

Instructions - Parts



Tandem Heavy Duty DynaMite™ Supply System

3A5311D

EN

Used for precision dispense of single component viscous materials for 1 gallon (3.79 liter) containers. For professional use only.

Not approved for use in European explosive atmosphere locations.

Part No. 25D100, 25R495

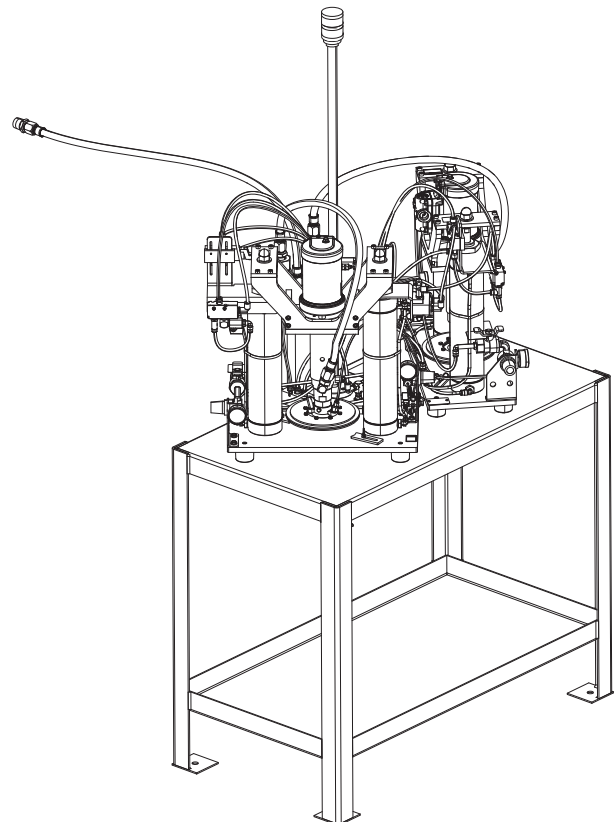
1200 psi (8.3 MPa, 83 bar) Maximum Fluid Working Pressure

100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure



Important Safety Instructions

Read all warnings and instructions in this manual and in all related manuals. Save all instructions.



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Related Manuals

Manuals	
Part	Description
308302	DynaMite™ 190 Extruder Instructions - Parts
3A3442	NXT Air Motor Repair and Parts Manual

Part Numbers

Part No.	Maximum Fluid Working Pressure	Description
25D100	1200 psi (8.3 MPa, 83 bar)	Tandem Heavy Duty DynaMite Supply System with hoses, 5/8 x 120-outlet -  Approved
25R495	1200 psi (8.3 MPa, 83 bar)	Tandem Heavy Duty DynaMite Supply System with hoses, 3/4 x 120-outlet -  Approved

Overview










The Tandem Heavy Duty DynaMite Supply System is designed to provide continuous dispensing of material by having two DynaMite 190 Extruders supplying material to the same dispensing equipment. This method avoids having to interrupt production when replacing a pail of material.








Only one supply pump is active at a time. The system automatically starts the non-active supply pump when the active supply pump is done dispensing material. This enables the operator to replace the pail of material for the pump that just completed dispensing while the other pump continues to dispense material.

This process is controlled by a switch on each supply pump that is triggered when the pump reaches its low limit. When the system stops that pump from dispensing and actuates the other pump, the light tower signals the operator that it is time to replace the pail of material.

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	
    	SKIN INJECTION HAZARD High-pressure fluid from spray gun, dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment. <ul style="list-style-type: none"> • Do not point the dispensing device at anyone or at any part of the body. • Do not put your hand over the fluid outlet. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses and couplings daily. Replace worn or damaged parts immediately.
  	MOVING PARTS HAZARD Moving parts can pinch, cut or amputate fingers and other body parts. <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.

 WARNING	
   	FIRE AND EXPLOSION HAZARD Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion: <ul style="list-style-type: none"> • Use equipment only in well ventilated area. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking). • Ground all equipment in the work area. See Grounding instructions. • Never spray or flush solvent at high pressure. • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. • Use only grounded hoses. • Hold dispensing device/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.
	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. <ul style="list-style-type: none"> • Read Safety Data Sheet (SDS) to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
	SPLATTER HAZARD Hot or toxic fluid can cause serious injury if splashed in the eyes or on skin. During blow off of platen, splatter may occur <ul style="list-style-type: none"> • Use minimum air pressure when removing platen from drum.

WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

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



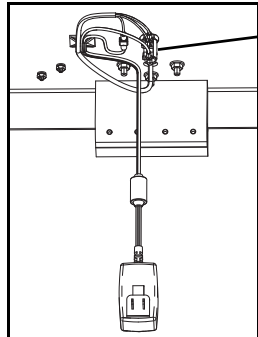
PERSONAL PROTECTIVE EQUIPMENT

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

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

Component Identification

Under Tabletop View



Rear View

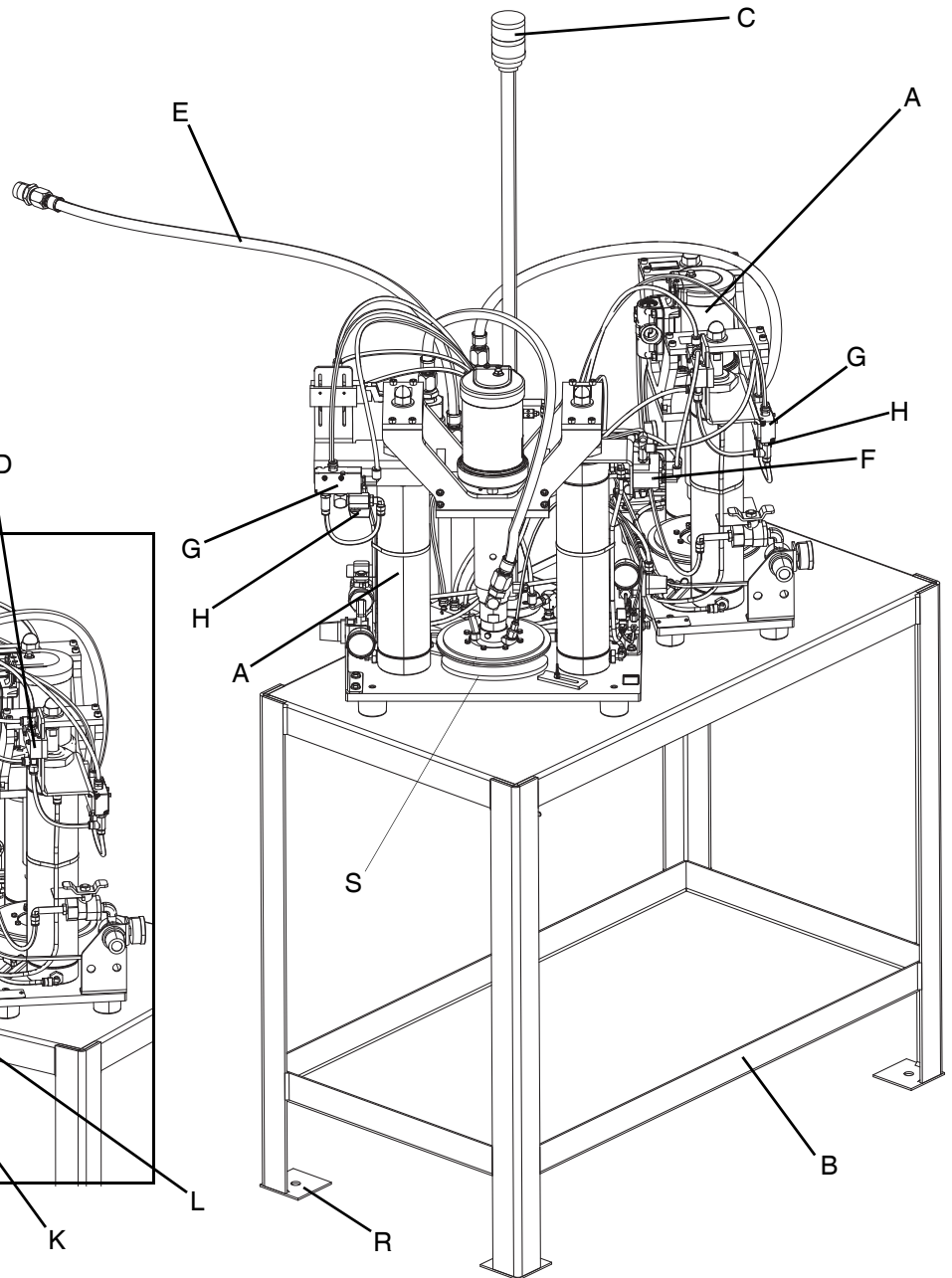
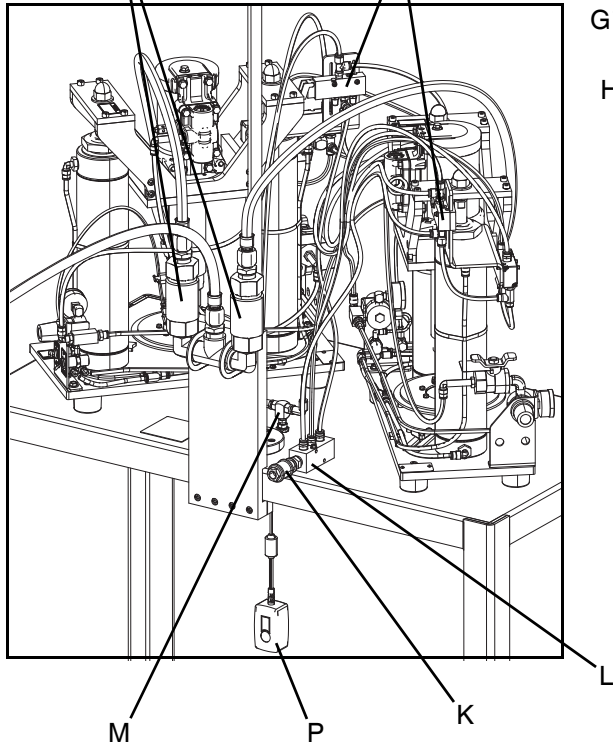


FIG. 1: System Components

Key:

- | | |
|---|--|
| A DynaMite 190 Extruders (Supply Pumps) | K Air Shut Off Valve |
| B Table | L Air Inlet Manifold |
| C Light Tower | M Shuttle Valve |
| D Low Level Switches | N Light Tower Activation Pressure Switch |
| E Material Supply Line | P Light Tower Power Cord |
| F Air Valve | R Mounting Holes |
| G Bypass Valves | S Pail Support |
| H Bypass Valve Controls | |
| J Material Check Valves | |

Installation

NOTE: See *DynaMite 190 Extruder Instructions - Parts manual 308302* for specific DynaMite pump installation information, including wiper plate setup and pump components and accessories

Grounding



Pump: for both pumps, unscrew the green grounding screw (W) and washer (X) located on the ram base (Z). Install a 1.5 mm² (12 awg) minimum ground wire (Y) and secure with the screw and washer. Connect the other end of the ground wire to a true earth ground.

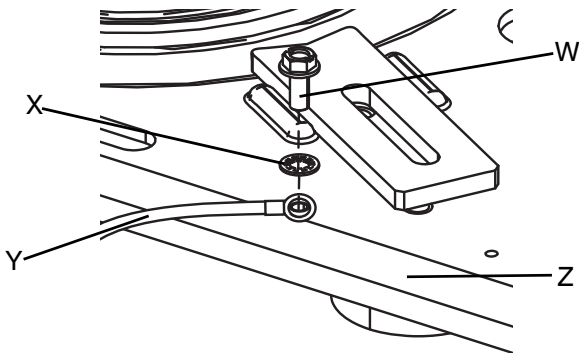


FIG. 2: Grounding Connection on Pump

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

Air compressor: follow manufacturer's recommendations.

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

Fluid supply container: follow local code.

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

System Location and Setup



NOTE: The letters in parentheses used in this description refer to the callouts in Figure 1 on page 7.

1. Move the machine using a fork lift or pallet jack. Insert the forks under the table's lower shelf.
2. Place the unit on a hard, level surface. Check that the unit is level in all directions. Refer to **Dimensions** on page 21 to ensure that there is sufficient overhead clearance. Leave room on both sides so the air regulators on the supply pumps will be easily accessible.
3. Mount the table (B) to the floor using four 1/2 in. (12 mm) bolts through the table's mounting holes (R).
4. Plug the light tower power cord (P) into a wall outlet.
5. Connect an air supply hose to the 1/4 npt air shut off valve (K) on the main air inlet manifold (L).

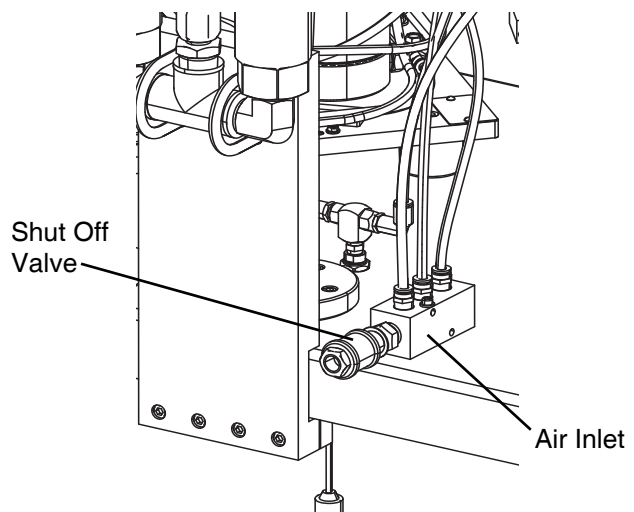


FIG. 3: Air Supply Hose Connection

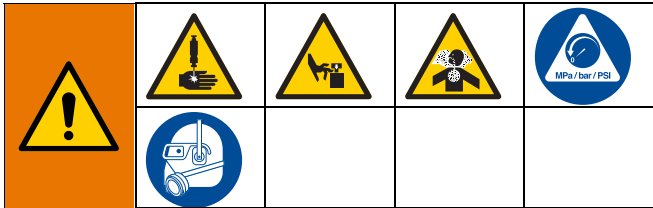
Connect and Disconnect Tubes

Follow these steps when connecting and disconnecting any air tubes on the tandem DynaMite supply system.

Connection

1. Grasp the tube, then slowly push it straight into the fitting until it stops.
2. Be sure that the tube is securely connected, and will not pull out when air pressure is applied. To check, pull gently on the tube.

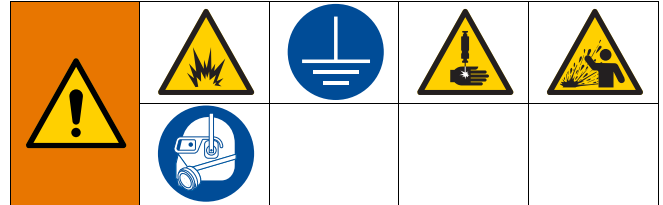
Disconnection



1. Follow the **Pressure Relief Procedure** on page 12.
2. Push evenly on the fitting's red release button.
3. While holding the release button in, pull the tube out of the fitting.
4. To reuse the tubing, cut off the previous connection portion at 90°, being careful not to damage the outer diameter of the tube.

NOTE: Use of a tube cutter is recommended. The fitting will leak if the tubing is not cut at 90°.

Flush the System



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.

NOTE: The pumps in the tandem supply system are tested with lightweight oil, which is left in to protect the pump parts. If the fluid you are using might be contaminated by the oil, flush it out with a compatible solvent before using the pump.

Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended fluids and flushing frequency. Always flush the pump before fluid dries on the displacement rod.

NOTICE

Never leave water or water-based fluid in a carbon steel pump overnight. If you are pumping water-based fluid, flush with water first, then with a rust inhibitor, such as mineral spirits. Relieve pressure, but leave rust inhibitor in the pump to protect parts from corrosion.

Refer to *DynaMite 190 Extruder Instructions - Parts manual 308302* for instructions on how to flush the DynaMite 190 Extruder pumps.

Operation

NOTE: Refer to the *DynaMite 190 Extruder Instructions - Parts*, manual 308302, for specific operation information about the DynaMite 190 Extruder.

NOTE: The letters in parentheses used in this section refer to the callouts in Figure 1 on page 7.

Startup

<p>To reduce the risk of serious injury and damage to equipment, do not shut off the air supply to the ram or the pumps when the ram is raised. Doing so will cause the pump to fall uncontrolled to the bottom. Also, as the ram is raised and lowered, the wiper plate, ram tubes, and pump mounting bracket move. To reduce the risk of pinching or amputation or fingers, keep your hands away from the wiper plate, lip of the material can, pump bracket, ram tubes, and air motor coupling cavity while the pump is operating.</p>				

1. Install a pail of material in the active supply pump, as described in the Start and Adjust the Ram section of *DynaMite 190 Extruder Instructions - Parts*, manual 308302.
2. Perform the steps described in Start and Adjust the Pump and Prime the Pump and Pump Fluid sections of *DynaMite 190 Extruder Instructions - Parts*, manual 308302.
3. Turn the bypass valve control (H) on the non-active supply pump to the ON position.

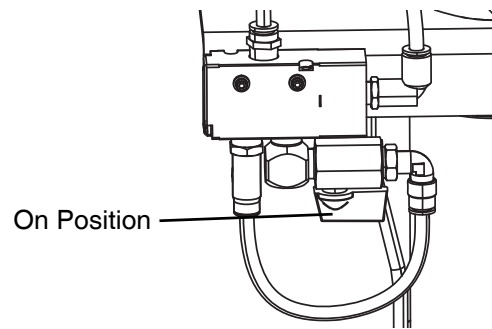


FIG. 4: Bypass Valve Control On

4. Install a pail of material in the non-active supply pump as described in the Start and Adjust the Ram section of *DynaMite 190 Extruder Instructions - Parts*, manual 308302.
5. Perform the steps described in Start and Adjust the Pump and Prime the Pump and Pump fluid sections of *DynaMite 190 Extruder Instructions - Parts*, manual 308302.
6. Turn the bypass valve control (H) on the non-active supply pump to the OFF position.

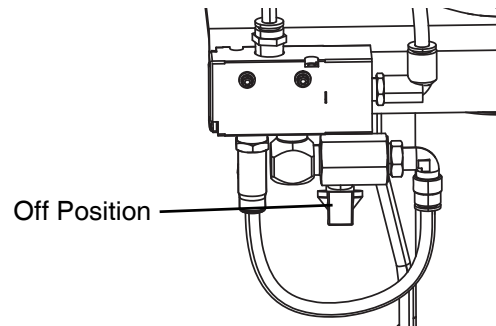


FIG. 5: Bypass Valve Control Off

Dispense Material

1. Connect the material supply line (E) to the dispensing equipment. Refer to the instructions included with the dispensing equipment for making connections.
2. Make sure the pumps and lines are primed and with adequate air pressure and volume supplied.
3. Use the air motor regulator on the pump to control the pump speed and fluid pressure.

<p>NOTICE</p> <p>Always use the lowest air pressure necessary to get the desired results. Higher pressures cause premature tip/nozzle and pump wear.</p>

Adjust the Low Level Switch



The low level switches (D) are set at the factory. However, you may need to make adjustments to them based on your specific application and the material you are using. Follow these steps and refer to Figure 6 to make adjustments.

1. Let the supply pump dispense material to the desired low level of material remaining in the pail.

NOTE: The low level should be as close as possible to the point before the pump would start to run away.

2. Loosen the two low level switch screws enough to be able to slide the low level switch up and down.
3. Adjust the low level switch and bracket so that the switch activates when it comes into contact with the supply pump's air cylinder mounting plate.
4. Tighten the two screws to secure the switch and bracket at that position.
5. Repeat steps 1 through 4 for the other supply pump.

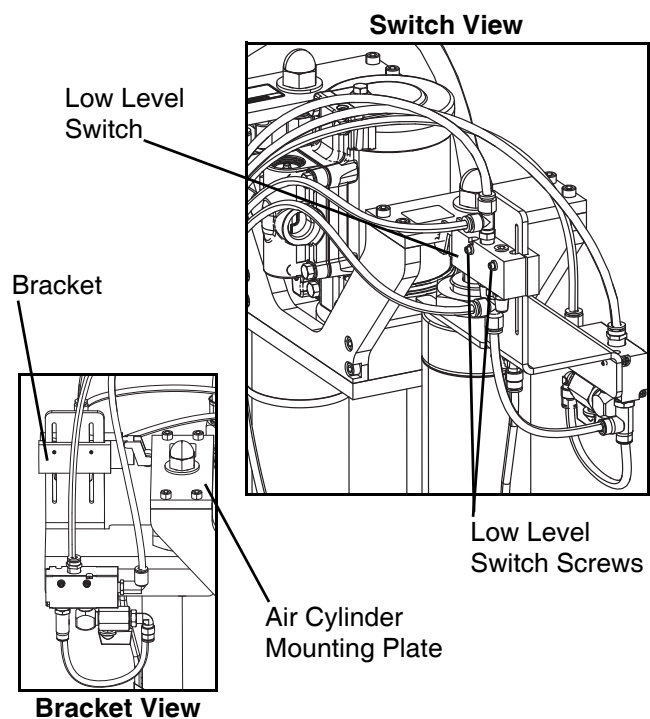


FIG. 6: Low Level Switch Adjustment

Light Tower Operation

This process of switching from one supply pump to another is controlled by the low level switch (D) on each supply pump. This switch is triggered when the material in the pump reaches its low level. See **Adjust the Low Level Switch**.

When the system activates the low level switch and actuates the other pump, the light tower (C) signals the operator that it is time to replace the pail of material.

Light Tower Signal	
Green	Both Supply pumps have material and are ready or are actively pumping.
Red	One or both of the supply pumps has reached the low level limit. Replace the pail as soon as possible.

NOTICE

The tandem supply system does not automatically stop pumping if both pails reach low level; it continues to pump until the active supply pump is empty. When the red light is on, make sure you replace the empty pail before the material reaches its low limit in the active pail. If the non-active supply pump pail is not replaced, the active pump continues to accelerate, damaging the pump and possibly inducing air into the material lines.

Replacing a Material Pail



When the light tower signal is red, it is time to replace one of the pails.

1. Turn the bypass valve control (H) to the ON position on the non-active supply pump with the empty pail.
2. Replace the pail. Refer to *DynaMite 190 Extruder Instructions - Parts*, manual 308302.
3. Turn the bypass valve control (H) to its OFF position.

The light tower signal returns to green and the non-active supply pump is now ready when the active supply pump reaches a low level.

Shutdown and Care of the System

NOTICE

Never leave water or water-based fluid in a carbon steel pump overnight. If you are pumping water-based fluid, flush with water first, then with a rust inhibitor, such as mineral spirits. Relieve pressure, but leave rust inhibitor in the pump to protect parts from corrosion.

1. Stop the pumps at the bottom of the stroke to prevent fluid from drying on the exposed displacement rod and damaging the throat packings.
2. Set the ram director valve on the supply pump to the down position. See Figure 7.
3. Follow the **Pressure Relief Procedure** on page 12.
4. Always flush the pumps before the fluid dries on the displacement rods.

Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.



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

1. Lock the dispensing device of the equipment that is being used with this supply system.
2. Turn off the main air supply and disconnect the main air line from the air shut off valve (K) on the machine.
3. Set the ram director valve to the down position. The ram slowly drops.
4. Quickly move the ram director valve up and down to bleed air from the ram cylinder.

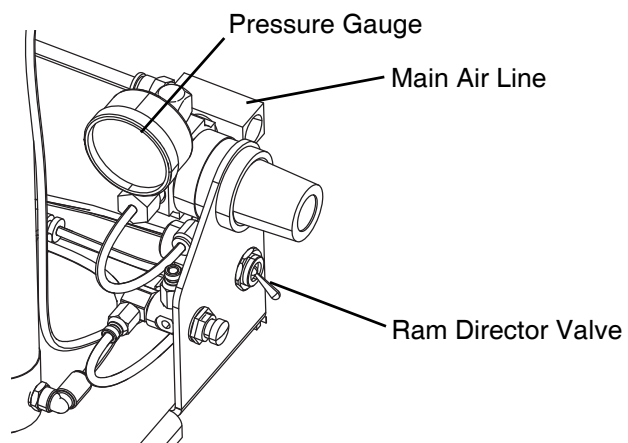


FIG. 7: Pressure Relief Components

5. Unlock the dispensing device.
6. Hold a metal part of the dispensing device firmly to the side of a grounded container and trigger the device to relieve pressure.
7. Lock the dispensing device.

8. Open the pump bleeder valve.
9. Leave the pump bleeder valve open until you are ready to dispense again.

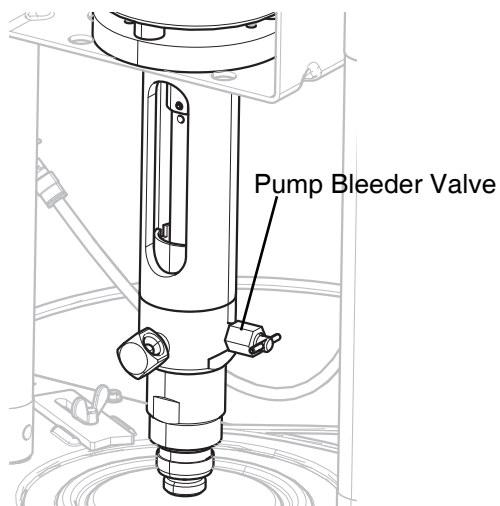
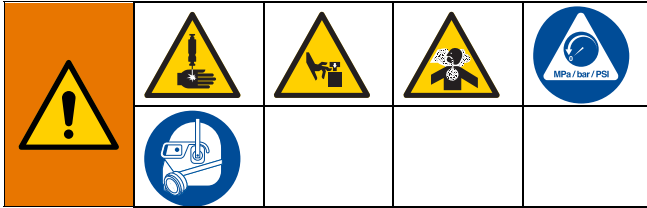


FIG. 8: Open Valves

If you suspect that the spray tip/nozzle or hose is completely clogged, or that pressure has not been fully relieved, proceed as follows:

10. Have a container ready to catch the drainage.
11. Very slowly loosen the hose end coupling to relieve pressure gradually; then loosen it completely.
12. Clear the tip/nozzle or hose.

Troubleshooting



Before servicing this equipment always make sure to follow the **Pressure Relief Procedure** on page 12.

NOTE: See *DynaMite 190 Extruder Instructions - Parts*, manual 308302 for specific DynaMite 190 troubleshooting information.

Problem	Cause	Solution
Neither supply pump operates.	No inlet air to the tandem supply system.	Connect an air supply to the supply system's air inlet. Make sure there are no kinks in the airlines.
Non-active pump does not pump for priming.	Bypass valve is turned off.	Turn on the bypass valve. See Startup on page 10.
Non-active pump does not raise or lower the ram.	Bypass valve is turned off.	Turn on the bypass valve. See Startup on page 10.
Light tower does not turn on.	No power to the light tower.	Plug light tower power supply into a wall outlet.
Light tower does not change to red color when low level switch is activated.	No air to the pressure switch.	Check all air lines. Make sure there are no kinks in the airlines. Make sure the pressure switch is working properly. Make sure the shuttle valve is working properly.
Low level switch is not activating the light tower.	No air to the pressure switch.	Check all air lines. Make sure there are no kinks in the airlines. Make sure the pressure switch is working properly. Make sure the shuttle valve is working properly. Make sure the low level switch is properly adjusted. See Adjust the Low Level Switch on page 11.
No material flowing to the dispense valve.	No inlet air to the supply system.	Connect an air supply to the supply system's air inlet. Make sure there are no kinks in the airlines
	Active supply pump is not primed	Prime the pump. See Startup on page 10.

Parts

Tandem Heavy Duty DynaMite Supply System, 25D100, 25R495

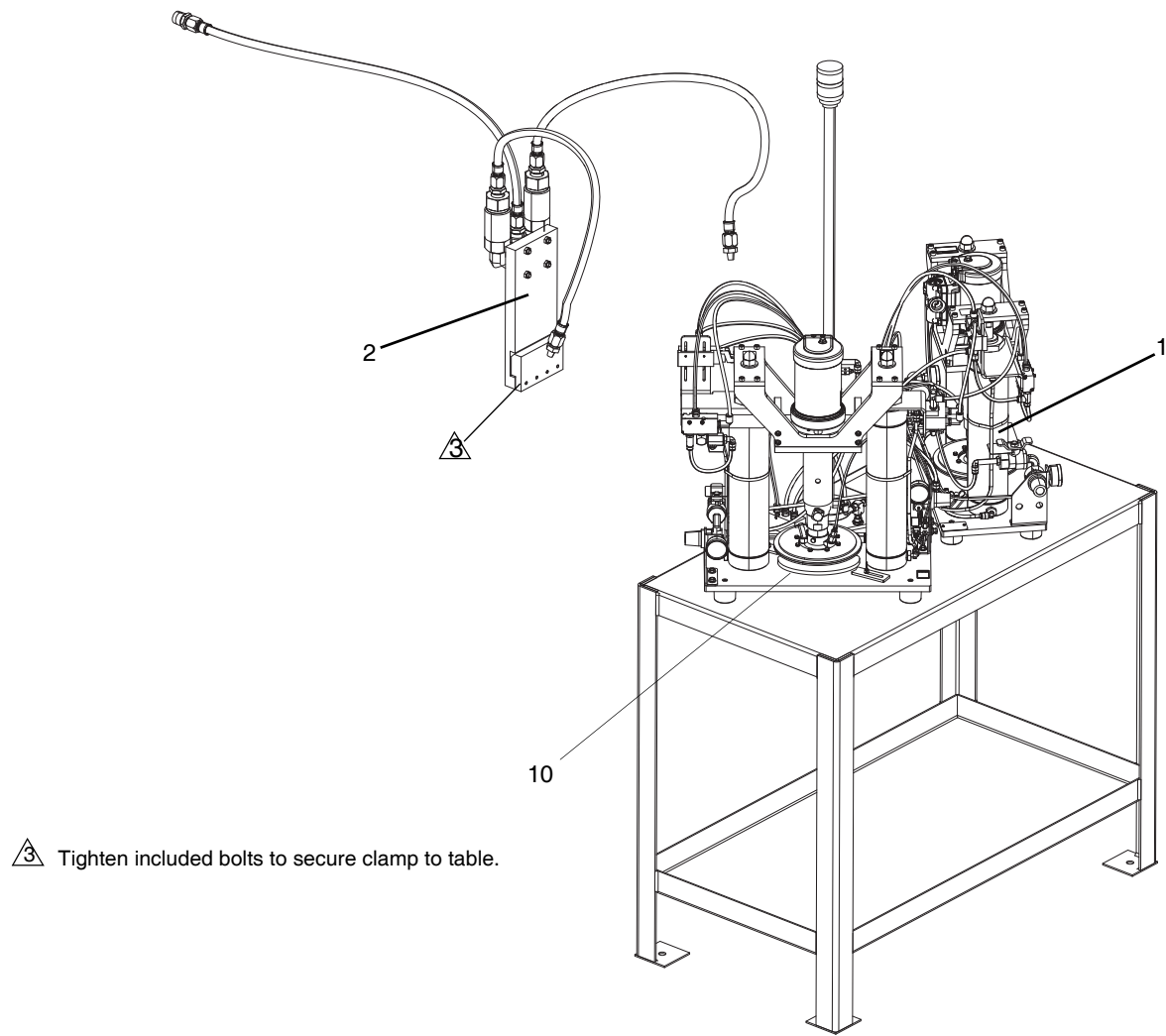


FIG. 9: Tandem Heavy Duty DynaMite Supply System

Ref	Part	Description	Quantity	
			25D100	25R495
1	25D098	SUPPLY UNIT, tandem, extruder, 190, uhd	1	1
2	25D099	KIT, HOSE, tandem, 5/8 x 120 - outlet	1	---
	25R496	KIT, HOSE, tandem, 3/4 x 120 - outlet	---	1
10	17T615	INSERT, pail, extruder	2	2

Tandem Heavy Duty Supply Unit, 25D098

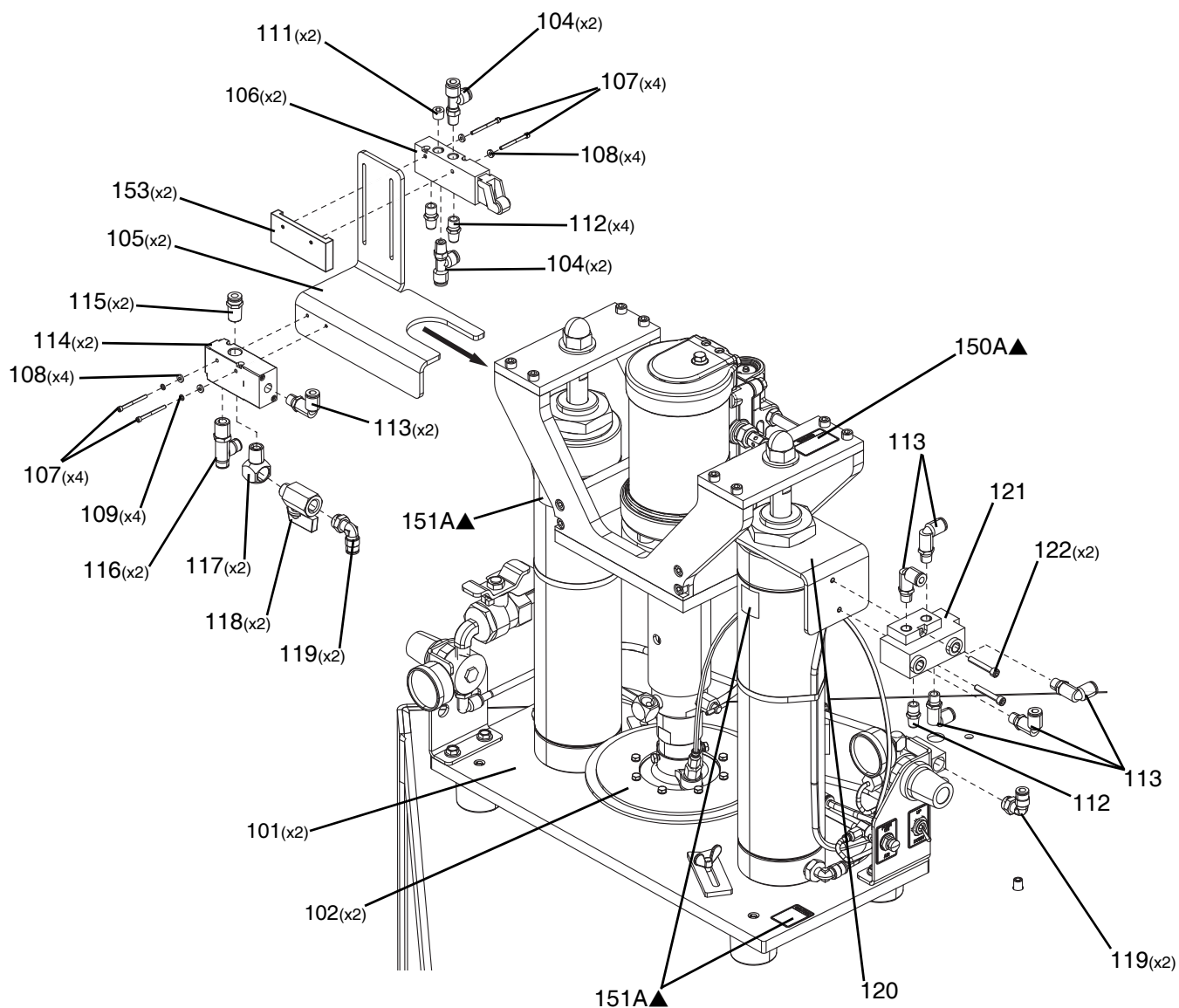
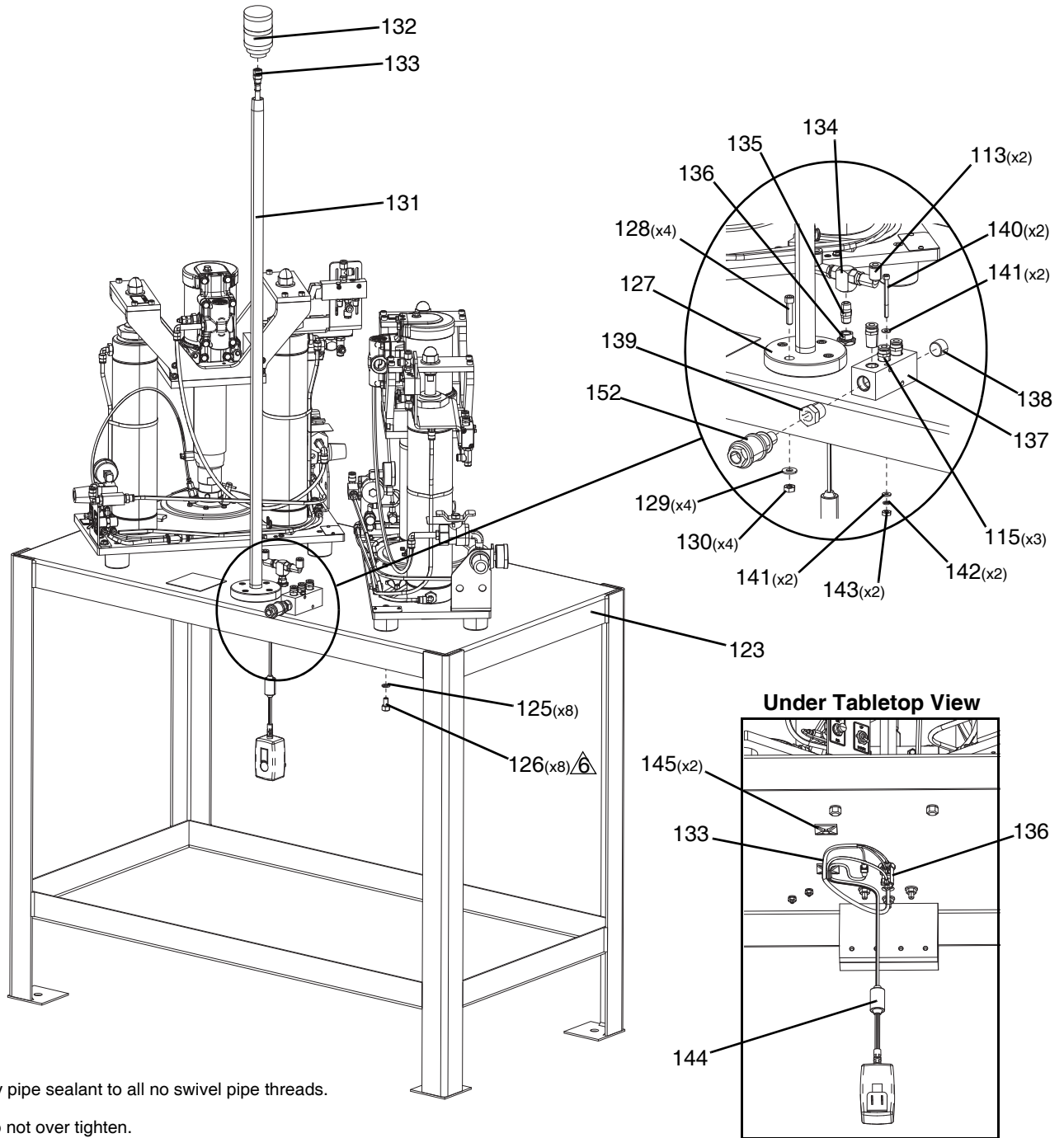


FIG. 10: Tandem Supply Unit - View 1, Left Supply Pump without Air Tubing



1. Apply pipe sealant to all no swivel pipe threads.


 Do not over tighten.

FIG. 11: Tandem Supply Unit - View 2, Rear and Under Tabletop without Air Tubing

25D098 Parts List

Ref	Part	Description	Qty	Ref	Part	Description	Qty.
101	25D097	SUPPLY UNIT, extruder, ss, 190, uhd	2	132	127087	LIGHT, tower, 30 mm, red/grn	1
102	25C843	PLATE, wiper, 1 gal, heavy duty	2	133	17S867	HARNESS, m12, light tower	1
104	C20362	FITTING, tee, air, qd, 1/4 tube	4	134	82/0143/11	VALVE, shuttle, 1/8 npt, f	1
105	17T079	BRACKET, tandem, valve, switch	2	135	103656	FITTING, pipe, hex	1
106	C06182	VALVE, limit, air	2	136	17S842	SWITCH, pressure, air, 20 psi, 1/8 npt	1
107	297863	SCREW, cap, socket head	8	137	17S995	MANIFOLD, 3 port, 1/4 npt, alum, 1000 psi	1
108	188773	WASHER, flat	8	138	101754	PLUG, pipe, 3/8 nptf	1
109	C19208	WASHER, lock	4	139	118758	FITTING, adapter	1
111	100139	PLUG, pipe	2	140	111821	SCREW, cap, sch	2
112	C06061	MUFFLER, sintered, dia 1/8	5	141	107016	WASHER, plain	4
113	597151	FITTING, elbow	9	142	100079	WASHER, lock, spring	2
114	17S873	VALVE, air, 3 way, spring, 1/4 npt	2	143	100284	NUT, hex mscr	2
115	C19407	FITTING, connector, male	5	144	17S872	CABLE, power, 100-240 v, 24 dc, 36 w	1
116	125733	FITTING, tee, 1/4 tube x 1/4 npt	2	145	84/0805/89	CABLE, tie mount, 1 x 1 sq w/ adhesive	2
117	100840	FITTING, elbow, street	2	146	054130*	TUBE, plyeth .250 od	28 ft.
118	15B565	VALVE, ball	2	147	114958*	STRAP, tie	10
119	114109	FITTING, elbow, male, swivel	4	149	054106*	TUBE, plyeth .375 od	20 ft.
120	17T081	BRACKET, tandem, valve	1	152	129775	VALVE, sleeve, shutoff, 1/4, mxf	1
121	113338	VALVE, air, remote, 4 way	1	153	17U289	PLATE, mounting, valve	2
122	104705	SCREW, cap, sch	2	* Not shown.			
123	17T090	TABLE, custom, 38 x 20 x 32, steel	1	Warning Labels for 25D097			
125	100214	WASHER, lock	8	Ref	Part	Description	Quantity per Supply Unit
126	17S889	NUT, custom, m5, cs	8	150A	186505▲	LABEL, warning	1
127	17S888	FLANGE, mounting, pipe, light tower	1	151A	186502▲	LABEL, warning	3
128	C19810	SCREW, cap, socket hd	4	▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.			
129	110755	WASHER, plain	4				
130	100015	NUT, hex mscr	4				
131	17S747	PIPE, aluminum, sch 40, 1/2 npt, 36l	1				

Tandem Hose Kit, 25D099, 25R496

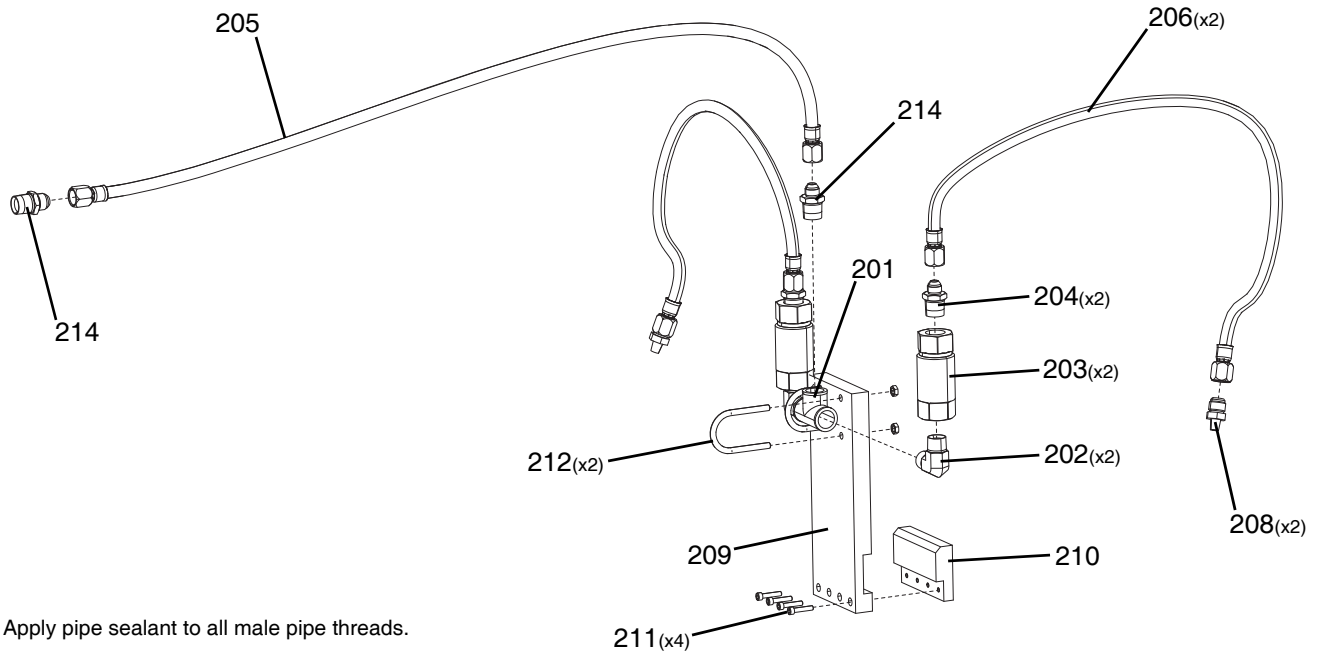


FIG. 12: Tandem Hose Kit

Ref	Part	Description	Quantity	
			25D099	25R496
201	166466	FITTING, tee, pipe, female	1	1
202	121116	FITTING, elbow, 3/4 npt m-m rt angle	2	2
203	16T480	VALVE, check	2	2
204	124286	FITTING, adapter, 3/4 npt m x 8 jic m	2	2
205	16V311	HOSE, assy, ss brd, 5/8 x 120, ss	1	---
	16D286	HOSE, assy, ss brd, 3/4 x 120, ss	---	2
206	6313-93-SS	HOSE, assy, ss brd, 5/8 x 32, ss	2	2
208	116703	ADAPTER, 3/4-16 jic x 1/4 npt	2	2
209	17T280	PLATE, mounting, check valve	1	1
210	17T281	PLATE, clamping, check valve	1	1
211	110580	SCREW, cap, socket hd	4	4
212	130279	BOLT, u, 5/16-18, 1.75 id, steel	2	2
214	15Y934	FITTING, 5/8 jic x 3/4 npt	2	---
	C20708	FITTING, 3/4 jic x 3/4 npt	---	2

System Logic Diagram

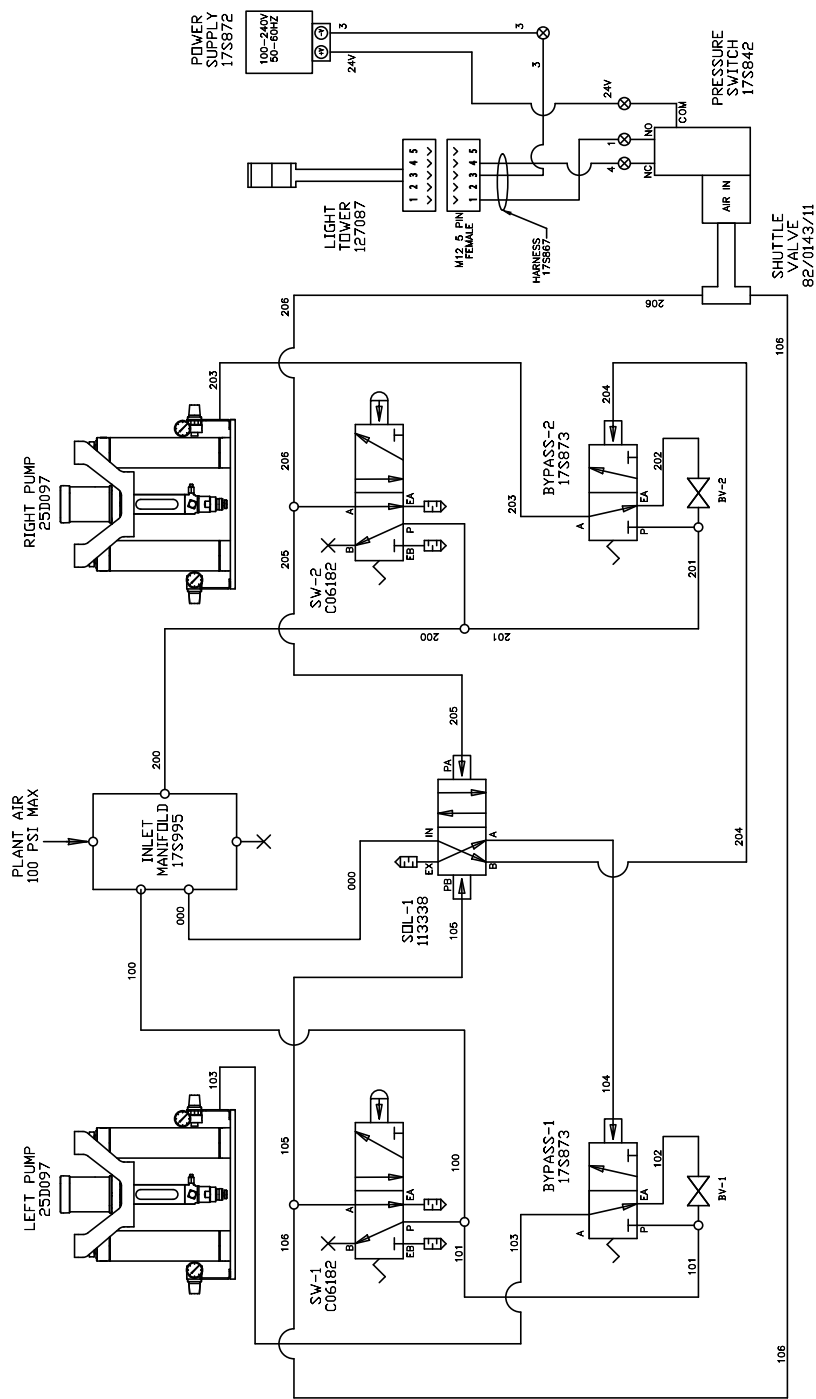


FIG. 13: Tandem Heavy Duty DynaMite Supply System Logic Diagram

Dimensions

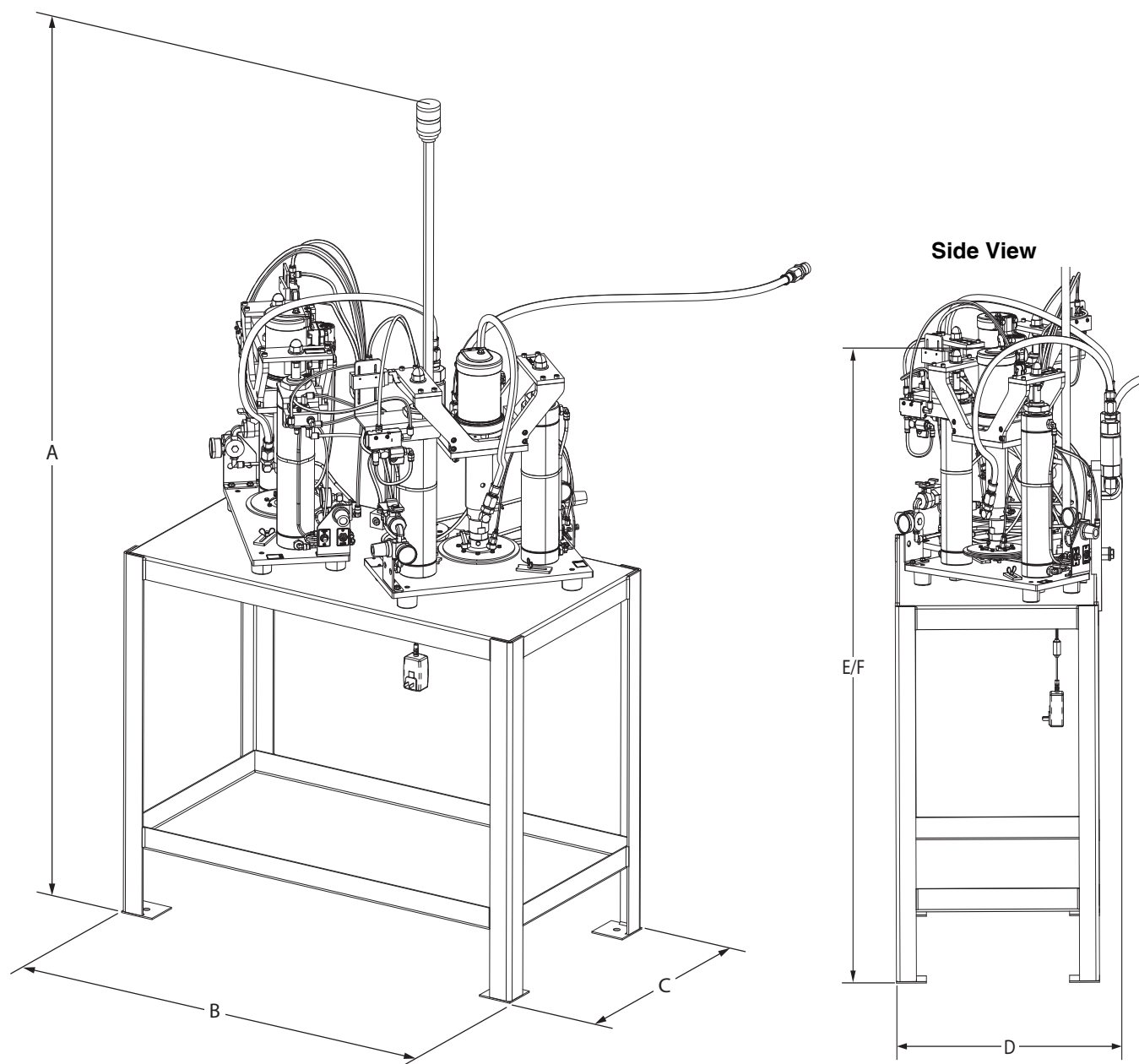


FIG. 14: Tandem Heavy Duty DynaMite Supply System Dimensions

Dimensions	Inches	Millimeters
A - Machine Height	72.4	1839
B - Machine Width	38.4	975.4
C - Base Depth	20.4	518.2
D - Machine Depth	22.6	574
E - Ram Height Lowered	51.7	1313.2
F - Ram Height Raised	61.2	1554.5

Technical Specifications

Tandem Heavy Duty DynaMite Supply System		
	US	Metric
Maximum fluid output pressure	1200 psi	8.3 MPa, 83 bar
Air input pressure	35-100 psi	243-700 KPa, 2.4-7.0 bar
Maximum fluid viscosity	600,000 cps	
Volume per stroke	0.17 oz	5.0 cc
Recommended pump speed for continuous operation	40 cycles per minutes (cpm)	
Maximum recommended pump speed	60 cpm	
Stroke length	3/4 in.	19 mm
Maximum pump operating temperature	140° F	60° C
Weight	250 lb	113.4 kg
Sound pressure level*		
At 70 psi (0.48 MPa, 4.8 bar), 80 cpm	76.5 dB(A)	
Sounds power level*		
At 70 psi (0.48 MPa, 4.8 bar), 80 cpm	83.2 dB(A)	
Inlet/Outlet Sizes		
Air inlet size	1/4 in. npt(f)	
Pump fluid outlet size	1/4 in. npt(f)	
Materials of Construction		
Wetted parts	304 and 17-4 pH stainless steel; PTFE, fluoroelastomer, PEEK	
Notes		
* Sound pressure measured 1 meter (3.28 ft) from the pump resting on the floor. Sounds power level measured per ISO standard 9614-2.		

California Proposition 65

CALIFORNIA RESIDENTS

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

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Original instructions. This manual contains English. MM 3A5311

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Revision D, March 2020