Instructions - Parts

Hose and Hopper Heat Circulation XP™ and XP-hf™ Retrofit Kit

3A5314B
EN

For circulating heated glycol/water through XP and XP-hf plural-component sprayer Xtreme-Wrap™ water-heated hose and Viscon® HP heater or double-wall hopper. For professional use only.

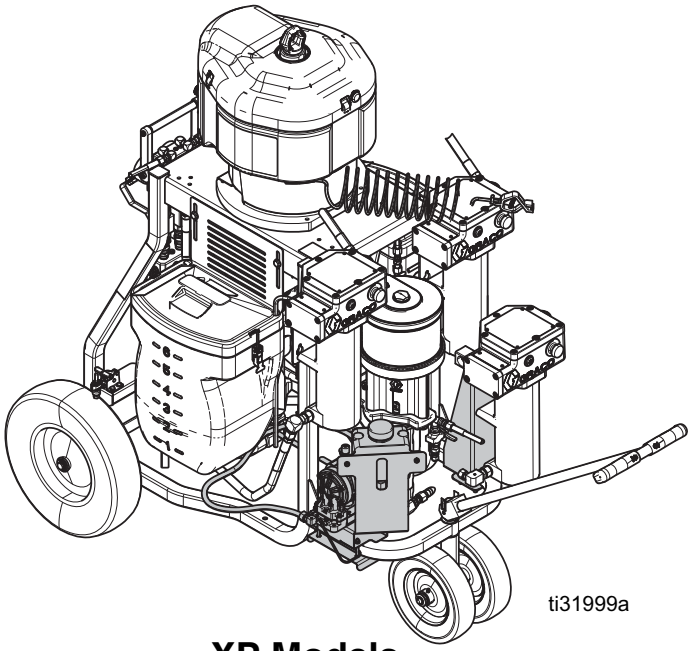
Approved for use in explosive atmospheres with approved heater. Heated hose and Viscon HP heater not included (must be ordered separately).

Model 26C051
Hose Heat Circulation Retrofit Kit

Model 26C078
Hopper Heat Circulation Retrofit Kit

See **Kit Applications**, page 5.

Important Safety Instructions
Read all warnings and instructions in this manual and your related Proportioner manual. Save these instructions.



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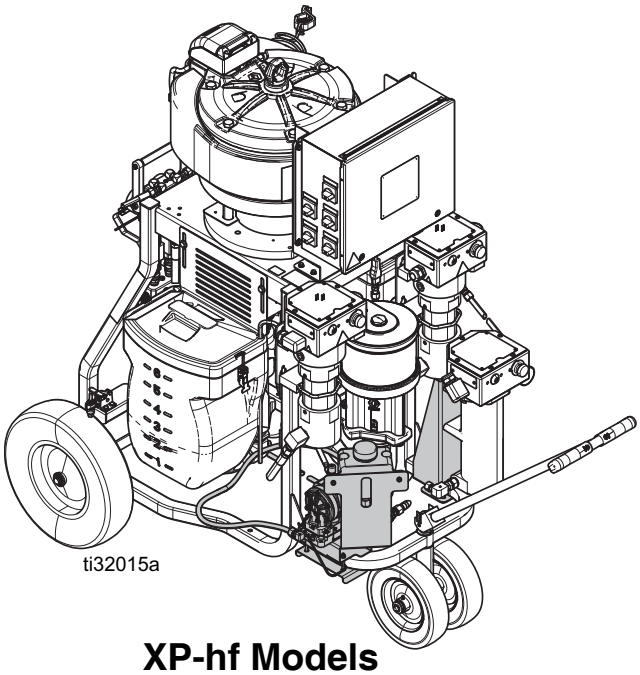
XP Models



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XP-hf Models

Contents

Related Manuals

Part	Description
3A4381	XP-hf Instructions - Parts
3A0420	XP Instructions - Parts
3A5302	Heater Block Remote Manifold Kit
3A5313	Xtreme Wrap Water Heated Hose
312747	Double Wall Hopper, Instructions - Parts
309524	Viscon® HP Heater
308652	Husky™ 205 Diaphragm Pump

Warnings

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

⚠ WARNING

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:

- Use equipment only in well-ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).
- Ground all equipment in the work area. See **Grounding** instructions.
- Never spray or flush solvent at high pressure.
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.
- **Stop operation immediately** if static sparking occurs or you feel a shock**.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

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

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.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.

SKIN INJECTION HAZARD

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

- Do not spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment.

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.

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) 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.

Overview

Component Requirements

These kits do not include the Viscon HP heater or Xtreme-Wrap Water Heated Hose. Order these separately.

- Refer to Viscon HP heater manual 309524 for listing of hazardous-location approved models.
- Refer to Xtreme-Wrap Water-Heated Hose manual 3A5313 for hose part numbers.

Usage

Use only hazardous-location approved components.

Using components on the system, not approved for hazardous locations or explosive atmospheres may result in a fire or explosion hazard.

The circulation kit is not approved for use in hazardous locations unless all wiring meets local, state, and national codes.

See the XP or XP-hf system manual for approved heater wiring.

Kit Applications

26C051 - Hose Heat Circulation Retrofit Kit

This kit provides the pump assembly, heater mounting components and tubing/fittings to connect to a heated hose only. Order 26C078 if circulation is needed through a 20 gallon (75 liter) hopper for additional components.

26C078 - Hopper Heat Circulation Retrofit Kit

This kit provides additional fittings and tubing required to circulate through two 20 gallon (75 liter) hoppers, with or without a heated hose.

Heated Hose Assembly

Separately order a heated hose assembly that meets maximum pressure and hose diameter requirements. You can connect up to six 50 ft (15.2 m) heated hose sections for a maximum total length of 300 ft (91.4 m). See manual 3A5313.

Fluid Heater

Separately order a Viscon HP heater that meets local electrical and hazardous location requirements.

Hazardous Location Heaters

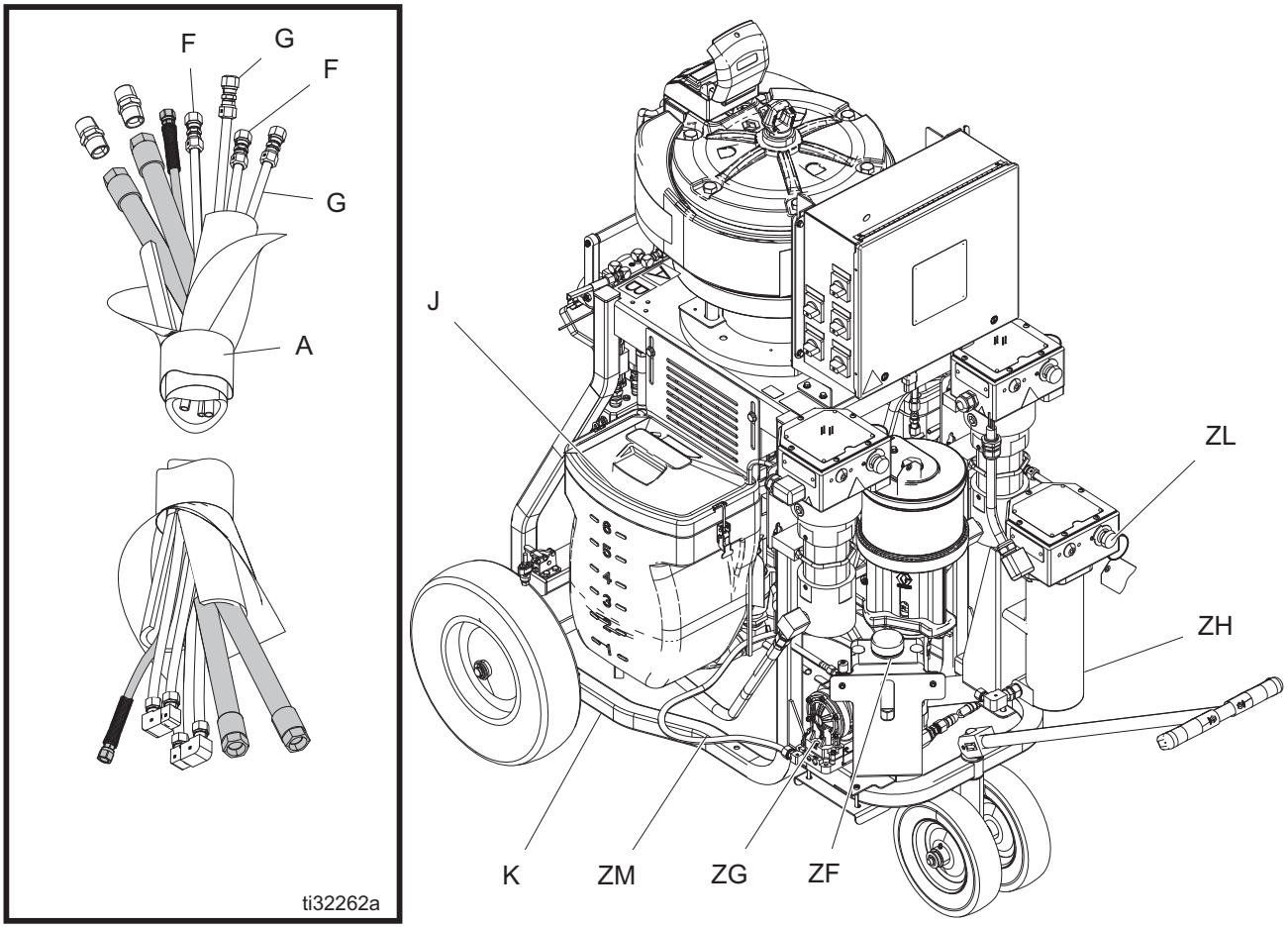
Part	Series	VAC (50/60 Hz Single Phase) / Watts/ Amps	Approvals
245848	A	120 / 2300 / 19.2	See heater manual 309524 for approvals
245863	A	240 / 4000 / 16.7	
245864	A	480 / 4000 / 8.3	
245862	A	200 / 4000 / 20.0	
246254	A	380 / 4000 / 10.5	
** See heater manual 309524 for Agency Approval information.*			

Non-Hazardous Location Heaters

Part	Series	VAC (50/60 Hz Single Phase) / Watts/ Amps	Approvals
245867	A	120 / 2300 / 19.2	See heater manual 309524 for approvals
245868	A	200 / 4000 / 20.0	
245869	A	240 / 4000 / 16.7	
245870	A	480 / 4000 / 8.3	
246276	A	380 / 4000 / 10.5	
** See heater manual 309524 for Agency Approval information.*			

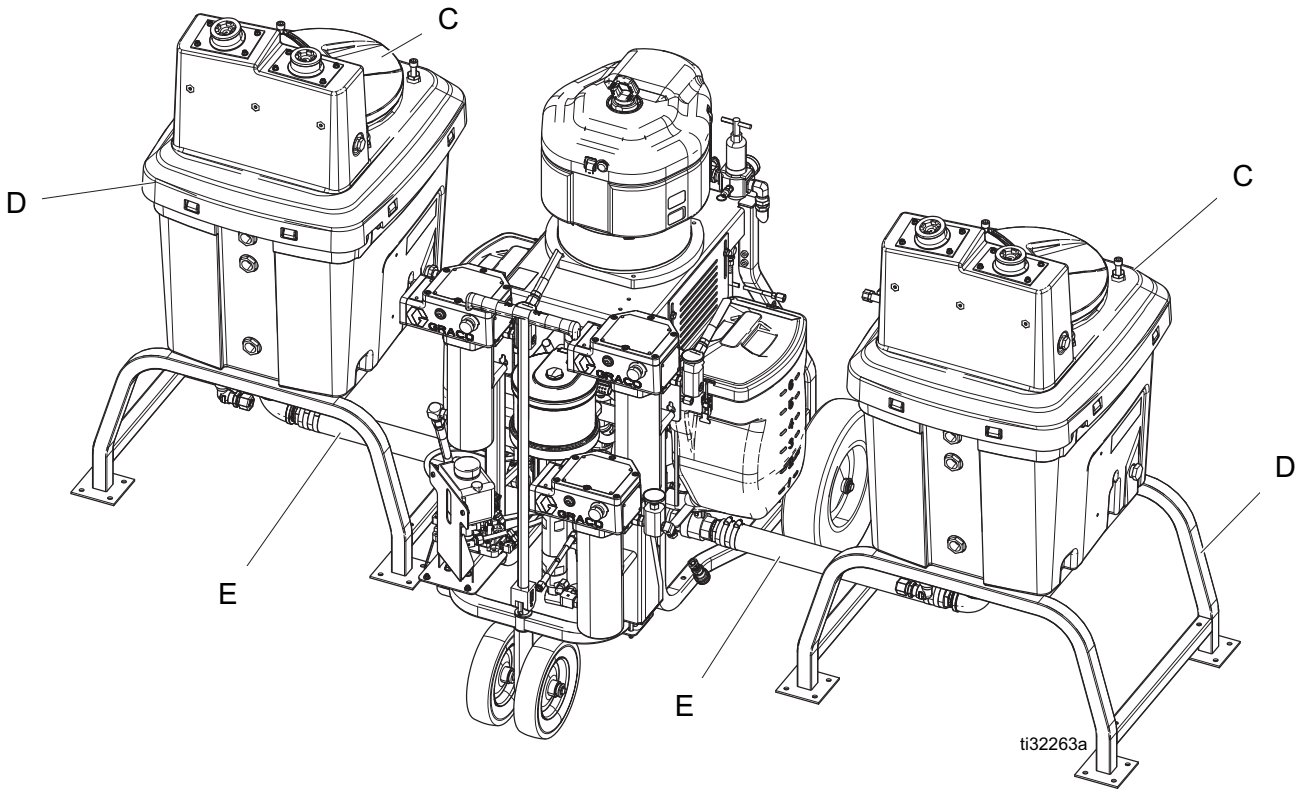
Component Identification

Model 572407 Shown



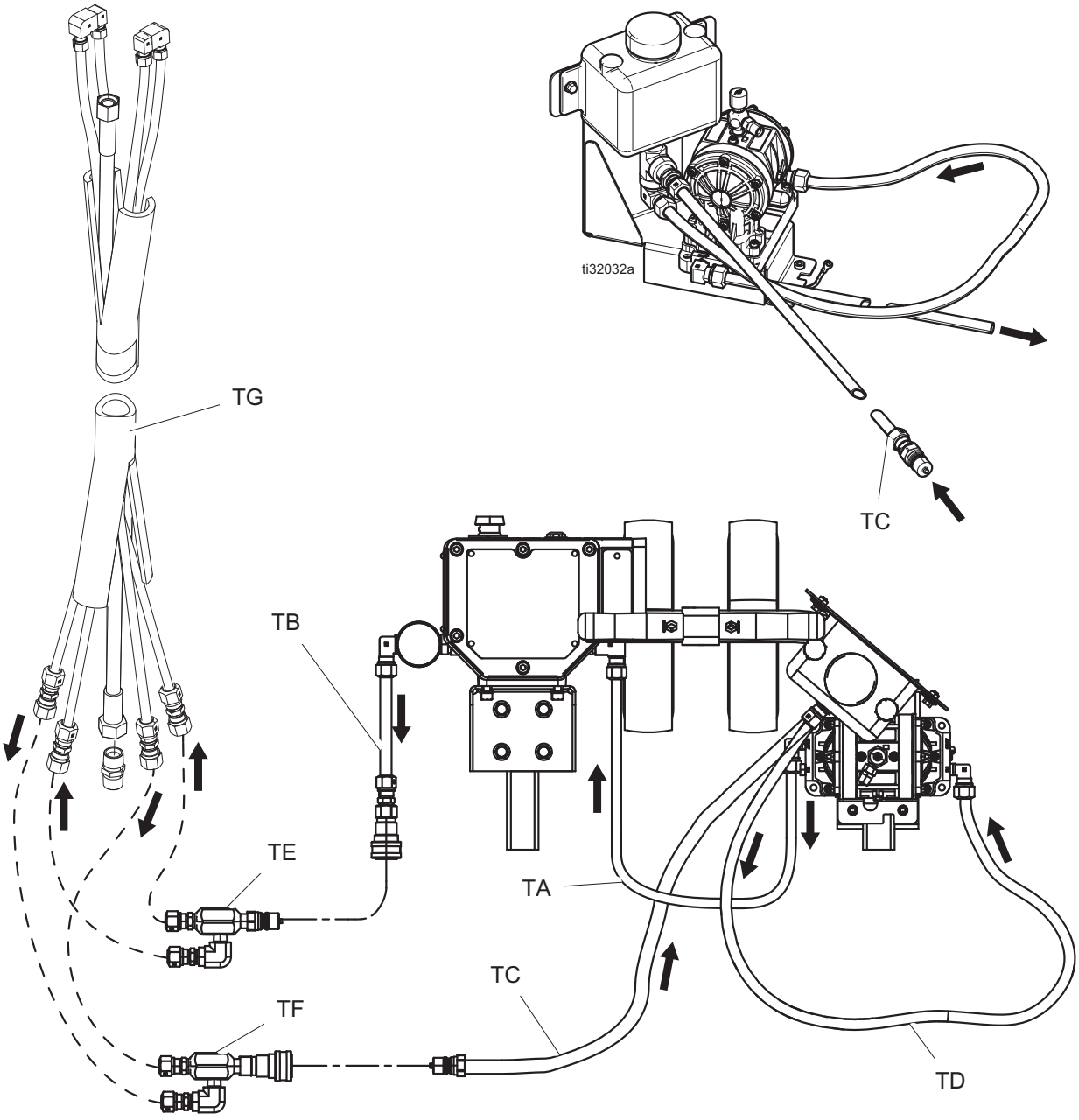
Ref.	Description
A	Heated Hose
F	Heated Water to Hose (red tubing)
G	Return Water to Pump and Reservoir (blue tubing)
J	7 Gallon Hoppers (green B-side shown)
K	Cart
ZF	Circulation Pump Reservoir
ZG	Circulation Pump
ZH	Viscon HP Hose Water Heater
ZL	Heater Temperature Control
ZM	Circulation Tubing

20 Gallon (75 liter) Hoppers Installed



Ref.	Description
C	20 Gallon (75 liter) Hopper Kit
D	Floor Stand for 20 Gallon (75 liter) Hopper Kit
E	1-1/2 in. ID Hose Flex Feed Kit

Tubing Identification

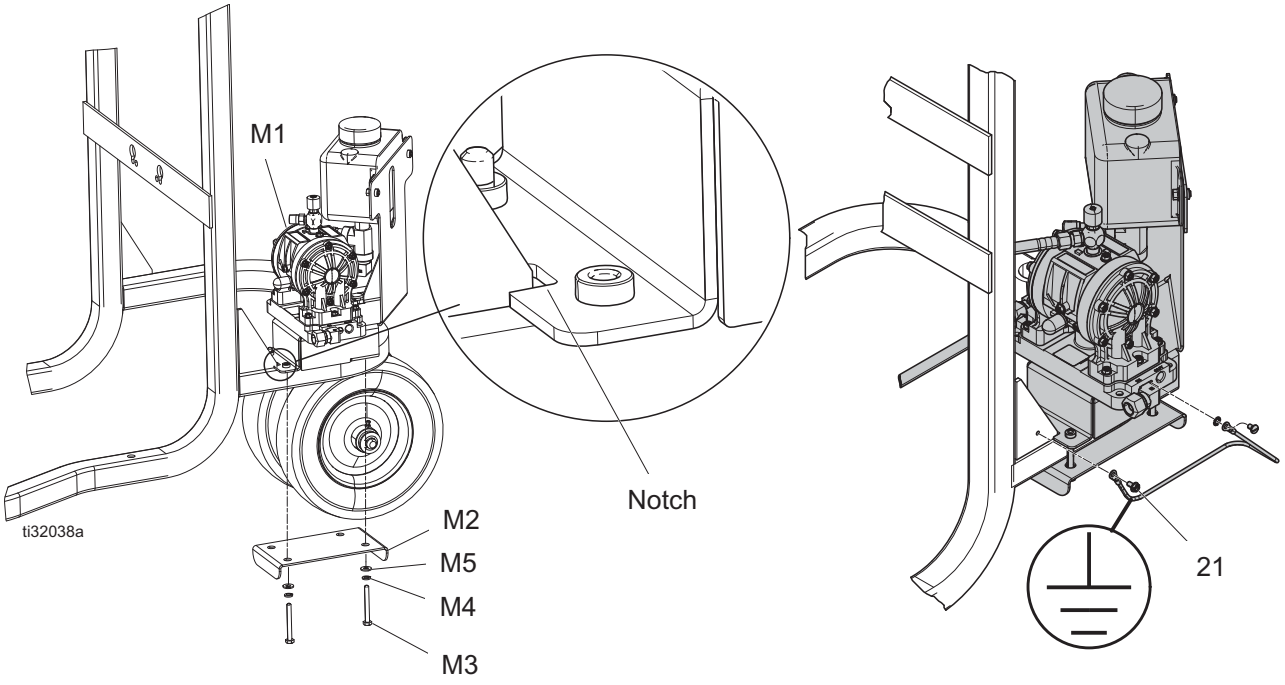


Ref.	Description
TA	Pump outlet tubing to heater inlet (white)
TB	Heater output tube to heater hose (red)
TC	Heated hose return tube to reservoir bottle (blue)
TD	Reservoir bottle to pump inlet (white)
TE	Split coupler (male) to heated hose
TF	Split coupler (female) for hose return
TG	Heated Hose

Installation

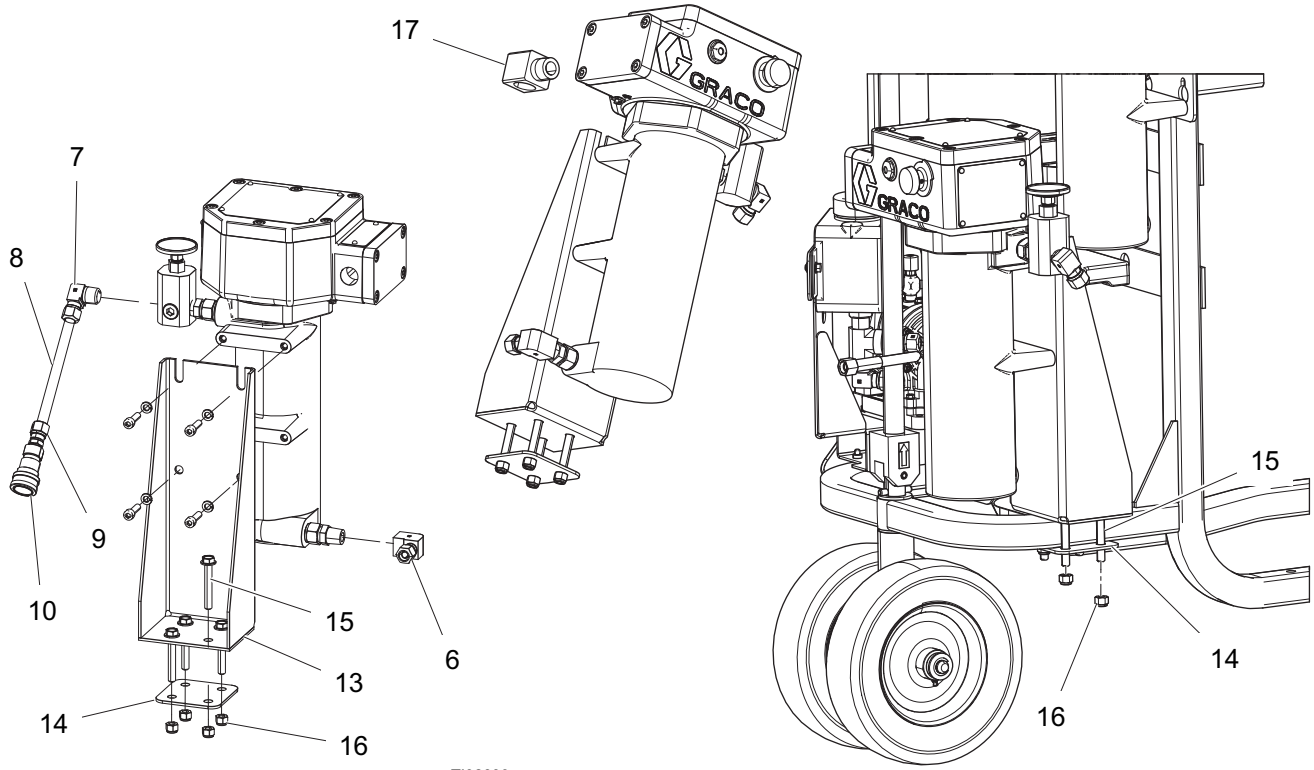
Mount Circulation Pump Assembly

1. Align and overlap pump base (M1) notch to frame gusset.
2. Align base plate (M2) to pump base (M1) and fasten with bolts (M3), lock washers (M4) and flat washers (M5).
3. Route the pump ground wire behind the clamp bolts and attach to the frame gusset using thread forming screw (21). Older model cart frames may need a .172 in. (4.4 mm) hole drilled in the gusset in approximate location shown below.



Mount Hose Glycol/Water Heater

1. Mount the heater (ordered separately) to heater bracket (13) with screws and washers supplied with heater.
2. Add the heater inlet fitting elbow (6) to the heater. Align the port to the back.
3. Loosen the heater outlet swivel fitting and rotate the thermometer block to a vertical position.
4. Attach elbow fitting (7), tubing (8), and fitting (10). Align fitting (7) as shown.
5. Mount heater assembly to the straight section of the cart frame using plate (14), screws (15) and nuts (16).



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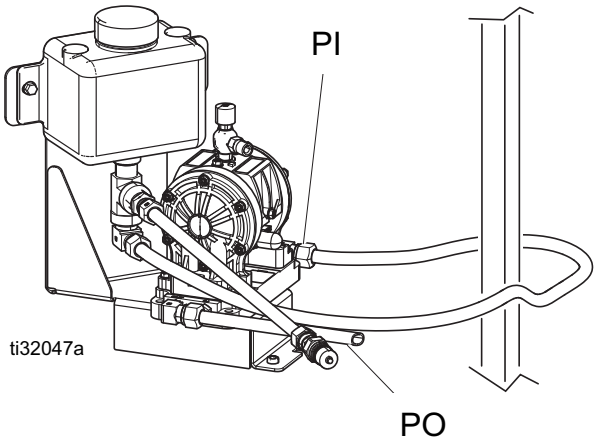
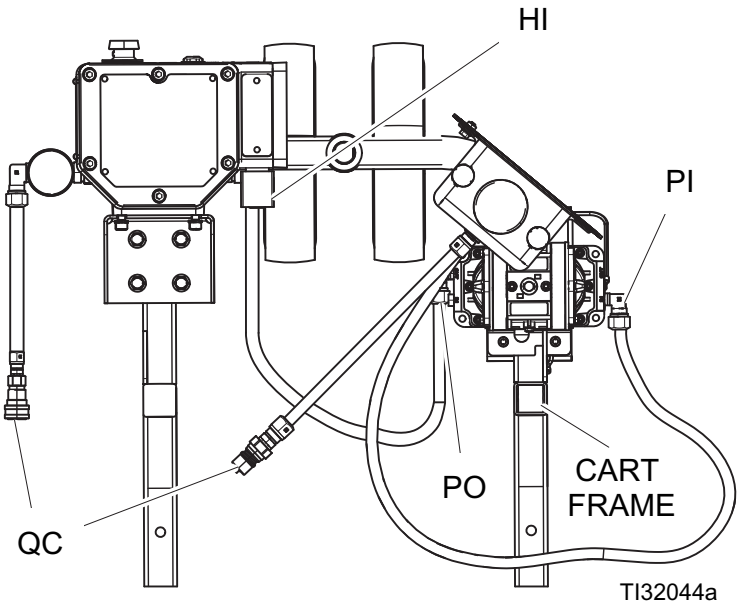
Connect Tubing for Heating Hoses Only

1. Disconnect tubing fitting (PI) at pump inlet and run the loop around the cart vertical frame.
2. Connect the white tubing from the pump outlet (PO) to the heater inlet (HI).
3. Route quick connect (QC) red and blue hoses to the front of the system to avoid contamination.





Connect Xtreme-Wrap Water-Heated Hose

NOTE: For all steps below, refer to the illustrations on the next page.

1. Connect the female quick-disconnecting “Y” fitting assembly (FQ) to the blue tubing quick-disconnect from below the overflow bottles.
2. Connect the male quick-disconnect “Y” fitting assembly (MQ) to the red tubing quick-disconnect from the heater.
3. Connect the hose glycol circulation tubing to the “Y” fitting assemblies. Cut the red and blue tubing squarely behind the hose union fittings. Connect to the “Y” fitting assembly.

   NOTE: The tubes and fittings are color coded. Make sure all colors match when connecting the fittings.

Connect Additional Hose Lengths

NOTE: For all steps below, refer to the illustrations on the next page.

Up to six 50 ft (15.2 m) sections of heated hose can be attached for a maximum total length of 300 ft (91.4 m).

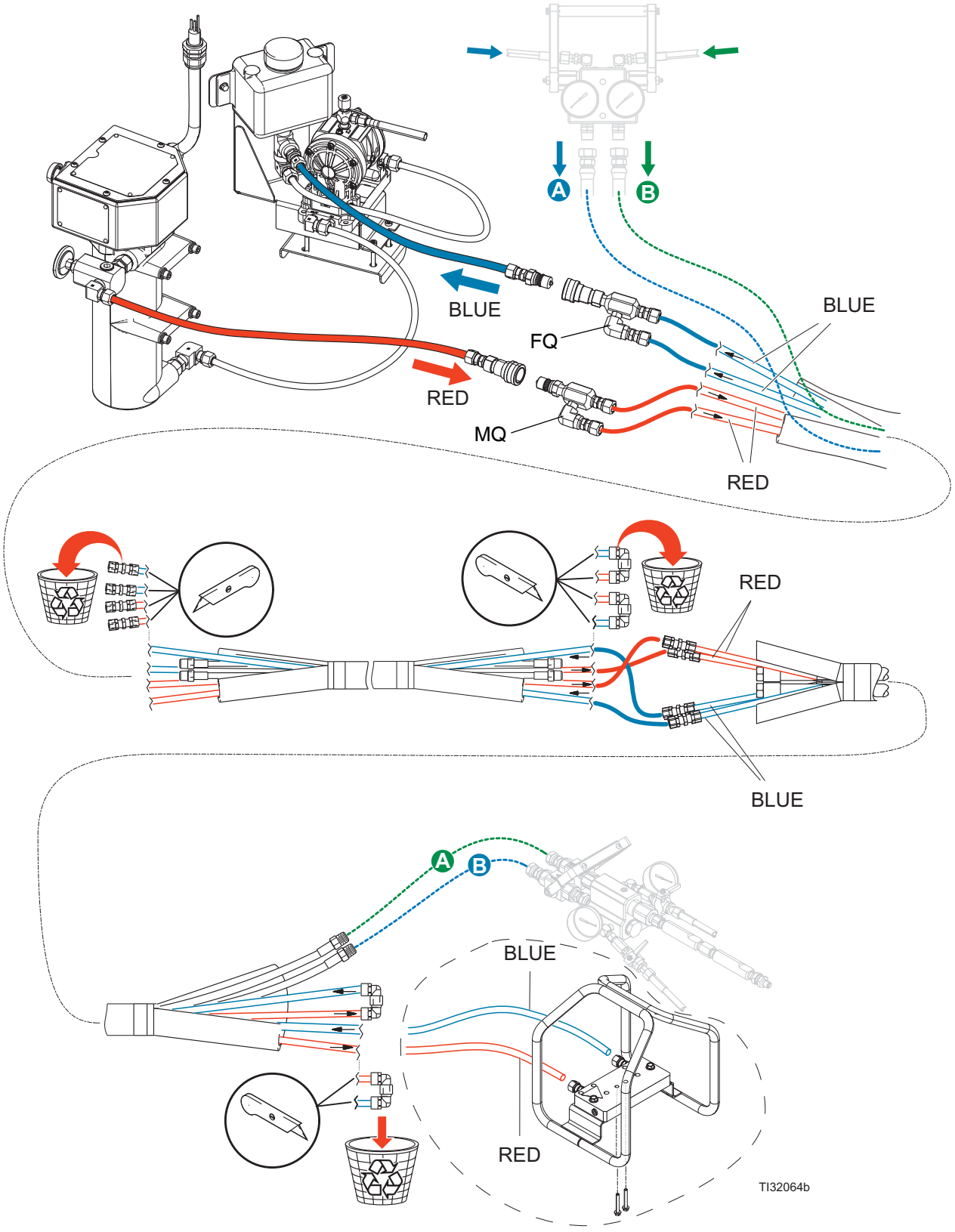
1. Remove the u-turn fittings at the end of the heated hose assembly.
2. Connect the next length of hose, using union fittings supplied with the hose.

   NOTE: The tubes and fittings are color coded. Make sure all colors match when connecting the fittings.

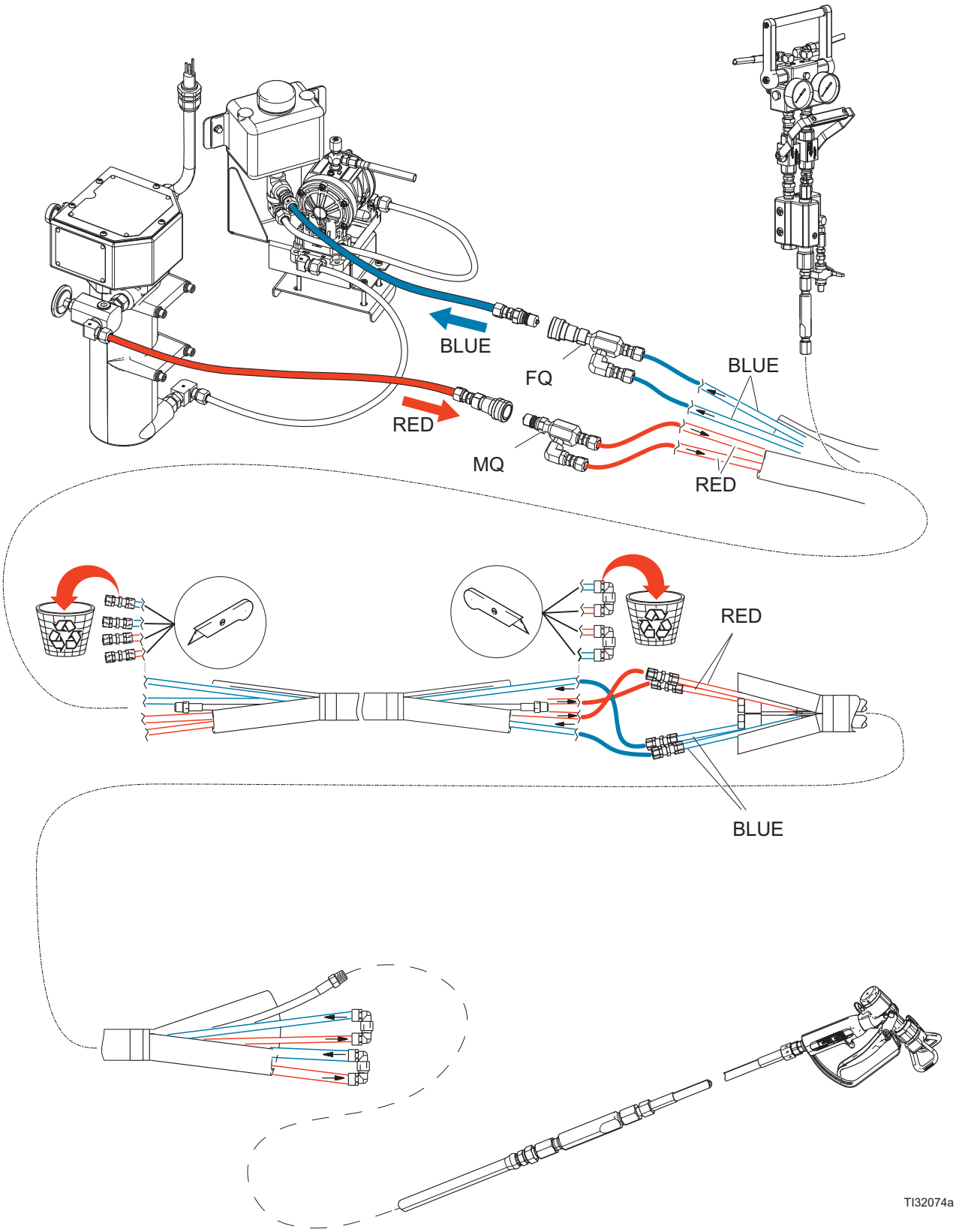
   NOTE: Refer to the XP or XP-hf Proportioner manuals for fluid hose connections.

NOTICE
To prevent cross-contamination, make sure you connect the “A” side fluid hose to the “A” side fluid hose on the additional heated hose.

Connecting Dual Fluid Hose Sections (with Remote Mix Manifold)



Connecting Single Fluid Hose Sections



Installation

Connect Heated Hose with DUAL Heated Hoppers

NOTE: The thermal expansion bottle must be removed when circulating through the 20 gallon (75 liter) hoppers or bottle overflow will occur from gravity feed. The thermal expansion occurs in the hopper instead.

Modify Pump Assembly

1. Cut the white tubing (WT) approximately 2.5 in. (63 mm) from the end of the elbow fitting at the fluid inlet of the pump.
2. Remove the bottle with fittings and blue hose still attached. Save for possible later use if heating hoses only.
3. Attach tube union fitting (5) to the pump inlet 1/2 in. OD cut tubing end.

Attach Fittings to Hopper

1. Remove the 3/4 npt plug from the bottom of the hopper.
2. Attach the fitting assembly (FB) to the bottom of the hopper. Align the hose connection to face the XP system.
3. Remove the 3/4 npt plug from the bottom side of the hopper facing the XP system.
4. Attach the fitting assembly (FA) to the same 3/4 npt threaded port.

Align and Connect Tube Fittings for Two Hoppers

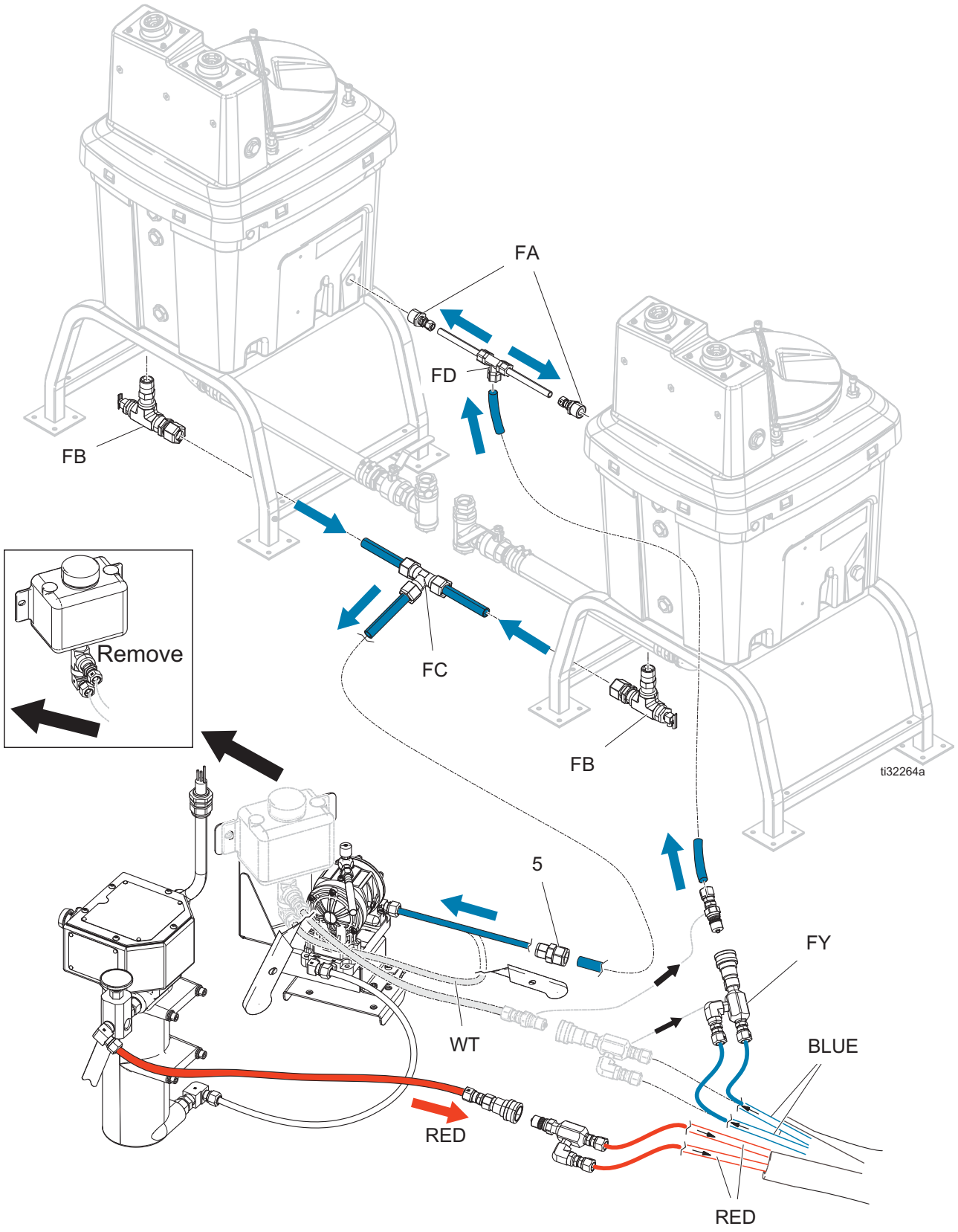
NOTE: If only one hopper is being connected, see section **Connect Heated Hose with Single Heated Hopper**, page 18.

NOTE: When connecting tube fittings, ensure the tubing is pushed into the fitting until it bottoms out. If there is extra tubing, cut the tubing squarely to appropriate length.

1. Lay the 3/4 in. tubing tee fitting assembly (FC) in place and push into the bottom hopper tube fittings and the pump inlet union fitting.
2. Ensure tubing assembly is supported by the cart frame. Support with tie straps provided.

   NOTE: The compression nut ferrules permanently crimp to the tubing. Once the compression nuts are tightened on the tubing, they cannot be re-used on another end of the tubing.
3. Tighten all three 3/4 in. tube fitting compression nuts.
4. Lay the 1/2 in. tube tee fitting assembly (FD) in place and push in the tubing ends into the side hopper fittings.
5. Ensure tubing assembly is supported by the cart frame. Support with tie straps provided.
6. Cut the blue 1/2 in. tubing assembly, at the bottle just removed, and connect the quick disconnect end to the “Y” connector (FY) at the end of the blue hose bundle return tubing.
7. Determine the proper length of blue tubing needed to connect to the 1/2 in. tee fitting and cut the tubing squarely. Push fully into the tee fitting.
8. Tighten all five 1/2 in. tube fittings.

XP Heated Hose with Dual Hoppers



Connect Heated Hose with SINGLE Heated Hopper

NOTE: The thermal expansion bottle must be removed when circulating through the 20 gallon (75 liter) hoppers or bottle overflow will occur from gravity feed. The thermal expansion occurs in the hopper instead.

Modify Pump Assembly

1. Cut the white tubing (WT) approximately 11 in. (280 mm) from the end of the elbow fitting at the fluid inlet of the pump.
2. Remove the bottle with fittings and blue hose still attached. Save for possible later use if heating hoses only.
3. Attach tube union fitting (5) to the pump inlet 1/2 in. OD cut tubing end.
4. Loosen the compression nut on the pump inlet elbow tube fitting and rotate the natural bend of the tubing to face the direction of the single hopper.

Attach Fittings to Hopper

1. Remove the 3/4 npt plug from the bottom of the hopper.
2. Attach the fitting assembly (FB) to the bottom of the hopper. Align the hose connection to face the XP system.
3. Remove the 3/4 npt plug from the bottom side of the hopper facing the XP system.
4. Attach the fitting assembly (FA) to the same 3/4 npt threaded port.

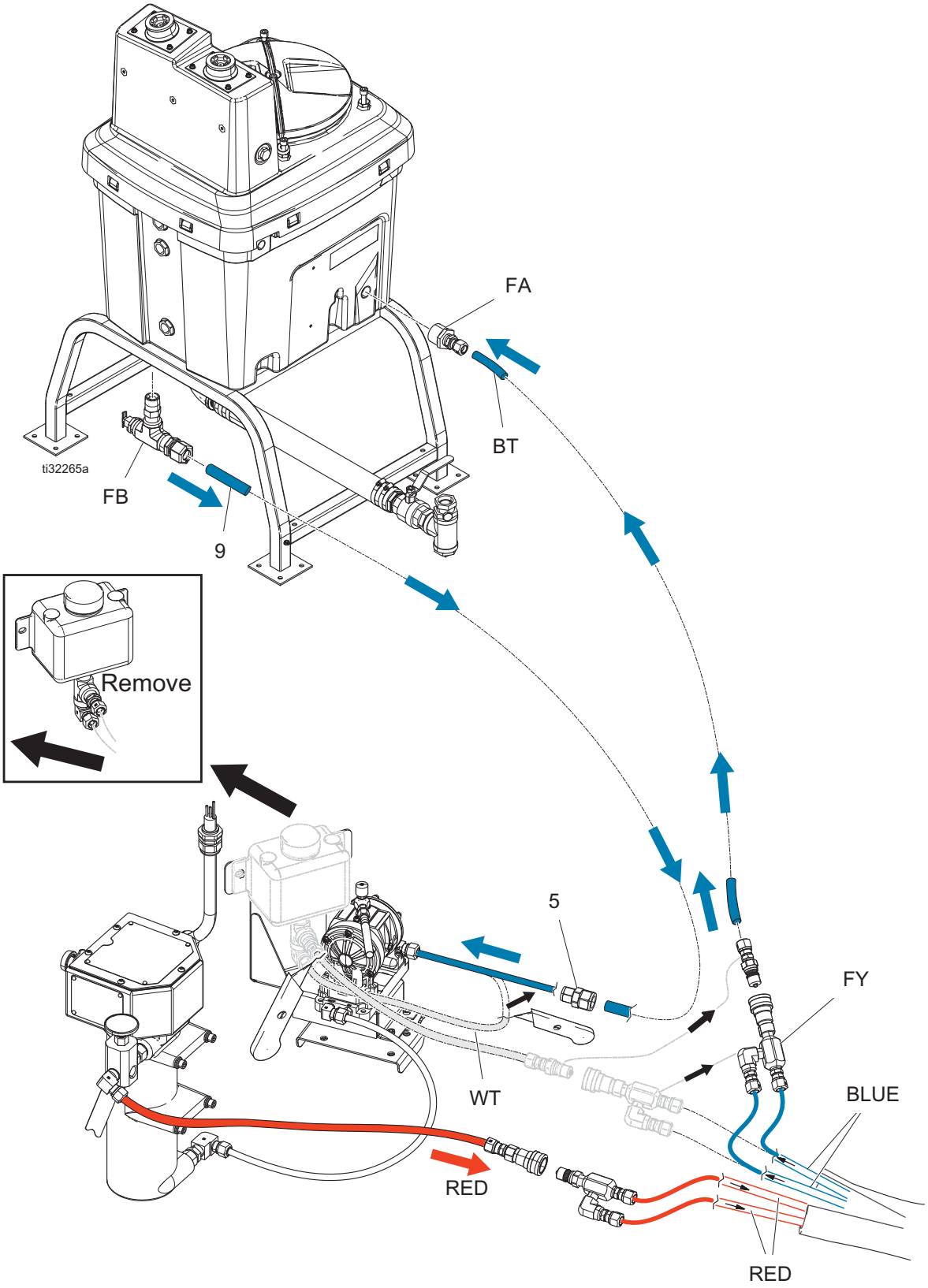
Align and Connect Tube Fittings for One Hoppers

NOTE: When connecting tube fittings, ensure the tubing is pushed into the fitting until it bottoms out. If there is extra tubing, cut the tubing squarely to appropriate length.

NOTE: The compression nut ferrules permanently crimp to the tubing. Once the compression nuts are tightened on the tubing, cut the tubing squarely to the appropriate length.

1. Connect the 5 ft section of 3/4 in. tubing (9) directly from the hopper bottom fitting assembly to the pump inlet fitting cut tube. Cut to length if necessary and tighten both compression fittings.
2. Cut the blue 1/2 in. tubing assembly, at the bottle just removed, and connect the quick disconnect end to the “Y” connector (FY) at the end of the blue hose bundle return tubing.
3. Determine the proper length of blue tubing needed to connect to the hopper side inlet fitting. Cut to length if necessary, push fully into compression fitting, and tighten.

XP Heated Hose with Single Hopper



Connect DUAL Heated Hoppers Only

NOTE: The thermal expansion bottle must be removed when circulating through the 20 gallon (75 liter) hoppers or bottle overflow will occur from gravity feed. The thermal expansion occurs in the hopper instead.

Modify Pump Assembly

1. Cut the white tubing (WT) approximately 2.5 in. (63 mm) from the end of the elbow fitting at the fluid inlet of the pump.
2. Remove the bottle with fittings and blue hose still attached. Save for possible later use if heating hoses only.
3. Attach tube union fitting (5) to the pump inlet 1/2 in. OD cut tubing end.

Attach Fittings to Hopper

1. Remove the 3/4 npt plug from the bottom of the hopper.
2. Attach the fitting assembly (FB) to the bottom of the hopper. Align the hose connection to face the XP system.
3. Remove the 3/4 npt plug from the bottom side of the hopper facing the XP system.
4. Attach the fitting assembly (FA) to the same 3/4 npt threaded port.

Align and Connect Tube Fittings for Two Hoppers

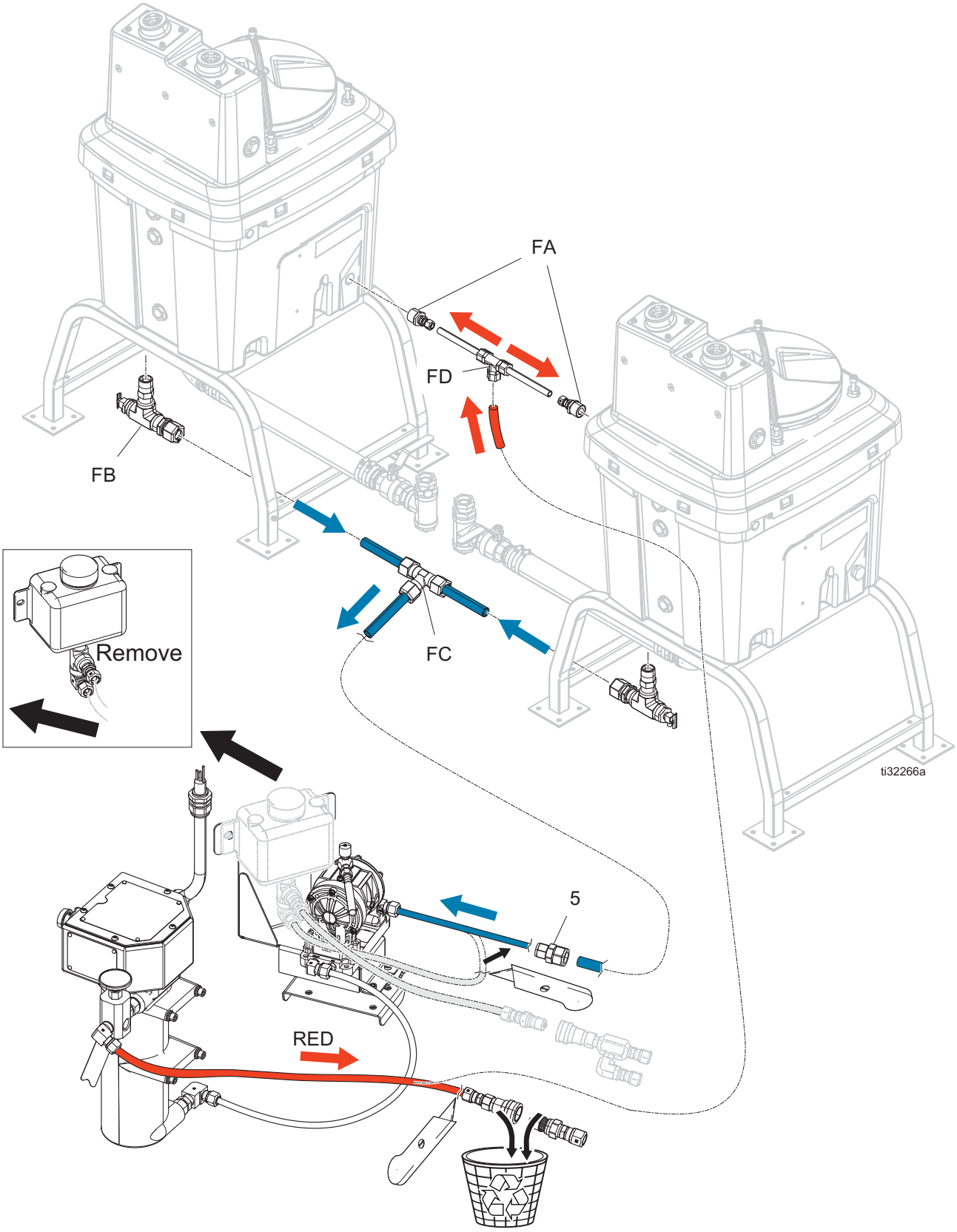
NOTE: If only one hopper is being connected, see **Connect Single Heated Hopper Only** on page 18.

NOTE: When connecting tube fittings, ensure the tubing is pushed into the fitting until it bottoms out. If there is extra tubing, cut the tubing squarely to appropriate length.

1. Lay the 3/4 in. tubing tee fitting assembly (FC) in place and push into the bottom hopper tube fittings and the pump inlet union fitting (5).
2. Ensure tubing assembly is supported by the cart frame. Support with tie straps provided.

   NOTE: The compression nut ferrules permanently crimp to the tubing. Once the compression nuts are tightened on the tubing, they cannot be reused on another end of the tubing.
3. Tighten all three 3/4 in. tube fitting compression nuts.
4. Lay the 1/2 in. tube tee fitting assembly (FD) in place and push in the tubing ends into the side hopper fittings.
5. Ensure tubing assembly is supported by the cart frame. Support with tie straps provided.
6. Use the red 1/2 in. tubing assembly (from the heater outlet) and cut the end closest to the quick-disconnect fitting. Discard the fitting.
7. Tighten all three 1/2 in. tube fittings.

Dual Heated Hoppers Only



Connect SINGLE Heated Hopper Only

Modify Pump Assembly

1. Cut the white tubing (WT) approximately 11 in. (280 mm) from the end of the elbow fitting at the fluid inlet of the pump.
2. Remove the bottle with fittings and blue hose still attached. Save for possible later use if heating hoses only.
3. Attach tube union fitting (5) to the pump inlet 1/2 in. OD cut tubing end.
4. Loosen the compression nut on the pump inlet elbow tube fitting and rotate the natural bend of the tubing to face the direction of the single hopper.

Attach Fittings to Hopper

1. Remove the 3/4 npt plug from the bottom of the hopper.
2. Attach the fitting assembly (FB) to the bottom of the hopper. Align the hose connection to face the XP system.
3. Remove the 3/4 npt plug from the bottom side of the hopper facing the XP system.
4. Attach the fitting assembly (FA) to the same 3/4 npt threaded port.

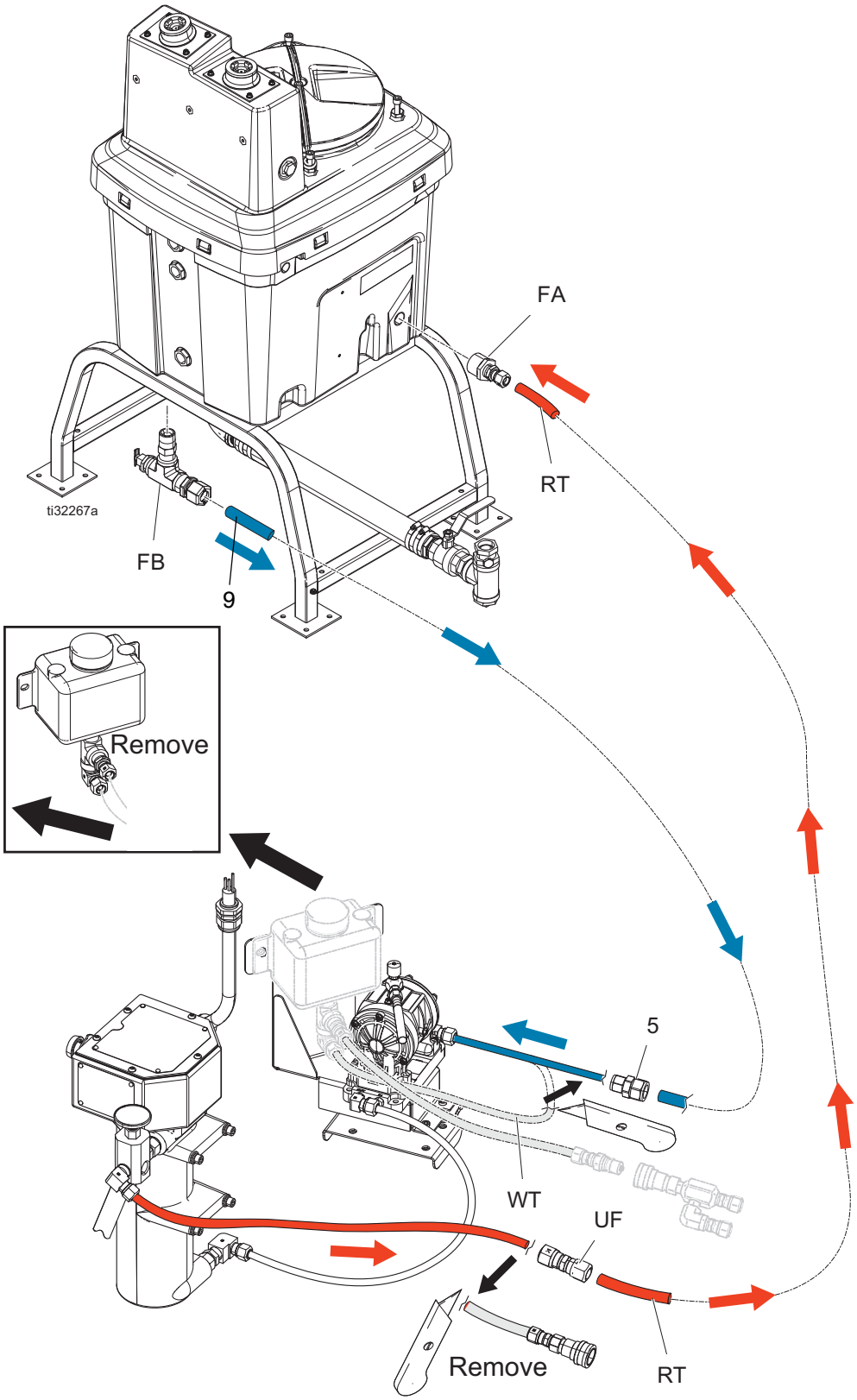
Align and Connect Tube Fittings for One Hopper

NOTE: When connecting tube fittings, ensure the tubing is pushed into the fitting until it bottoms out. If there is extra tubing, cut the tubing squarely to appropriate length.

NOTE: The compression nut ferrules permanently crimp to the tubing. Once the compression nuts are tightened on the tubing, they cannot be reused on another end of tubing.

1. Connect the 5 ft of 3/4 in. tubing (9) directly from the hopper bottom fitting assembly to the pump inlet fitting cut tube. Cut to length if necessary and tighten both compression fittings.
2. Use the red 1/2 in. tubing assembly (from the heater outlet) and cut the end closest to the quick disconnect fitting. Discard the fitting.
3. Connect 1/2 in. union fitting (UF) and 48 in. long red tubing (RT). Tighten compression nuts.
4. Route to the single hopper side inlet fitting and cut to length. Tighten compression nut.

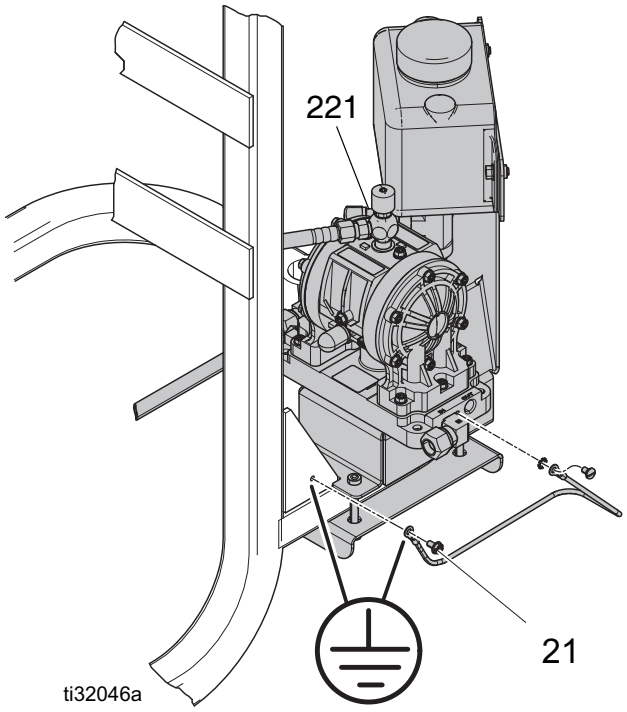
Single Heated Hopper Only



Grounding

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

Connect pump ground wire to frame using screw (21).

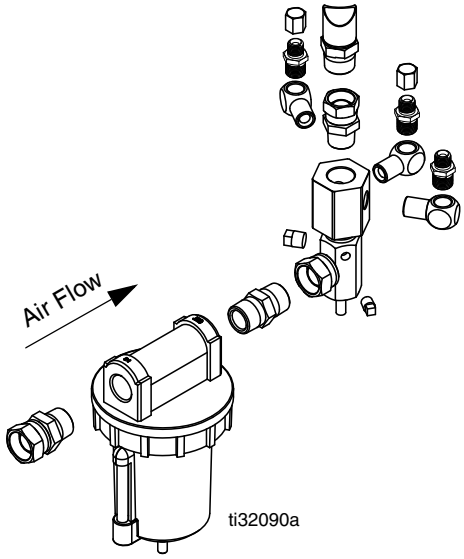


Husky 205 Pump

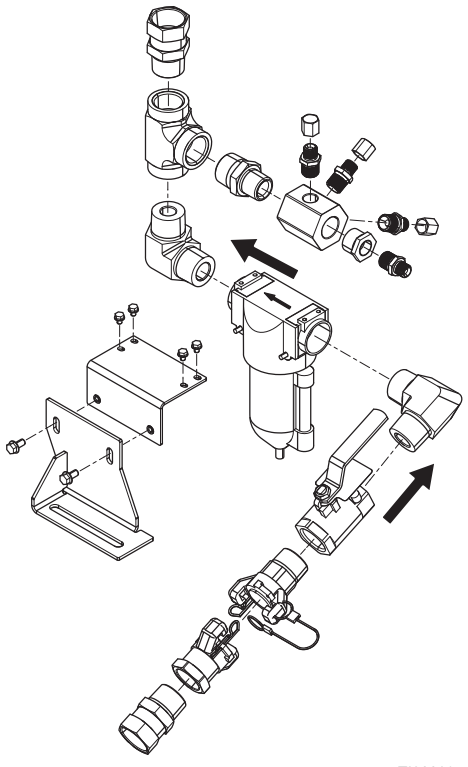
The pump is conductive plastic and is grounded with a ground wire connected to the XP or XP-hf frame.

Connect the Pump Air Line

1. Remove cap (220) from XP or XP-hf air manifold.
2. Connect the air hose from the air manifold to the pump needle valve fitting (211).

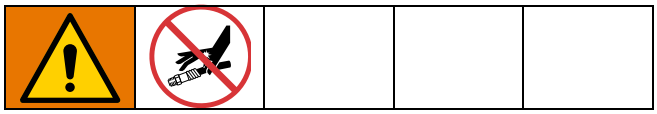


XP AIR SECTION



XP-hf AIR SECTION

Operation



1. Select fluid to use for heating circulation.

- 50% water and 50% ethylene glycol mixture is recommended for fastest heat-up time and prevention of algae build-up regardless of ambient temperature.

- Oil can be used but heat-up time will increase and the hopper fill level must be decreased. See step 2.

  NOTE: Detailed diaphragm pump operating instructions are in the Husky 205 diaphragm pump manual 308652.

2. Fill heating fluids in double wall hopper outer cavity. See manual 312747 for instructions.

NOTICE
Do not plug top ports. Always have venting fittings installed to prevent outer cavity pressurization. Failure to do so may cause leakage into spray material.

NOTICE
If oil is selected as the heating oil, the maximum oil level must be 3 in. (76.2 mm) below the hopper side port level. A higher fluid level may cause the oil to overflow during initial pump and heater startup due to thermal expansion.

NOTE: If using heated hose: each 50 ft (15.2 m) heated hose section holds approximately 1.25 gallons (4.7 liters) of fluid.

3. **Pump Setting:** Set the flow rate of the circulation fluid by opening the pump needle valve (211) 45°-60° open until the pump cycles 60-80 cycles/min (0.7-1.0 gmp or 2.6-3.8 l/min).

   NOTE: Do not use a higher flow rate--doing so will decrease system heating performance and pump life.

4. **Heater Setting:** Adjust the heater thermostat to the desired circulation temperature. The setting at the heater output thermometer should be about 10° F (6° C) higher than the desired paint temperature. Never exceed the XP System's 160° F (71° C) maximum fluid temperature rating. See Viscon HP heater manual 309524 for instructions.

   As a general guideline, heater knob settings are #7 for 105° F (40° C), #8 for 135° F (57° C) and #8 1/2 for 150° F (65° C).

   NOTE: If the hose heat is not being used for more than one hour, shut off Viscon HP heater and circulation pump to lengthen heater life.

Maintenance

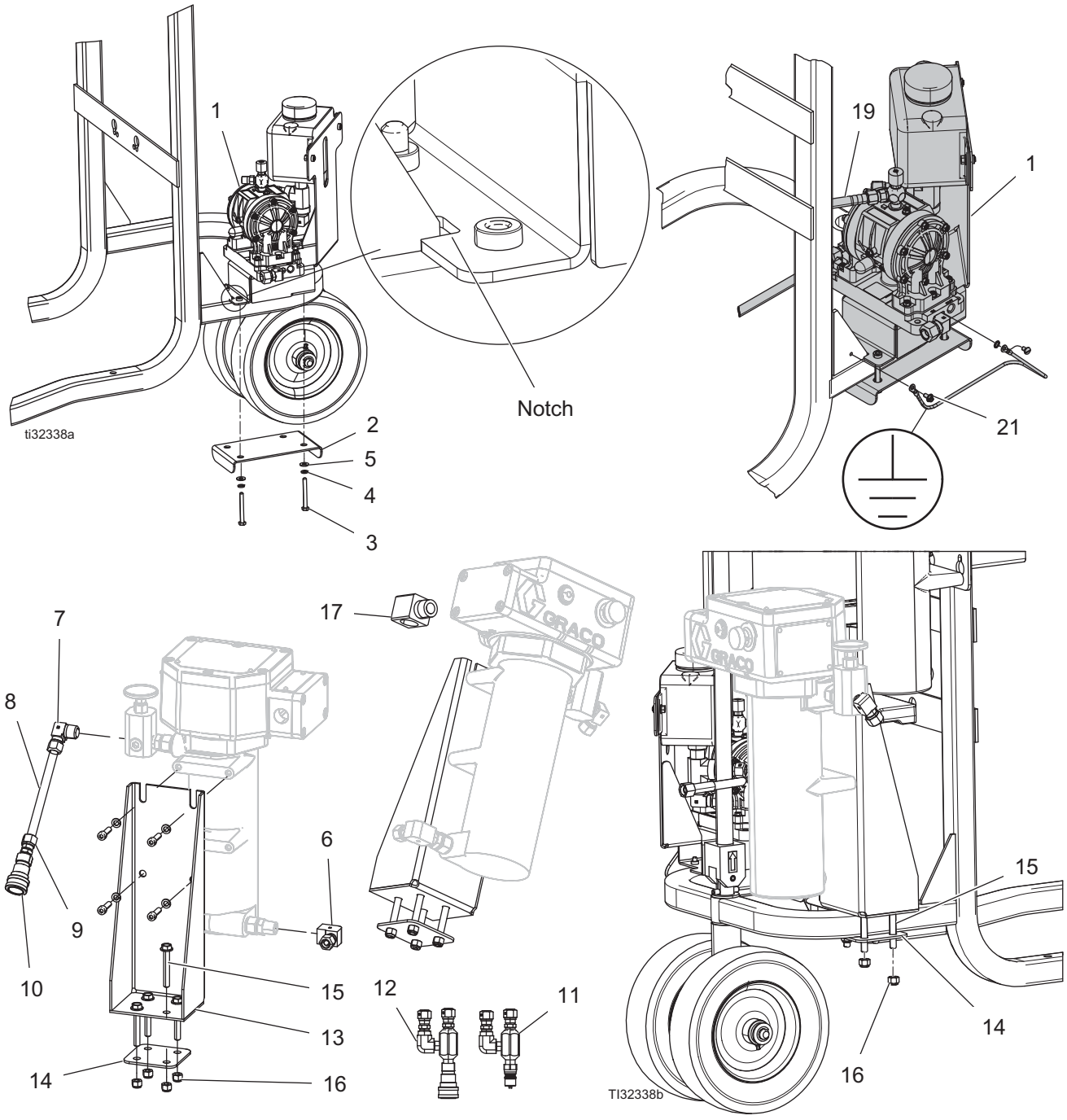
- Check double wall hopper heating fluid level monthly. Add fluid as needed.
- Do not overfill when using oil. See overfilling notice on page 25. See Hopper manual 312747 for filling instructions.
- Follow pump maintenance instructions in Husky 205 diaphragm manual 308652.
- Follow heater maintenance instructions in Viscon HP manual 309524.

Troubleshooting

Problem	Cause	Solution
Fluid fittings leaking.	Loose fittings.	Tighten fittings after the system reaches the desired temperature.
Hose not heating to desired temperature.	Diaphragm flow rate set too high.	Decrease diaphragm pump flow rate with air needle valve.
	Problem with Viscon HP heater.	See Troubleshooting in Viscon HP heater manual 309524.
Diaphragm pump not operating correctly.	- - - -	See Troubleshooting in Husky 205 diaphragm pump manual 308652.
Oil overflowing out vented hopper side fill port during startup.	Oil level higher than 3 in. (76.2 mm) below fill port at room temperature and at rest.	Lower oil level to 3 in. (76.2 mm) below hopper fill port. See 20 gallon hopper manual 312747.
Hopper not reaching set temperature when heating fluid hose first.	The heater capacity cannot compensate for temperature loss in the heated hose.	Allow longer heating time. Insulate heated hose bundle.
Air and heating fluid splatter is exiting the hopper vented fitting.	Diaphragm in Husky 205 diaphragm pump is cracked.	Replace the pump diaphragm. See manual 308652 for parts.

Parts

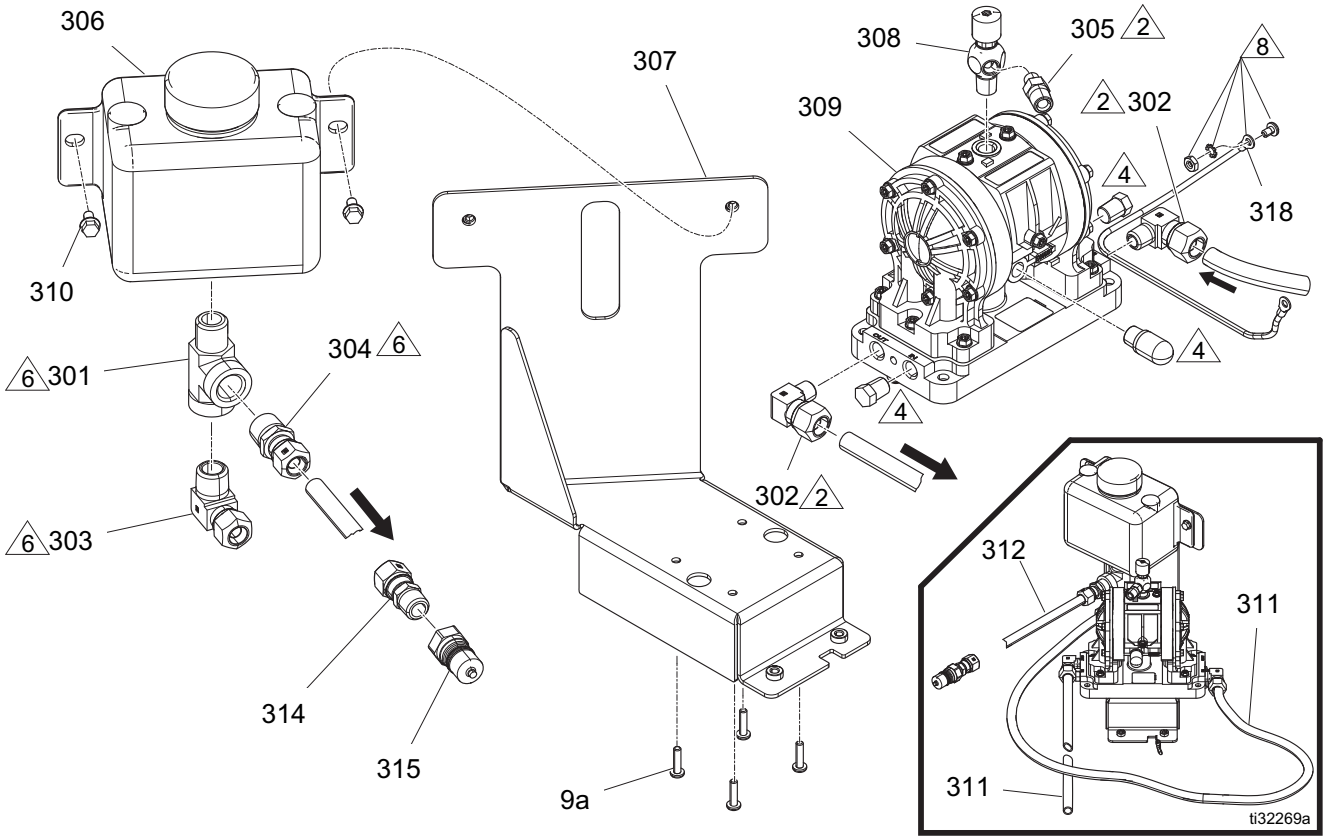
Hose Heat Circulation Kit 26C051



Parts List 26C051

Ref.	Part	Description	Qty.
1	273093	PUMP, XP-hf, htd-hose, re-circ	1
2	17P092	PLATE	1
3	104429	SCREW	4
4	100016	WASHER, lock	4
5	110755	WASHER, plain	4
6	126896	FITTING, elbow (1/2 T x 1/2 nptf)	1
7	126898	FITTING, elbow (1/2 T x 1/2 nptm)	1
8	17P759	TUBE, 1/2 in. x 48 in. lg	1
9	126900	FITTING, 1/2 T x 3/8 nptm	1
10	17D306	FITTING, coupler, quick	1
11	17S051	FITTING, assy, split coupler (male)	1
12	17P594	FITTING, assy, split coupler (female)	1
13	24N445	BRACKET, hose heater	1
14	24N447	BRACKET, base, hose heater	1
15	123443	SCREW, flg hd	4
16	113981	NUT, lock	4
17	166590	FITTING, elbow (haz heater)	1
19	248208	HOSE, air, 4 ft	1
20	114958	STRAP, tie	20
21	113974	SCREW, thrd forming (10-24)	1

Recirculation Pump 273093

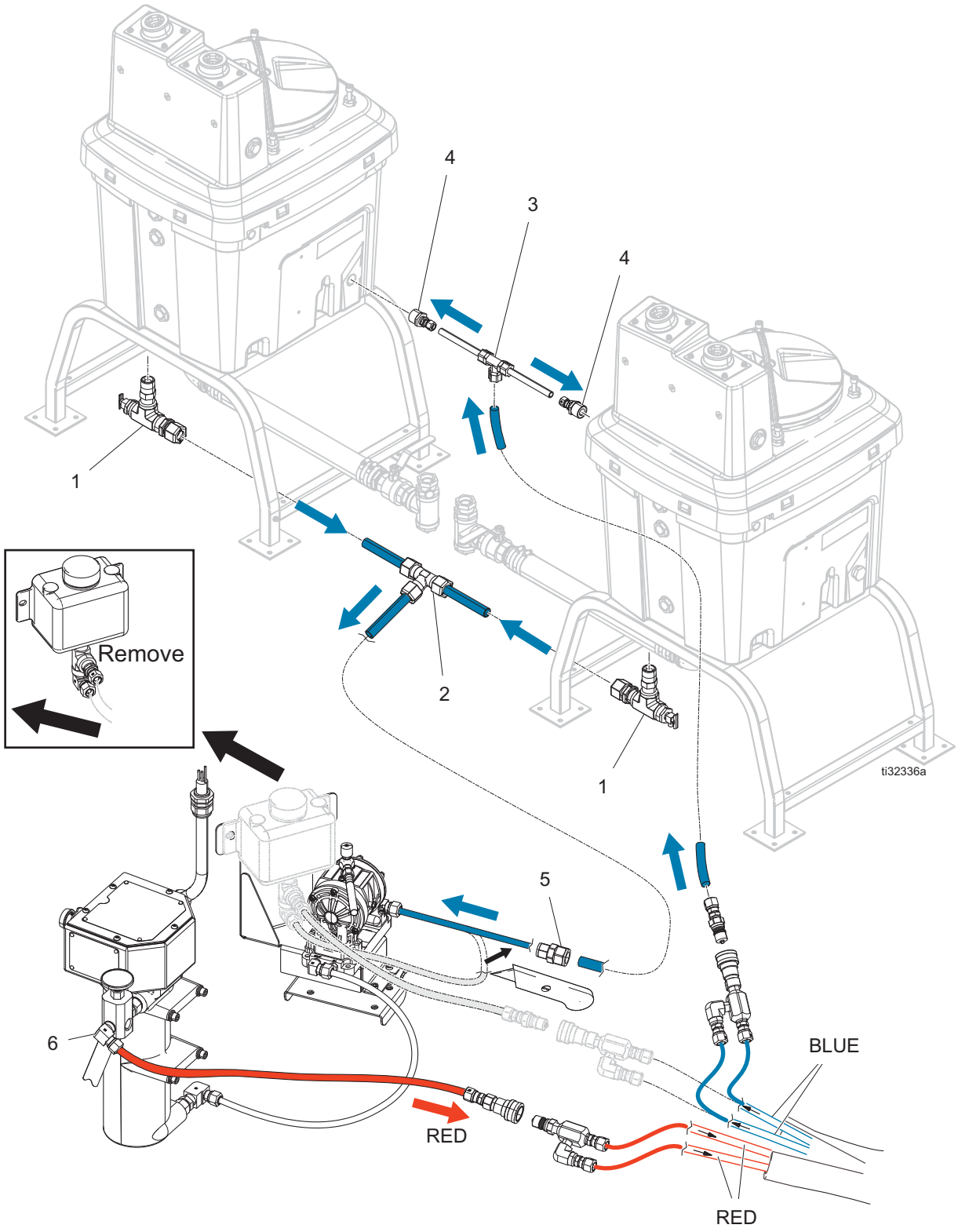


Parts List 273093

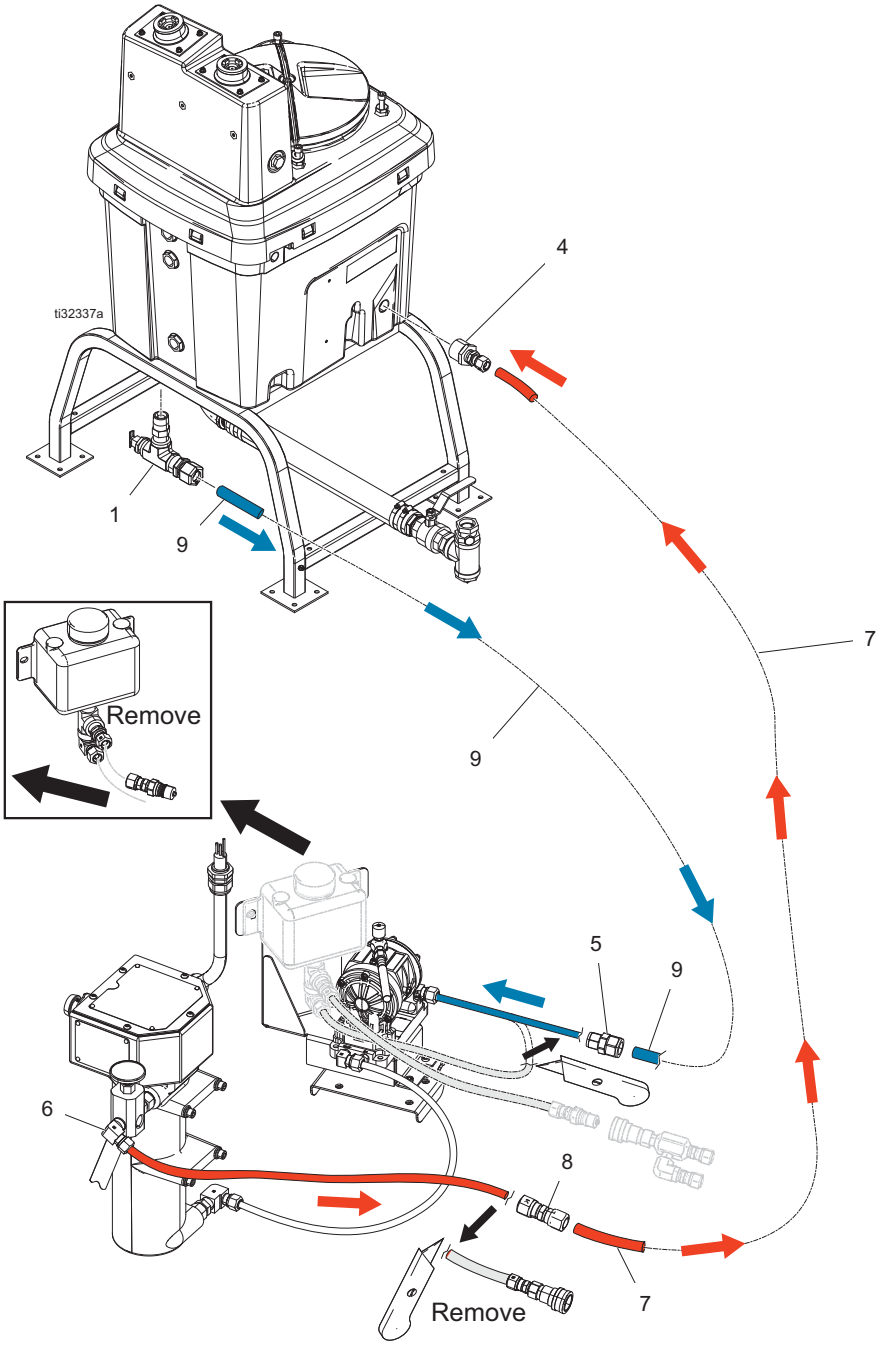
Ref.	Part	Description	Qty.
301	108126	FITTING, tee, street	1
302	126897	FITTING, elbow, 1/2 tube x 1/4 NPTM	2
303	126898	FITTING, elbow, 1/2 tube x 1/2 NPTM	1
304	126899	FITTING, 1/2 tube x 1/2 NPTM	1
305	16D939	FITTING, nipple, reducing	1
306	16R871	BOTTLE, overflow, 1/2 NPT	1
307	17P088	BRACKET, XP-hf, re-circ, painted	1
308	206264	VALVE, needle	1
309	24P835	PUMP, acetal, w/pvdf check, Husky	1
310	113161	SCREW, flange, hex hd	2
311	17N910	TUBE, 35 in. x .5 OD, nylon	2
312	17N911	TUBE, blue, .5 OD, nylon (48 in. long)	1
314	126900	FITTING, 1/2 tube x 3/8 NPTM	1
315	17D307	FITTING, nipple, quick coupling	1

Hopper Heat Circulation Retrofit Kit 26C078

Two Hopper with Hose



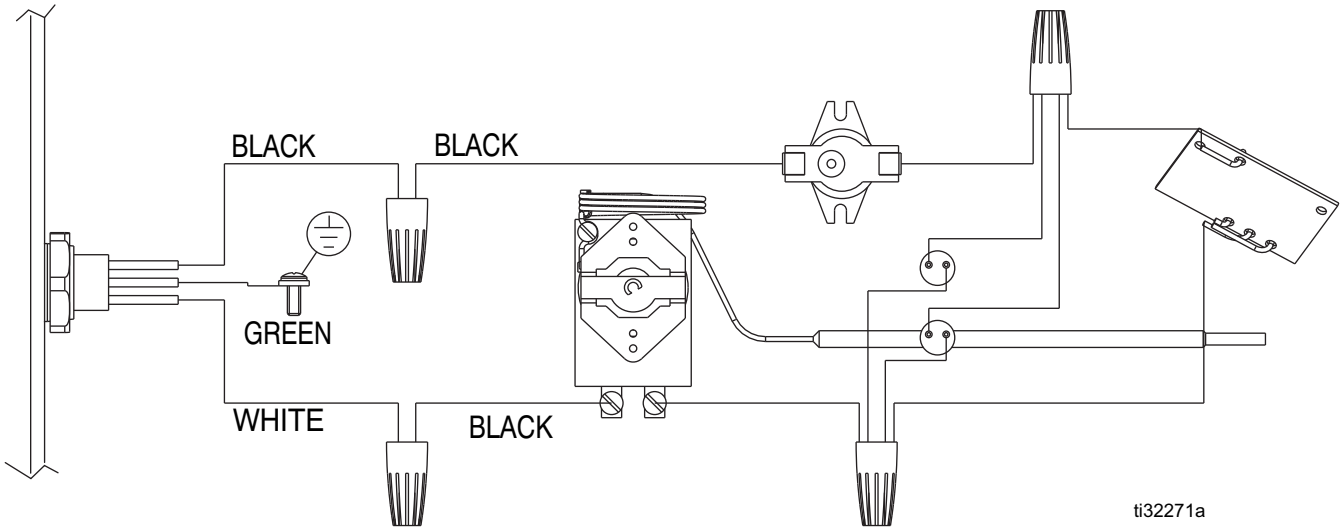
One Hopper No Hose



Parts List 26C078

Ref.	Part	Description	Qty.
1	17E481	FITTING, assy, hopper bottom	2
2	17E482	FITTING, assy, hopper outlet tee	1
3	17E483	FITTING, assy, hopper inlet tee	1
4	17E484	FITTING, assy, hopper inlet	2
5	17E485	FITTING, union, 1/2 in. tube x 3/4 in. tube	1
6	126898	FITTING, elbow, 1/2 in. tube x 1/2 npt	1
7	17P759	TUBING, red, 48 in. lg	2
8	126894	FITTING, union, 1/2 in. tube x 1/2 in. tube	1
9	054929	TUBING, 3/4 in. OD (ft)	5
10	114958	STRAP, tie	20

Wiring Diagram



Technical Specifications

	US	Metric
Maximum Working Pressure		
High Pressure Fluid Hose	See Xtreme-Wrap Water Heated Hose Manual 3A5313.	
Heated Fluid Circulation Components	95 psi	0.6 MPa, 6.6 bar
Maximum Temperature Rating	180° F	82° C
Wetted Parts		
Heated Fluid Circulation Tubing	Nylon	
Heated Fluid Circulation Fittings	Aluminum, Brass, Zinc-Plated Carbon Steel	
Reservoir Tank	Low Density Polyethylene	

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Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

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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Original instructions. This manual contains English. MM 3A5314
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