Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 920145 · Pump Fed Sanitize / HP Rinse / Foam Hose Drop Station

REQUIREMENTS

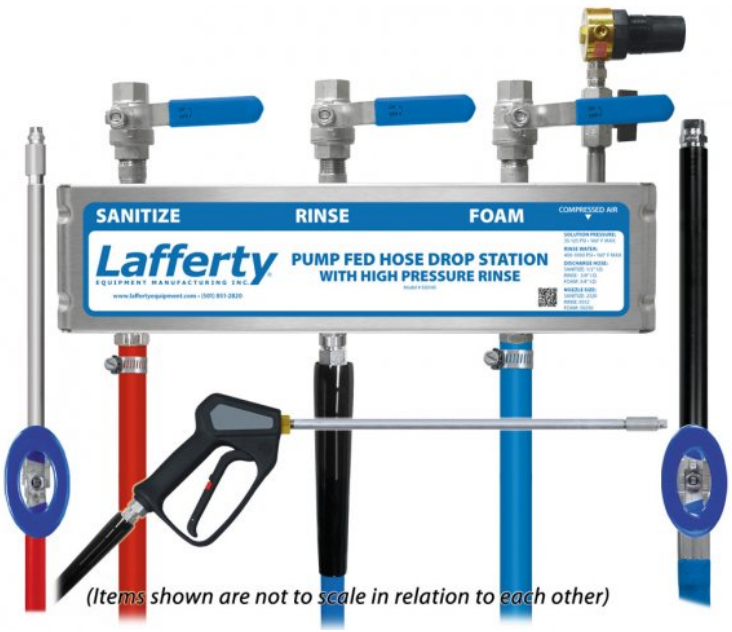
Ready-to-Use Chemical Solution	
Temperature	up to 160°F
Pressure	35 to 125 PSI
Flow	1.7 GPM @ 40 PSI
Supply Line	1/2"
Rinse	
Temperature	up to 180°F
Pressure	400 to 1000 PSI
Flow	3.8 GPM @ 400 PSI
Compressed Air	up to 3 CFM
Hose	
Sanitize	1/2" ID x 50'
Rinse	3/8" ID x 50'
Foam	3/4" ID x 50'
Nozzle	
Sanitize	2520
Rinse	0512
Foam	50250

OPTIONS

Stainless Steel Hose Racks	
Large Stainless Steel Hose Rack	# 224150
Foam Solution Check Valves & Strainer	
Check Valve, PP, 1/2" (EPDM)	# 491409
Check Valve, PP, 1/2" (Viton)	# 491411
Check Valve, 316SS, 1/2", MF (Teflon)	# 491348SS-T
Strainer, "Y", SS, 1/2" MF	# 150350-1
Alternate Air Check Valve - EPDM Standard	
Check Valve, Air, SS, 1/4" MM (Viton / Hast)	# 491306
Stainless Steel Foam Wand (Upgrade)	
Convert PP Wand to SS (New Units)	# 536603-X

WEIGHT & DIMENSIONS

Single Package	
Shipping Weight	54 lbs.
Shipping Dimensions	30" x 21" x 18"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

www.laffertyequipment.com
501-851-2820

WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

The Pump Fed Sanitize / HP Rinse / Foam Hose Drop Station is a combination applicator for projecting one ready-to-use chemical as foam, another as a sanitizing spray and for rinsing using high water pressure (400 - 1000 PSI). This unit receives 2 separate ready-to-use chemical solutions from separate central chemical feed systems. Rich, clinging foam is created by injecting compressed air into the foaming solution to greatly increase volume and coverage ability. Foam is then projected through the foam hose and fan nozzle on to any surface up close or at distances up to 12 feet. Sanitizer solution, or any other chemical, is projected through a separate hose as a fan pattern spray. Rinse with high pressure water through the trigger gun, 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.
- For pressures over 100 PSI, remove the discharge valve or lower pressure
- Follow the chemical manufacturer's safe handling instructions.
- Turn off solution supply and air when unit is not in use for extended periods.

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

A check valve is required on the foamer solution inlet to prevent air from going back into the solution line. (See Options)

1. Mount the unit to a suitable surface.
2. Connect the discharge hoses as shown in the diagram and close the ball valves.
3. Install a solution check valve on the foamer solution inlet(s) and connect pre-mixed solution supply.
4. To prevent blocking the small jets, flush any new plumbing of debris before connecting. (And/or install a strainer)
5. Connect compressed air supply. If piping is older and has known contaminants, install a filter.

TO OPERATE

Always make sure the discharge is closed or pointed in a safe direction before turning inlet valve on. Discharge can be shut off at any time during operation but should not be left off for long periods of time with the inlet valve on.

TO FOAM

1. With wand in hand open the inlet ball valve, and the air ball valve.
    - Wait a few seconds and observe foam consistency.
    - Use the least amount of air needed to achieve good foam quality to prevent solution pressure fluctuations from affecting performance. Air pressure must be kept lower than solution pressure.
    - To adjust the foam consistency 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 chemical ratios 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.
2. When foaming is completed, close the discharge ball valve, return to the unit and close the solution and air ball valves. Briefly re-open the discharge ball valve to relieve pressure in the hose. Rinse before the foam dries.

TO SANITIZE

1. With discharge wand in hand open the inlet ball valve. Then open the discharge ball valve to begin application.
2. When sanitizing is completed, close the discharge ball valve then close the inlet ball valve.
3. Briefly re-open the discharge ball valve to relieve pressure in hose. If applicable, rinse the work surface before solution dries.

TO RINSE

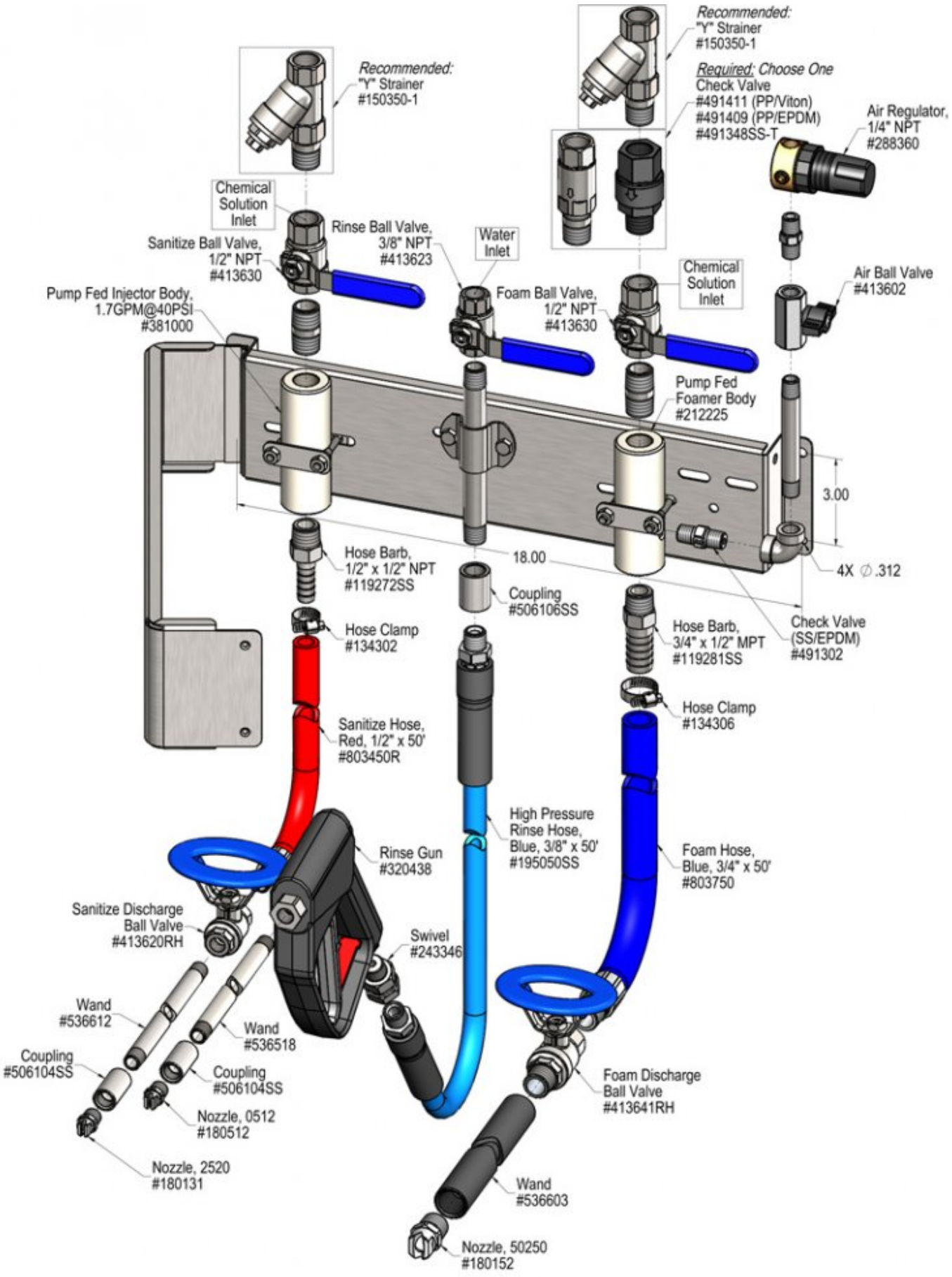
1. Hold the trigger gun firmly and direct the discharge in a safe direction. Pull the trigger and begin.
2. When rinsing is complete, release the trigger.

UNIT FLOW RATES

Pressure	Flow GPM	
PSI	Sanitize	Foam
40	1.70	1.70
50	1.90	1.90
60	2.08	2.08
70	2.25	2.25
80	2.40	2.40
90	2.55	2.55
100	2.69	2.69
110	2.82	2.82
120	2.94	2.94

RINSE FLOW RATES

Pressure	Flow Rate
PSI	Rinse - GPM
400	3.80
500	4.25
600	4.65
700	5.03
800	5.37
900	5.70
1000	6.01
1100	6.30
1200	6.58


Recommended:
"Y" Strainer
#150350-1
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"Y" Strainer
#150350-1
Required: Choose One
Check Valve
#491411 (PP/Viton)
#491409 (PP/EPDM)
#491348SS-T
Air Regulator,
1/4" NPT
#288360
Chemical
Solution
Inlet
Rinse Ball Valve,
3/8" NPT
#413623
Sanitize Ball Valve,
1/2" NPT
#413630
Water
Inlet
Chemical
Solution
Inlet
Air Ball Valve
#413602
Pump Fed Injector Body,
1.7GPM@40PSI
#381000
Foam Ball Valve,
1/2" NPT
#413630
Pump Fed
Foamer Body
#212225
3.00
18.00
4X ∅.312
Hose Barb,
1/2" x 1/2" NPT
#119272SS
Coupling
#506106SS
Hose Barb,
3/4" x 1/2" MPT
#119281SS
Check Valve
(SS/EPDM)
#491302
Hose Clamp
#134302
Hose Clamp
#134306
Sanitize Hose,
Red, 1/2" x 50'
#803450R
High Pressure
Rinse Hose,
Blue, 3/8" x 50'
#195050SS
Foam Hose,
Blue, 3/4" x 50'
#803750
Rinse Gun
#320438
Sanitize Discharge
Ball Valve
#413620RH
Swivel
#243346
Wand
#536612
Wand
#536518
Coupling
#506104SS
Coupling
#506104SS
Foam Discharge
Ball Valve
#413641RH
Nozzle, 0512
#180512
Nozzle, 2520
#180131
Wand
#536603
Nozzle, 50250
#180152

Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Foam surges and/or hose "bucks"	1, 2, 3, 4, 5, 7, 8	10, 11, 14
B) Foam too wet	2, 3, 4, 7, 8	12, 14
C) Foam does not clean properly	1, 4, 9	
D) Air backing up into foam solution line		14
E) Chemical solution backing up into airline		13

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Sanitizer has weak spray	2, 3, 6, 7	10, 11

Possible Cause / Solution

Startup

1. **Air pressure too high**
   - Adjust the air regulator slowly counterclockwise until output stabilizes or foam is "wetter"
2. **Solution pressure or volume too low/inlet piping too small causing poor chemical pick up**
   - Increase pressure
   - Reduce number of stations being used at one time
3. **Inlet or discharge ball valve not completely open**
   - Completely open the inlet and discharge ball valves
4. **Not enough chemical or improper chemical**
   - Increase chemical concentration
   - Ensure product is recommended for foaming and the application
5. **Foam nozzle has been changed- too small**
   - Replace nozzle with correct size
6. **Sanitizer nozzle has been changed- too large**
   - Replace nozzle with correct size
7. **Discharge hose too long or wrong size or kinked**
   - Straighten the hose or replace hose with correct size and length
8. **Air pressure too low / use of an oiler in the airline will cause poor foam quality**
   - Adjust the air regulator slowly clockwise
   - Use only clean, dry air
9. **Soil has hardened on surface, rinse foam before it dries**
   - Reapplication may be necessary

Maintenance

10. **Inlet orifice clogged**
    - Clean / clean inlet orifice / DO NOT DRILL OUT
    - Install a strainer
11. **Chemical build-up may have formed in the body causing reduced flow.**
    - Carefully remove fittings and soak entire body in descaling acid
12. **Air regulator failed**
    - Clean or replace
13. **Air check valve failed**
    - Clean or replace
14. **No solution check valve installed or failed**
    - Install a check valve in the inlet
    - Clean or replace

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.