## Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

### Model # 917920 · W-20SS Sanitize / A-20SS Airless Foam Hose Drop Station

### REQUIREMENTS

### **Chemical Concentrate**

Water	
Temperature	up to 180°F
Pressure	400 to 1000 PSI
Flow	3.11 GPM @ 700 PSI
Supply Line	3/8"
Hose	
Sanitize	3/8" ID x 50'
Foam	3/8" ID x 50'
Nozzle	
Sanitize	2520
Foam	A-20 Airless Foam Wand

OPTIONS	
Stainless Steel Hose Racks	
Large Stainless Steel Hose Rack	# 224150
Stainless Steel Jug Racks	
Jug Rack, SS, 1 Gallon, Round/Square	# 224200
Jug Rack, SS, 2 1/2 Gallon	# 224210
Jug Rack, SS, 5 Gallon, Round/Square	# 224215
Safe Flow Lid™ for 1 Gallon Jugs	
Lid, Suction Tube, and Strainer	# 709101
Alternate Check Valve - EPDM Standard	
Check Valve, Chemical, SS, Viton, 1/4"	# 491324-V





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WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

### **OVERVIEW**

The W-20SS Sanitize / A-20SS Airless Foam Hose Drop Station is a combination system for applying one chemical as foam without compressed air and another as a sanitizing spray. This venturi injection system uses high water pressure (400 - 1000 PSI) to draw and blend chemical concentrates into the water streams to create accurately diluted solutions. Precision metering tips are used to control chemical usage. Foaming chemical solution flows through the foam hose and trigger gun to the "airless" foam wand which draws in atmospheric air to create and project wet, clinging foam at distances up to 12 feet. Sanitizer solution, or any other chemical, is projected using the trigger gun and fan nozzle.

#### 917920 • W-20SS Sanitize / A-20SS Airless Foam Hose Drop Station **SAFETY & OPERATIONAL PRECAUTIONS** METERING TIP SELECTION • For proper performance do NOT modify, substitute nozzle, hose diameter or length. DILUTION • Manufacturer assumes no liability for the use or misuse of this unit. METERING TIP RATIO OZ/MIN @ 700 PSI • Wear protective clothing, gloves and eye wear when working with chemicals. COLOR • Always direct the discharge away from people and electrical devices. SANITIZE FOAM · Follow the chemical manufacturer's safe handling instructions. 711:1 Brown 0.56 711:1 TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE) 0.88 452:1 452:1 Clear Bright Purple 1.38 288:1 288·1 1. Mount the unit to a suitable surface above the chemical supply to prevent siphoning. White 185.1 185.1 2.15 2. Connect the discharge hoses as shown in the diagram and close the inlet ball valves 2.93 136:1 136.1 Pink 3. To prevent premature blocking of the "Y" strainer flush any new plumbing of debris prior to hooking up to the 3.84 104:1 Corn Yellow 104:1 station.. Dark Green 4.88 82:1 82:1 4. Connect water supply Orange 5.77 69.1 69:1 Gray 6.01 66<sup>.</sup>1 66:1 Set the chemical dilution ratio by threading one of the color coded metering tips into each chemical check valve. See chemical labels for dilution ratio recommendation or consult your chemical supplier. Light Green 7.01 57:1 57:1 Med. Green 8.06 49:1 49:1 • For the strongest dilution ratio do NOT install a colored metering tip. Clear Pink 9.43 42:1 42:1 • The dilution ratios in the metering tip chart are based on water thin chemicals with a viscosity of 1CPS. Yellow Green 11.50 35:1 35:1 • Thicker chemicals will require a larger tip than the ratios shown in the chart. Burgundy 11.93 33:1 33:1 • Application results will ultimately determine final tip color. Pale Pink 13.87 29:1 29:1 • Select the tip color that is closest to your desired chemical strength and thread it into the tip holder. DO NOT Light Blue 15.14 26:1 26:1 OVER-TIGHTEN. • Push the chemical tube over the check valve barb and place the suction tube in the chemical concentrate. Dark Purple 17.88 22:1 22:1 Navy Blue 25.36 16:1 16:1 • If necessary, cut suction tube(s) to length before attaching suction strainer. Clear Aqua 28.60 14:1 14:1

### TO FOAM

- 1. Make final metering tip adjustments based on application results.
- 2. Open the inlet ball valve then pull the trigger to begin application.
- 3. When application is completed, release the trigger, return to the unit and close the inlet ball valve.
- 4. Squeeze the trigger to relieve pressure in hose. Rinse the work surface before solution dries.

### TO SANITIZE

- 1. Make final metering tip adjustments based on application results.
- 2. With trigger gun in hand open the inlet ball valve.
- 3. Pull the trigger and begin application.
- 4. When application is completed, release the trigger then close the inlet ball valve.
- 5. Briefly squeeze the trigger to relieve pressure in hose.

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

50.00

8:1

7:1

8:1

7:1

### FORMULA

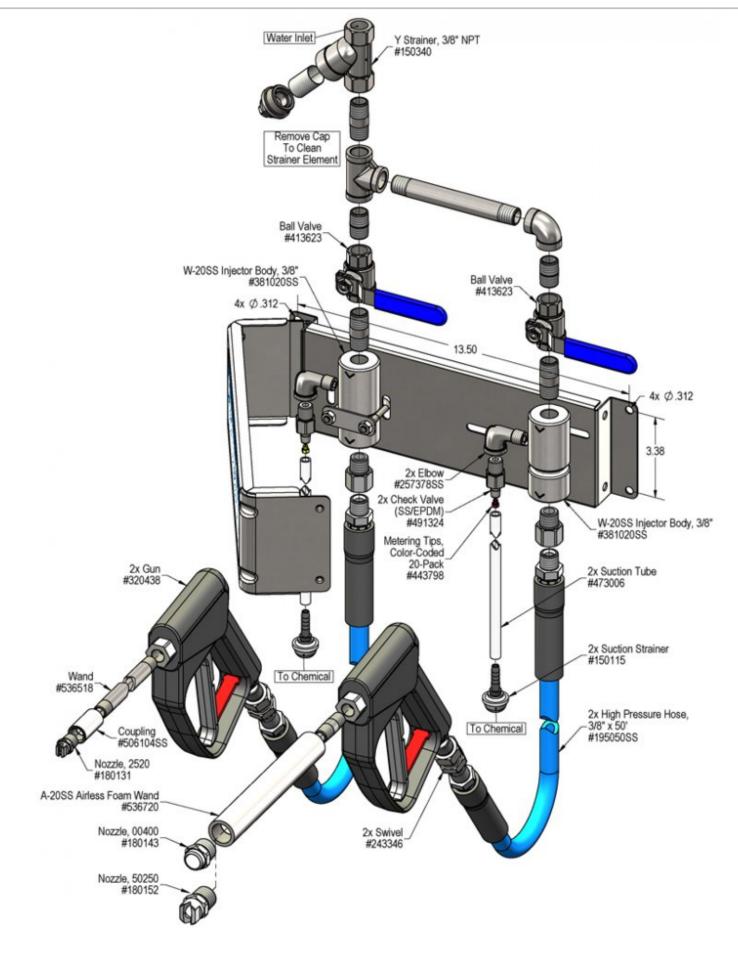
- GPM × 128 ÷ Desired Dilution Ratio = oz/min
- See Unit Flow Rates chart for GPM

Black

No Tip Ratio Up To:

- 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		
	SANITIZE	FOAM	
400	2.35	2.35	
500	2.63	2.63	
600	2.88	2.88	
700	3.11	3.11	
800	3.32	3.32	
900	3.53	3.53	
1000	3.72	3.72	



# **Troubleshooting Guide**

Problem	Possible Cause / Solution		
Problem	Startup	Maintenance	
A) Foamer will not draw chemical.	1, 2, 4, 5	9, 10, 11, 12, 13, 14, 15	
B) Foam does not clean / perform.	1, 2, 6, 7		
C) Water back flowing into chemical container	9		

Problem	Possible Cause / Solution	
Problem	Startup	Maintenance
A) Sanitizer will not draw chemical.	1, 2, 3, 4, 5,	9, 10, 12, 13, 14, 15
B) Using too much chemical.	8	
C) Water back flowing into chemical	9	

Possible Cause / Solution				
Startup	Maintenance			
<ol> <li>Water pressure too low         <ul> <li>Increase water pressure. (See Requirements)</li> </ul> </li> </ol>	<ul> <li>9. Chemical check valve stuck or clogged         <ul> <li>Clean or replace.</li> </ul> </li> </ul>			
<ul> <li>2. Inlet ball valve not completely open</li> <li>         • Completely open the valve.     </li> </ul>	<ul> <li>10. Water "Y" strainer screen clogged</li> <li>○ Clean screen or replace.</li> </ul>			
<ul> <li>3. Nozzle wrong size, too small <ul> <li>See requirements.</li> </ul> </li> <li>4. Discharge too long, wrong size or kinked</li> </ul>	<ul> <li>11. Airless Foam Wand screen blocked         <ul> <li>Dried chemical build-up may be obstructing flow through the screen. Remove fittings and soak the entire wand in de-scaling acid.</li> </ul> </li> </ul>			
<ul> <li>Straighten hose, see requirements.</li> <li>Chemical tube not immersed in chemical or chemical depleted</li> </ul>	<ul> <li>12. Metering tip blocked</li> <li>○ Clean or replace metering tip.</li> </ul>			
<ul> <li>Immerse or replenish chemical</li> <li>6. Dilution too weak         <ul> <li>Install larger metering tip.</li> </ul> </li> </ul>	<ul> <li>13. Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube (sucking air in)</li> <li>○ Cut off end of tube or replace tube.</li> </ul>			
<ul> <li>7. Improper chemical         <ul> <li>Ensure product is recommended for foaming and/or the application.</li> </ul> </li> </ul>	<ul> <li>14. Vacuum leak in chemical pick-up connection <ul> <li>Tighten the connection.</li> </ul> </li> <li>15. Chemical build-up or scale may have formed in the body</li> </ul>			
<ul> <li>Bilution too strong even with smallest metering tip         <ul> <li>Some weak dilutions at lower water pressures are impossible to achieve with a single metering tip. Predilute your chemical until desired dilution ratio is achieved. Or order 491307-1/4" Inline Dual Metering Tip Holder.</li> </ul> </li> </ul>	causing poor or no chemical pick-up • Remove fittings and soak entire body in de-scaling acid. Replace fittings being careful not to cross thread or over tighten.			

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.

