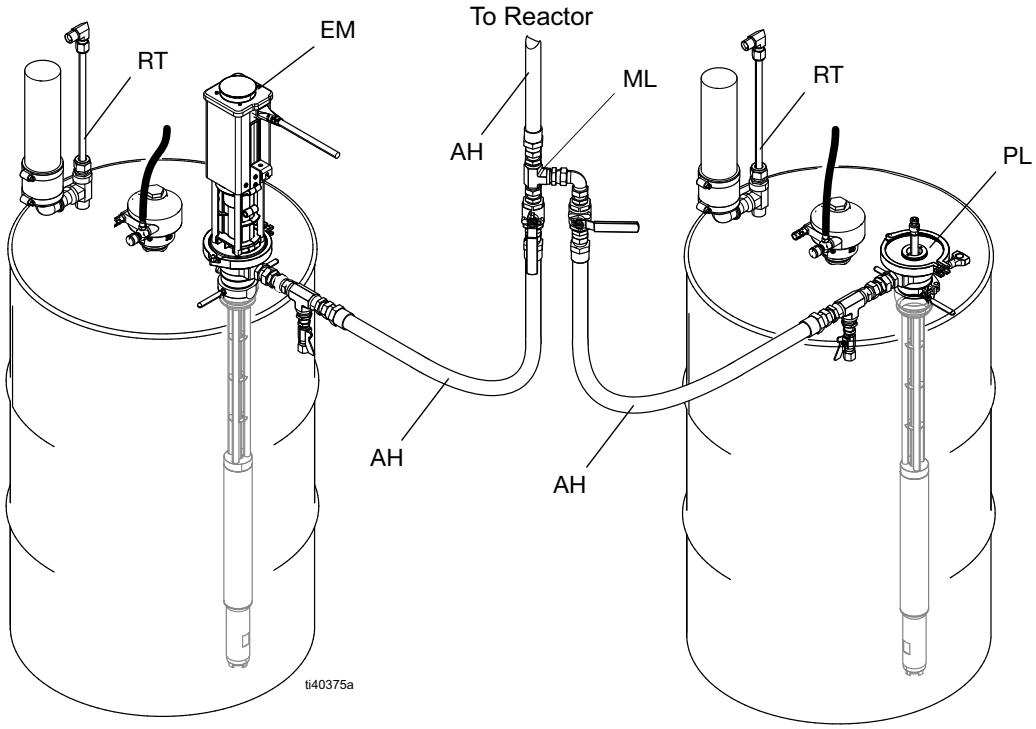


FIG. 4: Typical Multiple Pump Lowers Installation

Ref.	Description
RT	Return Tube Kit (not included)
ML	Multiple Pump Lower Fluid Kit (not included)
AH	Grounded Fluid Hose (not included)
EM	E1 Motor
PL	ProConnect Pump Lower

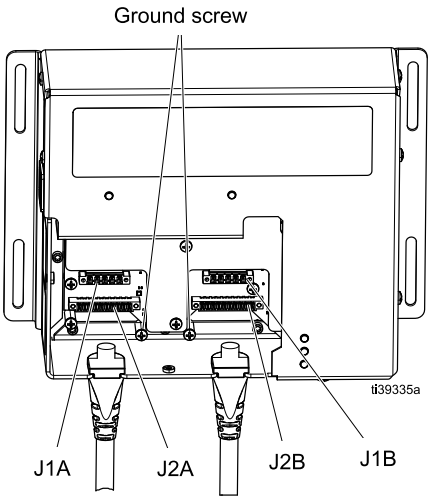
Installation

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.

Transfer Pump Controller: Grounded through the power cord.

Transfer Pump: Grounded through the Transfer Pump Controller. Follow **Connect Electric Motor Cables to the TPC**.



The following items are sold separately:

Fluid hoses: Use only electrically conductive hoses with a maximum of 300 ft (91 m) combined hose length to ensure grounding continuity. Check electrical resistance of hoses. If total resistance to ground exceeds 29 megohms, replace the hose immediately.

Fluid supply container: Follow local code.

Solvent pails used when flushing: Follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a 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 firmly to the side of a grounded metal pail, then trigger the gun.

Install the Transfer Pump Controller (TPC)

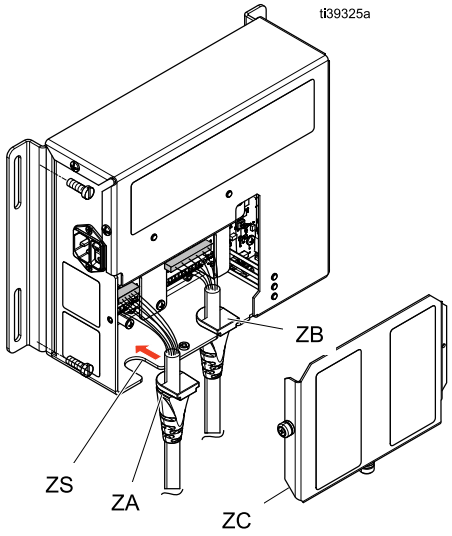
All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

Switch off power and unplug the TPC. Wait five minutes for power to dissipate before servicing.

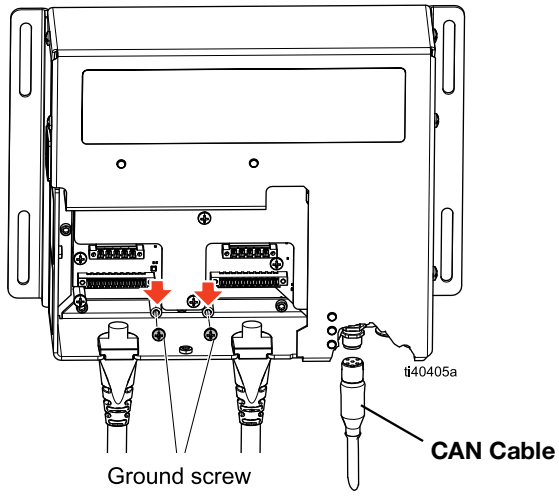
Connect Electric Motor Cables to the TPC

NOTE: Refer to your Reactor (Generation 3) manual for proportioner component identification.

1. Loosen captive fasteners and remove TPC cover (ZC).



2. Remove the ground screws (green) from the grounding standoffs.

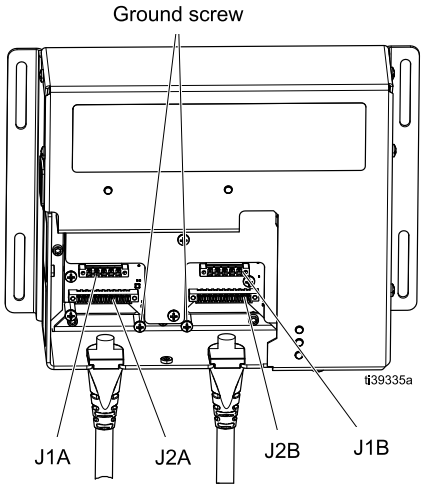


3. Use ground screws to install the ground ring terminal onto the ground standoffs for each cable.

4. Slide the strain relief (ZA, ZB) into the TPC enclosure slots (ZS).

5. Plug in the connectors (J1A, J2A, J1B, J2B) and tighten connector screws.

   NOTE: The A-side connectors (J1A, J2A) are on the left. The B-side connectors (J1B, J2B) are on the right.



6. Reinstall the TPC cover (ZC).

Connect the CAN Cable to the TPC

NOTE: The CAN cable allows the TPC to communicate with the Reactor and provides low voltage power to the TPC. It does not provide power to run the electric motor.

1. Connect the CAN cable to the TPC.
2. Connect the other end of the CAN cable to the open CAN communication connection on the electric motor control module (MCM). See the Component Identification section in your Reactor (Generation 3) operation manual.

Connect Power to the TPC

TPC Power

100-120 Vac, 8 A, 50/60 Hz
200-240 Vac, 4A, 50/60 Hz

NOTE: Certain GFCI outlets have been known to trip while using this product. GFCI outlets have a range of sensitivities. Electric motor controllers can cause false trips of GFCI outlets.

Utilize the included field wireable IEC320 C13 plug, or a cable with a C13 plug to provide power to the TPC.

Part	Description
121055	CORD, SET, US MX, PR, CA, TW. 115V, 10A
121054	CORD, SET, US, 250V, 10A, 10 FT
121056	CORD, SET, FR, GER, IS, NL, NO, TR, 250V
121057	CORD, SET, UK, IE, MY, SG, 250V, 10A
121058	CORD, SET, ISRAEL, 250V, 10A
124864	CORD, SET, ADPTR, AUSTRALIA, 8 FT
124861	CORD, SET, ADPTR, ITALY, 8 FT
124863	CORD, SET, ADPTR, SWITZERLAND, 8 FT
124862	CORD, SET, ADPTR, DENMARK, 8 FT
121060	CORD, SET, S AFRICA, INDIA, 250V, 16A

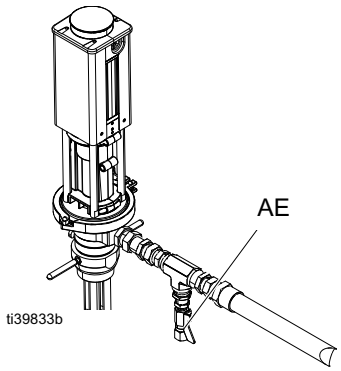
When installed in a truck or trailer, ground the TPC to the frame of the truck or trailer.

Pump Setup

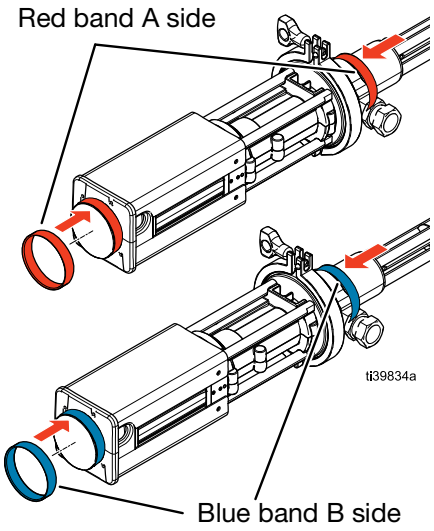
A fluid drain valve (AE) is required in your system to help reduce the risk of serious injury, including splashing fluid in the eyes or on the skin, and injury from moving parts when you are adjusting or repairing the pump.

The fluid drain valve (AE) helps relieve pressure in the displacement pump, hose, and gun when shutting off the pump. Actuating the gun to relieve pressure may not be sufficient, especially if there is a clog in the hose or the spray gun.

1. Apply thread sealant to all non-swivel connections and install the outlet fitting (not supplied) and required fluid drain valve (AE) to the pump outlet.



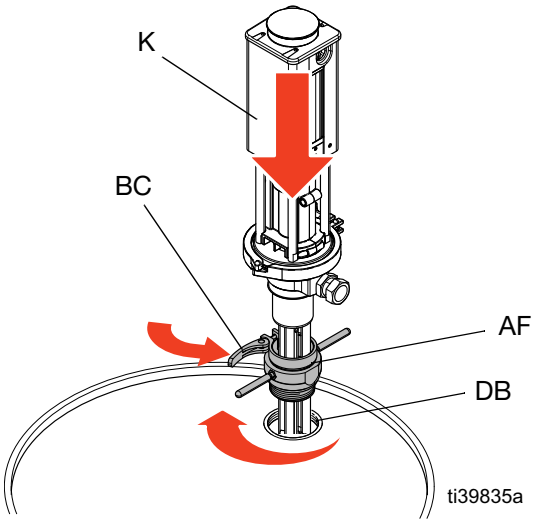
2. Use the colored pump identification bands provided to identify the appropriate pump for your material.



NOTE: Use the provided labels to identify the ends of the motor cables as A side and B side.

Install the Pump

1. Lubricate the o-ring on the outside of the bung adapter (AF) and screw the bung adapter securely into the bunghole (DB) of the drum.



2. Insert the pump (K) through the bung adapter (AF) and lock the bung adapter clamp (BC) into place.

Operation

NOTICE

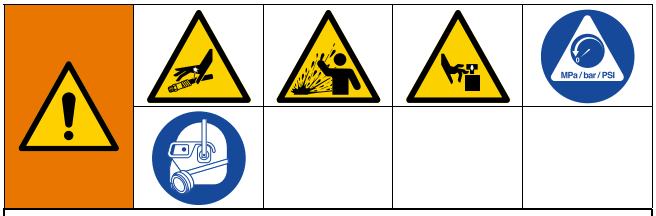
Do not operate if the pump lower and electric motor are not properly coupled together or without the clamp installed and tightened. Damage to the equipment could occur.

Flush Before Using Equipment

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

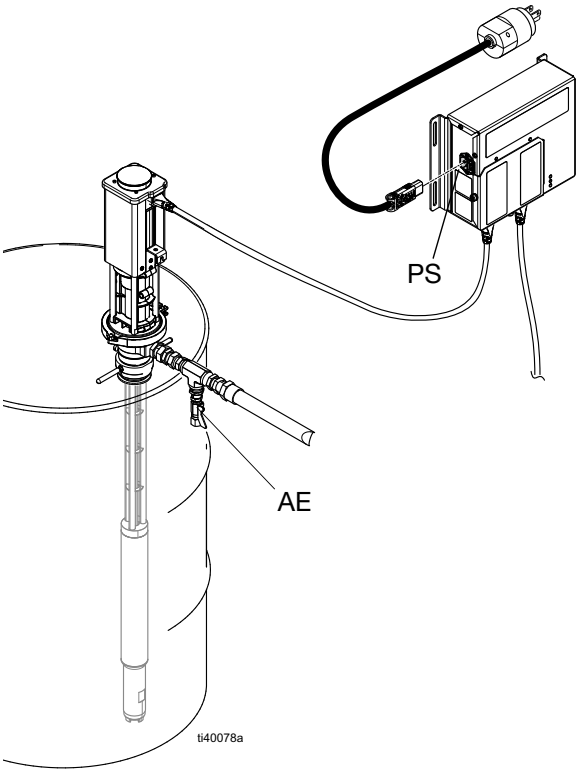
The equipment was tested with lightweight oil, which is left in the fluid passages to protect parts. To avoid contaminating your fluid with oil, flush the equipment with a compatible solvent before using the equipment. Flush the equipment. See your Reactor (Generation 3) operation manual.

Pressure Relief Procedure



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 the equipment.

1. Follow the **Pressure Relief Procedure** in your Reactor (Generation 3) operation manual to relieve system pressure.
2. Turn the TPC power switch (PS) to OFF.



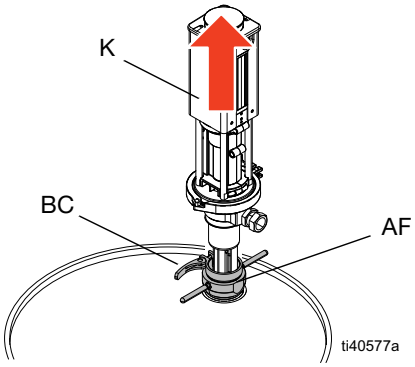
3. Open the fluid drain valve (AE).

Changing Material Drums

NOTE: If the height of your ceiling or trailer prohibits removal of the pump, remove the electric motor before swapping out material drums.

Remove the Pump

1. Follow the **Pressure Relief Procedure** on page 15.
2. Loosen the bung adapter clamp (BC).
3. Carefully lift the pump (K) up and out of the bung adapter (AF) and completely remove it from the drum.

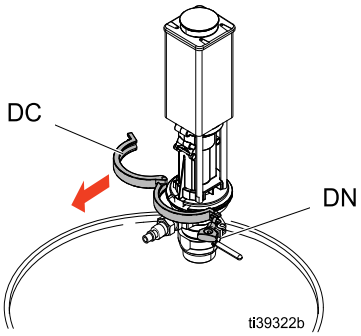


Never use the power cord to lift or adjust the pump. Lifting or adjusting the pump with the power cord can damage it and cause injury from electric shock.

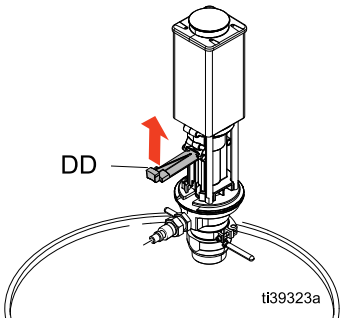
NOTE: To reinstall the pump, see **Install the Pump** on page 14.

Remove the Electric Motor

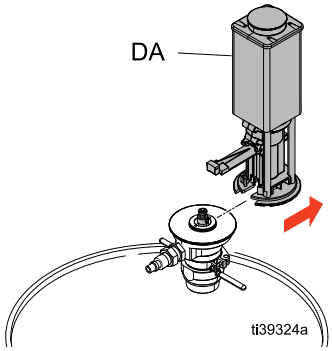
1. Follow the **Pressure Relief Procedure** on page 15.
2. Loosen the clamp nut (DN) on the pump clamp (DC), then remove the clamp.



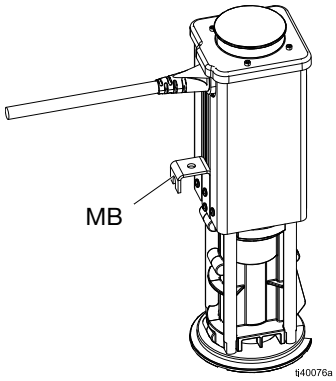
3. Open the electric motor access door (DD).



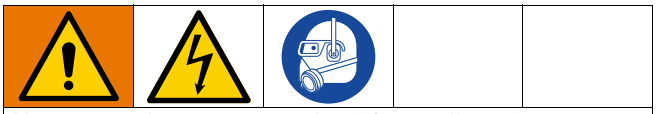
4. Slide the electric motor away from the pump and remove the electric motor (DA).



NOTE: Use the mounting bracket (MB) to hang the electric motor in a secure location when not in use.



Install the Electric Motor



Never use the power cord to lift or adjust the pump. Lifting or adjusting the pump with the power cord can damage it and cause injury from electric shock.

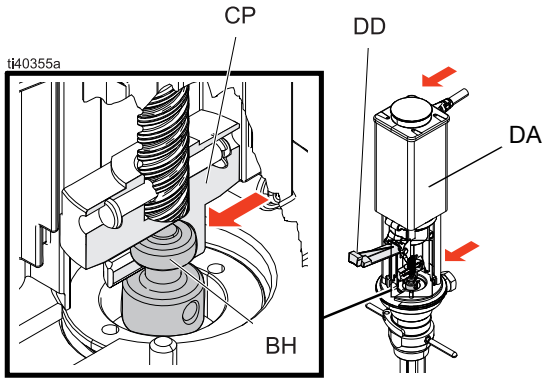
1. Follow the **Pressure Relief Procedure** on page 15.
2. Disconnect power to the TPC.

Switch off power and unplug the TPC. Wait five minutes for power to dissipate before servicing.

3. If the pump has not been parked, pull the pump lower rod up so that it can be coupled to the electric motor.

   NOTE: Parking the pump increases seal life on the proportioner pump and increases the ease of aligning the ProConnect features on the transfer pump. The pump will automatically park at the bottom of the stroke when the Reactor (Generation 3) is in Park mode.

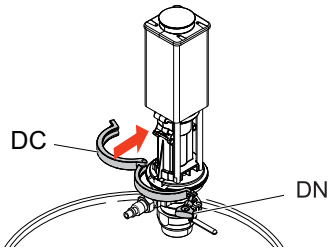
4. Open the electric motor access door (DD).
5. Align the notch of the electric motor coupler (CP) with the button head (BH) of the pump lower.



6. Simultaneously slide the electric motor coupler (CP) onto the button head of the pump lower and the electric motor onto the pump lower. Close the electric motor access door (DD).

Always keep the electric motor access door (DD) closed and secured with the clamp to prevent injury from moving parts.

7. Install the pump clamp (DC). Use a screwdriver or rod to tighten the clamp nut (DN) 1/2 turn past finger tight.



Using the Electric Motor

A new electric motor needs to be calibrated when connected to a Transfer Pump Controller (or if the connections are swapped at the TPC). To calibrate the pump, see your Reactor (Generation 3) operation manual.

Upon each power-on cycle the electric motor will run slowly for the first several strokes until the end stops are established.

The TPC will proactively change pump direction in order to minimize the number of times the pump needs to switch direction when pumping. The pumps may not necessarily change direction at the absolute top and bottom of the stroke.

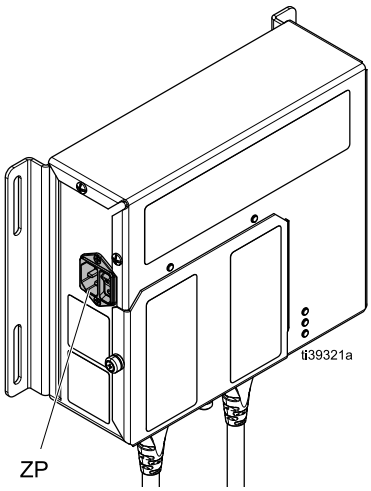
NOTE: Electric motors do not need pressure transducers to operate, but can offer additional features when used with a Reactor (Generation 3) system that has inlet pressure transducers.

Controlling the Pump

The pressure and speed for this pump are controlled through the Reactor proportioner. See your Reactor (Generation 3) operation manual for additional instructions.

Daily Startup

1. Turn the TPC power switch (ZP) to ON.



2. Follow the **Startup** procedure in your Reactor (Generation 3) operation manual.

NOTICE

Never allow the pump to run dry of the fluid being pumped. A dry pump will quickly accelerate to a high speed and could cause damage to the pump. If the pump accelerates quickly or starts running too fast, stop it immediately and check the fluid supply. If the supply container is empty or air has been pumped into the lines, refill the container and prime the pump and the lines with fluid, or flush and leave it filled with a compatible solvent. Be sure to eliminate all air from the fluid system.

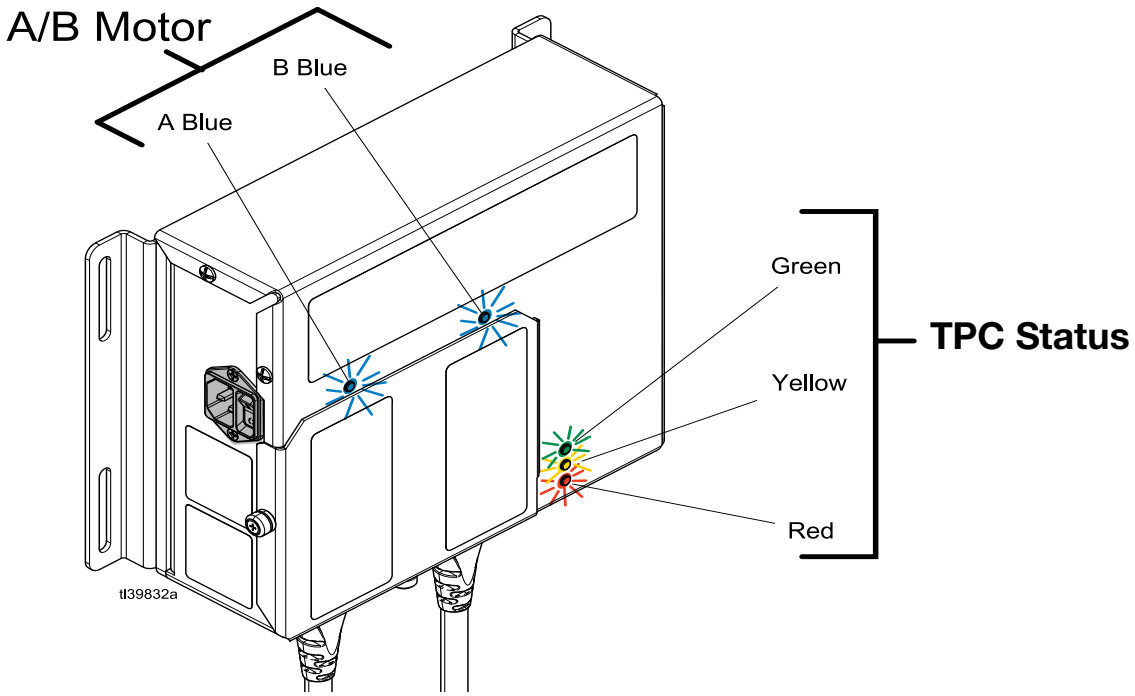
Do not attempt to operate unless it is securely mounted in a drum.

Daily Shutdown

1. Follow the **Shutdown** procedure in your Reactor (Generation 3) operation manual.
2. Turn the TPC power switch (ZP) to OFF.

Pump Status LEDs

The Transfer Pump Controller (TPC) uses five LEDs to communicate the current status of the pumps and TPC. The two LEDs on the top relate to the electric motor status (A on the left, B in the center). The three LEDs on the bottom right are the TPC status LEDs.



LED Status Definitions

LED	Conditions	Description
A/B Electric Motor Status LEDs	Off	No AC Power Detected
	Red and Blue	Startup
	Purple	Idle
	Blue	On: • 1 flash for top changeover • 2 flashes for bottom changeover
	Red	Error
TPC Status	Green Solid	Low voltage power applied to module
	Yellow Flashing	Active communication
	Red Steady Flashing	Software update in progress
	Red Random Flashing or Solid	Module error exists

Troubleshooting

1. Follow **Pressure Relief Procedure**, page 15, before checking or repairing pump.
2. Check all possible problems and causes before disassembling pump.

Problem	Cause	Solution
The pump fails to operate	Clogged fluid hose or valve	Clear the hose or valves.
The pump operates, but the output is low on both strokes	Clogged fluid hose or valve	Clear the hose or valves.
	Exhausted fluid supply	Refill the fluid supply and reprime the pump.
	Worn or damaged valves or seals	Service the valves or seals.
The pump operates, but the output is low on the down stroke	Held open or worn intake valve	Clear or service the valve.
	Worn or damaged valves or seals	Service the valves or seals.
The pump operates, but the output is low on the upstroke	Held open or worn piston valve	Clear or service the valve.
	Worn or damaged valves or seals	Service the valves or seals.
Erratic or accelerated operation	Exhausted fluid supply	Refill the fluid supply and reprime the pump.
Pump slowly moves after fluid shutoff in the down stroke	Clogged or dirty intake valve check ball	Clean ball and seat.
	Worn or damaged valves or seats	Install repair kit.
Pump moves slowly after fluid shutoff in the upstroke	Clogged or dirty piston ball or seat	Clean ball and seat.
	Worn or damaged valves or seats	Install repair kit.

NOTE: For additional troubleshooting information, go to **help.graco.com** and search for E1 Transfer Pumps.

Maintenance

Daily

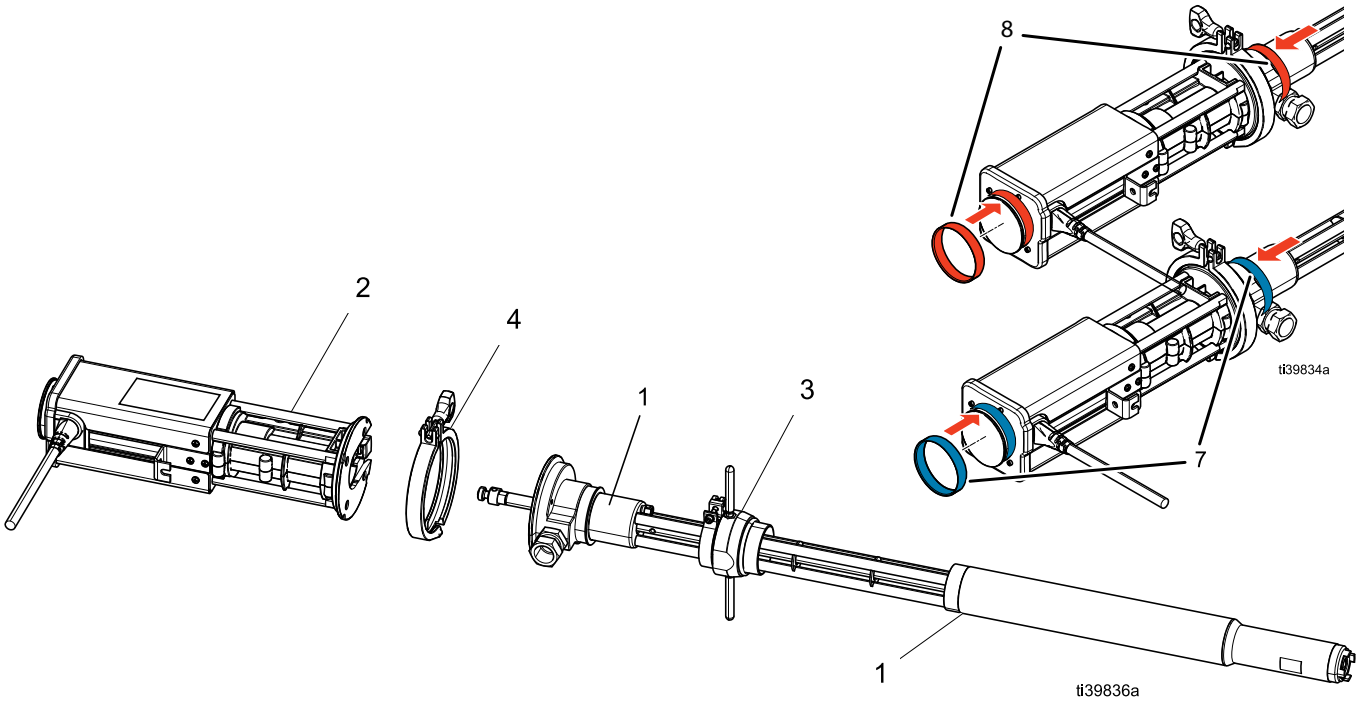
Check the clamp nut (DN) on a daily basis and tighten if necessary.

Monthly

Electrical connections can loosen over time due to transporting equipment and normal operation. Periodically check all electrical connections and tighten as needed.

Parts

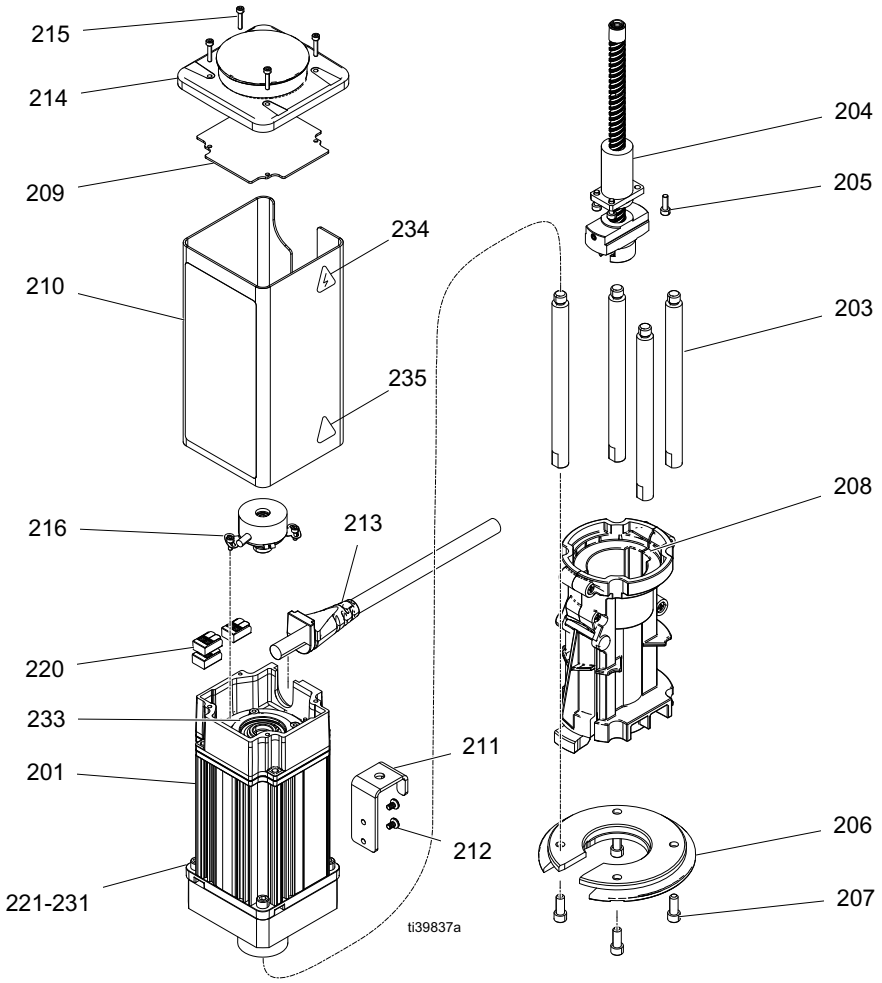
Pump (26D004)



Pump Lower Parts List

Ref.	Part	Description	Qty.
1	273295	PUMP, lower, et 3	1
2	25T322	ELECTRIC MOTOR	1
3	25B395	ADAPTER, bung, 2 in., EZ removal	1
4	510490	CLAMP, pump	1
7	26D216	BAND, identity, res (blue)	1
8	26D216	BAND, identity, iso (red)	1

Electric Motor (25T322, 26D009)



Electric Motor Parts List

Ref.	Part	Description	Qty.
201	- - - - -	MOTOR, electric	1
203	- - - - -	ROD, tie	4
204	26D008	SCREW, ball, assembly	1
205	- - - - -	SCREW, shcs	4
206	- - - - -	RING, mounting clamp	1
207	- - - - -	SCREW, cap, sch	8
208	26D288	GUIDE, cover	1
209	- - - - -	SUPPORT, cable, E1 motor, painted	1
210	26D290	COVER, E1 motor, w/label	1
211	- - - - -	BRACKET, mounting	1
212	- - - - -	SCREW, ph, M4 x 0.7, 6 mm lng	4
213*	- - - - -	CABLE, motor	1
214†	- - - - -	COVER, motor	1
215†	- - - - -	SCREW, shcs, M3-0.5x16, sst	4
216‡	- - - - -	ENCODER, 24V	1
217‡	- - - - -	SCREW, shc, m 3-0.5x8, ss	2
220*	- - - - -	CONNECTOR, lever nut	3
221	- - - - -	HOUSING, thrust bearing	1
222	- - - - -	WASHER, housing, 30 mm	1
223	- - - - -	BEARING, thrust, roller, 30 mm	1
224	- - - - -	WASHER, thrust, 30 mm	1
225	- - - - -	COUPLER, motor shaft	1
226	- - - - -	WASHER, thrust, 40 mm	1
227	- - - - -	BEARING, thrust, roller, 40 mm	1
228	- - - - -	WASHER, housing, 40 mm	1
229	- - - - -	SPRING, wave	1
230	- - - - -	COVER, thrust bearing	1
231	- - - - -	SCREW, set, 4 mm	8
233	- - - - -	GASKET, motor	1
234▲	15G303	LABEL, warning, electrical	1
235▲	15H108	LABEL, safety, warning, pinch	1

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

* *Included in kit 26D287, not included in kit 26D009.*

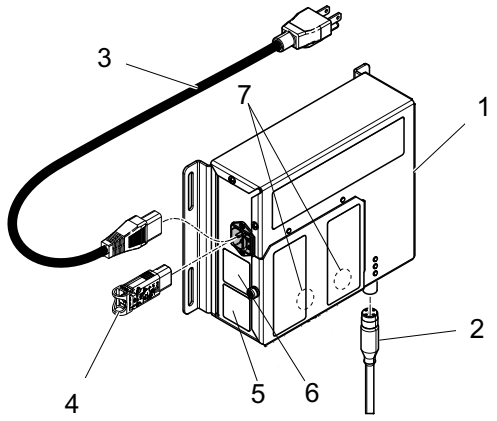
† *Included in kit 26D291.*

‡ *Included in kit 26D286.*

TPC (26D000)

Ref.	Part	Description	Qty.
1	19B841	CONTROLLER, CORE E1 transfer pump	1
2	121004	CABLE, can, female/female 8.0 m	1
3	121055	CORD SET	1
4	26D296	KIT, install, IEC field wirable C13 plug	1
5	25U011▲	LABEL, safety	1
6	195793▲	LABEL, warning	1
7	186620▲	LABEL, symbol, ground	1

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



Accessories

To ensure maximum pump performance, make sure all accessories are properly sized to meet your system requirements.

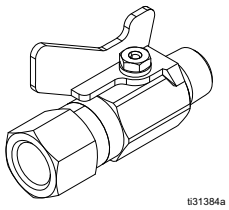
Fluid Line

Fluid drain valve (AE): Required in your system to relieve fluid pressure in the hose and gun. Install the drain valve so that it points down and the handle points up when the valve is opened.

Fluid Drain Valve (not included)

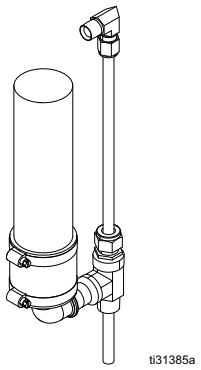
Maximum Working Pressure: 500 psi (3.5 MPa, 35 bar)

Part	Description	Qty.
208630	VALVE, ball; 1/2 npt(m) x 3/8 npt(f) for non-corrosive fluids; carbon steel and PTFE	1
237534	VALVE, ball; 3/8 npt(m) x 3/8 npt(f) for corrosive fluids; SST and PTFE	1



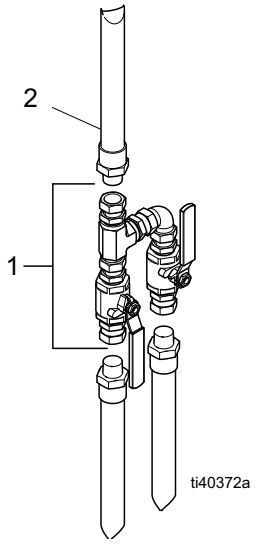
Return Tube Kit (not included)

Part	Description	Qty.
246477	KIT, carbon steel return tube	1
24D106	KIT, stainless steel return tube	1
246978	KIT, carbon steel return tube; with hose	1
24E379	KIT, carbon steel return tube; with moisture-loc hose	1
24D107	KIT, stainless steel return tube; with moisture-loc hose	1
247616	KIT, desiccant dryer, no return tube	1



Multiple Pump Lowers Fluid Kit (not included)

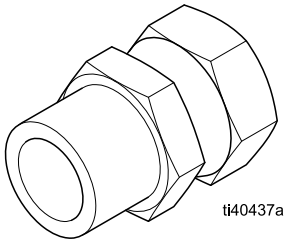
Ref.	Part	Description	Qty.
1	26D219	Fluid Coupling Kit	1
2	217382	Fluid Supply Hose (10 ft)	1



NOTE: For Multiple Pump Lowers Fluid Kit installation, see FIG. 4 on page 11.

Swivel Fitting (not included)

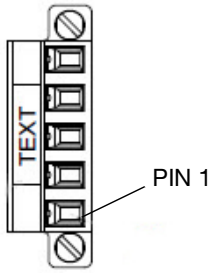
Part	Description	Qty.
157785	FITTING, swivel	1



Electrical Connections

Connectors J1A and J1B

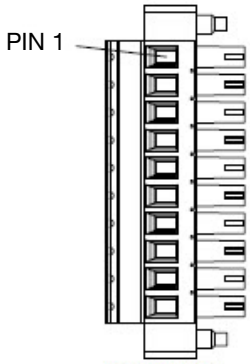
Position	Signal	Wire Color
1	Motor Output C	White
2	Motor Output B	Red
3	Motor Output A	Black
4	(Not Used)	None
5	Motor Shield	Bare with sleeve



Terminal
Insertion View

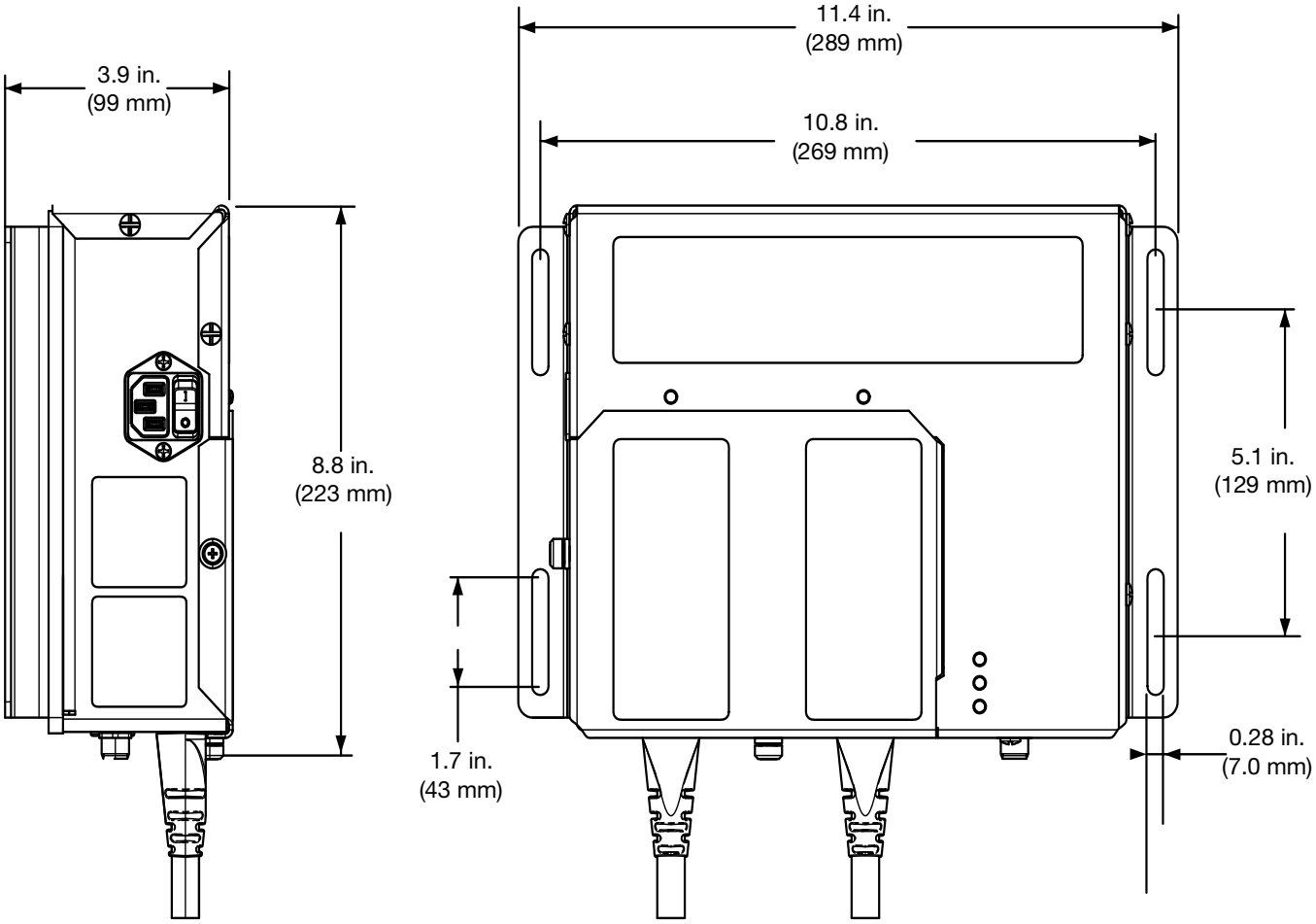
Connectors J2 and J2B

Position	Signal	Wire Color
1	Encoder Power (24 Vdc)	White / Violet
2	Encoder Return (0 Vdc)	Violet
3	Encoder A Signal	White / Blue
4	Encoder A' Signal	Blue
5	Encoder B Signal	White / Brown
6	Encoder B' Signal	Brown
7	Encoder Z Signal	White / Orange
8	Encoder Z' Signal	Orange
9	(Not Used)	None
10	(Not Used)	None



Terminal
Insertion View

Dimensions


11.4 in.
(289 mm)
10.8 in.
(269 mm)
3.9 in.
(99 mm)
8.8 in.
(223 mm)
5.1 in.
(129 mm)
1.7 in.
(43 mm)
0.28 in.
(7.0 mm)

Recycling or Disposal

End of Product Life

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

California Proposition 65

CALIFORNIA RESIDENTS

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

Technical Specifications

Core E1 Electric Transfer Pump		
	US	**Metric**
Maximum fluid working pressure	315 psi	2.17 MPa, 21.7 bar
Maximum continuous outlet flow	4.5 gpm	17.03 lpm
Pump cycles per 1 gallon (3.8 liters)	30	
Volume per pump cycle	0.034 gallons	0.128 liters
Maximum ambient operating temperature	120° F	49° C
Maximum fluid temperature	190° F	88° C
Inlet/Outlet Sizes		
Fluid outlet size	3/4-14 in. npt (f)	
Materials of Construction		
Wetted materials on 26D004	Carbon steel, stainless steel, PTFE	
Weight		
All models	29 lb.	13 kg
Notes		
Electrical ratings for the entire transfer pump system (TPC with two E1 transfer pumps):		
100-120 VAC	8 A, 50/60 Hz	
200-240 VAC	4A, 50/60 Hz	
Maximum recommended pump speed for continuous operation:		
100-120 VAC	100 cpm	
200-240 VAC	120 cpm	
All trademarks or registered trademarks are the property of their respective owners.		

Graco Extended Warranty for Reactor® Components

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.

Graco Part Number	Description	Warranty Period
26D009	Core E1 Electric Motor	36 Months
19B841	Core Transfer Pump Controller	36 Months
All other Core E1 Parts		12 Months

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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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.

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For patent information, see www.graco.com/patents.
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Original instructions. This manual contains English. MM 3A8503
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International Offices: Belgium, China, Japan, Korea

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