

# Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

Model # 935175 • PD-EV Precision Foamer

## REQUIREMENTS

### Ready-to-Use Chemical Solution

Compressed Air 5 CFM @ 60 PSI minimum

## OPTIONS

### Stainless Steel Hose Racks

Large Stainless Steel Hose Rack # 224150

### Alternate Seal Materials - Santoprene Standard

Viton Upgrade: Flojet Air Pump & Check Valves # 710756

Kalrez Upgrade: Flojet Air Pump & Check Valves # 710755

### Alternate Air Check Valve - EPDM Standard

Check Valve, Air, SS, 1/4" MM (Viton / Hast) # 491306

### Extended Hose (Order in 25' Increments)

Hose, Twin Line, Blue (Added to Standard Length) # 800100FT



[www.laffertyequipment.com](http://www.laffertyequipment.com)

501-851-2820

**WARNING! READ ALL  
INSTRUCTIONS BEFORE  
USING EQUIPMENT!**

## OVERVIEW

The PD-EV Precision Foamer is a 2 GPM foam applicator that is ideal for jobs where long-range, precision foaming is required. An air-operated, double-diaphragm Flojet Pump draws ready-to-use chemical from a static tank and injects compressed air to create rich, clinging foam which greatly increases volume and coverage ability. The foam is then projected through the discharge hose, extended wand, and nozzle at distances up to 25 feet.

SAFETY & OPERATIONAL PRECAUTIONS

- For proper performance do NOT modify, substitute nozzle, hose diameter or length
- Manufacturer assumes no liability for the use or misuse of this unit.
- Wear protective clothing, gloves and eye-wear when working with chemicals.
- Always direct the discharge away from people and electrical devices.
- Follow the chemical manufacturer's safe handling instructions.
- DO NOT use d-Limonene or other chemicals that are not compatible with the Santoprene diaphragms.
- Viton upgrade is available.

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

The unit has been tested and air pressure preset at the optimum setting of 60 PSI. Test "as is" before adjusting air pressure. Do not exceed 80 PSI.

1. Mount the unit above chemical solution container to prevent siphoning.
2. Connect the suction hose to the pump as shown in the drawing.
3. Connect the discharge hose assembly.
4. Place the chemical suction strainer in a static container of ready-to-use chemical solution.
5. Attach a compressed air line to the inlet ball valve. DO NOT TURN ON

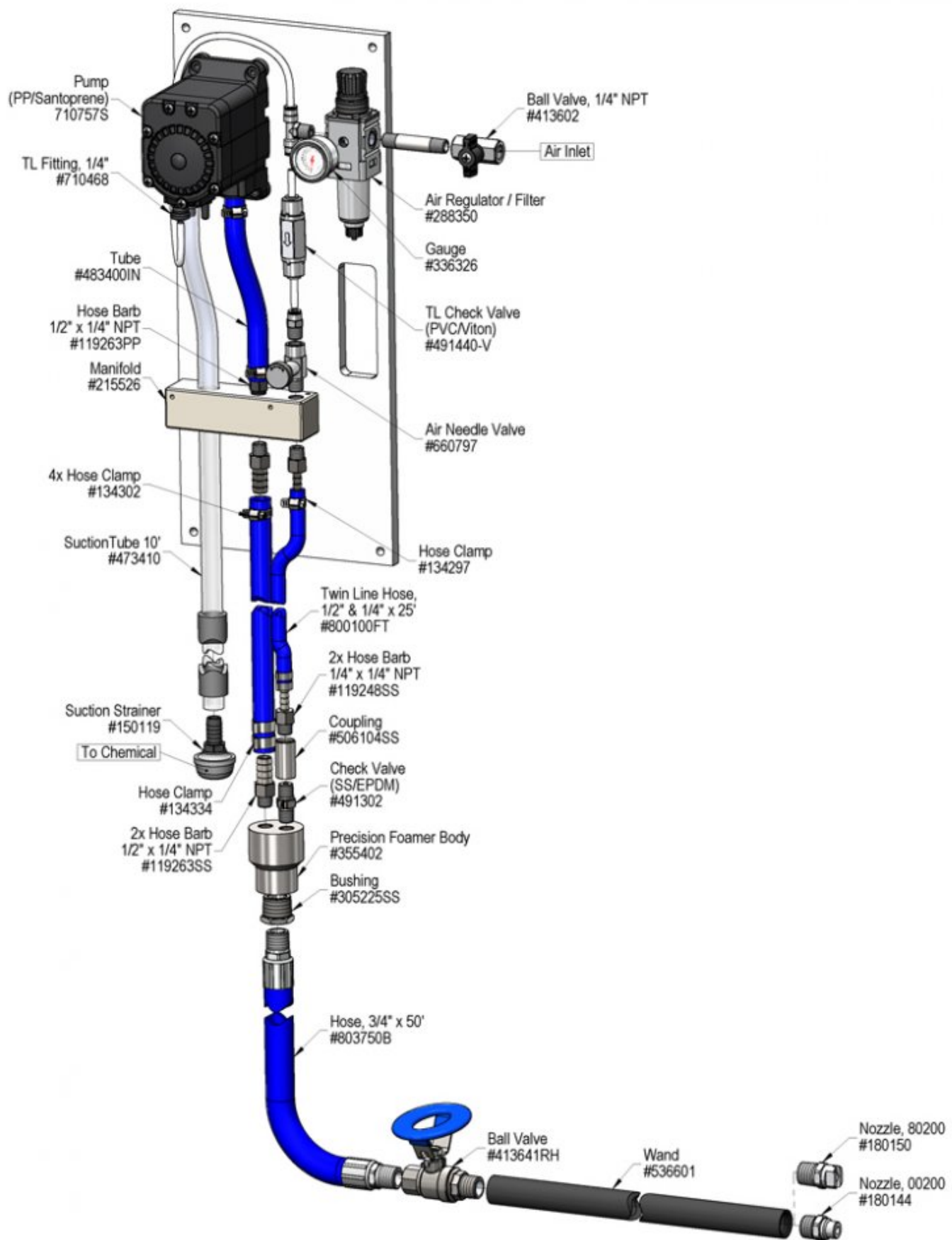
TO OPERATE

1. Direct the discharge in a safe direction, open the air ball valve and open the discharge ball valve.
2. Allow several seconds for the pump to prime and fill the hose, leave ball valve open until foam begins to appear. Observe foam quality. NOTE: The longer the hose the longer it will take for foaming to begin
3. To adjust the foam quality slightly adjust the air needle valve. (Note: Opening the air needle valve more than one full turn will not have any effect. Normally 1/4 turn clockwise is more than enough.) Turn clockwise for dryer foam, counterclockwise for wetter foam. Wet foam will clean and cling to the surface longer!
4. When foaming is completed:
  - Close the discharge ball valve.
  - Return to the unit and close the air inlet ball valve.
  - Briefly open the discharge ball valve to relieve pressure in the hose.

*If unit will be out of service, follow Preventive Maintenance steps at bottom of page 4.*

FLOW RATES

Air Pressure	Pump Flow Rate
PSI	GPM
60	2.0



## Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Air pump will not run/will not pump.	1, 2, 3, 4, 7	9, 12, 13, 14, 15, 16
B) Pump runs too fast with no output.	1, 4	9, 10, 11, 12, 13, 14, 15
C) Unit will not draw chemical.	1, 3, 4	9, 10, 11, 12, 13, 15
D) Cleaning results not acceptable	5, 6, 8	9, 10, 11, 12, 15, 16

Possible Cause / Solution	
Startup	Maintenance
<ol style="list-style-type: none"> <li><b>1. Air pressure too high or too low (60 PSI factory set)</b> <ul style="list-style-type: none"> <li>◦ Open air ball valve fully.</li> <li>◦ Adjust the air regulator clockwise to increase pressure or counterclockwise to decrease</li> <li>◦ Do not exceed 90 PSI. Higher pressure will cause permanent damage to the air pump.</li> </ul> </li> <li><b>2. Discharge hose is long.</b> <ul style="list-style-type: none"> <li>◦ Give it plenty of time to fill the hose and reach the end.</li> </ul> </li> <li><b>3. Discharge hose kinked</b></li> <li><b>4. Suction tube(s) not immersed / Chemical or water depleted</b> <ul style="list-style-type: none"> <li>◦ Fully immerse both tubes</li> <li>◦ Replenish chemical</li> </ul> </li> <li><b>5. Dilution too weak</b> <ul style="list-style-type: none"> <li>◦ Adjust dilution to be stronger. <i>See page 2, How to Set &amp; Adjust Dilution Ratios</i></li> </ul> </li> <li><b>6. Improper chemical</b> <ul style="list-style-type: none"> <li>◦ Ensure product is recommended for foaming and/or the application.</li> </ul> </li> <li><b>7. Ice particles from condensation in air line — Air pump can periodically "freeze up" (stall) due to ice particles in the pump's exhaust (depending on air humidity &amp; other factors)</b> <ul style="list-style-type: none"> <li>◦ WAIT several seconds to allow the ice particles to melt and blow out, at which time the pump will automatically resume pumping.</li> </ul> </li> <li><b>8. Soil has hardened on surface</b> <ul style="list-style-type: none"> <li>◦ Always rinse foam before it dries.</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li><b>9. Foam output too dry, not cleaning</b> <ul style="list-style-type: none"> <li>◦ Turn foam consistency knob slightly clockwise. Wet foam cleans better.</li> </ul> </li> <li><b>10. Suction tube(s) blocked or stretched out where tube slides over hose barb or pin hole/cut in tube (sucking air in)</b> <ul style="list-style-type: none"> <li>◦ Clean strainers. (Replace if missing.)</li> <li>◦ Cut off end of tube or replace tube.</li> </ul> </li> <li><b>11. Vacuum leak in solution pick-up connections (sucking air in)</b> <ul style="list-style-type: none"> <li>◦ Check and tighten suction connections.</li> </ul> </li> <li><b>12. Water and/or chemical check valve stuck or clogged</b> <ul style="list-style-type: none"> <li>◦ Clean or replace.</li> </ul> </li> <li><b>13. Foam generator or foamer body clogged up with dried chemical</b> <ul style="list-style-type: none"> <li>◦ Clean/flush out with hot water, soak in a de-scaling acid or replace foam generator.</li> </ul> </li> <li><b>14. Air regulator / Air filter clogged or failed</b> <ul style="list-style-type: none"> <li>◦ Clean or replace</li> </ul> </li> <li><b>15. Problem with air pump</b> <ul style="list-style-type: none"> <li>◦ Refer to air pump instruction manual.</li> <li>◦ <a href="https://www.xylem.com/en-us/brands/Flojet/flojet-products/g57-air-operated-double-diaphragm-pump">https://www.xylem.com/en-us/brands/Flojet/flojet-products/g57-air-operated-double-diaphragm-pump</a></li> <li>◦ Replace pump.</li> </ul> </li> <li><b>16. Use of an oiler in the airline will cause poor performance or cause pump to stall and cause damage.</b></li> </ol>

**PREVENTIVE MAINTENANCE:** When the unit will be out of service for extended periods, place chemical tube(s) in water and flush the chemical out of the unit to help prevent chemical from drying out and causing build-up. Periodically check and clean chemical strainer and replace if missing.

