Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 933604-V · 2-Way FPV-PD Concrete Foamer

REQUIREMENTS

Ready-to-Use Chemical Solution

Compressed Air	up to 6 CFM
Hose	3/4" ID x 50'
Nozzle	40150

OPTIONS

Stainless Steel Hose Racks

Large Stainless Steel Hose Rack	# 224150

Stainless Steel Jug Racks Available

To Dilute and Dispense Ready-To-Use Acid Solution

414HC Acid Mixing Station	# 980415

Drum & Tote Stick Lengths & Seal Materials

Drum Stick, 33" (Viton or EPDM)	# 491643 / 491643-E
Drum Stick, 48" (Viton or EPDM)	# 491648 / 491648-E
Drum Stick, 54" (Viton or EPDM)	# 491645 / 491645-E
Tote Stick, 33" (Viton or EPDM)	# 491653 / 491653-E
Tote Stick, 48" (Viton or EPDM)	# 491654 / 491654-E
Tote Stick, 54" (Viton or EPDM)	# 491656 / 491656-E

WEIGHT & DIMENSIONS

Single Package

Shipping Weight	38 lbs.
Shipping Dimensions	34" x 29" x 12"



Lafferty EQUIPMENT MANUFACTURING LLC®

CFS TECHNOLOGIES

www.laffertyequipment.com
501-851-2820

WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

The 2-Way FPV-PD Concrete Foamer is a foam applicator for projecting 2 highly corrosive chemicals such as those used to remove concrete and for aluminum brightening. This acid-resistant system uses a cost-effective Flojet air-operated, double-diaphragm pump to draw 2 ready-to-use acid solutions from static tanks and inject compressed air to greatly increase volume and coverage ability. Rich, clinging foam is projected through the hose, wand and fan nozzle on to any surface. Use the ball valves to apply the chemicals separately or simultaneously.

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 chemicals that are not compatible with Viton diaphragms.

UNIT FLOW RATES	
PSI	GPM
60	1.20

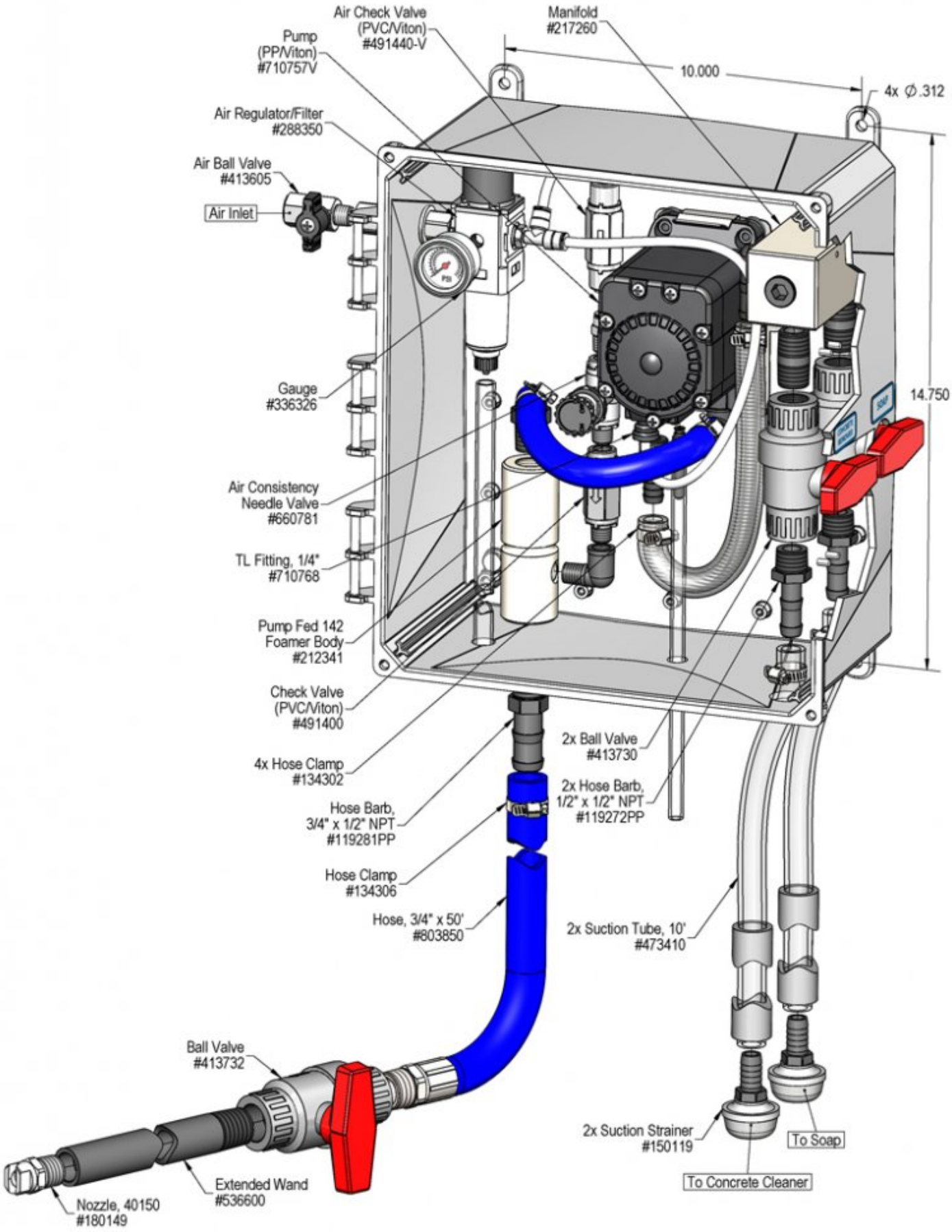
TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Mount the unit above solution supply level to prevent siphoning.
2. Place the strainer in the chemical solution(s).
3. Attach the discharge hose.
4. Attach a compressed airline to the air inlet ball valve. DO NOT TURN ON.
5. Air Filter/Dryer recommend.

TO OPERATE

- **Always make sure the discharge ball valve is closed or pointed in a safe direction before turning the air on. Ball valve can be shut off at any time during operation but should not be left unattended for long periods of time. Expect a strong blast when re-opening ball valve.**
- **The unit has been tested and is ready to operate, the air pressure preset at 60 PSI. This is the optimum pump pressure. Test "as is" before making any adjustments.**
- The foam consistency knob is pre-set at 1/2 turn. To adjust foam consistency, turn the foam consistency needle valve counterclockwise a maximum of 1 turn for dryer foam and clockwise for wetter foam. Wait several seconds after each adjustment to see the results.Wet foam WILL remove concrete better than dry foam!

1. With the foam wand in hand direct the discharge in a safe direction **open the discharge ball valve and one of the blue chemical ball valves.**
2. Open air ball valve, wait a few seconds for the pump to prime and start foaming.
3. If the flow of foam surges, the foam consistency needle valve is open too much or the chemical concentration is too weak, reduce the air flow by turning the needle valve slowly clockwise until the foam flow stabilizes. Or add more chemical concentrate.
4. A medium-wet foam will give the best cleaning results! Very dry foam will NOT clean as well!
5. When foaming is complete:
    - Close the discharge ball valve.
    - Promptly return to the unit and close the air ball valve and the chemical ball valve. NEVER leave the air ball valve on when not in use.
    - Briefly re-open the discharge ball valve to relieve pressure in the hose.
6. Rinse the work surface before the foam dries.


Air Check Valve
(PVC/Viton)
#491440-V
Manifold
#217260
Pump
(PP/Viton)
#710757V
10.000
4x Ø.312
Air Regulator/Filter
#288350
Air Ball Valve
#413605
Air Inlet
Gauge
#336326
14.750
Air Consistency
Needle Valve
#660781
TL Fitting, 1/4"
#710768
Pump Fed 142
Foamer Body
#212341
Check Valve
(PVC/Viton)
#491400
2x Ball Valve
#413730
4x Hose Clamp
#134302
2x Hose Barb,
1/2" x 1/2" NPT
#119272PP
Hose Barb,
3/4" x 1/2" NPT
#119281PP
Hose Clamp
#134306
Hose, 3/4" x 50'
#803850
2x Suction Tube, 10'
#473410
Ball Valve
#413732
2x Suction Strainer
#150119
To Soap
To Concrete Cleaner
Extended Wand
#536600
Nozzle, 40150
#180149

Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Air pump will not pump or runs with no output.	1, 2, 3, 4, 7	9, 10, 12, 13, 14
B) Foam surges and/or hose "bucks".	1, 2, 3, 4, 5, 6, 7	9, 12, 13
C) Foam output too wet.	1, 2, 3, 4, 5, 6	9, 12, 13
D) Foam output too dry.	2	
E) Cleaning results not acceptable.	5, 6, 8	

Possible Cause / Solution

Startup

1. **Inlet ball valve partially closed or air pressure too low.**
   - Completely open air inlet ball valve.
2. **Foam consistency needle valve open too much**
   - Adjust the needle valve slowly clockwise until foam stabilizes. Turn round handle slightly clockwise for wetter foam; open counterclockwise for dryer foam. Open a maximum of 1 turn.
3. **Discharge ball valve not completely open or Discharge hose kinked**
   - Completely open the discharge ball valve / straighten hose
4. **Solution tube not completely immersed in chemical or container empty**
   - Immerse tube or replenish chemical.
5. **Dilution too weak**
   - Add more chemical to solution container.
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. **Solution strainer blocked**
   - Clean or replace
10. **Air regulator failed**
    - Clean or replace
11. **Air or water check valve(s) failed**
    - Clean or replace
12. **Discharge hose wrong size or kinked (See REQUIREMENTS, page 1).**
    - Straighten the hose
13. **Nozzle size too small or missing**
    - See REQUIREMENTS, page 1.
14. **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.

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.