Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 941219-LF · Portable 2-Wheel 20 Gallon Liberty LF Foamer

REQUIREMENTS

Ready-to-Use Chemical Solution

Compressed Air	up to 6 CFM
Hose	3/4" ID x 40'
Nozzle	40100

OPTIONS

Proportioning / Filling Options	
1-Way Ball Valve Mixing Station (4 GPM)	# 985100
1-Way Push Lever Mixing Station (4 GPM)	# 981100
High Volume Mixing Station (9.9 GPM)	# 985835
Drain Foamer Attachment	
Drain Foamer Attachment (Freedom, 2.5 & Liberty, 2.5)	# 538245
Alternate Seal Materials - Santoprene Standard	
Viton Upgrade: Flojet Air Pump & Check Valves	# 710756
Kalrez Upgrade: Flojet Air Pump & Check Valves	# 710755
Stainless Steel Foam Wand (Upgrade)	
Convert PP Wand to SS (New Units)	# 536603-X

WEIGHT & DIMENSIONS

Single Package	
Shipping Weight	64 lbs.
Shipping Dimensions	42" x 23" x 21"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

www.laffertyequipment.com
501-851-2820

WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

The Portable 2-Wheel 20 Gallon Liberty LF Foamer is a "low volume" foam applicator for projecting ready-to-use foaming chemicals on to any surface up close or at distances up to 9 feet. This unit features a stainless steel 2-wheel cart and enclosure and uses a cost-effective 1/4" Flojet air-operated, double-diaphragm pump to draw pre-diluted chemical from the 20 gallon tank. It injects compressed air into the solution to greatly increase volume and coverage ability and projects rich, clinging foam through the hose, wand and fan nozzle.

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.

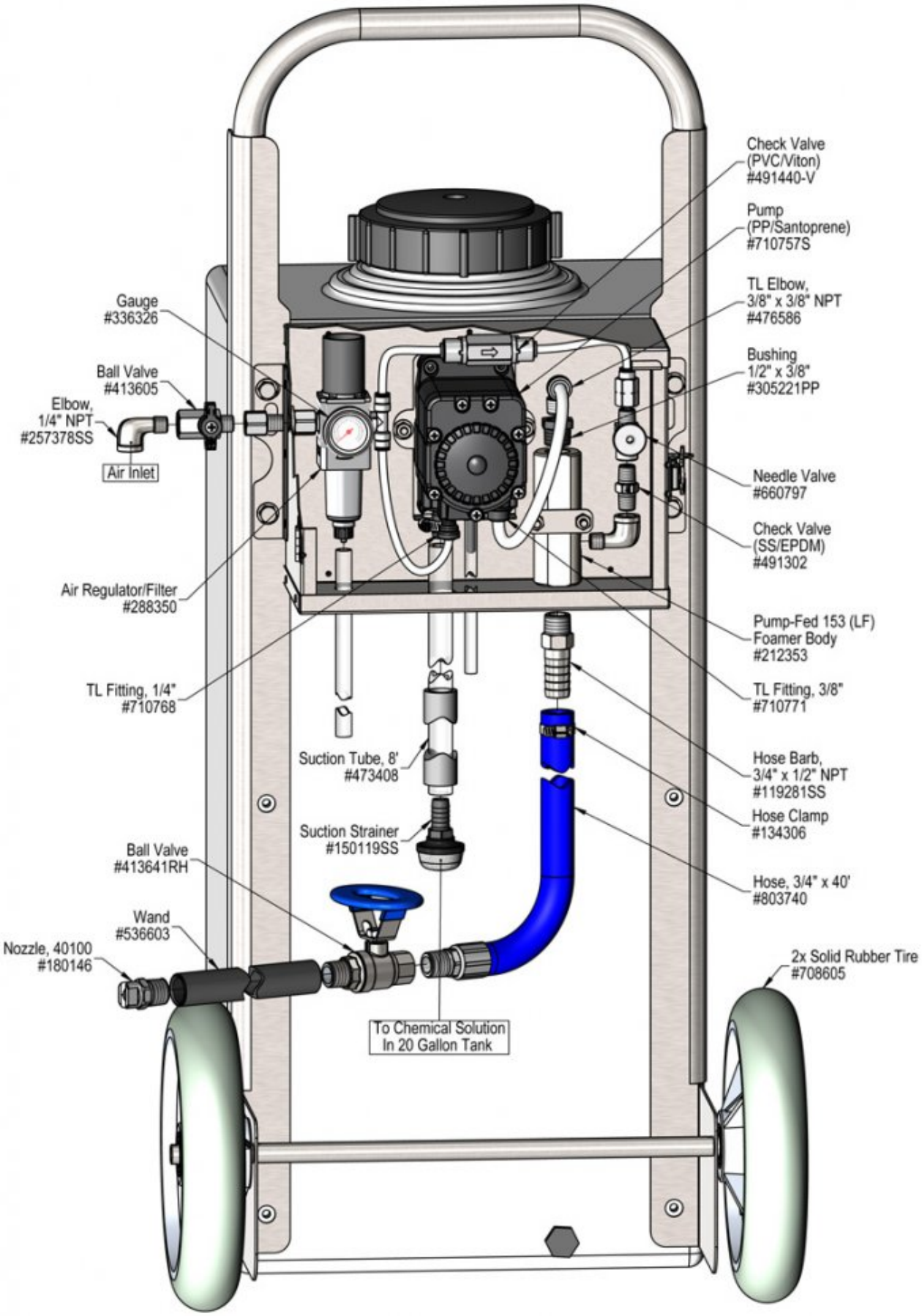
TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Fill the tank with ready to use solution to the desired level. Replace lid.
2. Attach a compressed airline to the inlet ball valve. DO NOT TURN ON
3. 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. 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.


Check Valve
(PVC/Viton)
#491440-V
Pump
(PP/Santoprene)
#710757S
TL Elbow,
3/8" x 3/8" NPT
#476586
Bushing
1/2" x 3/8"
#305221PP
Gauge
#336326
Ball Valve
#413605
Elbow,
1/4" NPT
#257378SS
Air Inlet
Needle Valve
#660797
Check Valve
(SS/EPDM)
#491302
Air Regulator/Filter
#288350
Pump-Fed 153 (LF)
Foamer Body
#212353
TL Fitting, 1/4"
#710768
TL Fitting, 3/8"
#710771
Suction Tube, 8'
#473408
Hose Barb,
3/4" x 1/2" NPT
#119281SS
Hose Clamp
#134306
Suction Strainer
#150119SS
Ball Valve
#413641RH
Hose, 3/4" x 40'
#803740
Wand
#536603
Nozzle, 40100
#180146
2x Solid Rubber Tire
#708605
To Chemical Solution
In 20 Gallon Tank

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.