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

WEIGHT & DIMENSIONS

Single Package	
Shipping Weight	54 lbs.
Shipping Dimensions	30" x 21" x 18"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

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.

FLOW RATES	
Air Pressure	Pump Flow Rate
PSI	**GPM**
60	2.0

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

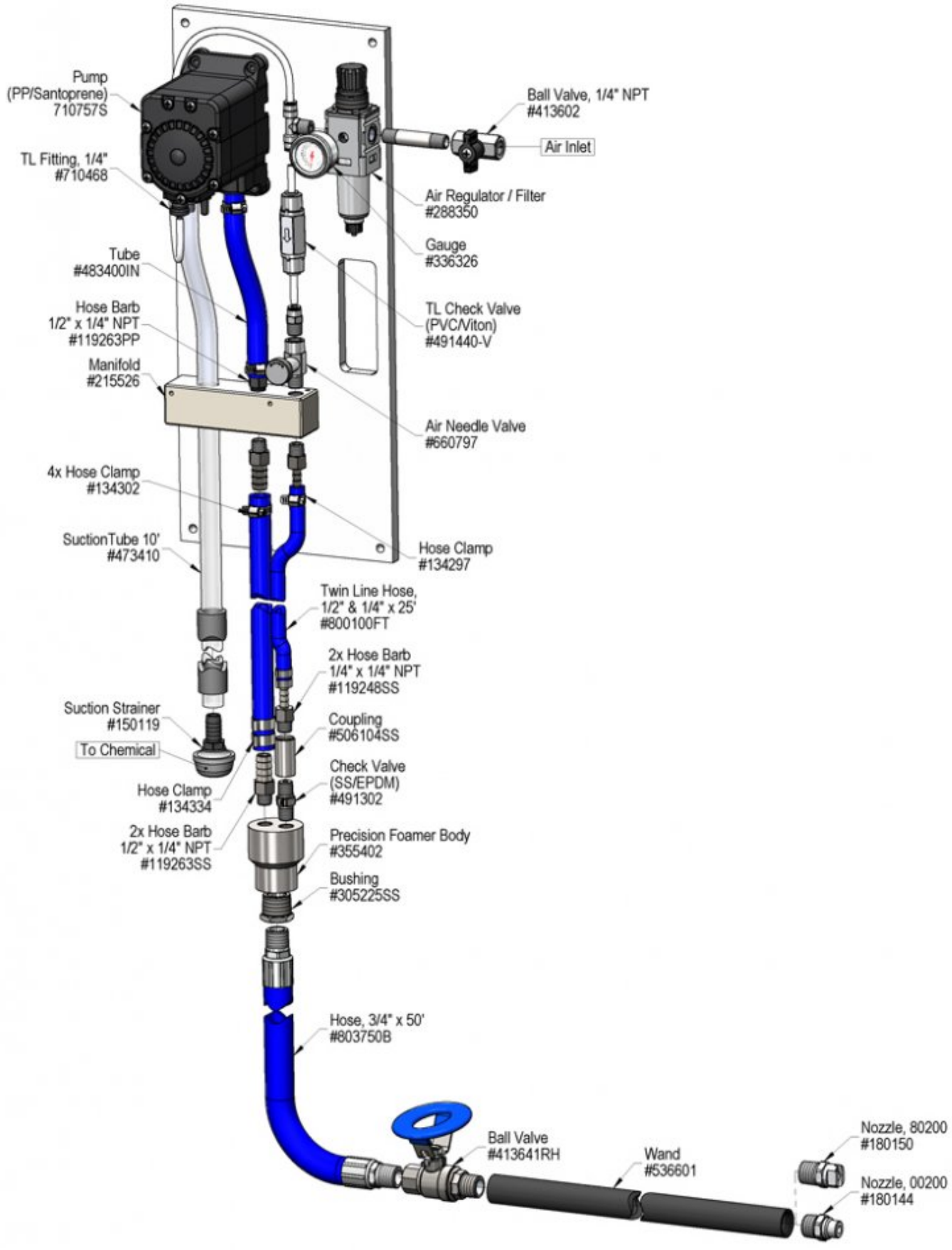
The unit has been tested and air pressure preset at the optimum setting of 60 PSI. Test "as is" before adjusting air pressure. Do not exceed 80 PSI.

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.


Pump
(PP/Santoprene)
710757S
TL Fitting, 1/4"
#710468
Tube
#483400IN
Hose Barb
1/2" x 1/4" NPT
#119263PP
Manifold
#215526
4x Hose Clamp
#134302
SuctionTube 10'
#473410
Suction Strainer
#150119
To Chemical
Hose Clamp
#134334
2x Hose Barb
1/2" x 1/4" NPT
#119263SS
Ball Valve, 1/4" NPT
#413602
Air Inlet
Air Regulator / Filter
#288350
Gauge
#336326
TL Check Valve
(PVC/Viton)
#491440-V
Air Needle Valve
#660797
Hose Clamp
#134297
Twin Line Hose,
1/2" & 1/4" x 25'
#800100FT
2x Hose Barb
1/4" x 1/4" NPT
#119248SS
Coupling
#506104SS
Check Valve
(SS/EPDM)
#491302
Precision Foamer Body
#355402
Bushing
#305225SS
Hose, 3/4" x 50'
#803750B
Ball Valve
#413641RH
Wand
#536601
Nozzle, 80200
#180150
Nozzle, 00200
#180144

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

1. **Air pressure too high or too low (60 PSI factory set)**
   - Open air ball valve fully.
   - Adjust the air regulator clockwise to increase pressure or counterclockwise to decrease
   - Do not exceed 90 PSI. Higher pressure will cause permanent damage to the air pump.
2. **Discharge hose is long.**
   - Give it plenty of time to fill the hose and reach the end.
3. **Discharge hose kinked**
4. **Suction tube(s) not immersed / Chemical or water depleted**
   - Fully immerse both tubes
   - Replenish chemical
5. **Dilution too weak**
   - Adjust dilution to be stronger. *See page 2, How to Set & Adjust Dilution Ratios*
6. **Improper chemical**
   - Ensure product is recommended for foaming and/or the application.
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 & other factors)**
   - WAIT several seconds to allow the ice particles to melt and blow out, at which time the pump will automatically resume pumping.
8. **Soil has hardened on surface**
   - Always rinse foam before it dries.

Maintenance

9. **Foam output too dry, not cleaning**
   - Turn foam consistency knob slightly clockwise. Wet foam cleans better.
10. **Suction tube(s) blocked or stretched out where tube slides over hose barb or pin hole/cut in tube (sucking air in)**
    - Clean strainers. (Replace if missing.)
    - Cut off end of tube or replace tube.
11. **Vacuum leak in solution pick-up connections (sucking air in)**
    - Check and tighten suction connections.
12. **Water and/or chemical check valve stuck or clogged**
    - Clean or replace.
13. **Foam generator or foamer body clogged up with dried chemical**
    - Clean/flush out with hot water, soak in a de-scaling acid or replace foam generator.
14. **Air regulator / Air filter clogged or failed**
    - Clean or replace
15. **Problem with air pump**
    - Refer to air pump instruction manual.
    - https://www.xylem.com/en-us/brands/Flojet/flojet-products/g57-air-operated-double-diaphragm-pump
    - Replace pump.
16. **Use of an oiler in the airline will cause poor performance or cause pump to stall and cause damage.**

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.