

# Double Wall Hopper

312747L  
EN

*For use with XM™ plural-component sprayers and immersion heaters.*

*For professional use only.*

## 255963, Double Wall Hopper

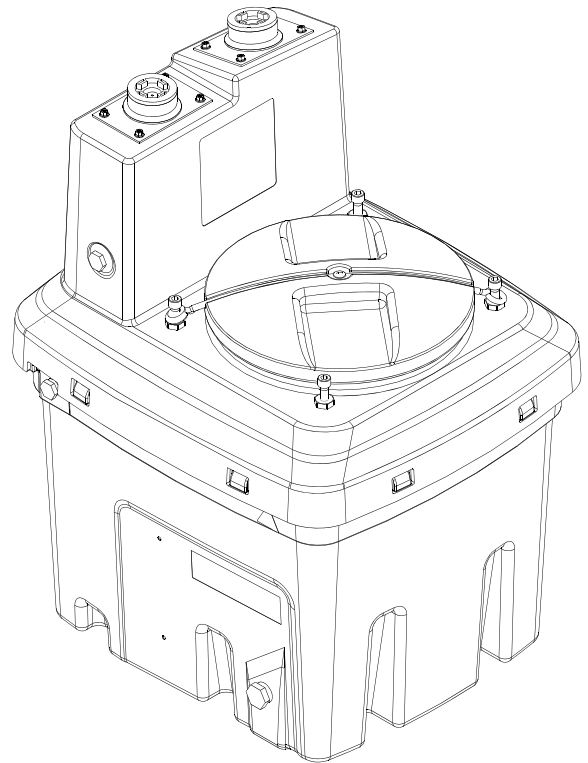
20 Gallon (75 liter) Spray Material Fluid Capacity  
12 Gallon (45 liter) Heated Material Fluid Capacity

*See page 12 for optional accessories and approvals.*



### Important Safety Instructions

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



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# Related Manuals

















Manuals are available at [www.graco.com](http://www.graco.com).

## Component Manuals in English:

Manual	Description
312359	XM Operation
313289	XM Repair
313292	XM OEM, Instructions-Parts
309524	Viscon HP Heater, Instructions-Parts
312769	Feed Pump and Agitator Kits, Instructions-Parts
406739	Desiccant Dryer Kit, Instructions-Parts
313259	Hopper or Hose Heat Circulation Kit, Instructions-Parts

# Optional Accessories

						
Not all accessories and kits are approved for use in hazardous locations. Refer to the specific accessory and kit manuals for approval details.						





Part	Description	Approvals
256257*	240V 1 PH Immersion Heater	   207901 (For heater 121376.)
256512	Desiccant Kit	N/A
256274	Agitator Kit	    ITS03ATEX11226 (For agitator 224854.)
256275*	T2 2:1 Ratio Transfer Pump Kit	 (For pump 295616.)
256276	Monark® 5:1 Ratio Transfer Pump Kit	    ITS03ATEX11228 (For pump 218956.)
239326	10:1 Ratio President® Pump	    ITS03ATEX11228
15V074	Hopper Outlet Plug	Not applicable
262824	Hopper Stand	Not applicable
262820	Flexible Fluid Connection Kit	Not applicable










See **Accessories** on page 28 for parts lists.

\* Not approved for use in explosive atmospheres or hazardous locations

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

 <b>WARNING</b>	
	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> <li>• Not for use in explosive atmospheres unless all components and wiring are appropriately approved.</li> </ul>
	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See <b>Technical Data</b> in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>
	<p><b>ELECTRIC SHOCK HAZARD</b></p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> <li>• Turn off and disconnect power at main switch before disconnecting any cables and before servicing equipment.</li> <li>• Connect only to grounded power source.</li> <li>• All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.</li> </ul>

 <b>WARNING</b>	
	<p><b>PRESSURIZED EQUIPMENT HAZARD</b></p> <p>Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> <li>• Follow <b>Pressure Relief Procedure</b> in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.</li> <li>• Tighten all fluid connections before operating the equipment.</li> <li>• Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.</li> </ul>
	<p><b>PLASTIC PARTS CLEANING SOLVENT HAZARD</b></p> <p>Use only compatible water-based solvents to clean plastic structural or pressure-containing parts. Many solvents can degrade plastic parts and cause them to fail, which could cause serious injury or property damage. See <b>Technical Data</b> in this and all other equipment instruction manuals. Read fluid and solvent manufacturer's warnings.</p>
	<p><b>MOVING PARTS HAZARD</b></p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> in this manual. Disconnect power or air supply.</li> </ul>
	<p><b>SUCTION HAZARD</b></p> <p>Never place hands near the pump fluid inlet when pump is operating or pressurized. Powerful suction could cause serious injury.</p>
 	<p><b>TOXIC FLUID OR FUMES HAZARD</b></p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> <li>• Read MSDS's to know the specific hazards of the fluids you are using.</li> <li>• Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> <li>• Always wear impervious gloves when spraying or cleaning equipment.</li> </ul>
	<p><b>BURN HAZARD</b></p> <p>Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.</p>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b></p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• Protective eyewear</li> <li>• Clothing and respirator as recommended by the fluid and solvent manufacturer</li> <li>• Gloves</li> <li>• Hearing protection</li> </ul>

## Keep Components A and B Separate

### **NOTICE**

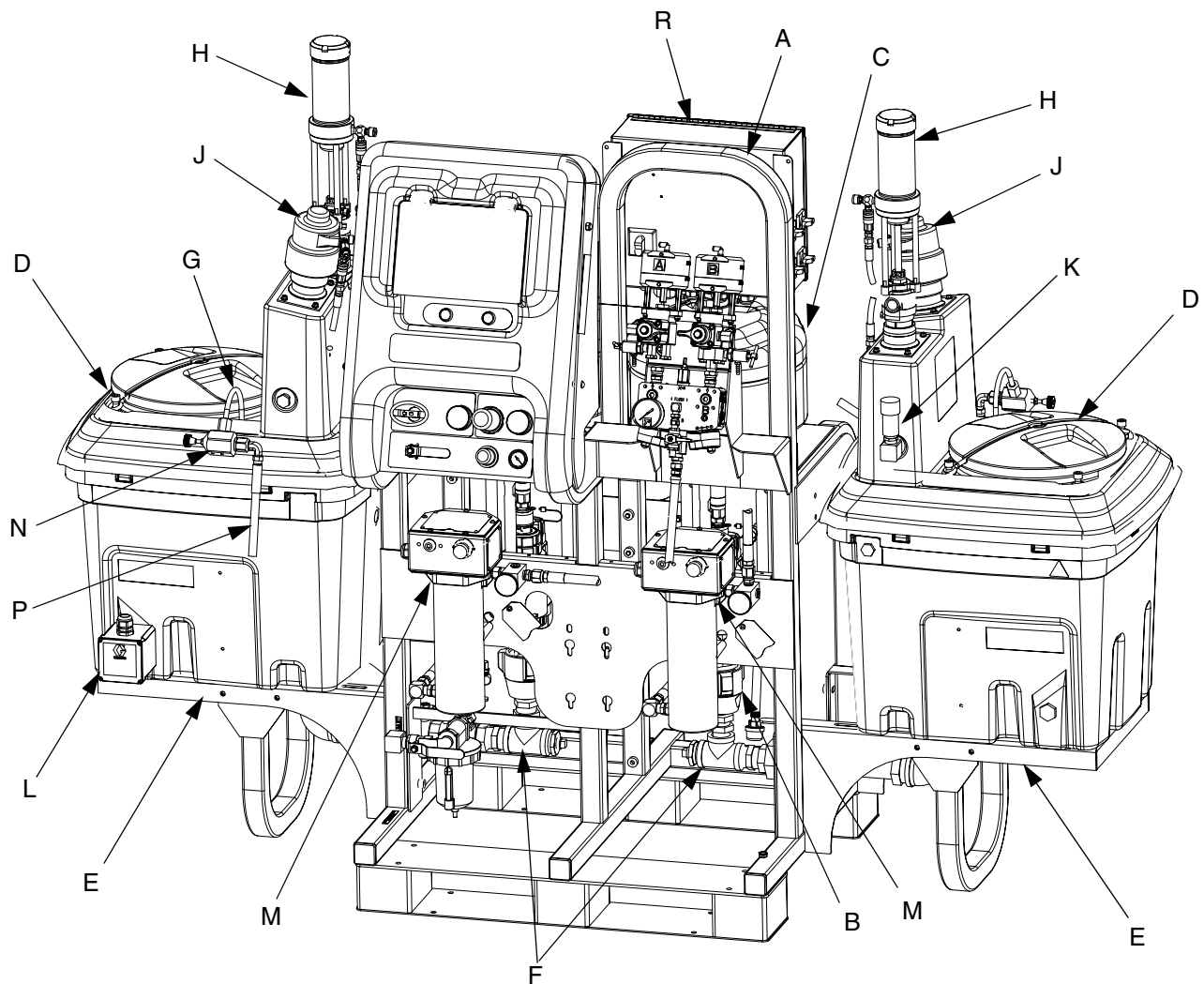
To prevent cross-contamination of the equipment's wetted parts, **never** interchange component A and component B.

## Changing Materials

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Check with your material manufacturer for chemical compatibility.
- Some materials use catalyst on the A side, but some applications may use catalyst on the B side.

# Component Identification

## Double Wall Hoppers Mounted on Side of Frame



**FIG. 1: Typical Installation**





**Key:**

- |   |   |   |   |
|---|---|---|---|
| A | Frame   | N | Restrictor valve (recirculation return) |
| B | Xtreme <sup>®</sup> lower (behind the frame)  | P | Recirculation hose                      |
| C | NXT <sup>™</sup> air motor (behind the frame) | R | Junction box                            |
| D | Double wall hopper                            |   |   |
| E | Universal hopper mounting kit                 |   |   |
| F | Fluid inlet assembly                          |   |   |
| G | Return tube                                   |   |   |
| H | Feed pump                                     |   |   |
| J | Agitator                                      |   |   |
| K | Desiccant dryer                               |   |   |
| L | Immersion heater                              |   |   |
| M | Fluid heater                                  |   |   |

# Overview

Double wall hoppers (D) can be mounted on the back or side of the frame (A) to gravity feed spray material to the Xtreme lower (B). Feed pumps (H) and agitators (J) can be mounted on top of the hoppers to pressure feed spray material directly to the pump.

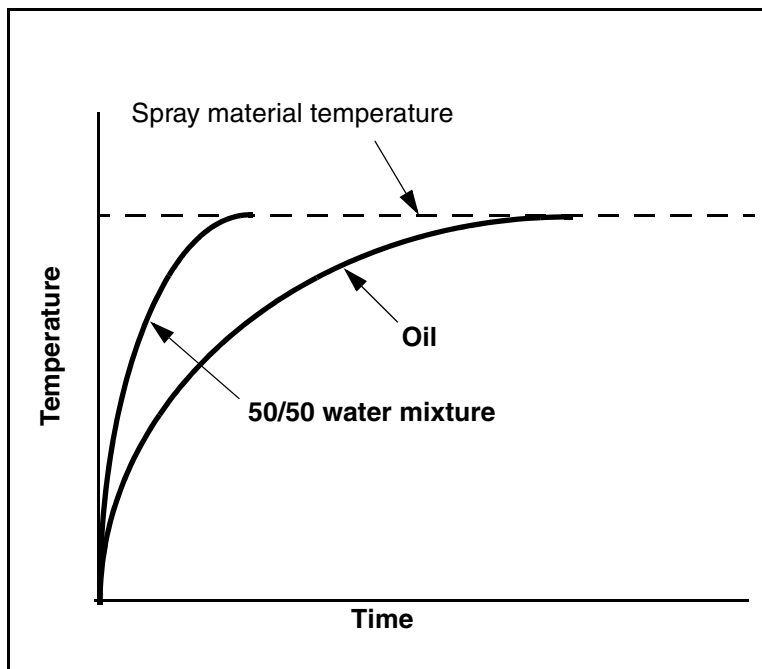
A strainer inside the hopper (D) prevents objects larger than 1/4 in. from clogging or damaging pumps. When the XM sprayer is running, spray material exits the hopper through the fluid inlet assembly or transfer pump and circulates through the lowers (B), mix manifold, fluid heaters (M), and returns to the hopper (D) through the recirculation hose (P). Immersion heaters (L) installed through the sides of the hopper help to maintain the temperature of the spray material during recirculation.

						
<p>XM sprayers are not approved for use in hazardous locations unless the base model, all accessories, all kits, and all wiring meet local, state, and national codes.</p>						

Oil or a 50% water and 50% ethylene glycol mixture can be added to the hopper's outer cavity to a controlled temperature and help maintain the temperature of the spray material. The heated fluid in the outer jacketed area helps prevent heat loss of the spray material.

A 50% mixture of water and ethylene glycol mixture heats up faster than typical hydraulic oil. See FIG. 2.

<b>NOTICE</b>
<p>Use the Hopper or Hose Heat Circulation Kit 256273 to heat the hopper outer cavity fluid or special fluid hoses in hazardous environments. See manual 313259 for installation and repair parts.</p>



**FIG. 2: Heated Fluid Temperature Comparison**

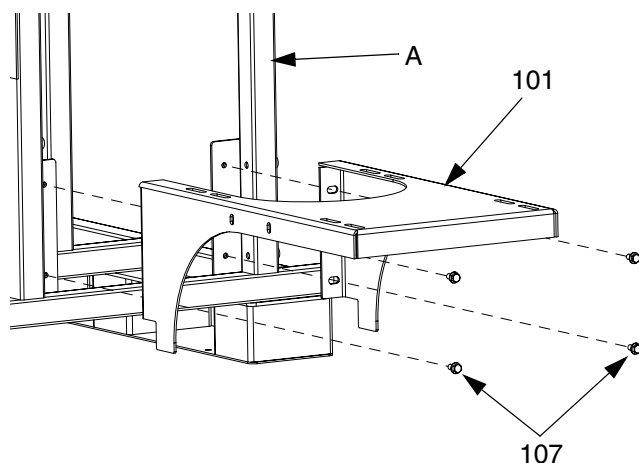


# Installation

Hopper mounting kit 256259 allows the hoppers (D) to mount on the sides or back of the frame (A).

1. Mount hoppers (D) on sides of the frame (A). See FIG. 3.

- a. Attach main bracket (101) to frame (A) with screws (107).



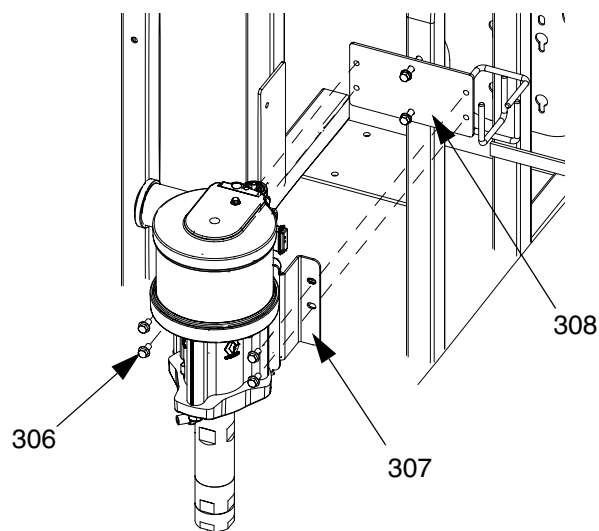
**FIG. 3: Sides of Frame**

- b. Repeat for second hopper (D) on opposite side of frame (A).

2. Mount hoppers (D) on back of the frame (A). See FIG. 6.

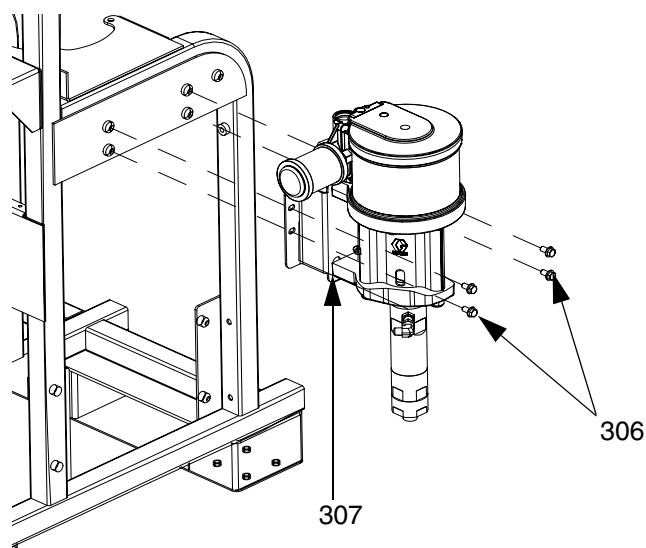
**NOTE: The solvent pump must be moved to the side of the frame before the hoppers can be mounted to the back. Follow sub-steps a and b to move the solvent pump to either side of the frame.**

- a. Remove four screws (306) holding solvent pump bracket (307) to mounting plate (308). Leave pump attached to bracket. Remove pump and bracket.



**FIG. 4: Remove Solvent Pump**

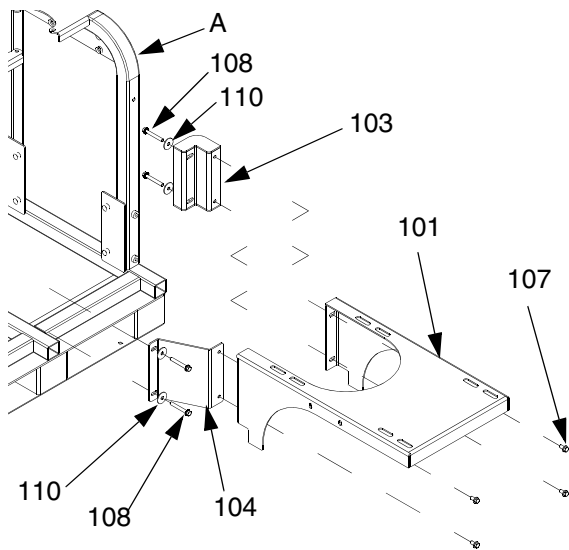
- b. Use four screws (306) to attach solvent pump and bracket (307) to side of frame.



**FIG. 5: Attach Solvent Pump to Side of Frame**

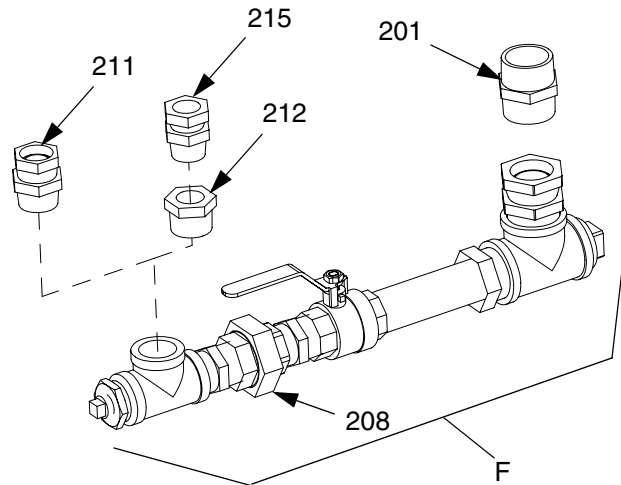
## Installation

- c. Attach the corner bracket (103) to frame (A) with screws (108) and washers (110).
- d. Attach lower mount bracket (104) to frame (A) with screws (108) and washers (110).
- e. Attach main bracket (101) to frame (A) with screws (107).
- f. Repeat steps b and c for second hopper (D).



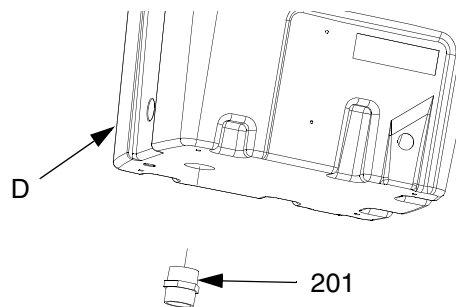
**FIG. 6: Back of Frame**

3. Connect reducing swivel (211) to fluid outlet assembly (F) if your system uses a 50:1 pump. Connect reducer bushing fitting (212) and swivel fitting (215) to fluid outlet assembly (201) if your system uses a 70:1 pump. Do not use pipe sealant on swivel end of swivel fittings.



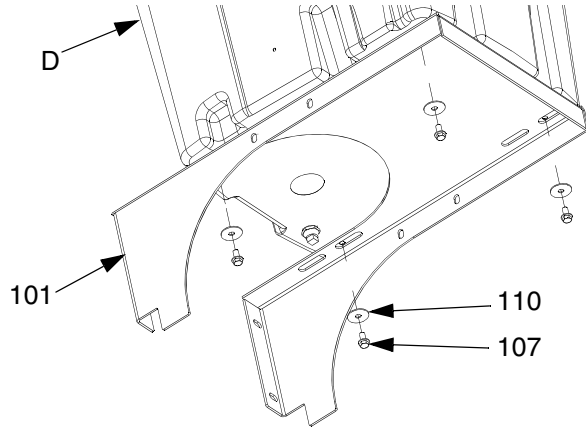
**FIG. 7: Connect Fluid Outlet Assembly to Lower**

4. Loosen union (208).
5. Connect swivel fitting (211 or 215) to pump foot valve. See FIG. 7.
6. Apply pipe sealant paste to one end of nipple threads (201) and install that end in bottom of hopper (D).



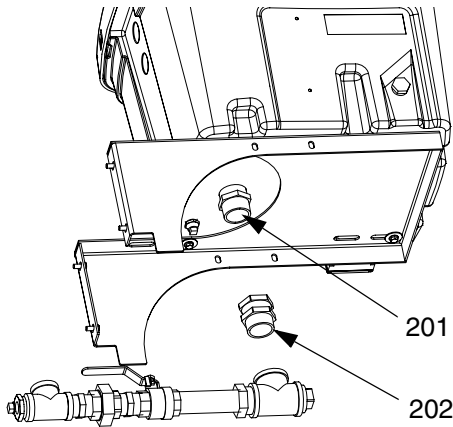
**FIG. 8: Install Nipple**

- Align holes on main bracket (101) and thread inserts of the hopper (D). Loosely fasten hopper (D) to bracket (101) with four screws (107) and washers (110).



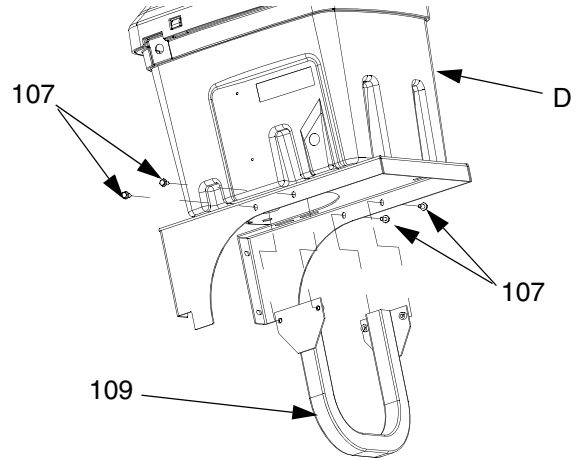
**FIG. 9: Attach Hopper to Bracket**

- Connect swivel fitting (202) to nipple (201).



**FIG. 10: Connect Fluid Inlet Assembly to Hopper**

- Tighten union (208) and ensure fluid outlet assembly is aligned. See FIG. 7 on page 10.
- Tighten hopper mounting screws (107). See FIG. 9.
- Install screws (107) and bottom support (109).



**FIG. 11: Install Bottom Support**

- Repeat steps 3-11 for second hopper (D).

## Optional Accessories

See **Accessories** page 28 for a list of all accessories that can be used with double wall hoppers.

### Immersion Heater Kit 256257



The immersion heater (L) is only approved for non-explosive atmosphere applications. Using the immersion heater in hazardous locations, or explosive atmospheres, may cause ignition or explosion.

- For hazardous environments use the Hopper or Hose Heat Circulation Kit 256273; see manual 312359.
- Ensure the outer cavity of the hopper is empty before installing immersion heater to prevent oil or water mixture from exiting hopper.

Immersion heater kit 256257 can only be used with a water mixture or oil in the outer jacketed area of the hopper.

1. Remove plug (28) from side of hopper (D).
2. Apply thread sealant to immersion heater threads (L) and screw immersion heater into hopper (D).
3. After installation, remove plug (28) from opposite side and verify element end is visible through plug hole.

#### NOTICE

Vertically orientate wiring outlet. Ensure bushing (302) is positioned on top of the immersion heater (L) before installing the cover (HC). Failing to do so will allow overheating, and therefore the overtemperature switch will trip.



Do not bend heating elements during installation. Bent elements may cause hopper wall failure allowing spray material to contact heater.

4. Install bushing (302) in top of wiring outlet. Route power cable (303) through bushing (302).

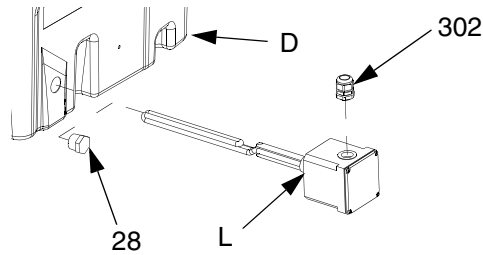


FIG. 12: Immersion Heater

5. Remove screws (HS) and immersion heater cover (HC).

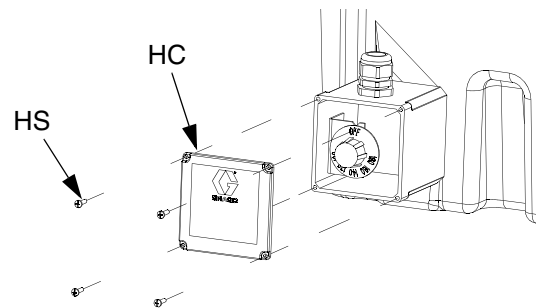
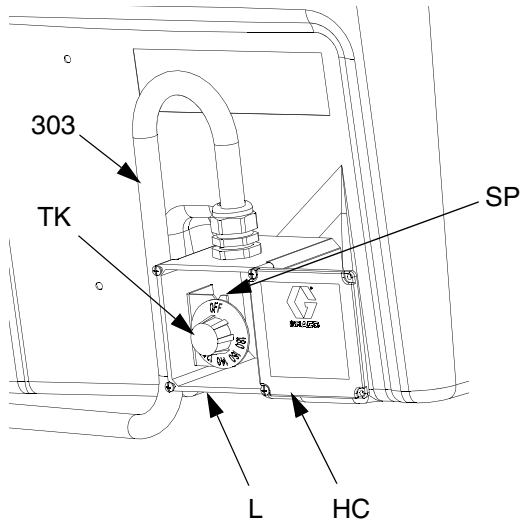


FIG. 13: Immersion Heater Cover

6. Connect white and black wires from cable (303) to white wires inside immersion heater box. Tighten together with wire nuts (304).
7. Connect green wire from cable (303) and green wire inside immersion heater box. Tighten together with wire nut (304).

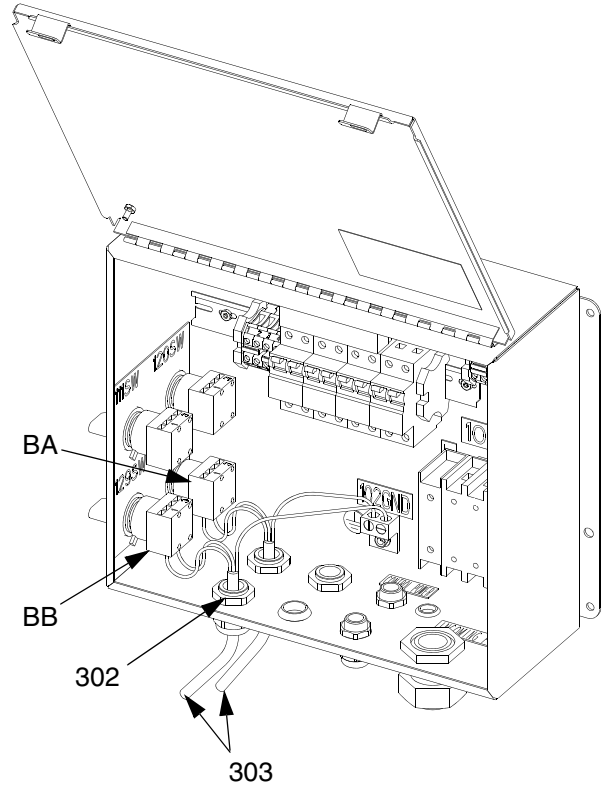
- Set thermostat knob (TK) to desired spray material conditioning temperature. Align temperature setting to set point (SP).

**NOTE: Set point (SP) is a “V” notch in the metal bracket at the top of the thermostat dial. Maximum setting is 140°F (60°C).**



**FIG. 14: Connect Immersion Heater**

- Install immersion heater cover (HC) with screws (HS). See FIG. 13.
- Open junction box door and remove plug for appropriate heater wire. Install cord grip of bushing (302). Route power cable (303) up through cord grip.



**FIG. 15: Immersion Heater Power Cables**

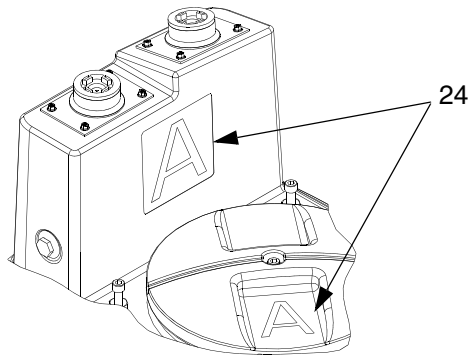
- Press the top lever up on the power switch body (BA, BB) and pull away from the junction box. Install by pushing the power switch body onto the switch lever post. Flip lever down to engage.
- Loosen lugs 2 and 4 on immersion heater A power switch (BA) or immersion heater B power switch (BB). Insert power leads and tighten lugs.
- Connect green wire to 102GND grounding lug.

### Feed Pump and Agitator Kits

See manual 312769 for installation and operation instructions.

# Setup

1. Remove the large A or B label from the label sheet (24) and apply to front face of the appropriate hopper to help avoid filling the wrong materials and causing cross-contamination.

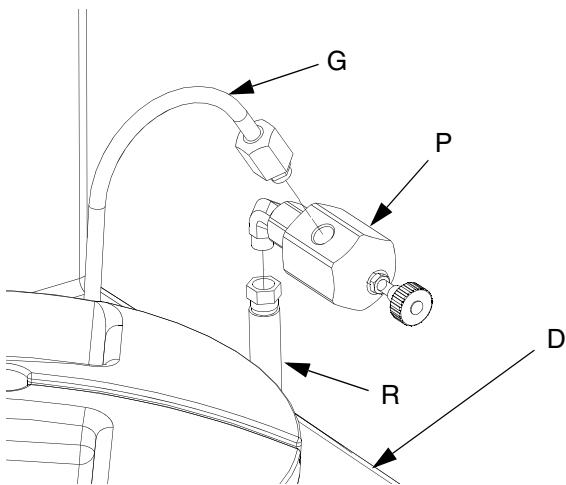


**FIG. 16: Apply Label**

2. Remove the small A or B from the label sheet (24) and apply on lid.

## Connect Return Tube and Recirculation Hose

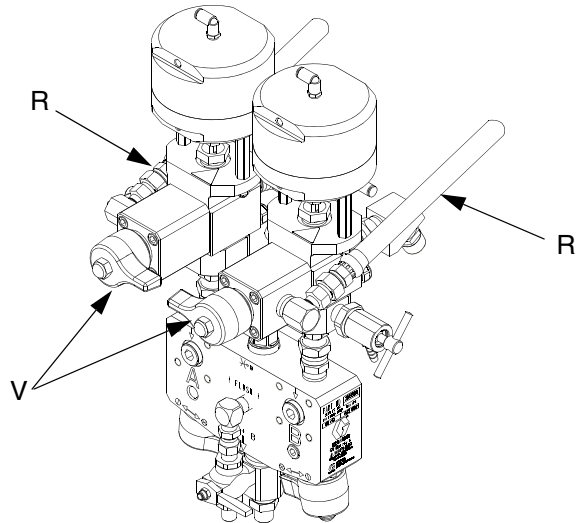
1. Install return tube (G) in port on top of hopper (D).



**FIG. 17: Connect Return Tube and Recirculation Hose**

2. Connect recirculation hose (R) and recirculation restrictor valve (P) to return tube (G).

3. Connect other end of recirculation hose to recirculation valve (V) on XM sprayer.



**FIG. 18: Recirculation Hose and Recirculation Valve**

4. Repeat for second hopper.

## Fill Heating Fluid

Fill the hopper's outer jacketed area with oil or a 50% water and 50% ethylene glycol mixture to heat your spray material. The double wall hopper design prevents the spray material from losing heat during downtime and overnight.

### NOTICE

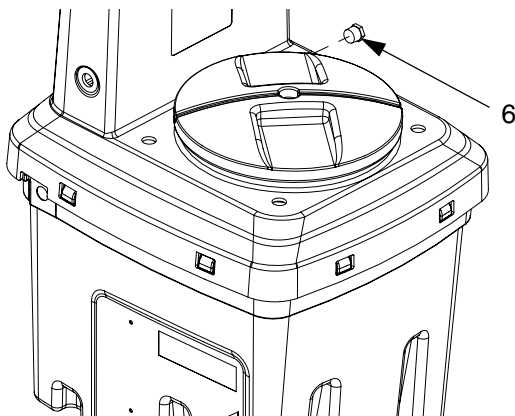
Algae can form inside the outer jacketed area if you are using only water to heat your spray material. Always add ethylene glycol to the water to prevent the formation of algae.

Replace heating fluid inside hopper once a year to improve heating efficiency. See **Check Heating Fluid Level** on page 18.

**Table 1: Fluid Capacities of 20 Gal. Hopper**

Gallons (Liters) of Heating Fluid	Gallons (Liters) of Spray Material
12 (45)	20 (76)

1. Remove plug (6) from opposite end of 3/4 npt filling port.



**FIG. 19: Filling Overflow Port**

2. Insert fluid hose into one filling port and place an empty 5 gallon pail beneath opposite filling port to catch access fluid from filling port.

3. Fill outer jacketed area of the hopper through the filling port until the fluid reaches the opposite fill port when using the **Immersion Heater Kit 256257**, page 12.

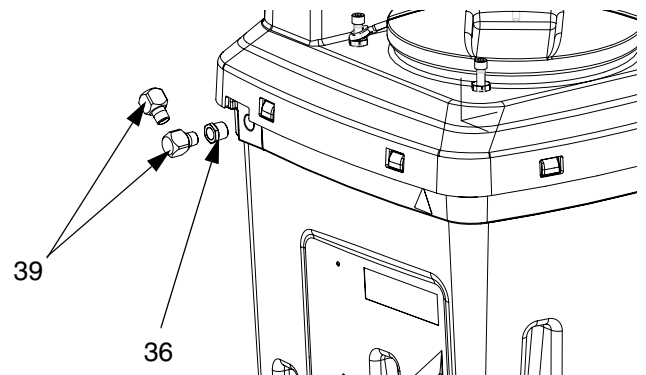
### NOTICE

Do not fill the outer jacketed area fully if using the hopper or hose circulation kit. See fill instructions in the Hopper or Hose Circulation Kit manual. Overfilling may cause heating fluid to overflow vent fittings (see FIG. 21) during startup.

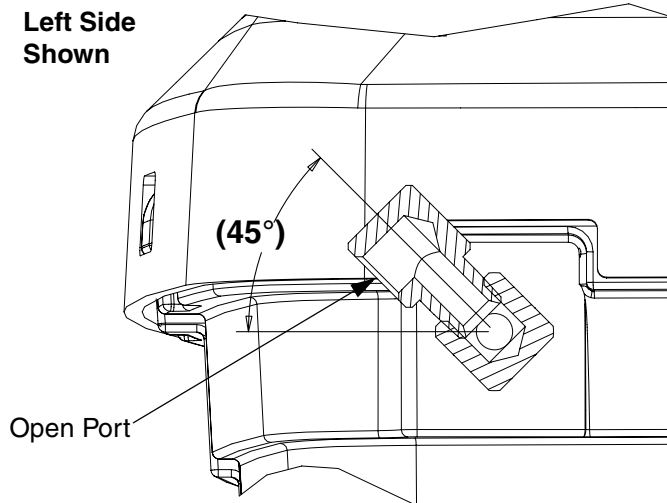
### NOTICE

Do not plug top ports. Always have venting fittings (36, 39) installed to prevent outer cavity pressurization. Failure to do so may cause leakage into spray material.

4. Vent fittings may be installed on either side. See FIG. 21 for correct orientation of venting fittings.



**FIG. 20: Install Venting Fittings**



**FIG. 21: Orientation of Venting Fittings**

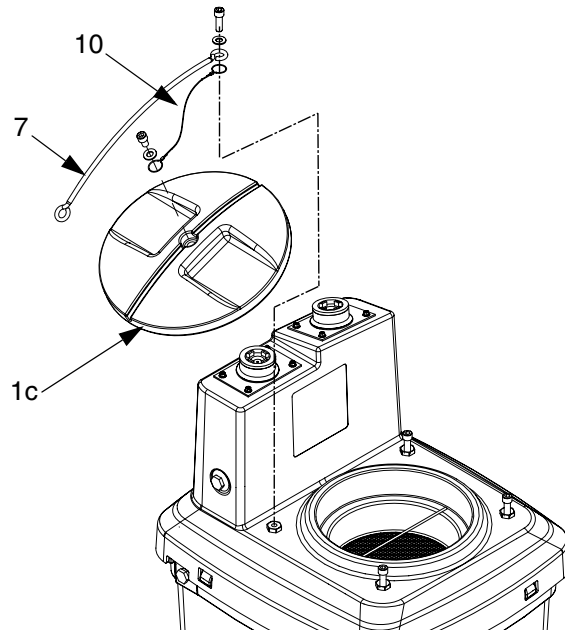
5. Install plug (6) in opposite port and torque to 20-30 ft-lbs (27-41 N•m).

**NOTE: Occasionally inspect the inside of the hopper for any leakage of outer cavity heating fluid.**

## Fill Spray Material

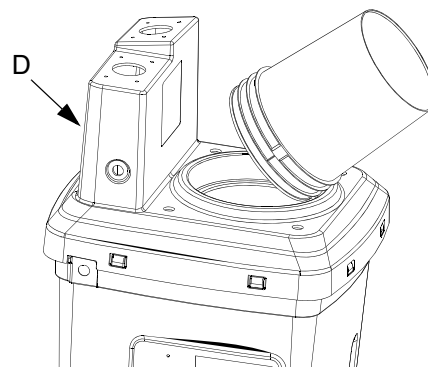
Condition materials prior to adding to hoppers. Ensure resin materials are thoroughly agitated, homogenous, and pourable prior to adding to hopper. Stir hardeners back into suspension prior to adding material to hopper.

1. Disconnect spring strap (7) from front post and remove lid (1c). Keep connected to lanyard (10).



**FIG. 22: Remove Lid**

2. Pour desired amount of spray material through strainer inside hopper (D). See Table 1: **Fluid Capacities of 20 Gal. Hopper.**



**FIG. 23: Fill Spray Material**

3. Tightly secure lid (1c) on hopper (D) and reconnect spring strap (7).



# Operation

## Startup

1. Ensure that the outer jacketed area is filled with water mixture or oil and the accessories are correctly installed.
2. Follow **Setup** procedure in manual 312359.
3. See manual 312359 for testing material and operation instructions before spraying material.

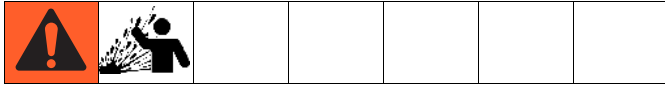
## Flush Hopper

1. **Drain Spray Material.** See page 19.
2. Flush hoppers and fluid inlet assemblies (F) with compatible solvent before switching materials or cleaning hopper (D). See **Flushing** section in manual 312359.
3. Visually inspect the inside of the empty hopper for any leakage of outer cavity heating fluid.

## Shutdown

1. See **Shutdown** and **Pressure Relief** procedures in manual 312359.

# Maintenance



## Check Heating Fluid Level

Gradual fluid evaporation can occur, therefore, check the level of heating fluid monthly.

1. Remove plug (6).
2. Place flexible object in port so that it protrudes down. Pull out to observe level.
3. Refill heating fluid as necessary. See **Fill Heating Fluid**, page 15, for instructions.

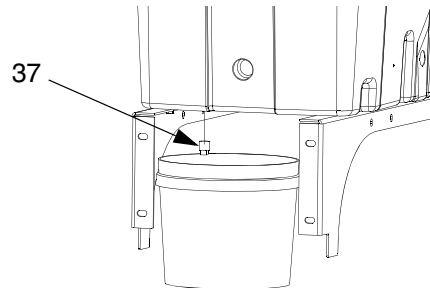
## Check for Heating Fluid Leakage

When spray material is drained and heating fluid is full, inspect the inside of the hopper for any signs of heating fluid leakage.

## Drain Heating Fluid

1. Turn off all heaters and allow heating fluid to cool for a minimum of 8 hours.
2. Place either a 1-gallon (4-liter) or 3-gallon (7-liter) pail directly beneath drain plug (37).

**NOTE: Only 1-gallon (4-liter) pails fit beneath drain plug if hoppers are mounted on the back of the frame.**

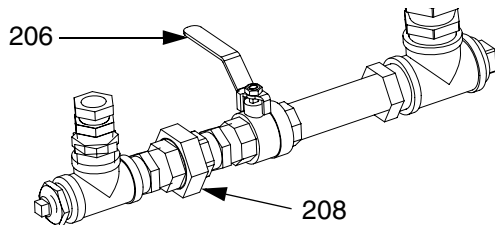


**FIG. 24: Place Pail Beneath Drain Plug**

3. Use wrench to hold reducer fitting (36) secure while using another wrench to remove drain plug (37) and capture heating fluid in pail.
4. Use additional pails as necessary until all fluid is drained.
5. Install plug (37) into reducer fitting (36) after fluid is completely drained from the hopper's (D) outer jacketed area.

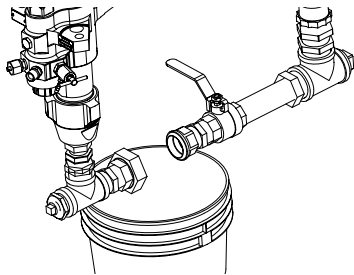
## Drain Spray Material

1. **Flush** and **Shutdown** XM sprayer. See XM operation manual.
2. Turn off all fluid heaters (S) and allow heating fluid to cool for a minimum of 8 hours.
3. Place a clean 1 gallon (4 liter) pail directly beneath union (208) and ball valve (206).
4. Close ball valve (206) and open union (208) with wrench.



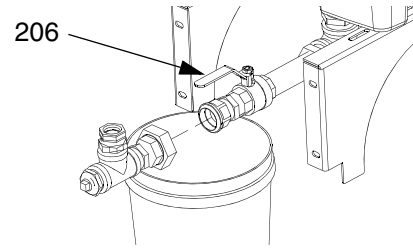
**FIG. 25: Closed Ball Valve**

5. Drain spray material from pump lower in pail. If necessary, remove fittings from opposite end, then use a brush and compatible solvent to clean out fittings.



**FIG. 26: Drain Lower**

6. Use additional pails as necessary until material is drained.
7. Open ball valve (206) and drain spray material from hopper. If necessary, remove plug from opposite end, then use a brush and compatible solvent to clean out plug and fittings.



**FIG. 27: Drain Hopper**

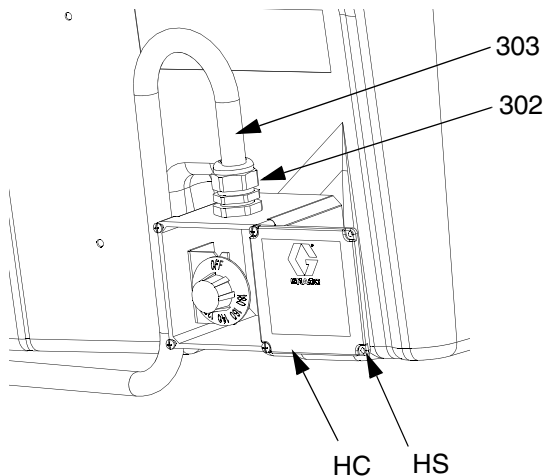
8. Use additional pails as necessary until all material is drained.
9. Close ball valve (206) and use two wrenches to retighten union (208).

# Repair



## Remove Immersion Heater

1. Turn off power to system. See the XM Operation manual.
2. **Drain Heating Fluid.** See page 18.
3. Remove screws (HS) and immersion heater cover (HC).



**FIG. 28: Connect Immersion Heater**

4. Disconnect white, black, and green wires from power cable (303).
5. Loosen bushing (302) and pull power cable (303) out of bushing.
6. Slowly remove immersion heater (L) from hopper (D).

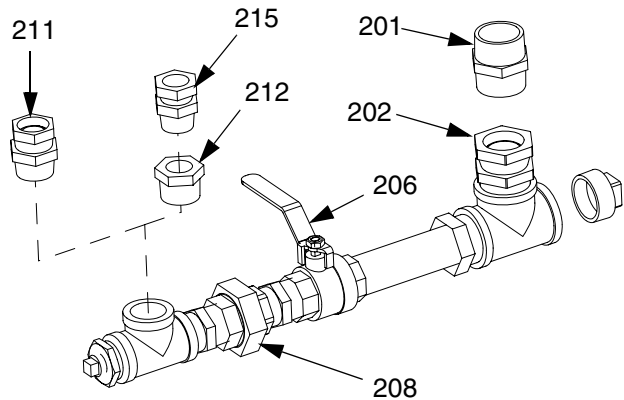
**NOTICE**

To prevent damage to the heater element coils, ensure fold-back end of heater coil can pass back through threaded opening of hopper (D).

7. Inspect the heater element coils for excessive corrosion. If necessary, replace entire immersion heater.
8. To install immersion heater (L) see **Immersion Heater Kit 256257** on page 12.

## Remove Fluid Outlet Assembly Kit

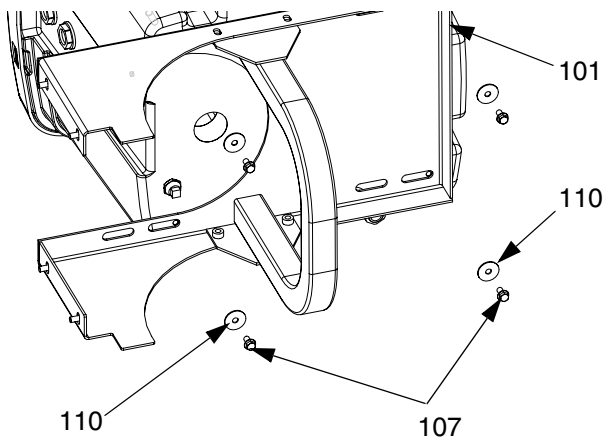
1. **Drain Spray Material.** See page 19.
2. Loosen fitting (212) or (211).
3. Loosen fitting (202).
4. See **Installation** on page 9 for assembly instructions.



**FIG. 29: Fluid Outlet Assembly**

## Remove Hopper

1. **Check Heating Fluid Level.** See page 18.
2. **Drain Spray Material.** See page 19.
3. Disconnect swivel fitting (202). See FIG. 29.
4. If a transfer pump (H) or agitator (J) is mounted to the hopper:
  - a. **Relieve pressure.** See manual 312769.
  - b. Disconnect air hoses from agitator and feed pump. Disconnect fluid hose from feed pump.
5. Remove bolts (107) and washers (110) from under mounting bracket (101).



**FIG. 30: Remove Hopper**

6. Lift hopper (D) and carefully rest on a flat surface. Use caution to avoid damaging fitting (201).

## Replace Gaskets

The following procedure applies to both the hopper gaskets (13) and hopper lid gasket (12).

1. Remove old gasket and residual adhesive using MEK solvent.
2. Clean groove in hopper using isopropyl alcohol. Let air dry.
3. Remove adhesive backing from new gasket. Press gasket firmly into groove. Be careful not to stretch gasket material.
4. Trim excess length if necessary.
5. Reassemble rest of hopper parts to keep pressure on gasket.
6. Allow 24 hours for full bonding.

# Troubleshooting

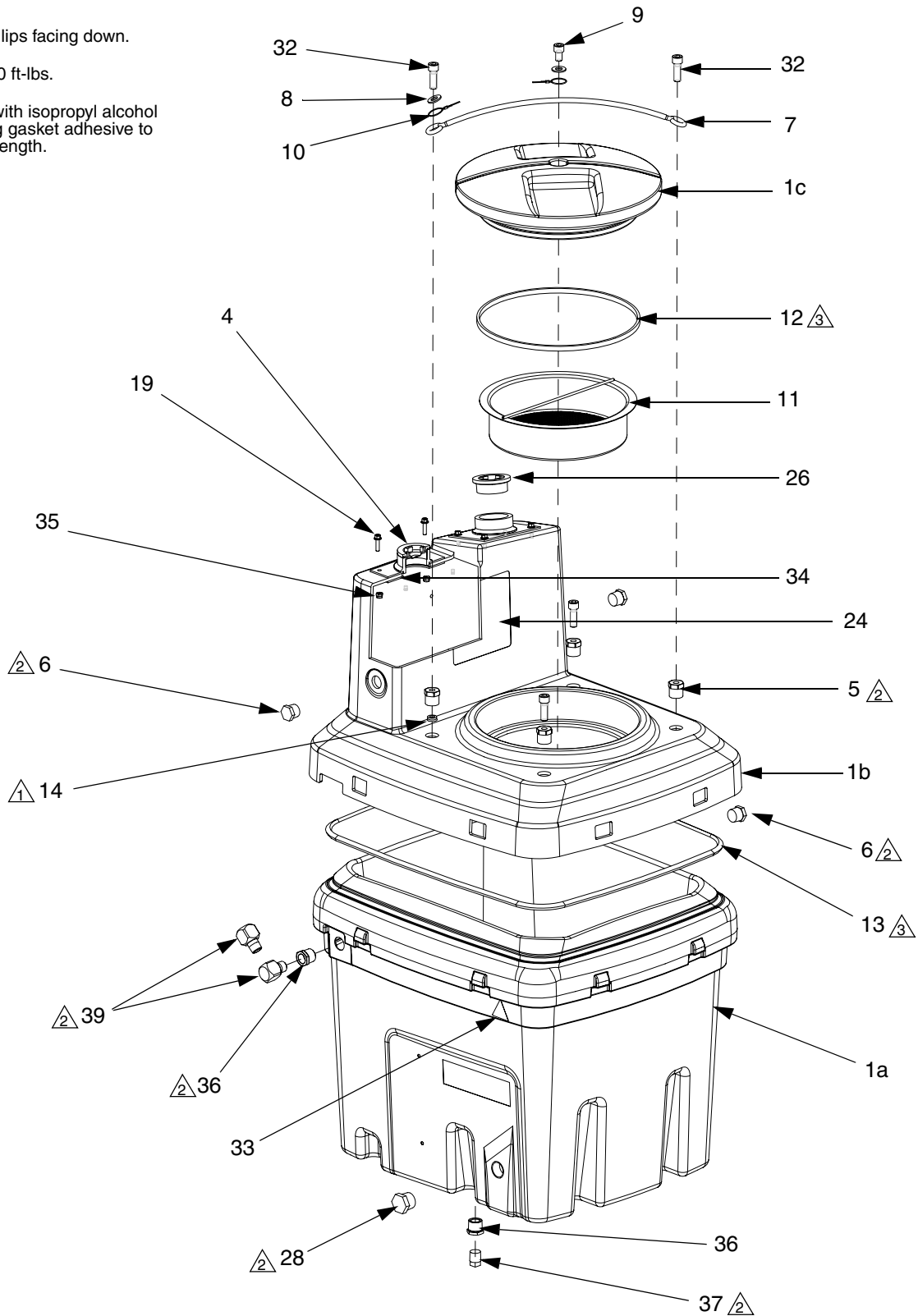
Problem	Cause	Solution
Lid does not properly seal on hopper.	Material build up.	Remove built up material from gasket. Replace as necessary.
	Damaged gasket.	
Material leaking between cover and hopper.	Gasket is not sealed properly.	Check for built up material on gasket. Replace as necessary.
Algae in water.	Ethylene glycol was not added to water.	Drain fluid. Add 50/50 water and ethylene glycol mixture in outer cavity
Immersion heater no longer heating.	Overtemperature switch tripped on immersion heater.	Ensure it is mounted correctly. See <b>Immersion Heater Kit 256257</b> , page 12.
		Refill heating fluid level.
		Locate heating fluid leak and correct.
		If heating fluid level and immersion heater is mounted correctly, remove heater cover and press reset button. Replace cover.
Heating fluid leaking into spray material inside hopper.	Inside wall of hopper is damaged.	Replace hopper.
Hopper is not heating all the way to the top.	Heating fluid level is low.	Refill heating fluid.



# Parts

## 255963, Double Wall Hopper

- ⚠️ 1 Assemble with lips facing down.
- ⚠️ 2 Torque to 20-30 ft-lbs.
- ⚠️ 3 Clean groove with isopropyl alcohol before applying gasket adhesive to plastic. Cut to length.





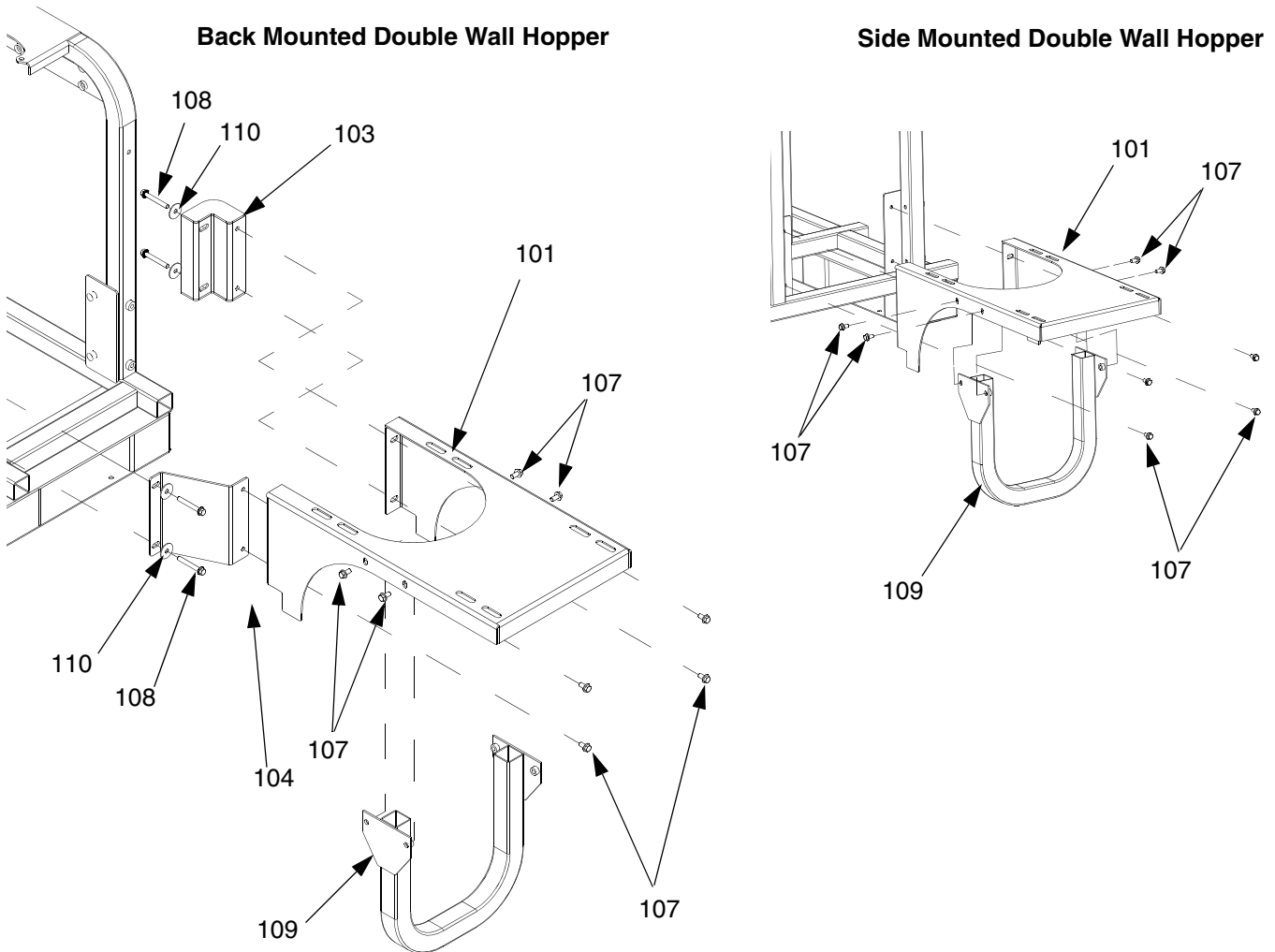
**255963, Double Wall Hopper**

Ref.	Part	Description	Qty
1a		HOPPER	1
1b		COVER	1
1c		LID	1
4	255965	PLATE, weldment	2
5	15T007	ADAPTER, return tube	4
6	121621	PLUG, 3/4 in. npt	3
7	255966	STRAP, spring, hopper lid	1
8	109570	WASHER, plain; 1/2 in.	2
9	513764	SCREW, cap, socket head; 1/2-13 x 0.75	1
10	122097	CABLE, SST lanyard, 12 in.	1
11	256008	STRAINER	1
12	15T010	GASKET, lid, hopper	1
13	15T011	GASKET, hopper	2
14	15R403	SEAL, return tube	2
19	112547	SCREW, flange, hex head; 1/4-20 x 1	8
24▲	15R424	LABEL, A-B identification; not shown	1
26	121378	PLUG, 2 in. npt, poly, w/gasket	2
28	121485	PLUG, 1 in. npt	2
32	121797	SCREW, cap, socket head; 1/2-13 x 1.5	2
33▲	189285	LABEL, caution	2
34	15R331	PLATE, accessory, hopper	2
35	104105	NUT, lock, hex; 1/4-20	8
36	117326	FITTING, bushing; 3/4 npt(m) x 1/2 npt(f)	2
37	100737	PLUG, pipe; 1/2 npt	1
39	158683	FITTING, elbow, 90 deg.; 1/2 npt (m-f)	2
40†	24K965	KIT, spacer, 5:1 pump (not shown)	1

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

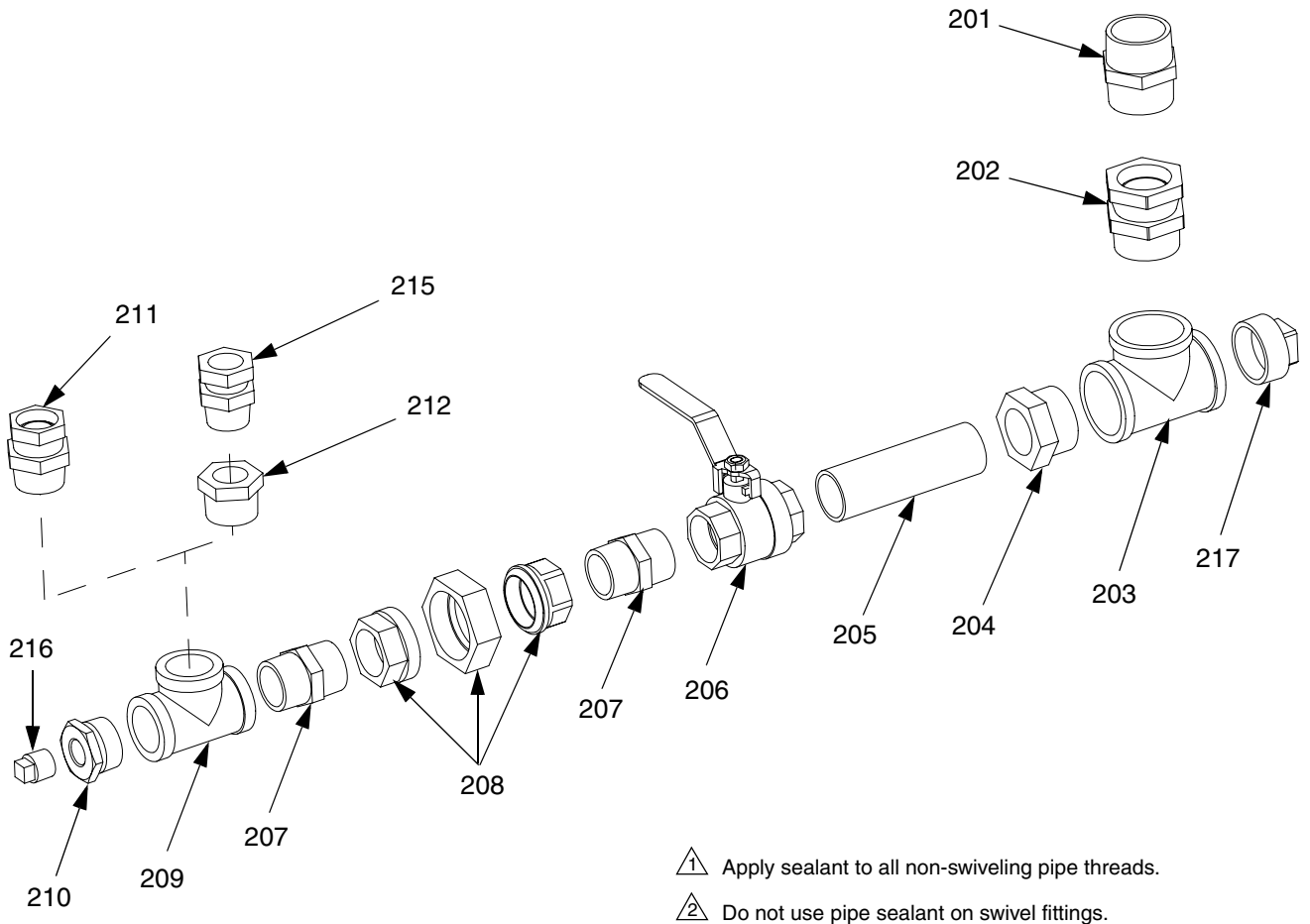
† Supplied spacer kit is for installation of a 5:1 pump on this hopper. See manual 312769 for instructions.

## 256259, Double Wall Hopper Mounting Kit



Ref.	Part No.	Description	Qty.
101	256224	BRACKET, hopper, 20-gallon	1
103	256254	BRACKET, hopper, wldmt, bottom mount	1
104	256256	BRACKET, hopper, bottom mount, lower	1
107	112395	SCREW, cap, flng hd; 3/8-16 x 0.75	14
108	121488	SCREW, hex hd, flanged; 3/8-16 x 2.75	4
109	256928	SUPPORT, hopper bracket, rear	1
110	115625	WASHER, fender, 3/8	8

### 256170, Universal Hopper Fluid Outlet Kit



Ref.	Part No.	Description	Qty.
201	121435	NIPPLE, hex; 2 in.	1
202	121436	FITTING, swivel, male; 2 in.	1
203	121437	FITTING, tee, female; 2 in.	1
204	121438	BUSHING, reducer; 2 x 1 1/2 in.	1
205	121439	NIPPLE, pipe; 1 1/2 npt x 6	1
206	121440	VALVE, ball; 1 1/2 npt	1
207	121441	NIPPLE, hex; 1 1/2 npt	2
208	121442	FITTING, union; 1 1/2 npt	1
209	121443	FITTING, tee; 1 1/2 npt	1
210	101496	BUSHING, pipe; 1 1/2 x 3/4 npt	1
211*	121445	SWIVEL, reducing; 1 1/2 x 1 1/4	1
212†	121446	BUSHING, reducer; 1 1/2 x 1 1/4	1
215†	121447	FITTING, swivel; 1 1/4	1
216	104663	PLUG, pipe; 3/4 npt	1
217	123807	PLUG, pipe; 2 in.	1

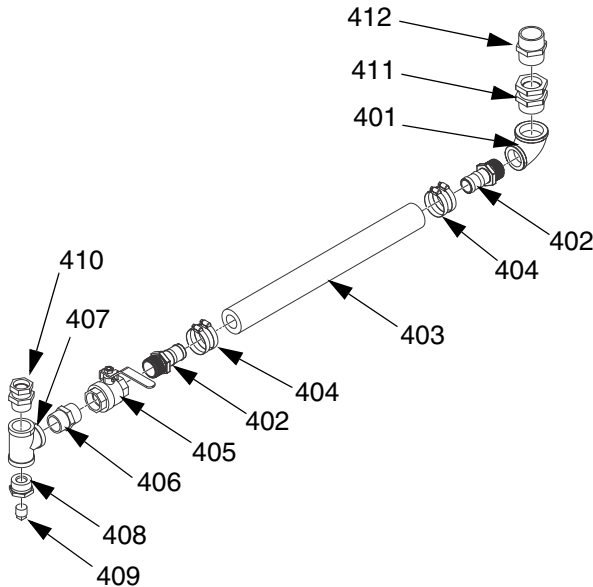
\* Parts used for 50:1 pumps only.

† Parts used with 70:1 pumps only.

# Accessories

## 262820, Flexible Fluid Connection Kit

For gravity feeding from 20 gallon hopper to proportioner with Xtreme lower.



Ref	Part	Description	Qty
401	120291	PIPE, elbow female	1
402	125995	FITTING, hose, barbed, 1-1/2 npt	2
403	126320	HOSE, 1-1/2 ID, 200 psi, 3 ft	1
404	126889	CLAMP, hose	2
405	121440	VALVE, ball, 1-1/2 npt	1
406	121441	FITTING, nipple, hex, 1-1/2 npt	1
407	121443	FITTING, tee, 1-1/2npt	1
408	101496	BUSHING, pipe	1
409	104663	PLUG, pipe	1
410	121445	SWIVEL, reducing, 1-1/2 x 1-1/4	1
411	121436	FITTING, swivel, male, 2 in.	1
412	121435	FITTING, nipple, hex, 2 in.	1

## 256257, 240V 1 PH Immersion Heater Kit

For non-explosive atmospheres only. Includes re-settable overtemperature switch.

1500 watts; 140°F (60°C) maximum temperature.

Ref.	Part No.	Description	Qty.
301	121376	HEATER, hopper, 1 in. npt, 240V	1
302	116171	BUSHING, strain relief	2
303	15T968	CABLE, heater, hopper, 3 cond, 14 gauge	1
304	122032	NUT, wire	3

## 256512, Desiccant Kit

For removing moisture in replacement air for moisture-sensitive spray materials.

See manual 406739 for parts list.

## Feed Pump and Agitator Kits

Part	Description
256274	Agitator Kit
256275	T2 2:1 Ratio Transfer Pump Kit
256276	Monark® 5:1 Ratio Transfer Pump Kit
239326	President® 10:1 Ratio Transfer Pump

See manual 312769 for installation and parts list.

## 256260, 7 Gallon Hopper Kit

For mounting one seven gallon hopper to XM proportioner frame. Includes hopper, brackets, fasteners, and fluid fittings.

See manual 406699 for parts list.

## 15V074, Hopper Outlet Plug

Plug is required when a 2:1 or 5:1 feed pump is used.

## 262824, Hopper Shroud

For mounting 20 gallon heated hopper independently.

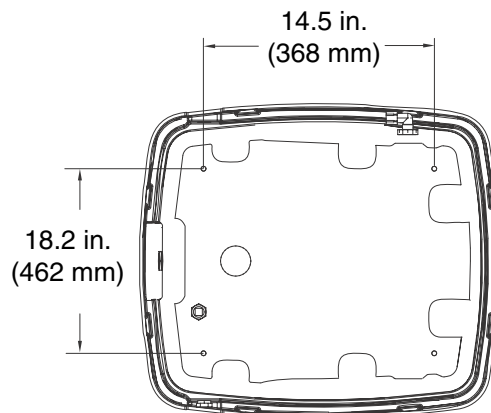
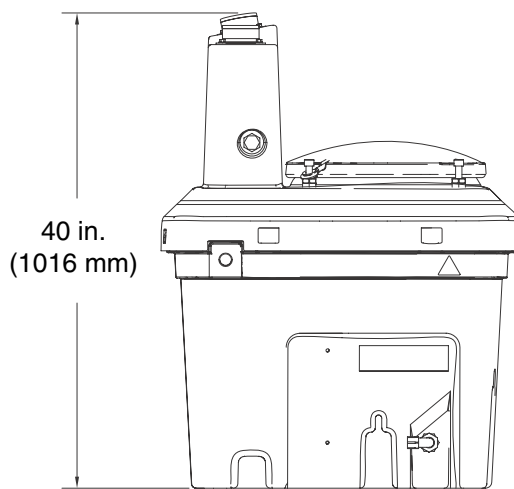
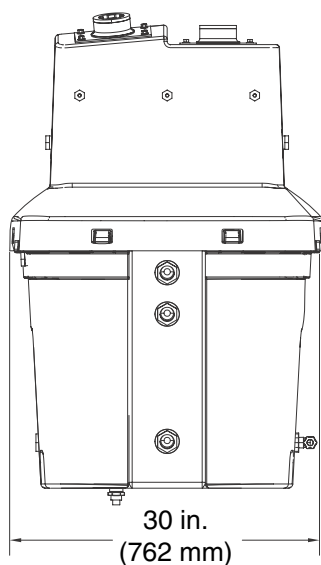
# Technical Data

## 20 Gallon Heated Compatible Hopper 256233

Maximum (continuous) temperature rating . . . . .	140°F (60°C)
Maximum pressure rating (outer cavity) . . . . .	0 psi (0 MPa, 0 bar)
Inner Tank Capacity (spray material) . . . . .	22 gal. (83.3 liter)
Outer Jacketed Area Capacity (heating fluid) . . . . .	12 gal. (45.4 liter)
Outlet Port . . . . .	2 npt anodized aluminum
Hopper Material . . . . .	Conductive polyethylene
Weight (dry) . . . . .	75.5 lb (34.2 kg)

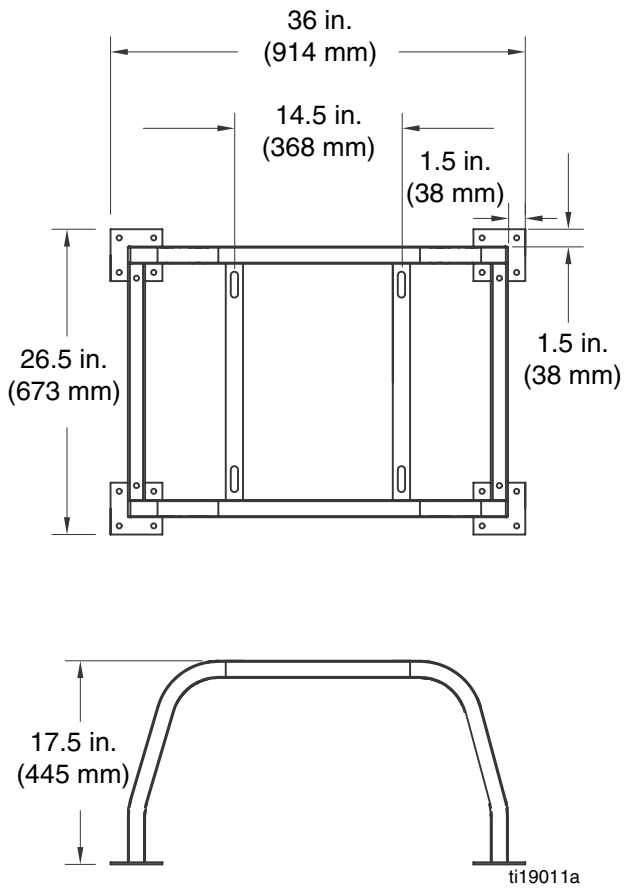
## Dimensions

### Hopper

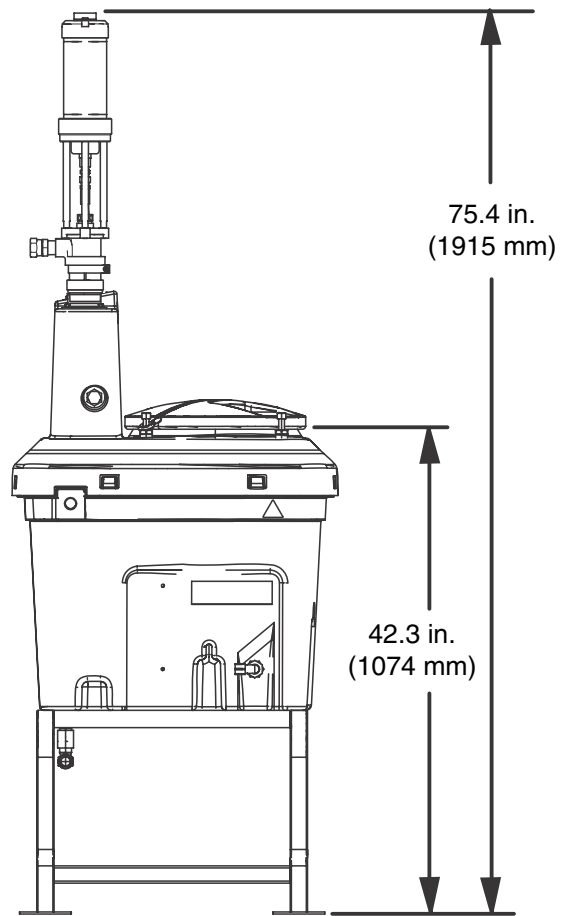


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### Hopper Stand



### Hopper on Stand





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