

# Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

Model # 925510 · 10 Gallon LV Tank Foamer

## REQUIREMENTS

Chemical Concentrate

Water to Fill Tank

Compressed Air up to 5 CFM

Nozzle 80150

## OPTIONS

Alternate Check Valves - EPDM Standard

Check Valve, Chemical, PP/Viton, 1/4" # 491315

Check Valve, Air, SS/Viton, 1/4" # 491306



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



## OVERVIEW

The 10 Gallon LV Tank Foamer is a low-volume venturi foam applicator that uses compressed air to pressurize the water in the tank to create the water pressure to draw and blend chemical concentrate into the water stream. Compressed air is injected into the solution which is projected as a low-volume of rich, clinging foam on to any surface up close or at distances up to 9 feet. Each fill provides 13 minutes of continuous foaming time.

## SAFETY &amp; OPERATIONAL PRECAUTIONS

- 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.
- MAXIMUM recommended pressure for air regulator is 80 PSI.

**Do Not Use any chemicals inside the tank! The tank is for WATER ONLY.**

## TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. This unit has been preset and tested with the tank pressure set at 60 PSI and the foam consistency regulator set at 20 PSI. Try these settings before making any adjustments.
2. Pull wire handle up to unlock the tank lid and remove from the tank.
3. **Fill tank with potable water only, no chemical.**
4. Replace the tank lid, making sure the "O" ring seats properly. Lock wire handle in place.
5. Place a one gallon container of chemical concentrate in the jug rack.

**INSTALL METERING TIP:** See chemical labels for dilution ratio recommendation or consult your chemical supplier. **DO NOT OVER TIGHTEN** metering tip. For the strongest dilution ratio do not install a metering tip.

- The dilution ratios in the metering tip chart are based on water thin chemicals with a viscosity of 1CPS.
  - Thicker chemicals will require a larger tip than the ratios shown in the chart.
  - Application results will ultimately determine final tip color.
1. Select a metering tip and thread it into the tip holder/check valve of the unit.
  2. Cut a length of pick-up tube to suit the depth of your chemical container and affix the strainer to one end. Connect the other end of this piece to the hose barb on the underside of the jug lid.
  3. Screw the jug lid onto your jug of chemical concentrate.
  4. Connect one end of the remaining pick-up tube to the hose barb on the top of the jug lid.
  5. Push the other end of this tube over the tip holder/check valve.

## TO OPERATE

1. Attach a compressed airline to the unit, 3/8" minimum.
2. Make sure the tank lid is secure and the discharge ball valve is closed.
3. Open the air ball valve and wait a few seconds for the tank to pressurize.
4. Make final metering tip adjustments based on application results.
5. With wand in hand, open the discharge ball valve.
  - Wait a few seconds and observe foam consistency.
  - Use the least amount of "foam consistency" air needed to achieve good foam quality, air pressure must be kept lower than tank air pressure.
  - If foam consistency is too dry or too wet pull out on the air regulator knob, turn slightly clockwise for dryer foam and counterclockwise for wetter foam. Wait a few seconds to see each adjustment.
  - Medium wet foam will give the best cleaning results! Dry foam will NOT clean as well!
  - You may also have to try different sized metering tips and air settings until foam consistency and cleaning results are acceptable. Once this is set and desired foam consistency is achieved, push lock the knob. You are ready to start application.
6. When foaming is completed, close the discharge ball valve, return to the unit and close the air ball valve. When finished foaming, relieve the pressure on the tank with the pop-off valve in the lid then briefly re-open the discharge ball valve to relieve pressure in the hose. Rinse before the foam dries.

## TO SHUT DOWN OR REFILL TANK

1. Turn off the air supply by closing the air ball valve.
2. Pull up on the pop-off valve tab and relieve pressure completely.
3. Remove the lid.
4. Refill the tank with water and replace lid making sure the O-ring seats and it locks in place.

## METERING TIP SELECTION

METERING TIP COLOR	OZ/MIN	DILUTION RATIO @ 60 PSI
Brown	0.56	183:1
Clear	0.88	116:1
Bright Purple	1.38	74:1
White	2.15	48:1
Pink	2.93	35:1
Corn Yellow	3.84	27:1
Dark Green	4.88	21:1
Orange	5.77	18:1
Gray	6.01	17:1
Light Green	7.01	15:1
Med. Green	8.06	13:1
Clear Pink	9.43	11:1
Yellow Green	11.50	9:1
Burgundy	11.93	9:1
Pale Pink	13.87	7:1
Light Blue	15.14	7:1
Dark Purple	17.88	6:1
Navy Blue	25.36	—
Clear Aqua	28.60	—
Black	50.00	—
No Tip Ratio Up To:		5:1

The dilution ratios above are approximate values. Due to chemical viscosity, actual dilution ratios may vary.

## FORMULA

$$\text{GPM} \times 128 \div \text{Desired Dilution Ratio} = \text{oz/min}$$

- See Unit Flow Rates chart for GPM
- Use 20 for 20:1 dilution ratio, 30 for 30:1, etc.
- Match calculated ounces per minute (oz/min) to nearest oz/min in Metering Tip Selection chart.

## UNIT FLOW RATES

PSI	GPM
60	0.80



## Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Foam surges and/or hose "bucks".	1,2,3,4,5,6	8,10,11,12,14
B) Foam output too wet.	1,2,3,4,5,6	8,10,11,12,13
C) Foam output too dry.	1	8
D) Foam does not clean properly.	2,4	13
E) Pop-Off valve keeps relieving.	7	8,10,12
F) Tank won't hold pressure.	7	8,10,12

Possible Cause / Solution	
Startup	Maintenance
<b>1. Foam consistency air regulator adjustment too low or too high.</b> <ul style="list-style-type: none"> <li>Open inlet air ball valve fully. Adjust foam consistency air regulator slightly clockwise for dryer foam and counterclockwise for wetter foam.</li> </ul>	<b>8. Air regulator clogged or failed</b> <ul style="list-style-type: none"> <li>Clean or replace air regulator.</li> </ul>
<b>2. Weak chemical solution</b> <ul style="list-style-type: none"> <li>Increase chemical concentration.</li> </ul>	<b>9. Air check valve clogged or failed</b> <ul style="list-style-type: none"> <li>Clean or replace the air check valve(s).</li> </ul>
<b>3. Discharge ball valve not completely open</b> <ul style="list-style-type: none"> <li>Completely open discharge ball valve.</li> </ul>	<b>10. Pop-Off Valve clogged or failed</b> <ul style="list-style-type: none"> <li>Clean or replace</li> </ul>
<b>4. Improper chemical</b> <ul style="list-style-type: none"> <li>Ensure chemical is recommended for foaming and the application.</li> </ul>	<b>11. Tank is empty (no solution)</b> <ul style="list-style-type: none"> <li>Follow refill tank procedure.</li> </ul>
<b>5. Foam hose wrong size or kinked</b> <ul style="list-style-type: none"> <li>See requirements. Straighten the hose.</li> </ul>	<b>12. Tank o-ring not seated, missing or worn</b> <ul style="list-style-type: none"> <li>Realign, clean or replace.</li> </ul>
<b>6. Nozzle size too small</b> <ul style="list-style-type: none"> <li>Use only supplied nozzle.</li> </ul>	<b>13. Soil has hardened on surface</b> <ul style="list-style-type: none"> <li>Reapplication may be necessary. Always rinse foam before it dries.</li> </ul>
<b>7. Tank air pressure regulator set too high</b> <ul style="list-style-type: none"> <li>Adjust the top air regulator slowly counterclockwise.</li> <li>Optimal pressure is 60 PSI</li> </ul>	<b>14. Use of an oiler on the airline will cause poor foam quality</b> <ul style="list-style-type: none"> <li>Use only clean, dry air.</li> </ul>

**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.

