Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 933712-V · Dual Pump FPV-PD Concrete Sprayer / Foamer

REQUIREMENTS

Ready-to-Use Chemical Solution

Compressed Air	up to 6 CFM

Hose

Foam	3/4" ID x 50'
Spray	1/2" ID x 50'

Nozzle

Foam	50250
Spray	2520

OPTIONS

Stainless Steel Hose Racks

Large Stainless Steel Hose Rack	# 224150

To Dilute and Dispense Ready-To-Use Acid Solution

414HC Acid Mixing Station	# 980415

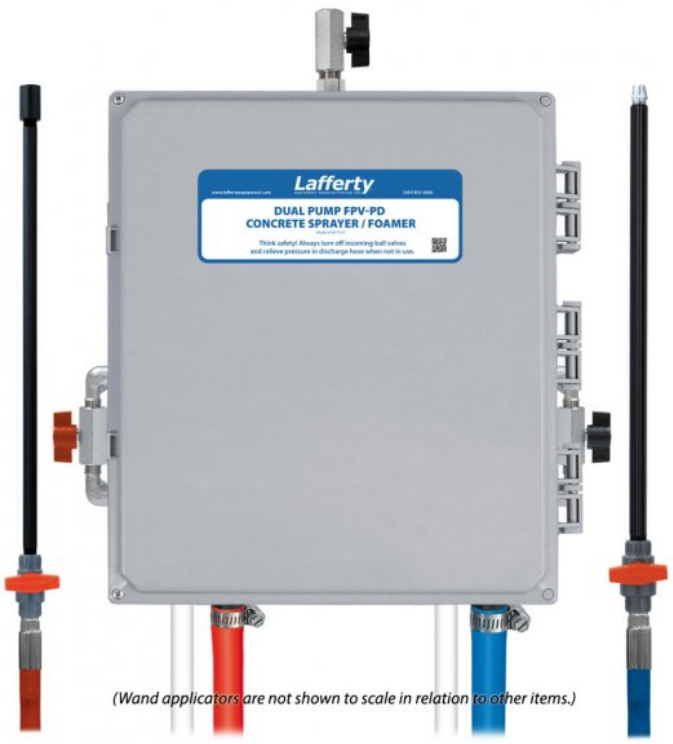
Drum & Tote Stick Lengths & Seal Materials

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	35 lbs.
Shipping Dimensions	25" x 24" x 14"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

www.laffertyequipment.com
501-851-2820

WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

The Dual Pump FPV-PD Concrete Sprayer / Foamer is a combination chemical spray and foam applicator for use with highly corrosive chemicals such as those used to remove concrete and for aluminum brightening. This acid-resistant system uses 2 Flojet air-operated, double-diaphragm pumps to draw ready-to-use chemical solutions from static tanks. Compressed air is injected into the foaming solution to greatly increase volume and coverage ability and rich, clinging foam is projected through the foam hose, wand and fan nozzle. The other solution is projected as a chemical spray through a separate dedicated hose.

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	
	FOAM	SPRAY
60	2.08	2.45

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Mount the unit above chemical solution containers to prevent siphoning.
2. Attach the discharge hose assemblies as shown.
3. Securely attach the suction tubes to the pumps as shown and place the strainers into the ready to use chemical solution containers.
4. Attach a compressed airline to the inlet ball valve. DO NOT TURN ON

TO SPRAY

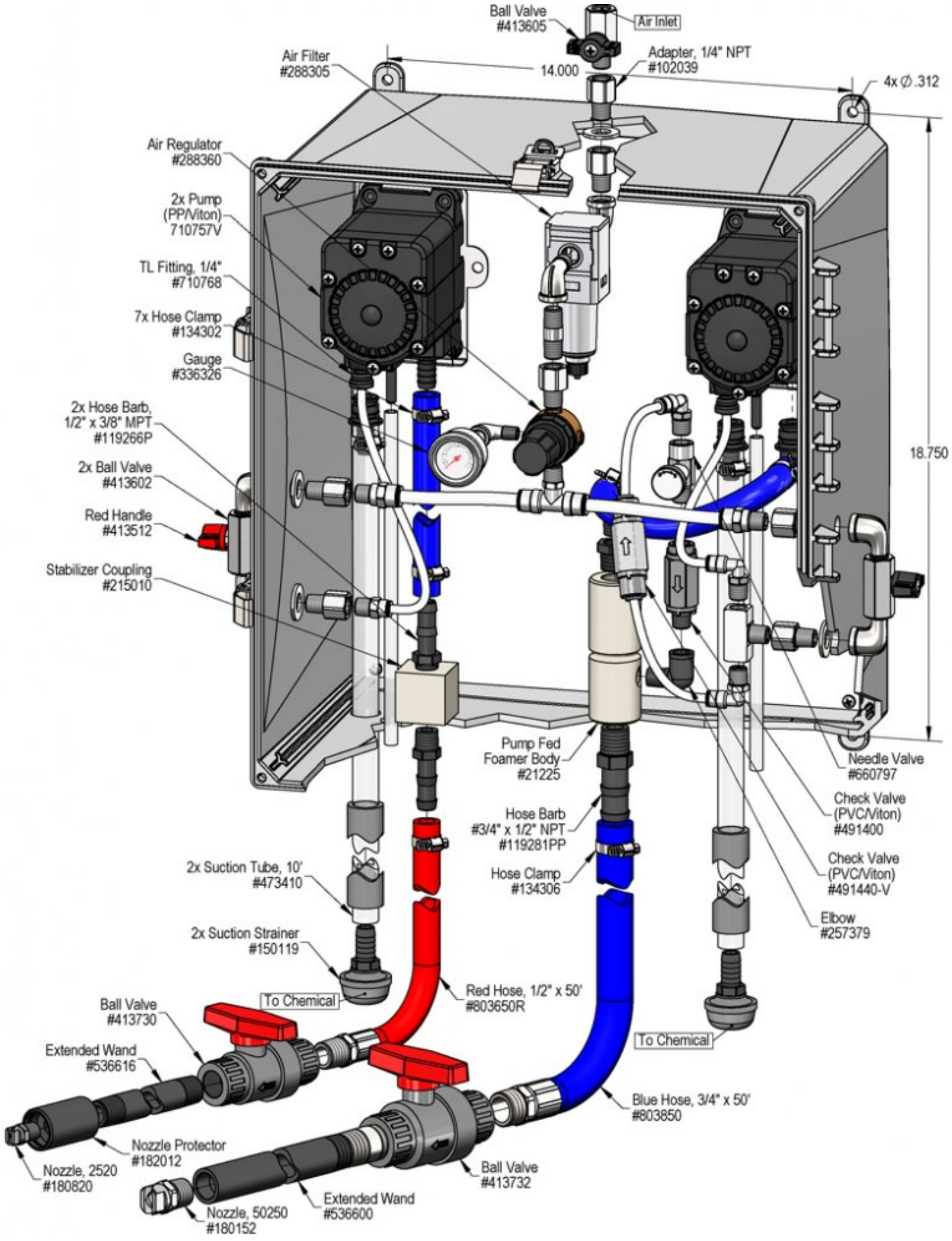
- **Always make sure the discharge ball valve or trigger gun is closed and pointed in a safe direction before turning the air on. Discharge can be shut off at any time during operation but should not be left unattended for long periods of time.**
- **The unit has been tested and is ready to operate, the air pressure is preset at 60 PSI. This is the optimum pump pressure. Test "as is" before making any adjustments.**

1. With the wand in hand direct the discharge in a safe direction, open the discharge ball valve (or squeeze trigger gun), and open the air ball valve.
2. When spraying is complete:
    - Close the discharge ball valve or release trigger.
    - Promptly return to the unit and close the air ball valve.
    - Briefly re-open the discharge ball valve or trigger gun to relieve pressure in the hose.
    - Store the hose on optional hose rack.
3. IF applicable, rinse the work surface before the solution dries.

TO FOAM

- **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. To adjust foam consistency, turn the foam consistency needle valve counterclockwise for drier foam and clockwise for wetter foam. Make 1/4 turns only - do not overcompensate. Wait several seconds after each adjustment to see the results.

1. With the foam wand in hand direct the discharge in a safe direction and open the discharge ball valve and the air ball valve.
2. If the flow of foam surges, the 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.
3. A medium-wet foam will give the best cleaning results! Very dry foam will NOT clean as well!
4. When foaming is complete:
    - Close the discharge ball valve.
    - Promptly return to the unit and close the air ball valve.
    - Briefly re-open the discharge ball valve to relieve pressure in the hose.
5. Rinse the work surface before the foam dries.


Ball Valve
#413605
Air Inlet
Air Filter
#288305
14.000
Adapter, 1/4" NPT
#102039
4x Ø.312
Air Regulator
#288360
2x Pump
(PP/Viton)
710757V
TL Fitting, 1/4"
#710768
7x Hose Clamp
#134302
Gauge
#336326
2x Hose Barb,
1/2" x 3/8" MPT
#119266P
2x Ball Valve
#413602
Red Handle
#413512
Stabilizer Coupling
#215010
18.750
Pump Fed
Foamer Body
#21225
Needle Valve
#660797
Check Valve
(PVC/Viton)
#491400
Hose Barb
#3/4" x 1/2" NPT
#119281PP
Hose Clamp
#134306
Check Valve
(PVC/Viton)
#491440-V
Elbow
#257379
2x Suction Tube, 10'
#473410
2x Suction Strainer
#150119
To Chemical
Red Hose, 1/2" x 50'
#803650R
Ball Valve
#413730
To Chemical
Extended Wand
#536616
Blue Hose, 3/4" x 50'
#803850
Nozzle Protector
#182012
Nozzle, 2520
#180820
Ball Valve
#413732
Extended Wand
#536600
Nozzle, 50250
#180152

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.